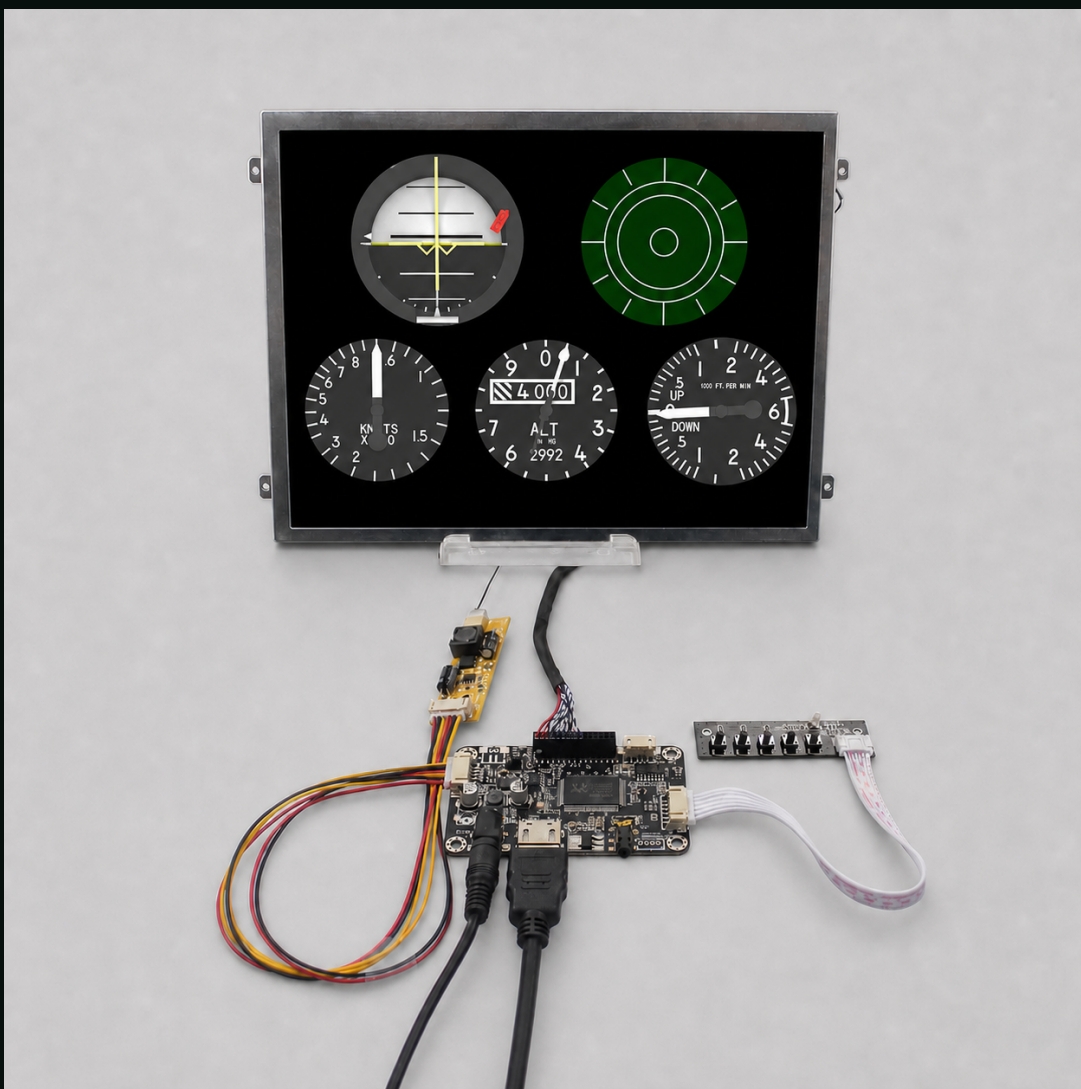


F/A-18C FIVE-INSTRUMENT HELIOS SETUP

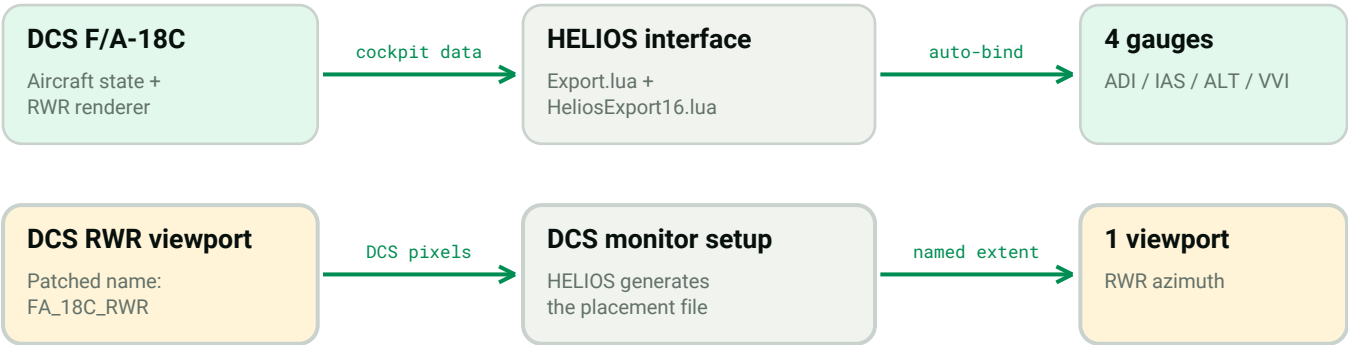
DCS World / 10.4-inch 1024 x 768 instrument display



SCOPE / READ THIS FIRST

The result you are building

This guide creates one HELIOS profile for the five round instruments in the lower-right F/A-18C MIP cluster. It does not configure the DDIs, AMPCD, UFC, IFEI, HUD, side consoles, or any other cockpit display.



The key distinction: HELIOS draws and auto-binds four gauges (SARI/ADI, IAS, barometric altimeter, and VVI). The RWR is different: DCS renders it into a named viewport, and HELIOS positions that viewport on the 10.4-inch screen.

Use this exact five-item set:

Instrument	HELIOS object	Source
Standby Attitude Reference Indicator (SARI)	ADI	HELIOS F/A-18C gauge / auto-bound
AN/ALR-67 RWR azimuth indicator	FA_18C_RWR	DCS simulator viewport / patch required
Standby airspeed indicator	Air Speed Gauge	HELIOS F/A-18C gauge / auto-bound
Standby altimeter	Barometric Altimeter	HELIOS F/A-18C gauge / auto-bound
Standby vertical velocity indicator	Vertical Velocity Indicator	HELIOS F/A-18C gauge / auto-bound

Current software baseline: HELIOS 1.6.618 (official latest release when this guide was researched). The workflow is version-resilient: after a HELIOS or DCS update, rerun DCS Setup and recheck the viewport patch rather than copying an old monitor Lua file.

DOWNLOAD / READY-MADE PROFILE

Skip the manual build.

The supplied HELIOS profile already contains the five instrument placements, 15 F/A-18C data bindings, and the required DCS interfaces.



Download the profile package

Scan the code or open the product page, then select Download HELIOS profile.

