

FLIGHT MANUAL

F-16 C&D

BLOCK 52+

MULTIROLE FIGHTER



Manual Version v1.6.3_5r1 - August 2026

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1. INTRODUCTION

Welcome to the DeltaWing Simulations (DWSim) F-16C and F-16D Block 52+ add-ons for X-Plane. We are proud to bring this amazing aircraft to X-Plane and our goal is to capture its beautiful lines, unique features, and sophisticated systems in order to give you some sense of what flying these magnificent aircraft is really like.

APPLIES TO: this manual covers both the single seat F-16C and the two seat F-16D, Block 52+. Everything in it applies to both aircraft unless a section, a note or a table entry names one of them. Where the two differ the difference is stated where it matters, rather than in a separate manual.

The F-16, is one of the world's most popular fighter jets, in use by many of the world's air forces. Although its basic design dates from the 1970s, it is still in production today with new variants being developed.

After the initial "A" single seat model, the F-16 "C" model was put into production in 1984 and has been continuously improved since then. So called "block" numbers indicate updated versions of the aircraft as further variants of each model. This DWSim F-16 represents the "C" and "D" Block 52+ aircraft — the single seat C and the two seat D. The "Plus" designation indicates upgrades to the aircraft's weapons system, including the pilot's Helmet-Mounted Cueing System, which is modelled in the DWSim F-16.

The prime focus of this add-on is to provide simmers with an aircraft that they can fly in simulated demonstration air shows and to familiarise them with the operation of the aircraft in the simulated X-Plane environment. A big focus for the team was to take advantage of X-Plane's sophisticated flight modelling capabilities and to match the real aircraft's performance as closely as possible, while layering on top of that its famous fly-by-wire (FBW) system. This combination makes it possible to fly an aircraft designed to be fundamentally unstable, and thus be very manoeuvrable. Various optional aircraft equipment types have also been included, with more to come.

Future versions of DWSim F-16s are planned with more advanced systems and different variants. Please check DWSim's sites, pages and channels for news regarding these developments.

The development team consists of:

Kostas D. Koronakis (Graphic Design, 3D modelling, Textures)
Andrzej Borysewicz (3D modeling, product testing)
Gary Hunter (Flight model, product tester)
Dimitris Koronakis (Programmer, product tester)

The entire team would like to thank our friends in the "Viper" community. We are supremely grateful for your continued support and encouragement!

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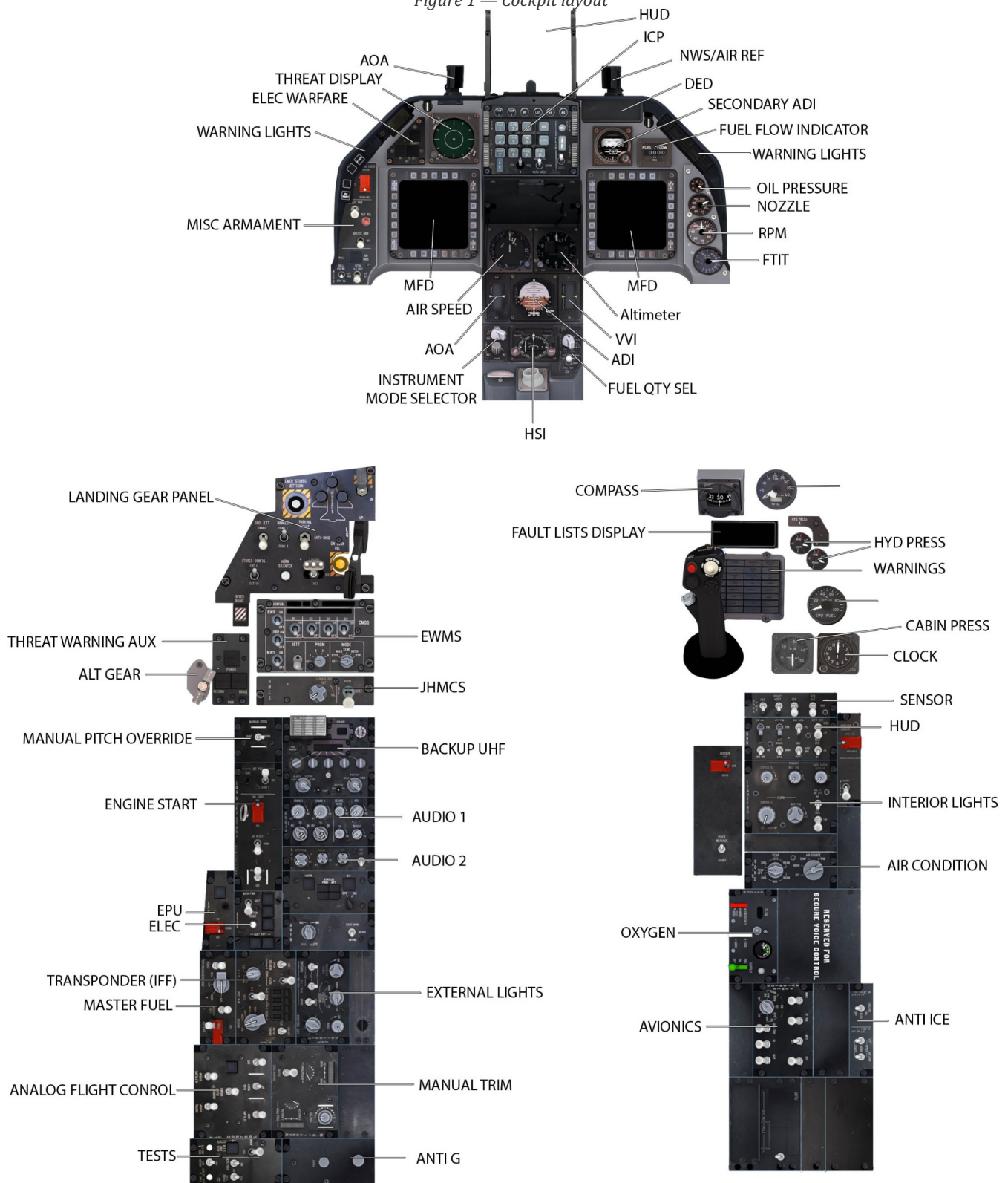
2. GLOSSARY

A		MFD	Multi Function Display
ADI	Attitude Director Indicator	N	
AOA	Angle of Attack	NVG	Night Vision Goggles
ATC	Air Traffic Control	NWS	Nose Wheel Steering
C		O	
CCIP	Continuously Computed Impact Point	OFLY	Over Fly (a MARK mode)
CCRP	Continuously Computed Release Point	OSB	Option Select Button
CFT	Conformal Fuel Tank	P	
D		PROF	Profile (weapon delivery profile)
DED	Data Entry Display	R	
DMS	Display Management Switch	RBF	Remove Before Flight
DTE	Data Transfer Equipment	RCL	Recall (ICP key)
E		RPM	Revolutions Per Minute (engine) / Rounds Per Minute (gun)
EEGS	Enhanced Envelope Gunsight	RTN	Return (ICP switch)
EGI	Embedded GPS / INS (the navigation system)	RWR	Radar Warning Receiver
F		S	
FCR	Fire Control Radar	SALT	System Altitude
G		SEQ	Sequence (steering point sequencing)
G/S	Ground Speed	SMS	Stores Management System
H		STPT	Steering Point
HSD	Horizontal Situation Display	T	
HSI	Horizontal Situation Indicator	TACAN	Tactical Air Navigation
HUD	Head Up Display	THDG	True Heading
I		TMS	Target Management Switch
ICP	Integrated Control Panel	U	
IFF	Identification Friend or Foe	UKN	Unknown (RWR contact that cannot be identified)
ILS	Instrument Landing System	V	
J		VHF	Very High Frequency
JHMCS	Joint Helmet Mounted Cueing System	VOR	VHF Omnidirectional Range
M		VVI	Vertical Velocity Indicator

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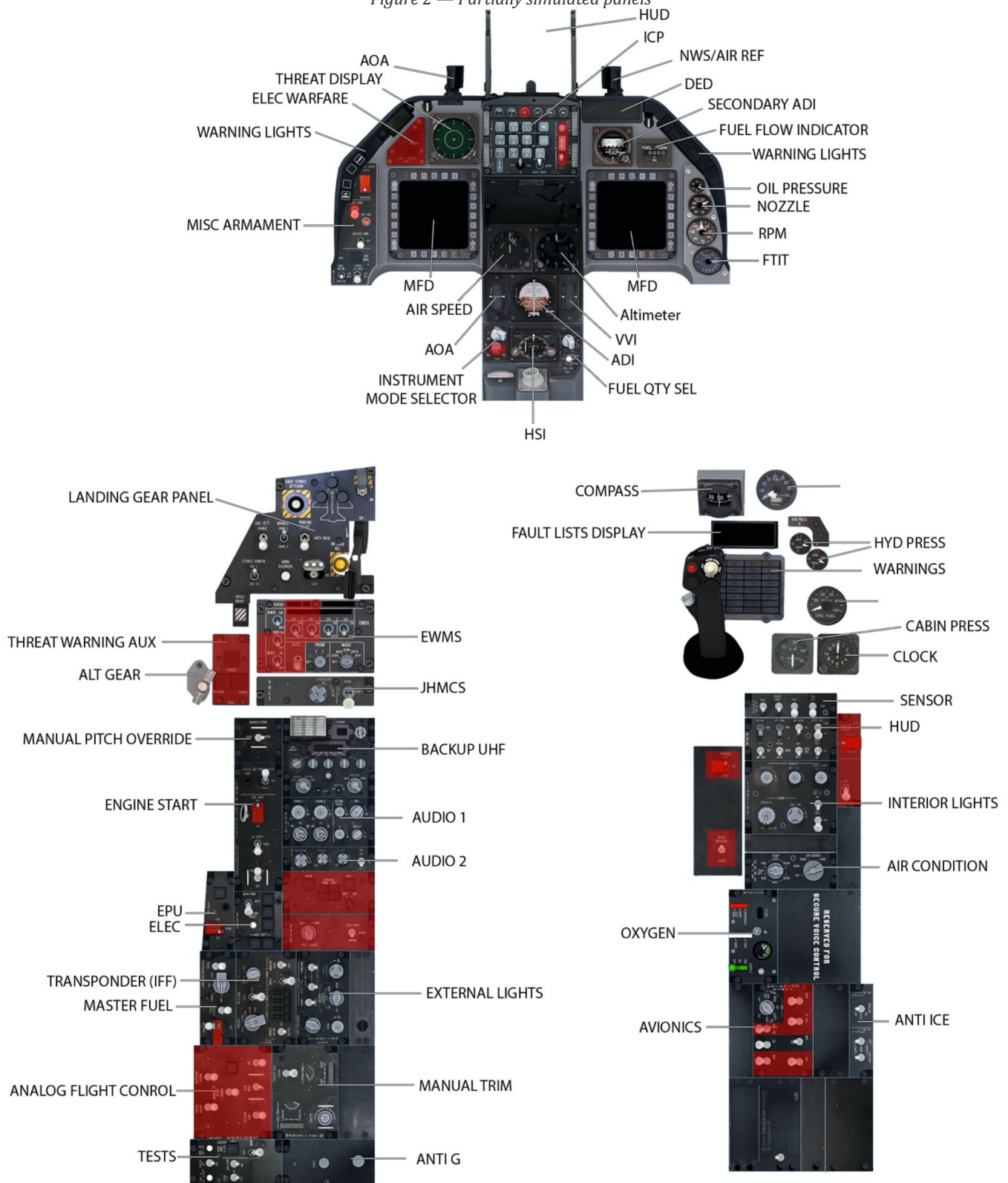
3. COCKPIT LAYOUT

Figure 1 — Cockpit layout



3.1 PARTIALLY SIMULATED PANELS

Figure 2 — Partially simulated panels



3.2 BACK SEAT COCKPIT — F-16D

APPLIES TO: F-16D only. The F-16C is single seat and has no rear cockpit.

The back seat carries almost the same configuration as the front, with fewer controls on the left and right consoles.

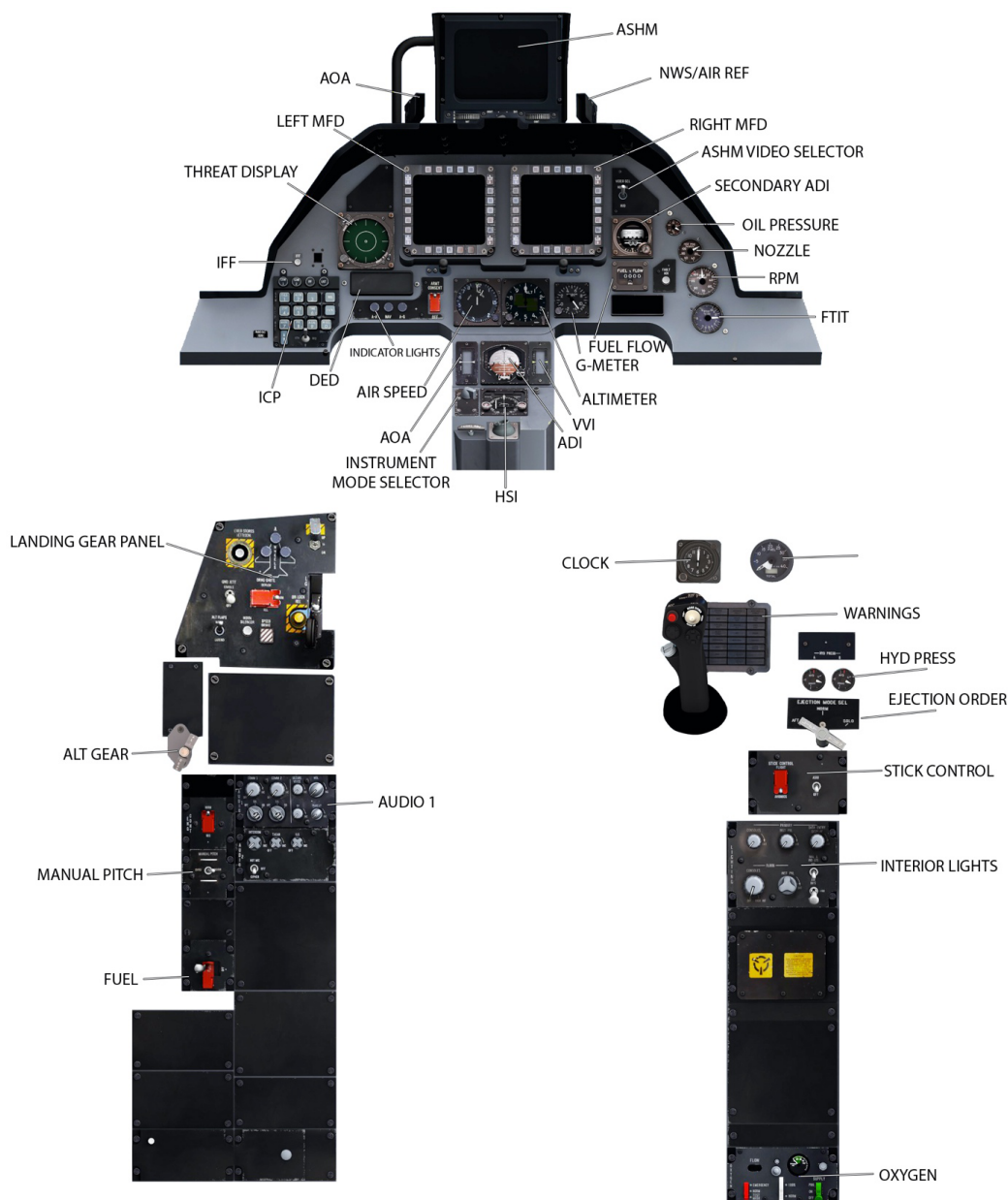


Figure 3 — F-16D back seat cockpit layout

On the left rear console are the audio volumes for the communications and navigation aids, together with the manual pitch override and the master fuel switch. Those are connected to the front seat controls.

On the left forward console are the following:

1. Landing gear lights
2. Hook switch

3. Drag chute switch (when a tail with a chute is fitted)
4. Landing gear lever
5. Speed brake deploy indicator
6. Horn silencer
7. Alternate gear lever
8. Alternate flaps switch
9. Ground jettison
10. Emergency jettison

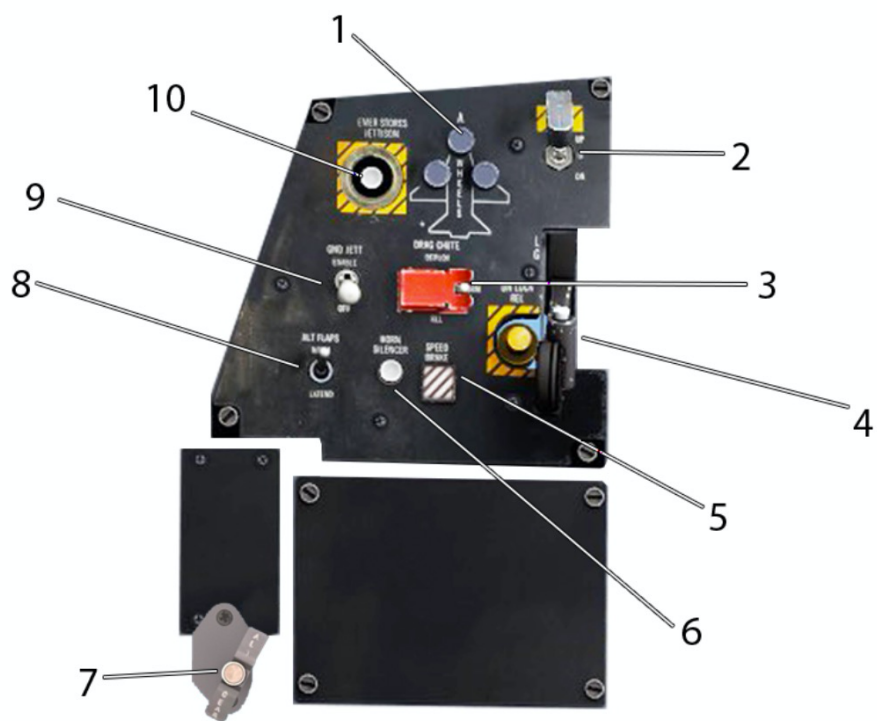


Figure 4 — F-16D back seat, left forward console

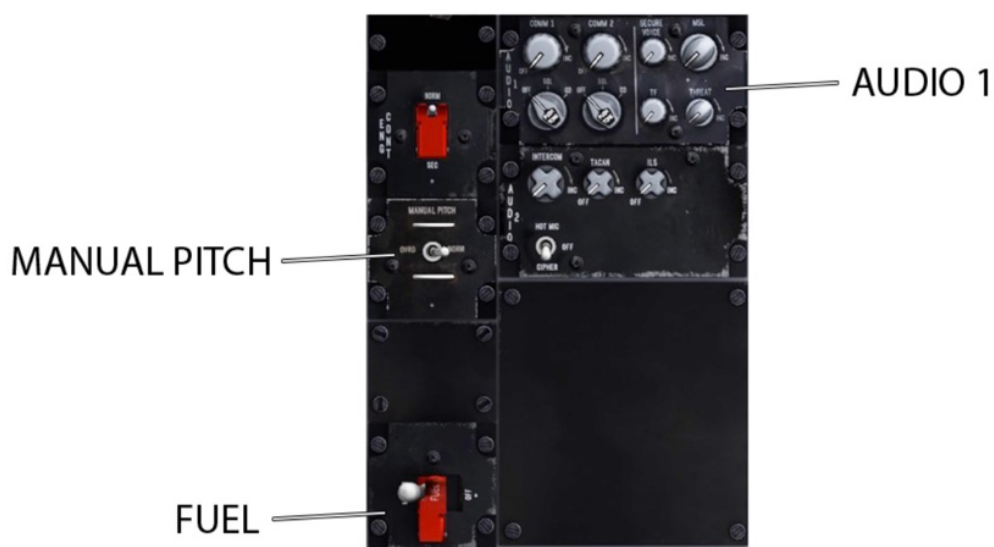


Figure 5 — F-16D back seat, left rear console

On the right rear console are the interior lighting controls for the back seat instruments and the oxygen control for the back seat pilot. The lighting controls work as described under INTERNAL LIGHTS in the AIRCRAFT SYSTEMS chapter, and are independent of the front seat.

On the right forward console are the following:

1. Clock
2. Fuel indicator
3. Fault indicators
4. Hydraulic pressure
5. Ejection sequence selector



Figure 6 — F-16D back seat, right rear console



Figure 7 — F-16D back seat, right forward console

NOTE: The rear cockpit repeats the front seat displays. The rear MFDs follow the front ones, and the rear ICP writes to the same DED.

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4. AVIONICS AND DISPLAYS

4.1 DED

DED MAIN SCREEN

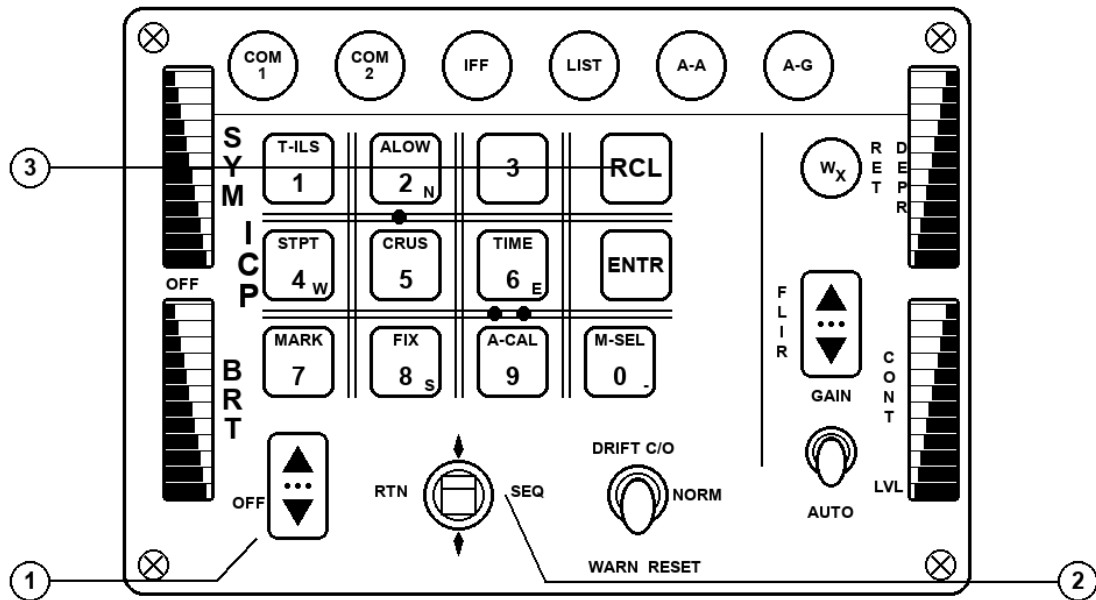


Figure 8 — INTEGRATED CONTROL PANEL (ICP)

1	DED increment rocker — scrolls the selection marked by the double arrows on the DED
2	Data Control Switch (DCS) — up, down, SEQ and RTN
3	RCL key — resets the current field

Table 1 — INTEGRATED CONTROL PANEL (ICP) callouts

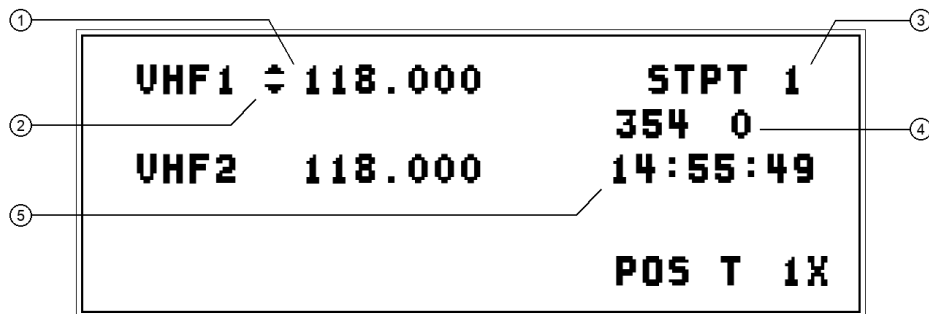


Figure 9 — DED MAIN SCREEN

1	VHF1 frequency
2	Double arrows — the marked selection can be scrolled with the increment rocker on the ICP
3	STPT — the steering point currently selected
4	Bearing and distance to the selected steering point
5	Current time

Table 2 — DED MAIN SCREEN callouts

On the main DED screen you can use the ICP Data Control Switch (2) up/down in order to navigate between “VHF1”, “VHF2” and “STPT”.

To change the preset number of the frequency shown at (1) on the DED, use the increment rocker (1) on the ICP.

Active frequency is the frequency that has the double arrow symbol (2).

Also when navigated into “STPT” position, active frequency remains the previous position of the arrows indicator (2).

By using the ICP Data Control Switch (2) on “RTN” you always return to the DED main screen.

By using ICP button (3) “RCL” you reset the current field.

4.1.1 VHF COMMUNICATIONS FREQUENCY SETUP

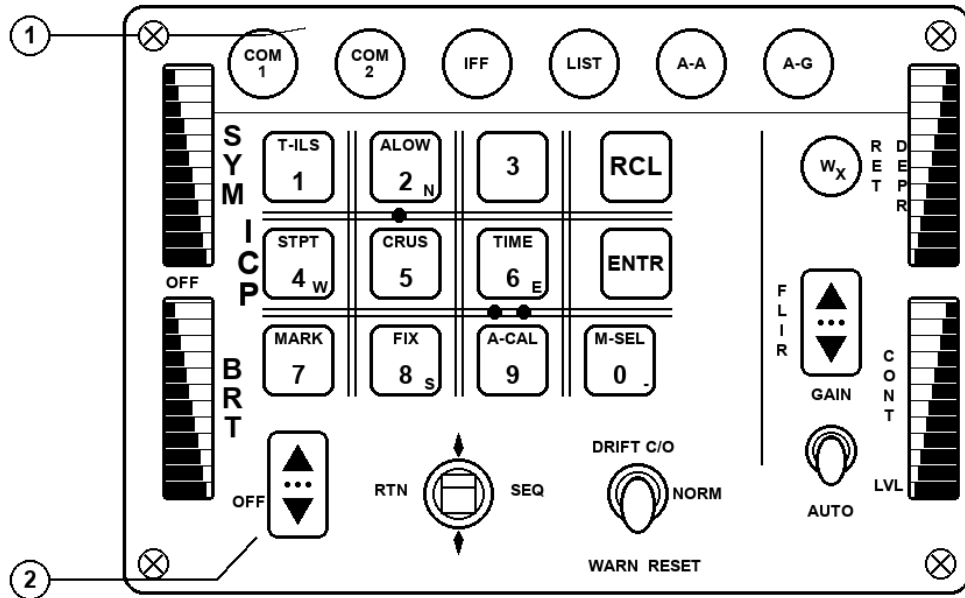


Figure 10 — INTEGRATED CONTROL PANEL (ICP)

1	COM 1 and COM 2 keys — select the radio to tune
2	DED increment rocker — steps through channels 1 to 99

Table 3 — INTEGRATED CONTROL PANEL (ICP) callouts

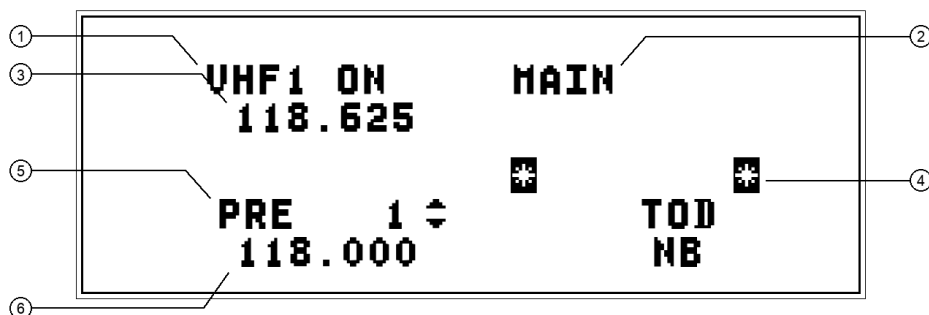


Figure 11 — VHF COMMUNICATIONS FREQUENCY SETUP

1	VHF1 ON — shows whether this COM radio is active
2	MAIN — shows whether the main or the backup radio is in use
3	The frequency currently tuned
4	Input field — enter a preset number from 1 to 99 to select it, or enter a frequency to overwrite the one currently selected
5	PRE — the preset currently selected. The double arrows mean it can be changed with the DED increment rocker
6	The frequency assigned to the selected preset

Table 4 — VHF COMMUNICATIONS FREQUENCY SETUP callouts

To set VHF frequency :

1. Press “COM 1” (1) for comm radio 1 or “COM 2” (1) for comm radio 2 on ICP and on DED screen, using keypad, then enter the frequency.
2. Press “ENTER” on ICP to store the typed frequency on selected channel preset.
3. To navigate between 1..99 frequency channels use the up and down arrows on ICP (2)
4. The double arrow symbol indicates which frequency is currently active

4.1.2 BACKUP VHF COMMUNICATIONS



Figure 12 — Backup VHF control panel

Normally, communications frequencies are entered through the ICP, in DED.

In case of ICP or DED failure, the pilot has the option to switch to backup VHF communications.

WARNING: When operating and selecting a frequency in backup VHF system, it automatically overrides the ICP - DED entered frequency.

1. Turn to “MAIN” position in order to switch the VHF Backup System ON.
2. Use channel select switch in order to choose a preset frequency.
3. Use 4 switches to enter desired frequency.
4. Press “TEST DISPLAY” button to check LCD lights in panel.

Please note that when you enter a new frequency in a preselected channel, it is automatically stored in the channel and can be used in the future by just selecting the specific channel.

4.1.3 BINGO FUEL SETUP



Figure 13 — BINGO FUEL SETUP

To set the BINGO FUEL ALERT ("Bingo Fuel", is the minimum quantity of fuel required for an aircraft to make it to its planned airfield).

1. Press "LIST" on the ICP
2. Press "2" in the keypad. Then by using keypad you type the fuel quantity you wish the alarm to sound.
3. Press "ENTER" on the ICP.

To cancel the operation at any moment, press the "RTN" switch on ICP

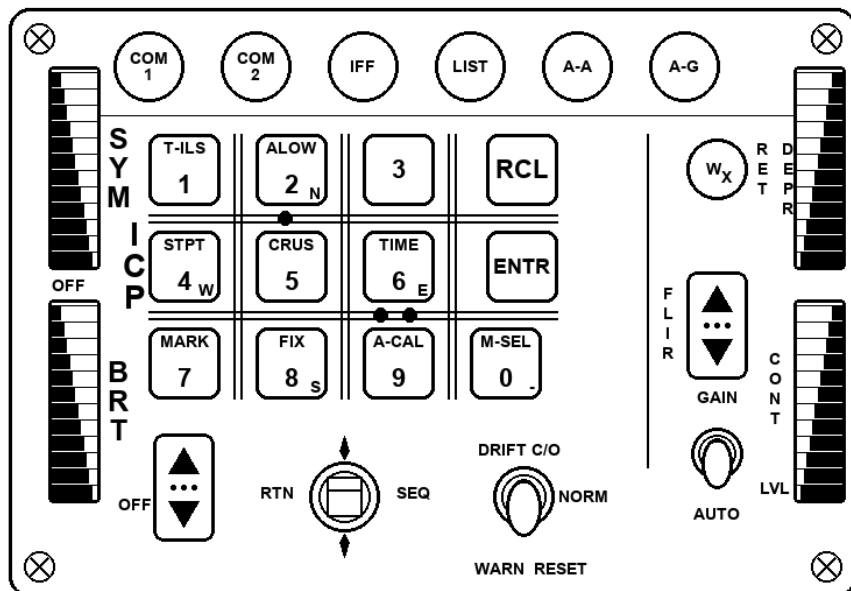


Figure 14 — INTEGRATED CONTROL PANEL (ICP)

4.1.4 ALTITUDE ALERT SETUP

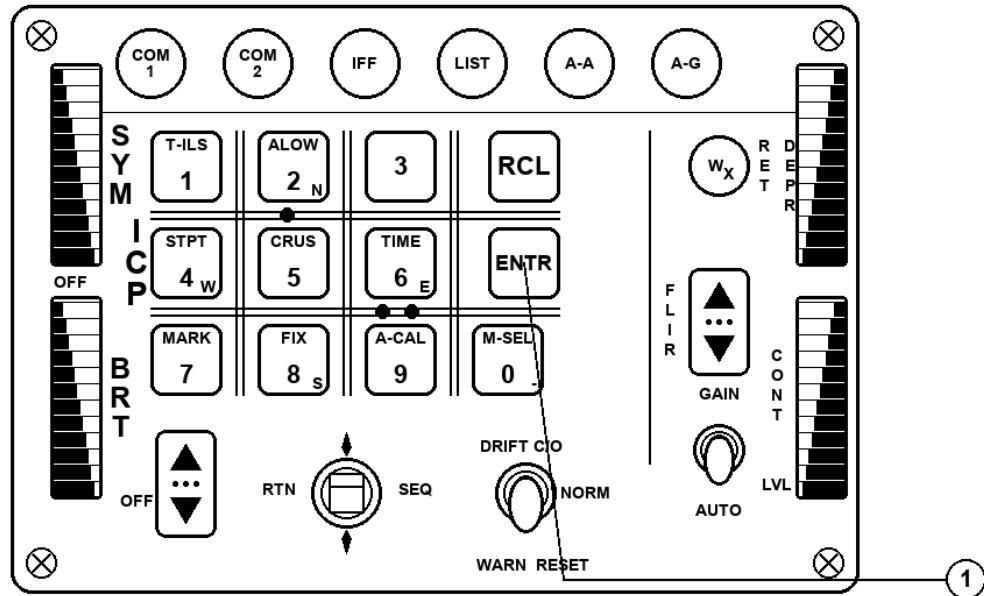


Figure 15 — INTEGRATED CONTROL PANEL (ICP)

1	ENTR key — stores the entered altitude
---	--

Table 5 — INTEGRATED CONTROL PANEL (ICP) callouts



Figure 16 — ALOW - ALTITUDE WARNINGS

1	CARA ALOW — the radar altimeter low altitude warning
2	MSL FLOOR — the altitude entered, in feet
3	TF ADV (MSL) — terrain following advisory (not modelled)

Table 6 — ALOW - ALTITUDE WARNINGS callouts

To set the altitude alert :

1. Press “2” on the keypad from the main DED screen.
2. Use the keypad to enter the altitude and then press “ENTR” (1) button on the ICP To cancel the operation at any moment, press “RTN” switch on the ICP

4.1.5 STEERING POINT

Steering points (STPT) are called the fixed positions (in degrees, minutes) that can be used for manual navigation or autopilot navigation.

