Mechan's 2026 KSP Mod List

Setup Guide — Manual Installs & Configuration

Version: 1.1 **Last Updated:** May 16, 2026 **Web:** https://xenostrikeforce.com/mechans-ksp-2026-mod-list/

This document covers manual installation steps and in-game configuration for the MechanMods KSP mod list. CKAN installs the base mods automatically using the .ckan metapackage file. Manual installs must be completed afterward in the order listed.

Manual Installs

Complete all CKAN installations first, then work through these steps in order. Some steps overwrite CKAN-installed files — this is intentional.

Step 1 — Blackrack's Volumetric Clouds R5

Source: https://www.patreon.com/blackrack

- Extract and copy contents into your `GameData` folder
- This overwrites the Scatterer and EVE Redux versions installed by CKAN — allow it
- Download Blackrack's TUFX profile from https://drive.google.com/file/d/1Kxz5q6nvA7TKddxc2rGgPujyrEgIEBTi/view and place it in `GameData/TUFX/Profiles/`
- Update if downloaded before 14 March 2026 (wet surfaces and screen-space reflections update)

Step 2 — Argentgamer's OPM Volumetrics

Source: https://spacedock.info/mod/4028/Outer Planets Mod Volumetrics

- Extract and copy contents into `GameData`
- Do not install alongside any other OPM EVE or Scatterer config pack
- Update if downloaded before 2 April 2026 (v1.1 — darker gas giants, Ervo clouds)

Step 3 — SpacePotato's Volumetric Enhancements

Source: https://github.com/TheSpacePotato/SpacePotato-s-Volumetric-Enhancements

- Extract and copy contents into `GameData`
- Layers on top of Volumetric Clouds R5 — no file overwriting expected
- Adds cirrus clouds, volumetric aurorae, Jool rings, biome-dependent surface sounds

Step 4 — Rareden 8K Skybox

Source: https://forum.kerbalspaceprogram.com/topic/78778

- Copy the six cubemap face files into `GameData/TextureReplacer/Default/`
- Files should already be named correctly for TextureReplacer

Custom Flags (Optional)

A custom XSF flag is available on the website. To install it or any other custom flag:

- Save the flag as a transparent PNG at exactly **512x256 pixels** — this is the current KSP standard. The aspect ratio must be 2:1 (width exactly twice the height). Other proportions will cause the flag to appear stretched or distorted in-game
- Do not use spaces in the filename — KSP parses filenames from save files and spaces cause the flag to fail to load
- Create a folder `GameData/XSF/Flags/` — do not place custom flags inside `GameData/Squad/Flags/` as this modifies the stock game folder
- Place the PNG file inside that folder and restart KSP — the flag will appear in the VAB/SPH flag selector and

on flagpoles

In-Game Configuration

Work through these settings before starting a save. Launch KSP after completing all manual installs.

KSP Graphics Settings

Main Menu → Settings → Graphics tab

- Antialiasing → Off
- Terrain scatters → Off (Parallax Continued replaces these)
- Reflection refresh → Low
- Reflection resolution → 256
- Pixel light count → 8
- UI Scale → increase as needed for readability at DLDSR/VSR resolution

4kSP Expanded

- Scales map view icons, labels, and maneuver nodes to match the stock UI Scale setting
- Adjust via its in-game window accessible from the map view toolbar

TextureReplacer

At the Space Center view, click the TextureReplacer toolbar button

- Personalise Suits → Off (prevents conflict with Benjee10Suits)

Parallax Continued

- Before first launch: delete `Settings.cfg` from your KSP root folder for a clean planet configuration
- If CKAN reports a conflict between Deferred and ParallaxContinued, install Deferred manually
- Scatter collisions: verify the correct config path in the Parallax Continued GitHub wiki before enabling

Scatterer

Open Scatterer settings from the toolbar in flight

- TAA → Off
- SMAA → Off
- Tonemapper → Off (let TUFX handle tonemapping exclusively)

TUFX

Open TUFX from the toolbar and select Blackrack's profile

- HDR → On
- Ambient Occlusion → On (integrates specially with Deferred's lighting model)
- Bloom → On
- Tonemapper → use Blackrack's profile default; switch to ACES only if RTX HDR output looks wrong
- To disable TAA: open Blackrack's TUFX profile in a text editor and delete the `AntiAliasingMode` line; confirm it shows `AntiAliasingMode None` in-game
- SMAA → Off by default — enable only if supersampling leaves shimmer on thin geometry such as antennas
- Motion Blur → Off
- Auto Exposure → On

