Gunny's F4AF CH Profile 5.0

Warning, this profile requires the enclosed Falcon 4 keymap (Gunny KB2.key) to be used. This enables the keyboard keypad to function as the ICP and also allows HOTAS control of the TrackIR and Comms via TS or Ventrilo. Also, you may add and remove CH devices within the CH Control Manager to suit your current setup and still retain functionality of this profile.

A few words about this profile. Hopefully this will help you decide if this profile is for you or not. As you know there are many talented and wonderful profiles in existence for our sim and I highly encourage you to check them all out before settling on one.

This profile is **NOT** the most realistic profile in existence if that's what you're looking for. I've been down that road before and found that while we do strive to make our simulator experience as real as possible it is just not practical/expedient to leave things off of our very capable CH HOTAS just for the sake of reality. So, while I **have** placed the real life functions in the approximate places where they would be on the real F-16 HOTAS, I have been fairly liberal in the use of shifted commands and the expanded programming capabilities within our CH software to maximize our CH HOTAS.

You will find this profile has a learning curve. You will grow into it however, not out of it as your understanding of the jets systems increases.

First, being a flight engineer for most of my adult life, I've tried very hard to address safety of flight issues with the stick/binding layout. For example, "pickle" and "eject" will not be located on the same button.

Shifted or otherwise, many functions must be separated for obvious reasons.

On the flip side, many functions coexist well and make system management much easier.

As for the in-game HOTAS commands, many tax dollars and engineering hours went into the creation of mode-dependant real life HOTAS commands. They are very useful and almost fully modeled in Falcon 4.0 AF. That said, their names and functions must be studied beforehand to use effectively. I'll give reference page numbers for the F4AF manual, but will not go into detail in this document. So, if you are new to Falcon and/or do not know what TMS, or its functions are, for example, please refer to the below reference map and to pages 307-315 in your manual. These are **not** implemented for reality's sake necessarily, but rather because they are incredibly useful in the implementation of your jet as an effective weapon and your full enjoyment of the sim.

Also, the view commands are placed on the throttle hat (hat1). I know this is a little unorthodox, but it's actually very intuitive and helps spread the workload a little. Your right hand/fingers can get busy right quick and in a hurry when the shooting starts. Being able to have one hand on the mouse while the other controls the view is fast and easy when having to manage the office quickly. Also, with the inclusion of the TrackIR, I've found through many hours of flight that having the ability to change between 2d, 3d, and HUD on the stick POV hat far more useful.

This profile also has many Tap/Press binds implemented. Reference the layout and where you see a description like this: **Padlock / Declare**, it represents a Tap / Press command. Tap the button (actuate and release quickly), and it will perform **Padlock**. If you press it for a mere split second longer, it will execute the press command and **Declare** and **NOT** issue the **Padlock** command.

The other type of commands used are shifted commands. I'm a fan of shifted commands as they force the pilot to take an additional step to access non-primary flight commands. This keeps the primary-type commands on the first layer for excited combat management and allows a safety-of-flight consideration to be built into the map for emergency or not so-essential commands.

Also, Throttle hat 2 is set up to manage master/sub modes. To get back to NAV mode just press the associated master mode button a second time. First press will select A/G submode for example, a second press will return you to NAV mode.

The Speed Brake Temporary command probably deserves a little explanation here. The speed brakes will deploy as long as this is held and retract when released. I've found this type of command, while not realistic to the F-16, to be incredibly useful. Try it!

In addition, the ICP controls have been implemented on the keypad. For those with the G15 this is wonderful as 1.06 introduced a DED display right on the keyboard. Some functions had to be moved to accomplish this, so please review the new KB layout included in this zip.

Caution
The CH Map will not work correctly if this step is skipped.

Paste the "Gunny KB2.key" file in the C:\Program Files\Lead Pursuit\Battlefield Operations\config folder, **and then load it from within the Falcon setup screen**.