dogfightdynamics.com/.../five-instrument-display-kit#helios-setup-guide

Open it on the correct screens

- 1 Extract the ZIP. Copy DogfightDynamics_FA18C_5Gauge.hpf to %USERPROFILE%\Documents\Helios\Profiles.
- 2 Open the .hpf in HELIOS Profile Editor.
- 3 Choose File > Reset Monitors. Map old Monitor 1 to the Windows primary display and old Monitor 2 to the 1024 x 768 kit display. Select No scaling for Monitor 2.
- 4 Use Save As to create your local copy. Keep the downloaded file as a clean backup.
- 5 Run F/A-18C DCS Setup, apply the F/A-18C Additional Viewports patches, then use DCS Monitor Setup > Configure and save the combined monitor setup.
- 6 In HELIOS Control Center, select the saved profile and press Start before launching DCS.

MANUAL BUILD PAGES ARE NOW REFERENCE

The following placement and binding pages remain useful for alignment, repair, or custom layouts. New installations should begin with the supplied profile.

Hardware and display checklist

Item	Confirmed specification
LCD	VS104T-003A, 10.4-inch IPS, 4:3
Resolution	1024 x 768 (XGA)
Active display area	211.2 x 158.48 mm / 8.31 x 6.24 in
Panel outline	225.8 x 174.3 x 5.6 mm / 8.89 x 6.86 x 0.22 in
Image	500 cd/m2 typical, 700:1 typical contrast, 85/85/85/85-degree viewing
Video/control	HDMI controller; LVDS cable; inverter/backlight board; wired OSD keypad
Power	12V DC, 2A or greater; adapter and HDMI cable are not included

1

WITH ALL POWER DISCONNECTED, SEAT THE LVDS AND BACKLIGHT CONNECTIONS

Use the included harnesses only. The connectors are keyed; align them squarely and do not force them. Connect the LCD to the controller, the backlight/inverter board, and the OSD keypad before applying power.