Anti-Aliasing

Nvidia (DLDSR 2.25x)

- Enable DLDSR 2.25x via the Nvidia App → Graphics → Global Settings → DSR
- Set KSP's in-game resolution to the DLDSR virtual resolution (e.g. 5160x2160 for a 3440x1440 display)

- Stock AA: Off | Scatterer TAA: Off | Scatterer SMAA: Off | TUFX TAA: Off | TUFX SMAA: Off
- Enable TUFX SMAA only if DLDSR alone leaves visible shimmer on thin geometry such as antennas

AMD (VSR)

- Enable VSR via AMD Software: Adrenalin Edition → Gaming → Display → Virtual Super Resolution → On
- Set KSP's in-game resolution to the highest VSR resolution available (~2.25x native for best results)
- VSR produces a slightly softer image than DLDSR — combine with RSR for additional sharpness if needed
- Stock AA: Off | Scatterer TAA: Off | Scatterer SMAA: Off | TUFX TAA: Off
- Enable TUFX SMAA if VSR softness on thin geometry is noticeable

HDR

- TUFX provides HDR rendering internally but outputs SDR — KSP's Unity 2019.4 cannot output native 10-bit HDR
- Nvidia: RTX HDR is the only path to 10-bit display output from KSP — enable via Nvidia App
- AMD: use Windows Auto HDR (Settings → System → Display → HDR → Auto HDR) as the nearest equivalent
- Keep TUFX HDR enabled regardless — it improves internal rendering precision even when outputting SDR
- Recommended RTX HDR starting values: Mid Grey = 44, Contrast = 25, Saturation = −50
- Do not use a heavy TUFX filmic curve alongside RTX HDR — this double-tonemaps the image and blows out highlights

Waterfall / StockWaterfallEffects

- StockWaterfallEffects intentionally overrides WaterfallRestock configs for: Vector, Mammoth, Nerv, Rhino, Skiff, Skipper, Spark — this is expected behaviour
- To remove specific overrides: delete relevant files in `GameData/StockWaterfallEffects/ModConfigurations/ReStock/WaterfallRestock_overrides/`

BackgroundThrust + MechJeb

- Do not use MechJeb autopilot while BackgroundThrust is active during warp — MechJeb's SAS/throttle control will prevent BackgroundThrust from activating
- When running warp thrust burns: disengage MechJeb autopilot and set SAS manually before activating
- BackgroundThrust works even when the vessel is unloaded/out of focus

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Streamer — OBS / YouTube HDR

This section is only relevant if you are live streaming to YouTube in HDR. Standard gameplay is unaffected.

Stream Key Configuration — Critical

> **WARNING: There is NO warning from YouTube or OBS when HDR is misconfigured due to manual resolution being set. YouTube accepts the stream silently and appears to work normally — but HDR will not function. You must verify this yourself before going live.**

- HDR live streaming works with both RTMPS (stream key) and HLS modes — connecting your YouTube account is not required; a stream key is sufficient
- HDR requires the stream key to be in variable/auto mode. In YouTube Studio, when creating or editing your stream key, ensure **"Manual resolution" is NOT checked**
- When manual resolution is enabled, HDR metadata is not carried — YouTube will silently treat the stream as SDR regardless of all other settings
- To verify HDR is working: right-click the YouTube player during a live stream → Stats for nerds — confirm `optimal_format` shows a value containing "HDR"

Encoder Settings

- Encoder: HEVC (H.265), Main10 profile

- Color Format: P010
- Color Space: Rec 2100 PQ
- Range: Limited
- Bitrate: CBR, max 30 Mbps
- Keyframe interval: 2 seconds
- Audio: AAC 128 Kbps stereo — 48 kHz (OBS default, broadcast standard) or 44.1 kHz (YouTube's stated stereo spec); either works
- Game Capture source in OBS: set to Rec 2100 PQ to match RTX HDR output

HDR Playback in Browsers — Viewer Notes

- Chrome and Edge: HDR playback works correctly with no configuration required
- Firefox: HDR support is highly inconsistent. As of May 2026, HDR playback on Windows requires Firefox Nightly (not the stable release channel)
- Even in Firefox Nightly, correct HDR playback may require setting `media.wmf.force.allow-p010-format` to `true` in `about:config`
- If still washed out in Firefox Nightly, also try setting `gfx.webrender.dcomp-video-overlay-win` to `false` (browser restart required)
- These are known active issues in Mozilla's bug tracker and are expected to improve in future Nightly builds

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