

Map layers

The buttons above the **Flight Tracking** map let you add extra information to it: other aircraft, airspace, airports, nav aids, approaches and live weather radar. Everything starts switched off, and CAVAcars remembers what you turn on for next time.

Button	What it adds
Traffic	Other aircraft near you, from up to five sources
Layers	Aeronautical data: airspace, airports and runways, heliports, nav aids, waypoints and approaches
Radar	Real-world precipitation radar

A button turns blue when at least one of its options is on. Click **Traffic** or **Layers** to open a panel of switches; click anywhere else to close it. You can click almost anything drawn on the map (an aircraft, an airport, a nav aid, an airspace) to see its details.

Traffic

Each source has its own switch and its own marker colour, so you can tell at a glance where an aircraft came from.

Source	Colour	What it shows	Setup needed
VA traffic	Pink	Other Canada Air Virtual pilots flying nearby	None
SayIntentions.AI	Blue	Traffic from SayIntentions.AI	Add your SayIntentions.AI API key on your CAV profile. Until you do, the panel shows an Open profile settings button instead of a switch.
Sim traffic	Green	AI and multiplayer aircraft your simulator already knows about	None
VATSIM	Amber	Pilots online on the VATSIM network	None
IVAO	Purple	Pilots online on the IVAO network	None

Traffic only appears once you're connected to your sim and loaded into a flight, because it's filtered to what's around your aircraft.

Layers

The **Layers** panel has two parts: *where* the data comes from (the sources at the top), and *what* to draw (the layer switches below them).

Sources

Source	Colour	What it is
OpenAIP (real world)	Light blue	Real-world airspace, airports, nav aids and VFR reporting points from OpenAIP . Works with every simulator.
MSFS sim data	Lime green	Your simulator's own navigation database: the runways, approaches, nav aids and waypoints the sim's FMS and ATC actually use. Microsoft Flight Simulator only ; the switch is greyed out with FSX, Prepar3D and X-Plane.

Turn on one source or both. Points and lines are coloured by source, and each popup says where the item came from. The sim's data and the real world won't always agree (for example, if your sim's navdata is older or newer than the current real-world cycle), so having both on is a handy way to spot differences.

Below each source, the panel shows its status: *Connected*, *Loading* while data is still arriving, or a short message if something went wrong. If OpenAIP can't be reached for a moment, the map keeps showing what it already loaded.

Layer switches

Layer	On by default	From	What you get
Airspace	Yes	OpenAIP	Airspace outlines, coloured by type (see below). The popup shows the type, class, lower and upper limits, and whether it's activated by NOTAM or on demand.

Layer	On by default	From	What you get
Airports & runways	Yes	Both	OpenAIP: every airport and airfield in view, with runways, surface, elevation and frequencies in the popup. MSFS: your departure and arrival airports only, with their runways drawn to scale and their runways, approaches, SIDs and STARs listed in the popup.
Heliports	No	OpenAIP	Heliports, kept separate so they don't clutter the map. Needs Airports & runways switched on.
Nav aids	Yes	Both	VORs, NDBs and DMEs, with frequency and channel in the popup.
Waypoints & reporting points	No	Both	OpenAIP: VFR reporting points, with compulsory ones marked. MSFS: the waypoints your sim has loaded around your aircraft.
Approaches	Yes	MSFS	The approach procedures for your flight's departure and arrival airports, drawn as lines with their fixes in the popup.

Because the layer switches are shared, turning a layer off hides it for both sources. Nothing appears until a source is switched on, so on a fresh install you'll need to turn on OpenAIP or MSFS sim data first.

Zoom levels

To keep the map readable (and to avoid downloading half a continent's worth of data), layers only load once you're zoomed in far enough:

- **Airspace, airports and nav aids** appear once you've zoomed in to roughly a regional view, a few hundred miles across. If you're zoomed out too far, the panel says *Zoom in to see airspace, airports and nav aids*.
- **Waypoints and reporting points** need you to zoom in a couple of steps further.
- **Idents** (the labels next to airports and nav aids) only show once you're zoomed in that far too, so they don't pile on top of each other.
- Your **departure and arrival** from MSFS sim data, and their approaches, load straight away, whatever the zoom.

Airspace colours

Colour	Airspace
Red	Prohibited
Orange	Restricted
Yellow	Danger
Purple	Other special-use areas to be careful around
Blue	Controlled airspace: control zones and Class A to D
Teal	Class E
Grey	Class F and G, and anything else

A short colour key appears in the **Layers** panel while the Airspace layer is on.

Radar

The **Radar** button overlays real-world precipitation radar from [RainViewer](#). The radar image is refreshed roughly every 10 minutes and CAVacars picks up the newest one automatically.

- It shows **real-world** weather. It only matches what you see out the window if your simulator is using live weather.
- RainViewer's free radar has limited detail, so it looks blocky when you zoom in close.

Also on the map

- **Your planned route:** if your latest SimBrief plan is for the flight you're tracking (same departure and arrival), the map draws its route fix by fix instead of a straight great-circle line. See [Planning with SimBrief](#).
- **Map style:** the background map follows the **Map Style** you picked on your CAV profile on the website.

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