2

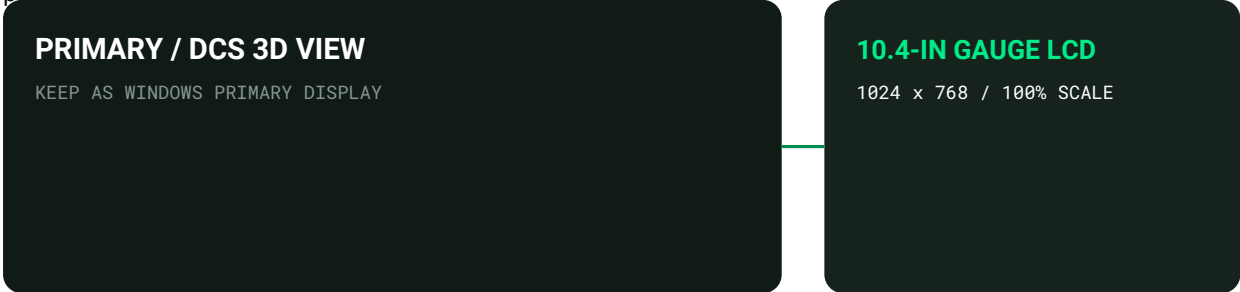
CONNECT HDMI TO THE DCS PC, THEN CONNECT THE 12V SUPPLY

Use a regulated 12V DC adapter rated for at least 2A and matching the controller-board connector and polarity markings. Power is the last connection. Use the OSD keypad to select HDMI if the panel reports no signal.

3

CONFIRM 1024 x 768 BEFORE OPENING HELIOS OR DCS

In Windows Settings > System > Display, select the 10.4-inch panel, choose 1024 x 768, landscape orientation, and 100% Scale. HELIOS warns that mixed DPI scaling can place controls and viewports incorrectly, so use the same scaling on every display participating in DCS.



Windows arrangement may be right, left, above, or below. Keep it unchanged after RESET MONITORS.

Do not mirror/duplicate displays. Keep the main flight display as the Windows primary display. Note where the gauge LCD sits in the Windows diagram and leave that arrangement unchanged after profile calibration.

Install HELIOS and create a clean profile

Download HELIOS only from the official GitHub release page and run the 64-bit installer. The release used for validation is 1.6.6180.1. Open HELIOS Profile Editor; the editor creates the profile, while HELIOS Control Center runs it.

github.com/HeliosVirtualCockpit/Helios/releases/latest

1 CREATE AND SAVE THE PROFILE

Create a new profile and save it as DogfightDynamics_FA18C_5Gauge.hpf. Save before configuring monitor setup; HELIOS needs a profile name.

2 ADD THE F/A-18C INTERFACE

In Profile Explorer, add the DCS F/A-18C interface. Open its configuration and press DCS Setup. Leave Export.lua handling on Update file if possible unless you intentionally maintain Export.lua yourself.

3 ADD MONITOR AND VIEWPORT INTERFACES

Add DCS Monitor Setup and DCS Additional Viewports. The first generates the DCS monitor file. The second adds the RWR viewport name and the Hornet readability changes.

4 SELECT THE CORRECT DCS LOCATIONS

Point HELIOS to the DCS installation and to the active Saved Games instance. Typical script folders are %USERPROFILE%\Saved Games\DCS\Scripts or the corresponding instance folder already in use.

DCS Setup installs/updates Scripts\Helios\HeliosExport16.lua and ensures Export.lua calls it. HELIOS backs up Export.lua before editing it. Do not paste a legacy, monolithic Export.lua over an existing multi-tool setup.

If HELIOS says the export script does not match configuration after an update, return to the F/A-18C interface and press DCS Setup again. This is an expected maintenance action, not a reason to replace the profile.

Place only the five required instruments

Run Reset Monitors and assign the 1024 x 768 canvas to the physical gauge LCD. Then use the Toolbox search field to add the exact objects below to that monitor. Keep every item square so the round artwork is not distorted.

Toolbox search	Place as	Binding requirement
ADI	SARI / upper-left	None - the template auto-binds to the F/A-18C SAI
FA_18C_RWR	RWR / upper-right	Simulator Viewport; Requires Patches must remain enabled
Air Speed Gauge	IAS / lower-left	None - auto-binds to Flight Instruments.IAS Airspeed
Barometric Altimeter	ALT / lower-center	None - auto-binds altitude and pressure
Vertical Velocity Indicator	VVI / lower-right	None - auto-binds to Flight Instruments.VVI



LOCAL ORIGIN 0,0

1024 x 768 px | LANDSCAPE

Important: do not use a generic RWR gauge, an RWR image, or the EW page from a DDI. The Hornet RWR object for this profile is the DCS viewport FA_18C_RWR.