In order to enter or change the position of each steering point, you must follow the steps below:

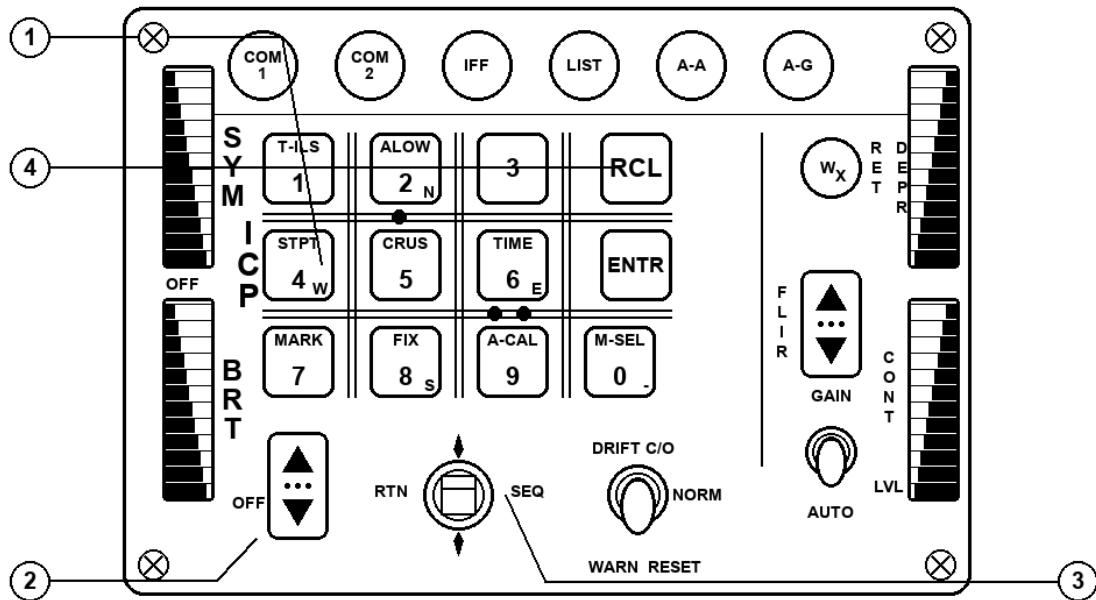


Figure 17 — INTEGRATED CONTROL PANEL (ICP)

1	STPT key (ICP key 4) — opens the steering point page
2	DED increment rocker — steps the steering point number
3	Data Control Switch (DCS) — SEQ selects MAN or AUTO; up and down move between LAT, LNG and ELEV
4	RCL key — corrects a mistake in a line

Table 7 — INTEGRATED CONTROL PANEL (ICP) callouts

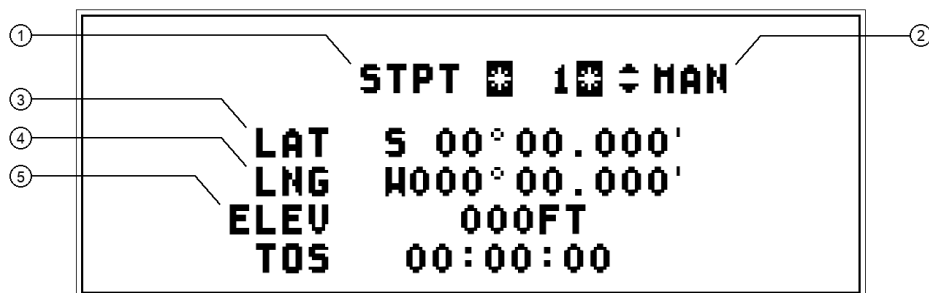


Figure 18 — STEERING POINT

1	STPT page heading and its scroll arrows
2	MAN / AUTO — whether the steering point increments manually or automatically
3	LAT — the latitude indication and input field of the steering point
4	LNG — the longitude indication and input field
5	ELEV — the elevation indication and input field

1. If not already in the “DED” main screen menu, press the Data Control Switch (3) on “RTN”.
2. Press “4” ICP key (1) to enter “DED” steering point menu.
3. Choose the number of steering point you want to add/change either by using switch (2) or by typing the number and pressing “ENTR”.
4. You can choose between MAN/AUTO by pressing switch (3) on “SEQ”. On “MAN” mode, steering points have to be selected manually and on “AUTO” mode they are changed automatically.
5. Using ICP switch (3) up/down, you can navigate between LAT/LNG/ELEV fields.
6. On “LAT” selected, you must press first on ICP the corresponding key for “N”, “S”, then you enter degrees (2 digits), minutes (5 digits) and you press “ENTR”.
7. On “LNG” selected, you must press first on ICP the corresponding key for “E”, “W”, then you enter degrees (3 digits), minutes (5 digits) and you press “ENTR”.
8. On “ELEV” selected, you enter the elevation and you press “ENTR”.

You can use ICP key (4) in order to correct a mistake in a line.

NOTE: For easier steering point entries or complete flight plan, please check the CALCULATOR on kneepad. (section 7.7).

4.1.6 TIME PAGE

1. If not on main DED screen, press the RTN.
2. Press the TIME button of ICP to see the current system time and date.

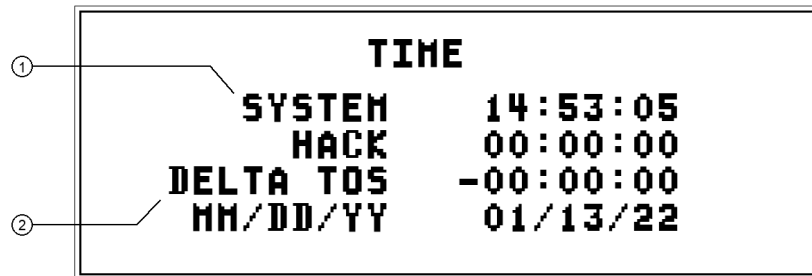


Figure 19 — TIME PAGE

3. Press the RTN again to return to main DED screen.

4.1.7 MARK PAGE

From this DED MODE you can mark a location's coordinates.

1. If not on main DED screen, press the RTN.
2. Press the MARK button of ICP to move in the MARK screen.



Figure 20 — MARK SCREEN

1	The MARK mode currently selected — OFLY, FCR or HUD
2	MARK — the mark number
3	LAT — the latitude indication of the captured mark
4	LNG — the longitude indication of the captured mark
5	ELEV — the elevation indication of the captured mark

Table 9 — MARK SCREEN callouts

It works in 3 modes :

- a.OFLY (over fly). Marks the coordinates of your jet's current location.
 - b.FCR (uses FCR cursor). You can use the FCR cursor, move it into a desired spot and you can mark this spot.
 - c.HUD (uses jet's HUD projection position). Marks up to 40nm ahead of your jet's flightpath.
3. Use ICP button 1 to change between the 3 modes of MARK.
 4. Press "Stick TMS Switch Forward" to complete the MARK.

To program the “Stick TMS Switch Forward” key in your keyboard or joystick, you must go into XP settings, keyboard, type “tms” on search and assign the key you prefer.

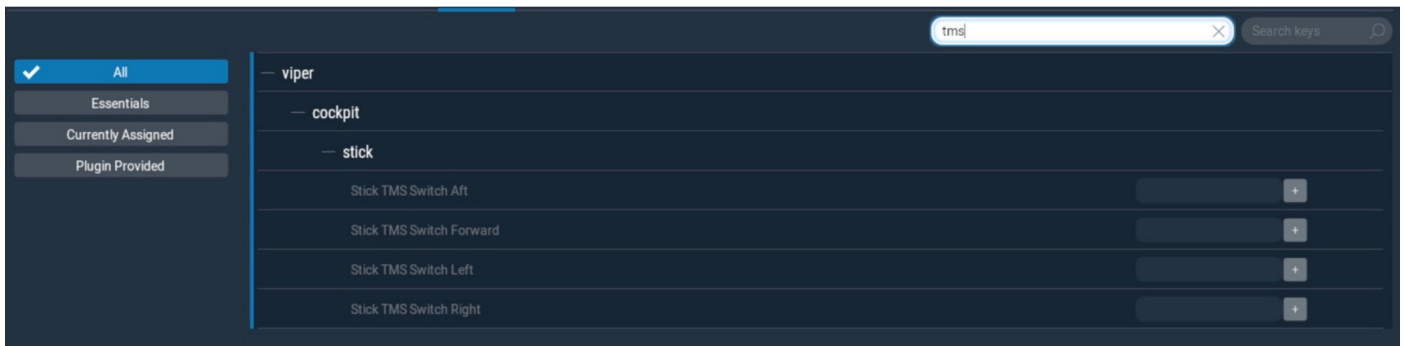


Figure 21 — Assigning the TMS switch in X-Plane settings

5. Press the RTN again to return to main DED screen.

4.1.8 FIX PAGE

The FIX page takes a position fix to correct the navigation system. Press FIX (key 8) on the ICP from the DED main screen.

The page shows the fix source alongside the FIX legend, the steering point the fix is taken against, DELTA — the distance between the aircraft's computed position and the fix — and the current SYS ACCUR and GPS ACCUR states.

The fix source is selected with ICP key 1 and offers the same three modes as the MARK page: OFLY (over fly), FCR (using the radar cursor) and HUD.

NOTE: The FIX page cannot be entered while the EGI is aligning.

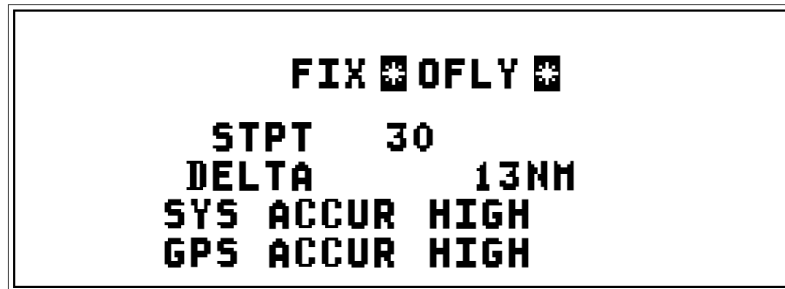


Figure 22 — FIX - POSITION FIX

4.1.9 T/ILS PAGE

The T/ILS page tunes the TACAN and the ILS. Press T-ILS (key 1) on the ICP.

The top line shows the TACAN mode and the ILS state. CHAN and BAND carry the TACAN channel and its band, FRQ the ILS frequency, CRS the selected course, and CMD STRG the command steering state.

A reverse video pair of asterisks marks the field the keypad will write to. Move between fields with the ICP up/down switch, type the value on the keypad and press ENTR. RTN leaves the page.

NOTE: Only one field is marked at a time. The asterisks show where keypad entry will go, so check them before typing.

For the procedure that uses this page in flight, see VOR/TACAN NAVIGATION AND ILS LANDINGS in the AIRCRAFT SYSTEMS chapter.

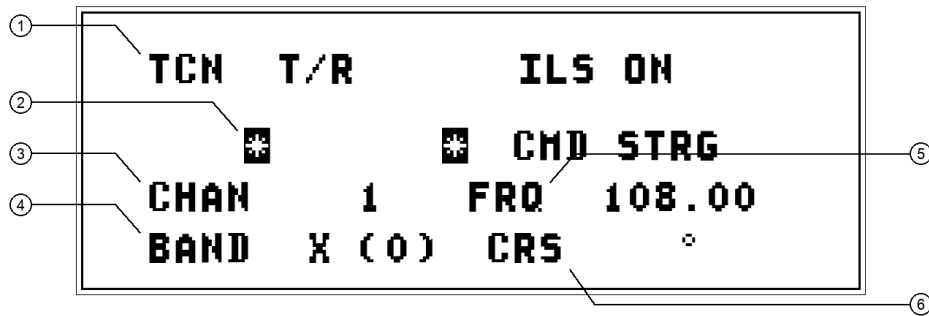


Figure 23 — T/ILS - TACAN AND ILS

1	TCN T/R — the current TACAN mode. T transmit, R receive
2	Input field — the default input position. The system works out whether the entry is a TACAN channel, a TACAN band or an ILS frequency
3	CHAN — the current TACAN channel
4	BAND — the current TACAN band, X or Y. Change it with 0 on the keypad
5	FRQ — the ILS frequency
6	CRS — the course for the ILS

Table 10 — T/ILS - TACAN AND ILS callouts

4.1.10 LIST PAGE

The LIST page is the DED's index of sub-pages. Press LIST on the ICP to reach it, and RTN to leave.

The page offers twelve entries: 1 DEST, 2 BNGO, 3 VIP and R INTG on the first row; 4 NAV, 5 MAN, 6 INS and E DLNK on the second; 7 CMDS, 8 MODE, 9 VRP and 0 MISC on the third. Press the matching ICP key.

NOTE: Only three entries are implemented on this aircraft — 1 opens NAV STATUS, 2 opens BINGO FUEL SETUP and 0 opens MISC. The remaining entries have no effect.

The LIST page is available only with battery power on and the backup VHF system OFF.



Figure 24 — DED LIST PAGE

1	DEST — press 1 on the ICP keypad to open the DEST page
2	BNGO — press 2 on the ICP keypad to open the BINGO page
3	MISC — press 0 on the ICP keypad to open the MISC list page
4	Entries shown greyed out are not functional

Table 11 — DED LIST PAGE callouts

4.1.11 NAV STATUS AND NAV COMMANDS

From the LIST page press 1 to reach NAV STATUS.

NAV STATUS reports the navigation solution: SYS ACCUR and GPS ACCUR give the system and GPS accuracy states, MSN DUR the mission duration, and KEY VALID the crypto key state.

Moving the ICP Data Control Switch (DCS) to SEQ moves to the second page, NAV COMMANDS, and moving it to SEQ again returns to NAV STATUS.

NAV COMMANDS offers FILTER MODE, together with RESET GPS and ZEROIZE GPS.

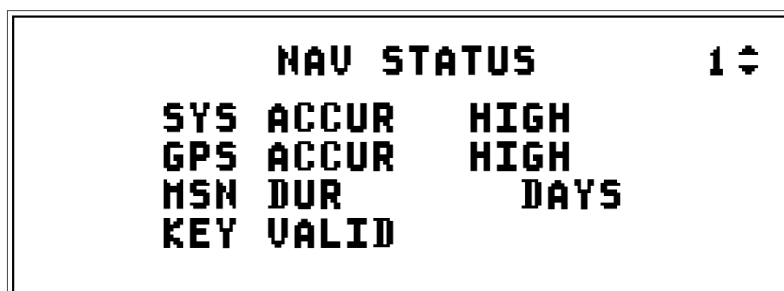
A monochrome screen display for the NAV STATUS page. The title 'NAV STATUS' is at the top center, followed by a page indicator '1' and a double-headed arrow. Below the title, the data is organized into three columns: 'SYS ACCUR' and 'GPS ACCUR' in the first column, 'HIGH' in the second column, and 'HIGH' and 'DAYS' in the third column. The bottom row contains 'MSN DUR' and 'KEY VALID'.

Figure 25 — NAV STATUS

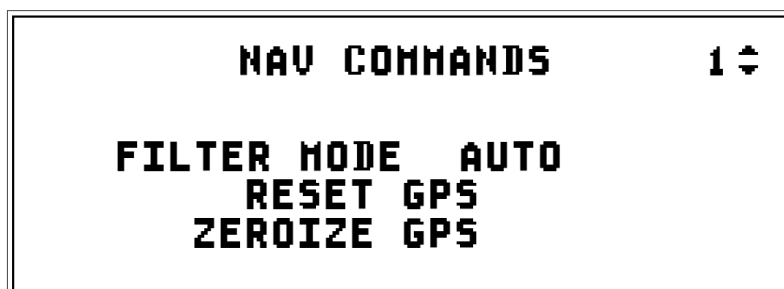
A monochrome screen display for the NAV COMMANDS page. The title 'NAV COMMANDS' is at the top center, followed by a page indicator '1' and a double-headed arrow. Below the title, the options are listed in three lines: 'FILTER MODE AUTO', 'RESET GPS', and 'ZEROIZE GPS'.

Figure 26 — NAV COMMANDS

4.1.12 MISC PAGE

From the LIST page press 0 to reach the MISC page, which collects the avionics functions that do not belong to a page of their own.

Twelve entries are listed, three to a row, each against its ICP key.

NOTE: Every entry on this page is drawn at reduced brightness. On the DED that means the function is unavailable, and none of the MISC functions is implemented on this aircraft.

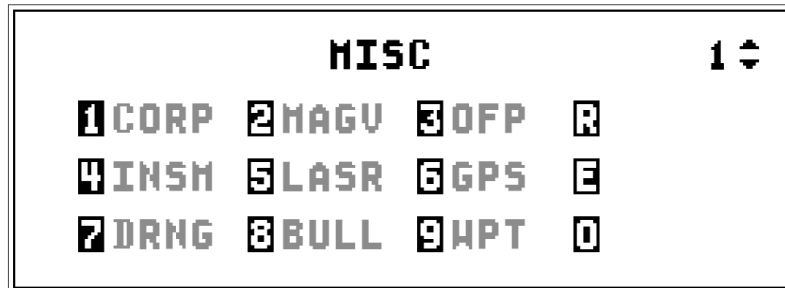


Figure 27 — MISC - MISCELLANEOUS

4.1.13 EGI PAGE

The EGI page appears automatically while the navigation system is aligning, and replaces the normal DED display until alignment ends.

The top line shows the elapsed alignment time and the accuracy figure, which counts up as the alignment improves, together with the readiness state. LAT and LNG hold the present position, which the pilot enters from the ICP. SALT is the system altitude, THDG the true heading and G/S the ground speed, all computed by the aircraft.

NOTE: While the EGI is aligning the DED will not accept the FIX page or the other navigation pages.

For the alignment procedure itself, see EGI ALIGN in the NORMAL PROCEDURES chapter.

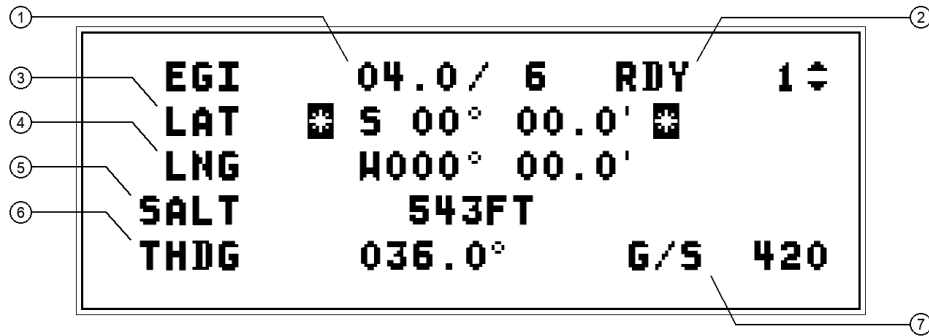


Figure 28 — EGI ALIGNMENT

1	Elapsed alignment time and the accuracy figure, which counts up as the alignment improves
2	RDY — the readiness state
3	LAT — present position latitude, entered by the pilot from the ICP
4	LNG — present position longitude, entered by the pilot from the ICP
5	SALT — system altitude, computed by the aircraft
6	THDG — true heading, computed by the aircraft
7	G/S — ground speed, computed by the aircraft

Table 12 — EGI ALIGNMENT callouts

4.2 MFD

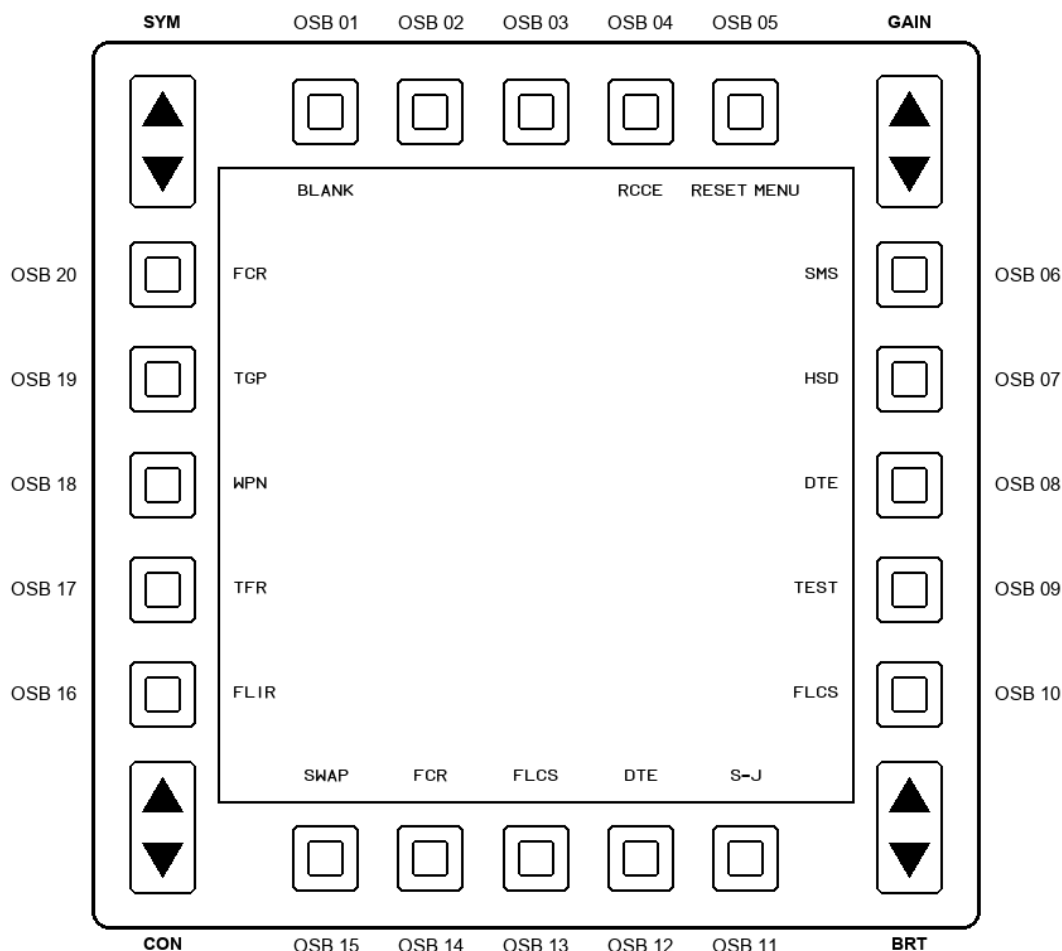


Figure 29 — MFD MAIN MENU

The twenty buttons around the display are the option select buttons, referred to throughout this manual as OSB 01 to OSB 20. They are numbered clockwise from the top left: OSB 01 to OSB 05 across the top, OSB 06 to OSB 10 down the right side, OSB 11 to OSB 15 along the bottom from right to left, and OSB 16 to OSB 20 up the left side. Each one selects the option shown beside it.

OSB 01 — BLANK.

OSB 05 — RESET MENU (skeleton).

OSB 06 — SMS. Shows the stations and the weapons loaded on the jet.

OSB 07 — HSD.

OSB 08 and OSB 12 — DTE (skeleton).

OSB 14 and OSB 20 — FCR.

OSB 15 — SWAP, which exchanges the left and right MFD displays. The OSB assignments above describe the LEFT MFD. The bottom row differs between the two: on the left MFD, OSB 11 to OSB 15 are S-J, DTE, FLCS, FCR and SWAP; on the right MFD they are S-J, TEST, HSD, SMS and SWAP.

The CON and BRT rockers at the lower corners set MFD screen brightness and contrast.

Pressing the top left screw of the left MFD, or the top right screw of the right MFD, brings up the pop up MFD screen for easier viewing.

4.2.1 HSD MODE

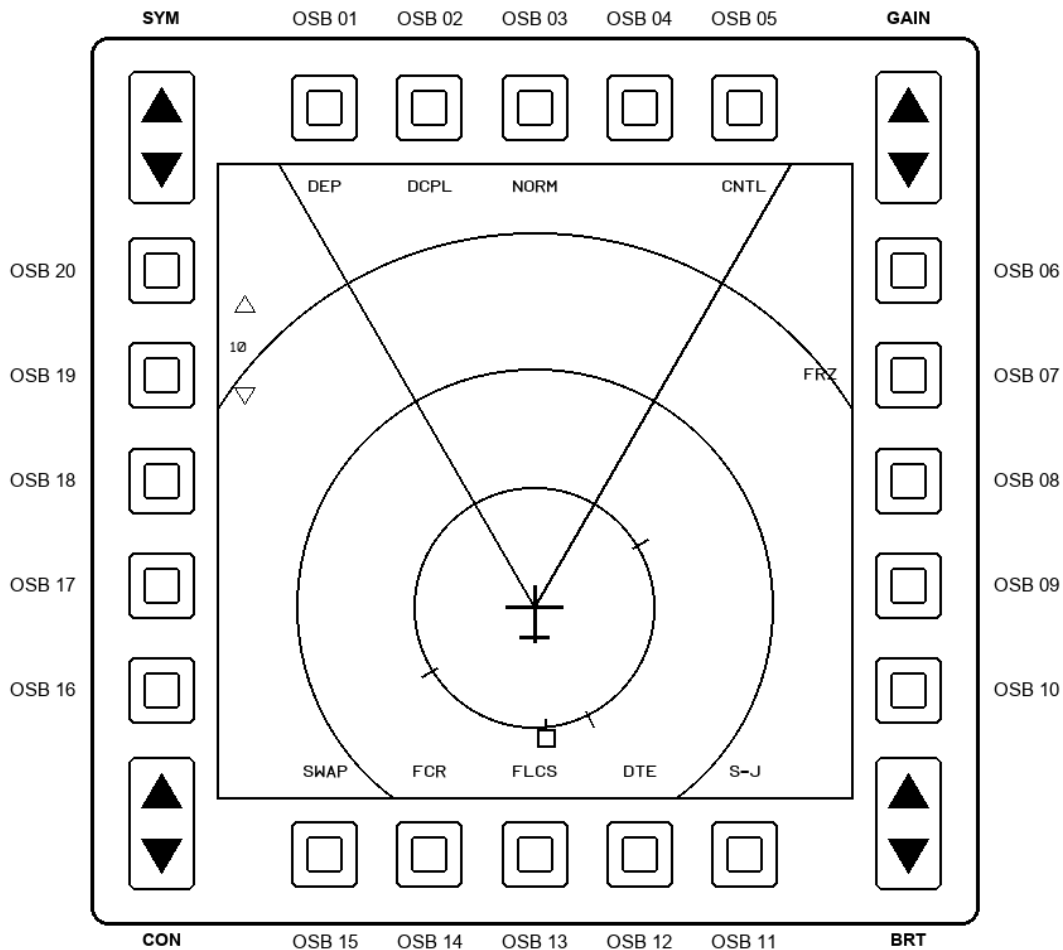


Figure 30 — MFD - HSD, DEPRESSED DECOUPLED

OSB 19 — manually decreases the range of the HSD (works only in DCPL mode).

OSB 20 — manually increases the range of the HSD (works only in DCPL mode).

OSB 01 — centred or depressed format.

OSB 02 — decoupled or coupled mode. When coupled, the range is adjusted automatically by the FCR.

OSB 03 — expand feature. NORM is 1:1 scale, EXP1 is 2:1 and EXP2 is 4:1.

The bottom row carries the programmable page options. Pressing the page you are already on returns the display to the main MFD menu.

Data link, set from the DL knob on the avionics panel: when on, shows targets outside radar coverage.

The blue lines show the radar coverage.

NOTE: In case of using SWAP, the HSD returns to NORM mode.

4.2.2 FCR MODE

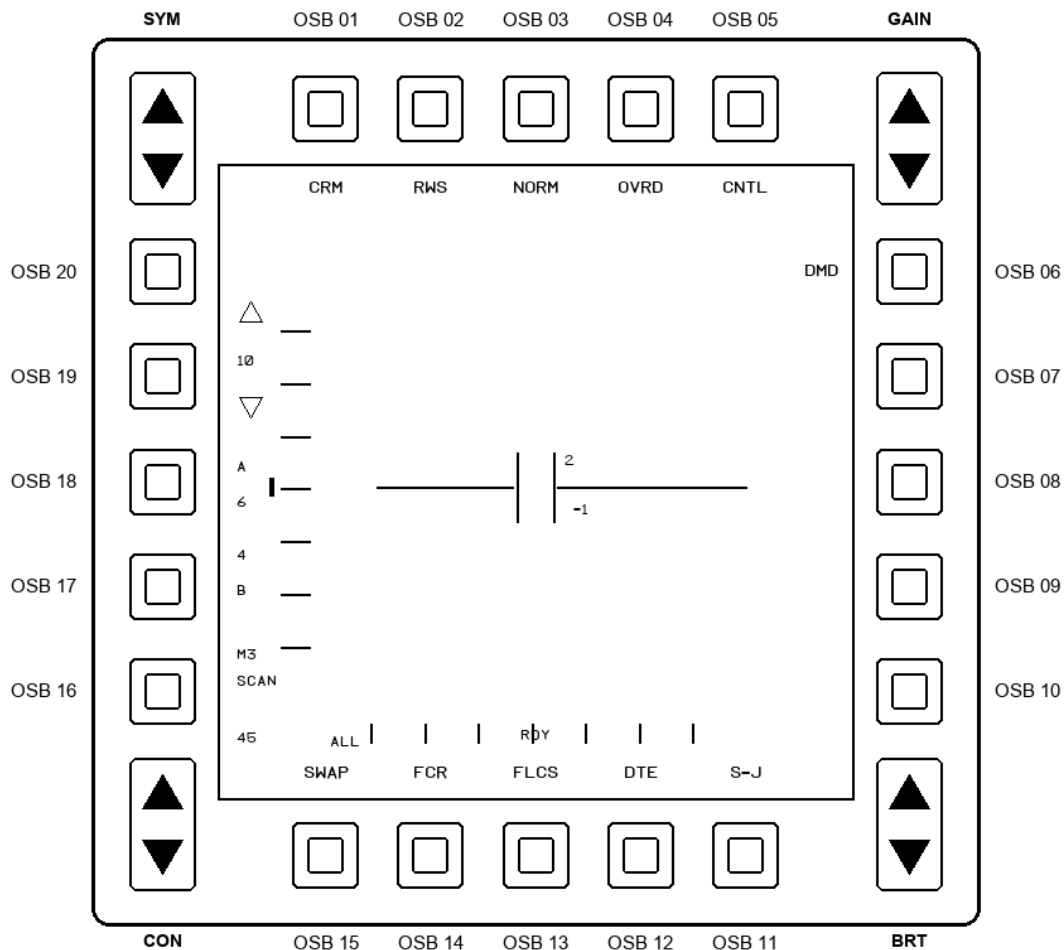
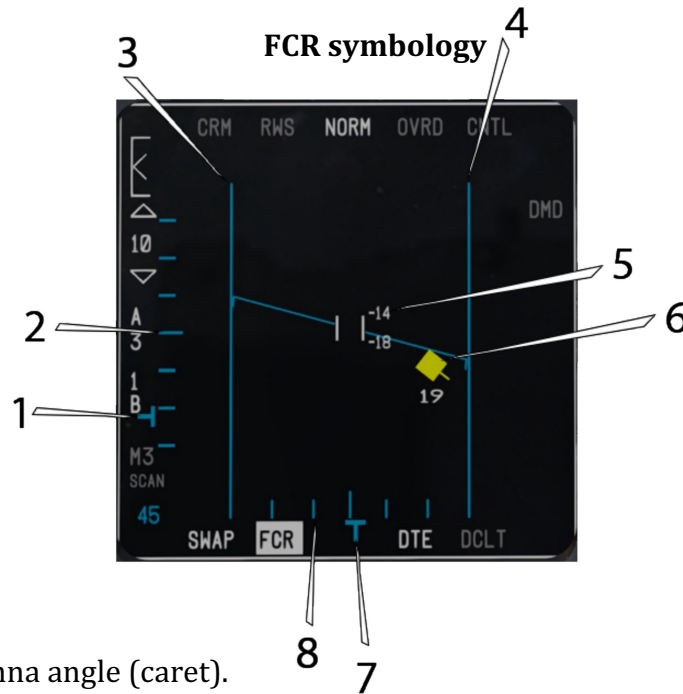


Figure 31 — MFD - FCR (FIRE CONTROL RADAR)

- OSB 17 — bar mode, the vertical pattern of the radar.
- OSB 18 — radar azimuth mode, the horizontal scan of the radar.
- OSB 19 — manually decreases the range of the FCR.
- OSB 20 — manually increases the range of the FCR.
- OSB 03 — expand feature. NORM is 1:1 scale and EXP is 2:1.
- OSB 12 — DTE (skeleton).
- OSB 15 — SWAP. Pressing the page you are already on returns the display to the main MFD menu.

Figure 32 — FCR symbology



- 1.Vertical radar antenna angle (caret).
- 2.Vertical radar antenna scale in degrees of 10.
- 3.Left azimuth limit of radar antenna.
- 4.Right azimuth limit of radar antenna.
- 5.FCR crosshair with upper and lower altitude limit of radar at the specific distance.
- 6.Visible target in radar and barometric altitude of target.
- 7.Horizontal radar antenna angle (caret).
- 8.Horizontal radar antenna scale in degrees of 10.

1	Vertical radar antenna angle (caret)
2	Vertical radar antenna scale, in degrees of 10
3	Left azimuth limit of radar antenna
4	Right azimuth limit of radar antenna
5	FCR crosshair, with the upper and lower altitude limit of the radar at that distance
6	Visible target in radar, and barometric altitude of target
7	Horizontal radar antenna angle (caret)
8	Horizontal radar antenna scale, in degrees of 10

Table 13 — FCR symbology callouts

NOTE : You can choose between targets by using commands : “FCR Bug Next Target” or “FCR Bug Previous Target”, which you can setup in X-Plane keyboard/joystick settings.

