

CAVAcars 2 — Pilot Guide

NOTE: This application is not yet officially available to all pilots. When it is ready, it'll be announced via our website, newsletter, and Discord.

CAVAcars 2 is Canada Air Virtual's desktop app for finding and dispatching flights, tracking them live against your simulator, filing PIREPs, and chatting with other CAV pilots. This guide covers everything from first launch to connecting your simulator and flying a tracked flight.

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The app at a glance

The tabs along the top are grouped by what they're for:

Group	Tabs	Purpose
Overview	Home, Live Map	Your <u>Home screen</u> and a <u>live map</u> of CAV traffic
Find a flight	Schedules, Tours, Events, Open Flights, Ferry, Charter	Browse and dispatch flights
My bookings	Dispatched	Flights you've dispatched but not yet flown
Live ops	Chat, Tracking	Pilot chat and your active tracked flight

The status bar

A status bar runs along the bottom of the window at all times. This is where your simulator connection lives (see Connecting your simulator). It also shows a **REC** indicator with your flight number whenever a flight is actively being tracked, and an **Arming** countdown while a tracking session is about to auto-start, so you always know your tracking state no matter which tab you're on.

Click the connection status at the far left to open the **Debug log**. If you're having trouble, click **Copy log** there and paste it in a message to staff.

The pilot menu

Click your name and avatar in the top right to open the pilot menu:

Item	What it does
My Logbook	Opens your logbook on the CAV website
Pilot Guide	Opens this guide
What's new	The latest changes to CAVacars 2 (see <u>Updates</u>). A red dot on your avatar means there's something you haven't seen yet.

Item	What it does
Browser access	Use CAVacars 2 from a tablet, phone or another PC on your network. See Using CAVacars 2 in a browser or on an iPad .
Close to tray	When ON , closing the window keeps CAVacars 2 running in the system tray instead of quitting
Check for updates	Checks for a new version right away
Sign out	Signs you out of CAVacars 2

The light/dark theme toggle is in the top bar next to the menu.

The Home screen

The Home screen is where CAVacars 2 opens after you sign in. It gives you a quick look at your career, what's happening at Canada Air Virtual right now, and shortcuts to the things you're most likely to do next.

Your statistics

Under your name and avatar, four tiles show your **Hours flown**, **Flights**, **Avg landing rate** and **PIREPs filed**.

Cards

Below your statistics is a set of cards. Some are always there; others only appear when there's something to show.

Card	When it shows	What it does
Rank progress	Always	Your current rank, total hours, and a progress bar showing the hours left to your next rank.
Previous flight	Always	Your most recent PIREP: route, aircraft, distance, flight time, landing rate and whether it was accepted. My Logbook opens your full logbook on the website.
Upcoming awards	Always	Your next hours, flights and tenure awards, with how far you have to go for each.
Latest livery	Always	The newest Canada Air livery, with a download link.
From the shop	Always	A featured item from the CAV shop.
Event voice	An event is live or about to open, and people are in its Discord voice channel	Who's in the event's voice channel, with View event and Join voice buttons.
In Discord voice	Anyone is in a public voice channel on the CAV Discord	Who's in which channel. Click a channel name to open it in Discord.

Card	When it shows	What it does
Open flights	Any open flights are planned	The next few group flights, how many pilots have joined and when they leave. See Open Flights .
Next event	An event is scheduled	The next event, when it starts (in your time zone), and a Dispatch window open badge once you can dispatch it.
Flight of the Week	There's a Flight of the Week	This week's featured flight. You can dispatch it straight from the card once it opens (30 minutes before it starts). It shows Completed once you've flown it.
Screenshot Contest	A monthly contest is open	This month's theme and deadline. Browse the entries, click a thumbnail to see it full size, and vote without leaving the app. Submit your entry opens the website.
Ferry flights	Ferry flights are running	Your Ferry Credits and the current ferry delivery, with a button to fly a leg.
Tour in progress	You've started a tour	Your progress and next leg, with a button to jump to it on the Tours screen.
Popular tours	Tours have been flown in the last 30 days	The most-flown tours of the last 30 days, with their rating and whether you've flown them.
News	Always	The latest CAV news.

Link your Discord

If you haven't linked your Discord account yet, a **Link your Discord** banner appears at the top of the Home screen. Linking lets you show up by name in the voice cards, chat with Discord from the [Pilot chat](#), and host or join [Open Flights](#) from Discord. You also earn an award for it. If you'd rather not, you can dismiss the banner.

Quick links

The row of buttons at the bottom of the screen opens Discord, the shop, liveries and downloads, our partners, the donation page and the Knowledge Base in your browser.

Live Map

The **Live Map** tab shows every Canada Air Virtual flight in the air right now. It refreshes every 30 seconds, and the count at the top right shows how many pilots are flying. Click the refresh button next to it to update straight away.

The map

- Each aircraft is drawn at its current position, pointing the way it's heading. Your own flight is highlighted so it's easy to find.
- Click an aircraft to see its details and the route it has flown so far.
- The background follows the map style on your CAV profile. See [Changing your map style](#).

Flight details

The popup for a flight shows:

- Flight number, pilot, departure and arrival
- Altitude, heading and ground speed
- Aircraft
- Time and distance remaining, and the flight phase
- A progress bar showing how much of the flight is done
- For flights tracked with CAVacars 2, a chart of the altitude and speed flown so far

The Live Flights list

The **Live Flights** panel on the right lists every flight with its flight number and pilot. Click a flight in the list to find it on the map.

Click the arrows in the panel's header to expand it. The expanded list also shows departure, arrival and aircraft, and adds a search box. You can search by flight number, pilot name, or departure or arrival airport.

Connecting your simulator

Click the **gear icon** at the right of the status bar to open the flight simulator link settings.

Supported simulators

Simulator	Connection	Default port	Setup needed
Microsoft Flight Simulator (2020 or 2024)	SimConnect over TCP	500	None — MSFS opens this automatically
FSX / Prepar3D	SimConnect over TCP	500	Manual (see below)
X-Plane 11 / 12	X-Plane's built-in networking (UDP)	49000	One setting (see below)

MSFS needs nothing extra — its default configuration already listens on port 500 for exactly this kind of connection.

FSX / Prepar3D don't open a network listener by default the way MSFS does. You need to hand-create a `SimConnect.cfg` file on the **simulator's** PC (not the CAVAcars PC) containing:

```
[SimConnect]
Protocol=IPv4
Address=0.0.0.0
Port=500
MaxClients=64
Disabled=0
```

The exact folder this file goes in varies by sim version — search "SimConnect.cfg location" for your specific FSX/Prepar3D version if you're not sure. The port must match whatever you set in CAVAcars (500 by default).

X-Plane needs one setting enabled: in X-Plane, go to **Settings ? Network** and turn on **"Accept incoming connections."** No plugin is required — CAVAcars talks to X-Plane's own built-in networking directly.

Setting the connection up

1. Choose your **Simulator** from the dropdown.
2. Enter the **Simulator PC address**:
 - If the simulator runs on the **same PC** as CAVAcars, enter `127.0.0.1` or `localhost`.
 - If it runs on a **different PC** on your home network, enter that PC's IP address (e.g. `192.168.1.50`) — or use the scan button below instead of typing it in.
3. Confirm the **Port** — it's pre-filled with the right default for whichever simulator you picked, but change it if you've configured a non-default port (as you might with FSX/Prepar3D above).
4. Leave **"Connect automatically on launch"** checked so CAVAcars reconnects on its own every time you open the app.
5. Click **Save & connect**.

