

UltraFlight

User manual

For UltraFlight 12.112 and Desktop 1.39.7

Every explanation here is the same text the ⓘ buttons show in the apps, so the manual and the apps always agree.

Getting started

UltraFlight runs on your phone, your watch and your PC. The phone records your flights and is where most things happen; the PC is for planning on a big screen, your logbook and training records. Almost every section in the apps has an ⓘ beside its title: this manual is those explanations in one place, with pictures.

HOW TO

Look around with the sample flights

ON THE PHONE

1. Open ☰ › Settings.
2. Scroll to Devices & data and tap Open.
3. Scroll down to Sample flights and tap Load samples.
4. 26 flights marked SAMPLE appear in your logbook, with sample gear and a cross-country plan. Remove samples, on the same card, takes out exactly those and nothing of yours.

ON THE PC

1. Open Settings in the left rail.
2. Find Sample flights and click Load samples.
3. Remove samples, beside it, takes them out again.

FINDING YOUR WAY

The menu

Every page of the app, in the order you want them.

Your order stays on this phone until you change it.

ON THE PHONE

Press and hold a row, then drag it to move it. Back to the standard order appears under the list once you've moved anything.

Your flying at a glance

Your season, lifetime hours, records and what's due on your gear.

Ultralight hours are kept apart from general aviation and kiting, which have their own cards and never add to your flight hours. Flights set aside (drives, duplicates, short logs) don't count.

> **ON THE PHONE**
> Tap your face for your pilot profile, and ⟳ to sync with your PC now. A red card at the top means a NOTAM is in effect within 50 miles: tap it to see it on the map.

> **ON THE PC**
> Sync with phone brings over the phone's flights and changes now, instead of waiting for the next automatic sync.



The Dash: this season, lifetime hours and the last 12 months

Recent flights

Your latest flights, newest first.

A flight with photos shows one behind its date as a cover.

> **ON THE PHONE**
> Tap one for its page. To choose its cover, long-press a photo on the flight's page.

Records

Your personal bests: highest, fastest, longest and farthest.

Worked out from the flights that count. Each one shows the date you set it.

> ON THE PHONE
> They update by themselves as you log flights.

Driving to fly

The time, trips, miles and fuel you've spent driving to fly this year.

With Drives on in Settings, the phone notices when it's in a vehicle and keeps only the drives that start or end at your flying spots and LZs. After two drives to a site, tomorrow's outlook and the briefs use your own drive time there.

> ON THE PHONE
> Set your mpg and fuel price in Settings › Drives for the cost.

TRYING IT OUT

Sample flights

26 real flights to look around with.

With ratings, notes, photos, gear and a sample plan, and one flight worth replaying. They're marked SAMPLE and count in your totals and learned limits while loaded. They never sync.

> ON THE PHONE
> Remove samples takes out exactly what they added.

> ON THE PC
> Remove samples takes out exactly what they added.

Testing and feedback

What's left to try, and how to tell us how it went.

To try lists things that need a real day, and feedback goes as a small file through any app you choose.

> ON THE PHONE
> The gold tab at the right edge opens To try.

> ON THE PC
> The gold tab at the right edge opens To try. Windows key + H lets you talk your feedback.

Feedback inbox

Notes testers have sent you.

They come with Send or as a .wpfeedback file. Your own notes stay with each one, and the inbox syncs between your phone and PC. Clear one when it's dealt with; Undo puts it back.

> **ON THE PHONE**
> Open a .wpfeedback from a message to add it here.

> **ON THE PC**
> Open feedback files adds the ones you've saved. On your own PC, new ones sent with Send are checked for every hour while UltraFlight is open.

Check the weather

Is it flyable, where, and when? The Weather page answers for one place, hour by hour, against your own limits.

HOW TO **Read the air with the Skew-T**

> ON THE PHONE
>
> 1. Open ☰ › Check weather and pick a place at the top.
> 2. Scroll down past the wind chart to the Skew-T.
> 3. Tap the chart to enlarge it. ‹ and › at the top step through the hours.
> 4. Touch the chart to read any height.
> 5. ? opens a lesson on made-up numbers that teaches each line of the chart.

THE WEATHER PAGE

Your places

Pick where the forecast is for, and keep the places you fly.

Your named LZs, home, where you are now and the fields you've flown from most each have a place in the list. A named LZ is a circle 1/8 mile round its pin; fields with the same name group together as one place. Named LZs sync between your phone and PC.

> ON THE PHONE
>
> Tap a button for its forecast. Long-press one to name it as an LZ, or rename it. Drag the pin or tap the map to check somewhere else, then SAVE THIS SPOT. SHARE sends the whole place to a friend.

> ON THE PC
>
> Click a place for its forecast. Drag the pin on its map, or click the map, to check somewhere else, then Save this spot. Search at the top to add one, and share or remove it on its row. Open a .wplz or .wpgo someone sent you with the button above the list.

Heads-up

What to know first: trouble coming, then the good flying.

🌩 Hazards are wind, gusts, rain, low cloud or poor visibility at NO-GO in the daylight hours of the next 12 hours, not just outside your comfort.

> **ON THE PHONE**
> ⛔ marks NOTAMs and TFRs in effect within 10 miles. ✓ GO windows are runs of GO hours in the next two days. Tap a hazard to see its hour, a NOTAM for its details, or a window to set a reminder or send it to friends.

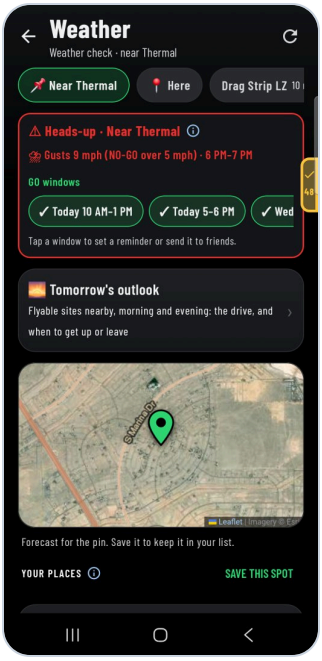
> **ON THE PC**
> Click a hazard to see its hour.

Best windows

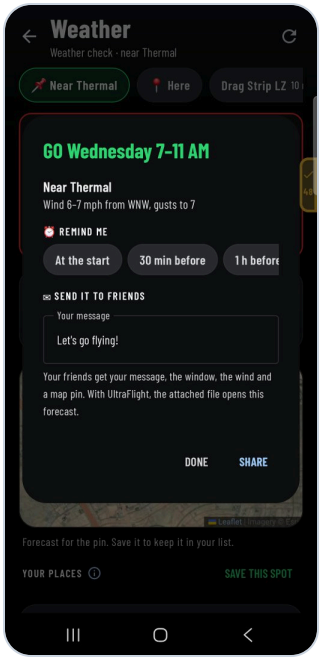
The runs of GO hours at this place in the next two days.

A window is hours in a row where the call is GO, judged against the limits in use.

> **ON THE PC**
> Click a window to see its first hour, then add a reminder to your calendar or send it to friends.



The GO windows in the next two days



Tap a window to be reminded, or to send it to friends

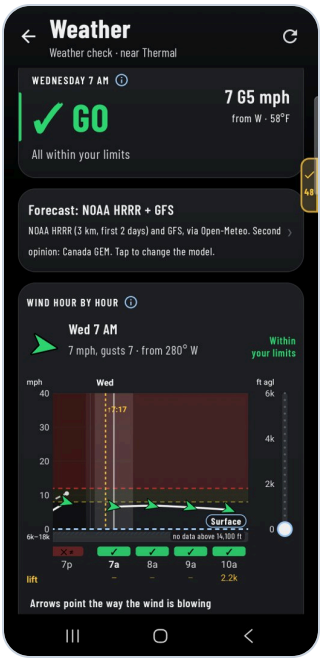
The call for this hour

GO, CAUTION or NO-GO for the hour you picked.

It's the worst of every check for that hour, judged against the limits in use, so one NO-GO makes the whole hour NO-GO. The line under it says why. Beside it: the wind and gusts, where the wind comes from, and the temperature. When a new forecast can't be had, the last one for this spot stays, with an orange note giving its date and time and the reason, and the call is dimmed: read it knowing that. A window from an old forecast can't be sent to friends until you've refreshed.

> **ON THE PHONE**
> Pick another hour on the wind chart below, and the whole page follows it.

> **ON THE PC**
> Pick another hour on the wind chart below, and the whole page follows it.



A GO hour, with the wind chart under it

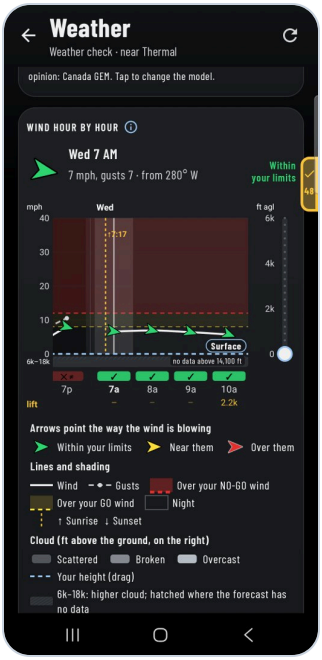
Wind hour by hour

The wind at this place, hour by hour, against your limits.

Solid line = wind, dashed = gusts. Arrows point the way the wind blows: green within your wind limits, yellow near them, red over. Red band = over your NO-GO wind. The strip under each hour is its overall call. Night hours are darker; ↑ sunrise and ↓ sunset are the gold lines. Slide the height under the chart for the winds aloft, every 1,000 ft above the ground up to 18,000 ft MSL (Class A above it is closed to ultralights); the speed scale zooms to fit. No gusts are forecast up there: the faint line is the surface wind.
Up there you're moving with the air, so your wind limits don't apply and the arrows show possible turbulence instead: green no shear forecast, yellow may be slightly turbulent, red may be moderately or very turbulent. It counts the wind changing by 10 mph or more over 1,000 ft, turning over 90°, or stirring the air under an inversion. Forecast layers are hundreds of feet apart, so green doesn't promise smooth air, and it doesn't cover thermals or air rolling over terrain.
Cloud (Settings › Cloud layers in wind graph): grey blocks are the forecast's cloud layers against the ft agl scale on the right, lighter for scattered, more solid for broken and overcast; the thin 6k–18k strip under the chart is higher cloud, hatched where the forecast has no data. With Vertical height rail on, pick the height on the rail at the right edge, drag the dashed blue line, or drag up or down anywhere in the chart (left or right moves through the hours): the readout says how far you are under the base or over the tops, red in cloud, yellow within 500 ft under a base or 1,000 ft over the tops (Part 103). The deck is the one the weather check judges; bases and tops are estimates.
Lift (gold, under the hours) = how high thermals go, in thousands of feet above the ground, from the forecast's temperatures: rising air cools 5.4°F per 1,000 ft until it's no warmer than the air around it. It's capped 500 ft under a cumulus base. An estimate; above it the air is smooth. ≠ = the models disagree.