Leave the RWR viewport unobstructed. Do not place a full-screen black rectangle above it, and keep Fill Background off for the monitor if that setting masks the viewport. The physical MIP masks the unused LCD area.

First-fit pixel map for the 10.4-inch panel

The coordinates below are local to the top-left corner of the 1024 x 768 gauge screen. They reproduce the layout in the Dogfight Dynamics product alignment image and are a reliable starting point. Final position can vary by a few pixels with panel mounting and bezel tolerances, so finish alignment with the MIP installed.

Instrument	X	Y	Width	Height	Approx. face size
SARI / ADI	145	56	304	304	62.7 x 62.7 mm
RWR viewport	573	56	304	304	62.7 x 62.7 mm
IAS	42	398	288	288	59.4 x 59.4 mm
Barometric ALT	360	398	288	288	59.4 x 59.4 mm
VVI	682	398	288	288	59.4 x 59.4 mm

Pixel-to-millimeter reference

The active area is 211.2 x 158.48 mm at 1024 x 768. That is approximately 4.85 pixels per millimeter, or 0.206 mm per pixel. Move a control 5 px for roughly 1.0 mm of physical shift.

Alignment procedure

- Enter the starter X/Y/Width/Height values in each object's Properties panel.
- Start the profile in Control Center so the gauges render on the actual LCD.
- With the MIP fitted, center each face in its opening. Adjust X/Y first; change Width/Height equally only if the circle is too large or small.
- For the RWR, move/resize the Simulator Viewport extent in Profile Editor, then reconfigure DCS Monitor Setup so the generated viewport coordinates are refreshed.
- Save the profile after alignment, then capture a screenshot or record the final values for support.

If the Windows display arrangement or DPI scale changes later, use Reset Monitors, restore the gauge LCD assignment, and reconfigure DCS Monitor Setup. Do not compensate for a Windows mapping problem by scattering manual offsets through a DCS Lua file.

Install the RWR patch and generate DCS monitor setup

1 INSTALL ADDITIONAL VIEWPORTS

Open the DCS Additional Viewports interface and press Install Patches. Approve the Windows UAC prompt if shown. HELIOS adds the Hornet RWR viewport and applies its readability settings. The profile still contains only the five instruments in this guide.

2 CONFIGURE MONITOR SETUP

Open DCS Monitor Setup. Confirm the local PC contains the DCS viewports, choose the layout mode matching the Windows arrangement, and press Configure. HELIOS generates the monitor setup from the RWR rectangle.

3 APPLY THE DCS OPTIONS SHOWN BY HELIOS

In DCS Options > System, turn Full Screen off. Select the Helios monitor configuration (or the exact separate-profile name HELIOS reports), then enter the Resolution and Aspect Ratio reported by the HELIOS status view.

4 SAVE AND CLEAR ALL STATUS ERRORS

Save the profile. In Profile Editor, open Interface Status; in Control Center, keep Preflight Check enabled. Resolve every red error before flight.

Why no manual MonitorSetup.lua is printed here: screen coordinates depend on the user's complete Windows desktop. HELIOS calculates the correct global rectangle from the profile and can regenerate it after monitor changes. Copying another person's Lua is a common cause of off-screen viewports and displaced menus.

The RWR patch changes files inside the DCS installation. A DCS update or repair can replace those files. Reopen Profile Editor after DCS updates and reinstall/revalidate patches if HELIOS reports them missing.

Run and verify all five instruments

- Close Profile Editor. Start HELIOS Control Center after configuration changes, select DogfightDynamics_FA18C_5Gauge, and press Start.
- Launch DCS in windowed mode and load an F/A-18C mission. A hot-start or air-start mission is best for the first test.
- Confirm the 3D view stays on the primary display and the five-instrument cluster appears only on the 10.4-inch panel.
- Use the checks below. Test motion gently and keep attention on the simulated aircraft.