Finding and dispatching a flight

Browse **Schedules**, **Tours**, **Events**, **Open Flights**, **Ferry** or **Charter** for a flight, then click **Dispatch**. Pick the aircraft you want to fly it in and confirm. The flight now appears under **Dispatched**.

If you're already sitting at the departure airport in the sim when you dispatch, CAVacars 2 takes you straight to Flight Tracking instead of the Dispatched list.

When you dispatch an event flight that has a Discord voice channel, the dialog also shows who's already in the event's voice channel, with a link to join them.

Searching by airport

The departure and arrival fields in the flight filters and on the Charter screen suggest airports as you type. You can type an ICAO code, an IATA code or part of the airport's name and pick from the list. You don't have to pick a suggestion: whatever you type is used as-is.

Charter flights

The **Charter** screen is for flying a route that isn't in the schedule. Fill in the flight yourself, or click **Import from SimBrief** to load your latest SimBrief flight plan. Importing fills in the flight number, departure, arrival, route, cruising altitude and aircraft. Check the details, then dispatch.

- The callsign starts out as your pilot ID. Change it if you like.
- Importing from SimBrief needs your SimBrief Pilot ID on your CAV profile (see [Planning with SimBrief](#)).
- If the aircraft in your SimBrief plan doesn't match any CAV aircraft, you'll be told so. Pick the aircraft yourself before dispatching.

Not for event flights or tour legs. A charter is never credited to an event or tour, even with the same flight number and route. If you see a warning that your charter matches an event or one of your dispatches, fly that dispatch instead. See

My Dispatched Flights

The **Dispatched** tab lists every flight you've dispatched but haven't flown yet. A flight that's being tracked is listed first and marked **Being tracked**.

To...	Do this
Change the flight number	Click the flight number, type the new one and press Enter (or Esc to cancel).
Change the aircraft	Pick a different aircraft from the dropdown on the flight.
Plan the flight	Click Plan with SimBrief . See Planning with SimBrief .
Fly it with others	Click Open . See Open Flights .
Remove it	Click Delete .
Cancel a flight that's being tracked	Click Cancel flight . Use this if the sim or CAVacars 2 crashed and you don't want to resume the flight. The tracked flight and its log are discarded, and you can choose to keep the dispatch to fly later or delete it.

You can't change the flight number or aircraft of a flight while it's being tracked.

Open Flights

Open Flights let you invite other Canada Air Virtual pilots to fly one of your dispatched flights with you. Pick a departure time, and pilots can join from the CAVacars 2 app or straight from Discord. When the time comes, everyone hops into a voice channel and departs together.

What you need

- The latest version of **CAVacars 2**
- **Your Discord linked to your pilot account.** Link it from your profile on the website. You'll also earn an award for it. Hosting requires a linked Discord, and so does joining from Discord.

Hosting an open flight

1. Dispatch a flight as normal (a schedule, tour leg or charter).
2. Open the **Dispatched** screen and click **Open** next to the flight.
3. Choose:
 - **Departure time.** Any time in the next 48 hours. The time you enter is your local time; the dialog also shows it in UTC.
 - **Voice channel.** The default is a **new temporary channel**, which the bot creates for you. You can pick an existing channel instead.
 - **Note** (optional), for example "relaxed pace, all welcome".
4. Click **Open flight**.

Your flight is posted immediately in the **#open-flights** channel on Discord and appears on the **Open Flights** screen in CAVacars 2. You can host up to **two** open flights at a time.

“ Event flights and ferry flights can't be opened. Events already have their own group flight, and ferry legs have their own rules.

To call it off, go to **Open Flights** and click **Cancel open flight**. Your own dispatch stays, and pilots who already joined keep theirs.

Joining an open flight

In CAVacars 2

1. Open the **Open Flights** screen.
2. Click **Join** on a flight, choose your aircraft (the host's aircraft is suggested, but you can fly something else), and confirm.

In Discord

1. Find the flight in **#open-flights**.
2. Press **Join flight**.

Either way, the flight is added to your **Dispatched** flights, ready to fly. To back out, use **Leave** (in the app or in Discord). That also removes the dispatch.

You don't have to fly exactly at the departure time, but the group leaves then, so being ready in time is the point.

What happens and when

When	What happens
You open the flight	It's posted in #open-flights and listed in the app
30 minutes before departure	A temporary voice channel is created (unless the host chose an existing one), and the post shows it
15 minutes before departure	The host and everyone who joined get a reminder ping
Departure time	Fly together!
30+ minutes after departure	The temporary voice channel is removed once it's empty
60 minutes after departure	The open flight closes and the Discord post is marked closed

If the host deletes their dispatch, the open flight is cancelled automatically.

The Flight Lead award

Host an open flight that at least one other pilot also completes, and you'll earn the **Flight Lead** award.

Troubleshooting

"Link your Discord account before hosting."

Link your Discord from your profile on the website, then try again.

I don't see the Open button.

It only appears on flights that are not in progress and are not event or ferry flights.

The Join button in Discord says my account isn't linked.

Discord joining works through your linked account. Link it on the website first.

Where's the voice channel?

Temporary channels appear 30 minutes before departure. The post in #open-flights updates with a link when it's created.

The times look different in Discord and in the app.

Both show the same moment. Discord shows the time in each person's own time zone, and the app uses your display time zone.

I joined but the flight doesn't show in Dispatched.

Refresh the Dispatched screen. If it still isn't there, try joining again, and ask in Discord if the problem continues.

Planning with SimBrief

From a dispatched flight, click **Plan with SimBrief** to open SimBrief in your browser with the route, aircraft and airports already filled in. You need a SimBrief Pilot ID linked on your CAV profile first. If you haven't set one, the button will prompt you to add it.

After generating your plan on SimBrief, come back and click **Check for my flight plan** to pull the OFP summary (weights, route, cost index, fuel) into the app.

Your route on the map

When your latest SimBrief plan is for the flight you're tracking (same departure and arrival), the Flight Tracking map draws its route fix by fix instead of a straight great-circle line.

Changing your plan

You can edit and regenerate your plan on SimBrief as often as you like. Click **Check for my flight plan** again to load the new version. For event flights and tour legs, keep flying the original dispatch so the event or tour leg is credited. See [Editing a SimBrief plan for an event or tour flight](#).

Charter flights from SimBrief

Already planned a flight on SimBrief that isn't in the schedule? On the **Charter** screen, click **Import from SimBrief** to fill in the charter form from your latest plan. See [Finding and dispatching a flight](#).

Editing a SimBrief plan for an event or tour flight

Event flights and tour legs are linked to your dispatch. That link is what gives you credit for the event or the tour leg when you file your PIREP. In CAVacars 2 you can change your SimBrief plan as often as you like, and the link stays in place.

Never use Import from SimBrief on the Charter screen for an event or tour flight. That button creates a brand-new *charter* dispatch. A charter has no event or tour link, so it is never credited to the event or tour leg, even when it has exactly the same flight number, airports and route. The **Plan with SimBrief** button on your dispatched flight is the right one: it updates your plan without touching the dispatch.

Before you start

- Link your **SimBrief Pilot ID** on your CAV profile. If it's missing, the app asks you to add it when you click **Plan with SimBrief**.
- In your browser, sign in to the same SimBrief account as that Pilot ID.

Step 1: Dispatch the event or tour flight

1. Open **Events** or **Tours** in CAVacars 2.
2. Click **Dispatch** on the event flight or tour leg. Event flights can be dispatched from 30 minutes before the event starts. Tour legs must be flown in order.
3. The flight now appears under **My Dispatched Flights**.