> **ON THE PHONE**
> Tap an hour, or press and slide along the chart, to read it. ↗ marks a skill-building hour.

> **ON THE PC**
> Hover an hour to read it; click it, or drag along the chart, to pick it.



Wind and gusts hour by hour, green inside your limits

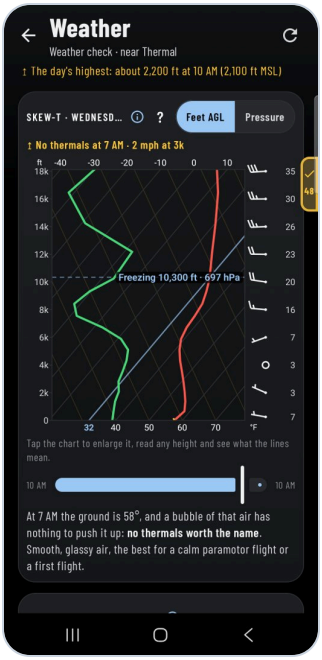
Skew-T

A picture of the air above you for the hour you picked.

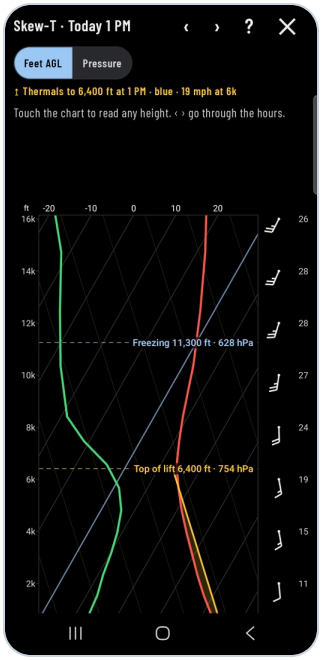
It shows how warm and how damp the air is at each height, how high thermals go, where cloud forms, where it freezes, and the wind going up. It's from the forecast model, not a balloon sounding, so compare it with what you find. The toggle puts feet above the ground or pressure up the side; the labels on the lines give both. Reading a height, three chips say what it's like there for a paramotor (PPG), a paraglider (PG) and a hang glider (HG), each with a word on why. PPG wants smooth air: green above the lid (the top of lift, or an inversion), amber anywhere under it, red in strong thermals. PG and HG want lift: amber with none or weak, green with good lift; strong lift is amber for a PG (collapses) and green for an HG. The wind's speed up there doesn't count, as you drift with the air; what does is the wind chart's turbulence reading at that height. For a PPG, wind shear over 10 mph per 1,000 ft is red, and shear like that between the surface and 1,000 ft is red at every height, as every flight goes through it twice. A PG or HG often launches in heavier air: slight turbulence is amber, moderate is red for a PG and amber for an HG, severe is red. For everyone, the wind turning or a little stirring under an inversion is amber, more than that under an inversion is red, and in cloud is red. It's a reading of the model's air at one height, not the day's GO call. Over the chart, one line sums the hour up: how high the thermals go, cumulus or blue, any inversion, and the wind at the top. Under it, the words say what the air is doing that hour, in the lesson's terms, and the hour slider scrubs through the day; the purple band is an inversion, where the air warms going up.

> **ON THE PHONE**
> Tap the chart to enlarge it and see what each line means. Touch any height to read it, and ‹ › change the hour while the height stays put. New to these charts? The ? opens a lesson in how to read one, with a made-up day to drag about.

> **ON THE PC**
> Move the mouse over the chart to read any height; what each line means is beside it. Pick another hour on the wind chart. New to these charts? The ? beside the toggle opens a lesson in how to read one, with a made-up day to drag about.



The Skew-T on the Weather page, with its reading in plain words



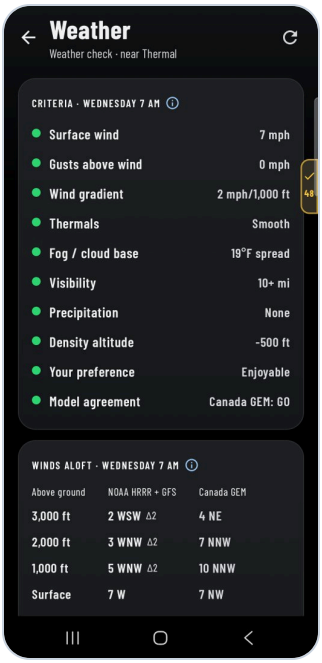
The Skew-T enlarged: thermals to 6,400 ft at 1 PM

Criteria

Every check behind the call, worst first.

Wind, gusts, gradient, thermals, cloud, visibility, rain, density altitude, daylight and more. Each row's dot is its own call: GO, CAUTION or NO-GO. The note says why, with the limit when it's over. Military Operations Areas nearby are listed under them.

> **ON THE PHONE**
> Pick another hour on the wind chart to see its checks.



Every check behind the call, with the winds aloft from two models

Winds aloft

The wind at the surface and every 1,000 ft above the ground, for the hour you picked.

A big change from one height to the next is wind gradient: it makes for a rough climb-out and can catch you by surprise close to the ground.

> **ON THE PHONE**
> Highest first, like a winds-aloft table. Δ = how much the wind changes from the height below, speed and direction together, red when it's steep. With a second model on, its numbers are beside them.

> **ON THE PC**
> The line under them gives the strongest change, and between which heights.

Low cloud

Whether low cloud lets you fly under it or on top of it, day by day.

From the forecast's cloud at each height: how low the base is, how deep the layer is, and whether it's lifting or lowering. The ⛅ lines are for flying on top. Green looks flyable, orange needs care and red is too low. It only shows when there's low cloud about.

> **ON THE PHONE**
> Tap a line to go to that day's hours. SET YOUR CLOUD LIMITS uses your own heights instead.

> **ON THE PC**
> Click a line to go to that day's hours. Your own cloud heights are under Your limits.

METARs nearby

What the nearest airports are reporting right now, measured rather than forecast.

Handy for checking the forecast against reality. Each airport's flight category: VFR, MVFR, IFR or LIFR, from its ceiling and visibility. Nothing is fetched until you ask.

> **ON THE PHONE**
> Tap SHOW for the airports, then tap one for the raw report and every part in words.

> **ON THE PC**
> Click Show METARs for the airports, then click one for the raw report and every part in words.

Skill-building windows

Hours just a little breezier, gustier or more thermic than you usually fly, for building skill.

They need limits learned from flights you enjoyed, and they're never past your NO-GO limits. Suggestions, not advice: you decide on the field.

> **ON THE PHONE**
> Tap a window to see its hour and tips for flying it. The thresholds are set with your instructor, and Settings turns these off.

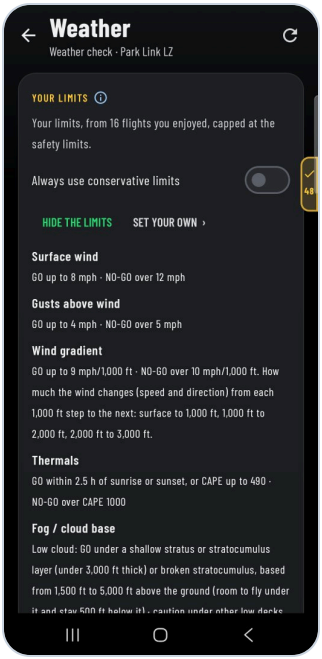
Your limits

The numbers every call on this page is judged against.

Conservative limits until you've rated 5 flights you enjoyed with weather, then limits learned from those flights. You can set your own wind and cloud limits instead.

> **ON THE PHONE**
> SHOW THE LIMITS lists them, and SET YOUR OWN changes them. Rating flights ★ or 👍 in the log is how they're learned.

> **ON THE PC**
> Learned limits live on the phone for now. Tick Use my own to set wind and cloud limits here. The forecast model is chosen here too.



Limits learned from the flights you enjoyed

Your own limits

Set your own wind and gust limits, instead of learned ones.

For conditions the app can't know about, like strong laminar coastal wind. Going past the safety caps needs a warning accepted with a tick, and flights flown with those limits are flagged on the flight's page and in the export.

> **ON THE PHONE**
> The decision is always yours; these only change what the calls are judged against.

Cloud limits

Set your own heights for flying under and on top of cloud.

Under cloud: the GO base, the NO-GO base and the highest deck worth seeking. On top: the lowest layer base and the highest fly height. Part 103 still applies: keep the ground in sight and stay clear of cloud.

> ON THE PHONE
> Heights are above the ground, and they're kept in range and in order.

Skill-building thresholds

How far past your usual flying a suggestion may go.

Extra wind and gust, whether thermals count, how many enjoyed flights it takes, and whether hot, high-density-altitude hours are allowed. The safety limits never move.

> ON THE PHONE
> Set these together with your instructor or an experienced pilot. It records who you agreed them with and when.

YOUR SPOTS AND TOMORROW

Tomorrow's outlook

Which nearby sites are flyable, and when to get up or leave.

Sites with a GO window, morning and evening, nearest first. The time to get up is the drive plus setup at the field plus time to get ready. The drive is by road, or your own usual time once you've driven there twice.

> ON THE PHONE
> Adjust the times, including Use your usual setup from your flights. Set wake-up alarm asks the Clock app to set one, and Set a reminder works for the evening.

Favorites

What you enjoy flying in, and when it's coming up.

Learned from the flights you rate, with the weather each one had. The more flights you rate, the better it gets.

> ON THE PHONE
> Rate flights 👍 , ★ or 👎 in the log. Settings › Flying weather turns on an alert when good flying is coming.

What you enjoy

The conditions of the flights you rated, good and bad.

It looks up the weather for the flights you starred, thumbed up or thumbed down, including how bumpy you've been happy with. It describes your flying; it isn't advice. Until there's a clear pattern, it says so.

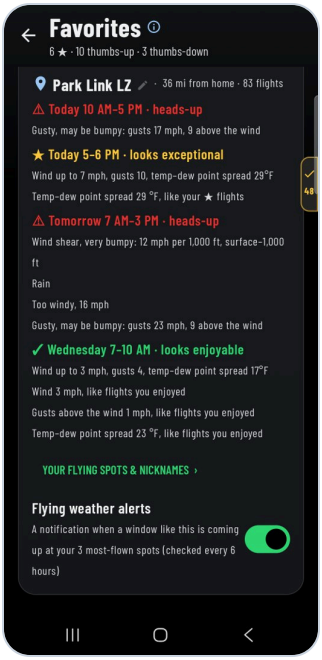
> ON THE PHONE
> It updates as you rate more flights.