A few in game binds are also necessary for this profile to work correctly. Reference the below graphic.
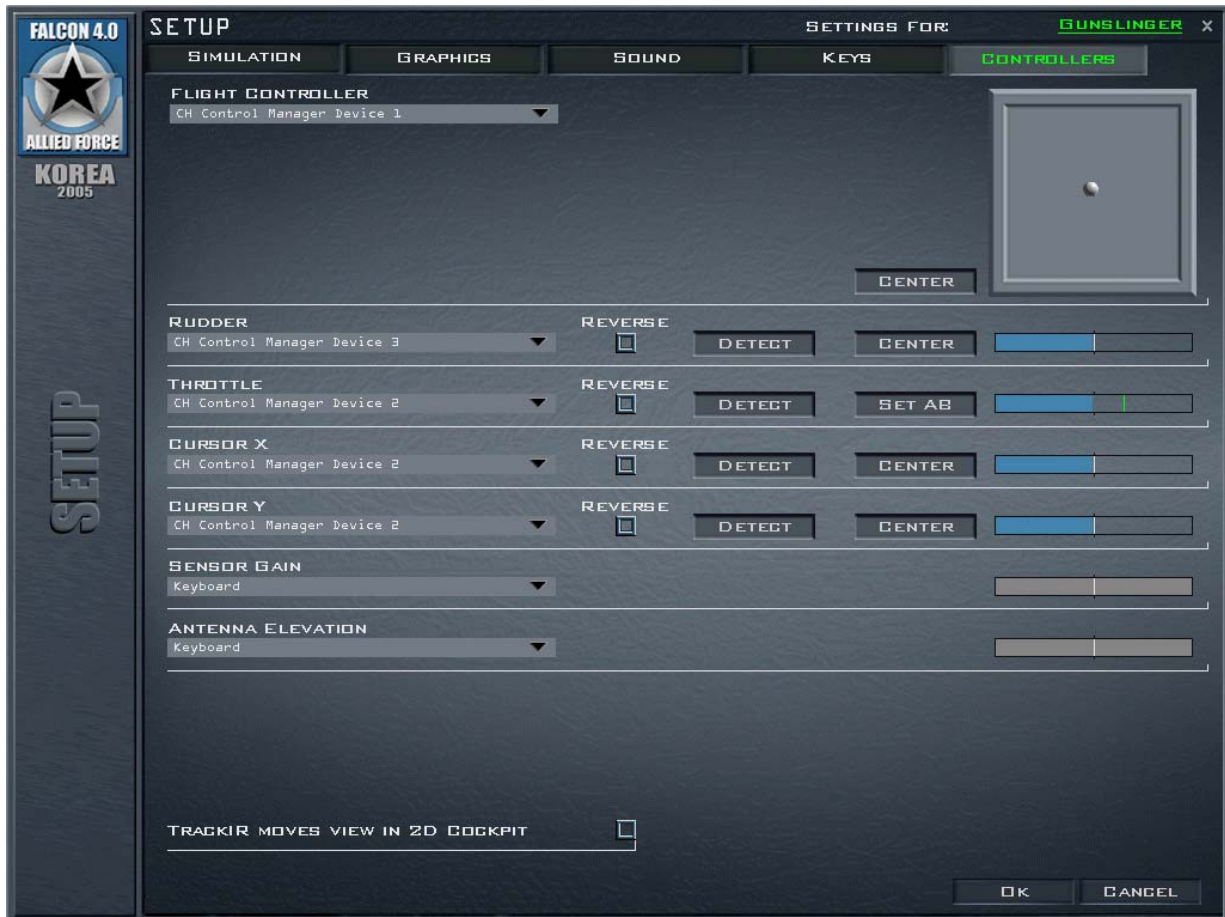
Your mode dependant TMS at a glance.
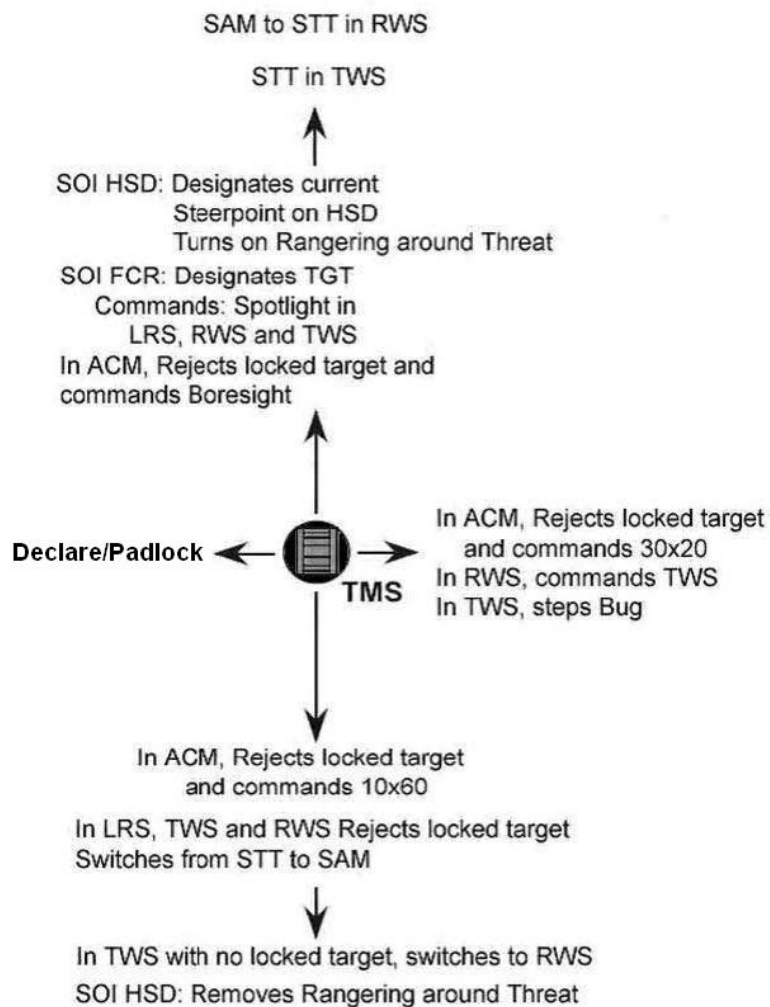
Target Management Switch (TMS)

The TMS is a 4-Way toggle switch and is primarily used on conjunction with the Radar. As the name already suggests, the pilot has quick access to functions related to targets. It is designed to allow quick selection and rejection of targets as they appear.