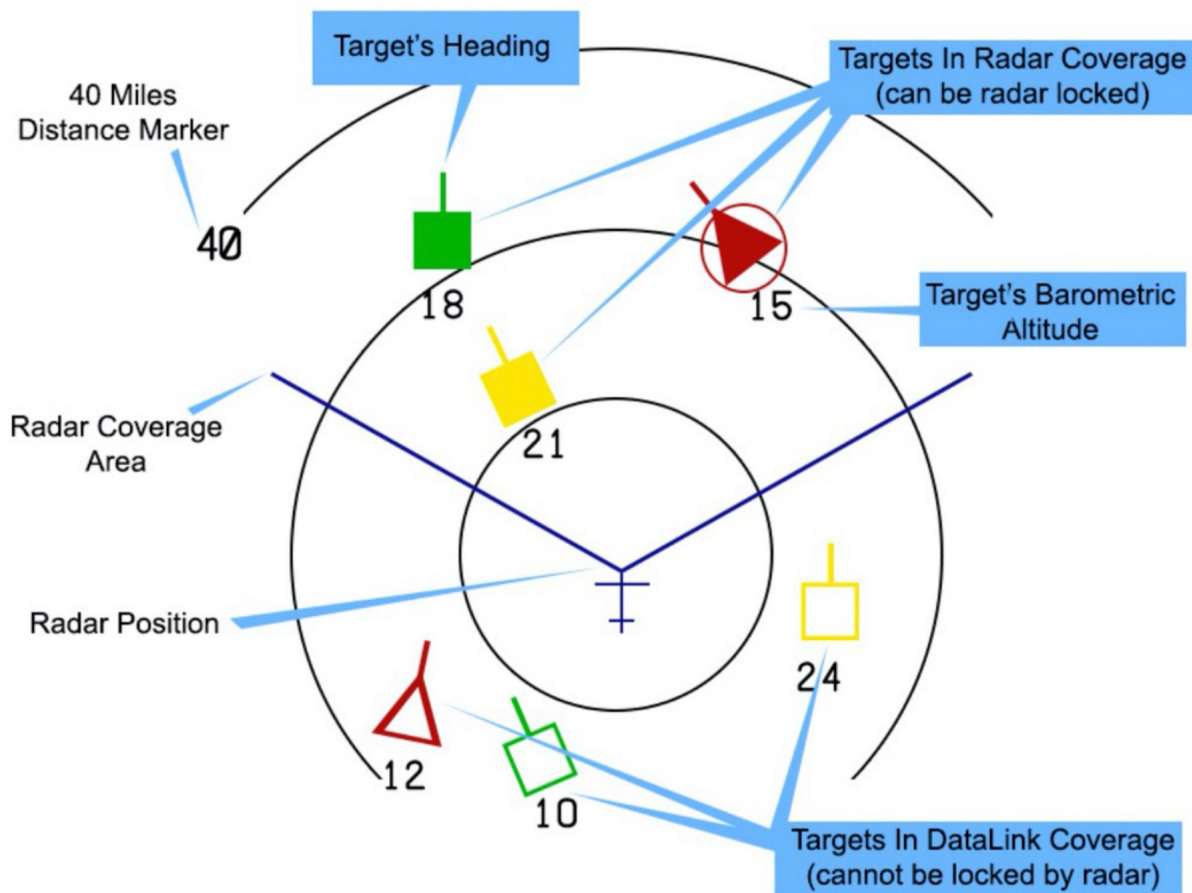


Figure 33 — HSD threat symbology



Figure 34 — Target symbols

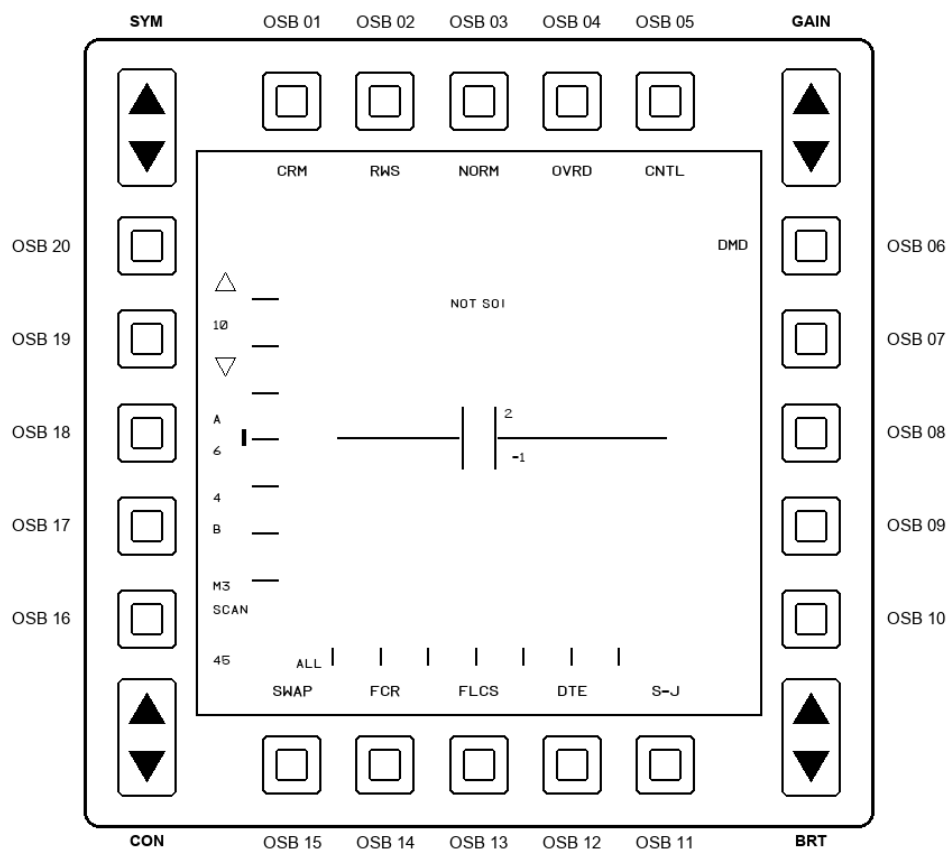


Figure 35 — MFD - FCR, NOT SOI

4.2.3 AIR TO GROUND WEAPONS MODE

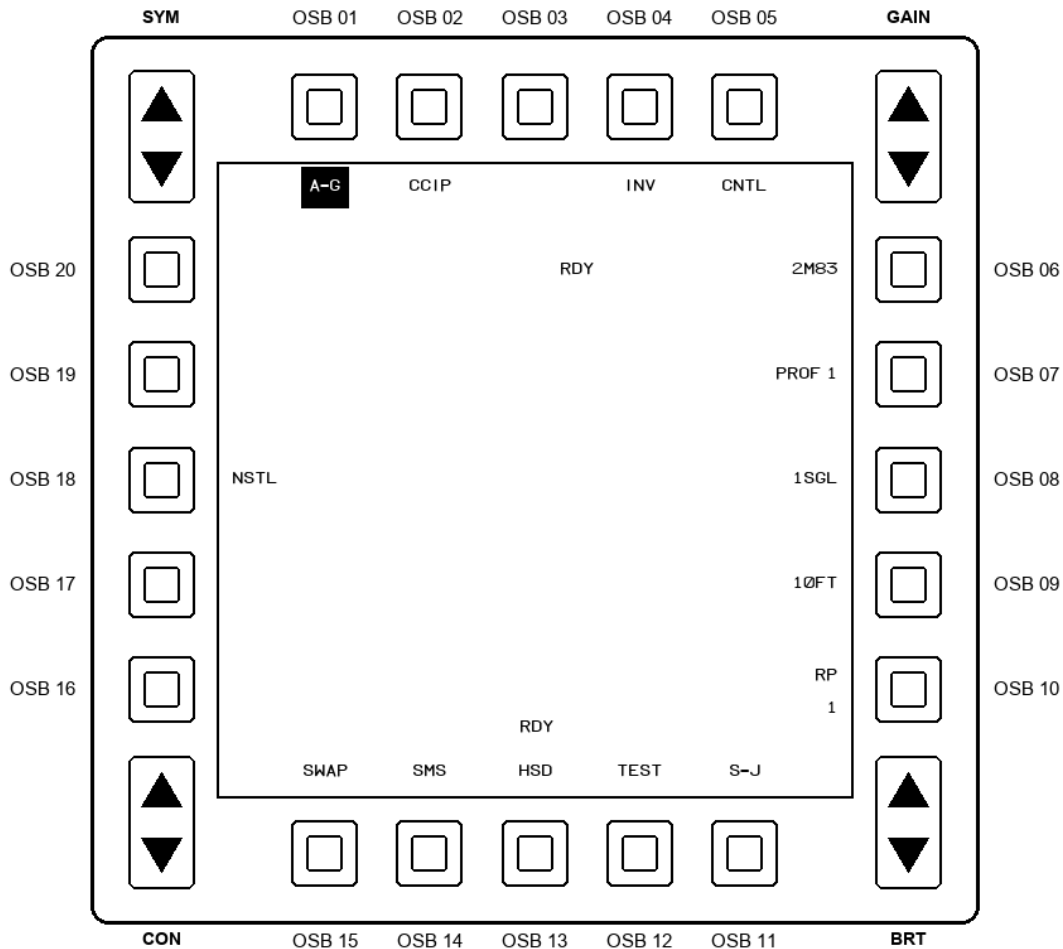


Figure 36 — MFD - AIR TO GROUND

OSB 01 — air to ground mode indication.

OSB 02 — air to ground mode selection between CCIP (Continuously Computed Impact Point) and CCRP (Continuously Computed Release Point).

OSB 04 — inventory.

OSB 06 — bomb type selection.

OSB 07 — profile selection between PROF 1 and PROF 2.

OSB 08 — drop selection between a single bomb and a pair.

OSB 09 — distance between pulses of the bomb drop.

OSB 10 — pulses setting.

OSB 14 — returns to the main MFD screen.

OSB 15 — SWAP, exchanges the left and right MFD displays.

OSB 18 — drag option for bombs (not implemented yet).

4.2.4 DOGFIGHT AND MISSILE OVERRIDE

Dogfight (DGFT) and missile override (AAM) are air-to-air master modes, selected on the dogfight/missile override switch rather than from an MFD menu.

The dogfight page shows the gun and its round count, the selected missile and its count, the missile coolant state, the sighting option (EEGS and the seeker field of view), the radar mode, TNG and SCOR, and the bullseye option BP. The station readouts at the bottom corners box the selected station.

Missile override shows the same picture with the gun and its sighting options removed.

NOTE: No option on the dogfight page is boxed. The reverse video box marks the page the MFD had selected before the master mode was entered, and it stays in the bottom row.

NOTE: The bottom row of both pages shows the pilot's own programmable option assignment. The assignment in the figures is an example.

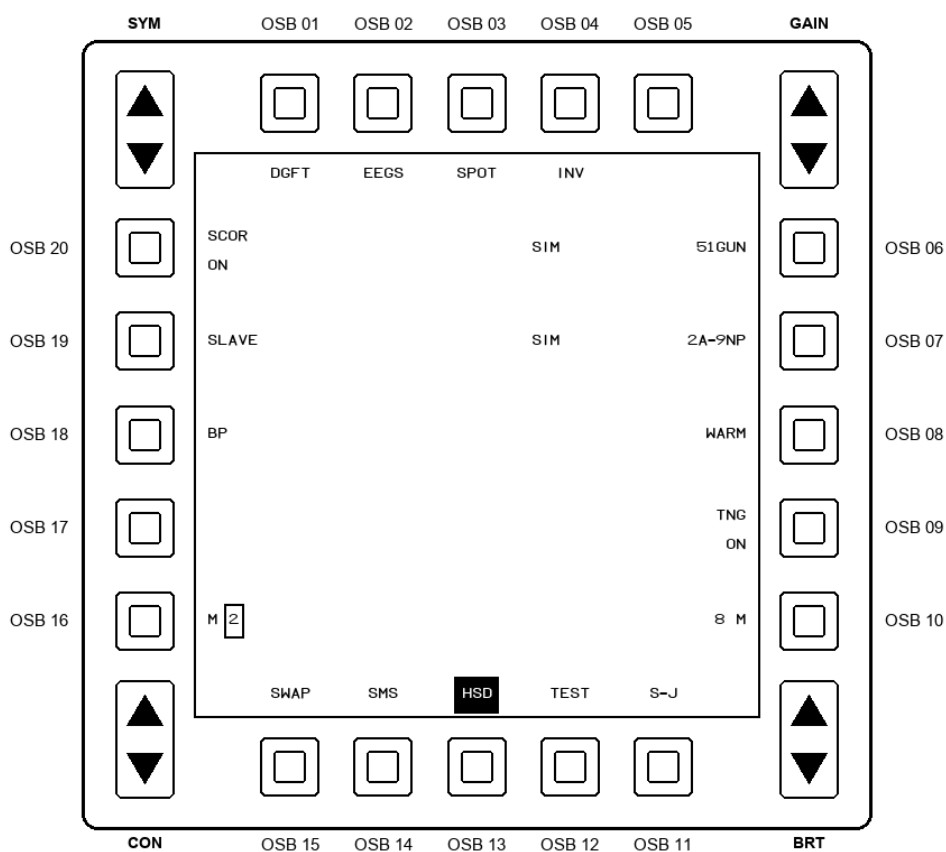


Figure 37 — MFD - DOGFIGHT MASTER MODE

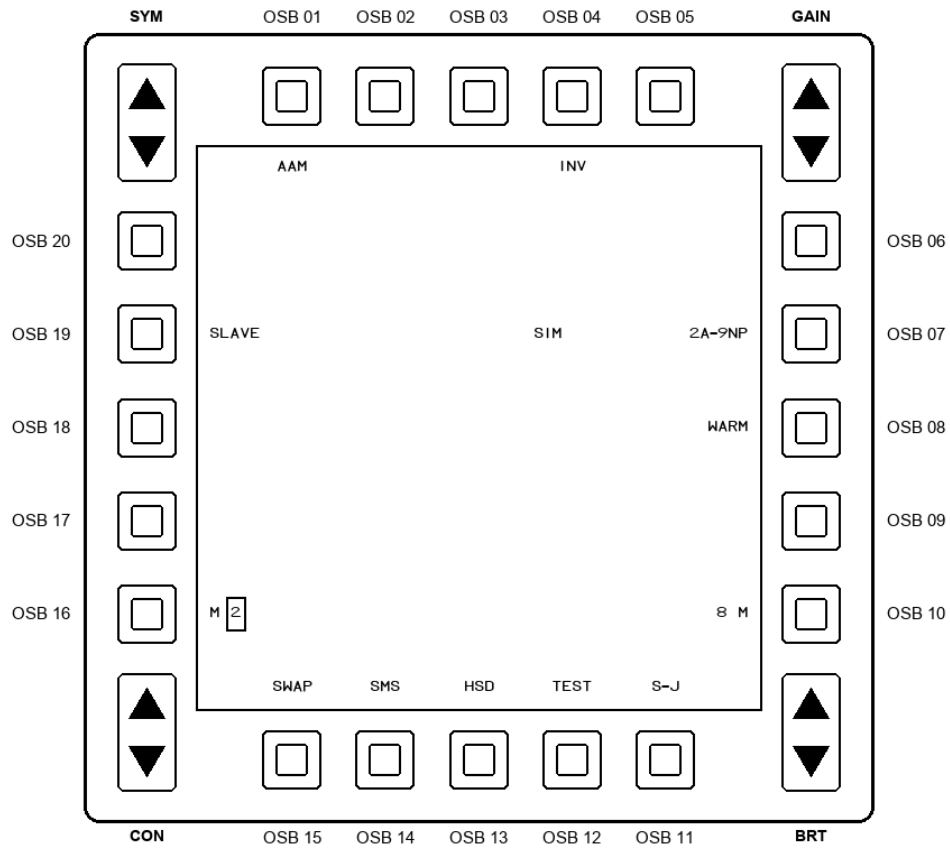


Figure 38 — MFD - MISSILE OVERRIDE (AAM)

4.2.5 SMS — STORES MANAGEMENT

The SMS page shows what the aircraft is carrying and on which station. Reach it from the MFD main menu, or from a weapons master mode with the INV option.

The stations are laid out as the wing is seen from above: the centreline station at the top, then the inboard, mid, outboard and tip stations spreading down and outward on each side. Each station shows its rack on the first line and its store on the second. An empty station shows dashes in place of both.

The internal gun and its ammunition are shown at the upper left and are always present.

Selecting a station boxes it, and OSB 06 then reads CHNG. OSB 01 reads STBY and OSB 05 CLR.

NOTE: Entering the SMS page clears any station selection already made. Pressing SMS again returns the display to the main menu.

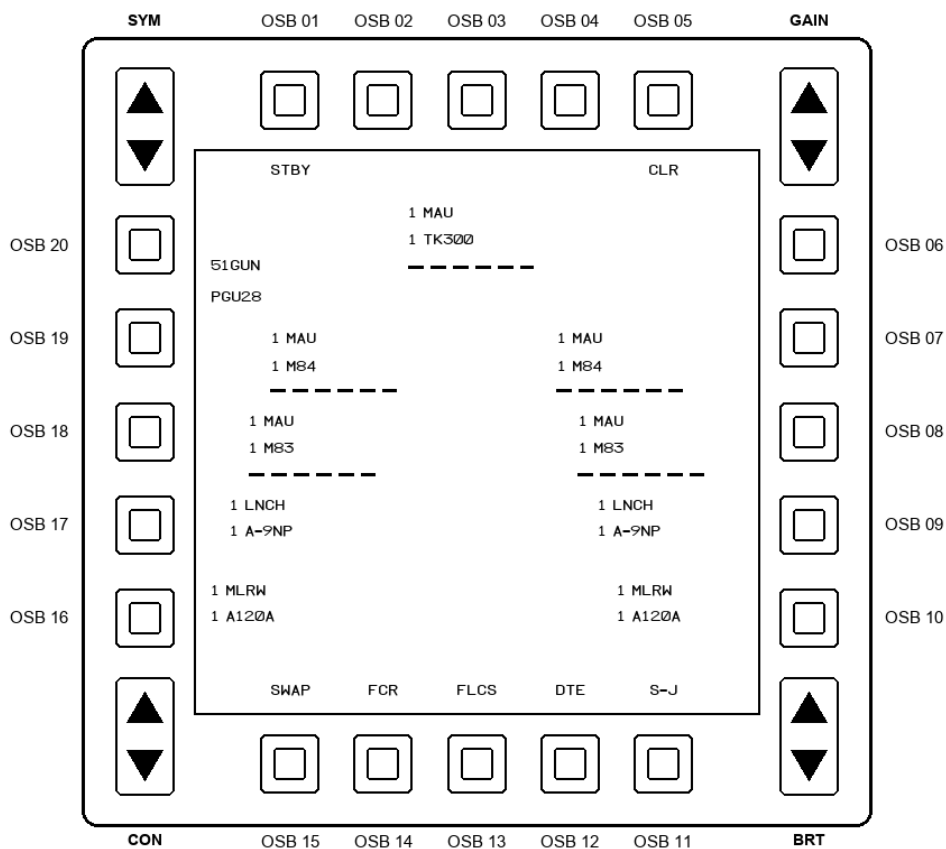


Figure 39 — MFD - SMS, STORES LOADED

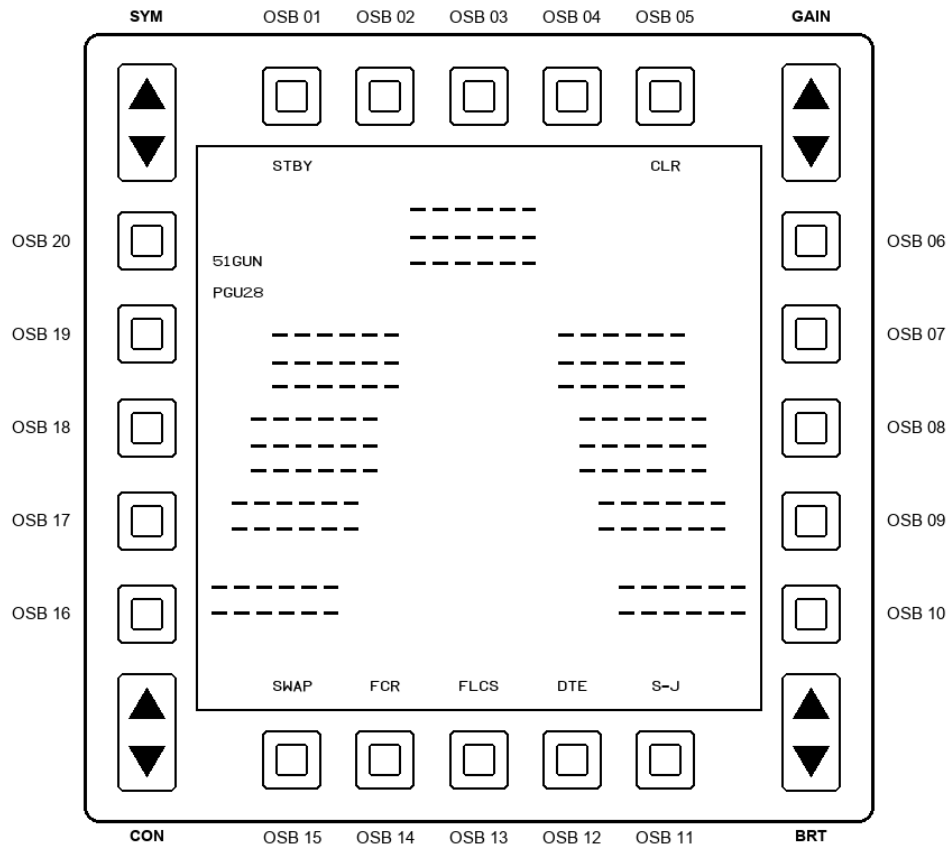


Figure 40 — MFD - SMS, NO STORES

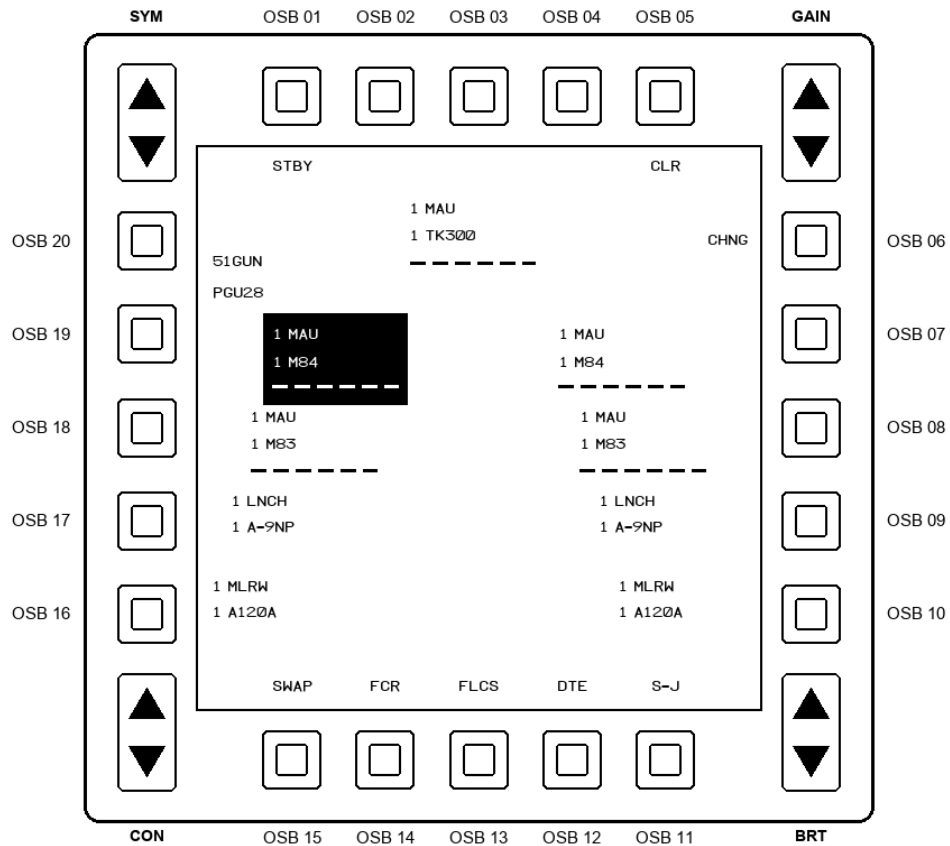


Figure 41 — MFD - SMS, STATION SELECTED

4.2.6 INVENTORY (INV)

INV appears on the weapons master mode pages — air-to-ground, dogfight and missile override — and shows the full stores inventory without leaving the weapons mode.

Pressing INV displays the stores layout in the same form as the SMS page. Pressing INV again returns the display to the weapons mode it was called from.

NOTE: Calling the inventory clears any station selection already made.

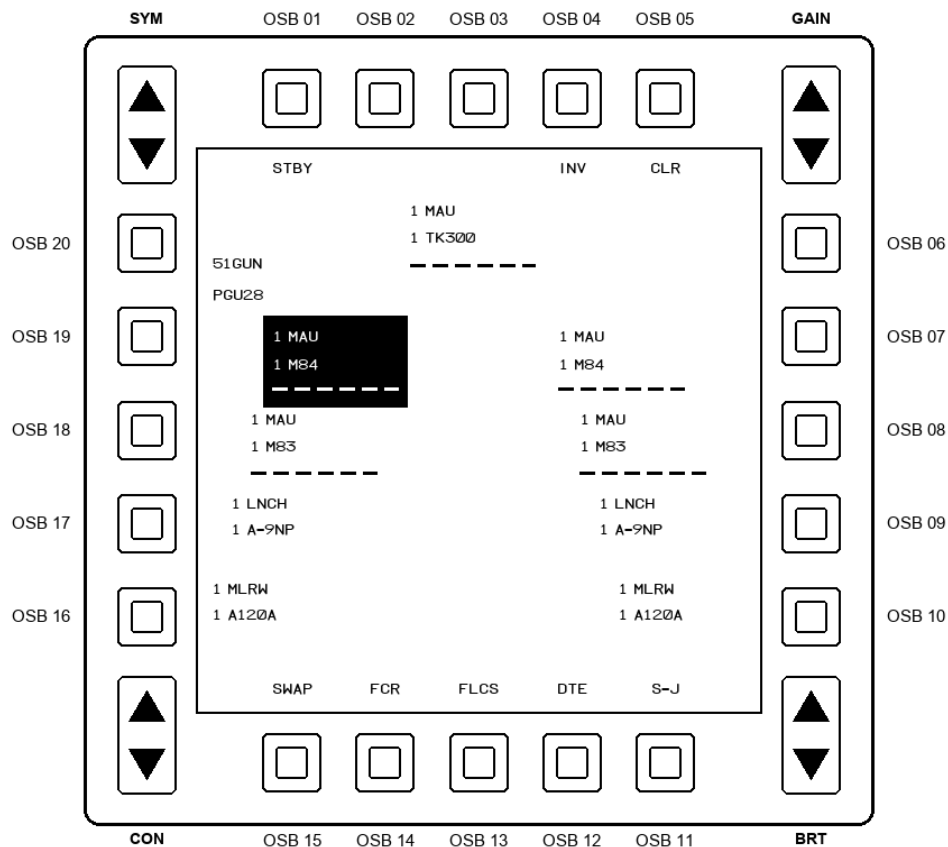


Figure 42 — MFD - INVENTORY

4.2.7 SELECTIVE JETTISON (S-J)

The S-J page jettisons chosen stores. It is reached with OSB 11, which is available from every MFD page.

Only the pylons that can be selectively jettisoned are shown, as empty fields. Select the stations to jettison, then use STBY (OSB 01) and CLR (OSB 05).

NOTE: Entering the page clears any station selection already made, so a selection cannot be carried in from another page by accident. Pressing S-J again leaves the page.

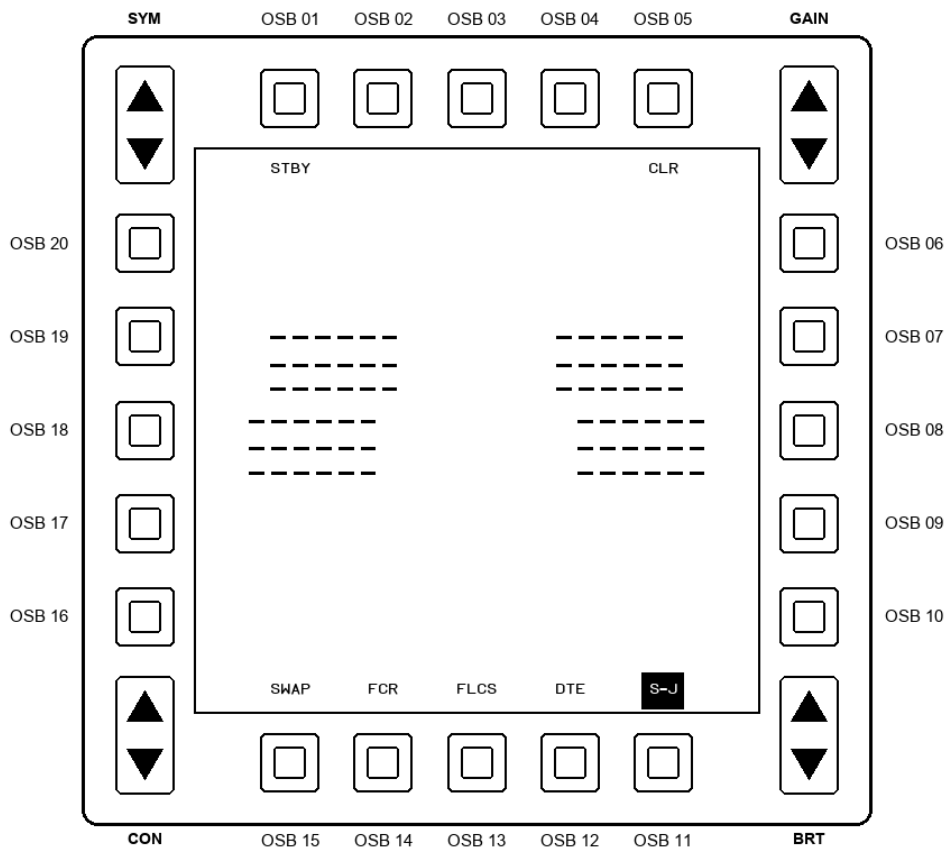


Figure 43 — MFD - SELECTIVE JETTISON

4.2.8 EMERGENCY JETTISON

Emergency jettison releases the aircraft's stores without selection.

WARNING: Emergency jettison is an aircraft-level action, not an MFD one. Both MFDs switch to the emergency jettison page together, and on the F-16D both rear cockpit displays follow. Leaving the page returns each display to whatever it was showing before, independently.

The GND JETT ENABLE switch on the left auxiliary console arms jettison on the ground. See also chapter 10, EMERGENCY PROCEDURES.

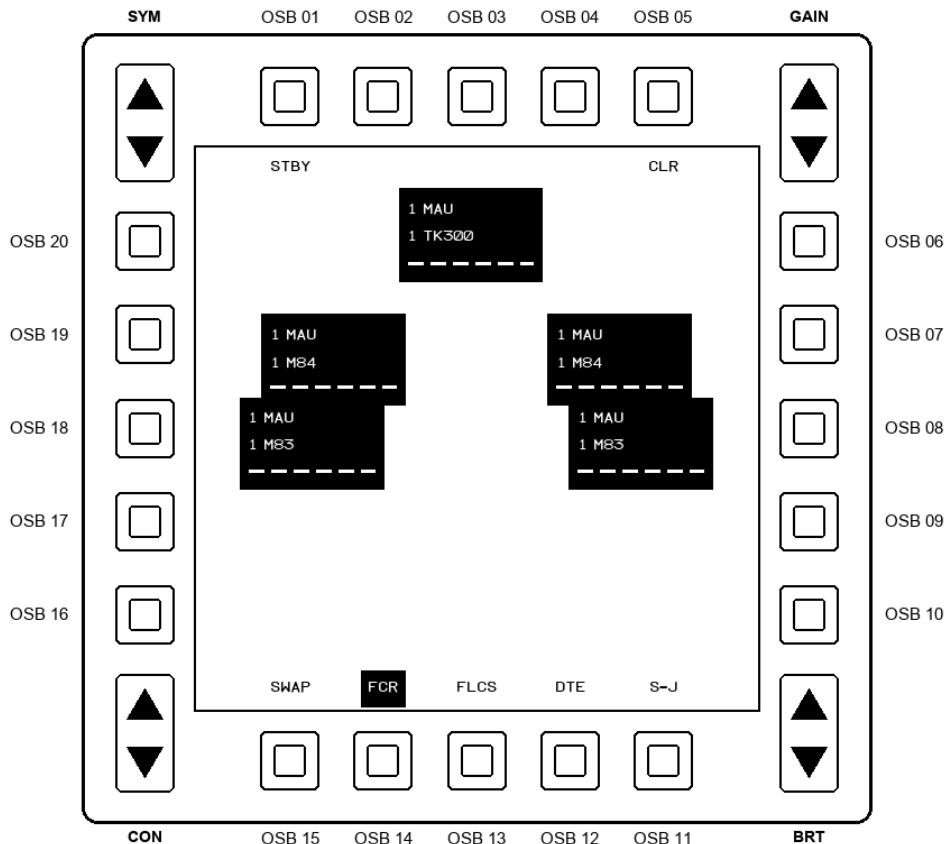


Figure 44 — MFD - EMERGENCY JETTISON

4.2.9 DTE — DATA TRANSFER

The DTE page handles the data transfer cartridge. Reach it from the MFD main menu.

The page lists the data to be loaded or stored: FCR, DLINK and GPS on the right, and MPD, COMM, INV, PROF and MSMD on the left, with ON, LOAD, CLSD and EWMS across the top.

NOTE: The data transfer functions are not implemented on this aircraft. The page is drawn and its options are listed, but selecting them has no effect. Pressing DTE again returns to the main menu.

For loading a mission into the aircraft, use the data cartridge receiver supplied with the DeltaWing Simulations Mission Editor.

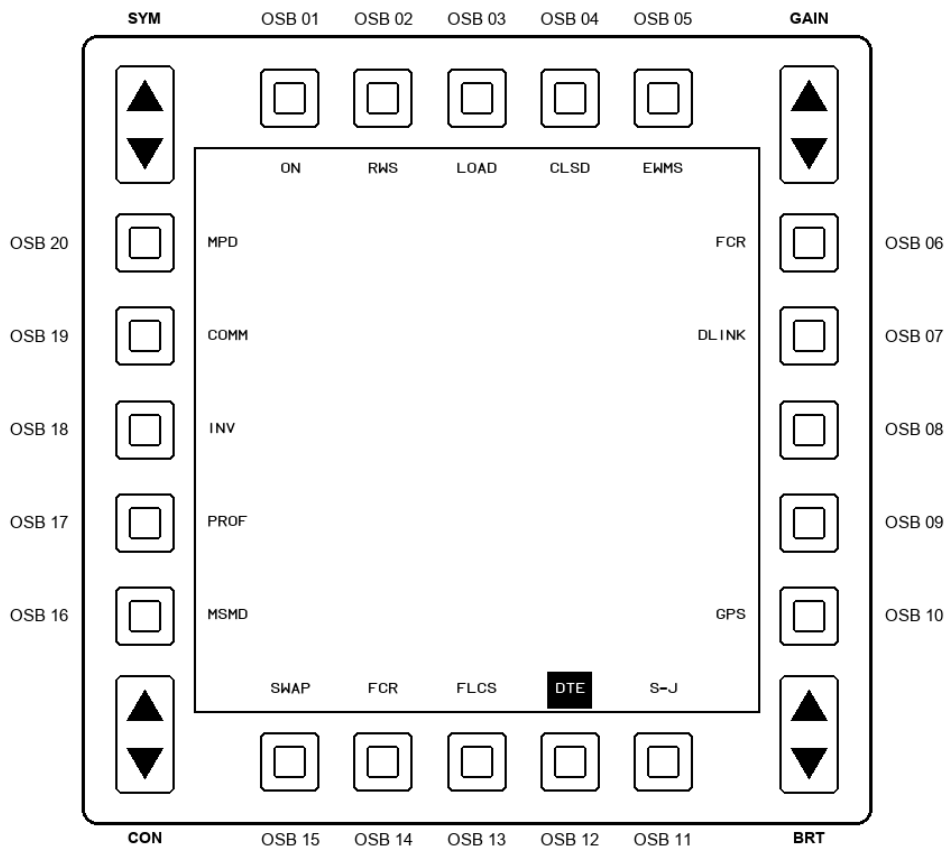


Figure 45 — MFD - DTE (DATA TRANSFER)

4.2.10 TEST — BUILT-IN TEST

The TEST page lists the aircraft's built-in test targets. Reach it from the MFD main menu.

The right column offers MFDS, RALT, TGP, FLIR and TFR; the left column DTE, FCR, SMS, INS and RSU; BIT1 and CLR sit across the top.

NOTE: The individual tests are not implemented. Selecting one returns the display to the main menu, which is what any unimplemented option does throughout the MFD.

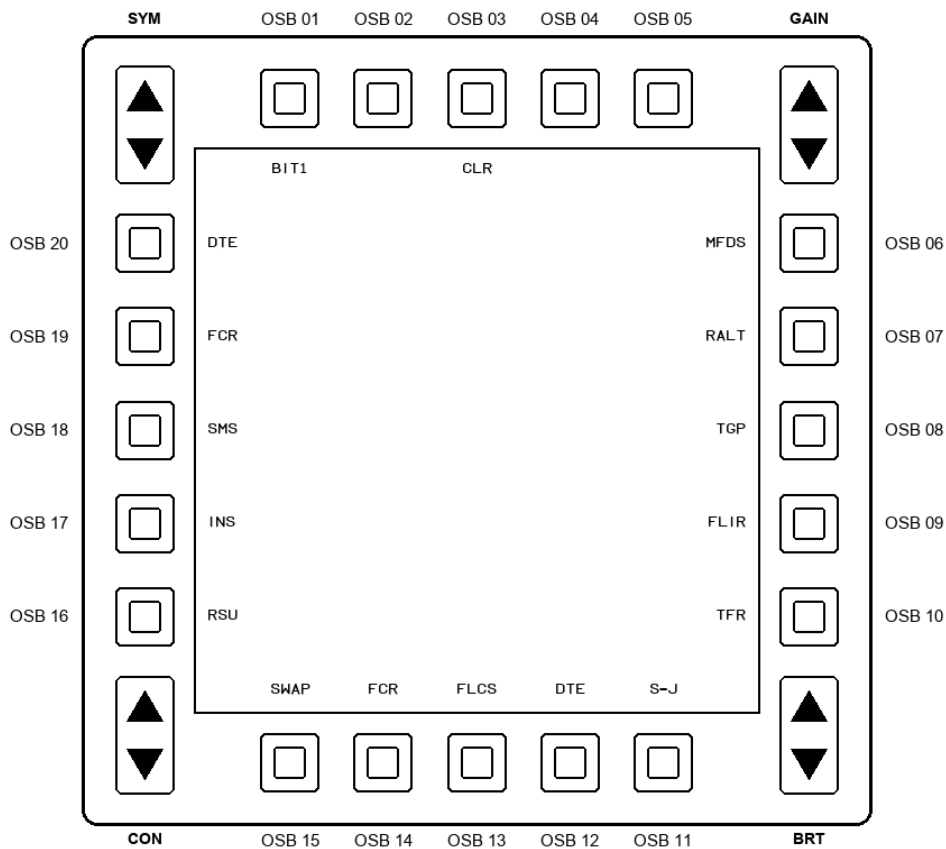


Figure 46 — MFD - TEST (BUILT-IN TEST)

4.2.11 BLANK

BLANK turns the display off without turning the MFD off, for example to remove a light source at night. Select it from the MFD main menu.

The screen clears to the word BLANK and no option legends are shown.

NOTE: The option buttons still work. Pressing the top left button, which selected BLANK, returns the display to the main menu.