Coming up at your spots

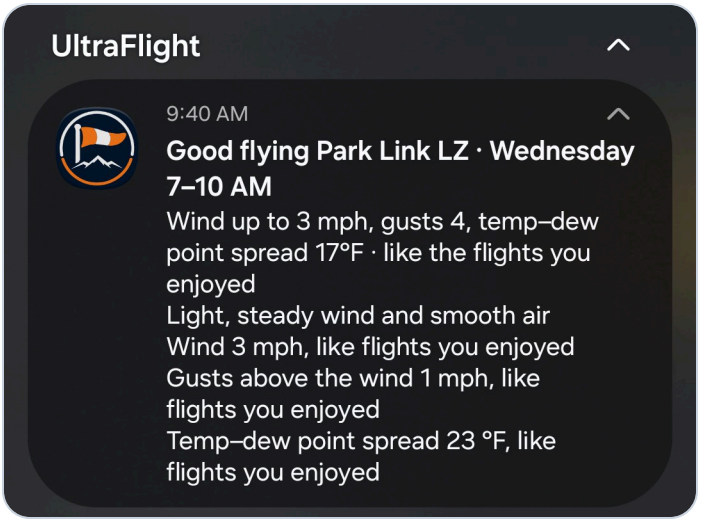
The outlook at your most-flown spots nearest home.

Good windows, ★ when it looks exceptional for you, heads-ups, and low Military Operations Areas nearby.

> ON THE PHONE
>
> Set your home in Settings › Flying weather, so the right spots are watched first.



Good windows at your spots, and the switch for flying weather alerts



A flying weather alert, with why it suits you

Weather rules of thumb

General paramotor weather guidance.

Common sense for new and experienced pilots, separate from the calls the app makes for your limits.

> ON THE PHONE
> Your own instructor's advice and what you see at the field come first.

Your flying spots

The places you fly most, worked out from your flights.

A nickname here shows on your flights and on the Weather page. It's different from a named LZ, which is a 1/8-mile circle you name on the Weather page.

> ON THE PHONE
> Tap a spot to nickname it, or 📍 to see it on the map.

A flying spot

A map of this spot, to help you see which field the app means and name it.

Satellite first, with a street map one tap away. It shows the spot's middle, the area it covers, and a dot for every takeoff there.

> ON THE PHONE
> The pencil at the top gives it a nickname.

Plan a flight

The planning map shows the wind, the land, the airspace and the fuel on one map, and turns a tap into an out-and-back or a cross-country plan.

HOW TO See how far you can go and get back

> ON THE PHONE
>
> 1. Open the planning map (☰ › Planning).
> 2. Tap the map where you'd take off. A card comes up with the land, airspace and cell coverage there.
> 3. Tap ⟲ Out & back on the card.
> 4. The dashed ring is how far you can fly each way and still get back with your reserve, in the wind at the hour on the bar along the bottom.
> 5. Move the hour bar to see the ring change with the wind.

HOW TO Open a saved plan

> ON THE PHONE
>
> 1. On the planning map, tap ⚑ at the right edge.
> 2. Under Your plans, tap a plan.
> 3. The map draws its legs, each coloured by the wind on it.

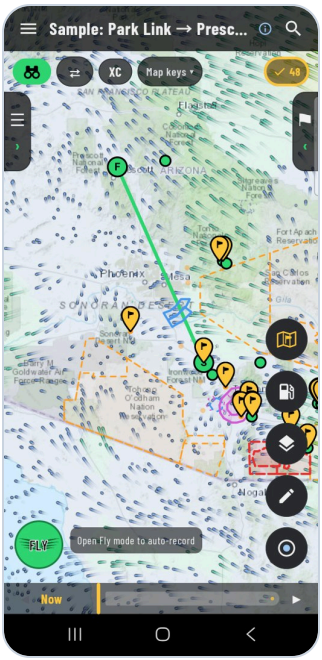
Planning

A full-screen map for looking round, and for planning a flight in the forecast wind.

Explore just looks. Out & back and Cross-country start a plan. On an out & back, the dashed gold ring shows how far you can fly out each way and still get back with your reserve in the wind at that hour. Legs are green when fine, orange for caution and red when they can't be flown or there isn't enough fuel.

> **ON THE PHONE**
> The pills along the top pick the mode: binoculars for Explore, ⇄ for Out & back, XC for Cross-country (Map & weather › Mode buttons as icons, off, shows their names). While exploring, warnings near you (weather, NOTAMs, TFRs) pop up the heads-up, with a blinking red ⚑ pill and how many beside the mode pills; once you've closed it (✕ or the pill), both go. Tap anywhere for what's there: the place, the land, the airspace, NOTAMs, cell coverage and the next 12 hours. Put the crosshair on a point to add it. Pull the left edge for the map and weather, and the right edge (its ⚑ tab) for your mission; ☰ has the app's pages and the layers button is bottom right. The bar along the bottom moves everything to that hour.

> **ON THE PC**
> Hover for the wind and airspace; click for a point's card; right-click to plan from there; drag the route's points to move them. Click the map, then ←/→ steps the hour, Space plays the next 48 hours and Home goes back to now.



The planning map in Explore, with surface wind on

Map & weather

What the map shows, and for which hour.

Places you've looked at are saved on this device for when there's no signal: airspace and land ownership for the area around them, and wind for up to two days. A route also saves its airspace, land ownership and land map 10 NM either side, on its own; its status is on the Mission card. On a phone, looking around saves land only on Wi-Fi. Weather catches up by itself when signal comes back. An orange date means it couldn't be refreshed. The Save for no signal switch stops new downloads; what's saved is still used. The note under it says when it's saving, as dragging the map may be a little slower then. TFRs aren't saved, as they change too quickly: check them before you fly. Base maps: street, terrain, satellite or the VFR sectional. Moving streaks are the surface wind, coloured by speed. Radar is NOAA's, lower 48, with a loop of the last 50 minutes to show which way showers are moving. Fronts are the latest National Weather Service analysis. Zoom in to load the airspace, and tap or click a spot for who manages the land.

> **ON THE PHONE**
> NOTAMs and cell coverage are here too. TFRs need nothing; other NOTAMs need the free FAA key in Settings › Planning map. Under Turbulence & Rotor Mapping, Relief shading shows the shape of the ground, and the turbulence layer paints where this hour's wind over it is likely making rotor, gap and crest winds (zoom in to city scale).

> **ON THE PC**
> Fold this pane with « and drag its edge to resize it. The wind holds still while another window is in front. Under Terrain, Relief shading shows the shape of the ground, and Turbulence & Rotor Mapping paints where this hour's wind over it is likely making rotor, gap and crest winds (zoom in to city scale). NOTAMs and cell coverage are only on the phone's map, so check TFRs before you fly.

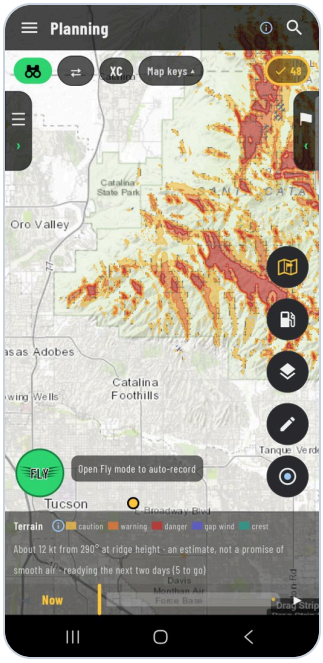
Turbulence & Rotor Mapping

Where the wind blowing over the ground is likely to be making turbulence.

From the shape of the ground and the forecast wind at ridge height for the hour on the bar. The lee rotor behind a ridge is yellow, orange and red as the wind rises; valley and gap winds are blue, hatched where a gap lets out (the strongest wind and the shear); compression over a crest is teal; and cross-hatching marks the sharp edges. Caution starts at about 8 kt of ridge-level wind and danger by about 22: paragliding thresholds, not a Cessna's. The Cautious, Standard and Experienced choices under the switch move those thresholds for your experience, and nothing else. Tap a painted zone for what it is, in numbers. It is a terrain estimate from a point forecast, not a simulation of the air: an unpainted place is not a promise of smooth air, and it knows nothing of tree lines, buildings or thermals.

> **ON THE PHONE**
> Zoom in to city scale to see it. The hour bar moves it with the wind. Relief shading in the same list shows the ground it's reading. The elevation it uses is kept on the phone (Settings › Planning map), so a place you've looked at works without a signal.

> **ON THE PC**
> Zoom in to city scale to see it. The hour in Map & weather moves it with the wind, and Relief shading in the same list shows the ground it's reading. The elevation it uses is kept on the PC, so a place you've looked at works offline.



Turbulence & Rotor Mapping over the Catalinas: caution, warning and danger in the lee of each ridge

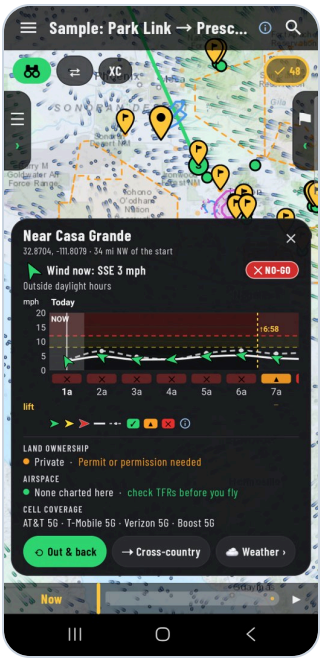
Mission

Your plan, leg by leg in the forecast wind.

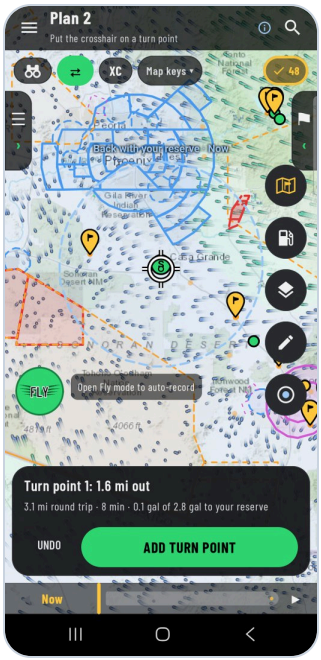
Each leg shows its ground speed, head or tail wind, time and fuel at the hour you've picked, so moving the hour shows when the flight works.

> **ON THE PHONE**
> From here you can Fly it, Share it (with its map) or Duplicate it to try a variation. On a tablet, 📌 keeps the drawer open beside the map.

> **ON THE PC**
> Next to the plan's name, Share saves a .wpplan file for another pilot, and Print makes the briefing PDF: map, legs, when to go, the forecast, stops and airspace. Fold this pane with » and drag its edge to resize it.



Tap any spot: land owner, airspace, cell coverage and the next hours



Out & back: the dashed ring is how far you can go and still get back

When to go

The next 48 hours for this plan, one column per hour.

Route is the worst of everything below it. Then the start's weather against your limits, one row per leg in the wind, and for an out & back the round-trip fuel. Night is darker. The Mission pane names the first hour that's GO for the whole route.

> ON THE PC
> Hover a cell for what it says. Click a column or drag along the grid to move everything to that hour. ▸ / ▾ folds the grid away.

