Stratus Insight

Pilot’s Guide

Rev. 1.7

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STRATUS INSIGHT™

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Getting Started

Downloading Stratus Insight

Search *Stratus Insight* in the App Store® and install the Stratus Insight app.

Using Stratus Insight

To use Stratus Insight, create an account and choose a subscription or log into an existing account.

IMPORTANT: When first opening Stratus Insight, you will be prompted to allow the app to always access your precise location and local network. Enable these options to show your current aircraft position on the moving map, use portable TAWS, and connect with a portable receiver. To allow access later:

1. On the device's home screen, tap the **Settings** icon.
2. Scroll down to your app list and tap **Stratus Insight**.
3. Enable location and local network access.
   a. Allow location access **Always**.
   b. Enable access to your **Precise Location**.
   c. Enable access to your **Local Network**.

The icons in the header at the top of the screen take you to the following features:

	Maps & overlays		Track recording
FPL	Flight plan route editor		Brief or file flight plan
	Show current GPS position or track up	P	Add PIREP
A	Radio Transcription		Terrain profile
	Synthetic vision		Favorite and recent flights
	Vertical Weather Profile		Settings

If your device has a smaller screen and you do not see the full list of icons, tap the three dots ••• to see them.

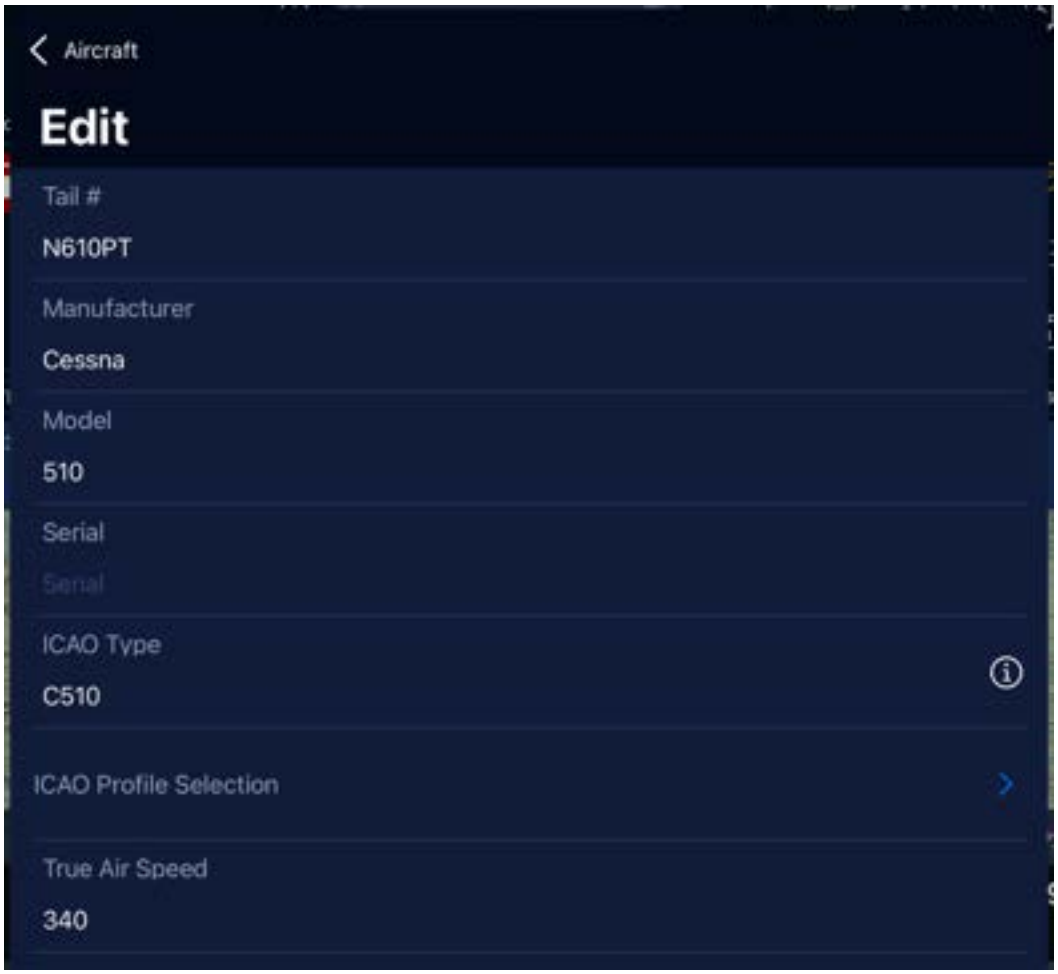
Using Aircraft Profiles

Stratus Insight needs to know your aircraft speed and flight characteristics to make the most of your flight planning. Create an aircraft profile to save this information.

Creating a New Aircraft Profile

1. Tap **Aircraft** on the bottom navigation bar, then tap the add + icon.
2. Fill out all information to complete your aircraft profile. Your data is automatically saved. For more information on performance profiles, refer to the section on the next page.

   NOTE: You must enter a valid ICAO type. If you're not sure what your aircraft ICAO type is, use this search tool: icao.int/publications/DOC8643/Pages/Search.aspx.



Editing an Aircraft Profile

Tap **Aircraft** on the bottom navigation bar, then tap an aircraft. Changes auto-save.

Creating a Custom Performance Profile

Based on your ICAO type, you can import a performance profile for your aircraft. Otherwise, create a custom performance profile.

For high performance aircraft, creating a performance profile table will give you a top of climb and top of descent marker as well as more accurate enroute times.

1. Tap **Aircraft** on the bottom navigation bar, then tap an aircraft.
2. At the bottom of the settings window, enable the **Use performance** switch.
3. Tap **Performance.**
4. Edit the altitudes already listed, or tap the add + icon to enter a new altitude. Enter each altitude at which a significant change in performance is expected in your type aircraft. Data automatically saves.

For any gap in altitudes, Stratus Insight will use interpolation to determine intermediate data.

NOTE: Some of the data is indicated for cruise and some for climb. Cruise TAS & fuel burn is only calculated after reaching this altitude.

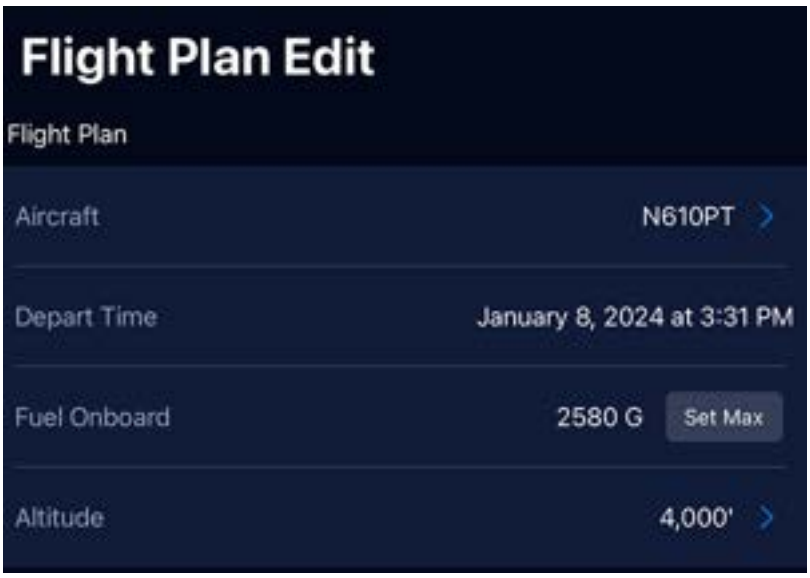
Creating a Flight Plan

Preparing to Create a Flight Plan

Stratus Insight can plan winds and weather up to 8 days in advance, but the closer to the time of departure the more accurate the data becomes. Before creating a flight plan, enter the departure date and time.

1. Tap **FPL** on the top navigation, then tap **Flight Plan**.

2. Enter a departure date and time. The information from your aircraft profile will be auto-filled.



3. **RECOMMENDED:** Enter the amount of **Fuel Aboard** and select **Flight Plan Rules**.

TIP: The fuel and flight rules will be saved from flight to flight unless you change them.

Entering a Route with the Search Box

You can enter a route with the search box or the waypoint editor. To use the search box:

1. Tap in the search box in the top navigation.
2. Enter route parameters. You can enter parameters such airport identifiers, waypoint names, VORs, airways, and cruising altitude. See below for route examples.

3. Tap **Go** on the keyboard when the route is complete.

NOTE: Entering a new route will replace an existing route.

Route examples:

KMKC TOP V4 GLD KDEN

- **KMKC**: Departure airport
- **TOP:** VOR entry point
- **V4:** Airway
- **GLD:** VOR exit point
- **KDEN:** Destination airport

NOTE: It's important to enter entry and exit points on airways.

KMKC TCM/040/20 KDEN

- **KMKC:** Departure airport
- **TCM:** VOR
- **040:** Radial (degrees) from VOR
- **20:** Distance (nautical miles)
- **KDEN:** Destination airport

KMKC ROYAL7.TONCE.RW19 KDSM

- **KMKC:** Departure airport
- **ROYAL7:** DP-IDENT
- **TONCE:** Radial (degrees) from VOR
- **RW19:** Distance (nautical miles)
- **KDSM:** Destination airport

KTOP

Entering a single airport identifier in the search box will open the airport information modal. This can be used for quick retrieval of specific airport information without adding or editing your flight route.

KMKC LEXIN V10 V586 MCM KMBY

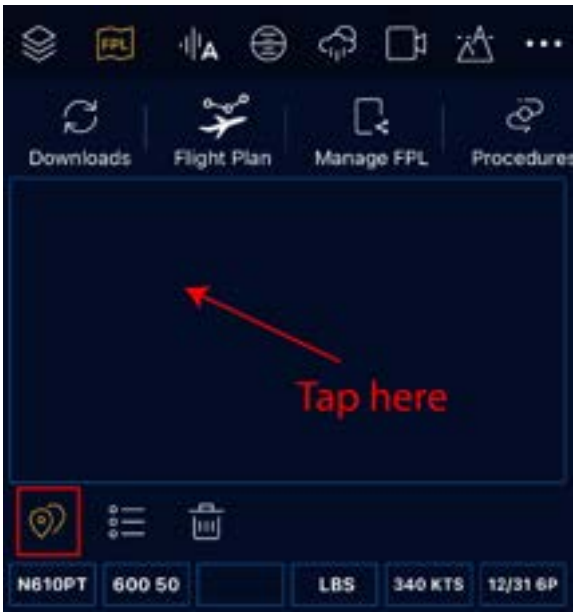
- **KMKC:** Departure airport
- **LEXIN:** Entry waypoint (must be on V10)
- **V10:** Airway
- **V586:** Airway that intersects with V10
- **MCM:** Exit VOR waypoint (must be on V586)
- **KMBY:** Destination airport

Entering a Route with the Waypoint Editor

To enter a route with the waypoint editor, follow the steps below.

1. Tap **FPL** on the top navigation, then tap anywhere in the blue box. If you don't see the blue box, make sure that you have the tab selected.

iPad



iPhone

2. Begin typing the first airport or identifier, then select it from the list. Otherwise, type the full name and tap the spacebar to enter another waypoint.

3. Continue entering waypoints until your route is complete.

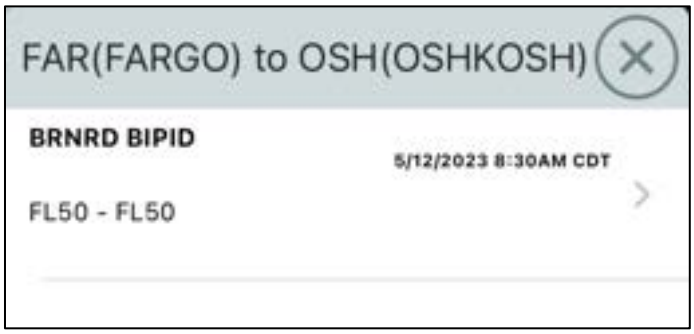
Viewing Waypoint Information

Tap the waypoint icon to view individual route segment distances, fuel, time, and headings.

Viewing Recently Filed Routes

Once you've entered a route, tap **Recent ATC** to view recently cleared ATC routes, TEC, and preferred routes for your flight plan. Tap on a route to use it as your route.

TIP: If the list is empty, try bigger airport city pairs nearby.



Editing Waypoints

Repositioning

Drag and drop a waypoint to reposition it.

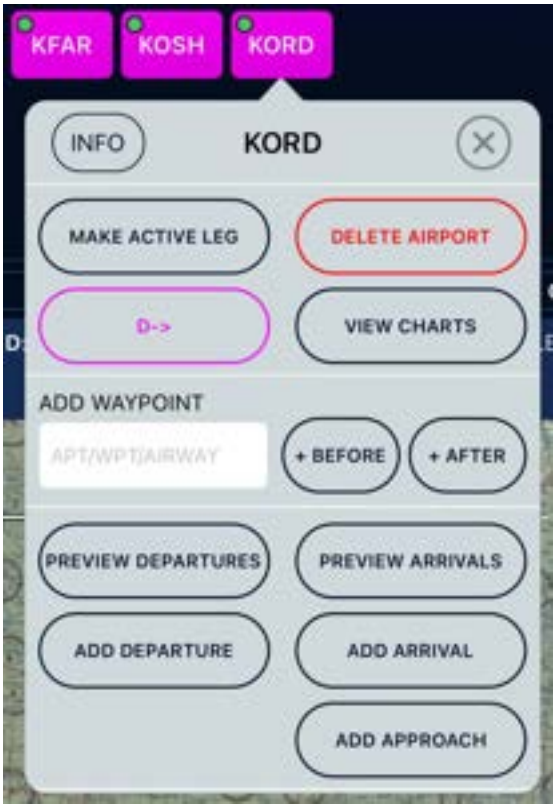
Deleting

Drag and drop a waypoint outside of the editing area to delete it.

Reversing Order

Tap **Reverse** to reverse the order of the waypoints.

Other Waypoint Settings



Tap on a waypoint for more settings:

Info: View airport information.

Make Active Leg: Make this the active leg segment of the route.

Delete Waypoint / Airport: Delete item.

D->: Add GPS present position direct to waypoint.

View Charts: View airport procedures.

Add Waypoint: Add a single waypoint/VOR/airport before or after this item.

Preview Departures / Arrivals: View departures or arrivals overlayed on the map.

Add Departure / Arrival / Approach: Add a departure, arrival, or approach to the flight plan.

Deleting Routes

Tap the trash icon to delete the entire route.

Using the Smart Flight Plan Tool

If your flight plan must change due to advisories or weather changes, Stratus Insight not only lists alternate airports, but also considers fuel stops and day/night currency in your alternate flight planning.

The Smart Flight Plan tool uses advance forecast weather up to 8 days before the time of departure and time enroute.