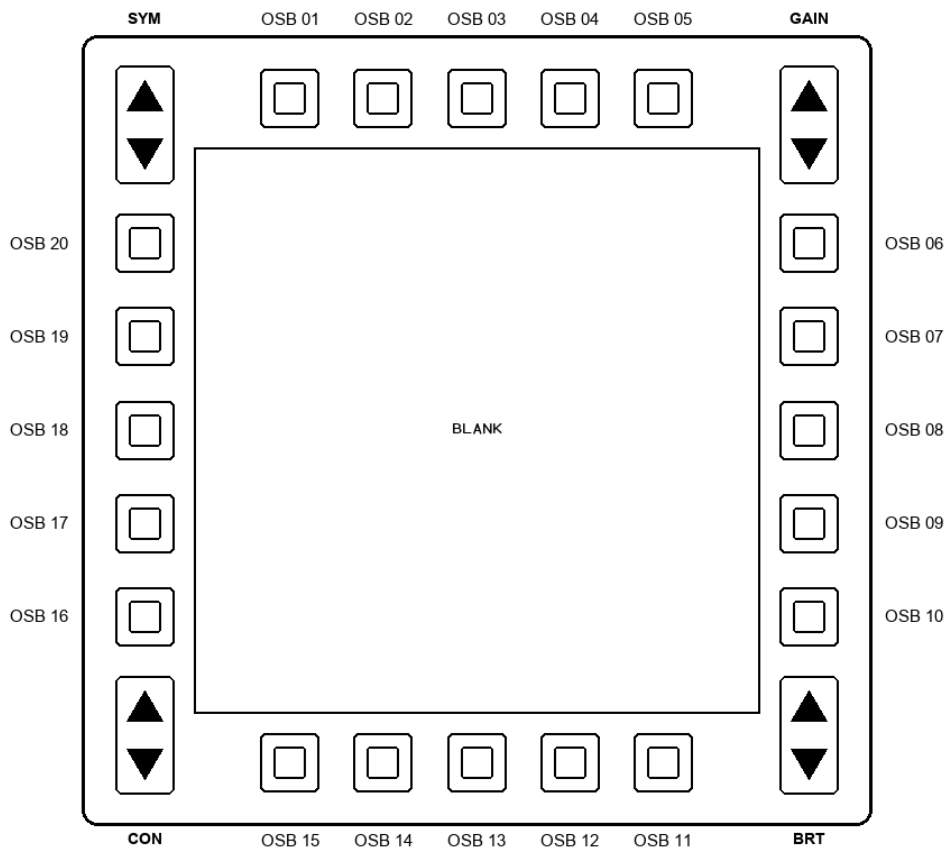


Figure 47 — MFD - BLANK

4.3 HUD SYMBOLOGY

The head-up display is described first in its navigation mode, which carries the symbology common to every other mode, and then mode by mode. The panel that configures it follows.

4.3.1 HUD IN NAV MODE

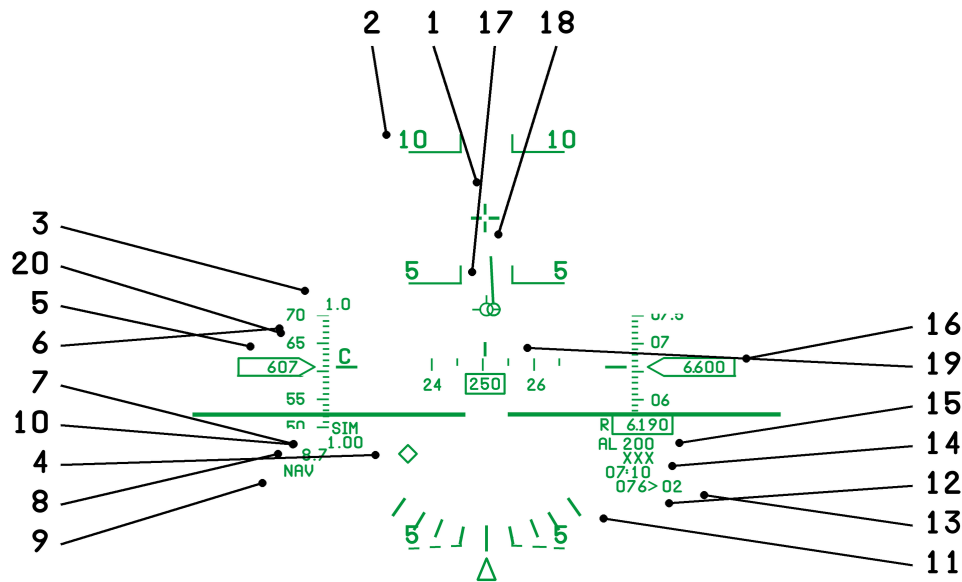


Figure 48 — HUD in NAV mode

1	Crosshair
2	Pitch ladder
3	Current G-force
4	Selected STPT
5	Air speed
6	Speed tape
7	Master ARM mode
8	Max G
9	HUD mode
10	Mach number
11	Roll indicator
12	Distance to current STPT
13	Current STPT
14	Time to selected STPT
15	Radio altimeter
16	Altimeter
17	Flight path
18	STPT bearing
19	Heading
20	Speed mode

Table 14 — HUD in NAV mode callouts

- | | |
|--------------------|------------------------------|
| 1. Crosshair | 11. Roll indicator |
| 2. Pitch ladder | 12. Distance to current STPT |
| 3. Current G-Force | 13. Current STPT |
| 4. Selected STPT | 14. Time to selected STPT |
| 5. Air speed | 15. Radio altimeter |
| 6. Speed tape | 16. Altimeter |
| 7. Master ARM mode | 17. Flight path |
| 8. Max G | 18. STPT bearing |
| 9. HUD mode | 19. Heading |
| 10. Mach number | 20. Speed mode |

4.3.2 HUD CONTROL PANEL

You can choose from right side HUD panel :

- 1. Radar Altimeter ON/OFF
- 2. Calibrated Speed/True Air Speed/Ground Speed
- 3. Radar Altimeter/Baro Altimeter
- 4. Day HUD / AUTO / Night HUD

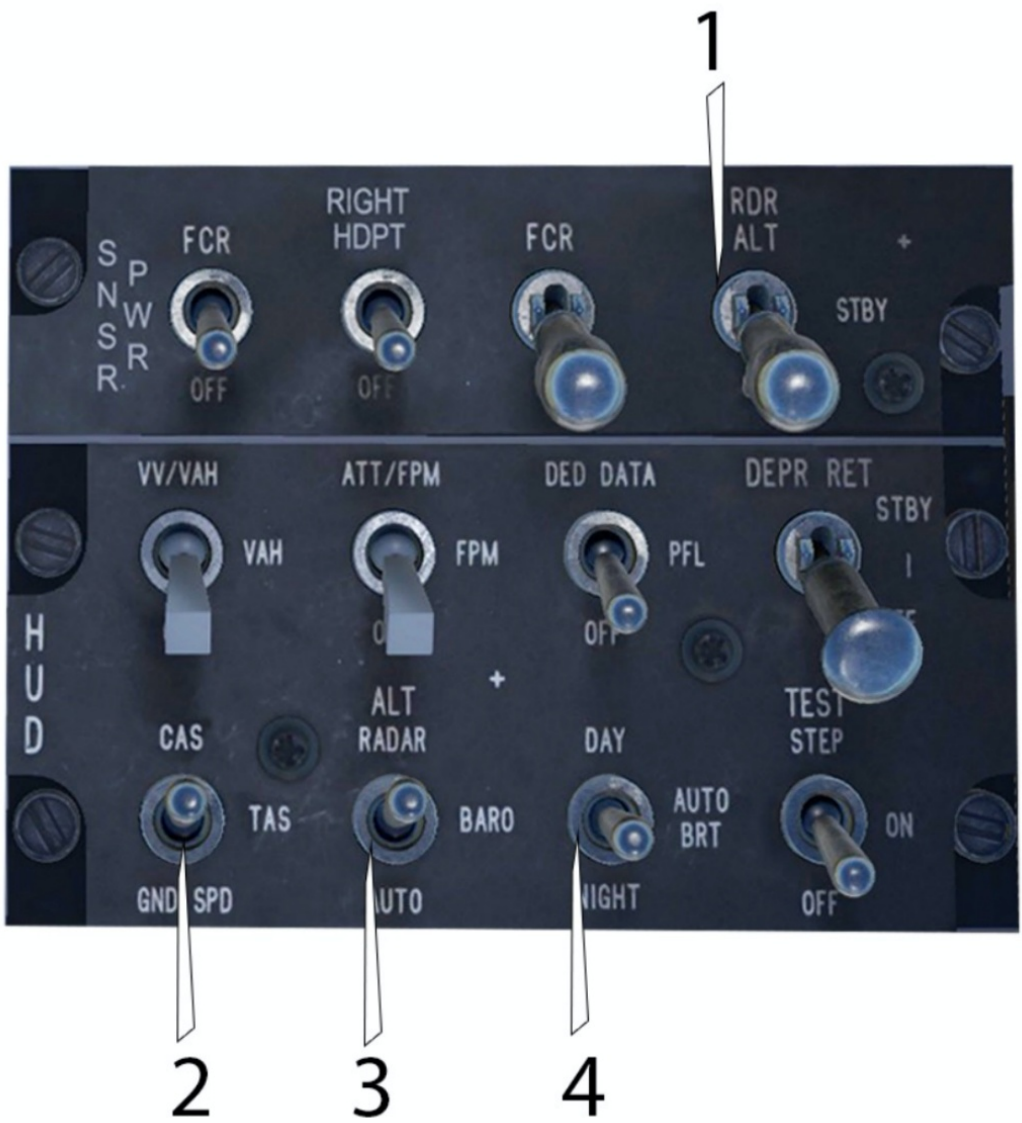


Figure 49 — HUD control panel

1	Radar altimeter — ON / OFF
2	Calibrated speed / true air speed / ground speed
3	Radar altimeter / baro altimeter
4	Day HUD / AUTO / Night HUD

Table 15 — HUD control panel callouts

4.3.3 HUD IN ILS/LANDING MODE

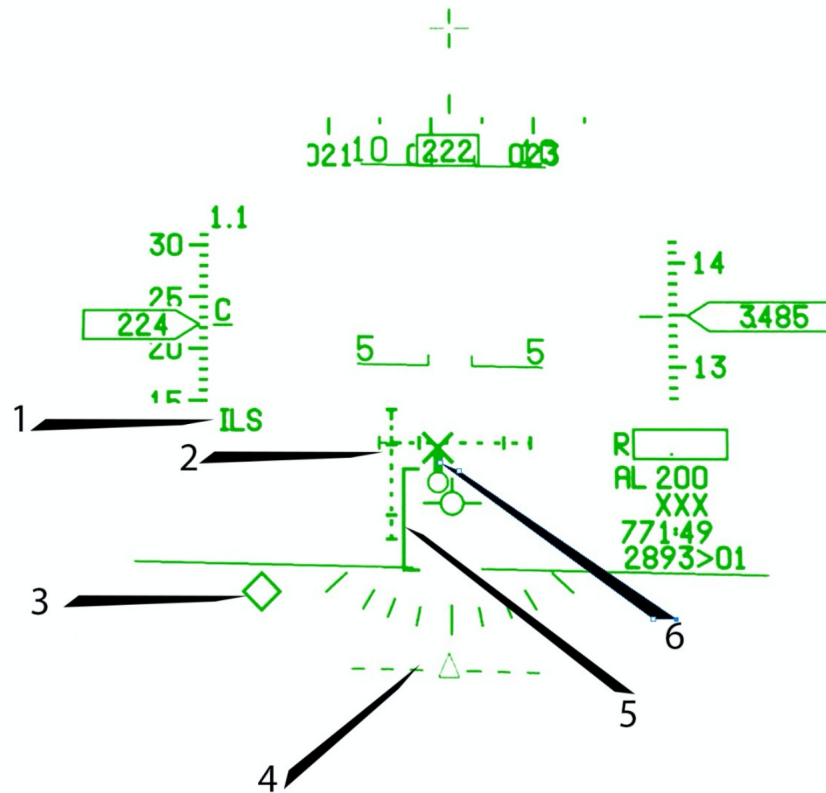


Figure 50 — HUD in ILS / landing mode

1	HUD mode
2	ILS crosshair
3	Selected STPT
4	-2.5 degrees help line
5	AOA bracket
6	Command steering (CMDS)

Table 16 — HUD in ILS / landing mode callouts

1. HUD MODE
2. ILS Crosshair
3. Selected STPT
4. -2.5 degrees help line
5. AOA bracket
6. Command steering (CMDS)

4.3.4 HUD IN EEGS MODE (AA DOGFIGHT MODE)

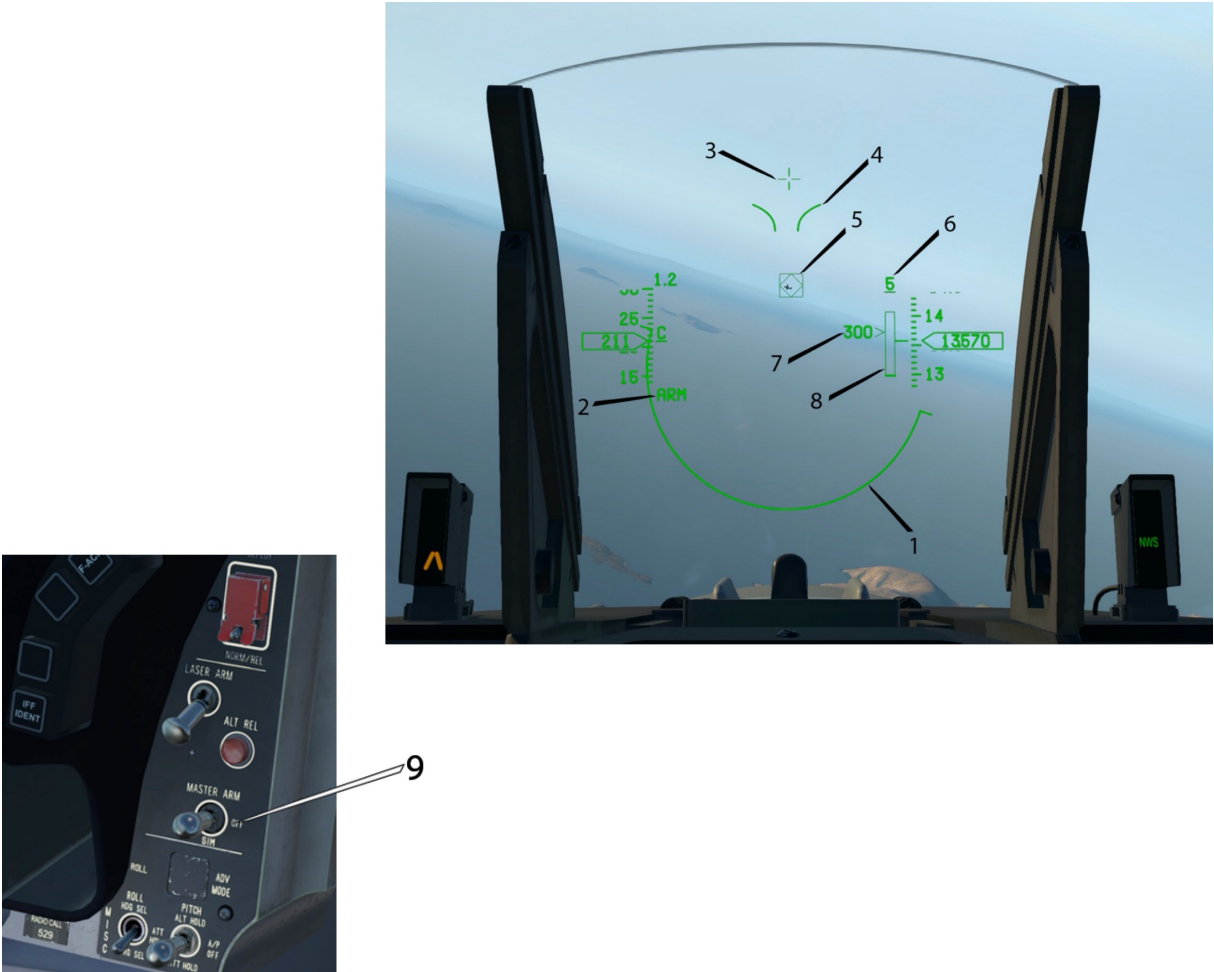


Figure 51 — HUD in EEGS mode

1	Horizon indicator
2	Weapons status — SIM, OFF, ARM
3	Crosshair
4	Funnel
5	Current radar locked target
6	Distance scale from locked target, in miles
7	Closure speed from locked target
8	Selected missile effective range
9	Master Arm switch

Table 17 — HUD in EEGS mode callouts

- 1.Horizon Indicator
- 2.Weapons Status (Steps are : SIM – OFF – ARM)
- 3.Crosshair
- 4.Funnel
- 5.Current radar locked target
- 6.Distance scale from locked target in miles
- 7.Closure speed from locked target
- 8.Selected missile effective range
- 9.Master Arm Switch

4.3.5 HUD IN AIR TO GROUND MODE

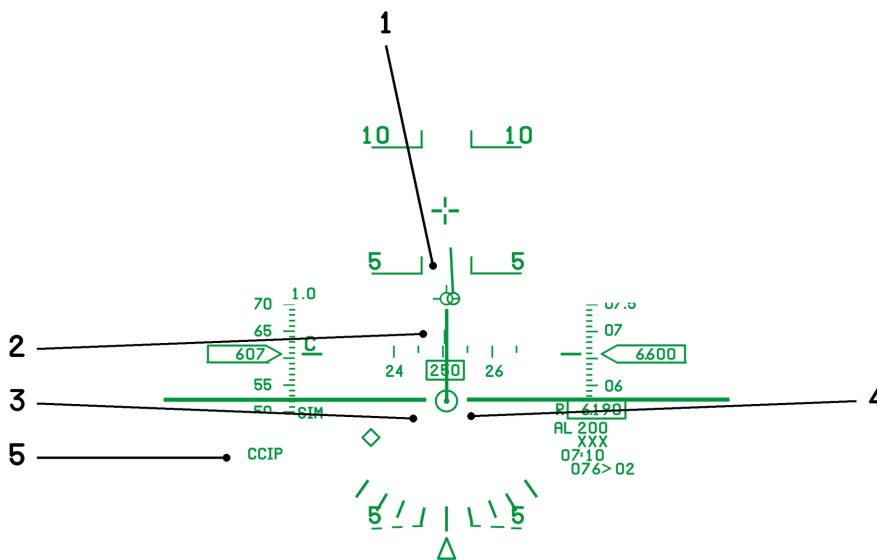


Figure 52 — HUD in air to ground mode, CCIP

1	Flight path
2	Distance line
3	Bomb drop indicator
4	Target point
5	CCIP mode
6	Master Arm switch

Table 18 — HUD in air to ground mode, CCIP callouts

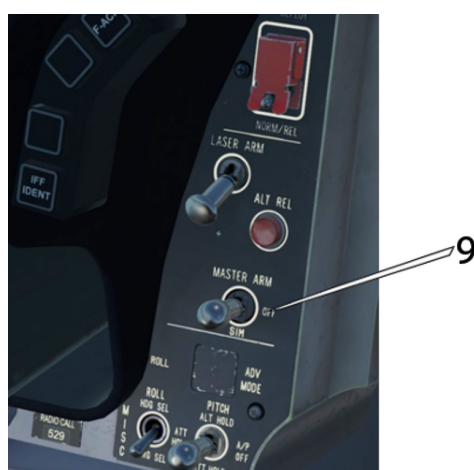


Figure 53 — Weapons Master Arm switch

- 1.Flight Path
- 2.Distance Line
- 3.Bomb drop indicator
- 4.Target point
- 5.CCIP mode
- 6.Master Arm Switch

4.3.6 INDEXERS

Indexers are located on the left and right of the HUD frame and they indicate the following:

Left Indexer:

AOA below 11.5 degrees

AOA between 11.5 and 14 degrees

AOA over 14 degrees



Table 19 — Indexer legends

Right Indexer:

Nose wheel steering
is active

Air refueling door
is open and jet is ready
for air refueling



Figure 54 — AOA and approach indexers

4.3.7 JHMCS — HELMET-MOUNTED CUEING SYSTEM

The Joint Helmet-Mounted Cueing System projects symbology onto the pilot's visor, so that targets and steering can be seen away from the head-up display.

The JHMCS switch and its brightness control are on the left auxiliary console. The helmet itself is fitted from the kneepad PILOT SETUP page; with no helmet selected the switch has no effect.

With the helmet on and the system on, look away from the HUD to see the symbology follow the head. It is used with the air-to-air modes to cue a missile seeker off boresight.

The symbology is the following:

1. Aiming crosshair
2. Airspeed
3. Current G-force
4. HUD mode
5. Master ARM mode
6. Altitude
7. Distance to steerpoint
8. Current steerpoint
9. Heading

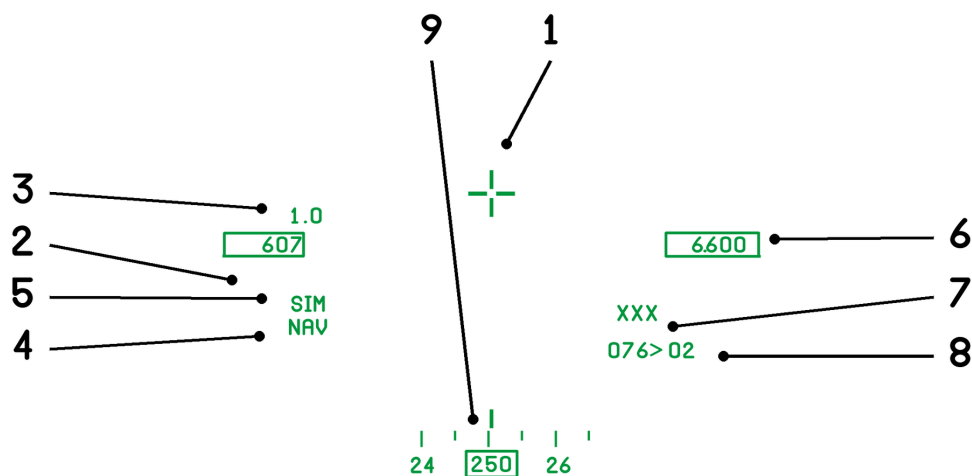


Figure 55 — JHMCS symbology, helmet sight in NAV

1	Aiming crosshair
2	Airspeed
3	Current G-force
4	HUD mode
5	Master ARM mode
6	Altitude
7	Distance to steerpoint
8	Current steerpoint
9	Heading

Table 20 — JHMCS symbology, helmet sight in NAV callouts

4.3.8 HUD IN AIR TO AIR MODE

Selecting an air-to-air weapon puts the HUD into its missile mode. This is not the dogfight gun sight described under HUD IN EEGS MODE — there is no funnel, and the display is built around the steering circle instead.

The ASE circle — Allowable Steering Error — is centred on the glass and appears only with a bugged target. Its radius follows the launch envelope: widest in the middle of the envelope, shrinking towards both the maximum and the minimum range. A wide circle is a permissive shot, a small one is a marginal one.

The scale on the right is the range to the bugged target. The figure at the top is the maximum range of the selected missile, the caret rides down the scale as the range closes, and the number beside the caret is the closure rate.

NOTE: The mode legend, the Mach number and the maximum-G readout are ALL absent in this mode — the aircraft draws them only in NAV. What is left is the flight path marker, the attitude, the speed and altitude boxes, the heading and the air-to-air symbology.

NOTE: The steering dot is not modelled. The reference confirms one exists but gives no lead-angle computation, so it is left out rather than invented.

The symbology is the following:

- 1. Flight path marker
- 2. ASE circle
- 3. Target designator box
- 4. Missile range scale
- 5. Closure rate
- 6. Maximum range
- 7. Airspeed
- 8. Altitude
- 9. Heading

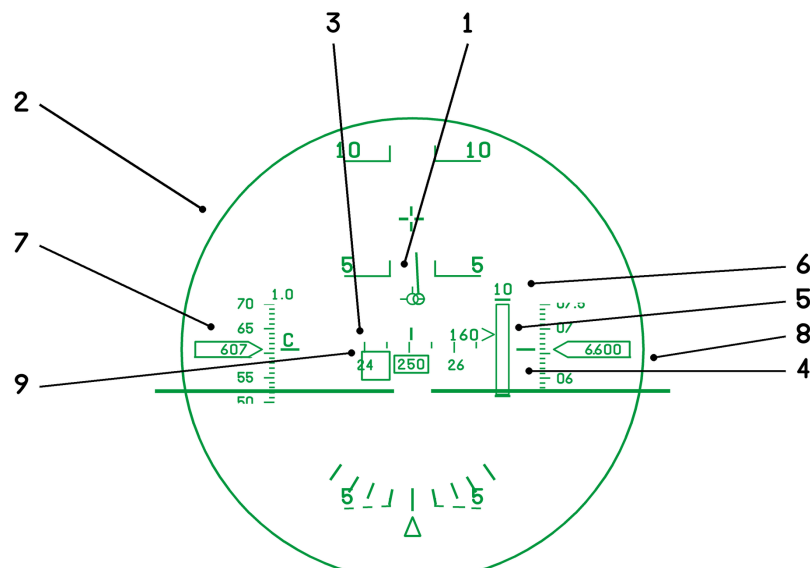


Figure 56 — HUD in air-to-air mode, ASE circle

1	Flight path marker
2	ASE circle
3	Target designator box
4	Missile range scale
5	Closure rate
6	Maximum range
7	Airspeed
8	Altitude
9	Heading

Table 21 — HUD in air-to-air mode, ASE circle callouts

5. AIRCRAFT SYSTEMS

5.1 EXTERNAL LIGHTS

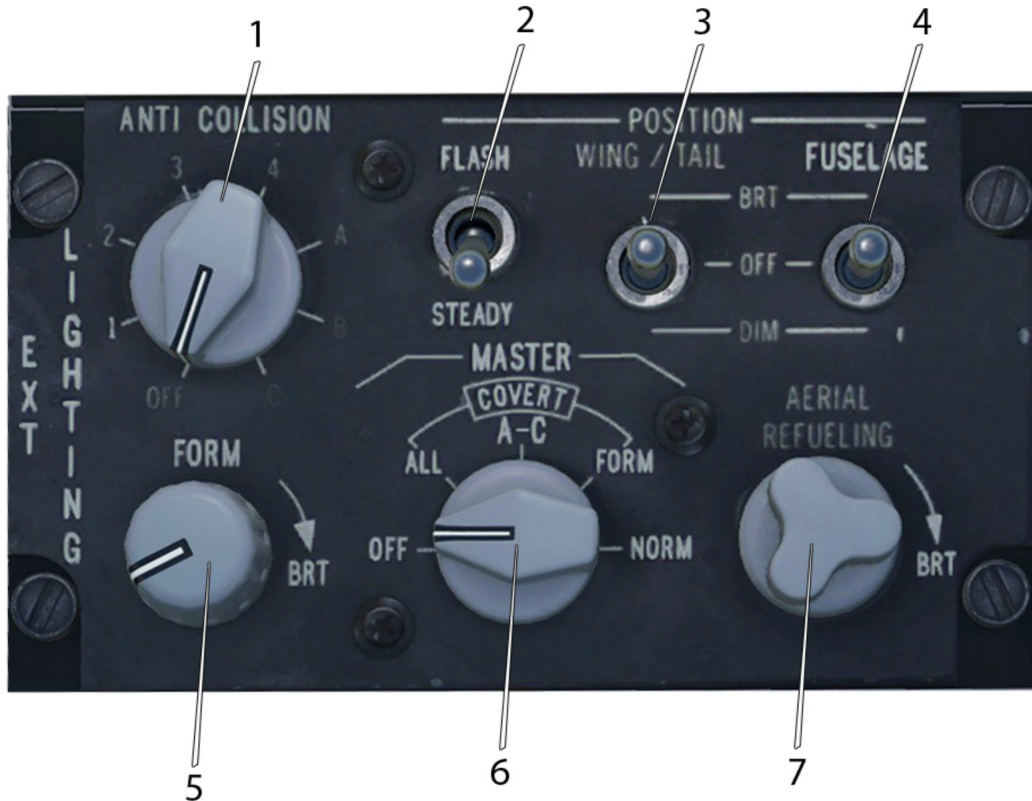


Figure 57 — Exterior lighting panel

1	Anti collision light — flashes per cycle
2	Flash / Steady — switches the POSITION lights between flashing and steady
3	Wing / tail lights — DIM, OFF, BRT
4	Fuselage lights — DIM, OFF, BRT
5	Formation lights brightness
6	Active lights — ALL, ANTI COLLISION, FORMATION, NORMAL
7	Aerial refuelling — lights the air refuelling door on top of the jet

Table 22 — Exterior lighting panel callouts

Through the “EXT LIGHTING” panel you can control the jet’s external lights.

1. Anti Collision Light. This is the light located on top of the tail and you can adjust how many times it flashes per cycle. This option is used in formation flights in order to identify each jet.
2. Flash / Steady. Select either steady lights or flashing lights.
3. Wing / Tail Lights DIM/OFF/BRT.
4. Fuselage Lights DIM/OFF/BRT.
5. Formation lights brightness.
6. Set active lights : ALL / ANTI COLLISION / FORMATION / NORMAL.
7. Aerial Refuelling. Lights the air refuelling door on the top of the jet.

5.2 INTERNAL LIGHTS



Figure 58 — Interior lighting panel

1	Consoles — lights the labels of the instruments and panels
2	INST PNL — lights the instruments
3	DED light adjustment
4	Flood lights, consoles — side consoles
5	Flood lights, INST PNL — front panels

Table 23 — Interior lighting panel callouts

Through the “LIGHTING” panel you can control the internal lights inside the cockpit.

1. Consoles. Lights the labels of the instruments and panels.
 2. INST PNL. Lights the instruments.
 3. DED light adjustment.
 4. Flood lights Consoles. Adjusts the flood lights on side consoles.
 5. Flood lights INST PNL. Adjusts the flood lights on the front panels.
- Note that the flood lights can be moved: in the stowed position they are OFF.

5.3 FUEL QTY MANAGEMENT

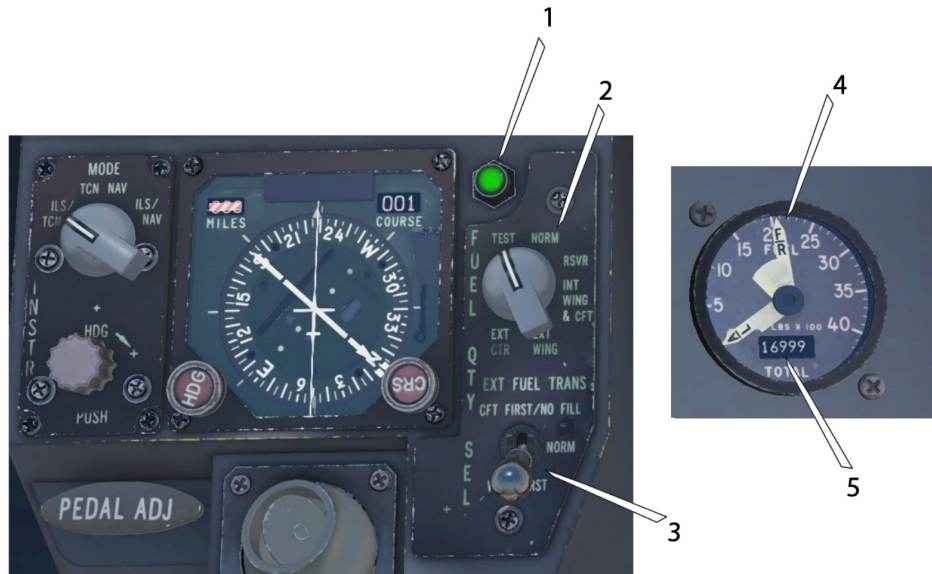


Figure 59 — Fuel quantity indicator and selector

1	Test light
2	Quantity select switch — TEST, NORM, RSVR, INT WING & CFT, EXT WING, EXT CTR
3	External fuel transfer switch — CFT FIRST/NO FILL, NORM, WING FIRST
4	Fuel quantity indicator — Forward Right (FR) and Aft Left (AL) needles, LBS x 100
5	TOTAL — digital readout of total fuel

Table 24 — Fuel quantity indicator and selector callouts

FUEL QTY SEL is located on the right side of pedestal and it consists of test light (1), quantity select switch (2), external fuel transfer (3) and indicator gauge (4) with Forward Right (FR), Aft left (AL) needles and a digital display of the total fuel, including any external tanks.

Switch (2) has the following positions:

- TEST - Shows green light on, FR, AL at 20 position and 6000 in total fuel.
- NORM - FR shows the total quantity of F-1, F-2 and the right wing tank.
- AL shows the total quantity of A-1 and the left wing tank.
- RSVR - FR shows the quantity of the forward reservoir.
- AL shows the quantity of the aft reservoir.
- INT WING & CFT - FR shows the quantity of the right wing tank.
- AL shows the quantity of the left wing tank.
- EXT WING - FR shows the quantity of the right external wing tank.
- AL shows the quantity of the left external wing tank.
- EXT CTR - FR shows the quantity of the centreline external tank.

External Fuel Transfer Switch (3) has 3 positions:

CFT FIRST/NO FILL - Jet uses CFT fuel first and cannot refuel CFT.

NORM - Jet uses External Centerline fuel first

WING FIRST - Jet uses External Wing Fuel first

5.4 TRANSPONDER

Aircraft's IFF system is used as a transponder code for ATC.

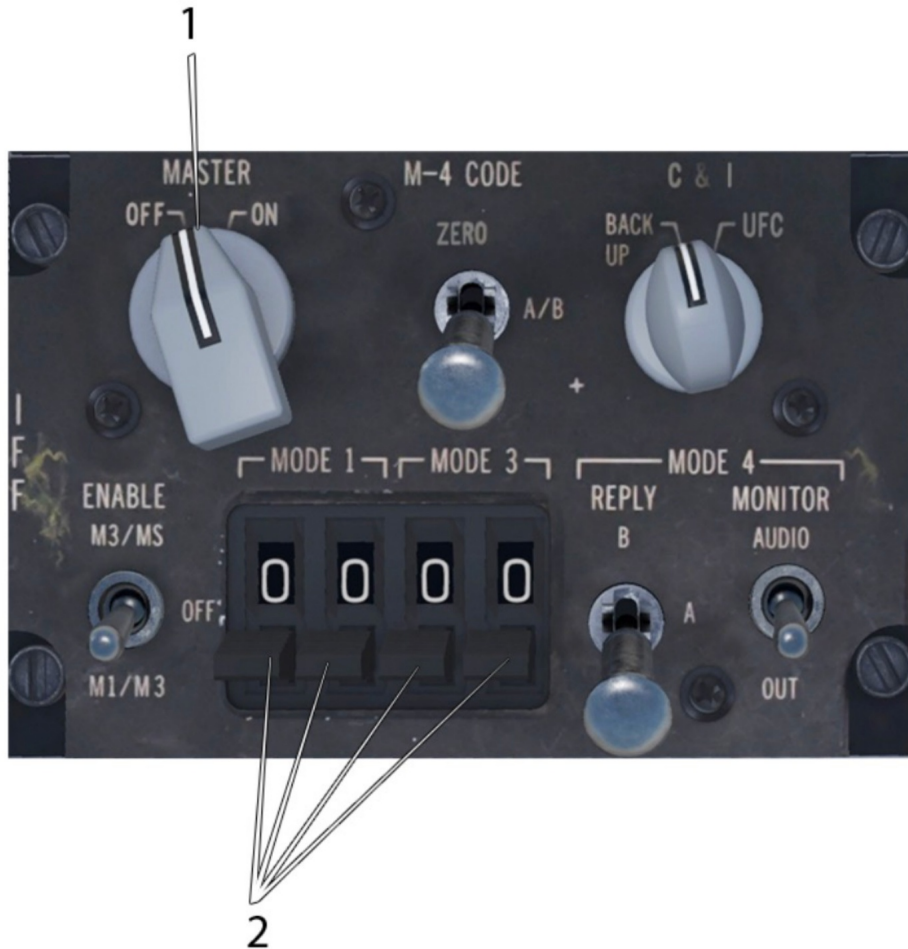


Figure 60 — IFF / transponder panel

1	MASTER knob — turns the IFF on
2	Code wheels — set the 4 digit code

Table 25 — IFF / transponder panel callouts

In order to activate it, turn MASTER (1) to the on position and then use buttons (2) to enter the 4 digit code. The M-3/MS ENABLE switch selects which mode the transponder replies on when MASTER is on. With MASTER off the transponder does not reply, whatever ENABLE is set to.