Step 2: Plan it with SimBrief

1. In **My Dispatched Flights**, click **Plan with SimBrief** on the flight.
2. Click **Open SimBrief**. SimBrief opens in your browser with the flight number, airports, aircraft, route and cruise level already filled in.
3. Adjust anything you like and click **Generate Flight** on SimBrief.
4. Go back to CAVacars 2 and click **Check for my flight plan**. The app shows the OFP summary and draws your route on the tracking map.

Step 3: Change the plan as often as you need

Want a different route, cruise level, fuel or payload?

1. Edit the plan on SimBrief and generate it again. You can reopen it from **Plan with SimBrief → Open SimBrief**, or edit it directly on simbrief.com.
2. In CAVacars 2, click **Check for my flight plan** again to load the new version.

Don't delete the dispatch and don't create a charter from the SimBrief plan. Keep flying the original dispatch from My Dispatched Flights. It's the one that carries the event or tour link. Re-loading the plan into your aircraft or EFB in the sim is fine too; it doesn't affect your dispatch.

If you open the **Charter** screen (in CAVacars 2 or on the website) with a flight that matches an event or one of your event or tour dispatches, you'll see a warning that the charter won't count. When you see it, stop and go back to your dispatched flight.

Changed aircraft? If you switch to a different aircraft in SimBrief, change it on the dispatch too. Use the aircraft dropdown on the flight in **My Dispatched Flights**. Changes to the route, cruise level, fuel or payload don't need anything in CAVacars 2.

Your other tools stay in sync

Your plan is generated and stored on SimBrief, so aircraft FMCs, EFBs and other add-ons that import your latest SimBrief plan get the same edited version. Two things to keep in mind:

- Everything loads your **most recent** SimBrief plan. If you generate a plan for another flight afterwards, that newer plan is what CAVacars 2 and your add-ons will load.

- If CAVacars 2 says it can't find your plan, check that your browser is signed in to the SimBrief account that matches the Pilot ID on your CAV profile.

Step 4: Fly and file

Before you start tracking, check the flight in **My Dispatched Flights**. Its type should show the event or tour leg, not *Charter*. If you have more than one dispatch from the same airport, CAVacars 2 asks which one to track: pick the event or tour flight.

Start tracking the dispatched flight as usual. When you file the PIREP, the event or tour leg is credited automatically. See [Flight tracking](#) and [Filing your PIREP](#).

My event or tour leg wasn't credited

Almost always, the flight was filed on a charter (or a schedule flight) instead of the event or tour dispatch, usually after re-importing a SimBrief plan through the Charter screen or deleting and recreating the dispatch. Event flights can only be dispatched from 30 minutes before the event starts until it ends, so a dispatch that's deleted late can't be recreated as an event flight.

Contact staff with your PIREP number. Don't file the flight again.

Flight tracking

Getting into a tracked flight

CAVacars 2 watches for your aircraft to appear in the simulator world. When it does:

- If you were on the **Home** screen, you'll get a 10-second banner offering to jump straight to **Flight Tracking**.
- If a dispatched flight departs from wherever you've spawned, tracking **arms itself automatically** with a 60-second countdown before it starts, giving you time to finish your before-start flow first. You can click **Start now** to skip the wait, or **Cancel** to not track this flight.
- If more than one of your dispatched flights departs from the same airport, you'll be asked which one to track instead of it guessing.

While tracking

Once active, CAVacars 2 sends position updates to the server automatically and shows your progress (distance and time remaining) right on the tracking screen. The bar under the map shows the flight you're tracking and how many updates have been sent, with **File PIREP**, **Stop** and **Cancel flight** buttons.

The buttons above the map

Button	What it does
Log	Shows the Flight Log panel: events recorded during the flight, your own comments, and the Auto-file switch. See Filing your PIREP .
Profile	Shows the vertical profile panel: a chart of your altitude and airspeed over the flight so far.
Follow	Keeps the map centred on your aircraft. Dragging the map away turns it off; it turns itself back on when your aircraft is near the middle again.
Traffic, Layers, Radar	Other aircraft, airspace and navigation data, and weather radar. See Map layers .
Pause at TOD	Pauses the sim before your top of descent (see below). Only shown while a flight is being tracked.

Button	What it does
Recover	Puts your aircraft back where it was after a sim crash (see below). Only shown when it's needed.
Pause / Resume	Pauses or resumes the simulator.

While the sim is paused, the map is dimmed with a large **SIM PAUSED** label and a button to resume.

Pause at top of descent

Turn this on and CAVacars 2 pauses the simulator a little before your computed top-of-descent point, based on a rough 3° descent profile. It's handy if you tend to get distracted and fly through your TOD. When it pauses, you'll hear a two-tone cabin chime, and the bar under the map says **Paused at top of descent** with a **Resume** button.

Click **Pause at TOD** to set how early it pauses:

- **Lead by distance:** pause a set number of nautical miles before TOD.
- **Lead by time:** pause a set number of minutes before TOD, based on your current ground speed.

Adjust the value if it's pausing too early or too late for your taste.

Stopping or cancelling a flight

- **Stop** stops tracking but keeps the flight open, so you can resume it for the next 12 hours.
- **Cancel flight** throws the tracked flight and its log away, and it can't be resumed. You're then asked whether to keep the dispatch to fly later or delete it. You can also cancel a tracked flight from the **Dispatched** tab, which helps if the app or sim crashed and you don't want to resume.

Interruptions and resuming

If you close the app, crash, or otherwise get interrupted mid-flight, CAVacars 2 keeps your tracked flight open on the server for **12 hours**. Next time you launch the app and get back in the world, you'll be offered **Resume** (pick up where you left off, log and all) or **Discard**.

If tracking is active when you try to close the app, you'll get a warning first. **Quit Anyway** ends the app immediately (still resumable within the 12-hour window above) rather than properly ending the flight.

If you resume more than half a mile from where tracking last saw you, the flight log notes how far away you were. That PIREP then goes to staff for review instead of being approved automatically. This can also happen when CAVacars 2 restarts mid-flight to install an update, which is why Windows updates wait for you to click Apply.

Recovering after a sim crash

If your simulator crashes mid-flight and you restart it somewhere else, a **Recover** button appears above the map once your aircraft is more than 10 nm from its last tracked position. Click it and confirm, and CAVacars 2 moves your aircraft back to that position, altitude and heading.

- You'll need to restore fuel, gear, flaps and trim yourself.
- Recover works with Microsoft Flight Simulator only.
- The recovery is noted in your flight log.

Filing your PIREP

There are two ways to file:

- **Auto-file** (on by default, toggle in the Flight Log panel): once you're parked at the destination with your engines off, CAVacars 2 waits about 6 seconds to make sure you've actually stopped, then files the PIREP for you automatically.
- **Manual**: click **File PIREP** on the tracking screen. This becomes available once you're on the ground with either your engines off or your parking brake set. If you file from somewhere other than the planned arrival airport, you'll be asked to confirm it as a diversion.

The **Flight Log** panel (toggle with the **Log** button) records notable events during the flight automatically (gear, flaps, lights, engine starts, touchdown, and more) and lets you add your own comments, which get folded into the PIREP.

If filing fails (for example because your internet dropped), the bar under the map shows the error with a **Retry** button.

After you file

A summary pops up with your landing rate, fuel used and flight time. If the flight earned you a promotion or any awards, they're shown too, with confetti for a great landing or a new unlock.