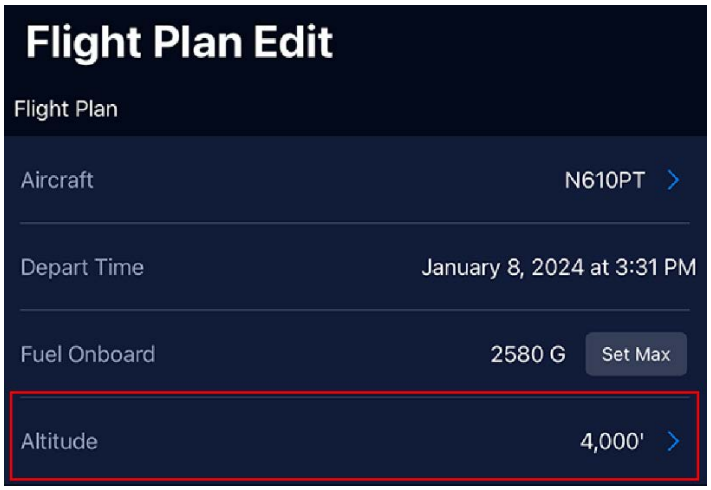
Indicator	Meaning
Airport color indicator	Green: VFR Blue: MVFR Red: IFR Magenta: LIFR
	Fuel stop required
	Alternate airport may be required based on the 1, 2, 3 rule.
Moon symbol	Based on the departure or arrival time, night passenger currency may be required.
Sun symbol	Departure or arrival time is close to sunset; use caution for glare.
Caution symbol	Departure or arrival time may present a sun glare hazard based on forecast winds and sky conditions.
	Based on route, time of departure, and cruising altitude, high CAPE and instability in atmosphere may be encountered. Be on alert for thunderstorms across route.

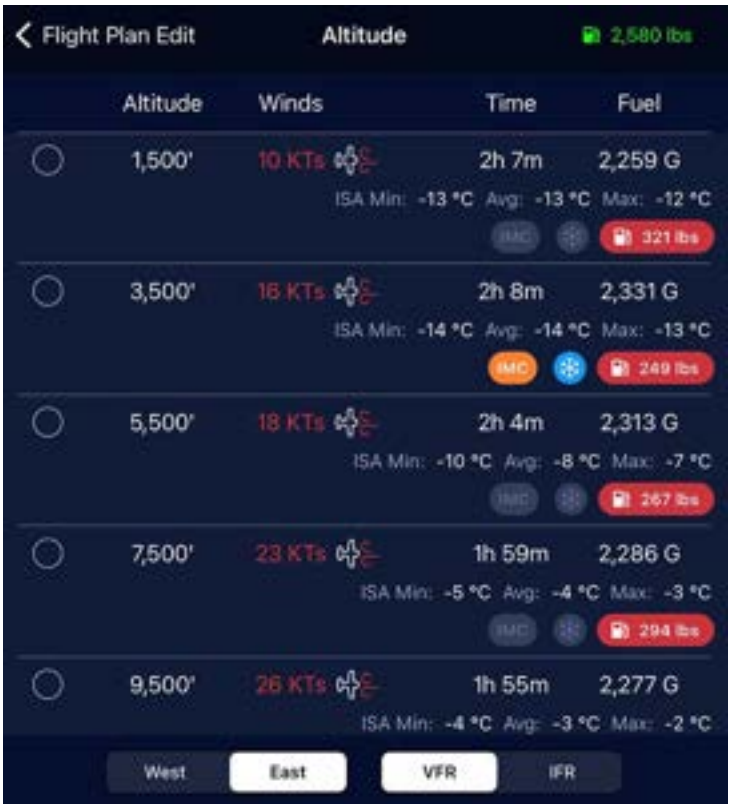
ICE	Based on route, time of departure, and cruising altitude, ice may be encountered (based on Skew-T sounding saturation levels and temperatures).
IMC	Based on route, time of departure, and cruising altitude, IMC may be encountered (based on Skew-T soundings).
TER	Based on altitude selected, the altitude may be very close to terrain.

Using the Altitude Selector Tool

The altitude selector tool helps you to find a cruising altitude.

1. Tap **FPL** on the top navigation, then tap **Flight Plan**.
2. Tap **Altitude**.
3. Select an altitude based on the data given for each altitude.
   - Winds in **red** text are headwinds.
   - Winds in **green** text are tailwinds.





Favoriting a Flight Plan

To favorite a flight plan, follow the steps below.

1. Tap **FPL** on the top navigation, then tap **Manage FPL**.
2. Tap **Add Favorite**. Enter a name, then tap **Add favorite**.

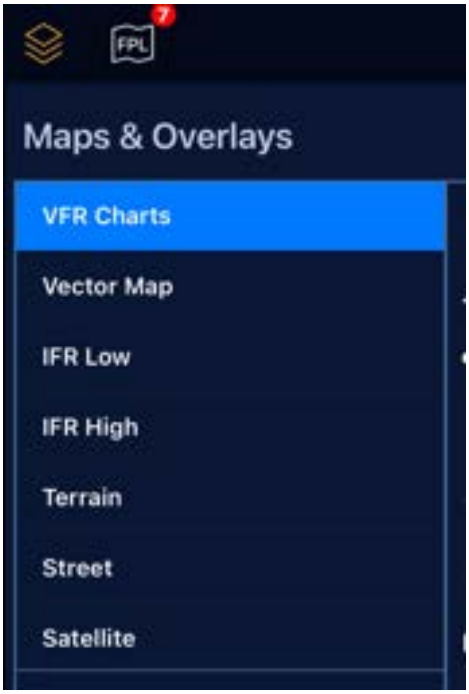
To view favorite flights, tap **Favorites** on the top navigation bar.

Filing a Flight Plan

For information on filing a flight plan, see *Filing* on page 45.

Selecting a Base Map

A base map is the default view for the globe. Tap the Maps & Overlays icon on the top navigation to choose a base map.



Base Map	Description	Data Connection Required?
VFR charts	VFR raster sectional charts from the FAA.	Yes
Vector Map	Stratus Insight data-driven vector-based charts for in-flight use. Requires current Vector Base Map databases downloaded from the Download page.	No
IFR Low	Low-altitude raster IFR enroute charts.	Yes
IFR High	High altitude raster IFR enroute charts.	Yes
Terrain	Downloaded raster terrain basemap.	No
Street	Online street maps.	Yes
Satellite	Online satellite maps.	Yes

Using Synthetic Vision

Synthetic Vision shows a 3-D picture of terrain and obstacles where you are flying. Tap on the top navigation to toggle Synthetic Vision.

Synthetic Vision is optimized with a valid AHRS source. If AHRS data is not provided, the attitude will report level pitch and roll.

IMPORTANT: Synthetic Vision is not a replacement for a primary or suitable backup source of navigation in your airplane. Use this tool for situational awareness only.

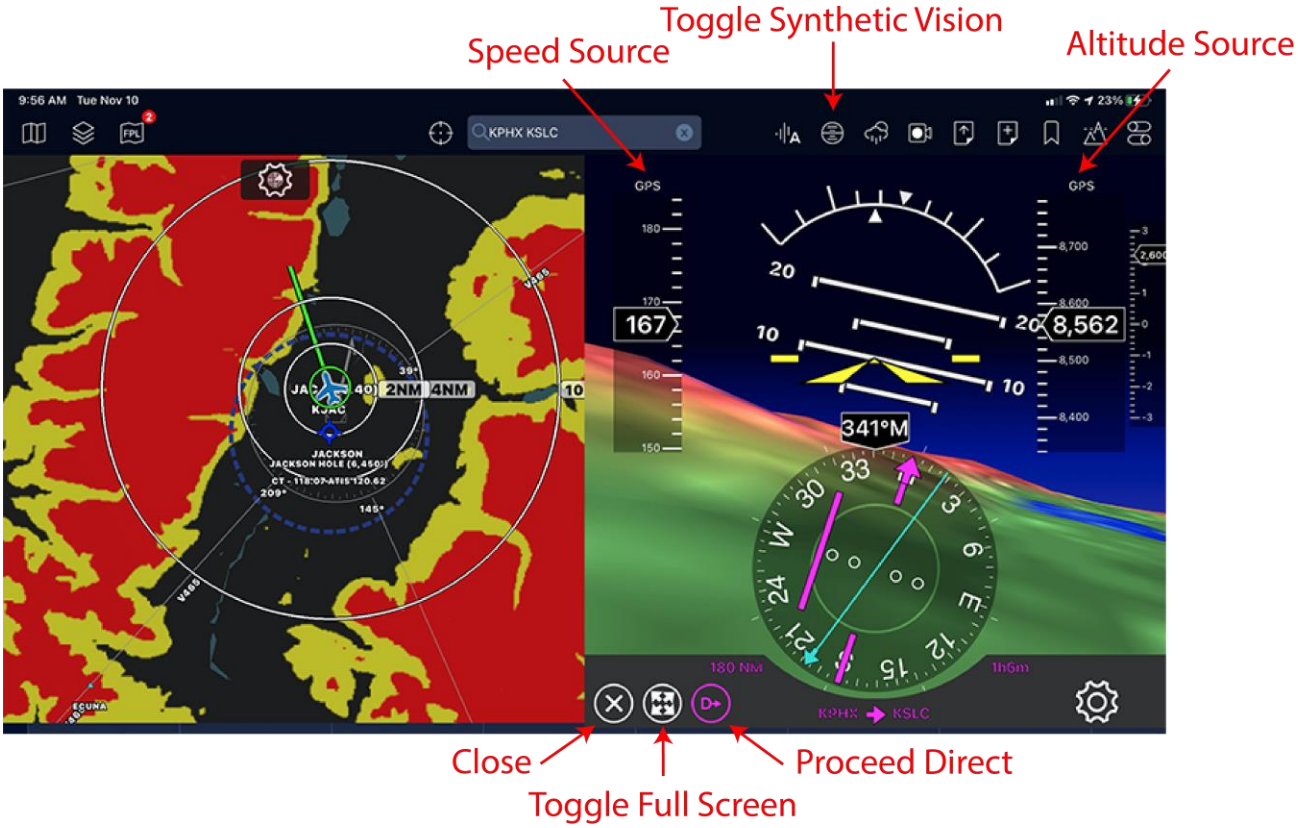
Compatible AHRS sources

Cockpit Devices

- Stratus 2, 2i, 2S, 3, 3i
- OpenFlightSolutions FlightBox with AHRS
- iLevil devices
- Dual XPGS190

Simulators

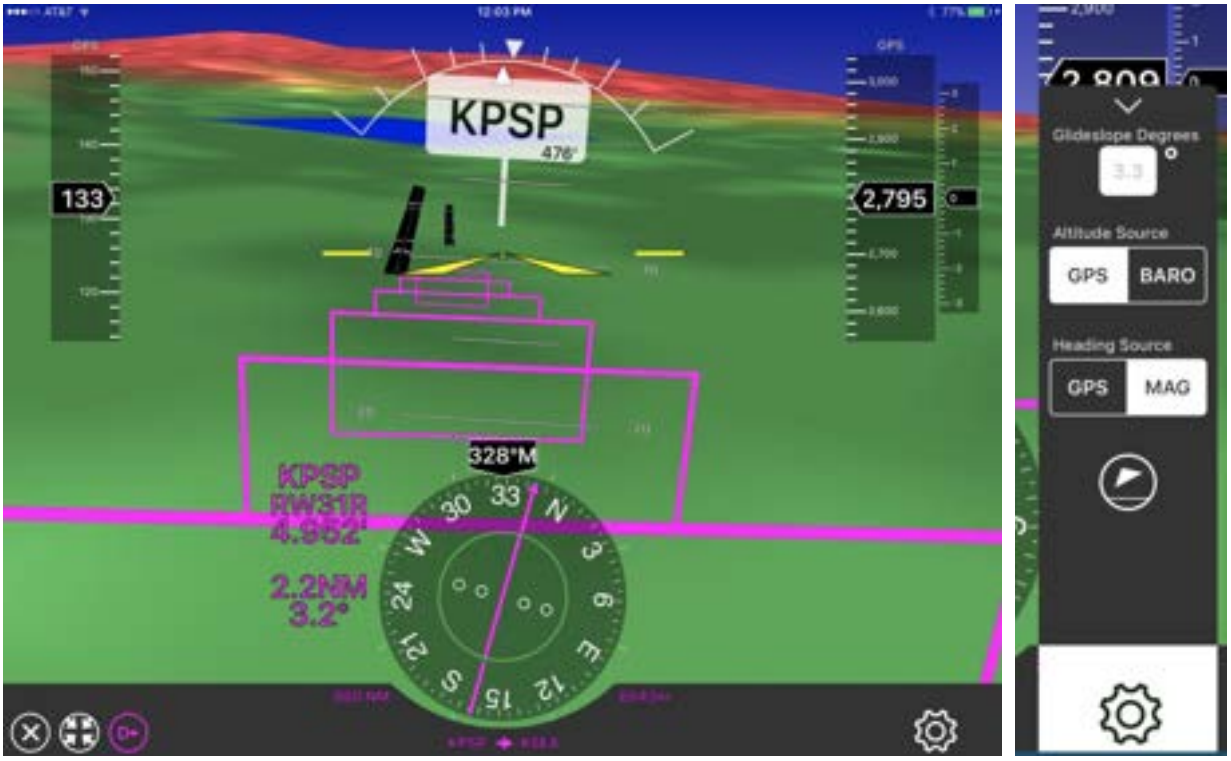
- X-Plane
- Infinite Flight
- MS Flight Simulator/Prepar3D with FSXFlight



Awareness

Here is a great example of Stratus Insight's synthetic vision in-use at Palm Springs. Notice the elevation and airport identifier are clearly identifiable. To the left of the HSI the airport, runway aligned with, runway length, distance to runway, and higher of published visual slope degrees or user set angle. Terrain highlighting is visible in the distance with red = below or near terrain, yellow = within ~1,000' of terrain.

When you're on an approach, magenta highway in the sky boxes are provided for slope alignment. Flying through the boxes will bring you to the center of the runway.



On the right side find the SynVis settings. You may change the heading source between GPS track or MAG source. If MAG is selected but none provided to Stratus Insight, GPS track will be used instead. You may also change altitude sources between the internal BARO or GPS altitude sensors, set the glideslope for highway in the sky boxes, and finally the bottom icon will calibrate the current attitude as 0 degrees pitch, and 0 degrees roll. This is useful to mount a portable AHRS device in any position.