5.5 RWR

Radar Warning Receiver.

1. Turn RWR master switch to on position.



Figure 61 — Radar warning receiver display

2. When RWR is on, you can monitor in RWR screen other aircraft that are using radar in relation to your position.

Each aircraft is identified with a unique code displayed on monitor.

In case that RWR cannot identify an aircraft, it displays UKN instead of aircraft's code. In the following example we receive a Mirage-2000.



Figure 62 — Radar warning receiver control panel

5.5.1 List of RWR codes

AV AV88 Harrier
11 F111
13 C130
14 F14
15 F15
16 F16
17 C17
18 F18
37 AJS
52 B52
B1 B1
E2 E2D
E3 E3
E6 EA-6B
F2 F2 TORNADO
F4 F4
F5 F5
KC KC130
KC KC135
KC KC135MPRS
M2 MIRAGE 2000
19 MIG 19
21 MIG 21
22 TU22
23 MIG23
24 SU24
25 MIG25
29 J11
29 MIG29
29 SU27
29 SU33
30 SU30
39 SU39
39 SU25
31 MIG31
34 SU34
50 KJ2000
50 A50
76 IL76
78 IL78
95 TU95
AN AN26
AN AN30
BJ TU160
TU TU142

5.6 VOR/TACAN NAVIGATION AND ILS LANDINGS

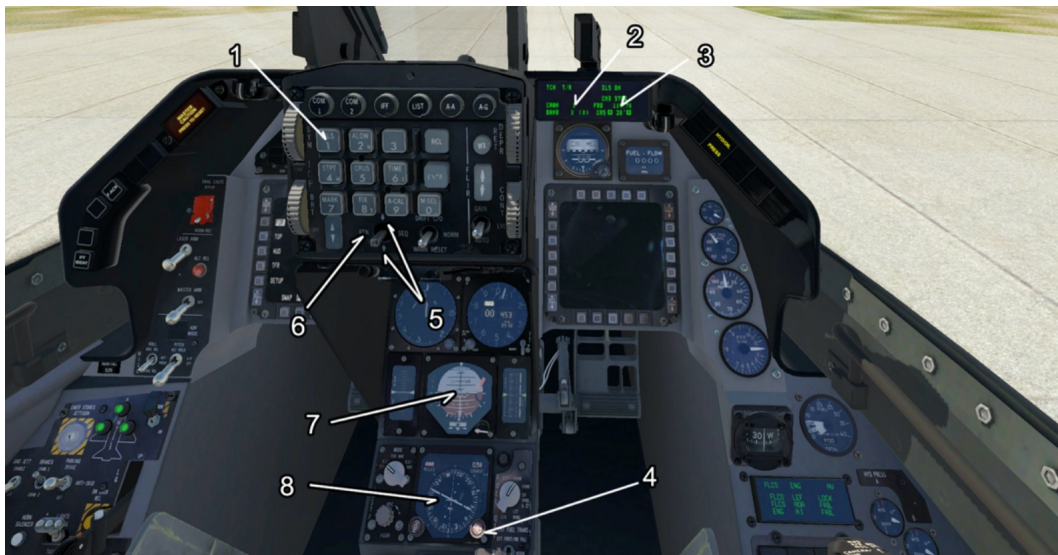


Figure 63 — Navigation controls and displays

In order to use VOR, ILS or TAC frequencies follow this procedure:

1. Press “T/ILS” button on the ICP
2. Either select TAC channel or
3. Move the cursor on to “FRQ” and enter the frequency and the course if using VOR navigation or only the frequency if it is for an ILS approach.
4. Alternatively you can choose the VOR/TAC course from the backup instrument.
5. Use the up and down arrows for DED fields navigation
6. To cancel the operation at any moment, press the “RTN” switch on ICP
7. Backup ILS.
8. HSI.
9. You can use this switch to choose between TACAN and NAV for the HSI, and between NAV and ILS for the HUD.

5.7 MANUAL TRIM

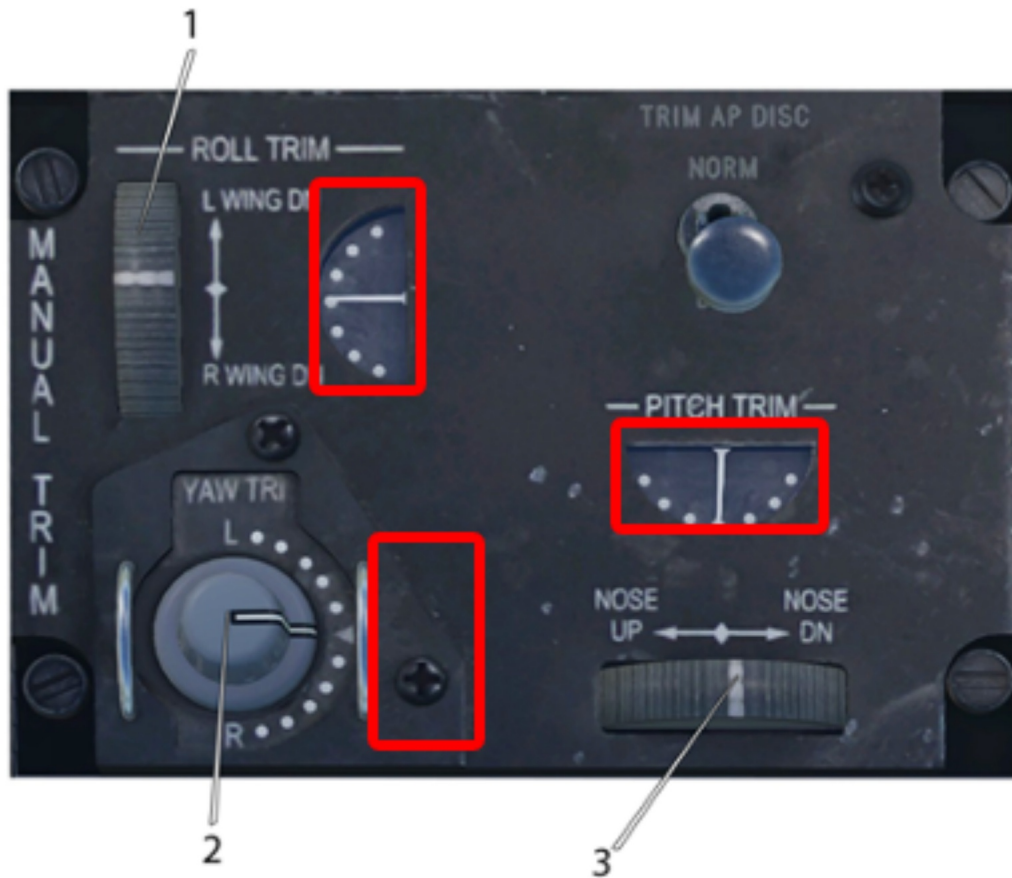


Figure 64 — Manual trim panel

You can manually trim the jet using 1 for roll trim, 2 for yaw trim and 3 for pitch trim.

There are also the highlighted hidden areas (RED SQUARES). When you click on each of them, it resets to 0 the corresponding trim setting.

WARNING : Incorrect trim settings can create severe instability of the jet and may make it impossible to takeoff and/or fly.

5.8 AUTOPILOT

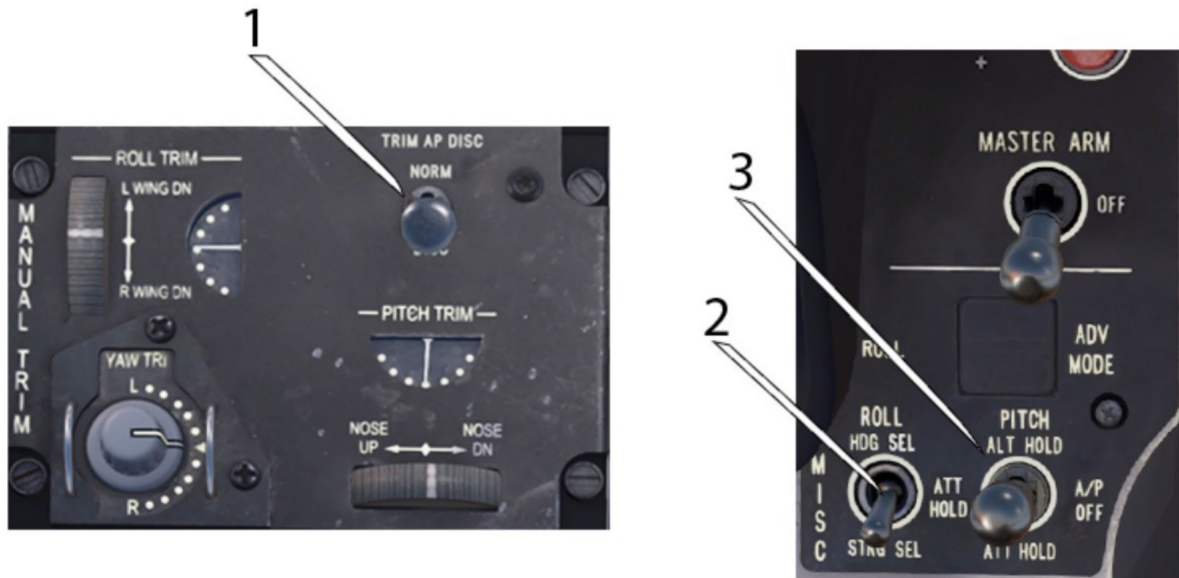


Figure 65 — Autopilot panel

1	TRIM AP DISC switch, on the manual trim panel — NORM or DISC
2	ROLL switch — HDG SEL, ATT HOLD, STRG SEL
3	PITCH switch — ALT HOLD, ATT HOLD, A/P OFF

Table 26 — Autopilot panel callouts

Autopilot uses heading from HSI or steering point's (STPT) from DED.

To activate AP, first go to MANUAL TRIM PANEL and put "TRIM AP DISC" switch (1) to "NORM" position and then go top front left panel and put "PITCH" switch (3) to "ALT HOLD" or "ATT HOLD" positions.

When "ALT HOLD" position is selected, AP hold the current altitude.

When "ATT HOLD" position is selected, AP hold the current pitch.

With "ROLL" switch (2), on "HDG SEL", AP follows the heading selected on HSI.

With "ROLL" switch (2), on "ATT HOLD", AP holds the current roll.

With "ROLL" switch (2), on "STRG SEL", AP follows the heading according the current selected steering point.

To de-activate the AP, you have to put "PITCH" switch (3) on "A/P OFF" position or put the "TRIM AP DISC" switch (1) to "DISC" position.

5.9 CAUTION AND WARNING LIGHTS

The caution light panel is on the right side of the instrument panel and the warning lights are grouped around it. Pressing MASTER CAUTION resets the master caution light; the individual legends stay lit while their condition holds.

NOTE: Not every legend below illuminates for a condition on this aircraft. Several are wired to the lamp test and to the power-up and power-down sweeps only. The legends are listed in full so that the panel can be read, and so that a light seen in the cockpit can be identified.

WARNING LIGHTS

ENG FIRE	Engine fire detected.
ENGINE	Engine fault.
HYD/OIL PRESS	Hydraulic or oil pressure outside limits.
FLCS	Flight control system fault.
DBU ON	Digital backup flight control law engaged. Not modelled on this aircraft — see FLIGHT CONTROL SYSTEM.
TO/LDG CONFIG	Takeoff or landing configuration warning.
CANOPY	Canopy not closed and locked.
OXY LOW	Oxygen quantity low.
EPU	Emergency power unit running.
ECM	Electronic countermeasures active.

Table 27 — WARNING LIGHTS

CAUTION PANEL

AVIONICS FAULT	Avionics fault.
ANTI SKID	Anti-skid braking unavailable.
ATF NOT ENGAGED	Automatic terrain following not engaged.
BUC	Backup fuel control in use.
CABIN PRESS	Cabin pressure outside limits.
CADC	Central air data computer fault.
EEC	Electronic engine control fault.
ELEC SYS	Electrical system fault.
ENGINE FAULT	Engine caution.
EQUIP HOT	Avionics equipment overheating.
FLCS FAULT	Flight control system caution.
FWD FUEL LOW	Forward fuel tank low.
AFT FUEL LOW	Aft fuel tank low.
HOOK	Arrestor hook not up and locked.
IFF	Identification friend or foe fault.
INLET ICING	Engine inlet icing.
NUCLEAR	Nuclear store status.
NWS FAIL	Nose wheel steering failed.
FUEL OIL HOT	Fuel or oil temperature high.
OBOGS	On-board oxygen generating system fault.
OVERHEAT	Overheat detected.
PROBE HEAT	Pitot probe heating fault.
RADAR ALT	Radar altimeter fault.
SEAT NOT ARMED	Ejection seat safety lever is SAFE (up).
SEC	Secondary engine control in use.
STORES CONFIG	Stores configuration disagrees with the aircraft.

Table 28 — CAUTION PANEL

MAIN POWER PANEL

MAIN GEN	Main generator on line.
STBY GEN	Standby generator on line.
EPU GEN	Emergency power unit generator on line.
EPU PMG	EPU permanent magnet generator.
FLCS PMG	Flight control permanent magnet generator.
FLCS RLY	Flight control relay.
TO FLCS	Power routed to the flight control system.
MAIN PWR FAIL	Main electrical power failed.

Table 29 — MAIN POWER PANEL

The FLCS PWR block shows the four flight control power channels. The lamp test switch illuminates every legend on these panels at once and is the quickest check that the panel is powered.

5.10 COUNTERMEASURES

The countermeasures dispenser controls are on the left auxiliary console, with the release button on the left wall.

The panel carries four arming switches, CMD 01 to CMD 04. Chaff and flares are armed with two of them, as described under GENERAL NOTES. The flares button on the left wall releases countermeasures.

NOTE: Dispenser programmes are not modelled. Programme and mode selection, burst counts and intervals have no effect; release uses X-Plane's own countermeasure system, so the quantity carried is whatever the loadout provides.

5.11 AUDIO AND INTERCOM PANELS

Two audio panels are on the left console. They set the volume of the radios and of the aural cues, and are independent of the X-Plane volume settings.

The upper panel carries the secure voice controls together with the missile, terrain following and threat tone volumes. The lower panel carries the intercom volume and the TACAN and ILS identification volumes.

NOTE: On the F-16D the rear cockpit has its own audio panel on the left rear console, described under BACK SEAT COCKPIT.

5.12 OXYGEN, ANTI-ICE AND DEFOG

This section collects the smaller environmental and anti-icing controls. Each appears on the aircraft's own checklists.

OXYGEN: the oxygen regulator is on the right console, with a supply lever, a diluter lever and an emergency pressure selector. The on-board oxygen generating system switch is on the left console. An OXY LOW warning and an OBOGS caution appear on the light panels. The OXYGEN PSI indication is not modelled and always reads zero.

ANTI-ICE: the anti-ice switch is on the right console. The probe heat switch is set on the BEFORE TAKEOFF checklist and has a PROBE HEAT caution legend.

DEFOG: the defog control sets airflow to the canopy.

NOTE: Terrain following is not modelled on this aircraft. The MFD offers a TFR option, the ALOW page shows a TF ADV field and the aircraft's checklist mentions a manual TF flyup switch, but none of them drives a terrain following system.

5.13 FLIGHT CONTROL SYSTEM

The F-16 is flown through a digital four-channel fly-by-wire flight control system. There is no direct mechanical link from the stick to the surfaces: the flight control computer reads the stick, the pedals, the trim panel, air data, rate gyros, accelerometers and the inertial system, and commands the horizontal tails, the flaperons and the rudder.

Pitch is carried by the horizontal tails moving together, roll by the flaperons, and yaw by the rudder, with the aileron-rudder interconnect coordinating turns.

NOTE: This section describes how the flight control system behaves and what the pilot selects and sees. It does not tabulate the schedules the system flies to. Those are simulated to the aircraft's published performance and are read in the cockpit — on the head-up display, on the angle of attack indexer and on the fault lights — rather than from this manual.

GAIN SETS

The flight control system runs one of two sets of gains, and they are not merely louder or quieter versions of each other — the pitch axis is a different command system in each.

CRUISE gains: selected with the landing gear handle UP and the ALT FLAPS and AIR REFUEL switches stowed, or with either of those switches selected at higher airspeeds. Pitch is a g command system: neutral stick commands 1 g to the flight path, not a fixed attitude.

TAKEOFF AND LANDING gains: selected with the gear handle DOWN, or with the ALT FLAPS or the AIR REFUEL switch selected at lower airspeeds. Pitch becomes a pitch RATE command system.

NOTE: The airspeed condition applies to the ALT FLAPS and AIR REFUEL switches only. It does not apply to the landing gear handle, which selects takeoff and landing gains at any speed. Weight on wheels plays no part in the selection.

ANGLE OF ATTACK AND G LIMITING

The flight control system limits angle of attack and load factor together, on a single schedule: the load factor the stick can command falls as angle of attack rises, and at the angle of attack limit the schedule allows 1 g and no manoeuvring command at all. That is how the limiter holds maximum angle of attack — by running the available g down to nothing, rather than by pinning the stick.

In cruise gains the pitch axis passes the pilot's command through untouched over the normal manoeuvring range, and blends progressively into an angle of attack command as the limit is approached. In takeoff and landing gains that handover begins lower, and the maximum angle of attack available at 1 g is correspondingly lower.

Negative load factor is limited as well, and the limit is relaxed at low airspeed.

The limiter cannot be flown through. Full aft stick at the limit produces the limit and nothing more, which is what lets the aircraft be flown into the buffet without departing.

STORES CONFIGURATION — CAT I AND CAT III

The STORES CONFIG switch selects the limiter category. CAT I is the clean and lightly loaded configuration. CAT III is selected for heavy, high-inertia loadings and trades manoeuvring authority for departure resistance on all three axes.

In CAT III the commanded load factor and the maximum angle of attack both fall, and both are scheduled on gross weight — the heavier the aircraft, the less of each is allowed. Roll rate is reduced as well. Selecting CAT III with a light aircraft therefore costs far less than selecting it near maximum gross weight.

NOTE: STORES CONFIG has no effect in takeoff and landing gains. The rudder authority limiter is the one exception — it stays active on approach, always on the CAT I schedule.

RUDDER AUTHORITY

Pedal authority is progressively reduced with increasing angle of attack, because that is the regime in which rudder input departs the aircraft. Full pedal is available over the normal manoeuvring range and authority washes out to zero before the angle of attack limit is reached. In CAT III the reduction begins much earlier and reaches zero much sooner, which is the largest single difference the pilot will feel between the two categories.

NOTE: This applies to the pilot's pedal command only. The aileron-rudder interconnect, the stability augmentation and the trim authority are not reduced.

MANUAL PITCH OVERRIDE

The MPO switch overrides the angle of attack limiter well above the normal limit, so that the pilot can command nose-down pitch in a deep stall. It is held down; releasing it restores normal limiting. On the F-16D the switch is repeated on the rear left console.

LEADING AND TRAILING EDGE FLAPS

The trailing edge flaps are fully down at low airspeed and retract progressively as speed increases, reaching the faired position well below the maximum. They are scheduled automatically and need no pilot action. The leading edge flaps are scheduled with angle of attack and Mach.

FLIGHT CONTROL FAULTS

The air data and angle of attack inputs to the flight control computer are triplex, and their faults come in pairs: losing one channel is a different fault from losing two, with different consequences and different lights. Both are armable from X-Plane's own Failures menu, mean time between failures included.

FLCS faults latch. They hold until FLCS RESET is pressed, and the malfunction procedures depend on that: a fault whose cause has cleared goes out on reset, and one whose cause is still present re-latches on the spot and the indication stays on. FLCS BIT reports the same fault set, and its result latches until another BIT is run.

STANDBY GAINS: a dual air data failure drops the flight control system onto standby gains, which are fixed rather than scheduled with airspeed, with the leading edge flaps driven to a fixed position. The FLCS warning light and the FLCS FAULT caution both illuminate. The aircraft is still flyable, but the handling is now tailored to one point in the envelope and will feel wrong away from it — hold a moderate airspeed, avoid the low end, and land as soon as practical.

DIGITAL BACKUP: the DBU switch on the left console selects the digital backup mode, and the DBU ON warning light annunciates it. The preflight check — select BACKUP, check that all surfaces respond normally, then OFF — is performable as published.

NOTE: The digital backup control law itself is deliberately not simulated. Selecting BACKUP annunciates the mode and the surfaces go on responding normally; it does not degrade the handling. What DBU changes about the gains and the limiters is not something we can source, and inventing flight behaviour would be worse than leaving it out.

6. WEAPONS

6.1 AIR TO AIR/GROUND WEAPONS

NOTE : From V 1.2 in order to add/remove external fuel tanks (except from CFT's) you must use the XP weapons menu :

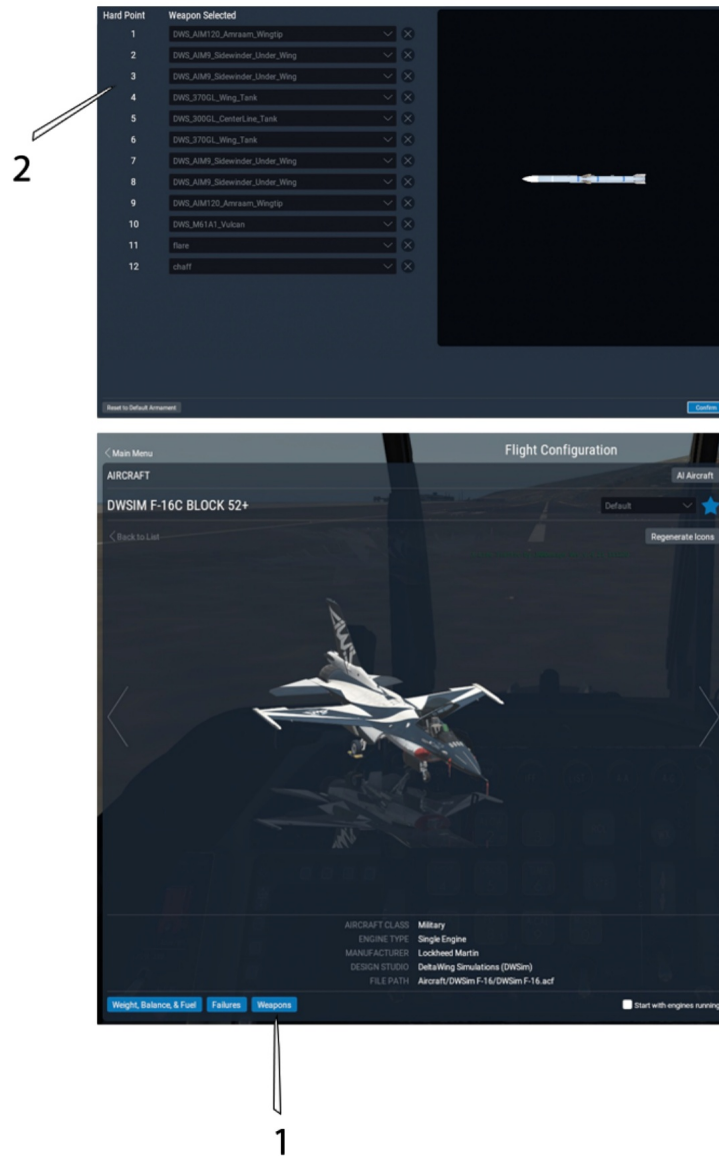


Figure 66 — X-Plane weapons configuration

1	Weapons selection
2	Weapons menu — the fuel tank or load carried on each station

Table 30 — X-Plane weapons configuration callouts

On aircraft load, you can choose weapons (1) and then from weapons menu (2) you can choose each type of fuel tank or load. In menu (2) you can use the positions as followed :

- Station 1 – Air to Air Missiles
- Station 2 – Air to Air Missiles
- Station 3 – Air to Air Missiles / Bombs
- Station 4 – Air to Air Missiles / Wing loads (fuel) / Bombs
- Station 5 – Centerline load (fuel or pod)

Station 6 – Air to Air Missiles / Wing loads (fuel) / Bombs

Station 7 - Air to Air Missiles / Bombs

Station 8 - Air to Air Missiles

Station 9 - Air to Air Missiles

Loading Stations

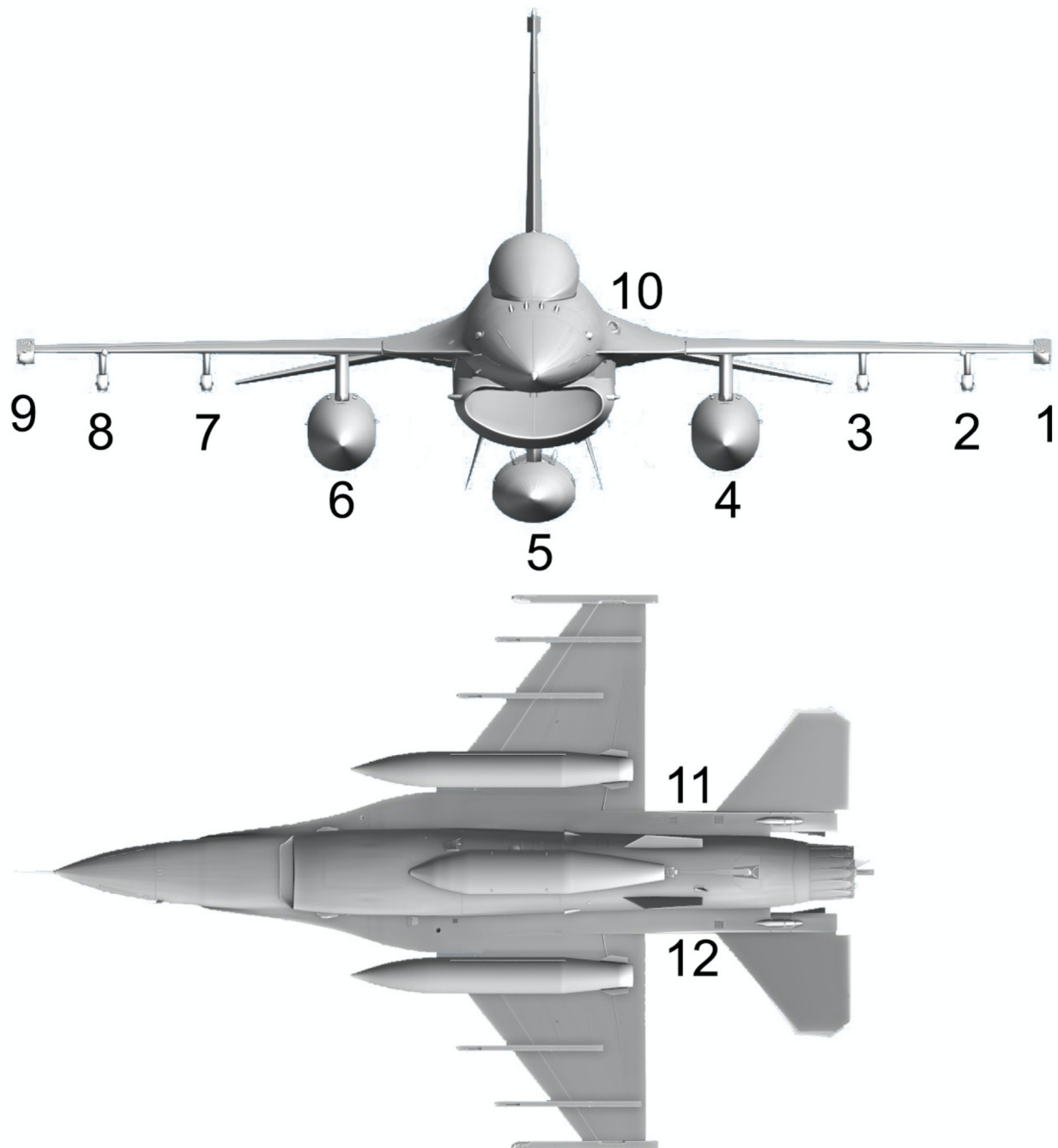


Figure 67 — Station numbering

NOTE : Stations 10, 11 and 12 must NOT be changed. You can always press the “Reset to Default Armament” button to reset the loadout of your jet.

6.2 20mm M61 GATLING GUN

Figure 68 — 20 mm M61 gun and AIM-9M Sidewinder

Mass : 830 lb – 370 kg
Ammunition : 320 lb – 145 kg
Rate of Fire : 6000 rounds per minute

AIM – 9M SIDEWINDER



Mass : 188 lb – 85 kg
Length : 9 ft – 3 m
Warhead : 20 pounds – 9 kg
Max Speed : Mach 2.5
Range : > 0.6 miles < 22 miles

AIM – 120C AMRAAM



Figure 69 — AIM-120C AMRAAM

Mass : 335 lb – 152 kg
Length : 12 ft – 3.7 m
Warhead : 40 pounds – 18 kg
Max Speed : Mach 4
Range : > 0.6 miles < 90 miles

Figure 70 — MK-83 and MK-84 general purpose bombs

MK-83



Mass : 1014 lb – 459 kg
Length : 119.49 inches – 3 m
Warhead : 445 lb – 202 kg

MK-84



Mass : 2039 lb – 925 kg
Length : 129 inches – 3.28 m
Warhead : 945 lb – 429 kg

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7. KNEEPAD/POP UP MENU

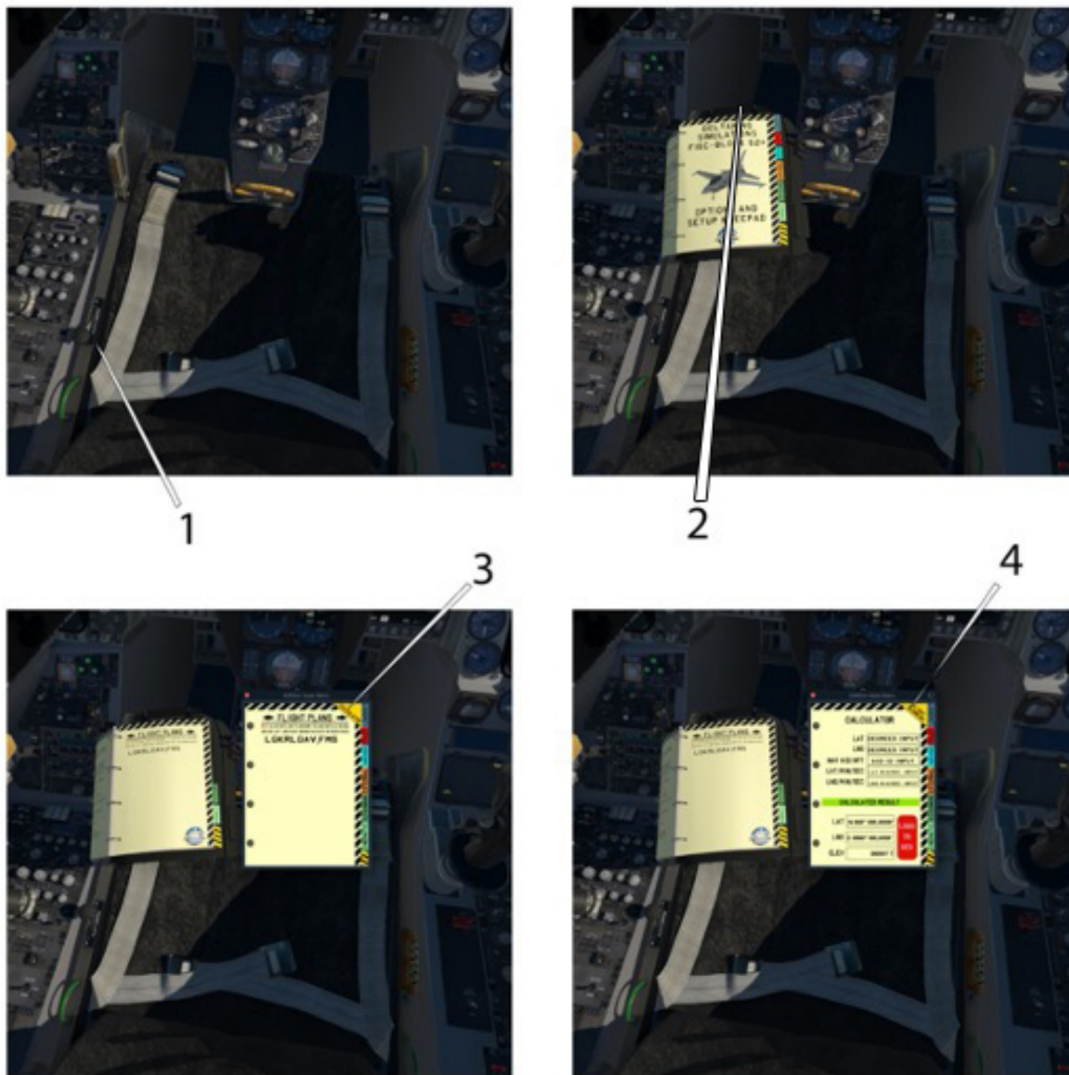


Figure 71 — Kneepad

1	Lever — shows and hides the pilot's kneepad
2	DeltaWing Simulations logo — opens the pop up window
3	Flight plan calculator button — opens the flight plan calculator page in the kneepad pop up
4	Flight plan calculator page

Table 31 — Kneepad callouts

You can use the lever (1) to show/hide Pilot's Kneepad and by pressing on DeltaWing Simulations logo (2), you can activate the popup window for more options.

NOTE : A very important difference between kneepad and popup kneepad is that popup kneepad includes also a CALCULATOR (3,4) that helps you with navigation and steering points.

7.1 LOADOUT

– Loadout and External objects setup.

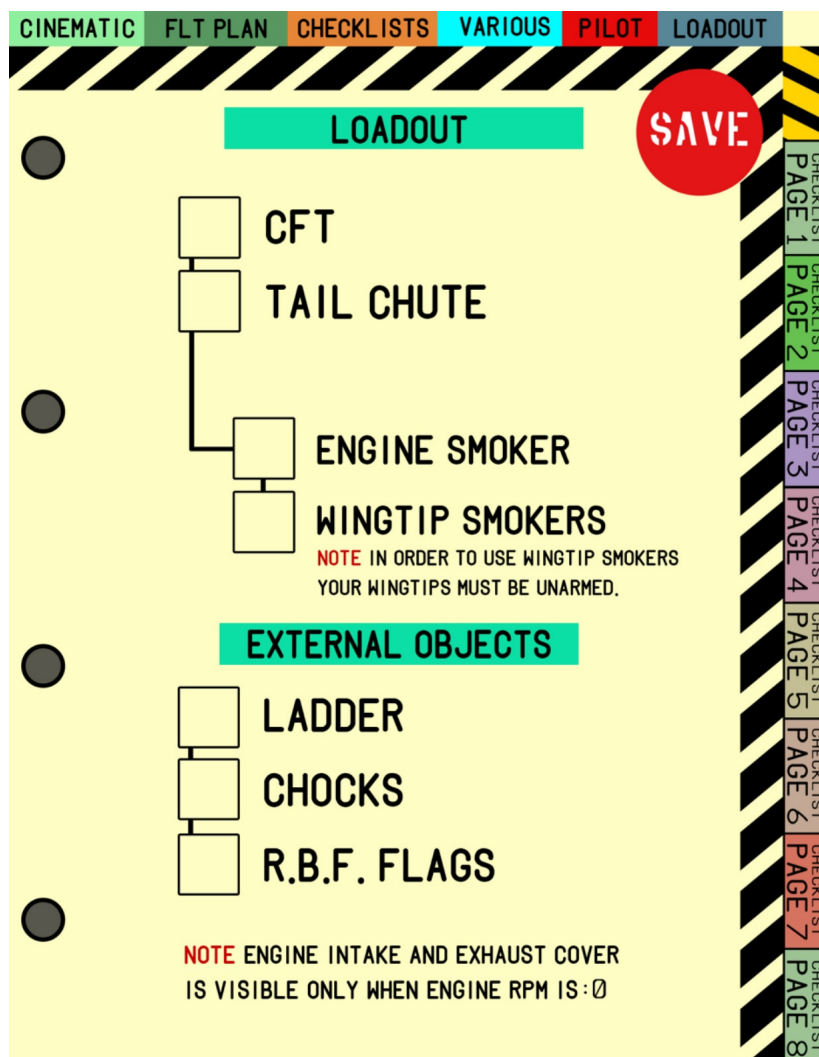


Figure 72 — Kneepad loadout page

CFT : the conformal fuel tanks are chosen by loading the with-CFT variant of the aircraft in X-Plane, not from the kneepad. With CFTs fitted the jet carries more fuel.