If the PIREP needs a staff review (see below), the summary says so. Any awards or rank progress it earns are granted once it's approved.

Automatic approval

Most PIREPs are approved automatically. A PIREP goes to staff for review instead if any of these show up:

Check	Sent for review when...
Landing rate	Touchdown was harder than 750 fpm (or the landing rate is implausibly positive)
Ground speed	The average ground speed for the flight is over 560 kt
Slew mode	Slew mode was used
Sim rate	The sim rate was changed from 1x at any point

Check	Sent for review when...
Fuel increase	Fuel went up while airborne by more than 1% of your starting fuel, for example from refuelling in flight
Crash	The aircraft crashed
Flight resumed	The flight was resumed more than half a mile from where tracking last saw you (see Flight tracking)
Landing location	You landed more than 5 nm from the planned arrival airport, e.g. a diversion
Distance and fuel	No distance was flown, or no fuel was used
Flight number	The flight number contains anything other than letters and numbers

A review isn't a penalty. It just means a staff member looks at the flight before it counts. Each of these events is recorded in your flight log, so you can see what happened.

Achievements: Earn Badges for How You Fly

Achievements are badges you earn for how well you fly, not just how much. Grease a landing in a gusty crosswind, fly by the book, land at Lukla or keep up a weekly flying habit, and CAVacars 2 rewards you for it.

Achievements count from **1 November 2026**.

What counts

- **Only flights flown with CAVacars 2.** CAVacars 2 records what happens during your flight (your touchdown, the lights, the gear, the weather) and that's what achievements are judged on. Flights filed with smartCARS or entered by hand don't count.
- **Only flights since launch.** Everyone starts from zero on 1 November 2026, including the achievements that look at your history, like Airport Collector and Regular. Earlier flights don't count.
- **Only approved PIREPs.** If your PIREP is waiting for review, its achievements unlock once it's approved.
- **Earned is earned.** Once you've unlocked an achievement, you keep it.

Make sure you're on the latest version of CAVacars 2. You can download it from [the CAV website](#).

Tiers and points

Most achievements have three tiers: **Bronze**, **Silver** and **Gold**. Each one asks for more than the last. For example, Crosswind Ace needs a clean landing in 15 kt of crosswind for Bronze, 25 kt for Silver and 35 kt for Gold.

Every tier you reach adds to your **achievement score**:

Tier	Points
Bronze	10
Silver	25

Tier	Points
Gold	50

Points add up, so taking an achievement all the way to Gold is worth 85 points in total. Achievements with only one tier are worth 50.

The top scores are on the **achievement leaderboard** on the Stats page.

Hidden achievements

Some achievements are secret. They show up as **???** until you earn one, and then the name and how you earned it are revealed. Some tiers are hidden too. Explore, try new things, and you might stumble onto one.

The categories

- **Landing skill:** soft, precise and consistent landings, including in a crosswind.
- **Airmanship:** flying by the book. Lights, gear, no warnings, good fuel planning, and handling a diversion well.
- **Exploration:** new airports, continents and aircraft types, challenging airports, and flying at night, at dawn and in bad weather.
- **Community:** group flights, flying online on VATSIM or IVAO, and flying every week.

For the exact numbers behind every achievement, see [Achievements: The Full List](#). For how your landing is measured, see [Achievements: Your Landing Data](#).

Where to see your achievements

- **In CAVacars 2:** open the **Achievements** screen. After you file a PIREP, the summary shows what you unlocked, and it shows **So close** hints when you just missed one.
- **On the website:** go to **Airline → Achievements** to see all of them, how many pilots have each tier, and who got there first. Your own achievements and score are on your profile.
- **On each PIREP:** the PIREP details page shows the touchdown and flight data CAVacars 2 recorded, and any achievements that flight earned.
- **In Discord:** Gold tiers and rare achievements are announced.

Tips

- **Fly online?** Add your VATSIM or IVAO ID to your profile. That's how we can tell you flew on the network for **On the Network**.
- **Planning with SimBrief?** Generate your plan for the flight you're flying, close to departure. **Fuel Planner** compares your landing fuel with the plan.
- **Hosting or joining Open Flights** counts toward **Group Flight** once at least three pilots finish the flight.
- **Regular** weeks run Monday to Sunday (UTC). One approved CAVacars 2 flight in a week keeps the streak going.

Questions

I had a great landing, but it didn't count. Why? Check the PIREP details page. It shows exactly what CAVacars 2 recorded at touchdown. The landing achievements need every condition at once, for example no bounce *and* the right rate *and* low G. Also check that the PIREP is approved.

My PIREP is approved, but the achievement didn't unlock. Make sure you flew it with CAVacars 2 on or after 1 November 2026. If the numbers on the PIREP clearly meet the criteria, let staff know in Discord.

Can I lose an achievement? No. Once it's unlocked, it's yours. A streak can end, but the best streak you reached is what counts.

Achievements: Your Landing Data

CAVacars 2 measures your touchdown in detail, and the landing achievements are based on those numbers. This article explains what's measured, how, and how to earn each landing achievement.

You'll find these numbers for every flight on the PIREP details page on the website, under **Touchdown**.

What CAVacars 2 measures

At touchdown, CAVacars 2 reads your sim many times a second rather than once a second, so short events like a bounce or a G spike aren't missed.

Value	How it's measured
Rate (fpm)	Your vertical speed, averaged over the last quarter of a second before the wheels touch. A descent is negative: -120 fpm is a gentle landing.
G-force	The highest load factor in the first second after touchdown. A firm landing that settles quickly still shows its peak.
Pitch	Nose up or down at touchdown, in degrees. Positive is nose up.
Bank	How far your wings are from level at touchdown, in degrees.
Crab	The angle between where the nose points and where the aircraft is actually going over the ground. A crab of 0° means you lined the nose up with the runway.
Bounces	A bounce is when you're back in the air for at least a quarter of a second and touch down again within 10 seconds.
Wind	The wind at your aircraft at touchdown, from the sim.
Weather	Whether it was raining or snowing, and the visibility, at touchdown.

Touch-and-goes: only your **last** landing of the flight counts. If you do a touch-and-go or a go-around, the final landing at your destination is the one that's judged.

How crosswind is calculated

The crosswind is worked out from the wind and the direction you were travelling down the runway:

1. **Your direction down the runway** is your heading minus your crab angle. That's your actual path over the ground at touchdown.
2. **The wind angle** is the difference between where the wind is coming from and that direction.
3. **Crosswind** = wind speed $\times$ $\sin(\text{wind angle})$. **Headwind** = wind speed $\times$ $\cos(\text{wind angle})$. A negative headwind is a tailwind.

For example, a 20 kt wind 40° off the runway gives a crosswind of $20 \times \sin(40^\circ) \approx 13$ kt and a headwind of about 15 kt.

These are calculated on our server from the raw numbers CAVacars 2 records, so they're the same for every pilot and every sim.

A clean landing

Several achievements ask for a **clean landing**. That means:

- no crash
- no bounce
- a rate between 0 and –300 fpm
- 1.5 G or less

The landing achievements

Butter

Touch down between **0 and –60 fpm**, at **1.15 G or less**, with less than **2° of bank** and no bounce.

Tip: Butter is about a gentle flare. Don't float down the runway hunting for a perfect 0 fpm, though: the wings need to be level too, and a long float in a gusty wind often ends in a wing dip.

Textbook

Everything at once: **-60 to -180 fpm, 1.25 G or less, 0 to 8° of pitch** (nose up, not flat or nose down), less than **2° of bank** and less than **2° of crab**, and no bounce.