Takeoff & Landing Roll

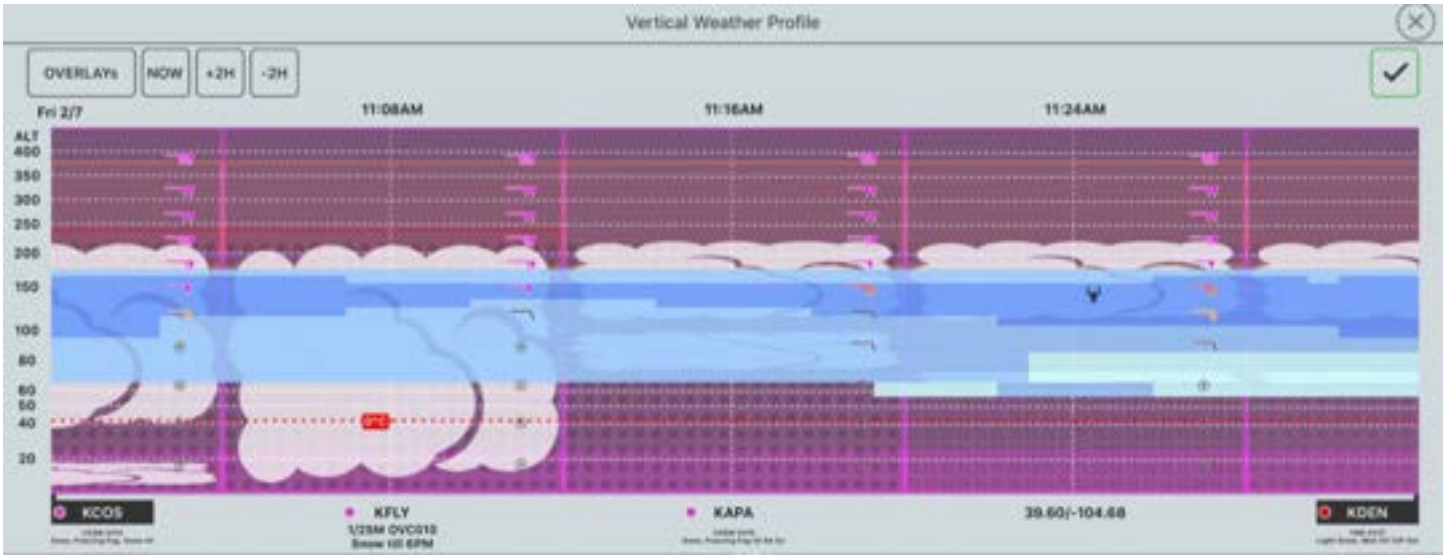
Once you've crossed the threshold of the runway the distance remaining will be indicated on the left side of the screen along with the runway you're currently on.

Example of obstacles in SynVis. Refer to the Obstacles section on page 91 for description of each obstacle icon.

Using the Vertical Weather Profile

The Vertical Weather Profile previews your route in the vertical slice from departure to destination, so you can see the conditions you'll encounter based on your departure time, aircraft speed, and each intermediate nearby airport. This tool provides information eight days out, although advisories such as AIRMETs and SIGMETs are only available within a few hours of your departure.

Before you use the Vertical Weather Profile, make sure that your route and departure time are accurate. Then, tap on the Vertical Weather Profile icon in the top navigation.



Radar Imagery

Stratus Insight analyzes dozens of Skew-T (soundings) based on the time your aircraft will cross certain points along your route of flight. If your flight is departing within the next hours Stratus Insight will analyze radar imagery to find nearby precipitation which will be shown as follows:

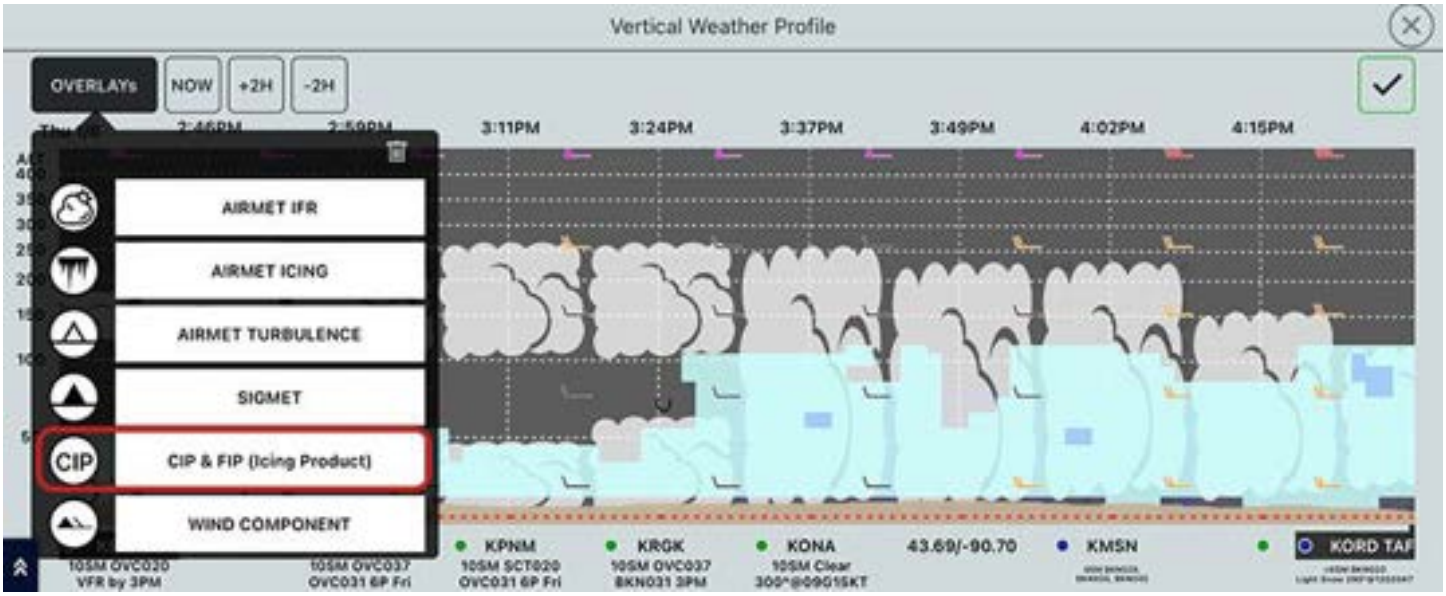
- **Rain:** Lower dbZ values and no lightning detected as rain mosaic.
- **Thunderstorm:** High dbZ values OR lightning detected as thunderstorm mosaic
- **Snow:** Snow showers detected as snow mosaic
- **Freezing Rain:** Freezing Rain Detected as FZRN mosaic

The vertical extent to precipitation is the highest detected cloud or if no clouds exist then all altitudes. **It's important to note the precipitation types are those received at the surface**, different precipitation types may be encountered at altitude than depicted.

It's important to understand soundings pick-up clouds very well but it is a forecast and subject to inherent faults in accuracy. In addition, soundings do not do a very good job at picking up cumulus type clouds.

Icing

You may turn on/off various features of the vertical weather tool in the Overlays menu in the Vertical Weather Profile. One item is CIP & FIP (Icing Product). This is the AWC icing model. Stratus Insight shows you the icing charts in the vertical slice based again upon the time of crossing a specific station. The colors are identical to those provided by the AWC.



The colors in the vertical tool may appear just slightly lighter in color as they contain some alpha component to see the cloud layers behind them. For SLD on the vertical tool, solid red is indicated instead of a hatched area. It's important to note if your planned departure time exceeds the FIP icing model time (18 hours) the absence of icing in the vertical is not an indication icing may not be present. **We recommend looking at the top-down map as well as a part of a complete briefing.**

Using the Terrain Profile

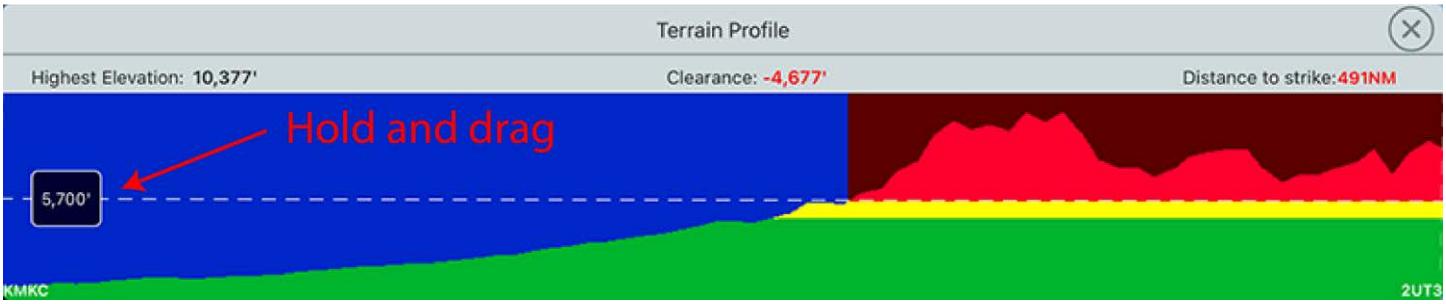
The terrain profile shows terrain clearance for your route. To view the terrain profile, tap the terrain profile icon in the top navigation.

You will see a Terrain Profile at the bottom of the screen showing terrain clearance:

Color	Terrain Distance
Green	More than 1,000 feet
Yellow	Within 101-1,000 feet of terrain
Red	Within 100 feet of terrain

IMPORTANT: This is based on your cruise altitude and does not account for climb or descent.

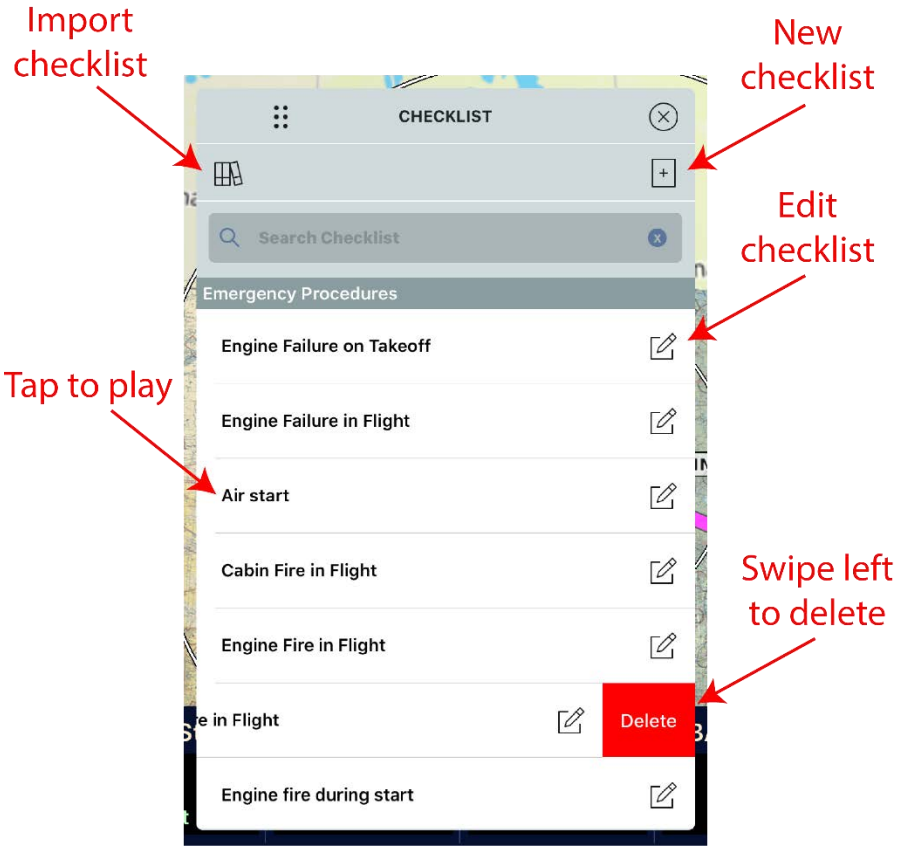
To change cruise altitudes, drag the altitude button up or down.



Using Checklists

Electronic checklists allow you to read, play, and add new checklists.

To open checklists, tap **Checklist** on the bottom navigation bar.



Importing Aircraft Checklists

To import a checklist, tap the import icon in the upper left corner of the Checklist window. Then, select the checklist library for your aircraft.

To create a custom checklist, refer to the steps in *Creating Custom Checklists* on page 25.

Creating Custom Checklists

Custom checklists can be uploaded from a CSV file through the Stratus Insight website or Stratus Insight app.

To manually add a custom checklist, refer to the steps in Manually Adding and Editing Checklists on page 26

Uploading using the Stratus Insight website

1. Log into your Stratus Insight account.
2. Click **Flights**, then click **Upload Checklist.**
3. Click **Download Checklist Import Template** to download the template, if you haven't already. Fill out the template and save it to your computer.
4. Enter a checklist name and drag the completed CSV template into the area indicated on the screen. The content will sync with the app within a couple minutes.

Uploading using the Stratus Insight app

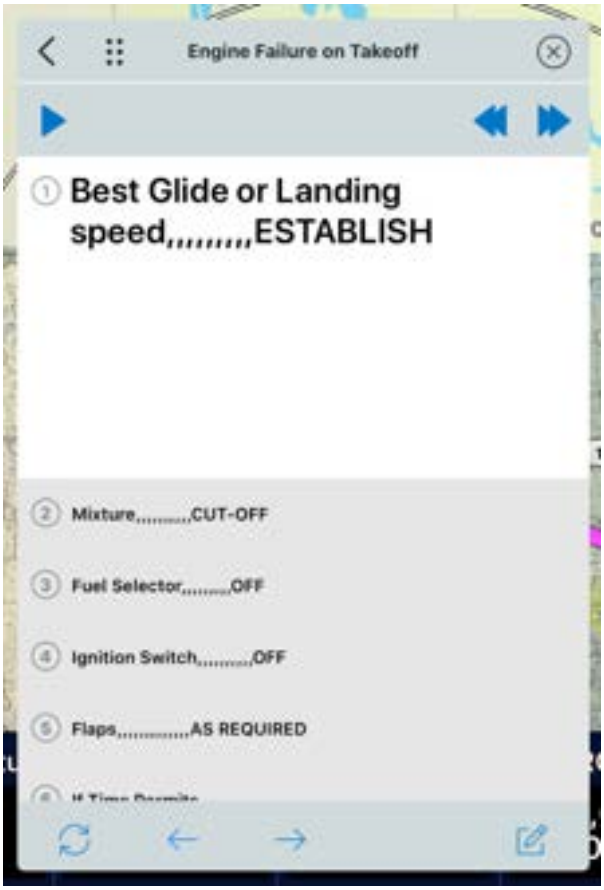
1. Locate the CSV log file from your email or a file manager (such as Dropbox or Google Drive).
2. Tap the file, then tap the up arrow in the upper right corner.
3. Tap **Copy to Stratus Insight** (you might have to swipe left to locate it). The Stratus Insight app will open.
4. Tap **Import Now**. When the import is complete, tap **X** in the upper right corner.