SAM to STT in RWS

STT in TWS

↑

SOI HSD: Designates current
    Steerpoint on HSD
    Turns on Rangering around Threat
SOI FCR: Designates TGT
   Commands: Spotlight in
    LRS, RWS and TWS
In ACM, Rejects locked target and
commands Boresight

↑

Declare/Padlock ←   🎚️ →

TMS

In ACM, Rejects locked target
  and commands 30x20
In RWS, commands TWS
In TWS, steps Bug

↓

In ACM, Rejects locked target
    and commands 10x60

In LRS, TWS and RWS Rejects locked target
Switches from STT to SAM

↓

In TWS with no locked target, switches to RWS
SOI HSD: Removes Rangering around Threat

Acknowledgement

Many thanks to Iain "Ziggy" Kirkpatrick for the good times and technical script help.

Also, thanks to Ken "Ghost" King for his hours spent in creating the original CMC file to benefit all in the Falcon AF community.
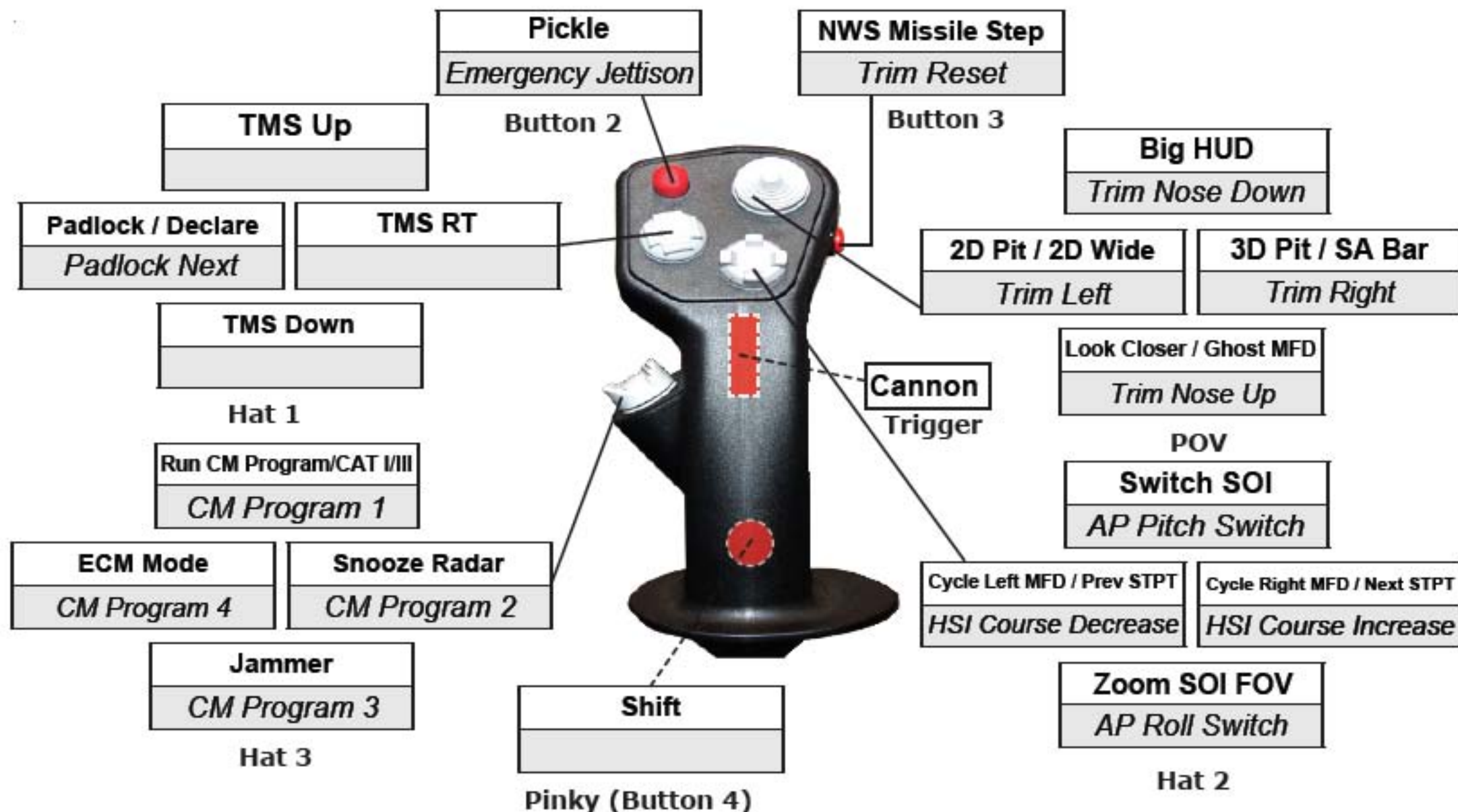
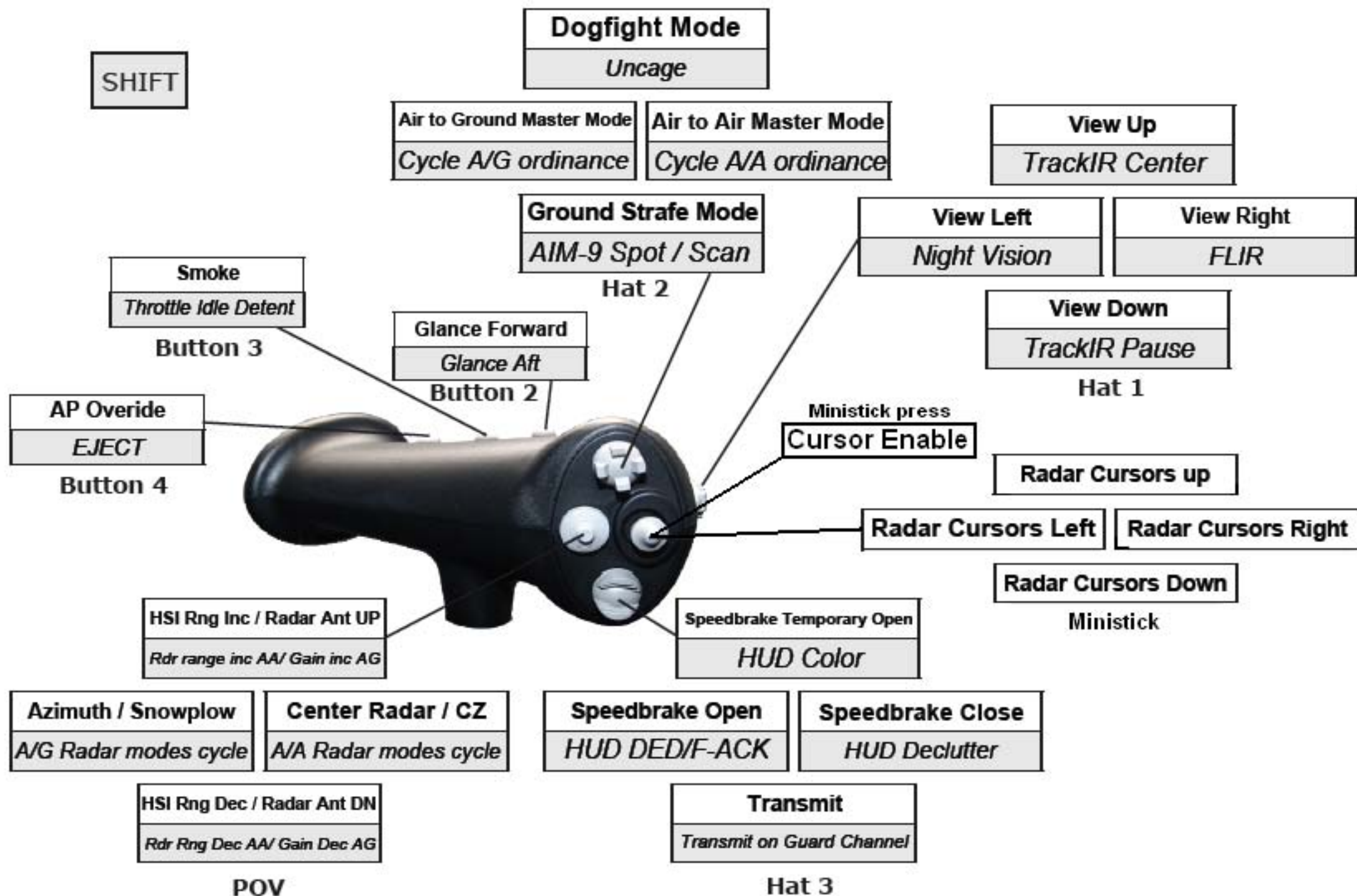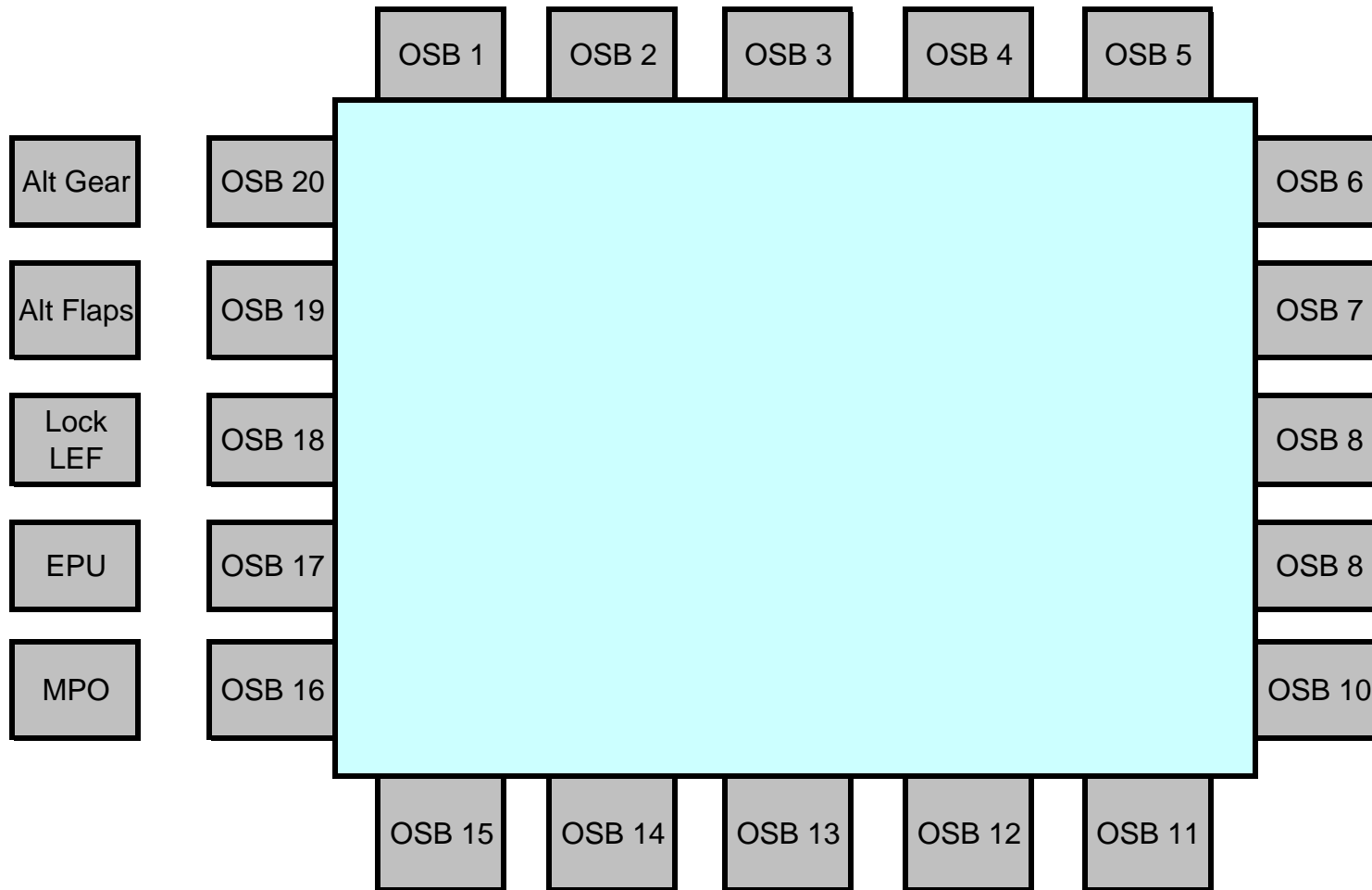## Links

