IL-2 BAT Keys for vorpX Interface

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Joystick: Thrustmaster T-Flight HOTAS X V.2 (Use Green 5-axis Green LED Home button, no presets, no mapping)

VR Set: Oculus Rift S

My PC Settings: Alienware/Dell Aurora R7, Intel Core i7-8700 @ 3.20GHz, 16GB RAM, Win 10x64, NVIDIA GeForce GTC 1080. Intel-Octane Hardrive, IL-2 1946 BAT running in SSD Drive.

IL-2 BAT Basic Function Mapping (HOTAS)

= Number (common use in English speaking countries)

J = Joystick

J2K = JoyToKey Software

T = Throttle

TM = Joysick Base (middle between Joystick and Throttle)

B# = Button Number

W# = Weapon Number

MG = Machine Gun

N/A = Not Available

F# = Keyboard Function Key (F1-F12)

H = Point of View Hat

NP# = Number Pad

Device	HOTAS Input	IL-2 Controls Command	Keyboard in IL-2	vorpX (through JoyToKey/J2K)
J	**X-Axis**	Aileron/Roll	Left/Right Arrows	
J	**Y-Axis**	Elevators/Pitch	Up/Down Arrows	
J	**Z-Axis Rotation**	Rudder/Yaw	Z/X	
T	**U-Slider**	Brakes	B	
T	**Z-Axis**	Throttle	=/-	
J	**B1**	W1/MG	Enter	
J	**B2**	W2/Cannon	Backspace	
J	**B3**	W3/Rocket	Space	
TM	**B12**	W4/Bombs	Alt+Space	
J	**B4**	Toggle FOV	N/A	
T	**B5**	Padlock Enemy	F4	
T	**B6**	Gunsight View	Shift+F1	
T	**B7**	No Cockpit Toggle	Ctrl+F1	
T	**B8**	Toggle Snap/Pan View	F9	
T	**B9**	Cockpit View	F1	Edge Peek
T	**B10**	Chase View	F8	VR HotKey Menu
TM	**B11**	Map	M	
H	**0/Up**	Center/Front View	NP5	Center Pos. Tracking
H	**Rotate Around**	View Around	NP1-9 (Except 5)	

vorpX Program Key Bindings

Buy vorpX at: https://www.vorpx.com/
(Highlight Indicates Activation Through JoyToKey (J2K))
To Edit In-Game Key Bindings select In-Game Key Bindings Menu

vorpX Command	Modified for IL-2	Default in vorpX for Reference
vorpX Ingame Menu	Insert	Delete
Edge Peek	**MouseM (Wheel Button)**	MouseM (Wheel Button)
Magnifier (Virtual Cinema Only)	MouseM (Wheel Button)	MouseM (Wheel Button)
VR HotKey Menu	**Shift+MouseM (Wheel Button)**	Shift+MouseM (Wheel Button)
Center Positional Tracking	**NP5**	Alt+Space
Display FPS Counter	Insert	Alt+F
Start Direct VR Scan	Shift+Insert	Alt+L
Enable/Disable Direct VR	Home	Alt+B
vorpX Cursor on/off	Shift+Home	Alt+C
Enable/Disable Stereo 3D	PageUp	Alt+X
Switch G3D/Z3D (Geo/Z-Buf)	Shift+PageUp	Alt+K
FOV Adjust (in some games)	Ctrl+PageUp	Alt+V
Center Headtracking 'Gamepad'	**NP5**	Ctrl+Space

Get J2K Shareware at: https://joytokey.net/en/download
Create "IL2BATVR" profile, on Settings(S), associate the highlighted profile with BAT location "il2fb.exe."
Edit keys as shown in table below.