Instrument	Positive test	Expected result
SARI / ADI	Bank and pitch the aircraft	Sphere, bank pointer, slip/turn indications respond
RWR	Power the ALR-67, raise intensity, then use RWR BIT or a mission with an emitter	DCS symbology appears inside the upper-right opening
IAS	Accelerate through 60 knots	Needle moves; the real standby scale covers roughly 60-850 KIAS
Barometric ALT	Climb/descend; adjust barometric setting	Pointer/counter and pressure window respond
VVI	Establish a steady climb and descent	Needle shows positive/negative rate

A blank RWR does not by itself prove the export is broken: it may be unpowered, dimmed, or have no detected emitters. The RWR BIT or a known-threat test mission is the reliable display check.

Normal startup order

Power the LCD start HELIOS Control Center/profile start DCS enter the F/A-18C cockpit. If Control Center AutoStart is enabled, HELIOS can select the last profile associated with the aircraft.

Troubleshooting by symptom

Symptom	Most likely cause	Corrective action
All four HELIOS gauges are static	HELIOS export script is absent, stale, or not called	Run F/A-18C DCS Setup again; review Control Center Preflight and the active Saved Games instance
Four gauges work; RWR is absent	Viewport patch/setup not active	Install/revalidate Additional Viewports; confirm the object name is FA_18C_RWR and DCS Monitors is Helios
RWR area is black	RWR off/dim, no emitters, or covered	Power ALR-67, raise intensity, run BIT; remove any HELIOS fill/background above the viewport
Gauges appear on the wrong monitor	Windows layout or monitor identity changed	Set 100% scale, restore Windows arrangement, Reset Monitors, then Configure DCS Monitor Setup
DCS menus or 3D view are displaced	Wrong monitor layout mode or copied Lua	Use HELIOS-generated monitor setup and the exact Resolution/Aspect it reports
Patch worked before a DCS update	DCS replaced patched files	Open Additional Viewports and reinstall; rerun DCS Setup if export status also changed
Patch installation fails	Modified DCS file no longer matches	Revert patches, run a DCS slow repair, then install patches again; preserve other mod configurations first
Panel says No Signal	Wrong input, cable, power, or resolution	Select HDMI with OSD, reseal with power off, verify 12V/2A+, and confirm Windows sees 1024 x 768

Recovery path for damaged DCS viewport modifications: use HELIOS Revert Patches. If that cannot restore clean files, run the DCS updater's repair command in slow mode, allow it to remove user-modified files, restart Profile Editor, and reinstall the current HELIOS patches.

Support evidence to collect: Windows Display screenshot, HELIOS Interface Status report, Control Center console, the profile .hpf, and the final local X/Y/size table. HELIOS logs are normally stored under Documents\Helios.

Maintenance checklist and sources

After a HELIOS update

- Open the profile in Profile Editor and press DCS Setup if the export script mismatch warning appears.
- Check that ADI, IAS, Barometric Altimeter, and VVI still show their default bindings.
- Save the profile, close Profile Editor, restart Control Center, and run Preflight Check.

After a DCS update, repair, GPU change, or monitor rearrangement

- Verify Windows still detects the LCD at 1024 x 768, landscape, 100% scale.
- Revalidate/reinstall Additional Viewports if the RWR patch is missing.
- Reset Monitors only if the Windows monitor topology changed, then Configure DCS Monitor Setup again.
- Retest with an F/A-18C air-start mission before relying on the panel in a long flight.

Research and validation sources

1. [Dogfight Dynamics - F/A-18C MIP Five-Instrument Display Kit](#)
Product scope, included hardware, outline dimensions, and display output.
2. [HELIOS official latest release](#)
Official installer and version baseline (1.6.6180.1 at research date).
3. [HELIOS - DCS Interface](#)
DCS Setup, Export.lua management, backups, and HeliosExport16.lua.
4. [HELIOS - DCS Monitor Setup](#)
Generated monitor setup, equal DPI requirement, layout modes, and DCS options.
5. [HELIOS - DCS Additional Viewports](#)
Patch installation, RWR readability changes, updates, repair, and recovery.
6. [HELIOS - Preflight Check](#)
Configuration validation before a profile starts.
7. [HELIOS F/A-18C source at release 1.6.6180.1](#)
Verified auto-bind mappings and template names for ADI, IAS, ALT, and VVI.
8. [Eagle Dynamics - DCS F/A-18C Early Access Guide](#)
Official cockpit instrument identities and operating behavior.

Accuracy note: researched and checked against the cited product page, official HELIOS 1.6.618 release/wiki/source, and Eagle Dynamics documentation on 13 August 2026. HELIOS and DCS are independently updated; use their status checks after updates rather than relying on an old generated Lua file.

Dogfight Dynamics supplies the display hardware. HELIOS and DCS World are third-party software and are not included with the kit.