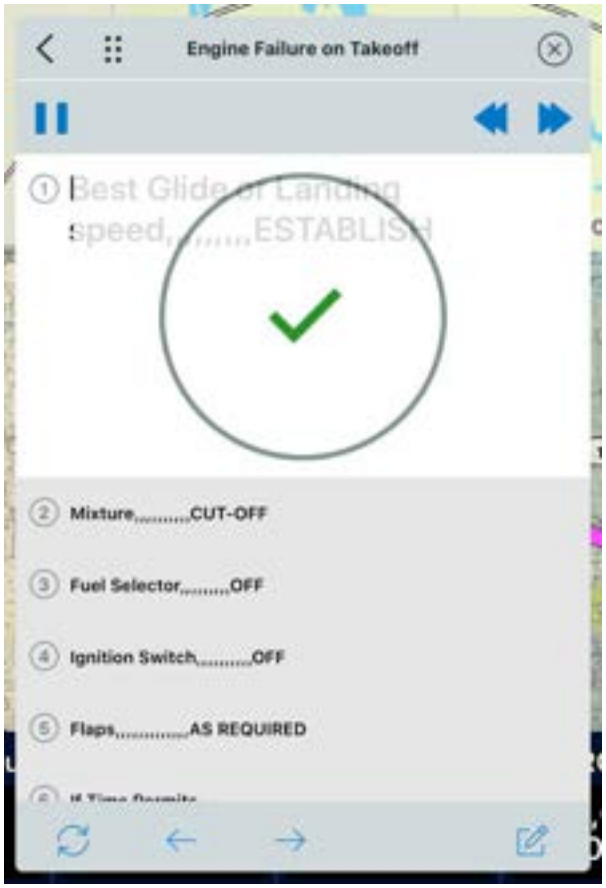
Manually Adding and Editing Checklists

1. Tap the add [+] icon in the upper right corner of the Checklist window to manually add a new checklist. Tap [✎] next to a checklist to edit it.
2. Enter a name and select a category for the checklist item.
3. Type the checklist text. Insert commas to add a delay in speech.
4. Select the amount of time after the checklist item.
5. Tap the save [↓] icon to add it to the list.

Playing a Checklist

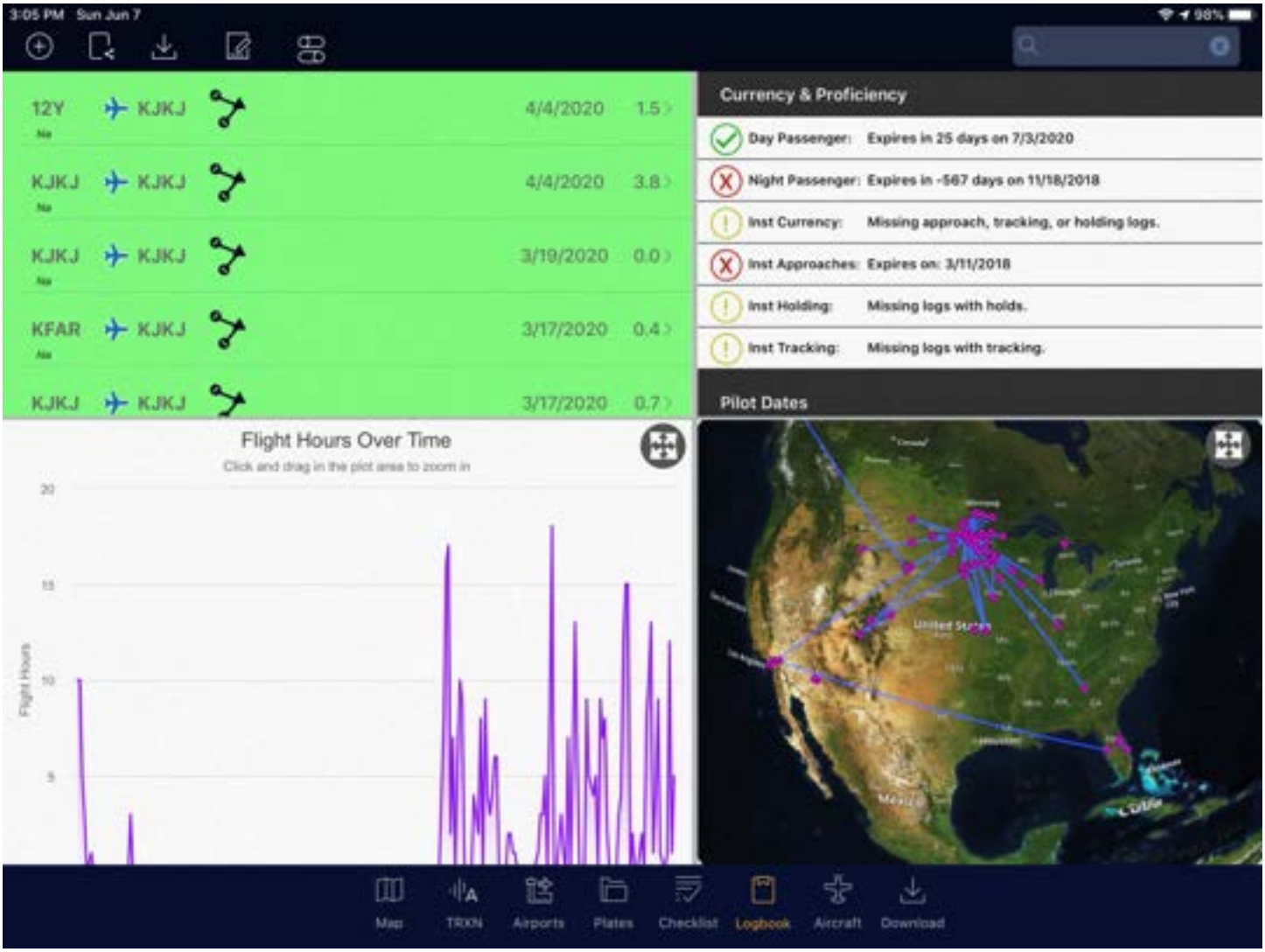
Tap on a checklist, then tap the play ▶ icon to play it.





Using the Logbook

Tap **Logbook** on the bottom navigation bar to use the logbook feature.



Adding Logbook Entries

Uploading Logbook Entries

Automatic Uploading

If the auto detect take-off and landing setting is enabled, flights will appear in the upper left section of the Logbook page. After five hours, they will automatically upload into the logbook. To upload an entry sooner, tap on a logbook entry, then tap **Add to Logbook** to upload it.

Manually Uploading

Flight logs can be uploaded from a CSV file through the Stratus Insight website or Stratus Insight app.

Supported formats include:

- ForeFlight CSV export (app upload only)
- Stratus Insight CSV template (tap to download template)
- Garmin G-1000 (website upload only)
- Avidyne PFD logs (website upload only)

Uploading using the Stratus Insight website

1. Log into your Stratus Insight account.
2. Click **Flights**, then click **Bulk Log Import** or **Upload Flight/Engine Logs.**
3. Upload the CSV log file.

Uploading using the Stratus Insight app

1. Locate the CSV log file from your email or a file manager (such as Dropbox or Google Drive).
2. Tap the file, then tap the up arrow in the upper right corner.
3. Tap **Copy to Stratus Insight** (you might have to swipe left to locate it). The app will open.
4. Tap **Import Now**. When the import is complete, tap **X** in the upper right corner.

Manually Entering Logbook Entries

Flight logs can also be entered manually without a CSV file through the Stratus Insight website or app.

Entering using the Stratus Insight website

1. Log into your Stratus Insight account.
2. Click **Flights**, then click **Add Log Entry.**
3. Enter the flight information, then click **Save Flight**.

Entering using the Stratus Insight app

1. Press ⊕ in the upper left corner of the Logbook page.
2. Enter the flight information, then tap **Save**.

TIP: Tap **Use *XXX*** to populate fields with data from your aircraft profile.

Merging a Track Log to Another Log Entry

1. Tap next to the flight you want to merge. Then, tap **Merge Flight Track To Another Log Entry**.
2. Tap the flight that you want to combine with. Then, tap **Yes, Merge**.

Customizing Graph View

1. Tap in the top left corner of the Logbook page.
2. Under **Graph Options**, select which flight types should show in the graph. You can select more than one option.

Viewing the Flight Map

The map in the bottom left corner shows all of your logbook flights.

To only display the takeoff and landing locations and not the flight route, disable the **Show Flight Routes** switch in the logbook settings.

Adding Endorsements

To have a Certified Flight Instructor endorse your logbook, use the Endorsements feature.

1. Tap in the upper left corner of the Logbook page. Then, tap **Add Endorsement**.
2. Have the instructor fill out the endorsement information. Then, tap **Save**.

Replaying Track Logs

Tap next to the flight you want to replay. Tap **Download Flight Track**, if you haven't already. Then, tap **Open Flight Track.** The Maps page will open to replay the flight.

Exporting Logbook Entries

Tap in the upper left corner of the Logbook page to export a logbook entry into one of the following formats:

- FAA Form 8710 (PDF)
- Logbook Full (PDF)
- Logbook Consolidated (PDF)
- Logbook Full (CSV)
- Business Use Report

Using Favorite & Recent Flights

Viewing Favorite and Recent Flights

The Favorite & Recent Flights window shows favorite and recently created routes. Tap **Favorites** to view them.

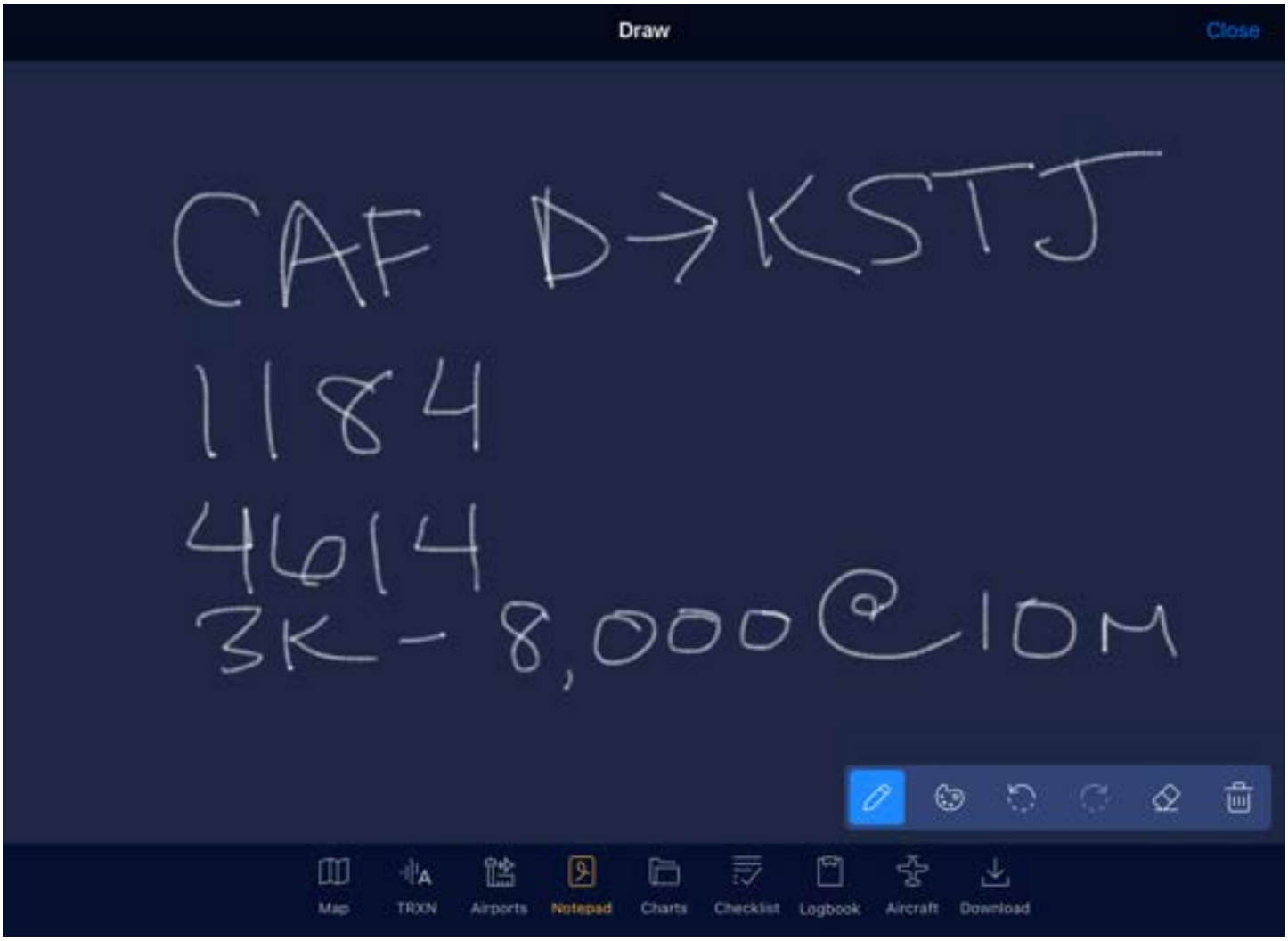
Tap on a recent route to replace your current flight plan.

Renaming and Deleting Favorite Flights

- **Renaming:** Tap on a flight, then tap **Rename** favorite to rename it.
- **Deleting:** Swipe left on a flight to delete it.

Using the Notepad

Tap Notepad on the bottom navigation bar to access the notepad.



Adding a New Note

1. Tap + in the upper right corner and select a template.
2. Draw your note.
3. Tap **Close** to save your note.

Deleting a Note

1. Tap **Edit** in the upper left corner.
2. Check the box next to the note you want to delete.
3. Tap **Delete**.
4. Tap **Done**.

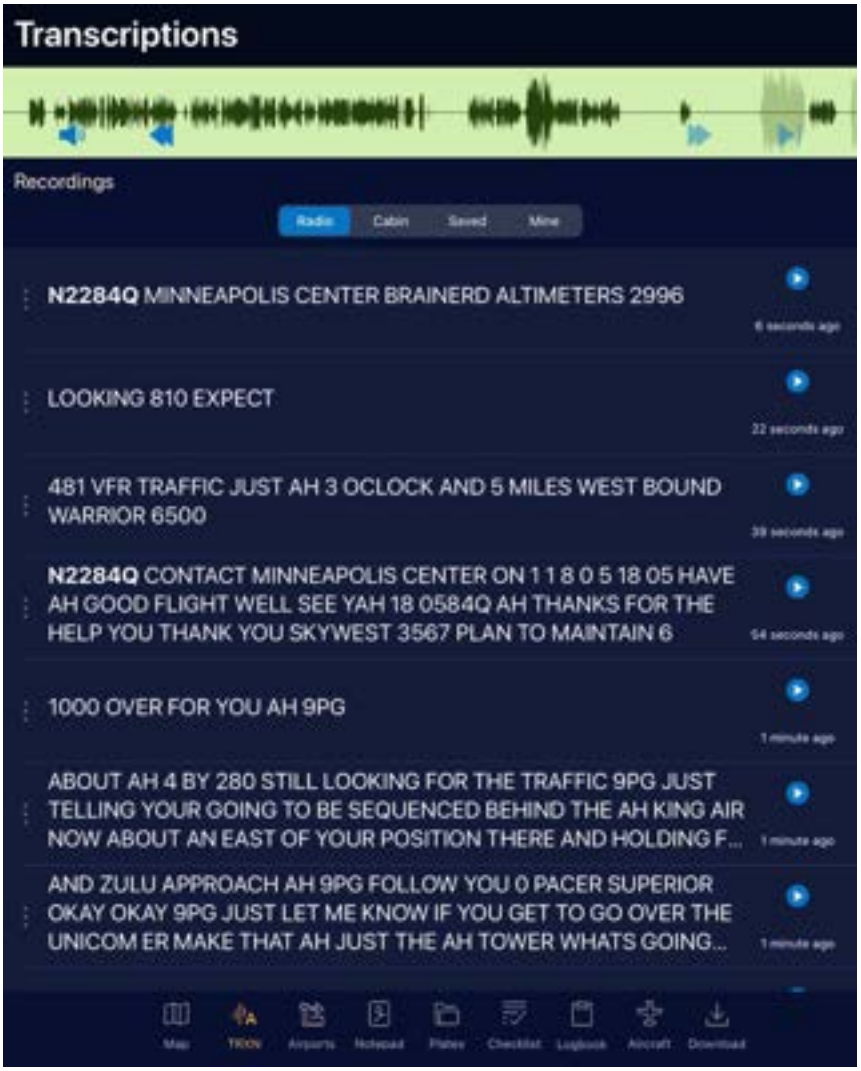
Viewing Radio Transcriptions

When connected to a Stratus audio cable, the Radio Playback feature allows you to replay ATC audio clips. The Radio Transcription feature transcribes ATC audio and displays it on the iPad to help locate specific audio clips.