Your aircraft and limits

The numbers a plan is worked out from.

Your fuel and burn, cruise speed, the reserve you want to land with and a headwind margin. Legs are cut so they close with your reserve into that headwind, so a bigger margin makes shorter, safer legs.

> ON THE PHONE
> Each plan keeps its own numbers. Pick one of your paramotors to fill in its tank and burn.

> ON THE PC
> Each plan keeps its own numbers.

Offline maps

Maps that still work without internet.

The street map keeps whatever you've looked at. Sectional charts for a plan's whole corridor can be saved in one go.

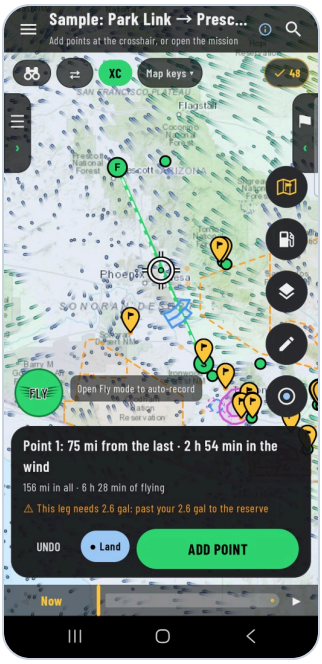
> ON THE PC
> Save the charts before you leave, while you still have a connection.

Your plans

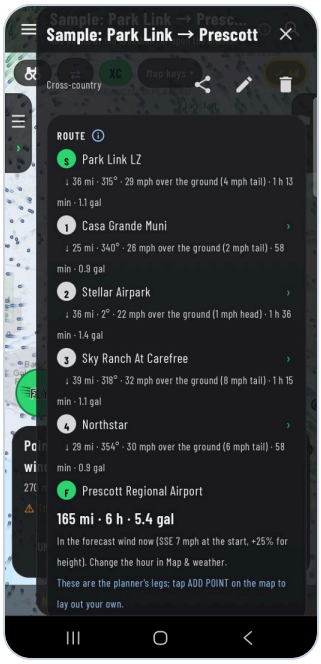
Every plan you've kept, to edit, fly again or share.

Plans stay on this phone and sync with your PC.

> ON THE PHONE
> Tap a plan to open it. Another pilot's .wpplan opens into this list.



The sample cross-country plan, with its legs in the wind



Each leg: distance, ground speed in the wind, time and fuel

Edit route

Lay out the route your way.

Your own route replaces the one the planner chose. Stops can be airports, your spots, campgrounds, a place by name, or a point on the map as a landing spot or a turn point to fly over.

> ON THE PHONE
> Reorder or remove stops, and add new ones from the corridor, the map or by name.

Stops along the way

Airports, your own flying spots and campgrounds along the route.

Each stop says whether it's public, private or inside controlled airspace (Part 103 needs ATC authorization there), with runways, radio frequencies, a phone number where known, and fuel, lodging and camping within 2 km.

> **ON THE PHONE**
> Tap a stop for its details and your own notes. Prefer public airports leaves out private and ATC airports unless nothing else is in range.



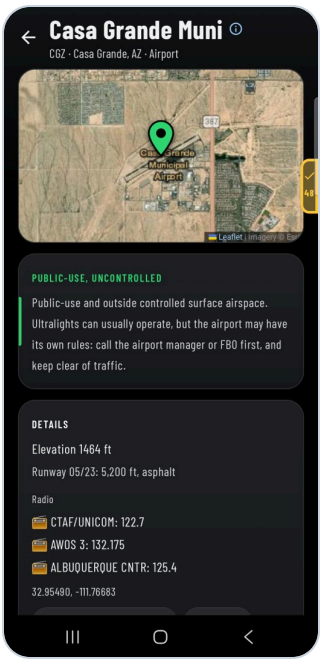
The route on the map, with its numbered stops and the airports along it

A stop

Everything known about this place, and your own notes.

Its type, runways and radio frequencies, a link to AirNav for FBOs and courtesy cars, and fuel, lodging and camping within 2 km.

> ON THE PHONE
> Write your own notes here: permission to land, a crew car, whether it's OK to sleep at the FBO.



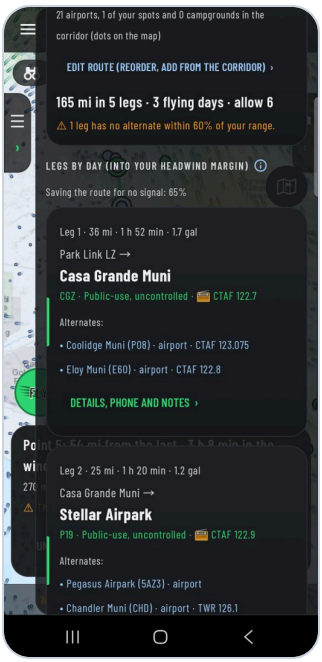
An airport's page: runway, radio frequencies and what an ultralight needs to know

Legs by day

The trip cut into legs and flying days.

Each leg closes with your reserve into your headwind margin, and has alternates. They're grouped into flying days, on a realistic calendar with weather and maintenance days.

> ON THE PHONE
> It's a plan, not a promise: check each day's weather as you go.



Legs by day, each stop with its status, radio frequency and alternates

Tips from record flights and races

What long-distance pilots have learned.

Built-in advice gathered from record flights and races, for when you're planning something big.

> ON THE PHONE
> Tap the row to open the tips, and again to fold them away.

Find fuel

Gas stations near you that sell the fuel your paramotor wants: ethanol-free (E0) and the octane you need.

The stations come from OpenStreetMap, where volunteers tag what each station sells. Each one carries a badge: Pilot-confirmed means a pilot reported its fuel from the pump in the last 12 months (the date is on the card), Conflicting reports means recent reports disagree, Tagged in OpenStreetMap means its fuel is tagged there, Offline list (date unknown) is from the ethanol-free list that comes with the app (it works with no signal, but nobody knows how old each entry is: call ahead or check the pump label; Call to confirm on its card dials the number), and Unverified means the station is on the map with nothing said about its fuel. Pilot-confirmed ethanol-free stations come first. Confirm fuel here or Report wrong on a station's card sends what you see at the pump (no name goes with it, one report a minute). Airports with fuel tagged (avgas, 91UL, UL94, mogas) show when Airports is on: check the fuel suits your engine, and that they sell to you. Tags are per station, not per pump, so "E0 and 91 are both sold here" doesn't mean the 91 is ethanol-free. Most stations aren't tagged at all, so the list is a start, not the whole picture: More stations links to pure-gas.org. Fuel info is a guide: check the pump label and test your fuel before you fly. The mix calculator shows the oil for a two-stroke motor at the ratio you set on it; use the ratio your engine maker and oil maker specify.

> **ON THE PHONE**
> Set what you want under Layers › Fuel stations (it starts from your paramotor's fuel settings, Gear › the motor › Edit). Then the pump button (it turns the stations on and off), or Find fuel in the ☰ pages, searches from where you are, or from the map's centre when you've moved the map away. The stations stay on the map until you switch them off; the line just above the hour bar opens their list. Tap a station, then Navigate to hand it to your map app. A search is saved for a day, and shown with its date when the service can't be reached.

> **ON THE PC**
> Find fuel in the bar over the map turns the stations on and off, searching round the map's centre. Map & weather › Fuel stations has the settings (they start from your paramotor's, Gear) and the stations, best first: click one, or its tag on the map, for its card. Directions opens Google Maps in your browser; Copy coordinates puts them on the clipboard. Fuel in the side bar (a tick there) opens Planning and searches.

Fuel along the route

Fuel stations near a cross-country route, and whether the stretches between them fit your fuel.

It searches like Find fuel, with the same settings, all along the route: stations within 5 mi of it, in route order, with how far along the route and how far off it each one is. The start counts as a full tank. Each stretch between places to refuel is checked against your range: your usable fuel down to the reserve, at your burn, at the route's average ground speed in the wind at the hour on the bar (cruise in calm air until the wind loads). A stretch over 80% of that is tight: add a fuel stop, and where one is found within 15 mi of that stretch it's named. With Pilot-confirmed only on, only pilots' reports and the offline list count, so there will be fewer. Planning help only: call ahead, and check the pump before you fill up.

> **ON THE PHONE**
> In the Mission drawer of a cross-country with a start and a finish: Find fuel along the route. Tap a station, or a suggested one, to see it on the map.

> **ON THE PC**
> In the Mission pane of a cross-country with a start and a finish: Find fuel along the route. Click a station, or a suggested one, to see it on the map.

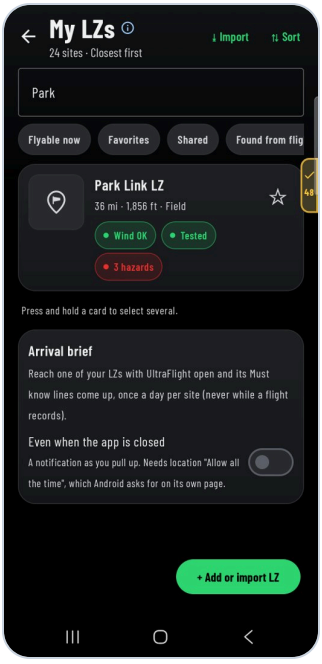
My LZs

The fields you launch and land from: a pin, photos, the things a visiting pilot must know, and a map drawn with the gate, the power line and the places not to fly over.

Keep the brief short: it's the first thing on a shared site card. The wind chip checks the forecast at the pin against the site's own wind rules; it's a guide, and the Check weather page is the decision. Gate codes, contacts and the cell note stay out of anything you share unless you switch on Include private details. A field you've taken off from three times appears here by itself, and your named weather spots are here too. A site someone shared is only as good as the pilot who shared it: look at the field yourself before you launch.

> **ON THE PHONE**
> + Add or import LZ adds one where you stand, on the map, or from a file another pilot shared. The sort menu puts the closest, the best conditions, what you can fly now, or your ★ sites first. Tap ★ on a card to keep it near the top.

> **ON THE PC**
> Click a site for its page. Select... picks several to share, archive or delete together. Sites and their photos reach the phone at the next sync.



An LZ's card: the wind now, its status and its hazards

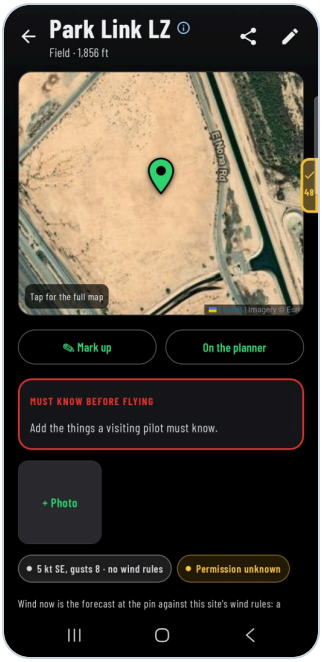
An LZ

One site: its map, what you must know before flying here, photos, and how to get in.