TAIL CHUTE : You can choose if your jet will have chute in the tail or not.

ENGINE SMOKER : You can choose if your jet will have engine smoker system or not.

WINGTIP SMOKERS : You can choose if your jet will have wingtip smoker system or not.

NOTE 1 : These options works **ONLY** while the jet is on the ground.

NOTE2 : To use wingtip smokers, you must not have the jet armed with wingtip missiles.

Ladder - Pilot Ladder. The ladder deploys and stows automatically: it appears whenever the jet is on the ground with the canopy open, and stows otherwise. It is not controlled from the kneepad.

Chocks ON/OFF - Main wheel chocks, fitted by the ground crew. They appear only when the jet is on the ground with the engine shut down, the wheels stopped and the **PARKING BRAKE** set. Selecting them at any other time arms the choice, and they appear once those conditions are met.

RBF ON/OFF - “Remove Before Flight” covers and flags. Engine front and back covers appear only when engine rpm is 0.

7.2 VARIOUS

- Sound effect adjust / Pop up options list / Start up Options / select and save as preset.



Figure 73 — Kneepad ground services page

PILOT VOICE - Sound effect on/off and save as preset.

HIGH G BREATH - Sound effect on/off and save as preset.

SIDE STICK – You can show / hide the side stick in order to have better visibility on switches.

POP UP OPTIONS LIST – Brings the pop up menu

COLD AND DARK – Next time that simulation is loaded the cockpit will be cold and dark **READY TO**

TAXI NO AL - Next time that simulation is loaded the cockpit will be on but with no alignment in EGI.

READY TO TAXI WITH AL - Next time that simulation is loaded the cockpit will be on but with EGI fully aligned.

7.3 POP UP OPTIONS LIST

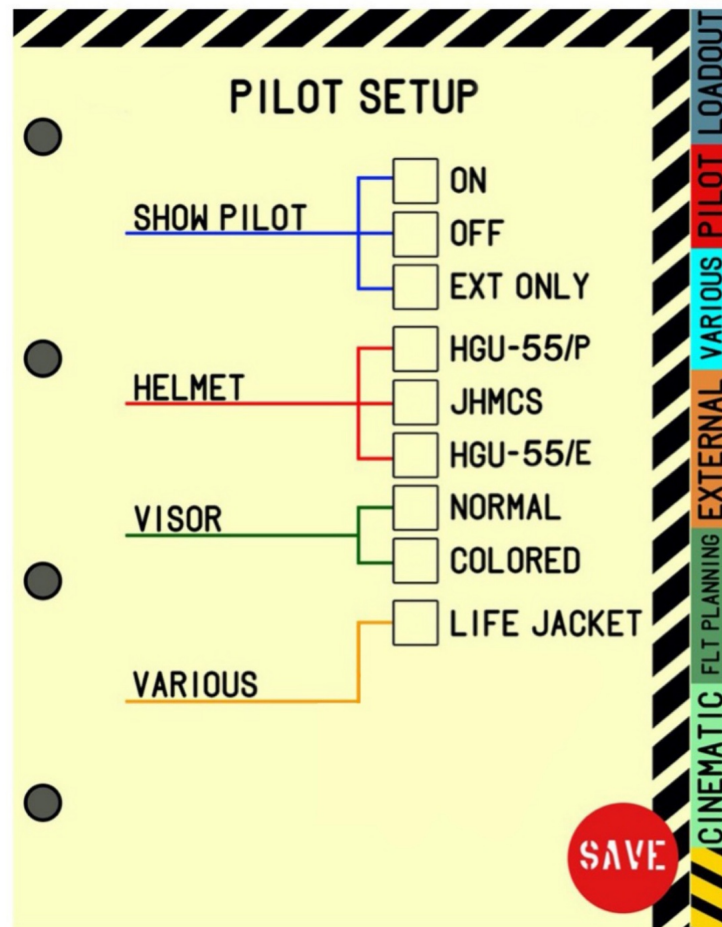
– This menu defines the look of all pop up instruments and can be saved as preset.



Figure 74 — Pop up options list

7.4 PILOT SETUP

- Pilot figure details and setup and save as preset.



The image shows a 'PILOT SETUP' interface on a yellow background with a black and white striped border. The title 'PILOT SETUP' is at the top. Below it, there are four main categories: 'SHOW PILOT', 'HELMET', 'VISOR', and 'VARIOUS'. Each category has a list of options with checkboxes. 'SHOW PILOT' has 'ON', 'OFF', and 'EXT ONLY'. 'HELMET' has 'HGU-55/P', 'JHMCS', and 'HGU-55/E'. 'VISOR' has 'NORMAL' and 'COLORED'. 'VARIOUS' has 'LIFE JACKET'. A red 'SAVE' button is at the bottom right. On the right side, there is a vertical bar with labels: 'LOADOUT', 'PILOT', 'VARIOUS', 'EXTERNAL', 'FLT PLANNING', and 'CINEMATIC'.

Category	Options
SHOW PILOT	☐ ON ☐ OFF ☐ EXT ONLY
HELMET	☐ HGU-55/P ☐ JHMCS ☐ HGU-55/E
VISOR	☐ NORMAL ☐ COLORED
VARIOUS	☐ LIFE JACKET

Figure 75 — Kneepad pilot setup page

Show Pilot : You can choose either the pilot to be constantly ON, OFF or visible in EXternal view ONLY.

Helmet : You can choose between HGU-55/P, JHMCS AND HGU-55E.

Visor : You can choose between Normal (black) or colored visor for the helmet.

Various :

Life Jacket ON/OFF

7.5 CINEMATIC

- Choose the cinematic camera view.

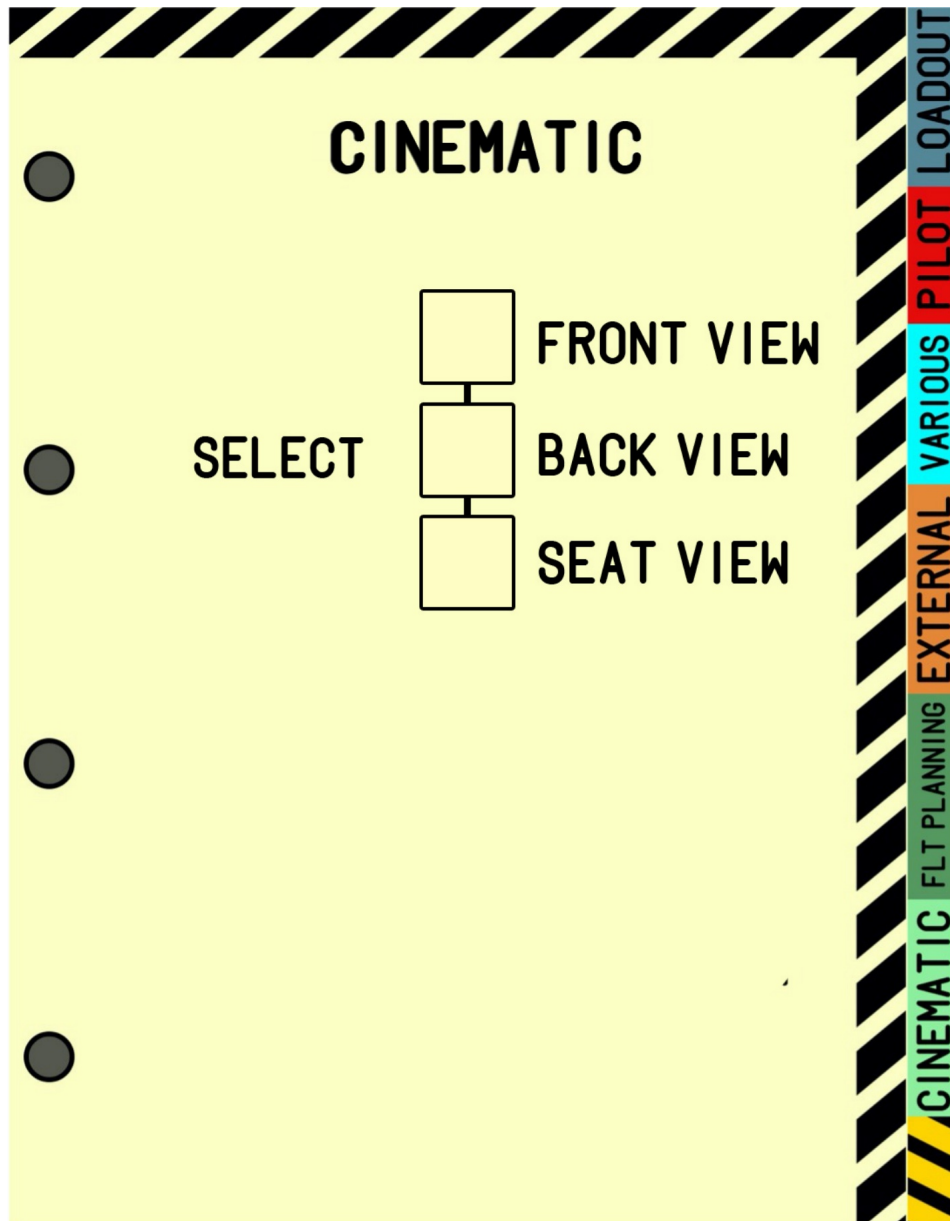


Figure 76 — Kneepad cinematic page

7.6 FLIGHTPLANS

- You can load a complete flight plan in the DED.

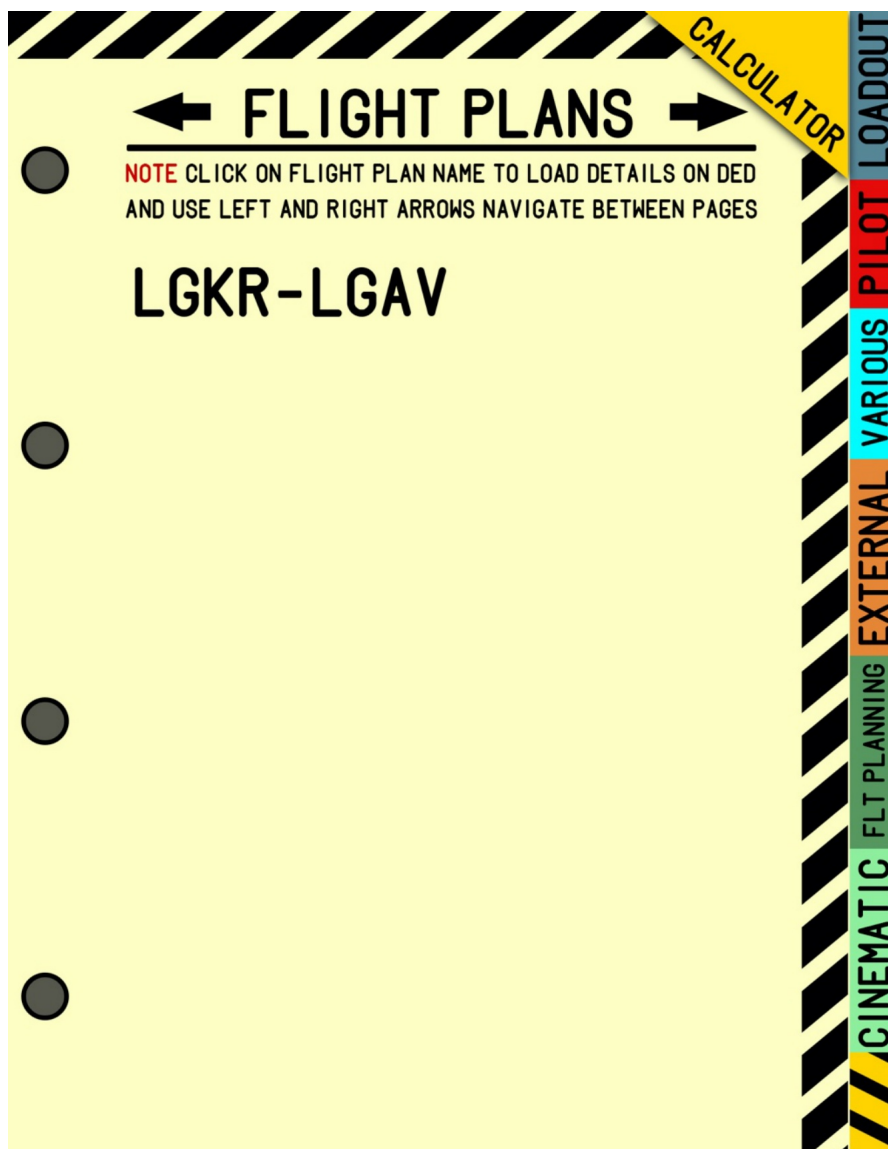


Figure 77 — Kneepad flight plan page

After you create a flight plan or flight plans using software or internet, you can store them in the “flightplans” folder which is located in our F-16 main folder.

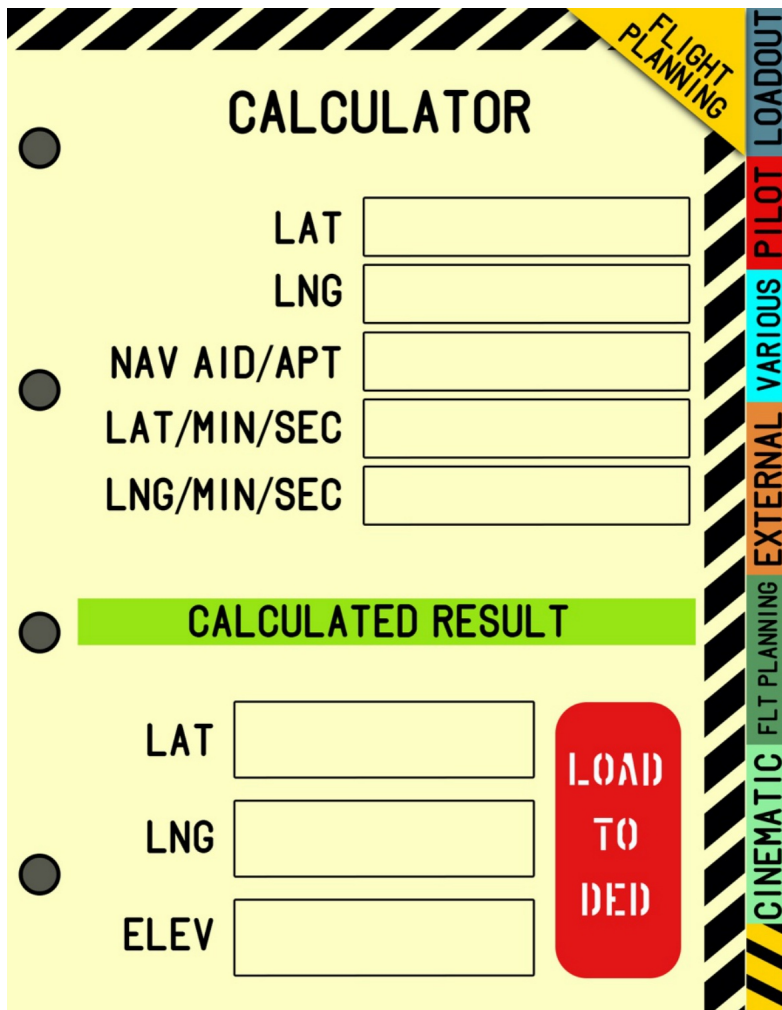
The format must be “.fms” in order to work properly.

You can then, load and activate a flight plan, by clicking on it.

By loading a new flight plan, all previous STPTs are reset automatically.

When you are using the 3d kneepad you can only load the flightplans. If you are using the popup kneepad, you can also use the calculator page.

7.7 CALCULATOR



The calculator interface is displayed on a yellow background with a black and white diagonal striped border. The title "CALCULATOR" is centered at the top. Below the title, there are five input fields for navigation data: "LAT", "LNG", "NAV AID/APT", "LAT/MIN/SEC", and "LNG/MIN/SEC". A green bar labeled "CALCULATED RESULT" is positioned below these fields. Under this bar, there are three more input fields: "LAT", "LNG", and "ELEV". To the right of these fields is a red button labeled "LOAD TO DED". On the right side of the interface, there is a vertical stack of colored buttons: "FLIGHT PLANNING" (yellow), "LOADOUT" (blue), "PILOT" (red), "VARIOUS" (cyan), "EXTERNAL" (orange), "FLT PLANNING" (green), and "CINEMATIC" (light green).

Figure 78 — Kneepad steering point calculator

Our calculator helps you to convert different type of navigation aids into proper coordinates, ready for jet's DED.

Top 5 boxes of calculator are used to let you enter your inputs.

By pressing enter you get your calculated result on the bottom 3 boxes.

From this point you can either manually add the STPT into the DED or you can just press the "LOAD TO DED" button in order to automatically load the STPT details on currently selected STPT of DED.

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8. LIMITATIONS

The figures below are those the simulated aircraft is built to, and apply to both the F-16C and the F-16D except where a figure names one of them. Flight control system limits — the load factor and angle of attack schedules, the flap schedules and the gain sets — are described in FLIGHT CONTROL SYSTEM rather than tabulated here. Load factor and angle of attack limits are CAT I; this aircraft flies in CAT I at all times.

WEIGHTS

Empty weight	18,900 lb
Maximum gross weight	48,000 lb
Internal fuel, without CFTs	7,154 lb
Internal fuel, with CFTs	F-16C 10,220 lb / F-16D 10,000 lb

Table 32 — Weights

SPEED AND MACH

Maximum Mach number	M 2.05
Maximum airspeed	800 KCAS
Stall speed, clean	170 KIAS
Stall speed, landing configuration	130 KIAS
Stall warning angle of attack	10° AOA

Table 33 — Speed and Mach

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9. NORMAL PROCEDURES

9.1 COCKPIT PREPARATION, STARTUP and basic SETUP

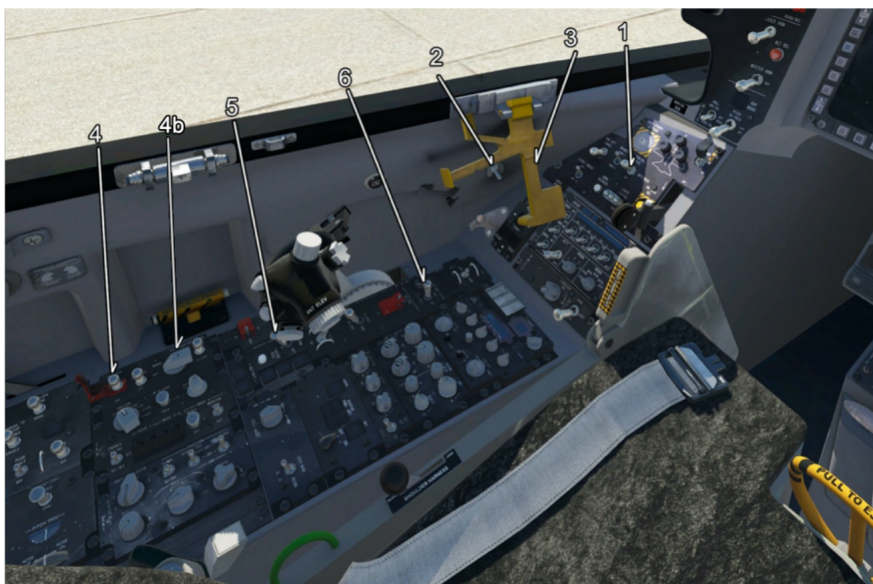


Figure 79 — Cockpit before start

- 1 - Set brake to “PARKING BRAKE” position
- 2 - Push canopy switch to close canopy (if open)
- 3 - Push “SPIDER” to secure canopy switch
- 4 - Set “MASTER FUEL” to ON position and close switch guard
- 4b – Set “ENGINE FEED AIR” to NORM position
- 5 - Set power to “MAIN PWR” position
- 6 - Set engine start to “START 2” position
- 7 - Wait until engine RPM reaches 20% and
- 8 - Wait until “SEC” indication turns off
- 9 - Click on the Throttle trigger



Figure 80 — Brakes, canopy and initial switches

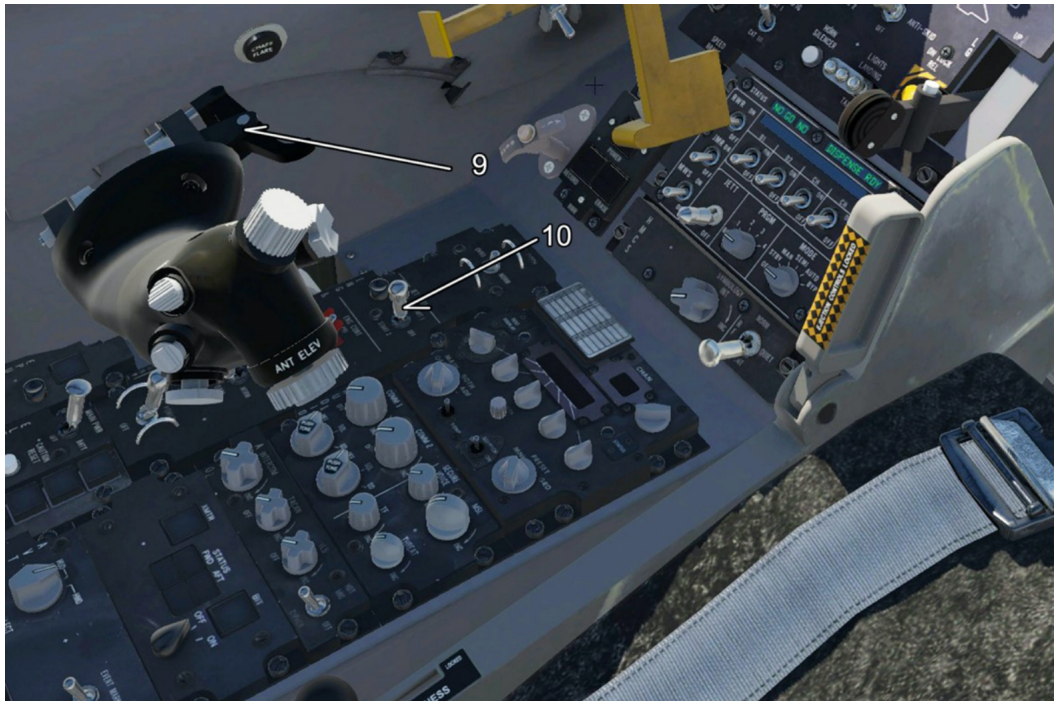


Figure 81 — Electrical power

Startup sequence complete when start switch (10) automatically returns to “OFF” position.



Figure 82 — Engine start sequence

- 11 - Turn MFD screens on
- 12 - Adjust brightness of DED display
- 13 - Adjust brightness for the consoles and the instrument panel
- 14 - Adjust brightness for the flood lights



Figure 83 — Avionics power up

- 15 - Adjust brightness for MFD screens
- 16 - Adjust HUD brightness and symbology
- 17 - ARM ejection seat
- 18 - Rotate the knob to adjust the secondary ADI and press the button to cage it. The cage button is momentary and does not stay caged.



Figure 84 — Display and lighting setup

9.2 EGI ALIGN (navigation system)

Move EGI switch from OFF to NORM position.



Figure 85 — EGI mode selector

Use ICP buttons to enter LAT/LNG.

Wait until EGI indication reaches 4.0 minutes and accuracy indicator reached 6 (for most accurate position fix).

SALT (system altitude), THDG (true heading) and G/S (ground speed) are calculated automatically.

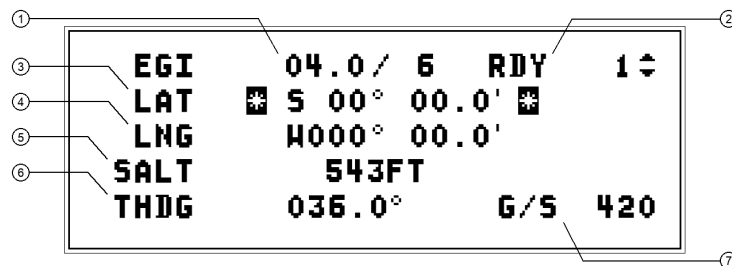


Figure 86 — EGI ALIGNMENT

1	Elapsed alignment time and the accuracy figure, which counts up as the alignment improves
2	RDY — the readiness state
3	LAT — present position latitude, entered by the pilot from the ICP
4	LNG — present position longitude, entered by the pilot from the ICP
5	SALT — system altitude, computed by the aircraft
6	THDG — true heading, computed by the aircraft
7	G/S — ground speed, computed by the aircraft

Table 34 — EGI ALIGNMENT callouts

When EGI alignment is finished, turn the EGI switch into NAV position.

9.3 TAXI

The steps below are the BEFORE TAXI and TAXI checklists carried on the pilot's kneepad.

BEFORE TAXI

1. CANOPY — CLOSE AND LOCK
2. ALTIMETER AND ALTITUDE INDICATIONS — SET AND CHECK
3. EXTERIOR LIGHTS — AS REQUIRED
4. EGI KNOB — NAV
5. CHOCKS (GROUND CREW) — REMOVE (X-Plane ground handling menu)

TAXI

1. BRAKES AND NWS — CHECK
2. HEADING — CHECK
3. FLIGHT INSTRUMENTS — CHECK FOR PROPER OPERATION

NOTES

- Nose wheel steering is engaged from the stick; the NWS legend on the right indexer lights when it is active.
 - The boarding ladder deploys and stows automatically whenever the aircraft is on the ground with the canopy open.
- The wheel chocks are set and removed from X-Plane's ground handling menu.

9.4 TAKE OFF

The BEFORE TAKEOFF checklist below is the one carried on the pilot's kneepad.

BEFORE TAKEOFF

1. ALT FLAPS SWITCH — NORM
2. MANUAL TF FLYUP SWITCH — ENABLE
3. TRIM — CHECK PITCH/YAW CENTERED AND ROLL AS REQUIRED
4. ENGINE CONTROL SWITCHES — PRI / NORM (GUARDS DOWN)
5. SPEEDBRAKE — CLOSED
6. CANOPY — CLOSE AND LOCKED
7. FUEL QTY SEL KNOB — NORM
8. STORES CONFIG SWITCH — AS REQUIRED
9. GND JETT ENABLE SWITCH — AS REQUIRED
10. PROBE HEAT SWITCH — PROBE HEAT
11. EJECTION SAFETY LEVER — ARM (DOWN)
12. FLIGHT CONTROLS — CYCLE
13. OIL PRESSURE — CHECK PSI
14. ALLOW MSL FLOOR DATA — CHECK
15. ALL WARNING AND CAUTION LIGHTS — CHECK

NOTES

— With the landing gear handle down the flight control system is in its takeoff and landing gains, where pitch is a rate command rather than a g command. It returns to the cruise law when the gear is raised.

— The trailing edge flaps are fully down for takeoff and retract on their own as speed builds. No action is required — they are scheduled automatically and there is no flap lever.

— Rotation and climb-out speeds vary with gross weight and stores. Compute them for the loaded configuration before departure.

9.5 LANDING

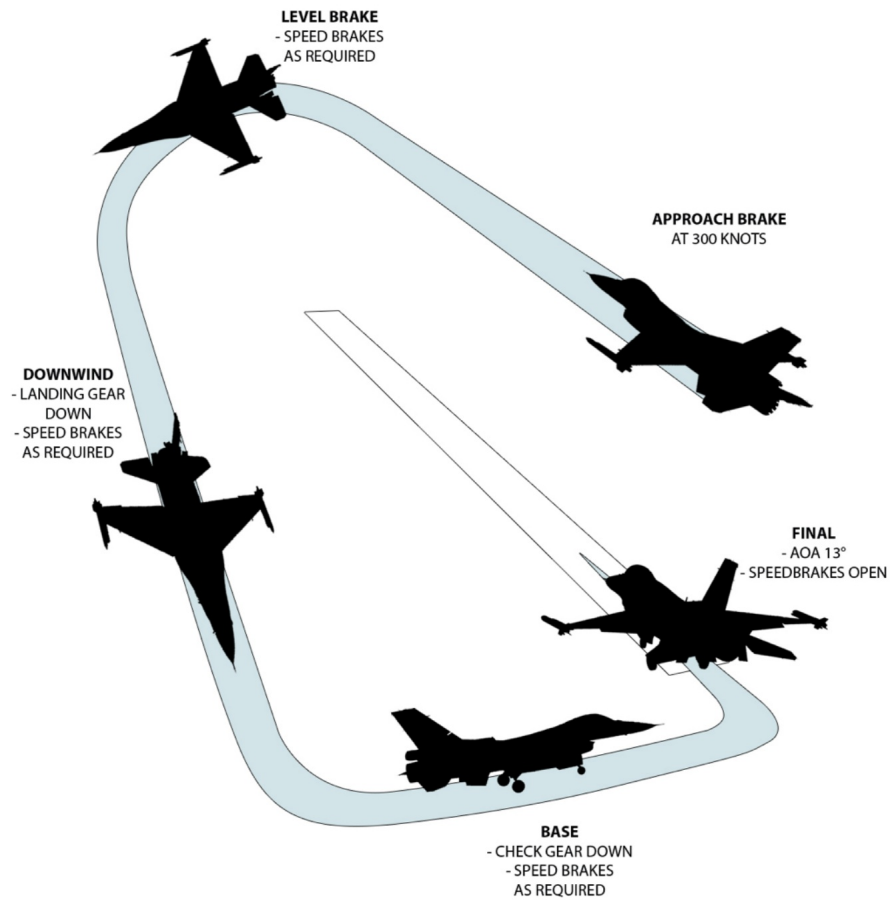


Figure 87 — Landing configuration

Landing begins with a runway approach at approximately 300 knots.

At the end of the runway begin the “LEVEL BRAKE”. At this point speed brakes must be opened to adjust speed.

Next step is the “DOWNWIND” leg where the landing gear is extended.

Next on the “BASE” leg, check the landing gear is down and speed brakes are as required.

On “FINAL”, the ideal approach is 13° AOA

On touchdown, if needed, deploy the chute.

9.6 ENGINE SHUTDOWN

In order to shut down the jet's engine:

- 1.Set brake to "PARKING BRAKE" position.
- 2.Turn off taxi lights
- 3.Turn off MFD monitors
- 4.Set throttle to idle and then press the detent trigger on the throttle
- 5.Set master fuel to OFF
- 6.Turn off external lights
- 7.Turn off internal lights
- 8.Set main power to OFF
- 9.Open the canopy

Select the cockpit ladder from kneepad menu options

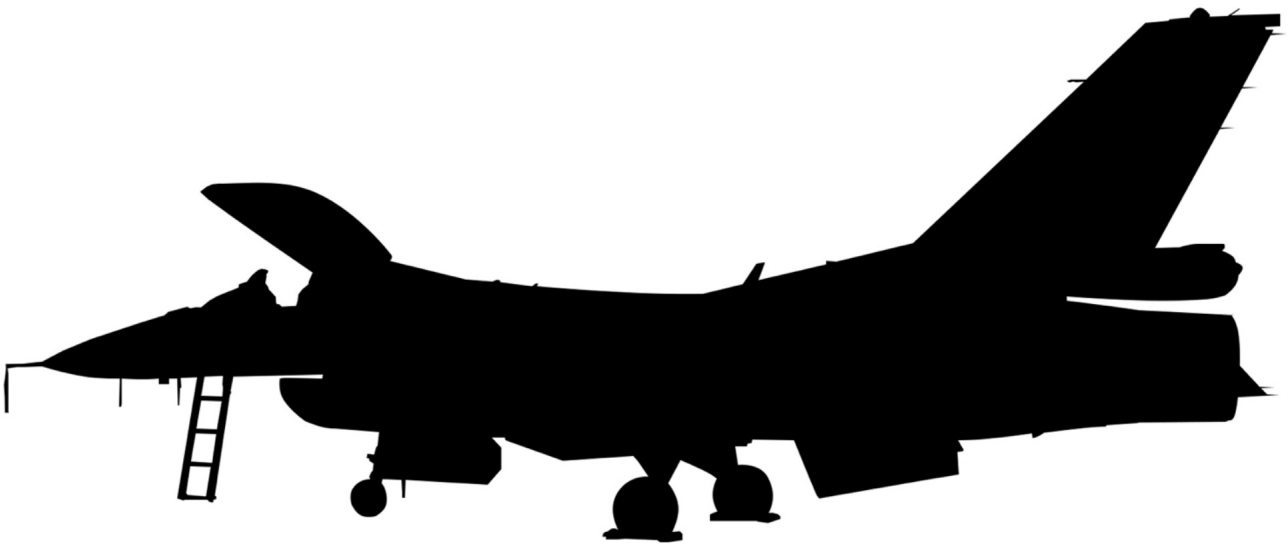


Figure 88 — Engine shutdown controls

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10. EMERGENCY PROCEDURES

This chapter covers the emergency systems modelled on this aircraft and what each control does.

ALTERNATE GEAR EXTENSION

The ALT GEAR lever lowers the landing gear when the normal system is unavailable. On this aircraft it also extends the arrestor hook.

EMERGENCY POWER UNIT (EPU)

The EPU switch is on the left console under a guard. The EPU and EPU AIR indications light when it is running.

EMERGENCY JETTISON

The emergency jettison control releases the aircraft's stores. The GND JETT ENABLE switch on the left auxiliary console arms jettison on the ground.

CANOPY JETTISON

The canopy jettison handle releases the canopy. The canopy may also be opened normally from the canopy switch.

EJECTION

The ejection handle initiates ejection. The ejection safety lever must be ARM (down) for the seat to be live; it is set to ARM on the BEFORE TAKEOFF checklist and to SAFE (up) after landing.

DRAG CHUTE

The drag chute switch is on the left auxiliary console, set to NORM or REL as required after touchdown. A chute must be fitted to the aircraft from the kneepad LOADOUT page for it to deploy.

NOTES

— The emergency controls above are those this aircraft models. Engine, hydraulic and electrical failure procedures are not covered.

11. GENERAL NOTES

Figure 89 — Cockpit controls referred to in the general notes

By pressing default X-Plane's "X" smoke shortcut and if you have smokers loaded on the wingtips, you can begin your airshow with smoke effect.

You can switch altimeter setting between mbar and hPa by pressing at point 1 (as shown below) and then by rotating knob 2 you can adjust the value.

When the jet is loaded with wing fuel tanks, switch (6) into CAT III. This limits load factor, maximum angle of attack and roll rate, each scheduled on gross weight — see FLIGHT CONTROL SYSTEM.