NOTE: The Radio Transcription feature is specifically designed to transcribe ATC audio. Due to its specialized dictionary for aviation terms and phrases, it is not intended to transcribe audio other than ATC audio. Other audio in the cockpit, such as music, may interfere with Radio Transcription.

To use Radio Playback or Radio Transcription, tap **TRXN** on the bottom navigation bar. Then, tap **Buy cable** to buy a cable, or tap **I have a cable** if you already have a cable. The transcription module will download (you'll need a cellular or Wi-Fi connection to download the module).

To view Radio Transcriptions on the Maps page, toggle the Radio Transcription icon on the top navigation bar.



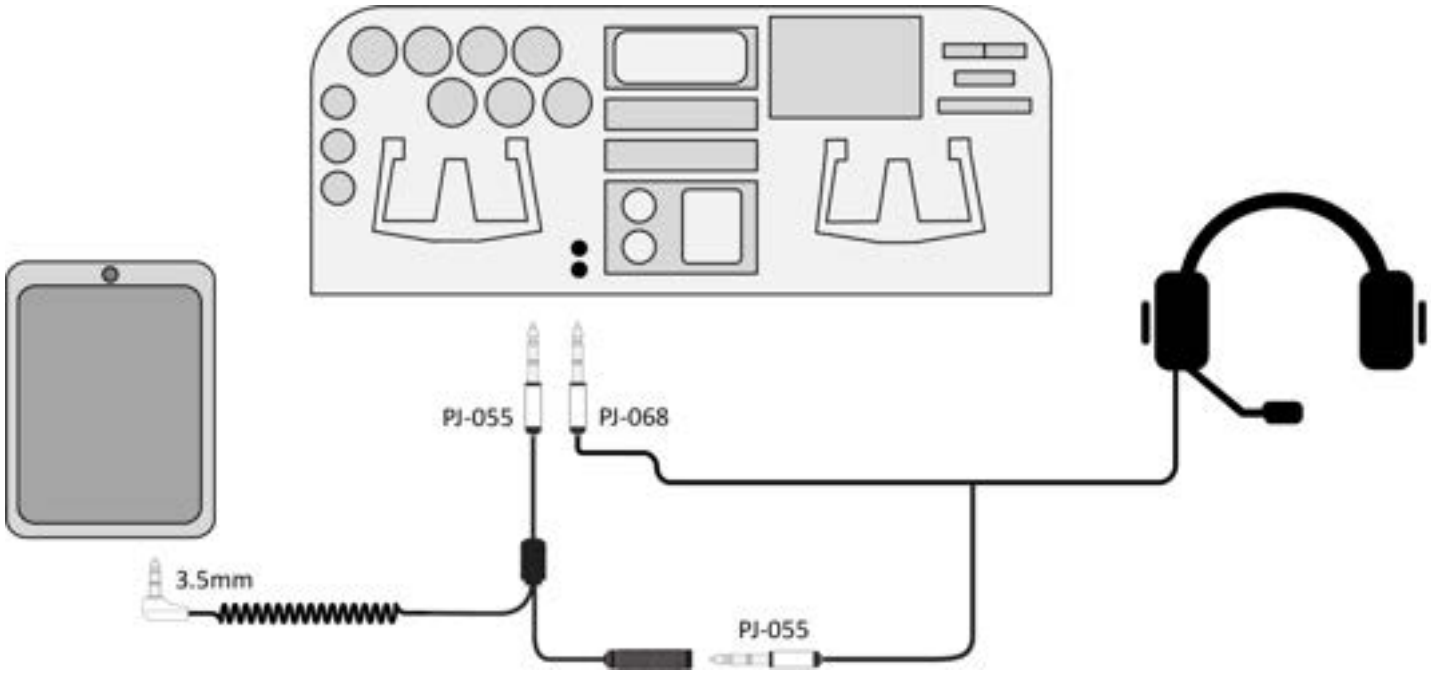
Connecting to the Stratus Audio Cable

To use the Radio Playback or Radio Transcription feature, connect the Stratus audio cable to your headset, iOS device, and audio panel.

NOTE: If your headset does not have standard GA twin plugs, you need an adapter to convert your headset jack to twin plugs. When using an adapter, noise cancelling headphones will not be powered by the panel.

1. Connect the 3.5 mm end of the Stratus audio cable into the audio jack of the iOS device.
2. Connect the PJ-055 end of the Stratus audio cable into the aircraft audio panel.
3. Connect the PJ-055 end of the headset into the receptacle of the Stratus audio cable.
4. Connect the PJ-068 end of the headset into the aircraft audio panel.

Audio will automatically start recording and being transcribed once the audio cable is correctly connected.



Replaying Recent Audio Clips

Tap the arrows at the top of the screen to replay an audio clip from the last 2 minutes.

- Tap the left arrow to navigate back to previous audio clips.
- Tap the right arrow to navigate forward to more recent audio clips.
- Tap the arrow icon to jump to the most recent audio clip.

*Cabin audio clips are not transcribed on the Radio audio clips page. To replay cabin audio clips, tap **Cabin**.*

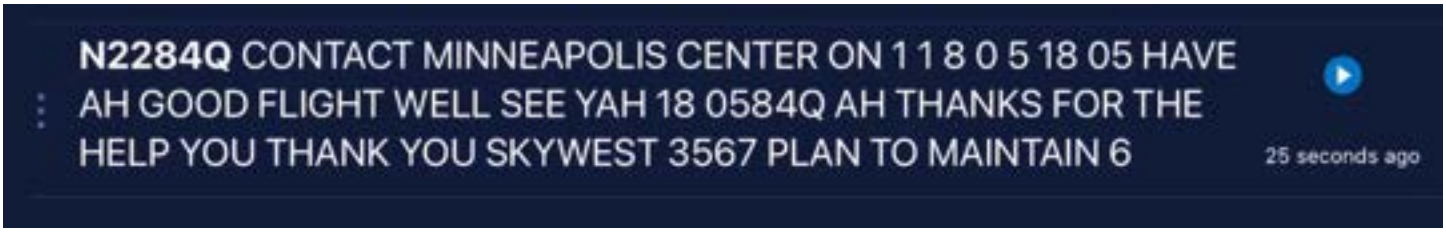
Replaying Older Audio Clips

To play an audio clip from longer than two minutes ago, tap the play icon next to a transcription.

Two hours of active radio audio (not including silence) and 30 minutes of cabin audio is stored before the oldest audio clips automatically delete.

Using Call Sign Callouts

When the app hears your call sign, it will bold it in the transcription for easy identification.



To use this feature, make sure that you have an aircraft profile with a tail number. It appears in the bottom of the flight plan box as shown below.

To replay all audio clips with your call sign, tap the **Mine** tab on the Transcriptions page.

Enabling Streaming Transcriptions

Enable streaming transcriptions to allow transcriptions to appear as the audio is spoken, instead of only at the end of an audio clip.

To enable this setting, tap the settings icon, then toggle the **Streaming transcriptions** switch.

TIP: Due to increased processing time, this setting uses more battery and is not recommended for older devices.

Saving and Deleting Audio Clips

About 636 MB of active audio (not including silence) is stored before the oldest audio clips are automatically deleted.

- To save an audio clip and prevent it from being automatically deleted, swipe right on the recording and tap the save icon.

  *To replay saved audio clips, tap **Saved.***
- To delete a single audio clip, swipe left on the clip and tap **Delete**.
- To delete all audio clips, tap the settings icon, then tap the trash icon next to **Stored Audio**.

Improving Transcription Quality

The more data Appareo has, the more accurate future transcriptions will be. You can help Appareo improve transcriptions by flagging inaccurate transcriptions.

To view our privacy policy, go to appareo.com/privacy-policy.

Uploading all Audio Data

To automatically upload all audio data to Appareo, tap the settings icon, then enable the **Help Improve Transcriptions** switch.

The app must be open and connected to a Wi-Fi network to upload the data to Appareo.

Flagging Individual Transcriptions

1. Swipe right on an audio clip and tap the flag icon.
2. Tap the settings icon, then tap the upload icon next to **Flagged Transcriptions** to submit them to Appareo.

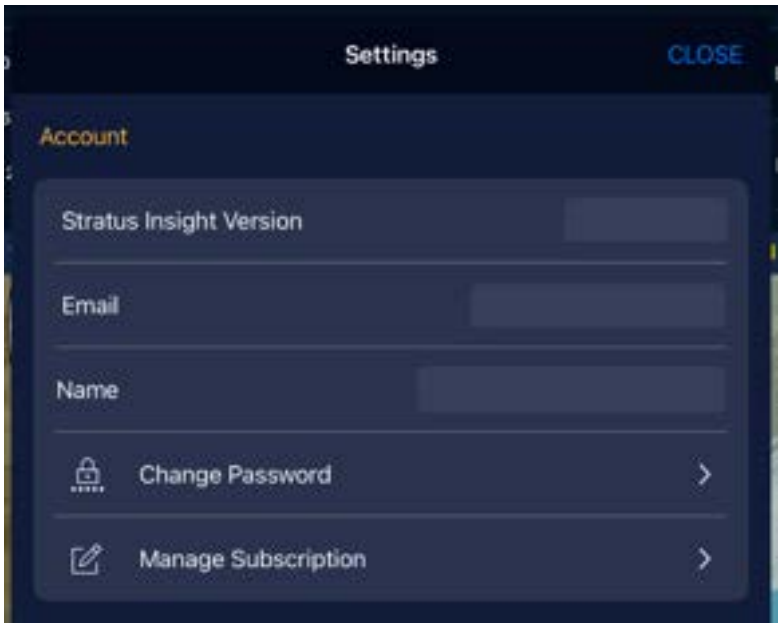
   The app must be open and be connected to a Wi-Fi network or cellular network to upload the data to Appareo.

Configuring Settings

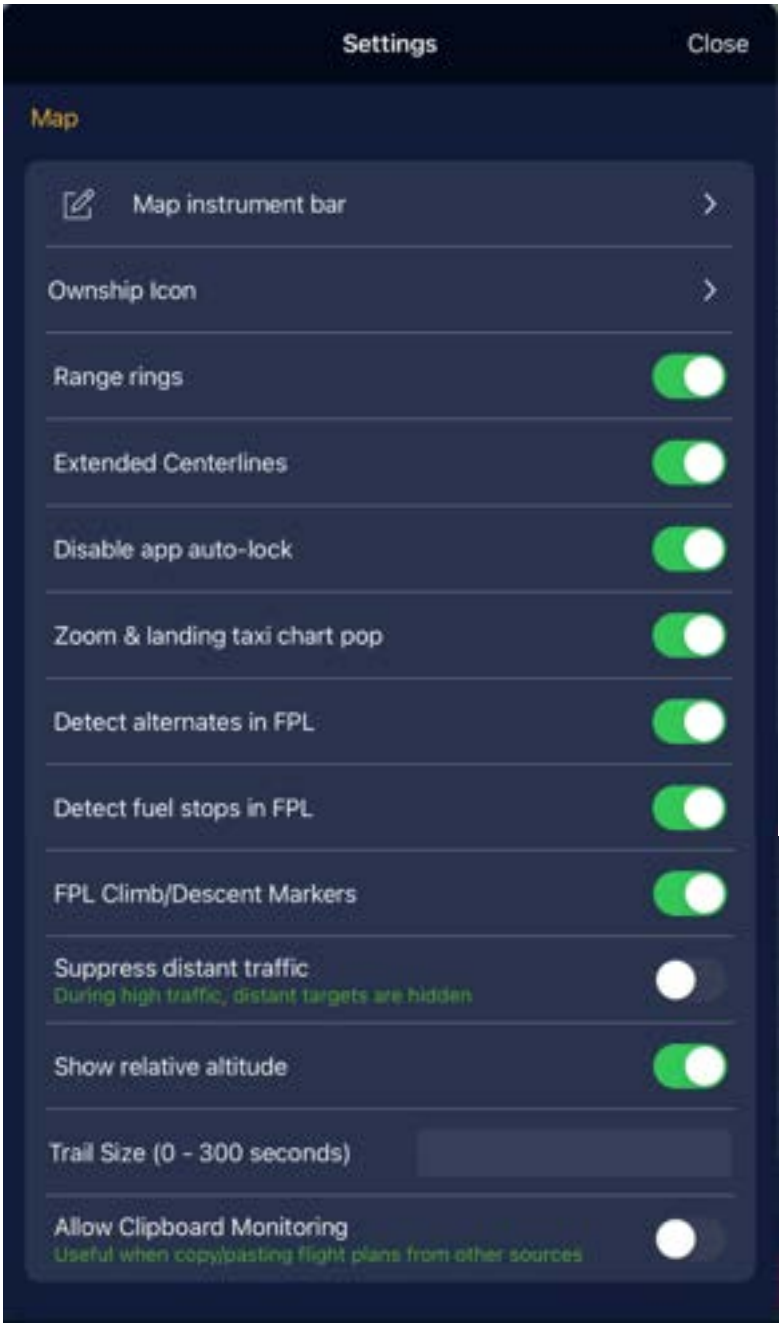
Tap the settings icon in the top navigation to personalize your app experience.

Account Settings

At the top of the Settings window, you can view your app version, personal information, change your password, and manage your subscription.



Map Settings



Map Instrument Bar: Show the information bar at the bottom of the Map page. If enabled, customize the information shown.

Ownship Icon: Select a custom ownship icon and color.

Range rings: Show distance rings around your map location.