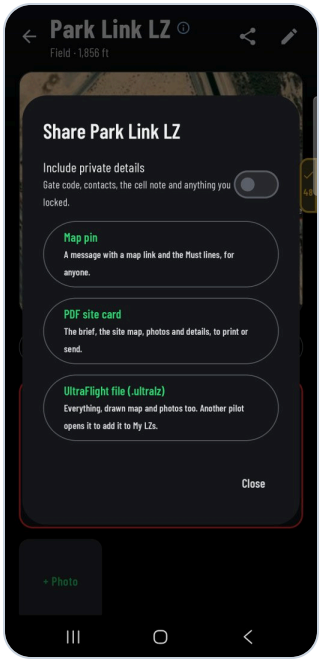
Must items show a red dot, Caution amber, Info plain; five is about as many as a pilot reads. The lock beside a field keeps it private when you share. Wind now is the forecast at the pin against the site's wind rules, a guide only: look at the field yourself before you launch.

> **ON THE PHONE**
> Edit changes everything, and Delete asks first, then offers Undo. Tap a photo to caption it, make it the card photo or remove it.

> **ON THE PC**
> The map shows everything drawn: drag it, zoom with the wheel, and click a symbol or an ⓘ for its words; ⤢ Bigger map fills the side and ✎ Mark up draws on it. Share… sends the map pin, the PDF site card or the UltraFlight file: Copy puts it on the clipboard (a file too, to paste into an email or chat), Email… starts a message. Edit changes everything else, and Delete asks first, then offers Undo.



An LZ's page: its map, the Must know card and the wind now



Share: a map pin, a PDF site card, or a file another pilot's UltraFlight opens

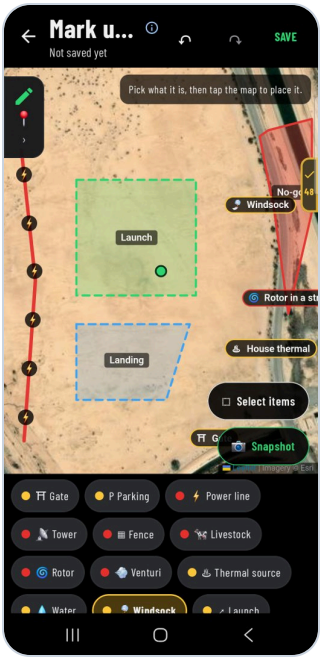
Mark up the map

Draw what a visiting pilot needs to see: no-go areas, where to launch and land, the power line, the gate.

Zones are shaded by kind with their name on them: No-go red, Caution amber, Launch green, Landing blue, Parking gray. Lines are Power line (red with ⚡ along it), Fence (tan with ✕), Hazard red, Route blue or Note gray. Markers include Rotor, Venturi and Thermal source. Everything is saved as places on the ground, so it lines up at any zoom and on the planner. Snapshot puts the map as you see it into the LZ's photos, for anyone without the app.

> **ON THE PHONE**
>
> Zone: tap the corners, then tap the first one or Done; drag a corner to move it, press and hold one to delete it. Line: tap along a power line or fence point by point, then tap the last point or Done. Draw: one finger draws, two fingers move the map. The tools are in the drawer opened with the pencil. Select items: tap something to change it, add words, or delete it; drag a marker's white handle to move it. ↶ and ↷ undo and redo.

> **ON THE PC**
>
> The tools are down the left, each with a key: Z Zone, L Line, M Marker, A Arrow, T Text, D Draw, S Select. Zone and Line: click the points; click the first corner, double-click or press Enter to finish, Esc to cancel. Draw: drag (hold Shift to move the map instead). Select: click something for its card; drag its white dots to reshape, right-click a dot to remove it, Delete removes it. Ctrl+Z and Ctrl+Y undo and redo, Ctrl+S saves.



Marking up: zones, a power line, and markers for the house thermal, rotor, gate and windsock



The finished map, full screen

Fly

Fly mode is your instrument panel. It has no ⓘ of its own, on purpose: nothing extra belongs on the screen in flight. Its moves are explained here.

HOW TO **Switch between gauges and the HUD**

> ON THE PHONE
>
> 1. In Fly mode (or a replay), tap ••• at the bottom of the buttons on the right. Scroll that column if you can't see it.
> 2. Tap HUD. Tapes and a steerpoint replace the gauges.
> 3. Tap HUD again to go back.

FLY MODE

Fly mode

How recording and the flight screen behave.

Recording can start by itself at takeoff with Fly mode open, and stop after landing: those switches and the one keeping the screen on are at the top of Settings. Your time counts from the moment you left the ground. Kiting Mode logs ground handling apart from your flight hours.

> ON THE PHONE
>
> In flight: long-press the map to drop a waypoint, tap the fuel gauge to set the fuel, tap the wind arrow for the numbers, and tap the map for what's at a spot. LAND picks a place to divert to. The padlock unlocks the instruments to move and resize them. With Layers > Steering guidance on, flying a route or a diversion: steer with the pink dot, a minute ahead on your track. Turn until the dot sits on the course line: the solid white leg, or the green dotted line with Follow planned leg off. The ◀ 12° cue says the same in numbers, and the bar along the bottom shows which side the course is on. Tap the wind at the top for where it came from.



HUD style: tapes and a steerpoint instead of gauges

Instruments

How Fly mode looks.

The Gauge Creator makes your own skins for the gauges, numbers, HUD and watch. The brightness is the dark map's on flight pages, and Reset goes back to the standard layout in both portrait and landscape.

> **ON THE PHONE**
> To move or resize instruments, use the padlock in Fly mode.

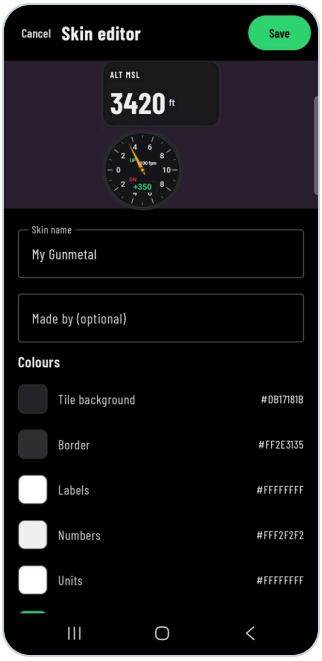
Instrument skins

Your own look for the gauges, numbers and HUD.

Pick every colour, the lettering and the corner rounding with a live preview. A .wpskin file shares one with a friend, who opens it to add it. Each device keeps its own skins unless you send them.

> **ON THE PHONE**
> Gauge Creator starts a new one. Use on the watch puts a skin on your watch too.

> **ON THE PC**
> Gauge Creator starts a new one. You can send a skin to the phone, or sync the two libraries when you choose.



The Gauge Creator, with its live preview at the top

Music

Music controls in Fly mode, and each flight's soundtrack.

The tile shows what's playing in any music app, with big buttons for gloves, and folds to a small ♪. The soundtrack lists what played between takeoff and landing on each flight's page.

> ON THE PHONE
> Tap the song in Fly mode to open your music app at a playlist link you set here.

RECORDING

Start recording at takeoff by itself

With Fly mode open, a takeoff starts the recording even if you didn't tap FLY. It keeps watching with the screen locked or another app in front.

Open Fly mode before you launch: the chip on the map says "Auto-start armed", and a "watching for takeoff" notification stays while it waits (Stop watching ends it). The recording begins at the moment you left the ground.

> ON THE PHONE
> It asks for your paramotor and wing after landing. There's no fuel estimate, since the starting fuel isn't known. Leaving Fly mode with Back or its home button stops the watching, and so do 2 hours without a takeoff.

Stop recording after landing

Saves the flight automatically when the phone detects you've landed.

It takes effect from the next recording, as each one reads the switch when it starts.

> ON THE PHONE
> Off, you stop the recording yourself.

Keep the screen on in flight

The screen stays on while a flight or kiting session records.

It stays on even with another app in front. Outside a recording it times out as usual, except in Fly mode while it waits to start recording at takeoff.

> ON THE PHONE
> The power button still turns it off.

WARNINGS

In-flight warnings

What interrupts you in the air.

Low fuel flashes red and vibrates on the phone and watch. The density altitude caution comes at startup. Airspace warnings cover airspace that needs authorization under Part 103, and active TFRs.

> ON THE PHONE
> The low-fuel and airspace switches are at the top of Settings. Think twice before turning these off. Each paramotor sets its own low-fuel level in its Equipment page.

Low-fuel warning

A red flash and vibration on the phone and watch when fuel gets low.

It goes off at each paramotor's warning level, or at an eighth of the tank if that isn't set.

> ON THE PHONE
> Set the level per paramotor in Equipment.

Airspace warnings

Alerts when you're in, or on course into, airspace you need to know about.

They cover airspace that needs authorization under Part 103, and active TFRs.

> ON THE PHONE
> Think twice before turning this off.

Down-safe text

Let people know you've landed.

Once a landing is confirmed by the phone or watch, your phone texts the people you pick, with when you landed, your time in the air and (if you like) a map link. It's never sent for a recording stopped in the air, and with no signal it keeps trying for 30 minutes.

> ON THE PHONE
> Ask me first shows the text before it goes. Send a test text shows what they'll get. Tapping Need help in Friends & groups texts the same people straight away, with a map link, and keeps trying for 3 hours with no signal. Saying you're OK sends them an all-clear.

Friends & groups

See the pilots you fly with on your Fly map, and let them see you.

Make a group, send its code, and every pilot who joins shows on the map while recording. Gold dashed lines and arrows point to friends flying within 10 miles. A line blinking gold means landed away from launch and down safe; blinking red means a pilot may be down. That's an educated guess: it can miss a crash and it can be wrong, and it never calls anyone for help. Positions travel over the cell network, so they're seconds behind and this isn't collision avoidance.

> ON THE PHONE
> Flying with friends, you're asked after each landing: one tap on Down Safe tells your group. Need a pickup or Need help tells them where you are, from this page, HELP in Fly mode, or those questions. Help sounds their alarm and a pickup doesn't. With your down-safe text on, Help also texts those people with a map link, and I'm OK now sends them an all-clear. Not answering Are you OK never texts anyone. Nothing here calls anyone, so in an emergency call for help as well. With no signal it goes as soon as there is one.

Ground crew

Watch your groups when you're not flying.

A map and a board of everyone, most urgent first. You're not on anyone's map. If a pilot may be down or asks for help, an alarm repeats until someone acknowledges it. A pilot asking for a pickup blinks gold with no alarm. The 1-minute demo plays eight pretend pilots through the same rules, and a real alarm closes it straight away.

> ON THE PHONE
> The headset on the bottom bar or in the left menu turns this on and opens it, and it's green while it's on. Your groups and their codes are listed here to hand out at the field. Tap a pilot on the map or the board for the pilot's details and directions, and while this is on they show on the planning map too. Press Home and put the phone away: alerts still reach you, and the alarm plays at full volume. Go gives directions to a pilot. Stop watching turns it off, and so does exiting the app, so you choose it each time.