72nd Virtual Fighter Wing
http://www.72ndvfw.org

Addendum:

A slash (/) indicates a Tap--Press command

Grey areas represent shifted commands

Pickle
Emergency Jettison

Button 2

NWS Missile Step
Trim Reset

Button 3

TMS Up

Big HUD
Trim Nose Down

Padlock / Declare
Padlock Next

TMS RT

2D Pit / 2D Wide
Trim Left

3D Pit / SA Bar
Trim Right

TMS Down

Hat 1

Look Closer / Ghost MFD
Trim Nose Up

Cannon

Trigger

POV

Run CM Program/CAT I/III
CM Program 1

Switch SOI
AP Pitch Switch

ECM Mode
CM Program 4

Snooze Radar
CM Program 2

Cycle Left MFD / Prev STPT
HSI Course Decrease

Cycle Right MFD / Next STPT
HSI Course Increase

Jammer
CM Program 3

Hat 3

Zoom SOI FOV
AP Roll Switch

Shift

Pinky (Button 4)

Hat 2

SHIFT

Dogfight Mode
Uncage

Air to Ground Master Mode	Air to Air Master Mode
Cycle A/G ordinance	*Cycle A/A ordinance*

View Up
TrackIR Center

Ground Strafe Mode
AIM-9 Spot / Scan
Hat 2

View Left	View Right
Night Vision	*FLIR*

Smoke
Throttle Idle Detent
Button 3

Glance Forward
Glance Aft
Button 2

View Down
TrackIR Pause
Hat 1

AP Overide
EJECT
Button 4

Ministick press
Cursor Enable

Radar Cursors up

Radar Cursors Left | Radar Cursors Right

Radar Cursors Down
Ministick

HSI Rng Inc / Radar Ant UP
Rdr range inc AA/ Gain inc AG

Speedbrake Temporary Open
HUD Color

Azimuth / Snowplow	Center Radar / CZ	Speedbrake Open	Speedbrake Close
A/G Radar modes cycle	*A/A Radar modes cycle*	*HUD DED/F-ACK*	*HUD Declutter*

HSI Rng Dec / Radar Ant DN
Rdr Rng Dec AA/ Gain Dec AG

Transmit
Transmit on Guard Channel
Hat 3

POV

L/H MFP

OSB 1	OSB 2	OSB 3	OSB 4	OSB 5

Alt Gear	OSB 20		OSB 6
Alt Flaps	OSB 19		OSB 7
Lock LEF	OSB 18		OSB 8
EPU	OSB 17		OSB 8
MPO	OSB 16		OSB 10

OSB 15	OSB 14	OSB 13	OSB 12	OSB 11

R/H MFP

OSB 1	OSB 2	OSB 3	OSB 4	OSB 5

OSB 20	
OSB 19	
OSB 18	
OSB 17	
OSB 16	

OSB 6	R / F Inhibit
OSB 7	AVTR OFF
OSB 8	AVTR AUTO
OSB 8	EXT LITES
OSB 10	MASTER ARM

OSB 15	OSB 14	OSB 13	OSB 12	OSB 11

Gunny's F4AF Keyboard Map

Escape Sim-Exit	F1 Radar-Air to Air Ckpit-Aux Comm Lft digit Ckpit-Fuel Switch Dec Ckpit-Power TISL Ckpit-Power Main Dec	F2 Radar-Air to Ground Ckpit-Aux Comm Ctr digit Ckpit-Fuel Switch Inc Ckpit-Power HUD Ckpit-Power Main Inc	F3 Radar-Range Knob Down Radar-gain decrease Radar-range decrease Ckpit-Aux Comm Rt digit Ckpit-Air Source Dec Ckpit-Power Left Hpt EWS-Chaff Power	F4 Radar-Range Knob Up Radar-gain increase Radar-range increase Ckpit-Aux Comm Band X/Y Ckpit-Air Source Inc Ckpit-Power Right Hpt EWS-Flare Power	F5 Radar-Antenna tilt down Radar-ACM boresight Ckpit-Aux Comm UFC/Backup Ckpit-Fuel Pump Switch Dec Ckpit-Power FCR EWS-Jammer Power	F6 Radar-Antenna center Radar-ACM 30x20 Ckpit-Aux Comm AA/TR Ckpit-Fuel Pump Switch Inc Ckpit-Power FCC EWS-RWR Power