Extended centerlines: Show runway information for airports in your flight route.

Disable app auto-lock: Prevent your device from going to sleep when the app is open.

Zoom & landing taxi chart pop: Automatically display taxi chart when in-flight and zooming in.

> **NOTE:** Regardless of this setting, taxi charts will automatically pop up after landing.

Detect alternates in FPL: Automatically apply the 1, 2, 3 rule to your flight route and display ALT icon if necessary.

Detect fuel stops in FPL: Automatically display fuel symbol in flight route when a fuel stop may be necessary.

FPL Climb/Descent Markers: If a performance profile has been created, display top of descent and bottom of descent markers on the map.

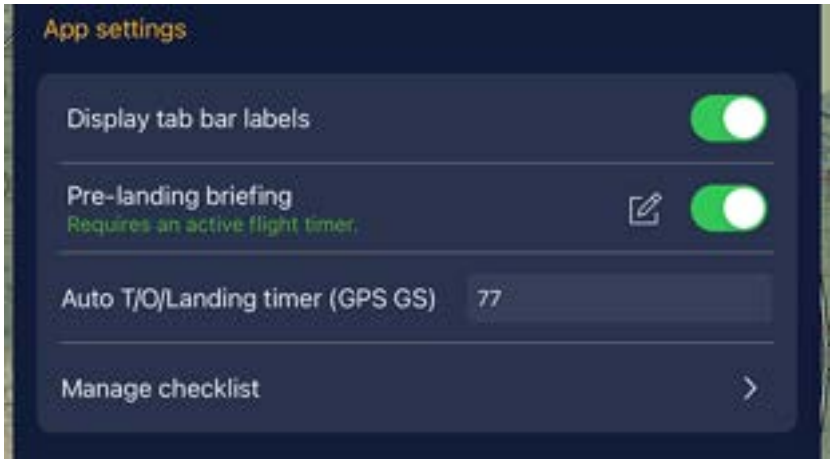
Suppress Distant Traffic: Only display relevant traffic close to your position.

Show relative altitude: When viewing targets on the map, show altitude relative to other aircraft instead of true altitude.

Trail Size: Select how long the flight trail behind your ownship icon is.

Allow Clipboard Monitoring: Allow Stratus Insight access to the iPad clipboard.

App Settings



Display tab bar labels: Show the icon labels on the bottom navigation bar.

Pre-landing briefing: Automatically play a landing briefing when approaching an airport. Tap **Edit Script** to change the briefing text.

Auto T/O/Landing timer: Enter the groundspeed threshold that indicates that you're in-flight. For most aircraft, set this to the rotation speed or stall.

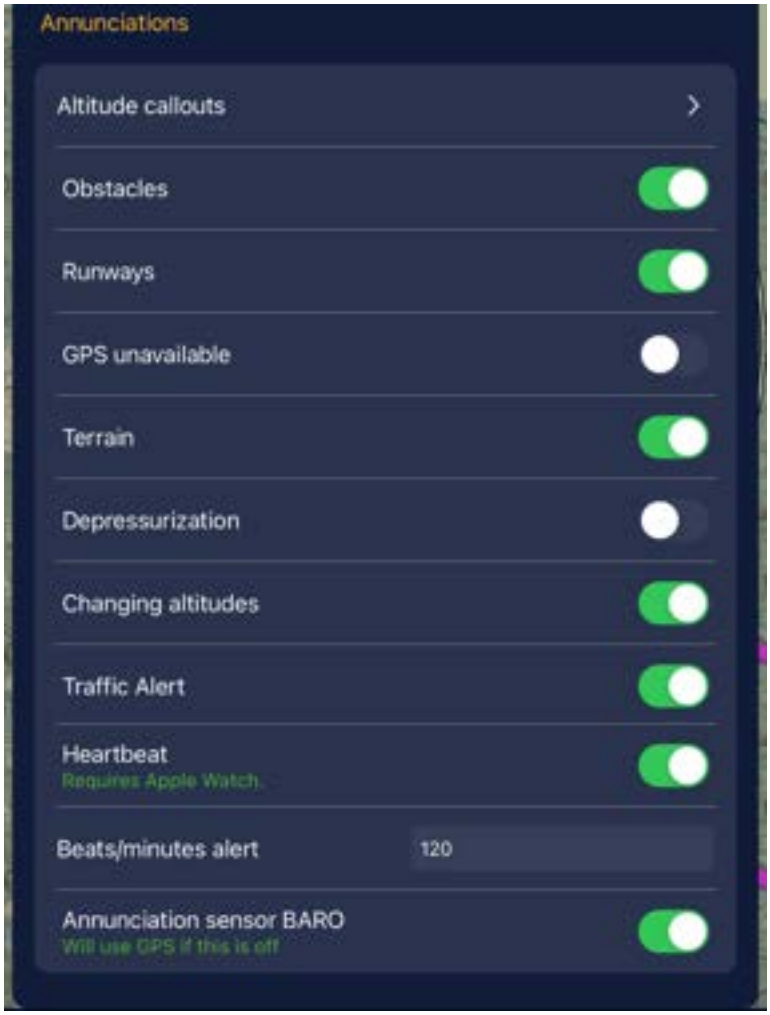
> **TIP:** Set the speed high enough that it won't trigger when you're driving a car.

Manage checklist: Edit checklists.

Annunciation Settings

Select which items you want visual and audio alerts for while in-flight.

Altitude callouts: Set climb and descent alerts (in feet AGL, taking into consideration runway elevation).



Obstacles: Obstacle is near the flight path.

Runways: You're approaching or entering a runway.

GPS unavailable: GPS signal to device is lost.

Terrain: Enable Portable TAWS.

Depressurization: Monitor high baro climb rate.

Changing altitudes: Automatically report leaving an altitude.

Traffic Alert: Traffic is near the flight path.

Heartbeat: For Apple Watch users on iPhone, monitor heartbeat with active flight timer on watch.

Beats/min alert: Threshold for heart alarm.

Annunciation sensor BARO: Select the altitude source for annunciations.

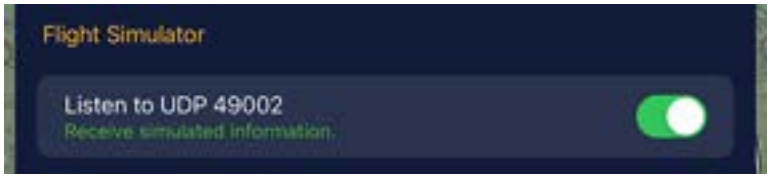
> **NOTE:** Using a barometric altitude requires setting local altimeter settings. If you're connected to an ADS-B receiver, then the nearby barometric altitude is automatically updated.

Stratus Receiver Settings

Tap **Stratus Settings** to change Stratus receiver settings.

Flight Simulator Settings

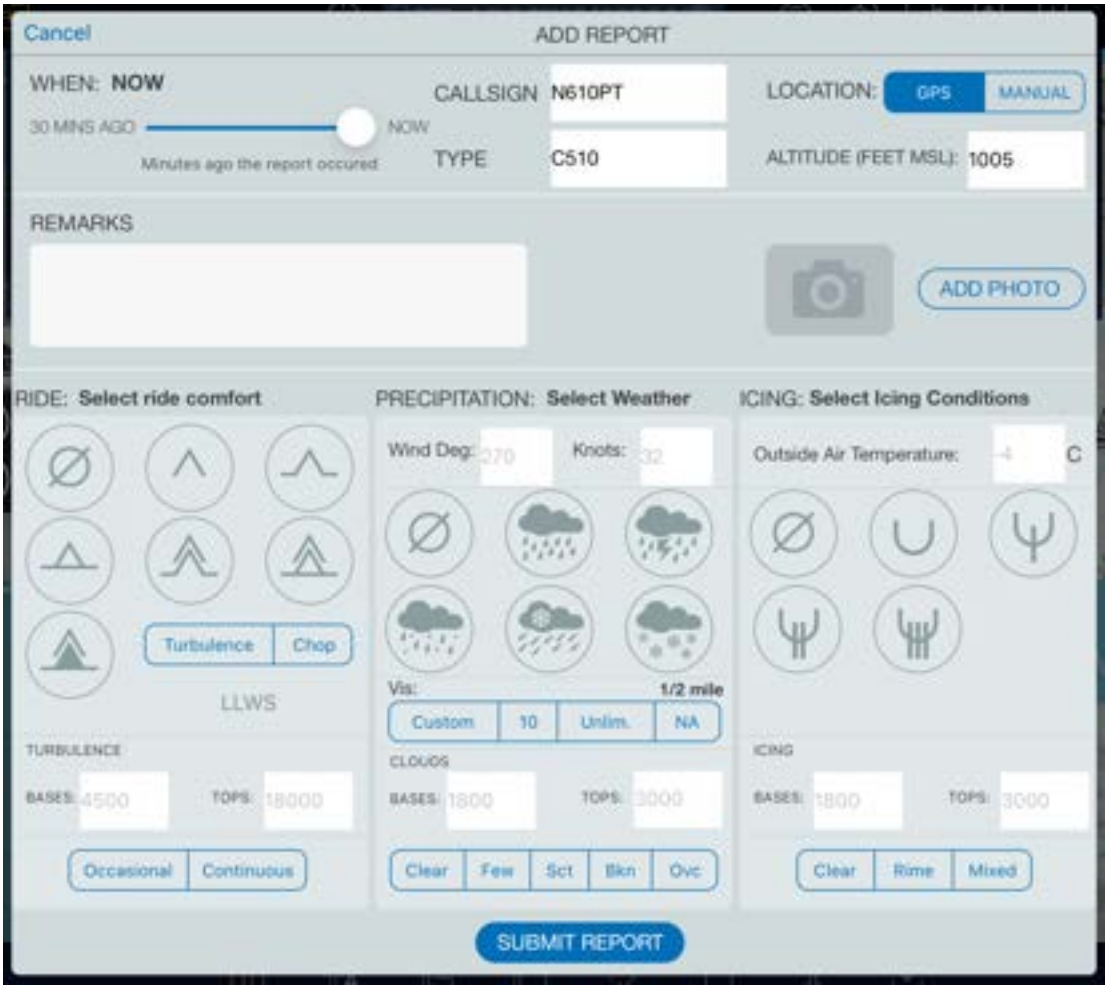
Toggle **Listen to UDP 49002** to listen for X-Plane, FSXFlight, or FreeFlight flight simulators.



Submitting a New PIREP (Pilot Report)

You can submit a pilot report from your current location or from a previous location.

PIREPS are transmitted over cellular data or Wi-Fi. If you submit a pilot report in-flight and you do not have a data connection, the app will automatically attempt for one hour to re-transmit to Leidos Flight Services.



Submitting a PIREP in Current Location

1. Tap the new report P icon in the top navigation.
2. Verify that the auto-populated call sign, ICAO type, current GPS location, and altitude are correct.
3. Enter the PIREP details. You do not have to fill out all fields.

   NOTE: If you enter an icing pilot report, a temperature is required.

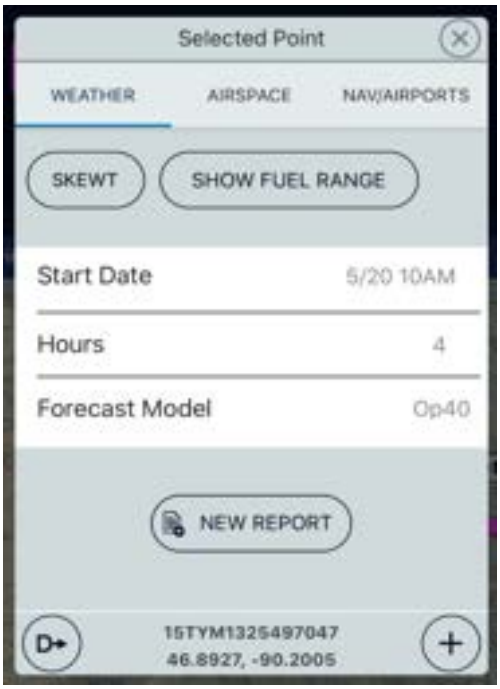
   NOTE: You can only enter one cloud layer per PIREP. To report another layer, add this to the Remarks field or wait a few miles and submit another pilot report.
4. Tap **Submit Report**.

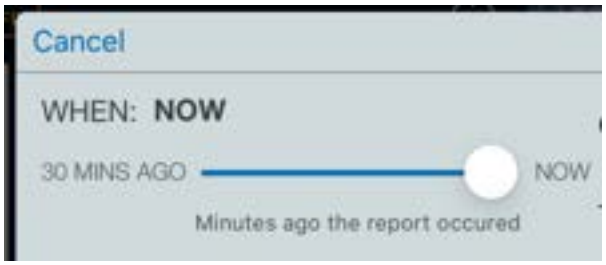
Submitting a PIREP from a Previous Location

1. On the Map page, find the approximate location of the weather condition. Press and hold on the location until the Selected Point pop-up appears.
2. Tap **New Report**.
3. Enter the PIREP details. You do not have to fill out all fields. Use the **WHEN** slider to select when the conditions were encountered.

   NOTE: If you enter an icing pilot report, a temperature is required.

   NOTE: You can only enter one cloud layer per PIREP. To report another layer, add this to the Remarks field or wait a few miles and submit another pilot report.
4. Tap **Submit Report**.