> ON THE PC
> To join a group: check Watching is on, type your name and the group's code, and click Watch this group. The group then shows above those boxes. Your group sees this PC as a member, but it never sends a position. Watching stays on until you switch it off, and the alarm sounds on any page. Click a pilot for the pilot's details and directions; while you're watching they show on the Mission Map too. Choose sets your own alarm sound, an MP3 or WAV file, and if it ever won't play the system beep sounds instead. Right-click the map to set your base: distances are measured from it, and it's remembered.

Ground crew alarm sound

The sound that says a pilot may need you.

It's Apartment alarm until you change it. Pick another that comes with the app or choose a file of your own, and Play lets you hear it. A short, harsh sound carries best over an engine or the wind. If your sound ever won't play, the device's own alarm sound plays instead, so the alarm never goes silent.

> **ON THE PHONE**
> Most sound files work. The real alarm plays at full volume, whatever the phone's alarm volume is set to, but Play uses the phone's alarm volume so it doesn't startle you. Your file is copied into the app, so you can move or delete the original.

> **ON THE PC**
> An MP3 or WAV file, copied in beside the app's data. Reset goes back to Apartment alarm. The alarm plays at the PC's own volume.

On your watch

The watch app is built so you barely touch it in flight: a shake of the wrist changes the face, and the numbers stay inside the bezel where a glance finds them. It has no ⓘ buttons, so its moves are explained here.

HOW TO **Follow a route on your watch**

> ON THE PHONE
>
> 1. On the watch, press and hold an instrument face for the Ground menu, then open Settings.
> 2. Turn on Steering guidance. For buzzes as well, turn on Haptic steering.
> 3. On the phone, open a plan and tap Fly this plan.
> 4. On the watch, shake your wrist until the steering face shows: ◀ 12° means turn left 12°.
> 5. While flying the plan, press and hold to skip to the next waypoint.

The instrument faces

Three faces in flight, and a fourth when you're following a route.

Dashboard: your height, ground speed, how far home is with an arrow pointing to it, and your climb or sink. Altimeter: a three-pointer dial with the climb rate, pressure altitude and a tare round the edge. Compass: your heading, the bearing and distance home with a red arrow, and the wind. The dots at the top show which face you're on. Steering is the fourth face, once it's switched on in the watch's Settings.



Dashboard: height, speed, the way home and climb



Altimeter: a three-pointer dial, with climb rate round the edge



Compass: the red arrow points home

Changing faces without touching

Shake your wrist for the next face.

A shake of the wrist moves to the next instrument face, so your hands stay on the brakes. Wrist shake: next instrument, in the watch's Settings, turns it off; you can still swipe. With Auto-rotate display on, the face turns to read the right way up when you lift your arm. Crown toward tells the watch which way round you wear it, so it turns the correct way.

Steering along a route

The turn to make, on your wrist.

Off to start with: turn on Steering guidance in the watch's Settings. It shows when you're flying a plan started on the phone with Fly this plan. ◀ 12° means turn left 12°. Under it are the distance and time to the next waypoint, a course bar along the bottom and the wind, small, at the top left. Haptic steering, also off to start with, buzzes once for left and twice for right, only when you've been off by 10° or more for 5 seconds, and at most every 15 seconds. The watch app has to be open for the buzzes. The phone has its own Steering guidance switch; the two are separate.

BEFORE AND AFTER

Starting a flight

Two taps and you're recording.

The watch asks Same as last flight? Yes keeps the paramotor and wing you flew last; Change picks others. Then set the fuel you're taking off with and tap Start. Your paramotors, wings and fuel numbers come from the phone's Gear page. A paramotor with no tank size or burn rate has no fuel ring; everything else works the same.

After you land

Speak your notes, then save.

When the flight ends the watch shows Landed. Speak notes records what you want to remember, and Save & exit keeps the flight. If the watch never saw a takeoff it says No flight detected and keeps no log. Auto-stop on landing, in the watch's Settings, decides whether recording ends by itself. Flights go to the phone's logbook already tagged with the gear you chose.

The Ground menu

Press and hold an instrument face.

A press of about half a second opens the Ground menu: Back to instruments, Start or Stop logging, Set home here, Flight logs, Phone stats, Settings, and Save & exit. While you're flying a plan, the same long press skips to the next waypoint instead.

The watch's Settings

Ground menu › Settings.

Wrist shake: next instrument. Auto-rotate display. Crown toward: elbow or hand. Auto-stop on landing. Density altitude warning. Airspace warnings. Steering guidance. Haptic steering. Newer wind estimate: which wind the compass face shows; off is the older one, which needs a full turn or a figure 8. Below them the watch lists the paramotors and wings it got from the phone.

Your logbook

Every flight is saved with its track, its weather and whatever you add to it: notes, photos, video links, a rating.

HOW TO Replay a flight

ON THE PHONE

1. Open ☰ › Logbook and tap a flight.
2. Tap ▶ Replay under the numbers.
3. The flight plays in Fly mode. Tap along the bar at the bottom to jump; the green button pauses.
4. ALT, on the right, opens the height graph for the whole flight.
5. ✕ at the top right ends the replay.

HOW TO Find every flight that passed a spot

ON THE PHONE

1. On the planning map, tap the pen button on the right. It turns orange and the map says Tap where you flew.
2. Tap the map.
3. Pick how close counts: ⅛ mile to 1 mile.
4. Tap a flight in the list to draw its track; tap › to open it.

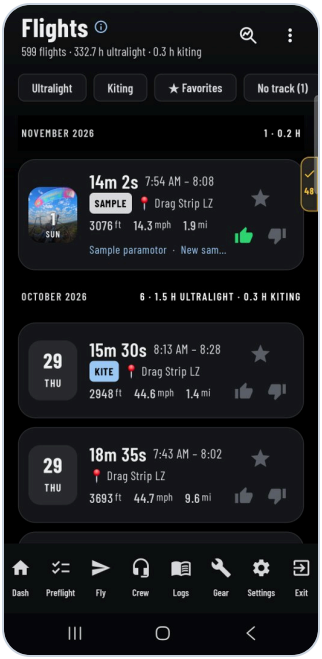
Flights

Every flight in your logbook.

Each card shows the time in the air and when you took off and landed. The app sets aside what isn't a flight (drives, walks, ground tests, duplicates, short logs), and keeps ultralight, GA and kiting hours apart. Rate flights 👍 good, ★ exceptional or 👎 not enjoyable: that's how the app learns your limits.

> **ON THE PHONE**
> Filter by season, year or kind. Long-press to select several and assign equipment or exclude them. ⋮ has import, the CSV export, Shared with you and Excluded.

> **ON THE PC**
> Filter and search at the top, and click a flight for its page. Import flights is in Settings.



The logbook, newest first

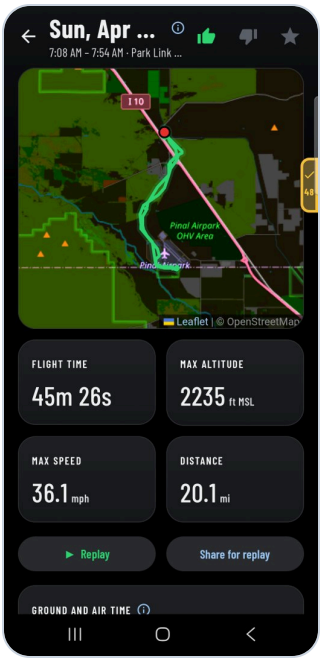
A flight's page

Everything about one flight.

The map and numbers, the gear, your notes and rating, the weather at takeoff, photos and videos, your checklists, and the full log details. A flight that wasn't counted says why, with a way to count it.

> ON THE PHONE
> ▶ Replay plays it back in Fly mode, with the instruments reacting as they did in the air and nothing recorded. Share for replay sends it as a flight file: you choose what goes in, and Hide my launch spot leaves out the track near your takeoff and landing.

> ON THE PC
> Replay plays it on the map. The share icon makes a flight file another pilot can open, with the same choices as the phone, including hiding your launch spot.



A flight's page: the track, then the numbers

Takeoff weather

What the weather was doing when you took off.

Filled in by itself for every flight, with the winds aloft, and it says which forecast model it came from. Ratings with this weather are how the app learns what you enjoy and your limits.

> ON THE PHONE
> It's a model's estimate for that hour, not a measurement at your field.

Ground and air time

Where the time went, from starting the recording to stopping it.

Setting up, in the air, any time on the ground between flights, and after landing. Your usual setup is the middle of your flights, so one slow morning doesn't skew it, and tomorrow's outlook can use it. PPGpS logs start recording at takeoff, so they show air time only.

> ON THE PHONE
> Only the time in the air counts toward your hours.

Takeoff weight

What you weighed on the wing at takeoff, against its range.

It adds your gear's weights, your own weight and kit, the fuel at the start and any passenger. Older logs assume a full tank. It shows where that sits in the wing's PPG range and against the reserve's max load.

> ON THE PHONE
> Set the weights on each piece of gear, and yours in Settings › You.

Replay

Watch a flight again on the map, with its instruments.

The instruments can be analog gauges, digital tiles or a HUD, in your skin. Nothing is recorded or changed.

> ON THE PC
> Pick a flight, then drag and resize the instruments over the map. The share icon at the top makes a flight file for another pilot.



A replay in Fly mode's gauges



ALT opens the height graph for the whole flight

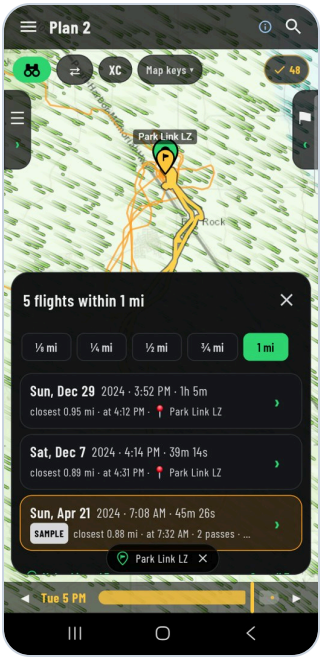
Find my flights

Tap a spot on the map to list every flight that passed within the radius you choose.

It searches your whole log, every year and kind of flying, and counts a flight when any part of its track came that close, even between two GPS fixes. Each result says how close it came, when, and how many times it passed. A logbook line without a track is matched on its takeoff and says takeoff only. The first time, the app reads through your logs once to index them; after that it's quick.

> **ON THE PHONE**
> Tap a result to see its track; tap again to open the flight. Drag the pin to move the search. Make this an LZ saves the spot to My LZs. On the planning map, the pen (turned on in Layers › Flight finder) does the same search.

> **ON THE PC**
> Click the map to drop the pin. Click a result to see its track; double-click it or use › to open the flight.



