DCS Recommended Settings Profile

Pimax Headset	System Setup	Graphic Card Setting	Steam VR/ Open XR Settings	PimaxPlay Settings	DCS Settings	Contribute By
Crystal	4090 I9-11900kF 64Gb RAM DDR4 3600MHz	Nvidia: Global Settings-Power Management Mode-Prefer Maximum Power	Open XR: Native Resolution CAS Sharpness 70% FFR Off	**Everything Default** **Refresh Rate:** 90Hz	**Textures:** High; **Terrain:** High; **Traffic:** Low; **Water:** High; **Visib Range:** Extreme; **Heat Blur:** Low; **Shadows:** High; **Flat Shadows Blur:** On; **Secondary Shadows:** On; **Resolution:** 1920*1080; **Res of cockpit displays:** 1024; **Monitors:** 1 Screen; **MSAA:** 2x; **Depth of field:** Off; **Clouds:** Ultra; **SSAA:** Off; **SSLR:** On; **SSAO:** On; **Clutter/Grass:** 1170; **Forest Visibility:** 85%; **Preload Radius:** 150000; **Gamma:** 2; **External field of view:** 125%; **Anisotropic Filtering:** 16x; **Terrain Objects Shadows:** Flat; ; **Cockpit Global Illumination:** On; **Messages font scale:** 1; **Scale GUI:** 1; **Rain Droplets:** On; **Vsync:** On; **Full screen:** Off	TallyMouse From Reddit r/Pimax
8KX	4090 I9-11900kF 64Gb RAM DDR4 3600MHz	Nvidia: Global Settings-Power Management Mode-Prefer Maximum Power	Open XR: Native Resolution CAS Sharpness 100% FFR on 40deg - 1 60deg - 1/4 80deg - 1/16th	FOV Wide Refresh 90Hz	**Textures:** High; **Terrain:** High; **Traffic:** Low; **Water:** High; **Visib Range:** High; **Heat Blur:** Low; **Shadows:** High; **Flat Shadows Blur:** On; **Secondary Shadows:** On; **Resolution:** 1920*1080; **Res of cockpit displays:** 1024; **Monitors:** 1 Screen; **MSAA:** off; **Depth of field:** Off; **Clouds:** High; **SSAA:** Off; **SSLR:** On; **SSAO:** On; **Clutter/Grass:** 1170; **Forest Visibility:** 85%; **Preload Radius:** 150000; **Gamma:** 2; **External field of view:** 125%; **Anisotropic Filtering:** 16x; **Terrain Objects Shadows:** Flat; ; **Cockpit Global Illumination:** On; **Messages font scale:** 1; **Scale GUI:** 1; **Rain Droplets:** On; **Vsync:** Off; **Full screen:** Off; **Rain Droplets:** On	TallyMouse From Reddit r/Pimax
8KX	4060TI I9-11900kF 64Gb RAM DDR4 3600MHz	Nvidia: Global Settings-Power Management Mode-Prefer Maximum Power	Open XR: Native Resolution CAS Sharpness 100% FFR on 35deg - 1, 55deg -1/4, 70deg -1/16th	FOV Medium Refresh 90Hz	**Textures:** High; **Terrain:** Low; **Traffic:** Off; **Water:** Medium; **Visib Range:** Medium; **Heat Blur:** Low; **Shadows:** Low; **Flat Shadows Blur:** On; **Secondary Shadows:** Off; **Resolution:** 1920*1080; **Res of cockpit displays:** 1024; **Monitors:** 1 Screen; **MSAA:** off; **Depth of field:** Off; **Clouds:** High; **SSAA:** Off; **SSLR:** Off; **SSAO:** Off; **Clutter/Grass:** 500; **Forest Visibility:** 75%; **Preload Radius:** 150000; **Gamma:** 2; **External field of view:** 125%; **Anisotropic Filtering:** 16x; **Terrain Objects Shadows:** Flat; ; **Cockpit Global Illumination:** On; **Messages font scale:** 1; **Scale GUI:** 1; **Rain Droplets:** On; **Vsync:** Off; **Full screen:** Off; **Rain Droplets:** On	TallyMouse From Reddit r/Pimax
Crystal	4070TI I7-13700F 16G RAM	~62 FPS	**Refresh Rate:** 90Hz **Motion Smoothing:** Off **Render Resolution:** 44% 2690*2972 **Advanced Supersample:** Off **Overlay Render Quality:** Medium	**Refresh Rate:** 90Hz **Eye Tracking:** On **Render Quality:** 1 **FFR:** Off **Smart Smoothing:** Off	**Textures:** High; **Terrain:** High; **Traffic:** Off; **Water:** High; **Visib Range:** Medium; **Heat Blur:** High; **Shadows:** High; **Flat Shadows Blur:** Off; **Secondary Shadows:** On; **Resolution:** 2560*1440; **MSAA:** Off; **Depth of field:** Off; **Clouds:** Standard; **SSAA:** Off; **SSLR:** On; **SSAO:** Off; **Clutter/Grass:** 0; **Forest Visibility:** 65%; **Preload Radius:** 70200; **Gamma:** 2; **External field of view:** 78%	
	AMD 6900XT	Maximum FPS =45 Anti-lag Disable everything else	**Global Resolution:** 100% **Video Setting Per App:** 100% **Motion Smoothing:** Off **Advanced Super Sampling:** Off	/	**Texture:** High; **MSAA:** Off; AF x 16; **Shadows:** Flat; **Forest Visibility:** 50%; **Visual Range:** High; **Cloud:** Standard	
	3080TI		**Global Resolution:** 80%	**FOV:** Normal **Render Quality:** 1 **FFR:** Off **PP:** Off	Textures = High; Terrain Textures = High; Water = High; Visib Range = High; Shaows = High; Resolution: 3840*2160; Aspect Ratio: 1.7777777778; Res.of Cockpit Display: 1024; MSAA: 2x; Cloud = High; Trees Visibility = 40%; Anisotropic Filtering = Off; Terrain Object Shadows = Off; Cockpit Global Illumination = On; Gamma = 2.2	
	2080					
	1080	/				