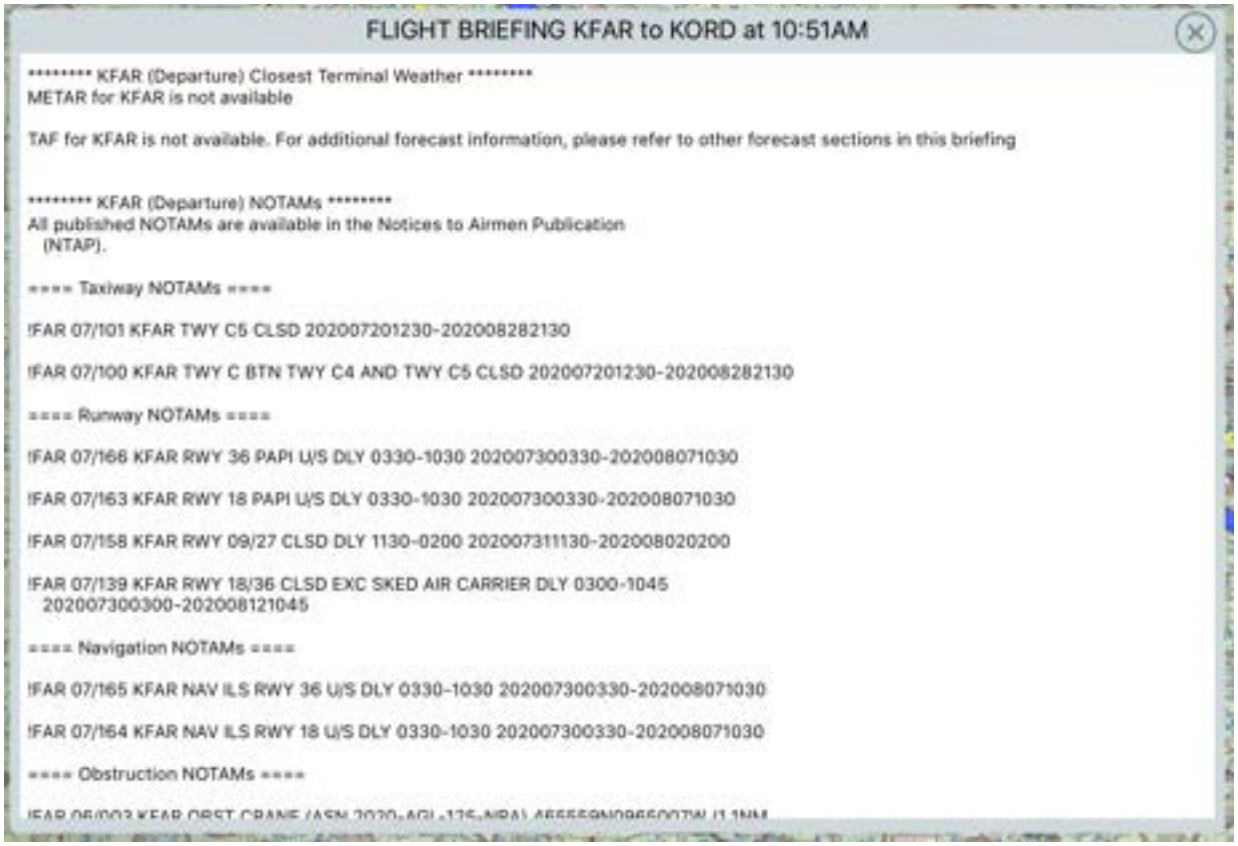
The number of untransmitted pilot reports is shown next to the new report icon.

You will receive a push notification when Leidos Flight Service receives the PIREP.

Getting a Route Briefing

Tap the Brief & File icon in the top navigation, then tap **Brief Flight Plan** to get a full route briefing from Leidos Flight Services. Stratus Insight transmits your route, flight route, departure and destination, time of departure, and call sign information to Leidos for recording.

When the textual briefing is available, it will display on the screen. A copy of the briefing is also emailed to you.



FLIGHT BRIEFING KFAR to KORD at 10:51AM

******** KFAR (Departure) Closest Terminal Weather ********
METAR for KFAR is not available

TAF for KFAR is not available. For additional forecast information, please refer to other forecast sections in this briefing

******** KFAR (Departure) NOTAMs ********
All published NOTAMs are available in the Notices to Airmen Publication (NTAP).

==== Taxiway NOTAMs ====

!FAR 07/101 KFAR TWY C5 CLSD 202007201230-202008282130

!FAR 07/100 KFAR TWY C BTN TWY C4 AND TWY C5 CLSD 202007201230-202008282130

==== Runway NOTAMs ====

!FAR 07/166 KFAR RWY 36 PAPI U/S DLY 0330-1030 202007300330-202008071030

!FAR 07/163 KFAR RWY 18 PAPI U/S DLY 0330-1030 202007300330-202008071030

!FAR 07/158 KFAR RWY 09/27 CLSD DLY 1130-0200 202007311130-202008020200

!FAR 07/139 KFAR RWY 18/36 CLSD EXC SKED AIR CARRIER DLY 0300-1045 202007300300-202008121045

==== Navigation NOTAMs ====

!FAR 07/165 KFAR NAV ILS RWY 36 U/S DLY 0330-1030 202007300330-202008071030

!FAR 07/164 KFAR NAV ILS RWY 18 U/S DLY 0330-1030 202007300330-202008071030

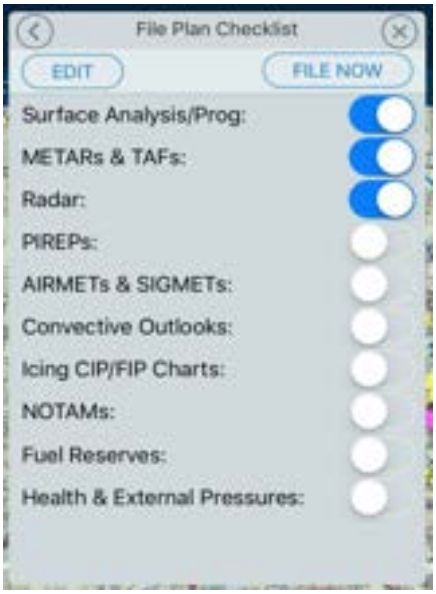
==== Obstruction NOTAMs ====

Filing a Flight Plan

Stratus Insight flight plans are filed via Leidos Flight Services. All flight plans are ICAO standard as per FAA requirements as of March 2017. The first time you file a flight plan with Stratus Insight, you will have to fill out required information on the ICAO flight plan form.

Tap **Manage FPL** on the top navigation bar, then tap **File Flight Plan** to file a flight plan.

1. Verify that the information in the flight plan is correct. If there is any incorrect information, tap **Edit** and update the information. Then tap **Close** in the upper left corner.
2. When you're ready to file the flight plan, tap **File** in the upper right corner.
3. **OPTIONAL:** Use the preflight checklist to make sure you've gotten a full briefing.



4. Tap **File Now**.

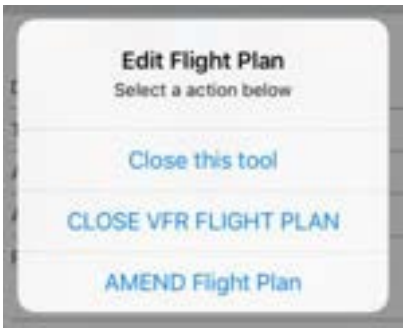
After filing, tap **Manage FPL** to cancel or amend an existing flight plan.

Unopened IFR Flight Plans can be amended or cancelled up to 30 minutes prior to the proposed departure time. You cannot cancel an open IFR flight plan.

Activating a VFR Flight Plan

After filing a VFR flight plan, you must activate your VFR flight plan with Leidos Flight Services. Tap **Manage FPL** on the top navigation bar and follow the on-screen prompts to activate (or close) your flight plan.

Activating a VFR flight plan



Closing a VFR flight plan

Using the Map Instrument Bar

The toolbar at the bottom of Stratus Insight shows instruments and tools for in-cockpit use.

Swipe right to view the full Map Instrument Bar.

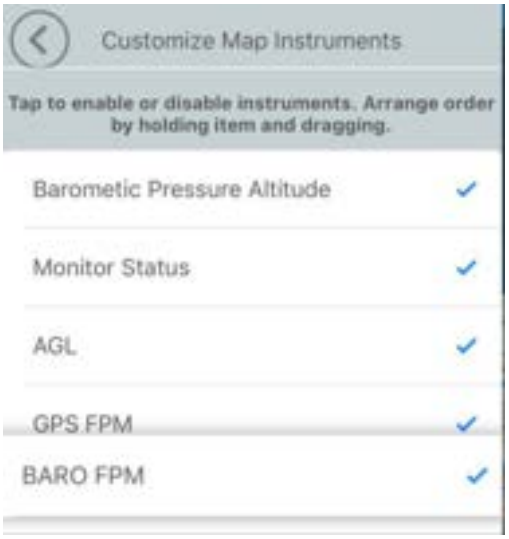
Changing Map Instrument Bar Settings

Show or Hide Map Instrument Bar

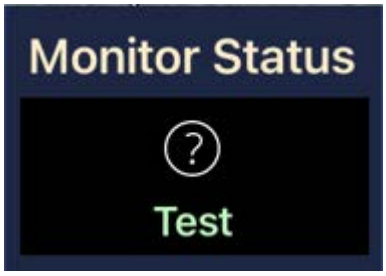
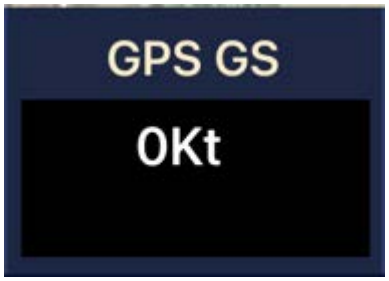
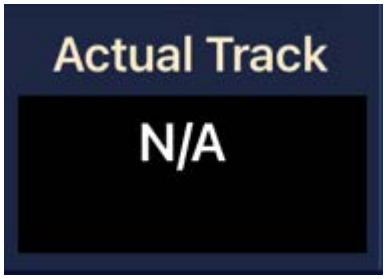
- Collapse it by tapping the down arrow on the left side of the bar.
- Re-open it by tapping the up arrow on the left side of the bar.

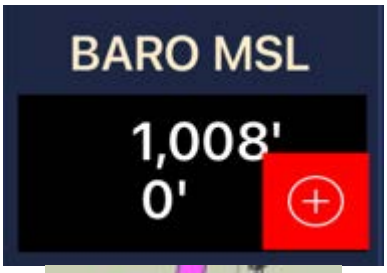
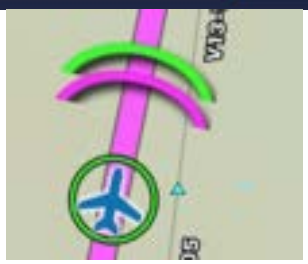
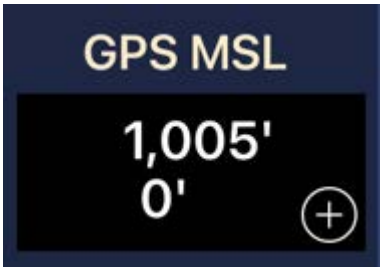
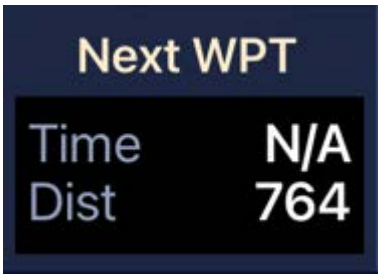
Change Tools Shown

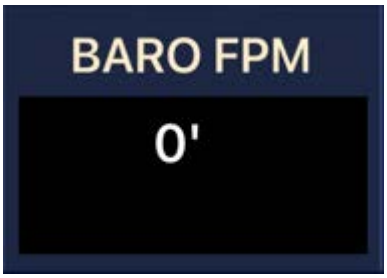
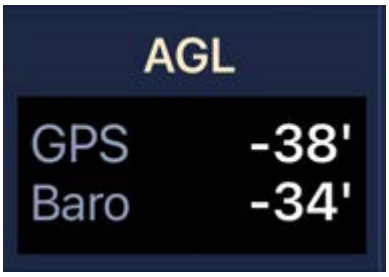
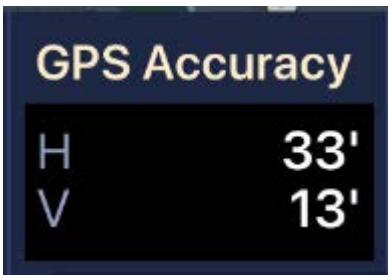
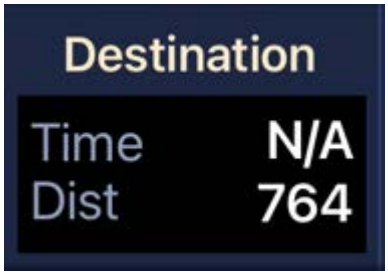
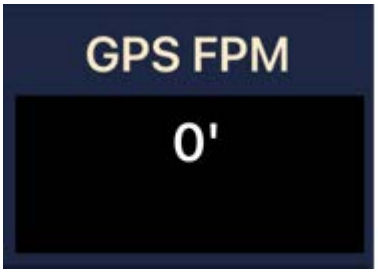
1. Tap the settings icon in the top navigation.
2. Under Map Settings, tap **Customize** next to **Map Instrument Bar**.
3. Customize the Map Instrument Bar. Refer to the next section for descriptions of each tool.
   - Tap to the right of the tool name to add or remove a check box.
   - Press and hold a tool name, then drag it to the location you want. The top of the list will appear leftmost in the Map Instrument Bar.
4. Tap the back arrow in the upper left corner, then tap **Save**.



Using the Map Instrument Bar

## Flight Time Total flight time. The flight timer is automatically started when the GPS speed reaches the threshold you set in the Auto T/O/Landing Timer setting. To manually start the timer, tap **Start**. If the flight timer is not running, the app will not run in the background. If the flight timer has not automatically started, manually start it to ensure that you'll receive ADS-B data from your connected devices. If you want to receive runway alerts, start the timer when you board the aircraft.	
## Monitor Status Tests the status of connected devices. Tap the question mark ? icon to view a list of potential monitoring issues. Tap **Test** to play a message over your headset or Bluetooth audio device to verify connectivity.	
## GPS GS GPS groundspeed.	
## Actual Track Heading track of the aircraft.	

## Baro MSL Barometric pressure altimeter (top) and target altitude (bottom). Tap the add ⊕ icon to manually set the local altimeter setting and target altitude if it was not automatically detected. Upon reaching a climb or descent, the target barometric altitude is shown on the map as a green arc.	 
## GPS MSL GPS Altitude (top) and target altitude (bottom). Tap the add ⊕ icon to set the target altitude. Upon reaching a climb or descent, the target GPS altitude is shown on the map as a magenta arc.	
## Next WPT Time and distance to next waypoint.	
## Fuel Timer Approximate fuel tracker based on flight time. For situational awareness only.	
## Timer Multi-purpose timer.	

## BARO FPM Approximate barometric pressure altitude in feet per minute.	
## AGL Height above ground level. For high resolution terrain data, download the HD TAWS Database from the Downloads tab.	
## GPS Accuracy Horizontal and vertical GPS accuracy based on your device or a portable receiver.	
## Destination Time and distance to destination.	
## GPS FPM Approximate GPS altitude in feet per minute.	