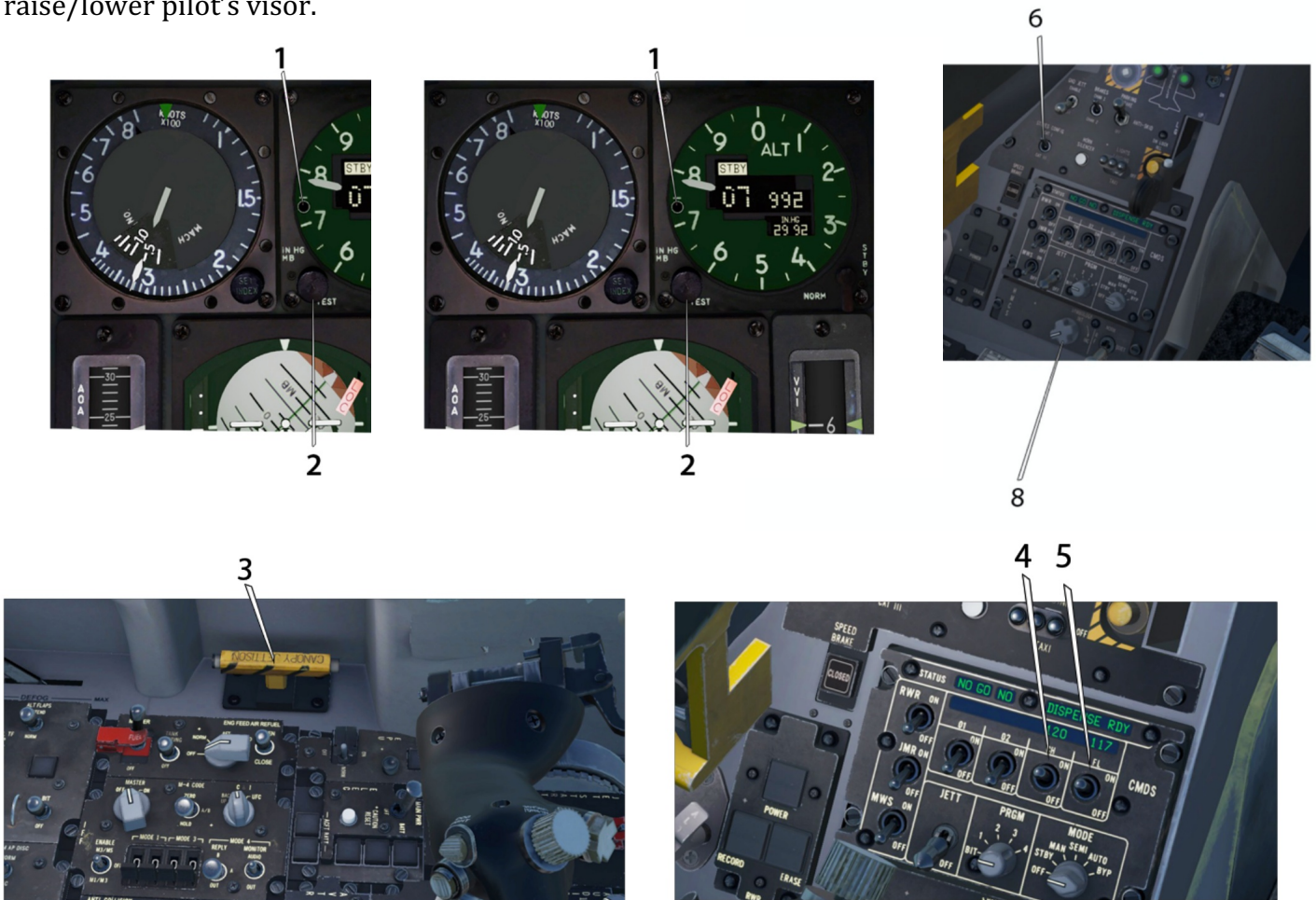
An alternate gear (7) lever can be used to lower the landing gear and arrestor hook.

If you have JHMCS selected for the pilot, you can use this rotary (8) switch to turn on brightness of JHMCS HUD.

You can use lever (3) in order to manually eject canopy.

With switches 4 and 5 you can arm CHAFFS (4) and FLARES (5) countermeasures, and you can see how many are left of each one on the above panels.

You can use shortcut "FN"+"SHIFT"+"F11" for MAC or "SHIFT"+"F11" for WINDOWS to raise/lower pilot's visor.



In order for your jet to work properly and all functions to be available, you should take a moment to setup the extra commands we have added.

To do this, you must go in the X-Plane’s settings and then keyboard or joystick and search for “viper” commands. Then you can assign each one to the keyboard key or joystick key of your choice :

1	Altimeter setting — press to switch between mbar and hPa
2	Altimeter adjustment knob
3	Manual canopy eject lever
4	CHAFF arming switch
5	FLARE arming switch
6	CAT I / CAT III switch
7	Alternate gear lever — lowers the gear and the arrestor hook
8	JHMCS brightness rotary

Table 35 — Cockpit controls referred to in the general notes callouts

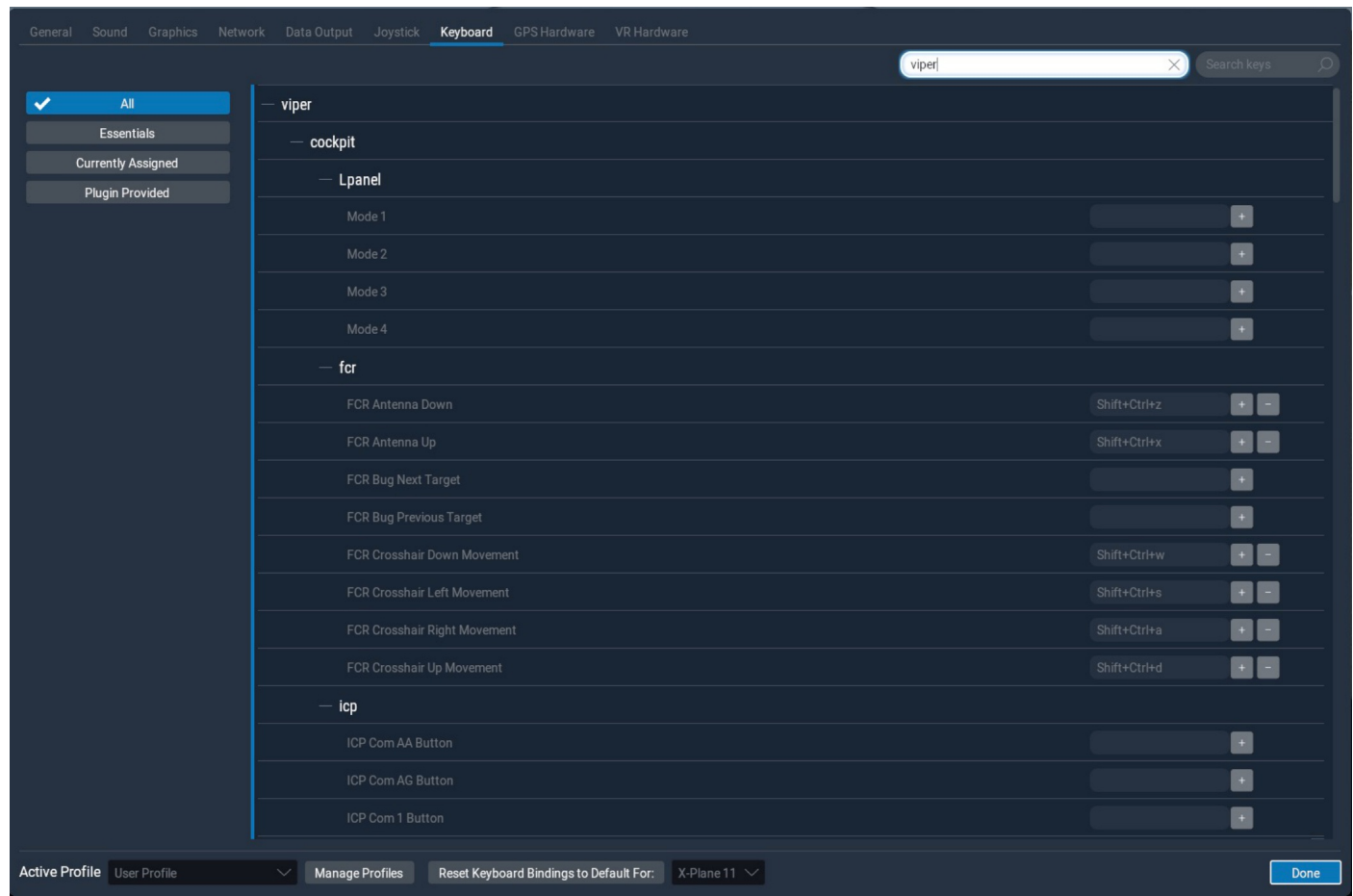


Figure 90 — Assigning aircraft commands in X-Plane settings

VERY IMPORTANT NOTE :
- DO NOT USE EXPERIMENTAL MODEL

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12. CUSTOM COMMANDS

Every command below can be bound to a keyboard key or a joystick button. In X-Plane, open Settings, then Keyboard or Joystick, and search for **viper** to list them all, or paste a full command path from this appendix to find one directly.

APPLIES TO: the commands in the first part work on both the F-16C and the F-16D. The second part lists the commands the F-16D adds for its rear cockpit; they are not present on the single seat aircraft.

F-16C AND F-16D (546)

HOTAS - stick and throttle (36)

DWSim/viper/HOTAS/sidestick/display_management_switch/dms_aft	HOTAS Side Stick DMS Aft
DWSim/viper/HOTAS/sidestick/display_management_switch/dms_fwd	HOTAS Side Stick DMS Fwd
DWSim/viper/HOTAS/sidestick/display_management_switch/dms_left	HOTAS Side Stick DMS Left
DWSim/viper/HOTAS/sidestick/display_management_switch/dms_right	HOTAS Side Stick DMS Right
DWSim/viper/HOTAS/sidestick/tms_aft	HOTAS Side Stick TMS Switch Aft
DWSim/viper/HOTAS/sidestick/tms_forward	HOTAS Side Stick TMS Switch Forward
DWSim/viper/HOTAS/sidestick/tms_left	HOTAS Side Stick TMS Switch Left
DWSim/viper/HOTAS/sidestick/tms_right	HOTAS Side Stick TMS Switch Right
DWSim/viper/HOTAS/sidestick/trigger/first_detent	HOTAS Side Stick Trigger First Detent
DWSim/viper/HOTAS/sidestick/trigger/second_detent	HOTAS Side Stick Trigger Second Detent
DWSim/viper/HOTAS/sidestick/trim/trim_left_wing_down	HOTAS Side Stick Trim Button Left Wing Down
DWSim/viper/HOTAS/sidestick/trim/trim_nose_down	HOTAS Side Stick Trim Button Nose Down
DWSim/viper/HOTAS/sidestick/trim/trim_nose_up	HOTAS Side Stick Trim Button Nose Up
DWSim/viper/HOTAS/sidestick/trim/trim_right_wing_down	HOTAS Side Stick Trim Button Right Wing Down
DWSim/viper/HOTAS/sidestick/weapons_release/wep_rel_button	HOTAS Side Stick Weapon Release Button
DWSim/viper/HOTAS/throttle/comms/comms_switch_down	HOTAS Throttle Comms Switch VHF 2 Transmit, Down Position
DWSim/viper/HOTAS/throttle/comms/comms_switch_left	HOTAS Throttle Comms Switch Ident Transmit, Left Position
DWSim/viper/HOTAS/throttle/comms/comms_switch_right	HOTAS Throttle Comms Switch Ident Transmit, Right Position
DWSim/viper/HOTAS/throttle/comms/comms_switch_up	HOTAS Throttle Comms Switch VHF 1 Transmit, Up Position
DWSim/viper/HOTAS/throttle/detent/fuel_start	The throttle position after the Throttle Detent, Fuel engaged
DWSim/viper/HOTAS/throttle/detent/fuel_stop	The throttle position before the Throttle Detent, Fuel cut-off
DWSim/viper/HOTAS/throttle/dogfight/ATA_posision	HOTAS Throttle Dogfight Air To Air Position
DWSim/viper/HOTAS/throttle/dogfight/off_posision	HOTAS Throttle Dogfight Off Position
DWSim/viper/HOTAS/throttle/dogfight/on_posision	HOTAS Throttle Dogfight On Position
DWSim/viper/HOTAS/throttle/radar/radar_cursor_down	HOTAS Throttle Radar Down Movement
DWSim/viper/HOTAS/throttle/radar/radar_cursor_left	HOTAS Throttle Radar Left Movement
DWSim/viper/HOTAS/throttle/radar/radar_cursor_right	HOTAS Throttle Radar Right Movement
DWSim/viper/HOTAS/throttle/radar/radar_cursor_up	HOTAS Throttle Radar Cursor Up Movement
DWSim/viper/HOTAS/throttle/radar/radar_range_down	HOTAS Throttle Radar Range Down
DWSim/viper/HOTAS/throttle/radar/radar_range_up	HOTAS Throttle Radar Range Up
DWSim/viper/HOTAS/throttle/speedbrake/speedbrake_full	HOTAS Throttle Speedbrake switch, Hold to increase speedbrakes Position
DWSim/viper/HOTAS/throttle/speedbrake/speedbrake_off	HOTAS Throttle Speedbrake switch Off Position
DWSim/viper/HOTAS/throttle/speedbrake/speedbrake_open	HOTAS Throttle Speedbrake switch, Hold current speedbrake Position
DWSim/viper/master_arm/off	Master Arm Off Position
DWSim/viper/master_arm/on	Master Arm On Position
DWSim/viper/master_arm/sim	Master Arm Sim Position

Table 36 — HOTAS - stick and throttle

ICP and DED (39)

viper/cockpit/icp/circle_buttons_aa	ICP Com AA Button
viper/cockpit/icp/circle_buttons_ag	ICP Com AG Button
viper/cockpit/icp/circle_buttons_com_1	ICP Com 1 Button
viper/cockpit/icp/circle_buttons_com_2	ICP Com 2 Button
viper/cockpit/icp/circle_buttons_iff	ICP Com IFF Button
viper/cockpit/icp/circle_buttons_list	ICP Com LIST Button
viper/cockpit/icp/circle_buttons_wx	ICP CB WX Button
viper/cockpit/icp/rotate_1_down	ICP Top Left Wheel Down
viper/cockpit/icp/rotate_1_up	ICP Top Left Wheel Up
viper/cockpit/icp/rotate_2_down	ICP Bottom Left Wheel Down
viper/cockpit/icp/rotate_2_up	ICP Bottom Left Wheel Up
viper/cockpit/icp/rotate_3_down	ICP Top Right Wheel Down
viper/cockpit/icp/rotate_3_up	ICP Top Right Wheel Up

viper/cockpit/icp/rotate_4_down	ICP Bottom Right Wheel Down
viper/cockpit/icp/rotate_4_up	ICP Bottom Right Wheel Up
viper/cockpit/icp/square_buttons_0	ICP SB 0 Button
viper/cockpit/icp/square_buttons_1	ICP SB 1 Button
viper/cockpit/icp/square_buttons_2	ICP SB 2 Button
viper/cockpit/icp/square_buttons_3	ICP SB 3 Button
viper/cockpit/icp/square_buttons_4	ICP SB 4 Button
viper/cockpit/icp/square_buttons_5	ICP SB 5 Button
viper/cockpit/icp/square_buttons_6	ICP SB 6 Button
viper/cockpit/icp/square_buttons_7	ICP SB 7 Button
viper/cockpit/icp/square_buttons_8	ICP SB 8 Button
viper/cockpit/icp/square_buttons_9	ICP SB 9 Button
viper/cockpit/icp/square_buttons_entr	ICP SB ENTR Button
viper/cockpit/icp/square_buttons_rcl	ICP SB RCL Button
viper/cockpit/icp/square_buttons_updown_1_down	ICP DED Decrement Button
viper/cockpit/icp/square_buttons_updown_1_up	ICP DED Increment Button
viper/cockpit/icp/square_buttons_updown_2_down	ICP HUD FLIR Down Button
viper/cockpit/icp/square_buttons_updown_2_up	ICP HUD FLIR Up Button
viper/cockpit/icp/switch_1_down	ICP Data Control Switch Down
viper/cockpit/icp/switch_1_left	ICP Data Control Switch Left
viper/cockpit/icp/switch_1_right	ICP Data Control Switch Right
viper/cockpit/icp/switch_1_up	ICP Data Control Switch Up
viper/cockpit/icp/switch_2_down	ICP Warning Reset Switch
viper/cockpit/icp/switch_2_up	ICP Drift Cutout Switch
viper/cockpit/icp/switch_3_down	ICP GAIN SWITCH DOWN
viper/cockpit/icp/switch_3_up	ICP GAIN SWITCH UP

Table 37 — ICP and DED

MFD (58)

viper/cockpit/lmfd_popup	Front Left MFD Pop Up
viper/cockpit/mfdL/button01	Left MFD OSB 01
viper/cockpit/mfdL/button02	Left MFD OSB 02
viper/cockpit/mfdL/button03	Left MFD OSB 03
viper/cockpit/mfdL/button04	Left MFD OSB 04
viper/cockpit/mfdL/button05	Left MFD OSB 05
viper/cockpit/mfdL/button08	Left MFD OSB 20
viper/cockpit/mfdL/button09	Left MFD OSB 06
viper/cockpit/mfdL/button10	Left MFD OSB 19
viper/cockpit/mfdL/button11	Left MFD OSB 07
viper/cockpit/mfdL/button12	Left MFD OSB 18
viper/cockpit/mfdL/button13	Left MFD OSB 08
viper/cockpit/mfdL/button14	Left MFD OSB 17
viper/cockpit/mfdL/button15	Left MFD OSB 09
viper/cockpit/mfdL/button16	Left MFD OSB 16
viper/cockpit/mfdL/button17	Left MFD OSB 10
viper/cockpit/mfdL/button18bottom	Left MFD CON DOWN Button
viper/cockpit/mfdL/button18top	Left MFD CON UP Button
viper/cockpit/mfdL/button19bottom	Left MFD BRT DOWN Button
viper/cockpit/mfdL/button19top	Left MFD BRT UP Button
viper/cockpit/mfdL/button20	Left MFD OSB 15
viper/cockpit/mfdL/button21	Left MFD OSB 14
viper/cockpit/mfdL/button22	Left MFD OSB 13
viper/cockpit/mfdL/button23	Left MFD OSB 12
viper/cockpit/mfdL/button24	Left MFD OSB 11
viper/cockpit/mfdL/button6bottom	Left MFD SYM DOWN Button
viper/cockpit/mfdL/button6top	Left MFD SYM UP Button
viper/cockpit/mfdL/button7bottom	Left MFD GAIN DOWN Button
viper/cockpit/mfdL/button7top	Left MFD GAIN UP Button
viper/cockpit/mfdR/button01	RIGHT MFD OSB 01
viper/cockpit/mfdR/button02	RIGHT MFD OSB 02
viper/cockpit/mfdR/button03	RIGHT MFD OSB 03
viper/cockpit/mfdR/button04	RIGHT MFD OSB 04
viper/cockpit/mfdR/button05	RIGHT MFD OSB 05
viper/cockpit/mfdR/button08	RIGHT MFD OSB 20
viper/cockpit/mfdR/button09	RIGHT MFD OSB 06
viper/cockpit/mfdR/button10	RIGHT MFD OSB 19
viper/cockpit/mfdR/button11	RIGHT MFD OSB 07
viper/cockpit/mfdR/button12	RIGHT MFD OSB 18
viper/cockpit/mfdR/button13	RIGHT MFD OSB 08

viper/cockpit/mfdR/button14	RIGHT MFD OSB 17
viper/cockpit/mfdR/button15	RIGHT MFD OSB 09
viper/cockpit/mfdR/button16	RIGHT MFD OSB 16
viper/cockpit/mfdR/button17	RIGHT MFD OSB 10
viper/cockpit/mfdR/button18bottom	RIGHT MFD CON DOWN Button
viper/cockpit/mfdR/button18top	RIGHT MFD CON UP Button
viper/cockpit/mfdR/button19bottom	RIGHT MFD BRT DOWN Button
viper/cockpit/mfdR/button19top	RIGHT MFD BRT UP Button
viper/cockpit/mfdR/button20	RIGHT MFD OSB 15
viper/cockpit/mfdR/button21	RIGHT MFD OSB 14
viper/cockpit/mfdR/button22	RIGHT MFD OSB 13
viper/cockpit/mfdR/button23	RIGHT MFD OSB 12
viper/cockpit/mfdR/button24	RIGHT MFD OSB 11
viper/cockpit/mfdR/button6bottom	RIGHT MFD SYM DOWN Button
viper/cockpit/mfdR/button6top	RIGHT MFD SYM UP Button
viper/cockpit/mfdR/button7bottom	RIGHT MFD GAIN DOWN Button
viper/cockpit/mfdR/button7top	RIGHT MFD GAIN UP Button
viper/cockpit/rmfd_popup	Front Right MFD Pop Up

Table 38 — MFD

FCR and radar (6)

viper/cockpit/fcr/fcr_antenna_down	FCR Antenna Down
viper/cockpit/fcr/fcr_antenna_up	FCR Antenna Up
viper/cockpit/fcr/fcr_ch_target_bug	FCR Bug Target
viper/cockpit/fcr/fcr_ch_target_bug_next	FCR Bug Next Target
viper/cockpit/fcr/fcr_ch_target_bug_previous	FCR Bug Previous Target
viper/radar/radar_cursor_terrain_lock	HUD Mark cursor Locked on Terrain or HUD

Table 39 — FCR and radar

Left console (137)

viper/cockpit/Lpanel/aileron_trim_center	Aileron Trim Center
viper/cockpit/Lpanel/pitch_trim_center	Pitch Trim Center
viper/cockpit/Lpanel/yaw_trim_center	Yaw Trim Center
viper/cockpit/Lpanel/ab_reset_down	AB Reset Down
viper/cockpit/Lpanel/ab_reset_up	AB Reset Up
viper/cockpit/Lpanel/air_refuel_door	Air Refuel Door
viper/cockpit/Lpanel/air_refueling_lights_brightness_down	Air Refueling Lights Brightness Down
viper/cockpit/Lpanel/air_refueling_lights_brightness_up	Air Refueling Lights Brightness Up
viper/cockpit/Lpanel/alt_flaps_down	Alt Flaps Down
viper/cockpit/Lpanel/alt_flaps_up	Alt Flaps Up
viper/cockpit/Lpanel/anti_collision_light_selector_down	Anti Collision Light Selector Down
viper/cockpit/Lpanel/anti_collision_light_selector_up	Anti Collision Light Selector Up
viper/cockpit/Lpanel/anti_g_test	Anti G Test
viper/cockpit/Lpanel/audio1_secure_voice_down	Audio Secure Voice Down
viper/cockpit/Lpanel/audio1_secure_voice_msl_down	Audio Secure Voice MSL Down
viper/cockpit/Lpanel/audio1_secure_voice_msl_up	Audio Secure Voice MSL Up
viper/cockpit/Lpanel/audio1_secure_voice_tf_down	Audio Secure Voice TF Down
viper/cockpit/Lpanel/audio1_secure_voice_tf_up	Audio Secure Voice TF Up
viper/cockpit/Lpanel/audio1_secure_voice_threat_down	Audio Secure Voice Threat Down
viper/cockpit/Lpanel/audio1_secure_voice_threat_up	Audio Secure Voice Threat Up
viper/cockpit/Lpanel/audio1_secure_voice_up	Audio Secure Voice Up
viper/cockpit/Lpanel/audio2_ils_down	Audio ILS Down
viper/cockpit/Lpanel/audio2_ils_up	Audio ILS Up
viper/cockpit/Lpanel/audio2_intercom_down	Audio Intercom Down
viper/cockpit/Lpanel/audio2_intercom_up	Audio Intercom Up
viper/cockpit/Lpanel/audio2_tacan_down	Audio TACAN Down
viper/cockpit/Lpanel/audio2_tacan_up	Audio TACAN Up
viper/cockpit/Lpanel/bit_down	BIT Down
viper/cockpit/Lpanel/bit_up	BIT Up
viper/cockpit/Lpanel/com1_volume_down	Com 1 Volume Down
viper/cockpit/Lpanel/com1_volume_tone_down	Com 1 Volume Tone Done
viper/cockpit/Lpanel/com1_volume_tone_up	Com 1 Volume Tone Up
viper/cockpit/Lpanel/com1_volume_up	Com 1 Volume Up
viper/cockpit/Lpanel/com2_volume_down	Com 2 Volume Down
viper/cockpit/Lpanel/com2_volume_tone_down	Com 2 Volume Tone Done
viper/cockpit/Lpanel/com2_volume_tone_up	Com 2 Volume Tone Up
viper/cockpit/Lpanel/com2_volume_up	Com 2 Volume Up
viper/cockpit/Lpanel/ded_selector_down	DED Selector Down

viper/cockpit/Lpanel/ded_selector_up	DED Selector Up
viper/cockpit/Lpanel/digital_backup_down	Digital Backup Down
viper/cockpit/Lpanel/digital_backup_up	Digital Backup Up
viper/cockpit/Lpanel/enable_m3_ms_down	Enable M3 MS Down
viper/cockpit/Lpanel/enable_m3_ms_up	Enable M3 MS Up
viper/cockpit/Lpanel/eng_cont	Eng Cont Switch
viper/cockpit/Lpanel/eng_cont_protect	Eng Cont Guard
viper/cockpit/Lpanel/engine_feed_down	Engine Feed Down
viper/cockpit/Lpanel/engine_feed_up	Engine Feed Up
viper/cockpit/Lpanel/epu_gen_down	EPU Gen Down
viper/cockpit/Lpanel/epu_gen_up	EPU Gen Up
viper/cockpit/Lpanel/epu_protect1	EPU Guard Left
viper/cockpit/Lpanel/epu_protect2	EPU Guard Right
viper/cockpit/Lpanel/epu_switch_down	EPU Switch Down
viper/cockpit/Lpanel/epu_switch_up	EPU Switch Up
viper/cockpit/Lpanel/fbw_override	MPO - Manual Pitch Override (FLCS limiter override)
viper/cockpit/Lpanel/fire_detect	Fire Detect
viper/cockpit/Lpanel/flaps_lock_down	Flaps Lock Down
viper/cockpit/Lpanel/flaps_lock_up	Flaps Lock Up
viper/cockpit/Lpanel/flcs_reset_down	FLCS Reset Down
viper/cockpit/Lpanel/flcs_reset_up	FLCS Reset Up
viper/cockpit/Lpanel/formation_lights_brightness_down	Formation Lights Brightness Down
viper/cockpit/Lpanel/formation_lights_brightness_up	Formation Lights Brightness Up
viper/cockpit/Lpanel/formation_lights_mode_down	Formation Lights Mode Down
viper/cockpit/Lpanel/formation_lights_mode_up	Formation Lights Mode Up
viper/cockpit/Lpanel/hot_mic_down	Hot Mic Down
viper/cockpit/Lpanel/hot_mic_up	Hot Mic Up
viper/cockpit/Lpanel/ind_lts	IND LTS
viper/cockpit/Lpanel/jet_start_down	Jet Start Down
viper/cockpit/Lpanel/jet_start_up	Jet Start Up
viper/cockpit/Lpanel/m4_code_down	MODE 4 Code Down
viper/cockpit/Lpanel/m4_code_up	MODE 4 Code Up
viper/cockpit/Lpanel/main_battery_down	Main Battery Switch Down
viper/cockpit/Lpanel/main_battery_reset	Main Battery Reset
viper/cockpit/Lpanel/main_battery_up	Main Battery Switch Up
viper/cockpit/Lpanel/maint_down	Maint Down
viper/cockpit/Lpanel/maint_up	Maint Up
viper/cockpit/Lpanel/man_f_dis_down	MAN F Dis Down
viper/cockpit/Lpanel/man_f_dis_up	MAN F Dis Up
viper/cockpit/Lpanel/master_fuel	Master Fuel
viper/cockpit/Lpanel/master_fuel_protect	Master Fuel Guard
viper/cockpit/Lpanel/master_iff_down	Master IFF Down
viper/cockpit/Lpanel/master_iff_up	Master IFF Up
viper/cockpit/Lpanel/max_power_down	Max Power Switch Down
viper/cockpit/Lpanel/max_power_up	Max Power Switch Up
viper/cockpit/Lpanel/mode1_click	Mode 1
viper/cockpit/Lpanel/mode2_click	Mode 2
viper/cockpit/Lpanel/mode3_click	Mode 3
viper/cockpit/Lpanel/mode4_click	Mode 4
viper/cockpit/Lpanel/mode4_monitor	MODE 4 Monitor
viper/cockpit/Lpanel/mode4_reply_down	MODE 4 Reply Down
viper/cockpit/Lpanel/mode4_reply_up	MODE 4 Reply Up
viper/cockpit/Lpanel/obogs_down	Obogs Down
viper/cockpit/Lpanel/obogs_up	Obogs Up
viper/cockpit/Lpanel/position_lights_flash_down	Position Lights Flash Down
viper/cockpit/Lpanel/position_lights_flash_up	Position Lights Flash Up
viper/cockpit/Lpanel/position_lights_wing_fuselage_down	Position Lights Wing Fuselage Down
viper/cockpit/Lpanel/position_lights_wing_fuselage_up	Position Lights Wing Fuselage Up
viper/cockpit/Lpanel/position_lights_wing_tail_down	Position Lights Wing Tail Down
viper/cockpit/Lpanel/position_lights_wing_tail_up	Position Lights Wing Tail Up
viper/cockpit/Lpanel/pro_heat_down	Probe Heat Down
viper/cockpit/Lpanel/pro_heat_up	Probe Heat Up
viper/cockpit/Lpanel/radio2_rot_down	Radio Knob 2 Down
viper/cockpit/Lpanel/radio2_rot_up	Radio Knob 2 Up
viper/cockpit/Lpanel/radio3_rot_down	Radio Knob 3 Down
viper/cockpit/Lpanel/radio3_rot_up	Radio Knob 3 Up
viper/cockpit/Lpanel/radio4_rot_down	Radio Knob 4 Down
viper/cockpit/Lpanel/radio4_rot_up	Radio Knob 4 Up
viper/cockpit/Lpanel/radio5_rot_down	Radio Knob 5 Down
viper/cockpit/Lpanel/radio5_rot_up	Radio Knob 5 Up
viper/cockpit/Lpanel/radio_chan_down	Radio Channel Switch Down

viper/cockpit/Lpanel/radio_chan_up	Radio Channel Switch Up
viper/cockpit/Lpanel/radio_rot1_down	Radio Knob 1 Down
viper/cockpit/Lpanel/radio_rot1_up	Radio Knob 1 Up
viper/cockpit/Lpanel/radio_select_mode_down	Radio Select Mode Down
viper/cockpit/Lpanel/radio_select_mode_up	Radio Select Mode Up
viper/cockpit/Lpanel/radio_select_preset_down	Radio Select Preset Down
viper/cockpit/Lpanel/radio_select_preset_up	Radio Select Preset Up
viper/cockpit/Lpanel/radio_select_vol_down	Radio Select Volume Down
viper/cockpit/Lpanel/radio_select_vol_up	Radio Select Volume Up
viper/cockpit/Lpanel/radio_status	Radio Status
viper/cockpit/Lpanel/radio_test_display	Radio Test Display
viper/cockpit/Lpanel/recording_down	Recording Down
viper/cockpit/Lpanel/recording_up	Recording Up
viper/cockpit/Lpanel/tank_inverting	Tank Inverting
viper/cockpit/Lpanel/trim_ap_down	Trim AP Down
viper/cockpit/Lpanel/trim_ap_up	Trim AP Up
viper/cockpit/Lpanel/trim_nose_down	Trim Nose Down
viper/cockpit/Lpanel/trim_nose_up	Trim Nose Up
viper/cockpit/Lpanel/trim_roll_down	Trim Roll Down
viper/cockpit/Lpanel/trim_roll_up	Trim Roll Up
viper/cockpit/Lpanel/video_select_down	Video Select Down
viper/cockpit/Lpanel/video_select_up	Video Select Up
viper/cockpit/Lpanel/xmtr_down	XMTR Key Down
viper/cockpit/Lpanel/xmtr_up	XMTR Key Up
viper/cockpit/Lpanel/yaw_trim_down	Trim Yaw Down
viper/cockpit/Lpanel/yaw_trim_up	Trim Yaw Up
viper/cockpit/Lwall/canopy_switch	Canopy Switch
viper/cockpit/Lwall/flares_button	Flares Button

Table 40 — Left console

Left auxiliary console (54)

viper/cockpit/CLpanel/alt_hold_down	Alt Hold Down
viper/cockpit/CLpanel/alt_hold_up	Alt Hold Up
viper/cockpit/CLpanel/alt_rel	ALT Rel
viper/cockpit/CLpanel/chute	Chute Switch
viper/cockpit/CLpanel/chute_protector	Chute Protector
viper/cockpit/CLpanel/cmds_01_down	CMD 01 Switch Down
viper/cockpit/CLpanel/cmds_01_up	CMD 01 Switch Up
viper/cockpit/CLpanel/cmds_02_down	CMD 02 Switch Down
viper/cockpit/CLpanel/cmds_02_up	CMD 02 Switch Up
viper/cockpit/CLpanel/cmds_03_down	CMD 03 Switch Down
viper/cockpit/CLpanel/cmds_03_up	CMD 03 Switch Up
viper/cockpit/CLpanel/cmds_04_down	CMD 04 Switch Down
viper/cockpit/CLpanel/cmds_04_up	CMD 04 Switch Up
viper/cockpit/CLpanel/floodlight1_down	Left Flood Light Down
viper/cockpit/CLpanel/floodlight1_up	Left Flood Light Up
viper/cockpit/CLpanel/front_lights_down	Front Lights Down
viper/cockpit/CLpanel/front_lights_up	Front Lights Up
viper/cockpit/CLpanel/gear_alt	Landing Gear Alt
viper/cockpit/CLpanel/gnd_jett_enable_down	Ground Jetissson Enable Down
viper/cockpit/CLpanel/gnd_jett_enable_up	Ground Jetissson Enable Up
viper/cockpit/CLpanel/hook	Hook Switch
viper/cockpit/CLpanel/horn_silancer	Horn Silancer
viper/cockpit/CLpanel/jett_down	Jett Switch Down
viper/cockpit/CLpanel/jett_up	Jett Switch Up
viper/cockpit/CLpanel/jhmcs_brightness_down	JHMCS Brightness Down
viper/cockpit/CLpanel/jhmcs_brightness_up	JHMCS Brightness Up
viper/cockpit/CLpanel/jhmcs_switch_down	JHMCS Switch Down
viper/cockpit/CLpanel/jhmcs_switch_up	JHMCS Switch Up
viper/cockpit/CLpanel/jmr_down	JMR Switch Down
viper/cockpit/CLpanel/jmr_up	JMR Switch Up
viper/cockpit/CLpanel/landing_gear_click	Landing Gear Lever
viper/cockpit/CLpanel/landing_gear_lock_rel	Landing Gear Lock Rel
viper/cockpit/CLpanel/laser_arm_down	Laser Arm Down
viper/cockpit/CLpanel/laser_arm_up	Laser Arm Up
viper/cockpit/CLpanel/master_arm_down	Master Arm Down
viper/cockpit/CLpanel/master_arm_up	Master Arm Up
viper/cockpit/CLpanel/mode_down	Mode Switch Down
viper/cockpit/CLpanel/mode_up	Mode Switch Up

viper/cockpit/CLpanel/mws_down	MWS Switch Down
viper/cockpit/CLpanel/mws_up	MWS Switch Up
viper/cockpit/CLpanel/parking_brake_chan_down	Parking Brake Channel Down
viper/cockpit/CLpanel/parking_brake_chan_up	Parking Brake Channel Up
viper/cockpit/CLpanel/parking_brake_down	Parking Brake Down
viper/cockpit/CLpanel/parking_brake_up	Parking Brake Up
viper/cockpit/CLpanel/prgm_down	Program Switch Down
viper/cockpit/CLpanel/prgm_up	Program Switch Up
viper/cockpit/CLpanel/pwr_down	PWR Switch Down
viper/cockpit/CLpanel/pwr_up	PWR Switch Up
viper/cockpit/CLpanel/roll_sel_down	Roll Sel Down
viper/cockpit/CLpanel/roll_sel_up	Roll Sel Up
viper/cockpit/CLpanel/rwr_power_command	RWR Power Button Command
viper/cockpit/CLpanel/stores_config_down	Stores Config Down
viper/cockpit/CLpanel/stores_config_up	Stores Config Up
viper/cockpit/CLpanel/stores_jetisison	Stores Jetisison