Every flight that passed within a mile of the pin

PHOTOS, VIDEO AND MEMORIES

Photos & videos

The pictures and links that go with this flight.

From this flight finds photos you took during it. Links from YouTube, Facebook, Instagram, TikTok and others show as thumbnails where the site allows. They sync with your PC.

> ON THE PHONE
> Long-press a photo for Use on the flight's card. Share a video from another app to UltraFlight to add it to a flight.

Add to a flight

Attach a video or post you shared from another app.

The link goes on one of your flights, with a thumbnail and title where the site allows.

> ON THE PHONE
> Pick the flight it's from, add a caption if you like, and save.

Soundtrack

What your music app played during this flight.

With Flight soundtrack on in Settings › Music, it lists the playlists and each track with when it started. It stays on your phone, and listening outside your flights is deleted after 3 days.

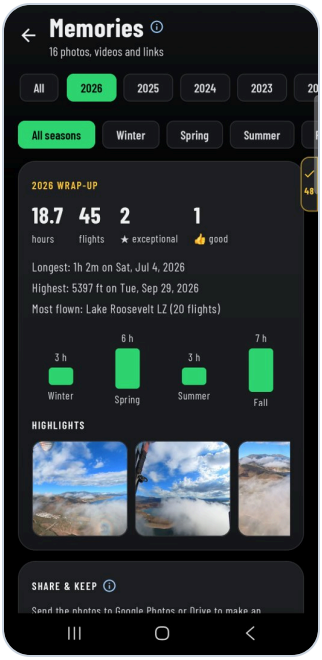
> ON THE PHONE
> It works for flights logged by the phone, the watch or PPGpS.

Memories

Your flying album, by year and season.

Each period has a wrap-up of your hours, records, most-flown LZ and highlights. Kiting stays out of it.

> ON THE PHONE
> Pick a year or season at the top, and tap a photo to see it full size.



A season's wrap-up, with its highlights

Share & keep

Take a period's photos with you.

Share all of them in one go, to a Google Photos album or Drive, or make a printable scrapbook PDF.

> ON THE PHONE
> It uses the year or season you've picked.

KEEPING IT TIDY

Import flights

Bring in your history from other apps.

IGC, GPX, FIT, TCX, KML, CSV and zip exports from Gaggle, XCTrack, Garmin Connect, Strava and others, and general aviation logs from ForeFlight and more, tagged GA. Flights you already have are kept once. Logbook-only entries come in as NO TRACK.

> ON THE PHONE
> Share or Open with › UltraFlight from another app works too.

> ON THE PC
> A folder brings in every log file in it and its subfolders at once.

Shared with you

Flights other pilots sent you to watch.

Each has its map, numbers and a Replay button. They're never added to your logbook, totals, learned limits or watch.

> ON THE PHONE
> Open a flight file from a message to add it here, and remove it when you're done.

Excluded

Logs that aren't counted in your stats, and why.

Drives, walks and ground tests, duplicates of the same flight from another device, short logs, and tracks that follow roads. Nothing is deleted, and you can change the app's mind. The reasons sync with your PC.

> ON THE PHONE
> Filter by reason at the top, and Restore any you want counted.

Cleanup review

Clear out short and unwanted logs.

The logs here look like they aren't worth keeping. Trash moves them to the Recycle Bin, and Keep takes them off this list for good.

> ON THE PHONE
> Tap to select; long-press to select a range.

Recycle Bin

Trashed logs, until you decide what to do with them.

Zip them up as an archive, or empty the bin to get the space back. A log moved here on one device goes to the bin on all of them at the next sync; nothing is deleted outright.

> ON THE PHONE
> Emptying the bin is the only step that removes logs for good.

Gear and maintenance

Hours on every paramotor, wing and reserve, counted from your flights, with reminders for what's due.

HOW TO

Get reminders from your engine's schedule

> ON THE PHONE
>
> 1. Open ☰ › Gear and tap your paramotor.
> 2. Scroll to Maintenance plan and tap Set up maintenance plan.
> 3. For each item, say when it was last done, or tap Mark all done at… for a whole group. Anything not done, or not known, comes up as due now.
> 4. Tap Save. Due items show on the paramotor's page, each with its how-to, and on the Dash.

Gear

Your paramotors, wings and reserves, with their hours and what's due.

A piece of gear's hours are its starting hours plus the flights assigned to it. The share icon makes a PDF of all your service records, with a contents page.

> **ON THE PHONE**
> Tap one for its page, and use Add equipment for a new one. The Setup wizard walks you through your first paramotor and wing.

> **ON THE PC**
> Click one for its page. Changes reach the phone at the next sync.



Gear: each paramotor and wing with its hours and what's due

A piece of gear

One paramotor, wing or reserve: its hours, service history and what's next.

A paramotor has its engine's plan and rig checks. A wing has a full check every 100 hours or 2 years. Its type (PPG, PG or both) decides which weight ranges show, and a style or class you add is offered on your other wings. A reserve has a yearly repack, a 2-yearly inspection and its age against the usual 10–12 year life. Deleting asks first, then offers Undo.

> ON THE PHONE
> Log service records work done. Add photos here: the first is its picture in the list. The share icon makes a PDF of this one's record.

> ON THE PC
> Log service records work done. Add photos here: the first is its picture in the list. The share icon makes a PDF of this one's record.

Fuel · watch fuel ring

This paramotor's tank and burn rate.

They drive the fuel ring on your watch, the fuel gauge in Fly mode and the plans' fuel. Endurance is the tank divided by the burn. The low-fuel warning is at the level you set, or an eighth of the tank if you leave it blank.

> ON THE PHONE
> Edit the paramotor to change them. The engine picker fills in a typical burn rate for common engines.

Service history

Everything done to this gear, newest first.

Each record has the date, the hours, who did it, the cost and notes. Logging a service resets its reminder. It all goes in the service record PDF.

> ON THE PHONE
> Tap a record to edit it.

> ON THE PC
> Click a record to edit it.

Maintenance due

What's coming due on your gear, by hours or by date.

From each engine's maintenance plan, your rig checks, wing checks and reserve repacks. Hours come from the flights assigned to that gear.

> **ON THE PHONE**
> Tap one and Log service opens for that item, already filled in.

> **ON THE PC**
> Click one and Log service opens for that item at the top of the page, with the cursor in the date.

SCHEDULES AND CHECKS

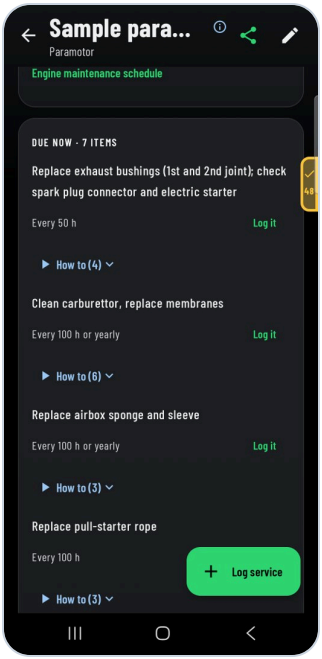
Maintenance plan

Your engine maker's service schedule.

Set it up once from a checklist of what's been done. Then it shows what's due with its part numbers, the whole schedule, and How to guides for each item: the manual's section, videos and articles. Engines without a schedule get a generic one. The engine's own manual always wins if they differ.

> ON THE PHONE
> Log an item when it's done, and its next one is worked out from there.

> ON THE PC
> Log an item when it's done, and its next one is worked out from there. It stays in step with the phone through sync.



What's due now on the engine's schedule, each with its how-to

Inspection or repack

The last check of this wing or reserve, and when the next is due.

A wing check records who checked it, porosity, the tear test, line strength, trim, risers, canopy and the overall result. A reserve repack records the canopy, lines, bridle, pins, a pull test and the result.

> **ON THE PHONE**
> Logging one with its report keeps the record in the service PDF.

> **ON THE PC**
> Logging one with its report keeps the record in the service PDF.



A wing's inspection clock and its service history

Rig checks

The checks that are easy to forget, on a timer.

Fuel lines, fuel filter, the in-tank line and clunk filter every 6 months; harness inspection and carabiner replacement every 100 hours or 2 years. Where your engine's manual has its own interval for the fuel lines or filter, that one is used.

> **ON THE PHONE**
> Log one when it's done, and its reminder starts again.

> **ON THE PC**
> Log one when it's done, and its reminder starts again.

Checklists

Your checks before you fly, and after you land.

The preflight list follows the USPPA training syllabus, ending with the launch check. The ticks you made are saved with the flight you then fly, and they clear 8 hours after your last one. The postflight list is optional and is ticked on the page of the flight you just landed.

> ON THE PHONE
> Edit list adds, rewords, reorders or removes items, and restores the suggested list. Tap a heading while editing to rename it.

Training

For instructors and their students: the syllabus, sign-offs with signatures, waivers and the training record.

INSTRUCTORS

Students

The pilots you're training.

Each student has progress level by level, flights and kiting from the student's own logbook, assignments, training log and waivers. Each side sends a training file (.wptrain) by text, email or Drive, and only changes its own parts, so nothing either of you did is lost.

> ON THE PHONE
> Add a student, and pick PPG 1–3, Tandem or Introductory Tandem Instructor. USPPA is optional for each student. Waivers and forms has your own documents.

> ON THE PC
> Add, edit and delete students and assignments here, and initial blocks and sign with the mouse. They reach the phone at the next sync.

A student's page

Everything about one student's training.

The student's level, experience against the rating minimums, assignments, training log, waivers and your private notes, which stay with you. The PDF record has all of it for your files, with both initials, dates and signatures.

> ON THE PHONE
> Call, text or email the student from here. The Level choice can put them at any level: moving past blocks you haven't initialled asks first.

> ON THE PC
> Edit student changes the student's details and level. Moving past blocks you haven't initialled asks first.

A level

The syllabus blocks for this level, as on the paper USPPA syllabus.

A block is done when both the student and the instructor have initialled it. Kiting blocks are marked KITE, wheel-launch blocks WHEEL, and foot-launch-only blocks are skipped for wheel students. Optional blocks don't count.

> ON THE PHONE
> Initial your own side of each block. Each side only changes its own.

> ON THE PC
> Initial the instructor's side of each block here. Each level shows both signatures, and you sign yours with the mouse.

Signatures

The two lines from the paper syllabus.

I have given the training; I have received the training. Each of you signs on your own device, and your signature travels in the training file.

> ON THE PHONE
> Sign with a finger.

An assignment

What the student is to do next.

A title, what to do, a due date, the syllabus blocks it covers and your own checklist steps. The student ticks it off and sends it back.

> ON THE PHONE
> Send the training file after changing it, so the other side gets it.

> ON THE PC
> Changes reach the phone at the next sync; from there it goes to the student in the training file.

Waivers and forms

Your documents for students to sign.

Add them from a file, your photos or a photo of a paper form. Each signed one makes a PDF: the document plus a signature page with who signed, when, how, and the document's fingerprint. A parent or guardian can sign for someone under 18.