` Sim-Chat View-Action Camera View-Satellite Camera	1 View-HUD Only View-Cockpit Ghost MFD Zoom Ckpit-AP Switch Left Voice-Transmit Com1 RightMFD-OSB 01 LeftMFD-OSB 01	2 View-2D Cockpit View-Cockpit Wide/Normal Ckpit-AP Switch Right Voice-Transmit Com2 RightMFD-OSB 02 LeftMFD-OSB 02	3 View-Virtual cockpit View-Toggle SA bar Ckpit-AP Override RightMFD-OSB 03 LeftMFD-OSB 03	4 View-Padlock View-Padlock Mode=AA Trim-AP Disc View-Padlock Mode=AG RightMFD-OSB 04 LeftMFD-OSB 04	5 View-Extended FOV View-Padlock EFOV Mode=AA Flaps-Lock LEFs View-Padlock EFOV Mode=AG RightMFD-OSB 05 LeftMFD-OSB 05	6 View-Tracking View-Target RightMFD-OSB 06 LeftMFD-OSB 06
Tab Radio-Menu	Q Radio-AWACS command EWS-Program Dec Sim-Mouse Button 1	W Radio-Wingman command EWS-Program Inc Sim-Mouse Button 2 HUD-Warning reset	E Radio-Element command Easy Radar-Previous Enemy Ckpit-Eject Ckpit-EPU step Ckpit-SeatArm	R Radio-Flight command Easy Radar-Boresight Enemy Radar-standby Sim-Show score Ckpit-Fuel Door Radar-RF Inhibit	T Radio-ATC message Easy Radar-Previous Friendly Lights-Test	Y Radio-Tanker message Easy Radar-Boresight Friendly Radio-Channel cycle
Capslock Sim-2x time compression Sim-Time Accel Inc Sim-Time Accel Dec	A Ckpit-Autopilot Ckpit-Radar Altimeter ON Ckpit-Radar Altimeter STDBY Ckpit-Radar Altimeter OFF Ckpit-Terrain Following Radar HUD-Altimeter type	S Ckpit-Steerpoint next Ckpit-Steerpoint previous Sim-Smoke toggle Sim-Sound off HUD-Heading scales	D Ckpit-Dogfight override mode Ckpit-Deploy Drag Chute ICP-DLNK Ckpit-Dump Fuel HUD-Display DED	F Ckpit-AVTR Ckpit-AVTR Auto Ckpit-F ACK Ckpit-AVTR Off Flaps(Alternate)-Extend RightMFD-Brightness Down LeftMFD-Brightness Down HUD-Flight Path Marker	G Ckpit-Landing gear Ckpit-Landing gear Up Ckpit-Betty gear horn Ckpit-Landing gear Down Ckpit-Reset Alt Gear Extension RightMFD-Brightness Up LeftMFD-Brightness Up Ckpit-Alternate Landing Gear	H HUD-Declutter HUD-Display FLIR Landing Help Toggle HUD-Scale type
Shift	Z Ckpit-Air brakes open EWS-PGM Dec Key-Combination Ctrl-Z Ckpit-Chaff/Flare auto/manual HUD-Brightness Down	X EWS-Run Program EWS-PGM Inc Key-Combination Ctrl-X HUD-Brightness Up	C Ckpit-MRM/DF override cancel Ckpit-CAT I/III Ckpit-Betty Master Caution Key-Combination Alt-C Ckpit-Open/Close canopy HUD-Color	V Radar-SOI FOV Radar-Maverick FOV Ckpit-VMS Inhibit HOTAS-Pinky Switch HSI-Course decrement HUD-Velocity cues	B Ckpit-Air brakes toggle Ckpit-Air brakes close Sim-Sound down HSI-Course increment HUD-Brightness	N Ckpit-NVG HOTAS-Cursor enable Sim-Sound up HSI-Heading decrement
Ctrl	Leftwin	Alt	Space Wpn-Pickle			