Tip: Textbook isn't the softest landing, it's the right one. Fly a stable approach, flare normally, and land firmly on the main gear with the nose aligned with the runway. In a crosswind, de-crab before touchdown.

Consistency

Land in the **-60 to -250 fpm** band at **1.4 G or less**, flight after flight. Any landing outside the band, including one that's too soft, starts the count again. Bronze is 10 in a row, Silver 25 and Gold 50.

Tip: This rewards a normal, positive landing every time. Don't chase greasers, they can take you outside the band.

Greaser Streak

String together landings between **0 and -150 fpm** at **1.3 G or less**. A firmer one ends the streak. Bronze is 5 in a row, Silver 10 and Gold 25.

Crosswind Ace

A clean landing in a strong crosswind, with less than **5° of bank** and less than **5° of crab** at touchdown. Your strongest such crosswind counts: 15 kt for Bronze, 25 kt for Silver and 35 kt for Gold.

Tip: Live weather is your friend here. Look for gusty days at airports with a single runway. Crab on the approach, then use rudder to line the nose up and a little aileron into the wind to stay on the centreline.

De-crab Master

A clean landing in at least **15 kt of crosswind** with less than **1.5° of crab**. This is about lining the nose up with the runway just before the wheels touch.

Tip: Hold the crab until the flare, then smoothly apply rudder to straighten the nose. Too early and you'll drift off the centreline, too late and you'll touch down sideways.

Other achievements that use landing data

- **Diversion Done Right:** a clean landing at an airport other than your planned arrival (more than 5 nm away from it).
- **Weather Warrior:** a landing in rain or snow, or with visibility under 3 statute miles. Turn on live weather or set it up yourself.

If something looks wrong

If a value on your PIREP looks impossible, our server ignores that flight's data for achievements. You'll see a note about it on the PIREP details page. It's usually caused by a sim glitch. If it keeps happening, let us know in Discord with the PIREP link.

Achievements: The Full List

Every achievement you can earn by flying with CAVacars 2, and what each tier needs. Only approved PIREPs filed with CAVacars 2 since achievements launched count.

Each tier is worth points toward your achievement score: Bronze 10, Silver 25, Gold 50. There are also hidden achievements that aren't listed here. You'll find out what they are when you earn one.

Landing skill

Achievement	How to earn it	Bronze	Silver	Gold
Crosswind Ace	Land smoothly in a strong crosswind: no bounce, between 0 and –300 fpm, under 1.5 G, with less than 5° of bank and crab at touchdown.	15 kt crosswind	25 kt crosswind	35 kt crosswind
De-crab Master	Kick out the crab: touch down in at least 15 kt of crosswind with less than 1.5° of crab, cleanly.	1 landing	10 landings	25 landings
Butter	Touch down between 0 and –60 fpm, under 1.15 G, wings level (under 2° of bank), without a bounce.	1 landing	10 landings	50 landings
Textbook	Everything by the book at once: –60 to –180 fpm, under 1.25 G, 0–8° of pitch, under 2° of bank and crab, no bounce.	1 landing	10 landings	25 landings

Achievement	How to earn it	Bronze	Silver	Gold
Consistency	Land in the –60 to –250 fpm band, under 1.4 G, flight after flight. Any landing outside it starts the count again.	10 in a row	25 in a row	50 in a row
Greaser Streak	String together landings between 0 and –150 fpm, under 1.3 G. A firmer one ends the streak.	5 in a row	10 in a row	25 in a row

Airmanship

Achievement	How to earn it	Bronze	Silver	Gold
Clean Sheet	Fly at least 30 minutes with no stall or overspeed warnings, no crash, and no time acceleration.	10 flights	50 flights	100 flights
By the Book	Landing lights and strobes on for takeoff and landing, gear down by 1,000 ft above the ground, and no overspeed.	10 flights	50 flights	100 flights
No Pause	Fly a long flight without pausing (Pause at TOD doesn't count against you).	3 h	6 h	10 h
Fuel Planner	Land with fuel within 10% of your SimBrief plan's planned landing fuel.	5 flights	25 flights	100 flights
Diversion Done Right	Divert to an airport other than your planned arrival and still make a clean landing.	1 diversion	5 diversions	10 diversions

Exploration

Achievement	How to earn it	Bronze	Silver	Gold
Airport Collector	Fly to and from different airports. Every departure and arrival airport counts once.	25 airports	100 airports	250 airports
Continent Hopper	Land on different continents.	3 continents	5 continents	6 continents
Type Rated	Fly at least 10 hours in each of several aircraft types.	3 types	5 types	10 types
Short Field	Land at some of the world's most challenging airports, from Lukla to Saba.	1 airport	5 airports	10 airports
Night Owl	Take off or land in the dark (the sun more than 6° below the horizon).	10 flights	50 flights	100 flights
Dawn Patrol	Take off or land around sunrise (the sun within 6° of the horizon, in the morning).	5 flights	25 flights	50 flights
Weather Warrior	Land in rain or snow, or with visibility under 3 statute miles.	5 landings	25 landings	50 landings

Community

Achievement	How to earn it	Bronze	Silver	Gold
Group Flight	Complete an open flight that at least three pilots (host included) finished.	1 group flight	10 group flights	50 group flights

Achievement	How to earn it	Bronze	Silver	Gold
On the Network	Fly online on VATSIM or IVAO. Add your VATSIM or IVAO ID to your profile so we can see you there.	1 flight	25 flights	100 flights
Regular	Fly at least once every week. Weeks run Monday to Sunday; missing one starts the count again.	4 weeks in a row	12 weeks in a row	52 weeks in a row
Marathon	Fly a single very long flight.	10 h	13 h	???

Short Field airports

These 20 airports count toward **Short Field**. Each one counts once, however often you land there.

ICAO	Airport
VNLK	Lukla (Tenzing-Hillary)
TNCS	Saba (Juancho E. Yrausquin)
LFLJ	Courchevel
TFFJ	St. Barthélemy (Gustaf III)
LXGB	Gibraltar
MHTG	Tegucigalpa (Toncontín)
VQPR	Paro
LPMA	Madeira (Cristiano Ronaldo)
TNCM	St. Maarten (Princess Juliana)
LOWI	Innsbruck
NZQN	Queenstown
SBRJ	Rio de Janeiro (Santos Dumont)
EGPR	Barra (beach runway)
KASE	Aspen
LSZA	Lugano
CYTZ	Toronto (Billy Bishop)
PAJN	Juneau

ICAO	Airport
LFMN	Nice
TQPF	Anguilla (Clayton J. Lloyd)
SPZO	Cusco

Nearby traffic

The **Traffic** button above the tracking map shows other aircraft near you, from any combination of these sources:

- **VA traffic:** other Canada Air Virtual pilots flying nearby
- **SayIntentions.AI:** traffic from SayIntentions.AI (needs your SayIntentions.AI API key on your CAV profile)
- **Sim traffic:** AI and multiplayer aircraft your simulator already knows about
- **VATSIM** and **IVAO:** pilots online on those networks

Traffic only appears once you're connected to your sim and in the world, since it's filtered to what's actually near you.

For marker colours, setup and everything else you can add to the map (airspace, airports, nav aids, approaches and weather radar), see [Map layers](#).

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.

Changing your map style

CAVacars 2 uses the same map style as the CAV website. You pick the style once on your website profile, and both the website maps and the CAVacars 2 live map use it.