Button (TM T-Flight Hotas X)	Key 1	Key2
POV: ↑ (Center View)	Numpad 5	None
Button1 (Gunner fire)	L-Click	None
Button 9 (Edge Peek)	M-Click	None
Button 10 (VR Hotkey)	Shift	M-Click

vorpX VR HotKey Menu Mapping (Look at button to activate)

A **(Autopilot)**	**G** **(Gear up/down)**	**Ctrl+E** **(Eject/Bail Out)**	**Esc** **(Menu)**
I **(Engine On/Off)**	**Alt+B** **(Air Brakes)**	**Alt+C** **(Open/Close Cockpit)**	**Tab** **(Comms)**
F **(Flaps up)**	**Shift+W** **(Lock Tail Wheel)**	**C** **(Change position)**	**]** **(Speed Time)**
V **(Flaps down)**	**Ctrl+T** **(Jettison Drop Tanks)**	**R** **(Radiator Cowling)**	**' [apostrophe]** **(Time Normal)**

NVIDIA GPU Settings

Using the vorpX "Custom Resolutions" instructions on using NVIDIA GPU settings, I set IL-2 CONF.ini resolution to **3296x1776**, which is basically the maximum resolution for the Oculus Rift S (actually the Horizontal is twice the amount as it is the amount for each eye, but it displays better than a narrow field).

vorpX Support

IL-2/1946 is not an officially supported product, but as I mentioned before, if you get the Cloud Profile "IL-2 1946 [Ekull]," it will work in full VR with some tweaks. The developer of vorpX is pretty much a one-man shop who does amazing things, and when things went wrong, he was super responsive, as in working Christmas Evening and day to make sure things get fixed. Take a look at this post thread by yours truly:

- https://www.vorpx.com/forums/topic/update-20-1-causes-edgepeek-to-turn-entire-display-upside-down-on-oculus/

Weirdnesses… yeah, they exist

Well, I recommend patience and expectation management. IL-2/1946 was never meant for VR. The fact that it works at all with help of a 3rd party software is a miracle. Expect some things to be a matter of dealing with it. I hope to do some research to minimize all this, but for the meantime here is a list of things you need to expect:

- Due to 3D effects being what they are and IL-2 not being inherently a VR application, some things will appear closer than they should be, stuff like:
  - Some clouds in some maps
  - Some fires and smokes
  - Clouds that appear closer but are not in "real" life will still be covered by true near objects, like a wing covering a cloud
- Sometimes, depending on aircraft, and whether you are in the pilot seat, or gunner seat, during firing of weapons there are weird flashes, you can always use Edge Peek to use the virtual monitor to do those actions if you need. More below…
- If you get sick using VR or flying in general… well this is not for you
- Some cockpits are weird… they alternate some 3D elements depending how you move. Some of that only occurs while you are on the ground (Ki-43 series). Some are temperamental, but not all. Most of the times when you are flying those issues are gone.
- **Make sure you have changing of FOV mapped to your Joystick as I showed above…** most of the time you want the farthest FOV possible, and you will find that using that in conjunction with Sight Zoom to be all you need in combat. Intermediate and close zoom are only for looking far away (in air to ID enemies, or to find ground or naval units) or for looking at instruments.
- **Use Head/Tracking/mouse centering A LOT!!!** Like I said, IL-2/1946 was never meant to be a VR simulator, so get comfortable and make sure you know where your default position is, then use my settings above as much as you need to center view (I use Number Pad 5 and as you can see, I make sure that vorpX and Joy2Key are working together. vorpX allows you to have the VR set controllers display so you can mess around with different configurations that work for you.) I have some suggestions, including fixing VR controllers close to Joystick to help with all functions.
- **Become familiar and comfortable with EdgePeek feature in vorpX.** It will allow you to step back into the familiar IL-2/1946 interface until you can regain SA or whatever you need before you go back to 3D VR world.

OH MY GOSH HAVE FUN!!!

This is awesome. I used my own program UQMG to play some old missions and I have had a blast the last few days. This is worth trying in my opinion. As with anything, try it at your own risk, and I can't be held accountable for any fun or misery resulting from this, etc. Results may vary, and of course I am using a particular set of hardware and software. Good luck.

Future

I use vorpX exclusively for IL-2/1946. I need to continue to tweak things, and possibly change the mapping for the Oculus controllers, which are not that different from other VR set controllers.