



F-117A Nighthawk Virtual Cockpit

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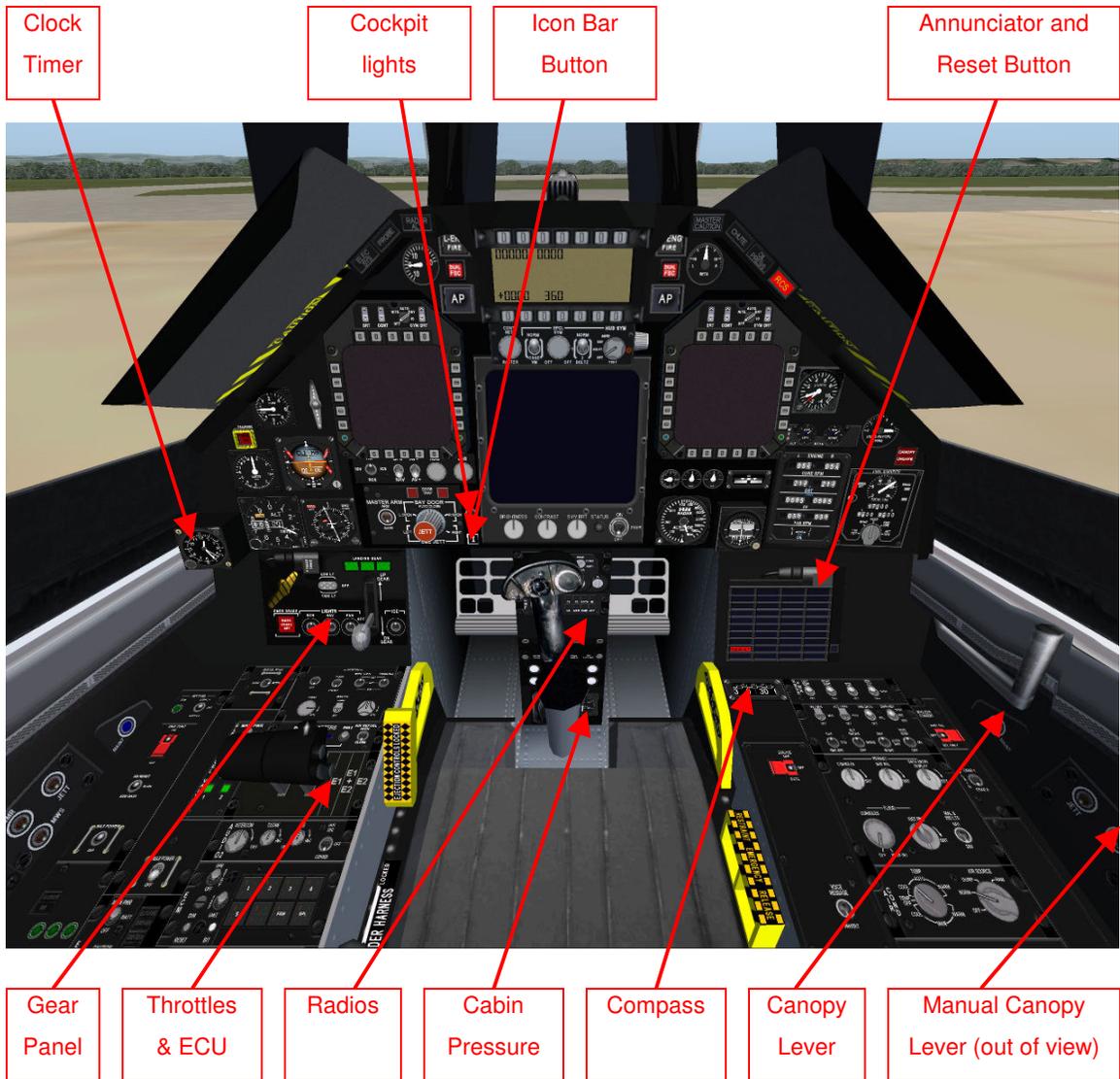
Note: There is a choice of loading with and without a VC. In the Select Aircraft window, choose from the Variation drop-down menu. The no VC version is more suitable for less powerful computers. VC's are known for reducing frame rates. However, I achieve a steady 30 fps (frame rates fixed at 30 in FS2004) with this aircraft with a 2.6 GHz CPU, 1 GB of RAM and an FX5900 nVidia card.

The gauges and panels in the virtual cockpit can be mouse controlled, exactly the same as in the 2D cockpit view. If the mouse appears to be inactive, it is because you have set the view point too far aft. The view point can be set with the following keystrokes.