F7
Radar-Antenna tilt up
Radar-ACM slewable
Ckpit-UHF Normal/Backup
Ckpit-Fuel Master Switch
Ckpit-Power SMS
Ckpit-INS Dec

F8
TrackIP-Precision
Radar-Bar scan
Radar-ACM vertical
Ckpit-Power MFD
Ckpit-INS Inc

F9
TrackIR-Pause
Radar-GM FOV
Flaps-Set to Null
Flaps-Set LEF to Null
Ckpit-Power UFC
Lights-Extl Power

F10
Radar-GM picture freeze
Radar-GM snowplow
Flaps-Set to Full
Flaps-Set LEF to Full
Ckpit-Power GPS
Lights-Extl Anti Coll

F11
Radar-submodes/azimuth
Radar-HSD range decrease
Flaps-Decrease
Flaps-Decrease LEF
Ckpit-Power Datalink
Lights-Extl Wing

F12
TrackIR-Center
Radar-HSD range increase
Flaps-Increase
Flaps-Increase LEF
Ckpit-Power MAP
Lights-Extl Steady

7
View-Enemy Aircraft
View-Weapon's target
RightMFD-OSB 07
LeftMFD-OSB 07

8
View-Friendly
View-Friendly ground unit
View-Enemy vehicle
RightMFD-OSB 08
LeftMFD-OSB 08

9
View-Weapon
View-Flyby
View-Chase
RightMFD-OSB 09
LeftMFD-OSB 09

0
View-Orbit
View-Tower Camera
RightMFD-OSB 10
LeftMFD-OSB 10

-
View-Zoom Out
Ctrls-Step throttle down
Ctrls-Min Afterburner
Ctrls-Throttle Idle

=
View Zoom In
Ctrls-Step throttle up
Ctrls-Full afterburner

Backspace
Wpn-A to G cycle hardpoints

U
Wpn-Sidewinder-Cage/Uncage
Wpn-Sidewinder Spot/Scan
Wpn-Missile Bore/Slave
Wpn-Missile TD/BP

I
View-Incoming
HSI-Modes toggle
HSI-TACAN Mode
Ctrls-Throttle Idle Detent
HSI-NAV Mode

O
Ckpit-Manual pitch override
Fuel Total-Norm
Fuel Total-Centerline
Fuel Total-External

P
Sim-Pause
Sim-Freeze
Pumps-FWD
Ckpit-Parking brake
Pumps-AFT
Pumps-Norm
HUD-Pitch ladder

[
MFD-Step 1
MFD-Step 4
HUD-Man.Bomb Reticle Down
Sim-Mouse SOI On
Sound-Missile Volume Down
Sound-Threat Volume Down
Comm-1 Volume Down
Comm-2 Volume Down