1-Testing settings one by one is recommended since every machine is different. Find a worse case scenario for the GPU or CPU to test.

->For GPU testing I recommend looking at Beyrouth on the Syria map to get a worse case scenario GPU wise (with lots of clouds/rain to test cloud settings, at sunset or sunrise to test shadows).

->For CPU testing, a heavy MP server (Blueflag, Enigma Cold War etc.) or a heavy singleplayer mission (dozens of AI moving offroad, SAMs searching/firing etc.)

PS : Intel PresentMon (recently released in beta) is a great tool for all GPUs and CPUs to find out what is limiting you (the DCS performance overlay is often wrong in that regard)

2-I'll only cover some settings which I have found be good performance levers with little visual fidelity lost, first video linked below covers the rest in detail

3-The NVCP has only one setting that affects DCS in VR, that is V-sync set to "fast" which can improve performance in some specific scenarios. The rest is not working (see 2nd video).

4-Most if not all settings are GPU performance hits only. So if you are CPU limited (use PresentMon), turning up settings will not change your FPS.

5-Most of these settings have performance hits in different contexts, which is why again, a "reasonable" worse case scenario should be made up and used for testing

Option	Recommend	Note
Water	Low	Water is present under every part of the DCS maps so that setting is another 15% between low and high. It's also a very subtil difference in flight. Not worth it.
Clouds	High by default, Ultra if performa	Clouds between High and Ultra is 10-15% performance since the difference is the application of AA to them. Definitely one you'll notice either way. Very cloudy missions will kill your frames, plan for it.
Anisotropic Filt.	16x if not VRAM limited	If you're VRAM limited (3080Ti + 8KX in large FOV runs into the issue. But not the 3090), anisotropic filtering between 2x and 16x has a 15% impact on frames. Test for your machine since otherwise it's free and noticeable.
MSAA	2x	MSAA is "required" to prevent shimmering of cables/fences and such. Note, MSAA can't run at the same time as SSAA in VR (use Pixel Density as a replacement but it is less effective than MSAA)
View distance	Up to your preference/performan	Costly setting (20% between Low and Extreme) but necessary to not notice trees/buildings popping in too much. Up to your preference. The difference between Extreme and High is large in terms of visuals.
Shadows	Depending on performance	Test at sunset and sunrise to get a worse case scenario, can get quite expensive. Medium seems like a good middle ground.
Secondary Shado	OFF / Needs testing	Shadows from light sources other than the sun. On the Super Carrier only so far from what I read. Haven't tested.
Blurred Shadows	Up to your preference	This setting targets shadows from trees (in particular) not being projected onto the ground from far away by blurring them. They almost disappear due to this so either way it's annoying, up to your preference. Costs nothing.
Terrain Textures	High	Does use more VRAM but makes quite a difference visually. Largely outweights Anisotropic filtering.
Cockpit Textures	High	Whatever the cost this is necessary. Other settings are unusable.
SSLR	OFF	SSLR is a gimmick but surprisingly cheap (5% ish). It looks good especially on lakes. Not really worth it but up to personal preference. SSLR deals with reflections ("Ray Tracing" like but not as advanced)
SSAO	OFF	Very subtil. Does have a slight performance impact.
Global Cockpit Ill	OFF	Very subtil, almost as if it wasn't working properly.
Heat blur	OFF	Broken in VR (renders in one eye only) + Looks bad with Quad Views DFR
Lens effects	OFF	Broken in VR (seen in double) + Looks bad with Quad Views DFR. Essentially free however.
Depth of Field	OFF	This is mostly a cinematic effect (external views) with cinematic performance levels. I'm also not sure it works well in VR. Avoid.
Preload Radius	Depending on your setup	A lower preload radius helps with RAM usage but requires loading more often. Known to cause crashes below certain settings for some people despite having ample pagefile. At maximum 32GB of RAM is borderline.
Grass	Up to your preference/performan	Grass has an impact on performance when near the ground (5% ish). Distance is quite small though and even in choppers it goes away quickly.
Tree visibility	Up to your preference/performan	Tree "growing" distance also has quite a large performance impact (double digit %) in wooded areas however they are very noticeable when "growing". Up to your tolerance. Detail factor can also balance this.

Useful/Used videos :

https://m.youtube.com/watch?v=t6-M_05Kxp8#searching

https://www.youtube.com/live/dd6tsxmCosQ?feature=shared

Much appreciated with Rex from Pimax Discord server.