Forward= control+backspace.
Left= control+shift+backspace.
Down=shift+backspace.

Aft= control+return.
Right= control+shift+return.
Up= shift+return.

The following pictures show the mouse control positions that are additional to the 2D cockpit view (most were seen as pop-up windows in the 2D cockpit view).



Note: The smoke on/off switch does not appear in the VC view.



The throttles in the VC are operated by dragging with the mouse in the columns E1 and E2. Dragging in E1+E2 moves both throttles together. By left clicking on a column allows the throttles to be dragged and this function remains on until a second click is made. This means you can move away from the throttles, and when returning, the drag function is still active. The ECU switches are also mouse operated. However, it may take some maneuvering around the VC to allow access to the mouse-active positions. Although the throttles are accessible, an easier way to get to the switches would be to activate a pop-up window. This is achieved using keys shift+3. The throttle bitmaps are missing from the pop-up window in the VC view for technical reasons. The other panels that were pop-up windows in the 2D cockpit can also be activated using the shift key and a number. The table further below displays the other key combinations. The canopy lever can be clicked to open and close the canopy.

A manual lever is available (yellow and black stripes) on the right (starboard) cockpit wall aft of the main canopy lever. This can be clicked when the engines are off and the handle rotates. The gear and annunciator panels are easily accessible and readable. The radios are hidden behind the joystick. Access can be achieved by maneuvering around, but it is a lot easier to operate the radio if opened as a pop-up window. Because the radio is difficult to access, an icon is available on an Icon bar. This bar is activated by clicking on the Icon bar button having the alpha 'I'. This is to the lower left of the FLIR CRT.



This bar will pop-up or activate the radios, GPS, ATS, Kneeboard, Map and Head Latency Gauge (see below). Alternatively, the following keystrokes can be used to activate pop-up windows:

Shift+2	Radio stack
Shift+3	Throttle Quadrants
Shift+4	Gear
Shift+5	GPS
Shift+6	Annunciator
Shift+7	Clock
Shift+8	PDF Zoomed
Shift+9	MFD Zoomed

Also, all gauges on the main panel can still be zoomed as in the 2D panel, except the large HUD as this is not necessary. The HUD is very readable in the VC, especially if you move the eye point towards it.

For technical reasons, some of the VC pop-ups have bitmaps missing, e.g. the gear pop-up panel because in the VC, the bitmap is replaced with a three dimensional lever. If a bitmap is missing, the control is still functional.

The target monitor 'camera' view is non-operable in the VC. For technical reasons, the window becomes a 'hole' in the panel and looks unrealistic, so it was replaced by the animated FLIR view.

May I advise you to download the excellent freeware, Flight 1 View Module from:

<http://www.flight1.com>

This gives improved control of movement around the VC. Areas and viewpoints can be accessed that are impossible with the default software.

When viewing from outside the cockpit, many external aircraft features have been omitted to optimize frame rates. These omissions do not detract from the realism of the VC itself.

The Head Latency Gauge



By the way, the pop-up windows can be 'undocked' by right clicking and deselecting 'undock window', and would typically give the following view.



Head Latency has become popular recently as it provides a more realistic flight experience. It provides relative movement of the VC against the scenery background and simulates the G force effect on head movement with aircraft movements such as climb, descend and turn. Also, the gauge will provide vibration movements when moving around on the ground. The 'T', when clicked, provides left and right head movements when exercising Taxi turns.

Clicking the centre white square activates head latency and ground vibrations and turns magenta in colour. The magnitude of G effects on head movement and magnitude of ground vibrations can be adjusted by clicking on the coloured triangles. Green to increase and red to decrease this effect in both the horizontal and vertical directions. When performing Taxi movements, clicking the 'T' will provide head turns with Taxi turns.

Night Lighting

The PAN toggle switch on the Gear Panel operates the gauge illumination. A small toggle switch just above the Icon bar button switches a cabin lamp in the top of the canopy for general illumination (this also operates the lamp on the bomb truck when ground services appear with the engines off). The HUD is illuminated separately when switched on, so can be seen even if the panel light is off. The 'Night' position provides darker colours that are more suitable for dark conditions. The PFD and MFD have switching for 'bright' or 'luminous' in the cockpit view, but will always show as bright in the VC (feature of FS2004). The landing and taxi lights are visible in all FS2004 views.

NOTE, see the other documents for more information on this aircraft's features.

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