]
MFD-Step 2
MFD-Step 3
HUD-Man.Bomb Reticle Up
Sim-Mouse SOI Off
Sound-Missile Volume up
Sound-Threat Volume up
Comm-1 Volume up
Comm-2 Volume up

****

J
Ckpit-ECM
Ckpit-JFS switch
Ckpit-Jettison all
Ckpit-Ground Jett enable

K
Ckpit-Wheel brakes
Ckpit-Hook
Ckpit-Kneeboard page

L
View-Look closer
Sim-labels near
Sim-labels far
Ckpit-Laser Arm
Ckpit-Instrument lights
Ckpit-Aircraft lights
Ckpit-Landing light

;
Glance-Backwards
Wpn-Bomb ripple dec
Wpn-Bomb interval dec
Wpn-Release bombs singly

'
Glance-FWD
Wpn-Bomb ripple inc
Wpn-Bomb interval inc
Wpn-Release bombs in pairs

Enter
Wpn-A to A cycle hardpoints

M
Ckpit-MRM override mode
Ckpit-Master Arm on
Ckpit-Master Arm safe
Ckpit-Master Arm sim
Wpn-MAN Reticle
HSI-Heading increment
Ckpit-Master Arm cycle

,
Ctrls-Rudder left
View-Aircraft previous
Wpn-CBU burst altitude dec
Ckpit-ALOW altitude dec

.
Ctrls-Rudder right
View-Aircraft next
Wpn-CBU burst altitude inc
Ckpit-ALOW altitude inc

/
Wpn-Fire gun
Wpn-Missile Hardpoints cycle
HOTAS-First Trigger Detent
HOTAS-Second Trigger Detent

Shift

Alt

RtWin

Menu

Ctrl

Insert
View-Rotate Down
RWR-Search
RWR-Priority
Trim-Manual yaw Left

Home
View-Rotate Up
RWR-Unknown
RWR-Low
Trim-Manual nose up

Pageup
ICP-NEXT
RWR-Naval
RWR-Target Separate
Trim-Manual yaw right

Delete
View-Rotate Left
Trim-Manual roll left

End
View-Rotate Right
Trim-Manual nose down

Pagedown
ICP-PREVIOUS
RWR-Handoff
ICP-Drift C/O
Trim-Manual roll right

Uparrow
ICP-DCS Up
Trim-Reset
HOTAS-TMS Up
Trim-Elevator Up
Ctrls-Nose down

Leftarrow
ICP-DCS Left
Trim-Aileron Left
HOTAS-TMS Left
Trim-Rudder Left
Ctrls-Roll left

Downarrow
ICP-DCS Down
Radar-cursors reset
HOTAS-TMS Down
Trim-Elevator Down
Ctrls-Nose up

Rtarrow
ICP-DCS Right
Trim-Aileron Right
HOTAS-TMS Right
Trim-Rudder Right
Ctrls-Roll right

Numlock

Num-divide
ICP-LIST
ICP-COM1
View-Cockpit HUD

Num-times
ICP-AA
ICP-COM2

Num-minus
ICP-AG
View-Padlock previous
View-Padlock prev AA
View-Padlock prev AG

Num-7
ICP-7 MARK
ICP-IFF
RightMFD-OSB 17
LeftMFD-OSB 17
View-Cockpit 10:00

Num-8
ICP-8 FIX
HOTAS-DMS Up
RightMFD-OSB 18
LeftMFD-OSB 18

Num-9
ICP-9 A-CAL
RightMFD-OSB 19
LeftMFD-OSB 19
View-Cockpit 2:00

Num-plus
ICP-RESET
View-Padlock next
View-Padlock next AA
View-Padlock next AG

Num-4
ICP-4 STPT
HOTAS-DMS Left
RightMFD-OSB 14
LeftMFD-OSB 14
View-Cockpit 9:00

Num-5
ICP-5 CRUS
RightMFD-OSB 15
LeftMFD-OSB 15
View-Reset

Num-6
ICP-6 TIME
HOTAS-DMS Right
RightMFD-OSB 16
LeftMFD-OSB 16
View-Cockpit 3:00

Num-1
ICP-1 T-ILS
RightMFD-OSB 11
LeftMFD-OSB 11
View-Cockpit 8:00

Num-2
ICP-ALOW
HOTAS-DMS Down
RightMFD-OSB 12
LeftMFD-OSB 12
View-Cockpit lower right

Num-3
ICP-3
RightMFD-OSB 13
LeftMFD-OSB 13
View-Cockpit 4:00

Num-enter
ICP-Enter
ICP-NAV

Num-0
ICP-0 M-SEL
RADAR-Designate Target
RightMFD-OSB 20
LeftMFD-OSB 20
View-Cockpit lower left

Num-period
ICP-HUD Warn Reset
Radar-return to search