Table 41 — Left auxiliary console

Right console (89)

viper/cockpit/CRpanel/floodlight2_down	Right Flood Light Down
viper/cockpit/CRpanel/floodlight2_up	Right Flood Light Up
viper/cockpit/CRpanel/pull_to_cage_pull	Pull To Cage Pull
viper/cockpit/CRpanel/pull_to_cage_turn_down	Pull To Cage Turn Down
viper/cockpit/CRpanel/pull_to_cage_turn_up	Pull To Cage Turn Up
viper/cockpit/Rpanel/air_con_air_source_down	Air Condition Air Source Down
viper/cockpit/Rpanel/air_con_air_source_up	Air Condition Air Source Up
viper/cockpit/Rpanel/air_con_mode_down	Air Condition Mode Down
viper/cockpit/Rpanel/air_con_mode_up	Air Condition Mode Up
viper/cockpit/Rpanel/anti_ice_down	Anti Ice Down
viper/cockpit/Rpanel/anti_ice_up	Anti Ice Up
viper/cockpit/Rpanel/avionics_align_down	Avionics Align Down
viper/cockpit/Rpanel/avionics_align_up	Avionics Align Up
viper/cockpit/Rpanel/avionics_dl_down	Avionics DL Down
viper/cockpit/Rpanel/avionics_dl_up	Avionics DL Up
viper/cockpit/Rpanel/avionics_gps_down	Avionics GPS Down
viper/cockpit/Rpanel/avionics_gps_up	Avionics GPS Up
viper/cockpit/Rpanel/avionics_map_down	Avionics Map Down
viper/cockpit/Rpanel/avionics_map_up	Avionics Map Up
viper/cockpit/Rpanel/avionics_mfd_down	Avionics MFD Down
viper/cockpit/Rpanel/avionics_mfd_up	Avionics MFD Up
viper/cockpit/Rpanel/avionics_mmc_down	Avionics MMC Down
viper/cockpit/Rpanel/avionics_mmc_up	Avionics MMC Up
viper/cockpit/Rpanel/avionics_sta_down	Avionics STA Down
viper/cockpit/Rpanel/avionics_sta_up	Avionics STA Up
viper/cockpit/Rpanel/avionics_ufc_down	Avionics UFC Down
viper/cockpit/Rpanel/avionics_ufc_up	Avionics UFC Up
viper/cockpit/Rpanel/soles_flood_light_down	Console Flood Lights Down
viper/cockpit/Rpanel/soles_flood_light_up	Console Flood Lights Up
viper/cockpit/Rpanel/soles_light_down	Console Lights Down
viper/cockpit/Rpanel/soles_light_up	Console Lights Up
viper/cockpit/Rpanel/ded_light_down	DED Light Down
viper/cockpit/Rpanel/ded_light_up	DED Light Up
viper/cockpit/Rpanel/hud_altitude_mode_down	HUD Altitude Mode Down
viper/cockpit/Rpanel/hud_altitude_mode_up	HUD Altitude Mode Up
viper/cockpit/Rpanel/hud_brightness_mode_down	HUD Brightness Mode Down
viper/cockpit/Rpanel/hud_brightness_mode_up	HUD Brightness Mode Up
viper/cockpit/Rpanel/hud_ded_down	HUD DED Down
viper/cockpit/Rpanel/hud_ded_up	HUD DED Up
viper/cockpit/Rpanel/hud_depr_ret_down	HUD DEPR RET Down
viper/cockpit/Rpanel/hud_depr_ret_up	HUD DEPR RET Up
viper/cockpit/Rpanel/hud_fpm_down	HUD FPM Down
viper/cockpit/Rpanel/hud_fpm_up	HUD FPM Up
viper/cockpit/Rpanel/hud_speed_mode_down	HUD Speed Mode Down
viper/cockpit/Rpanel/hud_speed_mode_up	HUD Speed Mode Up
viper/cockpit/Rpanel/hud_test_down	HUD TEST Down
viper/cockpit/Rpanel/hud_test_up	HUD TEST Up
viper/cockpit/Rpanel/hud_vah_down	HUD VAH Down
viper/cockpit/Rpanel/hud_vah_up	HUD VAH Up
viper/cockpit/Rpanel/iff_antenna_down	IFF Antenna Down

viper/cockpit/Rpanel/iff_antenna_up	IFF Antenna Up
viper/cockpit/Rpanel/indicator_lights_down	Indicator Lights Down
viper/cockpit/Rpanel/indicator_lights_up	Indicator Lights Up
viper/cockpit/Rpanel/instrument_panel_light_down	Instrument Panel Lights Down
viper/cockpit/Rpanel/instrument_panel_light_up	Instrument Panel Lights Up
viper/cockpit/Rpanel/instruments_light_down	Instrument Lights Down
viper/cockpit/Rpanel/instruments_light_up	Instrument Lights Up
viper/cockpit/Rpanel/map_data_storage_click	Map Data Storage Click
viper/cockpit/Rpanel/nuclear_switch	Nuclear Switch
viper/cockpit/Rpanel/nuclear_switch_guard	Nuclear Guard
viper/cockpit/Rpanel/nvision_mode_down	Night Vision Mode Down
viper/cockpit/Rpanel/nvision_mode_up	Night Vision Mode Up
viper/cockpit/Rpanel/oxygen_100_down	Oxygen Quantity Down
viper/cockpit/Rpanel/oxygen_100_up	Oxygen Quantity Up
viper/cockpit/Rpanel/oxygen_mode_down	Oxygen Mode Down
viper/cockpit/Rpanel/oxygen_mode_up	Oxygen Mode Up
viper/cockpit/Rpanel/oxygen_suply_down	Oxygen Supply Down
viper/cockpit/Rpanel/oxygen_suply_up	Oxygen Supply Up
viper/cockpit/Rpanel/plain_down	Plain Down
viper/cockpit/Rpanel/plain_up	Plain Up
viper/cockpit/Rpanel/seat_adjust_down	Seat Adjust Down
viper/cockpit/Rpanel/seat_adjust_up	Seat Adjust Up
viper/cockpit/Rpanel/sensor_fcr_down	Sensor FCR Down
viper/cockpit/Rpanel/sensor_fcr_up	Sensor FCR Up
viper/cockpit/Rpanel/sensor_left_hdtp_down	Sensor Left HDTP Down
viper/cockpit/Rpanel/sensor_left_hdtp_up	Sensor Left HDTP Up
viper/cockpit/Rpanel/sensor_rdr_alt_down	Sensor Radar Altitude Down
viper/cockpit/Rpanel/sensor_rdr_alt_up	Sensor Radar Altitude Up
viper/cockpit/Rpanel/sensor_right_hdtp_down	Sensor Right HDTP Down
viper/cockpit/Rpanel/sensor_right_hdtp_up	Sensor Right HDTP Up
viper/cockpit/Rpanel/udtu_down	UDTU Down
viper/cockpit/Rpanel/udtu_up	UDTU Up
viper/cockpit/Rpanel/uhf_antenna_down	UHF Antenna Down
viper/cockpit/Rpanel/uhf_antenna_up	UHF Antenna Up
viper/cockpit/Rpanel/voice_message_down	Voice Messages Down
viper/cockpit/Rpanel/voice_message_up	Voice Messages Up
viper/cockpit/Rpanel/zeroize_switch_down	Zeroize Switch Down
viper/cockpit/Rpanel/zeroize_switch_guard	Zeroize Guard
viper/cockpit/Rpanel/zeroize_switch_up	Zeroize Switch Up

Table 42 — Right console

Centre panel (20)

viper/cockpit/Cpanel/alt_hg_down	Altitude HG Down
viper/cockpit/Cpanel/alt_hg_up	Altitude HG Up
viper/cockpit/Cpanel/altitude_mode	Altitude Mode
viper/cockpit/Cpanel/altitude_mode_sel	Altitude Mode Select
viper/cockpit/Cpanel/fuel_sel_down	Fuel Select Down
viper/cockpit/Cpanel/fuel_sel_up	Fuel Select Up
viper/cockpit/Cpanel/fuel_trans_down	Fuel Transfer Down
viper/cockpit/Cpanel/fuel_trans_up	Fuel Transfer Up
viper/cockpit/Cpanel/hdg_down	Heading Down
viper/cockpit/Cpanel/hdg_up	Heading Up
viper/cockpit/Cpanel/horizon_knob_down	Horizon Knob Down
viper/cockpit/Cpanel/horizon_knob_up	Horizon Knob Up
viper/cockpit/Cpanel/hsi_crs_down	HSI Course Down
viper/cockpit/Cpanel/hsi_crs_up	HSI Course Up
viper/cockpit/Cpanel/hsi_hdg_down	HSI Heading Down
viper/cockpit/Cpanel/hsi_hdg_up	HSI Heading Up
viper/cockpit/Cpanel/mach_green_marker_set_down	Mach Green Marker Set Down
viper/cockpit/Cpanel/mach_green_marker_set_up	Mach Green Marker Set Up
viper/cockpit/Cpanel/nav_mode_down	Nav Mode Down
viper/cockpit/Cpanel/nav_mode_up	Nav Mode Up

Table 43 — Centre panel

Lighting (4)

viper/cockpit/lit/left_indexer_down	Left Indexer Down
viper/cockpit/lit/left_indexer_up	Left Indexer Up
viper/cockpit/lit/right_indexer_down	Right Indexer Down

viper/cockpit/lit/right_indexer_up	Right Indexer Up
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Table 44 — Lighting

Kneepad and menu (64)

viper/Menu	Open Plane Menu
viper/menu/option_arms	Arms Option
viper/menu/option_backseat_backview	Rear Seat Back View Option
viper/menu/option_backseat_frontview	Rear Seat Front View Option
viper/menu/option_backseat_seatview	Rear Seat Seat View Option
viper/menu/option_cft	Cft Option
viper/menu/option_chocks	Chocks Option
viper/menu/option_cold_and_dark	Cold And Dark Option
viper/menu/option_colorvisor	Coloured Visor Option
viper/menu/option_decor	Decor Option
viper/menu/option_ded_screen_centered	DED Centered Option
viper/menu/option_enginesmoker	Engine Smoker Option
viper/menu/option_extpilotonly	Ext Only Pilot Option
viper/menu/option_flightplans_line01	FPL 01 Option
viper/menu/option_flightplans_line02	FPL 02 Option
viper/menu/option_flightplans_line03	FPL 03 Option
viper/menu/option_flightplans_line04	FPL 04 Option
viper/menu/option_flightplans_line05	FPL 05 Option
viper/menu/option_flightplans_line06	FPL 06 Option
viper/menu/option_flightplans_line07	FPL 07 Option
viper/menu/option_flightplans_line08	FPL 08 Option
viper/menu/option_flightplans_line09	FPL 09 Option
viper/menu/option_flightplans_line10	FPL 10 Option
viper/menu/option_flightplans_line11	FPL 11 Option
viper/menu/option_flightplans_line12	FPL 12 Option
viper/menu/option_flightplans_next	FLT PLN Next Option
viper/menu/option_flightplans_prev	FLT PLN Prev Option
viper/menu/option_frontseat_backview	Front Seat Back View Option
viper/menu/option_frontseat_frontview	Front Seat Front View Option
viper/menu/option_frontseat_seatview	Front Seat Seat View Option
viper/menu/option_gloves	Gloves Option
viper/menu/option_hgu	HGU Helmet Option
viper/menu/option_hi_g_breath	High G Breath Option
viper/menu/option_hidepilot	Hide Pilot Option
viper/menu/option_hud	HUD Option
viper/menu/option_hud_pop_up	HUD Pop Up
viper/menu/option_hud_screen_centered	HUD Centered Option
viper/menu/option_jhmcs	JHMCS Helmet Option
viper/menu/option_ladder	Ladder Option
viper/menu/option_lifejacket	Life Jacket Option
viper/menu/option_lmfd_screen_centered	LMFD Centered Option
viper/menu/option_mfd_buttons	MFD Pop Up Buttons Option
viper/menu/option_normalvisor	Normal Visor Option
viper/menu/option_oldtype	Old Type Helmet Option
viper/menu/option_pilotvoice	Pilot Voice Option
viper/menu/option_popup	Plane Pop Up Toggle Option
viper/menu/option_popup_options_list	Pop Up Options
viper/menu/option_rbf	RBF Option
viper/menu/option_re_arm	Re-Arm Kneepad Command
viper/menu/option_ready_to_taxi_no_al	Ready to Taxi Without Alignment Option
viper/menu/option_ready_to_taxi_with_al	Ready to Taxi With Alignment Option
viper/menu/option_return_page	MFD Pop Up Option Return
viper/menu/option_rmfd_screen_centered	RMFD Centered Option
viper/menu/option_rwr_screen_centered	RWR Centered Option
viper/menu/option_save	Plane Menu Save Option
viper/menu/option_save_audio	Various Save Option
viper/menu/option_save_loadout	Loadout Save Option
viper/menu/option_save_pilot	Pilot Save Option
viper/menu/option_showpilot	Show Pilot Option
viper/menu/option_sidebag	Side Bag Option
viper/menu/option_sidestick	Side Stick Option
viper/menu/option_tailchute	Tail Chute Option
viper/menu/option_vrcockpit	Vr Friendly Manipulators Toggle
viper/menu/option_wingtipsmokers	Wing Tip Smoker Option

Table 45 — Kneepad and menu

Pilot (15)

viper/pilot/pilot_knee_pad_checklist_1	Checklist 1
viper/pilot/pilot_knee_pad_checklist_2	Checklist 2
viper/pilot/pilot_knee_pad_checklist_3	Checklist 3
viper/pilot/pilot_knee_pad_checklist_4	Checklist 4
viper/pilot/pilot_knee_pad_checklist_5	Checklist 5
viper/pilot/pilot_knee_pad_checklist_6	Checklist 6
viper/pilot/pilot_knee_pad_checklist_7	Checklist 7
viper/pilot/pilot_knee_pad_checklist_8	Checklist 8
viper/pilot/pilot_knee_pad_checklists	Checklists Option
viper/pilot/pilot_knee_pad_fltplan	Flight Plan option
viper/pilot/pilot_knee_pad_loadout	Loadout Option
viper/pilot/pilot_knee_pad_main	Return Option
viper/pilot/pilot_knee_pad_options	Cinematic Options
viper/pilot/pilot_knee_pad_pilot	Pilot Setup
viper/pilot/pilot_knee_pad_various	Various Option

Table 46 — Pilot

Systems (3)

viper/systems/iff/in_command	IFF In
viper/systems/iff/out_command	IFF Out
viper/systems/soi/soi_selector	SOI Selector

Table 47 — Systems

Other cockpit controls (21)

viper/cockpit/back_cockpit	Back Cockpit Selection
viper/cockpit/brakingSystem/doubleToeBraking	Double Toe Braking
viper/cockpit/canopyjettisonhandle	Canopy Jettison Handle
viper/cockpit/dedpopup	Front DED Pop Up
viper/cockpit/defog_down	Defog Down
viper/cockpit/defog_up	Defog Up
viper/cockpit/ejection_handle	Ejection Handle
viper/cockpit/ejection_seat_lock	Ejection Seat Arm
viper/cockpit/emergency_jettison	Emergency Jettison
viper/cockpit/front_cockpit	Front Cockpit Selection
viper/cockpit/hand_rest_back_down	Hand Rest Back Down
viper/cockpit/hand_rest_back_up	Hand Rest Back Up
viper/cockpit/hand_rest_forward	Hand Rest Forward
viper/cockpit/iff_ident_button	IFF Ident
viper/cockpit/master_caution_reset	Master Caution Reset
viper/cockpit/rwspopup	Front RWR Pop Up
viper/cockpit/shoulder_harness	Pilot's Kneepad
viper/cockpit/spider_click	Spider Click
viper/cockpit/throttle/detent	Throttle Detent
viper/cockpit/throttle_down	Throttle Down
viper/cockpit/throttle_up	Throttle Up

Table 48 — Other cockpit controls

F-16D ONLY — REAR COCKPIT (272)

ICP and DED (31)

viper/cockpit/icp/ASHM_video_sel	ASHM Video Select
viper/cockpit2/icp/circle_buttons_com_1	ICP Com 1 Button
viper/cockpit2/icp/circle_buttons_com_2	ICP Com 2 Button
viper/cockpit2/icp/circle_buttons_iff	ICP Com IFF Button
viper/cockpit2/icp/circle_buttons_list	ICP Com LIST Button
viper/cockpit2/icp/rotate_1_down	ICP Rear Top Left Wheel Down
viper/cockpit2/icp/rotate_1_up	ICP Rear Top Left Wheel Up
viper/cockpit2/icp/rotate_2_down	ICP Rear Bottom Left Wheel Down
viper/cockpit2/icp/rotate_2_up	ICP Rear Bottom Left Wheel Up
viper/cockpit2/icp/rotate_3_down	ICP Rear Top Right Wheel Down
viper/cockpit2/icp/rotate_3_up	ICP Rear Top Right Wheel Up
viper/cockpit2/icp/rotate_4_down	ICP Rear Bottom Right Wheel Down

viper/cockpit2/icp/rotate_4_up	ICP Rear Bottom Right Wheel Up
viper/cockpit2/icp/square_buttons_0	ICP SB 0 Button
viper/cockpit2/icp/square_buttons_1	ICP SB 1 Button
viper/cockpit2/icp/square_buttons_2	ICP SB 2 Button
viper/cockpit2/icp/square_buttons_3	ICP SB 3 Button
viper/cockpit2/icp/square_buttons_4	ICP SB 4 Button
viper/cockpit2/icp/square_buttons_5	ICP SB 5 Button
viper/cockpit2/icp/square_buttons_6	ICP SB 6 Button
viper/cockpit2/icp/square_buttons_7	ICP SB 7 Button
viper/cockpit2/icp/square_buttons_8	ICP SB 8 Button
viper/cockpit2/icp/square_buttons_9	ICP SB 9 Button
viper/cockpit2/icp/square_buttons_entr	ICP SB ENTR Button
viper/cockpit2/icp/square_buttons_rcl	ICP SB RCL Button
viper/cockpit2/icp/square_buttons_updown_1_down	ICP SB UPDOWN DOWN Button
viper/cockpit2/icp/square_buttons_updown_1_up	ICP SB UPDOWN UP Button
viper/cockpit2/icp/switch_1_down	ICP RTN SWITCH DOWN
viper/cockpit2/icp/switch_1_left	ICP RTN SWITCH LEFT
viper/cockpit2/icp/switch_1_right	ICP RTN SWITCH RIGHT
viper/cockpit2/icp/switch_1_up	ICP RTN SWITCH UP

Table 49 — ICP and DED

MFD (58)

viper/cockpit2/lmfd_popup	Rear Left MFD pop up
viper/cockpit2/mfdL/button01	Left MFD OSB 01
viper/cockpit2/mfdL/button02	Left MFD OSB 02
viper/cockpit2/mfdL/button03	Left MFD OSB 03
viper/cockpit2/mfdL/button04	Left MFD OSB 04
viper/cockpit2/mfdL/button05	Left MFD OSB 05
viper/cockpit2/mfdL/button08	Left MFD OSB 20
viper/cockpit2/mfdL/button09	Left MFD OSB 06
viper/cockpit2/mfdL/button10	Left MFD OSB 19
viper/cockpit2/mfdL/button11	Left MFD OSB 07
viper/cockpit2/mfdL/button12	Left MFD OSB 18
viper/cockpit2/mfdL/button13	Left MFD OSB 08
viper/cockpit2/mfdL/button14	Left MFD OSB 17
viper/cockpit2/mfdL/button15	Left MFD OSB 09
viper/cockpit2/mfdL/button16	Left MFD OSB 16
viper/cockpit2/mfdL/button17	Left MFD OSB 10
viper/cockpit2/mfdL/button18bottom	Left MFD CON DOWN Button
viper/cockpit2/mfdL/button18top	Left MFD CON UP Button
viper/cockpit2/mfdL/button19bottom	Left MFD BRT DOWN Button
viper/cockpit2/mfdL/button19top	Left MFD BRT UP Button
viper/cockpit2/mfdL/button20	Left MFD OSB 15
viper/cockpit2/mfdL/button21	Left MFD OSB 14
viper/cockpit2/mfdL/button22	Left MFD OSB 13
viper/cockpit2/mfdL/button23	Left MFD OSB 12
viper/cockpit2/mfdL/button24	Left MFD OSB 11
viper/cockpit2/mfdL/button6bottom	Left MFD SYM DOWN Button
viper/cockpit2/mfdL/button6top	Left MFD SYM UP Button
viper/cockpit2/mfdL/button7bottom	Left MFD GAIN DOWN Button
viper/cockpit2/mfdL/button7top	Left MFD GAIN UP Button
viper/cockpit2/mfdR/button01	RIGHT MFD OSB 01
viper/cockpit2/mfdR/button02	RIGHT MFD OSB 02
viper/cockpit2/mfdR/button03	RIGHT MFD OSB 03
viper/cockpit2/mfdR/button04	RIGHT MFD OSB 04
viper/cockpit2/mfdR/button05	RIGHT MFD OSB 05
viper/cockpit2/mfdR/button08	RIGHT MFD OSB 20
viper/cockpit2/mfdR/button09	RIGHT MFD OSB 06
viper/cockpit2/mfdR/button10	RIGHT MFD OSB 19
viper/cockpit2/mfdR/button11	RIGHT MFD OSB 07
viper/cockpit2/mfdR/button12	RIGHT MFD OSB 18
viper/cockpit2/mfdR/button13	RIGHT MFD OSB 08
viper/cockpit2/mfdR/button14	RIGHT MFD OSB 17
viper/cockpit2/mfdR/button15	RIGHT MFD OSB 09
viper/cockpit2/mfdR/button16	RIGHT MFD OSB 16
viper/cockpit2/mfdR/button17	RIGHT MFD OSB 10
viper/cockpit2/mfdR/button18bottom	RIGHT MFD CON DOWN Button
viper/cockpit2/mfdR/button18top	RIGHT MFD CON UP Button
viper/cockpit2/mfdR/button19bottom	RIGHT MFD BRT DOWN Button

viper/cockpit2/mfdR/button19top	RIGHT MFD BRT UP Button
viper/cockpit2/mfdR/button20	RIGHT MFD OSB 15
viper/cockpit2/mfdR/button21	RIGHT MFD OSB 14
viper/cockpit2/mfdR/button22	RIGHT MFD OSB 13
viper/cockpit2/mfdR/button23	RIGHT MFD OSB 12
viper/cockpit2/mfdR/button24	RIGHT MFD OSB 11
viper/cockpit2/mfdR/button6bottom	RIGHT MFD SYM DOWN Button
viper/cockpit2/mfdR/button6top	RIGHT MFD SYM UP Button
viper/cockpit2/mfdR/button7bottom	RIGHT MFD GAIN DOWN Button
viper/cockpit2/mfdR/button7top	RIGHT MFD GAIN UP Button
viper/cockpit2/rmfd_popup	Rear Right MFD pop up

Table 50 — MFD

Left console (31)

viper/cockpit2/Lpanel/ASIU_down	Rear ASIU Down
viper/cockpit2/Lpanel/ASIU_up	Rear ASIU Up
viper/cockpit2/Lpanel/audio1_secure_voice_down	Rear Secure Voice Down
viper/cockpit2/Lpanel/audio1_secure_voice_msl_down	Rear Secure Voice MSL Down
viper/cockpit2/Lpanel/audio1_secure_voice_msl_up	Rear Secure Voice MSL Up
viper/cockpit2/Lpanel/audio1_secure_voice_tf_down	Rear Secure Voice TF Down
viper/cockpit2/Lpanel/audio1_secure_voice_tf_up	Rear Secure Voice TF Up
viper/cockpit2/Lpanel/audio1_secure_voice_threat_down	Rear Voice Threat Down
viper/cockpit2/Lpanel/audio1_secure_voice_threat_up	Rear Voice Threat Up
viper/cockpit2/Lpanel/audio1_secure_voice_up	Rear Secure Voice Up
viper/cockpit2/Lpanel/audio2_ils_down	Rear ILS Volume Down
viper/cockpit2/Lpanel/audio2_ils_up	Rear ILS Volume Up
viper/cockpit2/Lpanel/audio2_intercom_down	Rear Intercom Volume Down
viper/cockpit2/Lpanel/audio2_intercom_up	Rear Intercom Volume Up
viper/cockpit2/Lpanel/audio2_tacan_down	Rear Tacan Volume Down
viper/cockpit2/Lpanel/audio2_tacan_up	Rear Tacan Volume Up
viper/cockpit2/Lpanel/avionics_down	Rear Avionics Down
viper/cockpit2/Lpanel/avionics_up	Rear Avionics Up
viper/cockpit2/Lpanel/com1_volume_down	Rear Com1 Volume Down
viper/cockpit2/Lpanel/com1_volume_tone_down	Rear Com1 Tone Volume Down
viper/cockpit2/Lpanel/com1_volume_tone_up	Rear Com1 Tone Volume Up
viper/cockpit2/Lpanel/com1_volume_up	Rear Com1 Volume Up
viper/cockpit2/Lpanel/com2_volume_down	Rear Com2 Volume Down
viper/cockpit2/Lpanel/com2_volume_tone_down	Rear Com2 Tone Volume Down
viper/cockpit2/Lpanel/com2_volume_tone_up	Rear Com2 Tone Volume Up
viper/cockpit2/Lpanel/com2_volume_up	Rear Com2 Volume Up
viper/cockpit2/Lpanel/ejection_seq_down	Rear Ejection Sequence Down
viper/cockpit2/Lpanel/ejection_seq_up	Rear Ejection Sequence Up
viper/cockpit2/Lpanel/hot_mic_down	Rear Hot Mic Down
viper/cockpit2/Lpanel/hot_mic_up	Rear Hot Mic Up
viper/cockpit2/Lpanel/stic_av_protect	Rear Stick AV Protect

Table 51 — Left console

Left auxiliary console (8)

viper/cockpit2/CLpanel/armtconsent	Rear Arm T Consent
viper/cockpit2/CLpanel/armtconsent_protector	Rear Arm T Consent Protector
viper/cockpit2/CLpanel/floodlight1_down	Rear Left Green Flood Light Down
viper/cockpit2/CLpanel/floodlight1_up	Rear Left Green Flood Light Up
viper/cockpit2/CLpanel/gnd_jett_enable	Rear Ground Jettison Enable
viper/cockpit2/CLpanel/horn_silancer	Rear Horn Silancer
viper/cockpit2/CLpanel/stores_config	Rear Stores Config
viper/cockpit2/CLpanel/stores_jetisison	Rear Panel Stores Jetisison

Table 52 — Left auxiliary console

Right console (27)

viper/cockpit2/CRpanel/floodlight2_down	Rear Right Green Flood Light Down
viper/cockpit2/CRpanel/floodlight2_up	Rear Right Green Flood Light Up
viper/cockpit2/CRpanel/pull_to_cage_pull	Rear Pull To Cage Pull
viper/cockpit2/CRpanel/pull_to_cage_turn_down	Rear Pull To Cage Turn Down
viper/cockpit2/CRpanel/pull_to_cage_turn_up	Rear Pull To Cage Turn Up
viper/cockpit2/Rpanel/panels_flood_light_down	Rear Consoles Flood Lights Down
viper/cockpit2/Rpanel/panels_flood_light_up	Rear Consoles Flood Lights Up

viper/cockpit2/Rpanel/consoles_light_down	Rear Consoles Light Down
viper/cockpit2/Rpanel/consoles_light_up	Rear Consoles Light Up
viper/cockpit2/Rpanel/ded_light_down	Rear DED Light Down
viper/cockpit2/Rpanel/ded_light_up	Rear DED Light Up
viper/cockpit2/Rpanel/indicator_lights_down	Rear Indicator Lights Down
viper/cockpit2/Rpanel/indicator_lights_up	Rear Indicator Lights Up
viper/cockpit2/Rpanel/instrument_panel_light_down	Rear Instrument Panel Light Down
viper/cockpit2/Rpanel/instrument_panel_light_up	Rear Instrument Panel Light Up
viper/cockpit2/Rpanel/instruments_light_down	Rear Instrumetns Light Down
viper/cockpit2/Rpanel/instruments_light_up	Rear Instrumetns Light Up
viper/cockpit2/Rpanel/nvision_mode_down	Rear Night Vision Mode Down
viper/cockpit2/Rpanel/nvision_mode_up	Rear Night Vision Mode Up
viper/cockpit2/Rpanel/oxygen_100_down	Rear Oxygen Quatnity Down
viper/cockpit2/Rpanel/oxygen_100_up	Rear Oxygen Quatnity Up
viper/cockpit2/Rpanel/oxygen_mode_down	Rear Oxygen Mode Down
viper/cockpit2/Rpanel/oxygen_mode_up	Rear Oxygen Mode Up
viper/cockpit2/Rpanel/oxygen_suply_down	Rear Oxygen Supply Down
viper/cockpit2/Rpanel/oxygen_suply_up	Rear Oxygen Supply Up
viper/cockpit2/Rpanel/seat_adjust_down	Rear Seat Adjust Down
viper/cockpit2/Rpanel/seat_adjust_up	Rear Seat Adjust Up

Table 53 — Right console

Centre panel (15)

viper/cockpit2/Cpanel/alt_hg_down	Rear Altitude HG Down
viper/cockpit2/Cpanel/alt_hg_up	Rear Altitude HG Up
viper/cockpit2/Cpanel/altitude_mode	Rear Altitude Mode
viper/cockpit2/Cpanel/altitude_mode_sel	Rear Altitude Mode Selection
viper/cockpit2/Cpanel/g_force_reset	Rear G-Force Reset
viper/cockpit2/Cpanel/horizon_knob_down	Rear Horizon Knob Down
viper/cockpit2/Cpanel/horizon_knob_up	Rear Horizon Knob Up
viper/cockpit2/Cpanel/hsi_crs_down	Rear HSI Course Down
viper/cockpit2/Cpanel/hsi_crs_up	Rear HSI Course Up
viper/cockpit2/Cpanel/hsi_hdg_down	Rear HSI Heading Down
viper/cockpit2/Cpanel/hsi_hdg_up	Rear HSI Heading Up
viper/cockpit2/Cpanel/mach_green_marker_set_down	Rear Mach Green Marker Down
viper/cockpit2/Cpanel/mach_green_marker_set_up	Rear Mach Green Marker Up
viper/cockpit2/Cpanel/nav_mode_down	Rear Nav Mode Down
viper/cockpit2/Cpanel/nav_mode_up	Rear Nav Mode Up

Table 54 — Centre panel

Lighting (4)

viper/cockpit2/lit/left_indexer_down	Rear Left Indexer Down
viper/cockpit2/lit/left_indexer_up	Rear Left Indexer Up
viper/cockpit2/lit/right_indexer_down	Rear Right Indexer Down
viper/cockpit2/lit/right_indexer_up	Rear Right Indexer Up

Table 55 — Lighting

Kneepad and menu (66)

viper/Menu2	Open Plane Menu
viper/menu/option_ASHM	ASHM Option
viper/menu/option_topelec	Top Elec Option
viper/menu2/option_ASHM	ASHM Option
viper/menu2/option_arms	Arms Option
viper/menu2/option_backseat_backview	Rear Seat Back View Option
viper/menu2/option_backseat_frontview	Rear Seat Front View Option
viper/menu2/option_backseat_seatview	Rear Seat Seat View Option
viper/menu2/option_cft	Cft Option
viper/menu2/option_chocks	Chocks Option
viper/menu2/option_cold_and_dark	Cold And Dark Option
viper/menu2/option_colorvisor	Coloured Visor Option
viper/menu2/option_decor	Decor Option
viper/menu2/option_ded_screen_centered	DED Centered Option
viper/menu2/option_enginesmoker	Engine Smoker Option
viper/menu2/option_extpilotonly	Ext Only Pilot Option
viper/menu2/option_flightplans_line01	FPL 01 Option
viper/menu2/option_flightplans_line02	FPL 02 Option

viper/menu2/option_flightplans_line03	FPL 03 Option
viper/menu2/option_flightplans_line04	FPL 04 Option
viper/menu2/option_flightplans_line05	FPL 05 Option
viper/menu2/option_flightplans_line06	FPL 06 Option
viper/menu2/option_flightplans_line07	FPL 07 Option
viper/menu2/option_flightplans_line08	FPL 08 Option
viper/menu2/option_flightplans_line09	FPL 09 Option
viper/menu2/option_flightplans_line10	FPL 10 Option
viper/menu2/option_flightplans_line11	FPL 11 Option
viper/menu2/option_flightplans_line12	FPL 12 Option
viper/menu2/option_flightplans_next	FLT PLN Next Option
viper/menu2/option_flightplans_prev	FLT PLN Prev Option
viper/menu2/option_frontseat_backview	Front Seat Back View Option
viper/menu2/option_frontseat_frontview	Front Seat Front View Option
viper/menu2/option_frontseat_seatview	Front Seat Seat View Option
viper/menu2/option_gloves	Gloves Option
viper/menu2/option_hgu	HGU Helmet Option
viper/menu2/option_hi_g_breath	High G Breath Option
viper/menu2/option_hidepilot	Hide Pilot Option
viper/menu2/option_hud	HUD Option
viper/menu2/option_hud_pop_up	HUD Pop Up
viper/menu2/option_hud_screen_centered	HUD Centered Option
viper/menu2/option_jhmcs	JHMCS Helmet Option
viper/menu2/option_ladder	Ladder Option
viper/menu2/option_lifejacket	Life Jacket Option
viper/menu2/option_lmfd_screen_centered	LMFD Centered Option
viper/menu2/option_mfd_buttons	MFD Pop Up Buttons Option
viper/menu2/option_normalvisor	Normal Visor Option
viper/menu2/option_oldtype	Old Type Helmet Option
viper/menu2/option_pilotvoice	Pilot Voice Option
viper/menu2/option_popup	Plane Pop Up Toggle Option
viper/menu2/option_popup_options_list	Pop Up Options
viper/menu2/option_rbf	RBF Option
viper/menu2/option_ready_to_taxi_no_al	Ready to Taxi Without Alignment Option
viper/menu2/option_ready_to_taxi_with_al	Ready to Taxi With Alignment Option
viper/menu2/option_return_page	MFD Pop Up Buttons Option
viper/menu2/option_rmfd_screen_centered	RMFD Centered Option
viper/menu2/option_rwr_screen_centered	RWR Centered Option
viper/menu2/option_save	Plane Menu Save Option
viper/menu2/option_save_audio	Audio Save Option
viper/menu2/option_save_loadout	Loadout Save Option
viper/menu2/option_save_pilot	Pilot Save Option
viper/menu2/option_showpilot	Show Pilot Option
viper/menu2/option_sidebag	Side Bag Option
viper/menu2/option_sidestick	Side Stick Option
viper/menu2/option_tailchute	Tail Chute Option
viper/menu2/option_topelec	Top Elec Option
viper/menu2/option_wingtipsmokers	Wing Tip Smoker Option

Table 56 — Kneepad and menu

Pilot (15)

viper/pilot/pilot2_knee_pad_checklist_1	Checklist 1
viper/pilot/pilot2_knee_pad_checklist_2	Checklist 2
viper/pilot/pilot2_knee_pad_checklist_3	Checklist 3
viper/pilot/pilot2_knee_pad_checklist_4	Checklist 4
viper/pilot/pilot2_knee_pad_checklist_5	Checklist 5
viper/pilot/pilot2_knee_pad_checklist_6	Checklist 6
viper/pilot/pilot2_knee_pad_checklist_7	Checklist 7
viper/pilot/pilot2_knee_pad_checklist_8	Checklist 8
viper/pilot/pilot2_knee_pad_checklists	Checklists Option
viper/pilot/pilot2_knee_pad_fltplan	Flight Plan option
viper/pilot/pilot2_knee_pad_loadout	Loadout Option
viper/pilot/pilot2_knee_pad_main	Return Option
viper/pilot/pilot2_knee_pad_options	Options
viper/pilot/pilot2_knee_pad_pilot	Pilot Setup
viper/pilot/pilot2_knee_pad_various	Various Option

Table 57 — Pilot

Other cockpit controls (17)

viper/cockpit/fault_ack_button	Rear Fault Ack Button
viper/cockpit2/ASHM_brt_down	ASHM Brightness Down
viper/cockpit2/ASHM_brt_up	ASHM Brightness Up
viper/cockpit2/ASHM_cont_down	ASHM Contrast Down
viper/cockpit2/ASHM_cont_up	ASHM Contrast Up
viper/cockpit2/ASHM_mode_down	ASHM Mode Down
viper/cockpit2/ASHM_mode_up	ASHM Mode Up
viper/cockpit2/dedpopup	Rear DED Pop Up
viper/cockpit2/ejection_handle	Rear Ejection Handle
viper/cockpit2/ejection_seat_lock	Rear Ejection Seat Arm
viper/cockpit2/hand_rest_back_down	Rear Hand Rest Back Down
viper/cockpit2/hand_rest_back_up	Rear Hand Rest Back Up
viper/cockpit2/hand_rest_forward	Rear Hand Rest Forward
viper/cockpit2/iff_ident_button	Rear IFF Ident
viper/cockpit2/rwspopup	Rear RWR Pop Up
viper/cockpit2/shoulder_harness	Rear Kneepad Toggle
viper/cockpit2/side_pocket	Rear Side Pocket

Table 58 — Other cockpit controls

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