Available map styles

- **Dark Simple:** a clean, minimal dark map. This is the default.
- **Dark Detailed:** a dark map with more roads, labels and terrain detail.
- **Light Detailed:** the light version of Dark Detailed. Good for daytime flying or bright rooms.
- **OSM Bright:** a colourful light map that looks like a classic road map, with parks, water and roads easy to tell apart.
- **Satellite (Topo):** satellite imagery with topographic detail.

Changing your map style

1. Log in to [the CAV website](#).
2. Open the menu under your name in the top right and choose **Edit Profile**.
3. Scroll to **Map Style** and select the style you want.
4. Click **Update Profile** to save.
5. Restart CAVacars 2 so it loads your new map style.

Your choice also applies to the maps on the website, such as the live flights map and your PIREP route maps.

Pilot chat

The **Chat** tab is a live channel shared by every CAV pilot using CAVacars 2.

- Type @ in the message box to mention another pilot by callsign. The autocomplete list will help you pick one.
- The Chat tab shows a badge for unread messages, and turns into a pulsing @ icon if you've been mentioned.

Chatting with Discord

Pilot chat is linked to the ACARS chat channel on the CAV Discord, so pilots in the app and on Discord can talk to each other.

- Messages you send in CAVacars 2 appear in the Discord channel under your name and avatar. If you @-mention a pilot who has linked their Discord, they're pinged on Discord too.
- Messages sent in the Discord channel appear in CAVacars 2 within about 15 seconds, as long as the sender has linked their Discord to their CAV account. Messages from members who haven't linked their account stay on Discord.

To link your Discord, use the **Link your Discord** banner on the [Home screen](#) or your profile on the website.

Settings & preferences

Most settings live right where you use them. CAVacars 2 remembers them between launches.

In the app

Setting	Where	More
Light/dark theme	Sun/moon button in the top bar	
Close to tray	Pilot menu (your name, top right)	The app at a glance
Start with Windows, start minimized to tray	Pilot menu	Starting with Windows and notifications
Desktop notifications	Pilot menu	Starting with Windows and notifications
Browser access	Pilot menu	Using CAVacars 2 in a browser or on an iPad
Simulator link: simulator, address, port, auto-connect	Gear icon at the right of the status bar	Connecting your simulator
Auto-file PIREP	Flight Log panel on the tracking screen	Filing your PIREP
Pause at top of descent: on/off, lead by distance or time	Pause at TOD button above the tracking map	Flight tracking
Traffic sources, map layers and weather radar	Traffic , Layers and Radar buttons above the tracking map	Map layers
Log, Profile and Follow panels	Buttons above the tracking map	Flight tracking

On your CAV website profile

These come from your profile on the website (**Edit Profile** in the menu under your name). Restart CAVacars 2 after changing them so it picks up the new values.

Setting	Used for
Timezone	The times shown throughout the app

Setting	Used for
Map Style	The background of the tracking map and Live Map. See Changing your map style .
SimBrief Pilot ID	Planning with SimBrief and importing charters. See Planning with SimBrief .
SayIntentions.AI API key	SayIntentions.AI traffic on the map
Linked Discord	Voice cards, chatting with Discord and Open Flights. See The Home screen .

Using CAVacars 2 in a browser or on an iPad

Browser access lets you open CAVacars 2 on a tablet, phone or another computer on your home network. For example, you can keep an iPad next to you as a second screen for the tracking map, flight log and chat while you fly.

CAVacars 2 keeps running on your PC the whole time. It stays connected to your simulator and does the flight tracking. The browser shows the app and lets you control it, but it doesn't track anything itself.

Turning it on

1. In CAVacars 2 on your PC, open the menu under your name in the top right and choose **Browser access**.
2. Switch on **Allow browsers on my network**. The port is set to 8780. You only need to change it if something else on your PC already uses that port, and you have to change it before switching on.
3. A QR code and a link appear. Scan the QR code with your tablet's or phone's camera, or type the link into a browser on the other device.

That's it. The device is now paired and opens CAVacars 2 whenever you visit the link, as long as the app is running on your PC. You can pair as many devices as you like. The Browser access window shows how many are connected.

If your PC is connected to more than one network (for example both wired and Wi-Fi), you'll see a link for each. Use the one on the same network as your tablet.

What works in the browser

Almost everything: the Home screen, finding and dispatching flights, SimBrief, Flight Tracking with the map and flight log, filing your PIREP, chat and the Live Map. Whatever you do in the browser happens in the app on your PC, and the two stay in sync.

A few things stay on the PC only: Browser access settings, Close to tray, Check for updates and Sign out.

If the browser loses its connection to your PC (for example if you close CAVacars 2, or the tablet leaves Wi-Fi), a **Lost connection to CAVacars 2 on your PC — reconnecting...** banner appears. It reconnects by itself once the app is reachable again.

Keeping it secure

Anyone with your link can use CAVacars 2 as you while the app is open. Only use browser access on networks you trust, like your home network, and don't share the link.

- If you think someone else has your link, click **Reset link**. Every paired device is signed out and needs to scan the new QR code.
- Switch off **Allow browsers on my network** when you don't need it.

Troubleshooting

- **The page doesn't load on my tablet.** Allow CAVacars 2 through your PC's firewall for private networks. Windows usually asks the first time you switch browser access on. Also check that the tablet is on the same network as the PC, not a guest network.
- **"This PC doesn't seem to be connected to a network."** CAVacars 2 couldn't find a network address on your PC. Check your PC's network connection.
- **An error appears when I switch it on.** Usually another program is already using the port. Choose a different port (1024 to 65535) and switch it on again.
- **My tablet says I'm not paired any more.** The link was reset. Scan the new QR code from the Browser access window.

Starting with Windows and notifications

Forgot to open CAVacars 2 before a flight? It happens. CAVacars 2 can start by itself when you sign in to Windows, stay out of the way in the system tray, and let you know with a pop-up when it spots your simulator and your flight. That way it's always running and your flights get tracked.

Turning it on

1. Click your name in the top-right corner to open the pilot menu.
2. Switch **Start with Windows** to **ON**.
3. Leave **Start minimized to tray** on if you want CAVacars 2 to start hidden, or turn it off to have the window open as normal when Windows starts.
4. Make sure **Desktop notifications** is **ON**. That's how CAVacars 2 lets you know what it's doing while it's hidden.

You need to be signed in for any of this to work. CAVacars 2 remembers your sign-in, so you only do it once. If you're ever signed out after Windows starts, a notification asks you to sign in again.

These options are on Windows and macOS only (on a Mac it says **Start with macOS**). They don't appear on Linux.

The settings

Setting	What it does
Start with Windows	Launches CAVacars 2 automatically when you sign in to Windows.
Start minimized to tray	When CAVacars 2 starts with Windows, it goes straight to the system tray instead of opening its window. Opening the app yourself always shows the window as usual.
Close to tray	Clicking the window's X hides CAVacars 2 to the tray instead of quitting it. Turn this on as well if you want it to keep running all the time.
Desktop notifications	Pop-up notifications for the moments listed below. They only appear while you're not looking at the CAVacars 2 window.

Finding it in the tray

The tray is the group of small icons at the bottom-right of the Windows taskbar, next to the clock. If you don't see the CAVacars 2 icon, click the small ^ arrow to show the hidden icons. You can drag the icon out onto the taskbar so it's always visible.

- **Click** the icon to open the window.
- **Right-click** it and choose **Quit** to close CAVacars 2 completely.

Opening CAVacars 2 from the Start menu or desktop shortcut while it's already in the tray just brings the existing window up.