> ON THE PHONE
> The student can sign in the app, in person on your phone, or on a copy you text or email to sign and send back.

STUDENTS

My training

Your training with your instructor.

Your progress through the syllabus, and the assignments your instructor sends. Open your instructor's training file to bring it up to date, and send yours back when you've done your part.

> ON THE PHONE
> Tick an assignment's steps, write a note, add the kiting sessions and flights you did from your logbook, and initial the blocks you've been taught.

Experience

Flights, air time and kiting, from the student's own logbook.

It counts toward a student's experience with or without an assignment, and is shown against the rating minimums when working toward a rating.

> ON THE PHONE
> It comes from the training file, so it's as fresh as the last one sent.

Training log

The sessions that go on the record.

Each has the inflation type, landings and what was practised, and the PDF shows what each GPS log says happened. Latest sessions from the logbook are offered to add with one tap.

> ON THE PHONE
> Add one here, no assignment needed.

SETTING IT UP

Training & School Management

Switch on the instructor or student side of the app.

I'm an instructor or I'm a student adds a card to the Dash. Your name, contact details and USPPA number (optional) are what the other side sees.

> ON THE PHONE
> You can be both.

Devices and your data

Phone, watch and PC keep each other up to date, and your data stays yours: backed up where you choose.

STAYING IN STEP

Sync with PC

Keep your phone and PC in step, over your own Wi-Fi.

Flights, notes, ratings, photos, gear, training, plans and named LZs go both ways, item by item, with deletions too. It's encrypted, and nothing leaves your network. It runs by itself when the app opens, after a change on either side, and when new flights arrive.

> ON THE PHONE
> Pair once, with the code the PC shows. ⟳ on the Dash syncs now.

> ON THE PC
> Pair once with the code shown here, entered on the phone. Sync with phone on the Dashboard syncs now.

App updates

UltraFlight keeps itself up to date.

A new version never installs while you're recording, in Fly mode, or on a low battery. What's new opens by itself afterwards.

> ON THE PHONE
> It downloads on Wi-Fi and installs when you open the app on the ground. The phone updates your watch when they're connected and neither is recording.

> ON THE PC
> A bar at the top says when one is ready, with Restart now or Install when I close. It never restarts on its own.

Backup & restore

Everything in one file, kept wherever you like.

It restores on this device, a new one, or between phone and PC. What's here now is kept first, so a restore can be undone. The automatic backup goes weekly to a folder you choose, and keeps the newest 5.

> ON THE PHONE
> Pick a folder on Drive for the weekly backup, so it survives losing the phone. The watch backs up through the phone.

> ON THE PC
> The weekly backup runs while UltraFlight Desktop is open. Flight logs already here are never deleted by a restore.

Devices and data

Your PC, your watch, and keeping everything safe.

Sync with PC keeps the two in step. A backup puts everything in one file. Updates arrive by themselves, and the watch keeps in step with the phone without you doing anything.

> ON THE PHONE
> Set up the weekly backup: it's the one thing here that isn't automatic until you do.

Saved for no signal

What's kept on this device for when there's no signal, and how much room it takes.

Each line shows what it takes up, and Clear removes it, with a moment to undo. It can all be downloaded again with a connection, but it won't be there without one until it has been, so don't clear it just before flying somewhere with no signal. Clearing stops any route that's saving; the route saves again the next time it's opened. The Save for no signal switch in the map's layers says whether new things get saved at all.

> ON THE PHONE
> Land map is only the land layer's pictures, which the app saves itself. Your other maps are kept by the map itself.

> ON THE PC
> Map pictures covers every map layer, so clearing it makes the map download what it shows again, and removes sectional charts saved for a route.

ON THE PC

Open on

The page UltraFlight Desktop opens on.

Pick the page you go to first: Planning if you plan, Ground crew for a fly-in. After an update it opens on what's new, once.

> ON THE PC
> Click a page to choose it. It takes effect the next time the app starts.

Log folder

Where this PC reads your flight logs from.

Sync with the phone and importing both put logs here. Changing it doesn't move or delete anything: the Logbook just reads the new folder.

> ON THE PC
> Change opens a folder picker. The Logbook and Dashboard then show what's in the new folder.

Flying weather

What the calls are judged against.

Choose the forecast model, a second one to compare with, your own limits and your cloud limits on the Weather page. Each call there shows what they change straight away.

> ON THE PC
> Open Weather goes straight to the page.

WHEN SOMETHING GOES WRONG

Diagnostics

The app log and crash reports, for when something goes wrong.

The log is a running note of what the app did. When something goes wrong, send feedback with the log attached: it shows what happened just before. If the app ever crashes, a crash report is saved here too and goes first in the log you send. Nothing leaves this device unless you send it. Keys and passwords are taken out of what you send; where you flew is left in, because that's often the bug. View shows exactly what would be sent.

> ON THE PHONE
> The log keeps about the last megabyte of what the app did, across restarts. A freeze that Android closed the app for is caught too, at the next start.

> ON THE PC
> The log keeps about the last megabyte of what the app did, across restarts.

Settings

Everything you can change, section by section.

YOU

Settings

What you reach for most is at the top, and everything else is rolled up by subject.

What's new comes first, then the main switches, then the roll-ups. They stay open or closed as you left them until the app next starts.

> ON THE PHONE
> Tap a roll-up to open or close it. Each main switch has its own ⓘ for the details.

> ON THE PC
> Click a roll-up to open or close it. Drag a page up or down the left side to move it.

You

Who you are.

Your profile, and your weight and kit, which give each flight's takeoff weight.

> ON THE PHONE
> Your face, photos and socials are in your pilot profile.

Pilot profile

You: your face, your photos and your socials.

Your face photo shows on the Dash. Your details are the same ones used for training, so your students see them too.

> ON THE PHONE
> Add photos of you kiting and flying, and links to Instagram, YouTube and the rest.

> ON THE PC
> Add photos of you kiting and flying, and links to Instagram, YouTube and the rest.

Your weight

Your weight and your kit, for takeoff weight.

With your gear's weights and the fuel, this gives each flight's takeoff weight against the wing's range. It syncs with your gear.

> ON THE PC
> Type them in the units you've chosen under Time and Units.

Look & Feel

The colours of the app's pages.

Gunmetal is the standard look. High contrast is for bright sun, Night is warm and dim for before dawn and after dusk, Slate and Desert are other moods, and Daylight has light pages. GO, CAUTION and NO-GO stay clearly different in all of them, and carry a ✓, ▲ or ✕ so they don't rest on colour alone.

> ON THE PHONE
> Tap a look to see it straight away. Gauges and Fly mode keep your skin whichever you pick, so a look can't change how they read in the air.

> ON THE PC
> Click a look to see it straight away. This PC keeps its own choice, apart from the phone's. Replay's gauges keep your skin, and what's drawn on the maps stays as it is, so it reads the same over any map.

Time and Units

The units you think in.

Metric units covers temperature, speed, distance and altitude. Fuel and weights each have their own switch, so you can mix them, and 24-hour time is separate. They apply to everything the phone shows.

> ON THE PHONE
> The PC keeps its own choices.

Units

How this PC shows altitude, distance, speed, climb, temperature, weight and fuel.

All US or All metric sets everything at once, or pick each one. Gauges and the HUD redraw their scales to match. Fuel isn't converted, so pick the unit you entered your tank and burn in. This PC's own choice: the phone has its own.

> ON THE PC
> Show the other unit too adds it in brackets where there's room. 24-hour time changes every clock on this PC, and printouts made here. The phone keeps its own choice.

Getting around

How the app opens and how you move round it.

It can open on the planning map, with ☰ for the other pages and Back coming home to the map. The bottom tab bar is the older way round. Section explanations are these ⓘ cards.

> ON THE PHONE
> These are a matter of taste: try them either way. Press and hold a tab on the bottom bar, then drag it to move it. The To try tab is the gold ✓ for the test list; with it off, ☰ › To try still opens the list.

WEATHER AND PLANNING

Flying weather

Where you are, what you're willing to fly in, and when to be told.

Home decides which of your spots are watched first. Your own limits and cloud limits change what the calls are judged against. Alerts and briefs arrive with the app closed: a night-before heads-up, a morning brief at your get-up time, and an evening brief in time to get ready.

> ON THE PHONE
> Alerts and briefs need notifications allowed. The Flying weather alerts switch is at the top of Settings.

Flying weather alerts

A notification when good flying is coming up.

Good means like the flights you enjoyed, at the spots you fly most. It's checked every 6 hours.

> ON THE PHONE
> It needs notifications allowed.

Weather model

Which forecast the app uses, a second opinion, and a backup source.

NOAA HRRR + GFS is the default. With Compare on, each hour is checked against another model, and where they disagree it gets CAUTION and a ≠ mark. With Backup weather source on, when the forecast service can't answer (its free limit, or no signal from it at all), the US National Weather Service stands in with a surface forecast: winds aloft, thermals and the Skew-T sit that out, and the page says which source it's showing.

> ON THE PHONE
> The second model means more forecast data for each check.

Drives

Log the drives to and from your flying sites.

Off until you switch it on. The phone notices when it's in a vehicle and keeps only drives that start or end at your spots and LZs. They add a Driving to fly card to the Dash, and give the outlook and briefs your own drive time.

> ON THE PHONE
> Add your mpg and fuel price for the cost.

Planning map

What the planning map shows when it opens, and its NOTAMs.

TFRs need nothing. For every other NOTAM (drones, parachute jumping, obstacles and more) add the FAA's free key here.

> ON THE PHONE
> With Wind and weather on at start off, the map remembers how you left its layers.

Terrain elevation data

Ground heights, saved for the terrain turbulence layer.

The layer works out where the wind over the ground is likely making rotor and gap winds, from elevation tiles fetched as you look round the map. They're kept, up to the size you choose, so a site you've looked at still works without a signal; the ones used longest ago go first when the limit is reached.

> ON THE PHONE
> Clear deletes them all. They're fetched again the next time you look.

Turbulence & Rotor Mapping tuning

The terrain model's constants, for tuning it against real days.

The standard values follow the paragliding guidance in the spec; every one is worth revisiting once flights over ground you know have proved or shamed it. Numbers only, each within its sensible range — anything else is ignored. A change recomputes the zones; the ones already computed keep their own tag, so putting a value back finds them again. The thresholds at the bottom are the same ones the Cautious, Standard and Experienced choice on the map moves.

> **ON THE PHONE**
> TUNE opens the list; Back to the spec's values puts every constant back.

> **ON THE PC**
> Tune opens the list; Back to the spec's values puts every constant back.

FLIGHT LOGS

Flight Log Management

Where your logs live, and how they're tidied.

The log folder can be the app's own or a PPGpS folder. Import brings in other apps' flights. The road check compares logs that might be drives with OpenStreetMap, and sends only each log's map area.

> **ON THE PHONE**
> Cleanup review, the Recycle Bin and Excluded flights are the three ways to manage what's counted.