What the notifications tell you

Notification	When
Connected to MSFS 2024 (or your sim)	CAVacars 2 has found your simulator.
Flight CAV123 detected	Your aircraft is at the departure airport of one of your dispatched flights. Tracking starts on its own after 60 seconds.
Tracking CAV123	Tracking has started and your flight is being recorded.
2 flights depart CYYZ	More than one of your dispatched flights leaves from this airport. Click the notification and pick the one you're flying.
No dispatch from CYYZ	You're parked at an airport but none of your dispatched flights leave from it, so the flight won't be tracked. Click to find or dispatch a flight before you go.
This flight is not being tracked	You've started taxiing or are airborne, but nothing is being tracked.
PIREP filed	Your PIREP was filed automatically after you parked.
PIREP couldn't be filed	Something went wrong filing it. Click to open Flight Tracking and file it by hand.

Clicking a notification opens CAVacars 2 on the screen you need.

If notifications don't appear, check that Windows hasn't turned them off: **Settings** → **System** → **Notifications**, then make sure notifications are on and CAVacars 2 is allowed. Focus mode (Do Not Disturb) also hides them.

How it finds your simulator

Running all day doesn't mean it keeps hammering away at a sim that isn't there. When there's no simulator to connect to, CAVacars 2 tries every few seconds for the first couple of minutes, then less often, and after about ten minutes only every 5 minutes.

If your simulator runs on the same PC, CAVacars 2 also watches for it to start. As soon as it sees the sim open, it goes back to trying every few seconds while the sim loads, so it connects within moments of the sim reaching its menu.

If your simulator is on a different PC, CAVacars 2 can't see it start, so the connection can take up to 5 minutes. Open the CAVacars 2 window, or click **Try now** in the status bar at the bottom, to connect straight away. While it's waiting, the status bar shows when the next try is due.

Your simulator still needs to be set up for CAVacars 2 as described in [Connecting your simulator](#), and **Connect automatically on launch** needs to stay switched on in the simulator settings.

Turning it off

Open the pilot menu and switch **Start with Windows** to **OFF**. CAVacars 2 won't start with Windows again. Uninstalling CAVacars 2 also removes it from startup.

Updates

- **Windows:** updates download and install automatically in the background. When one's ready, you'll see an **Apply** banner. Click it to restart into the new version whenever it's convenient; it isn't forced on you mid-flight. Applying closes CAVacars 2 and reopens it on its own, which can take a minute.
- **macOS / Linux:** you'll get a banner with a **Download update** button when a new version is available. Install it the same way you installed the current one.

You can also check for a new version at any time with **Check for updates** in the pilot menu (your name, top right).

Try not to apply an update in the middle of a tracked flight. Tracking resumes after the restart, but there'll be a gap in your track and the flight may go to staff review. See [Flight tracking](#).

What's new

To see what changed in each version, open the pilot menu and choose **What's new**. It lists recent releases, newest first, with each change marked **New**, **Fix** or **Faster**. A red dot on your avatar means there's a release you haven't looked at yet; it clears when you open What's new.

The full history is on the [Changelog](#) page. New versions are also announced in the CAVacars 2 channel on the CAV Discord.

Troubleshooting

Asking staff for help? Click the connection status at the far left of the status bar to open the **Debug log**, click **Copy log**, and paste it into your message. It shows staff what happened.

Connecting to your simulator

Nothing responds when I scan for my simulator. Confirm the simulator is running, confirm the setup step for your specific simulator (see [Connecting your simulator](#): MSFS needs nothing, FSX/Prepar3D and X-Plane both need a manual step), and check that a firewall on the simulator's PC isn't blocking the port. If CAVacars 2 and the simulator are on different PCs, make sure both are on the same home network (not, for example, one on a Wi-Fi guest network and one on the main network).

The scan found more than one simulator. Pick the correct address from the list manually. This usually means more than one PC on your network answered on that port.

My aircraft type shows as a generic code instead of its real name. This depends on what your simulator can report. X-Plane's connection can't read aircraft identity at all today, so the app falls back to whatever aircraft your dispatch says you're flying.

During a flight

"File PIREP" is greyed out. It only becomes available once you're on the ground with either your engines off or your parking brake set.

I closed the app or crashed mid-flight. Not a problem. See [Flight tracking](#): you have 12 hours to resume from where you left off. If you'd rather start over, cancel the flight from the **Dispatched** tab.

My sim crashed and I restarted somewhere else. Use **Recover** above the tracking map to move your aircraft back to its last tracked position (Microsoft Flight Simulator only). See [Flight tracking](#).

My PIREP is waiting for staff review. Something in the flight needs a human to look at it, such as a hard landing, a sim rate change or fuel added in flight. See [Filing your PIREP](#) for the full list.

Maps

The map background is blank or shows error tiles. Try a different style in [Changing your map style](#), then restart CAVacars 2. If it's still blank, check your internet connection and post the debug log in Discord.

Airspace, airports or nav aids don't show. Turn on a data source in the Layers panel and zoom in closer. See [Map layers](#).

Browser access

My tablet can't open CAVacars 2. See the troubleshooting section of [Using CAVacars 2 in a browser or on an iPad](#).

Changelog

0.31.2 — 2026-10-19

- fix: Space out the live map popup header and even out icon sizes

0.31.1 — 2026-10-18

- feat: Offer start-on-login for the Linux AppImage and .deb

0.31.0 — 2026-10-18

- feat: Install updates silently and add AppImage self-update

0.30.0 — 2026-10-17

- feat: Add start-with-Windows, start-in-tray and desktop notifications

0.29.3 — 2026-10-15

- feat: Warn before dispatching a charter that matches an event or tour flight

0.29.2 — 2026-10-15

- fix: Stop flights resumed after takeoff from filing 0 kg fuel used

0.29.1 — 2026-10-12

- fix: Stop flashing strobes from flooding the flight log

0.29.0 — 2026-10-10

- fix: Make Recover flight actually move the aircraft and confirm it did

0.28.0 — 2026-10-10

- feat: Record precipitation and visibility at touchdown for the Weather Warrior achievement

0.27.0 — 2026-10-10

- feat: Show achievements after each PIREP, add an Achievements screen and log the touchdown wind

0.26.0 — 2026-10-10

- feat: Record detailed flight metrics and send them with the PIREP

0.25.0 — 2026-10-10

- feat: File the PIREP after the sim was closed, from data recorded when parked

0.24.2 — 2026-10-10

- fix: Draw the flown path above the planned route on the tracking map

0.24.1 — 2026-10-09

- fix: Send an identifying User-Agent from the browser-access tile proxy

0.24.0 — 2026-10-09

- feat: Cancel tracked flights from Dispatched; always show SimBrief import on Charter

0.23.0 — 2026-10-08

- fix: Keep map lines continuous across the date line

0.22.0 — 2026-10-08

- feat: Flag in-flight fuel increases above 1% of starting fuel

0.21.0 — 2026-10-08

- feat: Edit flight number inline on My Dispatched Flights

0.20.2 — 2026-10-07

- feat: Offer reinstatement link when a suspended/retired pilot signs in

0.20.1 — 2026-10-07

- Log each sustained level-off as "Level at ..." instead of one cruise line

0.20.0 — 2026-10-06

- feat: Show close-to-tray state as an ON/OFF badge
- feat: Add optional close-to-tray setting

0.19.1 — 2026-10-06

- chore: Stop tracking tsc build-info caches
- feat: Log a tracking-gap notice when restarting for an update

0.19.0 — 2026-10-06

- Merge pull request #1 from jopeek/feature/web-companion
- fix: Serve the live dev renderer to browsers under npm run dev
- feat: Browser access — use CAVacars 2 from an iPad or browser on the LAN

0.18.0 — 2026-10-05

- feat: Draw the SimBrief route on the tracking map

0.17.2 — 2026-10-05

- Log touchdown even when the counter moves on an airborne frame

0.17.1 — 2026-10-03

- fix: Stop the Recover button flickering during normal flight

0.17.0 — 2026-10-03

- feat: Add Recover flight to reposition the aircraft after a sim crash

0.16.2 — 2026-10-03

- fix: Clean up flight log aircraft name, light entries and profile jitter

0.16.1 — 2026-10-02

- feat: Hide OpenAIP heliports behind their own map layer toggle

0.16.0 — 2026-10-01

- style: Shrink text in map layer popups
- feat: Add OpenAIP and MSFS navdata layers to the tracking map

0.15.1 — 2026-09-30

- fix: Don't log X-Plane's 0x sim rate while paused

0.15.0 — 2026-09-30

- feat: Add a Cancel flight button to the tracking bar

0.14.1 — 2026-09-29

- fix: Reload the changelog whenever What's new is opened

0.14.0 — 2026-09-29

- feat: Add What's new screen with an unread dot in the pilot menu

0.13.0 — 2026-09-29

- feat: Airport type-ahead on flight filters and charter dispatch

0.12.4 — 2026-09-29

- (no commit summary available)

0.12.3 — 2026-09-29

- chore: Update web tsbuildinfo
- fix: Scope resumed-flight breadcrumbs to the current bid

0.12.2 — 2026-09-29

- feat: Add a copyable debug log behind the sim status label
- fix: Find a same-PC sim's SimConnect port from its listening sockets

0.12.1 — 2026-09-29

- fix: Connect to a same-PC sim over its SimConnect pipe

0.12.0 — 2026-09-27

- fix: Derive landing rate from a high-rate, unrounded sample stream
- fix: Match dispatches by actual position, not just ICAO string
- fix: Reset flight log and tracking data on in-sim flight restart
- feat: Add time-based lead option for Pause at TOD
- fix: Add tolerance to below-10,000ft overspeed check

0.11.2 — 2026-09-23

- fix: Match charter aircraft dropdown to website's dispatch format

0.11.1 — 2026-09-23

- fix: Stop home dashboard thumbnails from cropping off the sides

0.11.0 — 2026-09-22

- (no commit summary available)

0.10.2 — 2026-09-22

- feat: Click a Screenshot Contest thumbnail to view it full size in-app
- fix: Make Screenshot Contest carousel arrows full-height and outside the image
- fix: Match Screenshot Contest card height to the rest of the home grid
- feat: Browse and vote on Screenshot Contest entries right from the home card
- feat: Update Screenshot Contest card for the merged submission/voting window
- feat: Surface the monthly Screenshot Contest on the home screen

0.10.1 — 2026-09-22

- fix: Add condition to check minimum resume gap before logging flight resume event

0.10.0 — 2026-09-22

- fix: Put category and rating on one row in Popular Tours card
- fix: Lay out Popular Tours card as columns, fix broken star icon
- feat: Add Popular Tours card to home screen

0.9.0 — 2026-09-22

- (no commit summary available)

0.8.9 — 2026-09-21

- fix: round altitude to nearest hundred and normalize heading value

0.8.8 — 2026-09-21

- refactor: restructure popup handling and improve track loading logic

0.8.7 — 2026-09-21

- ci: Build and attach the Win7 installer as part of the tagged release

0.8.6 — 2026-09-21

- fix: Replace native window.confirm with in-app modal; fix missing icons

0.8.5 — 2026-09-21

- fix: Resolve nearest airport against the server table for all sims
- fix: Only populate flight log once a flight is being tracked

0.8.4 — 2026-09-21

- fix: Keep first touchdown on bounced landings; fix FSX datum misalignment

0.8.3 — 2026-09-21

- docs: Correct SimConnect server config filename in connector comments
- feat: Pre-fill charter callsign with the pilot ID
- style: Dim form placeholders so they don't look like filled-in values

0.8.2 — 2026-09-21

- fix: FSX connector no longer drops every snapshot (no aircraft/position)

0.8.1 — 2026-09-20

- fix: Strip HTML tags from award names and descriptions

0.8.0 — 2026-09-20

- feat: enhance PIREP celebration with awards and promotion notifications

0.7.10 — 2026-09-20

- feat: link to Knowledge Base on Home and Pilot Guide in pilot menu

0.7.9 — 2026-09-20

- feat: show toast before update install and trim non-English locales

0.7.8 — 2026-09-20

- Refactor code structure for improved readability and maintainability

0.7.7 — 2026-09-19

- feat: improve OpenFlightButton title and button text for clarity; adjust Dispatched component styles for better layout
- fix: update tab labels for clarity and adjust CSS for better layout

0.7.6 — 2026-09-19

- feat: implement open flights feature with listing, joining, and management capabilities
- feat: add Discord linking prompt for pilots who haven't linked their accounts

- feat: enhance Discord voice channel integration with event support and member display

0.7.5 — 2026-09-19

- feat: update Discord voice channel types and enhance VoiceCard component

0.7.4 — 2026-09-19

- feat: integrate Discord voice channel functionality and UI components

0.7.3 — 2026-09-19

- fix: correct casing in CAVacars references and improve consistency across documentation and code

0.7.2 — 2026-09-19

- fix: adjust button positioning in flight card to prevent overlap and improve layout

0.7.1 — 2026-09-19

- fix: adjust maxNativeZoom for RainViewer tiles to prevent unsupported zoom level errors

0.7.0 — 2026-09-19

- feat: improve flight tracking map, TOD chime, and resume handling
 - Log "Flight resumed X.X nm from last known location" when an interrupted flight picks back up, using the last restored breadcrumb vs. current position
 - Show pilot names in VA traffic popups on the tracking map
 - Add a Resume button directly on the sim-paused overlay
 - Replace the synthesized TOD chime with a recorded cabin chime

- Add a toggleable precipitation radar overlay (RainViewer, no key required) with a persisted preference
- Show time remaining to top of descent (TOD) next to DTG/ETE

0.6.15 — 2026-09-18

- feat: enhance Live Map with search functionality and improved layout for flight details
- feat: enable macOS and Linux builds in installer workflow

0.6.14 — 2026-09-18

- feat: add fuel estimation from flight log when sim fuel data is unavailable

0.6.13 — 2026-09-18

- feat: add pause overlay and cockpit chime for flight tracking

0.6.12 — 2026-09-18

- fix: conditionally render PauseAtTodControl based on track status

0.6.11 — 2026-09-18

- Refactor code structure for improved readability and maintainability

0.6.10 — 2026-09-17

- fix: add MIN_CRUISE_AGL_FT constant and improve level flight detection logic

0.6.9 — 2026-09-17

- fix: enhance error handling in setPause for sim connectors and update logging

0.6.8 — 2026-09-17

- fix: ensure chart visibility by unhiding canvas before rendering and adjust popup layout
- update build for win7
- update win7 installer
- update artifact retention in actions

0.6.7 — 2026-09-15

- feat: add system event logging for app-generated events and enhance pause at TOD logic

0.6.6 — 2026-09-15

- feat: add altitude/speed profile charts to flight popups and style adjustments

0.6.5 — 2026-09-15

- feat: enhance BookStack API interaction with error handling in changelog update