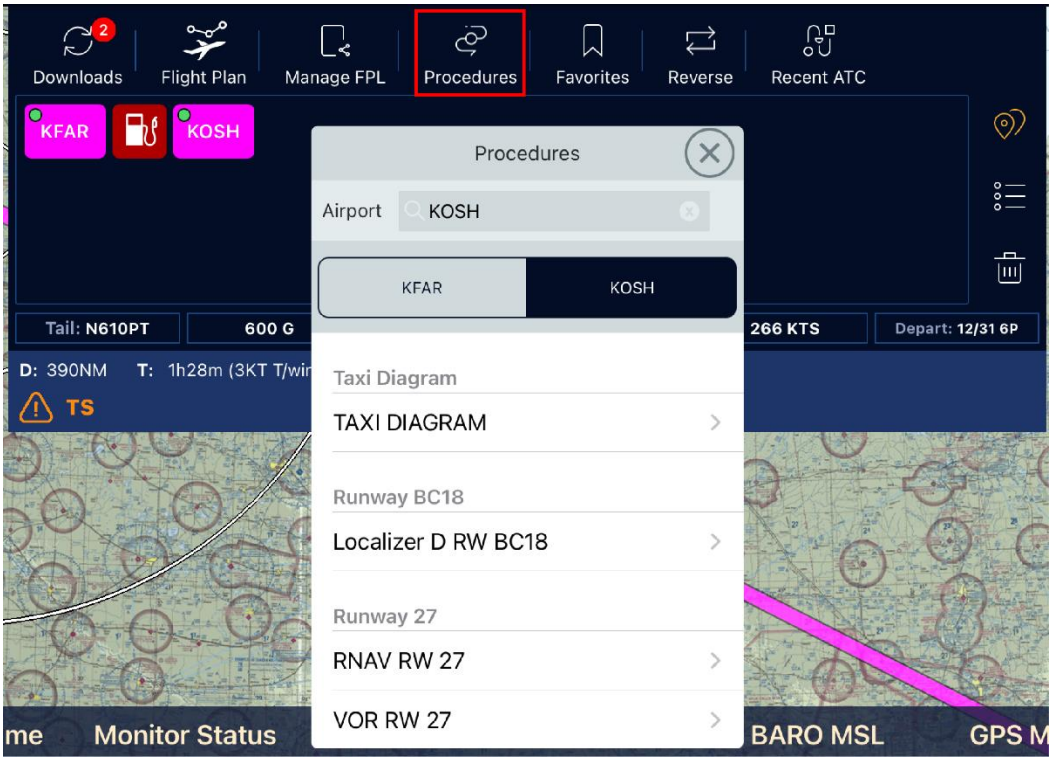
Viewing Procedures

View and add procedures from the Procedures page or from an airport in the waypoint editor.

Viewing Procedures on the Procedures Page

View runway procedures on the Procedures page.

1. Tap **FPL** on the top navigation, then tap **Procedures** to open the Procedures page.

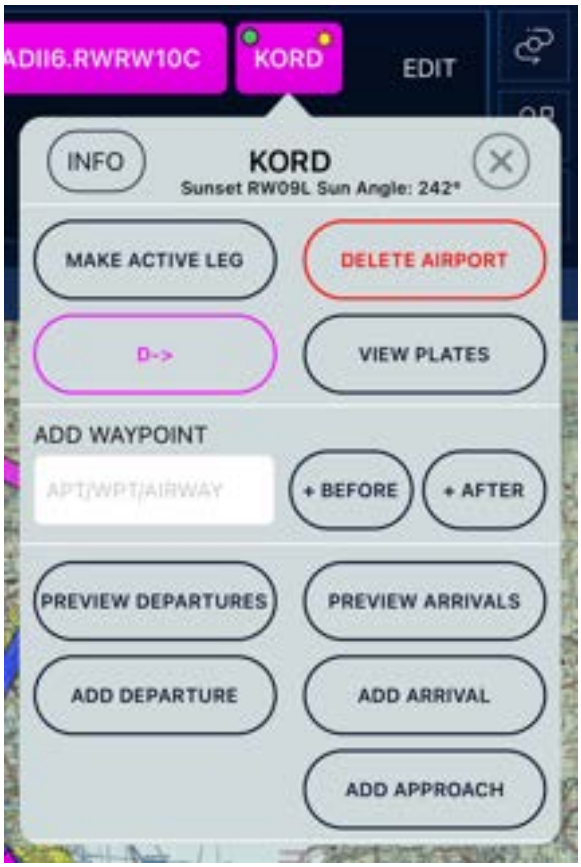


2. Select an airport from the tabs at the top of the box or type in a new airport in the search box.
3. Tap a runway to add it to your flight plan or view its procedures on the map. When viewing on the map:
   - Use the slider to change the opacity of the chart.
   - Tap **Remove Approach Overlay** to remove the procedure from the map.
   - Tap the settings icon in the upper left corner of the overlay to re-open the procedure options.

Adding Procedures in the Waypoint Editor

To add procedures from the waypoint editor, follow the steps below.

1. Tap an airport in the waypoint editor.
2. Tap **Add Departure**, **Add Arrival**, or **Add Approach**.
3. Select a procedure. The procedure appears in the flight plan.



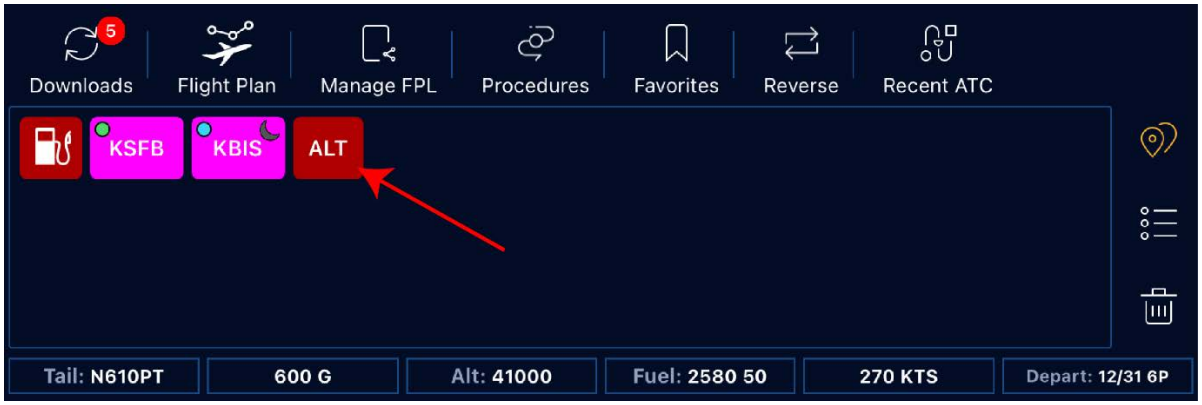
Using the IFR Alternate Planning Tool

The IFR Alternate Planning Tool displays an ALT button in your flight route when an alternate may be required (based on the 1, 2, 3 IFR rule).

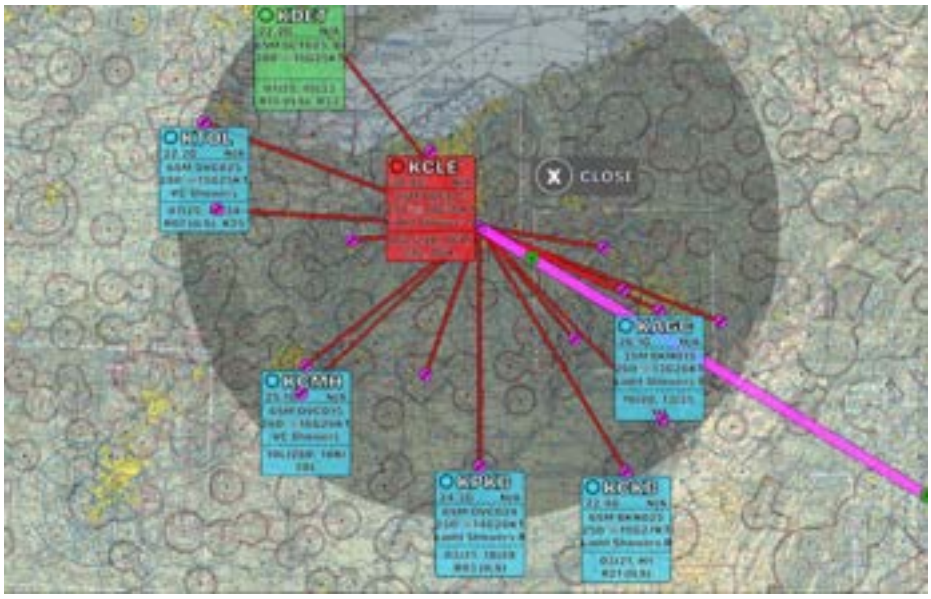
IMPORTANT: This tool does not analyze whether an airport can be legally used as an alternate due to data limitations. The PIC must verify the alternate selection.

Adding an Alternate

1. Tap the **ALT** button, then tap **Open Alternate Tool** to view alternate airports within IFR fuel reserves that may be above alternate weather minimums at the time of arrival.

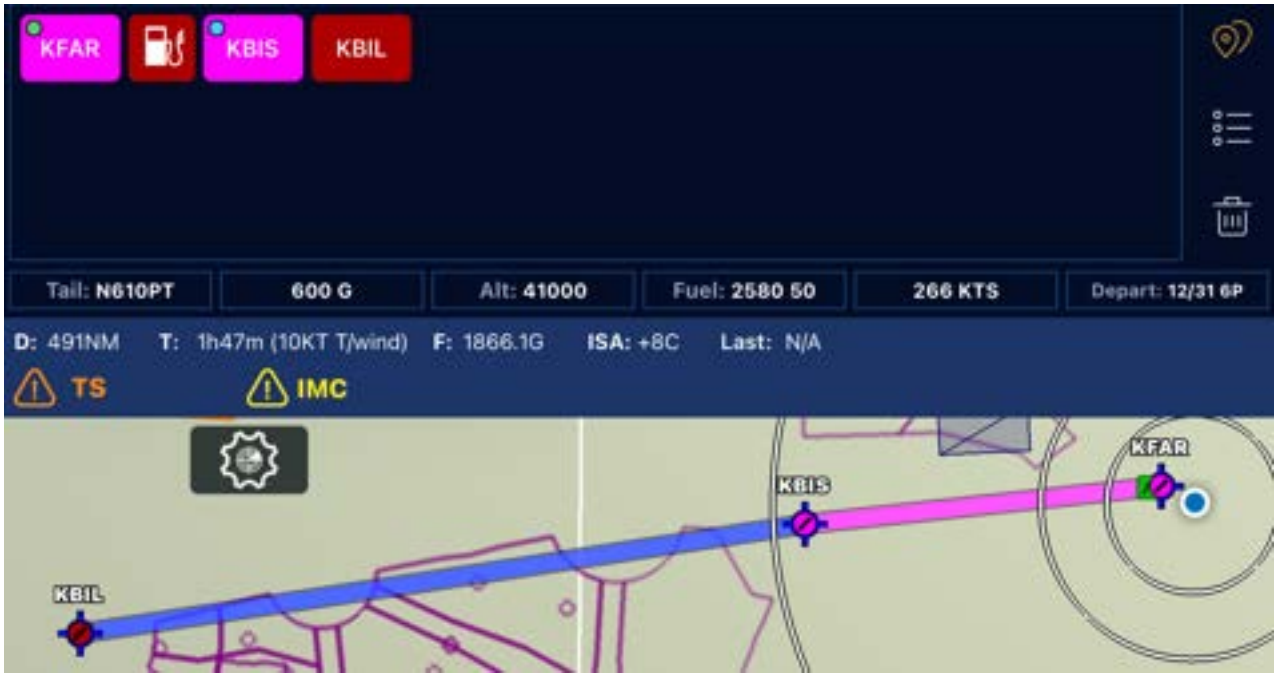


- The gray highlighted area is your NBAA no-wind fuel range ring. Exceeding this distance would cut into 1-hour reserves.
- Airport colors match METAR color codes:
  - Green: VFR
  - Blue: MVFR
  - Red: IFR
  - Magenta: LIFR



2. Tap an alternate airport, then view more information and add an alternate.
   - Tap **Airport info** to view the A/FD, approaches, and minimums, including non-standard alternate minimums.
   - Tap **Add *[Airport]* to Route** to add this airport as an alternate.

The airport is now added as an alternate (indicated in red in the flight route and shown on the map with a red icon). The alternate airport will also appear in your Flight Plan.



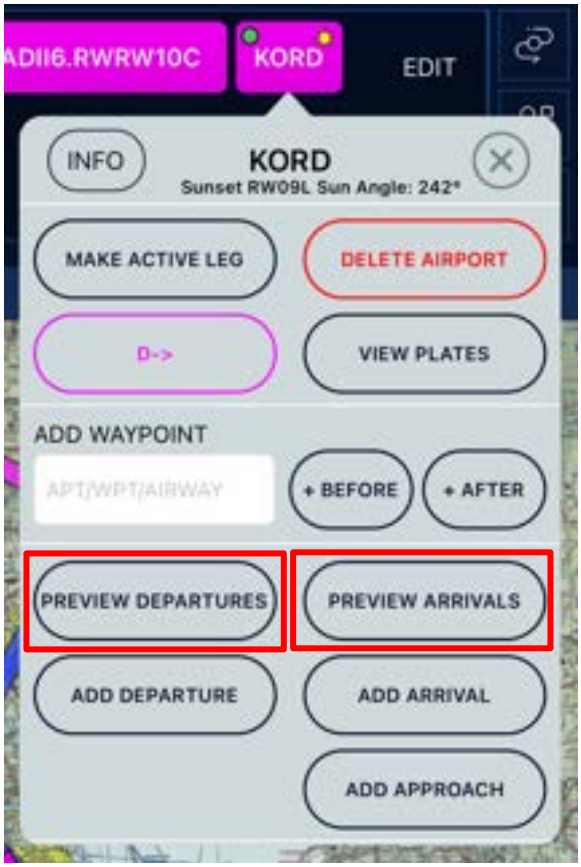
Changing an Alternate

1. Drag the alternate airport out of the flight plan editor box. The ALT button will re-appear.
2. Tap **ALT**, then tap **Show More Results**. This will widen the search range but may take additional processing time.

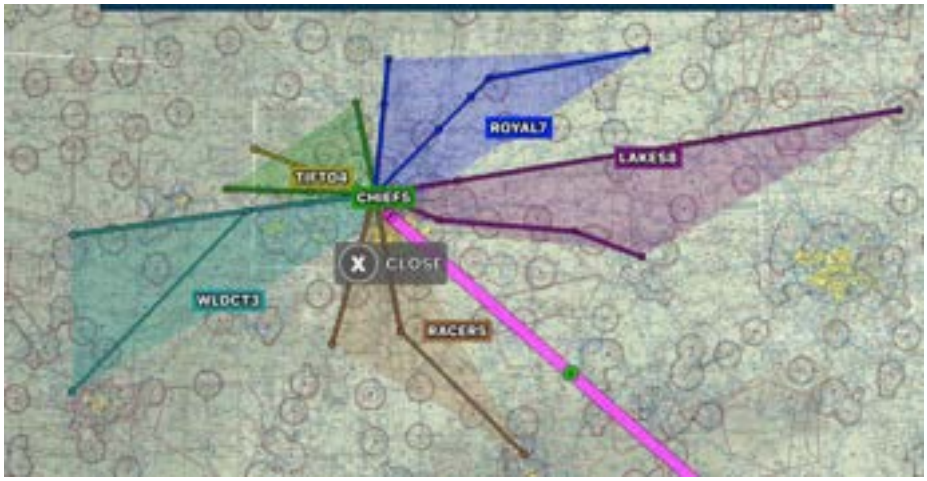
Previewing Departure and Arrival Procedures

Preview departure and arrival procedures to find out which procedure makes the most sense for your direction of flight.

1. Tap on an airport in your flight route. Then, tap **Preview Departures** or **Preview Arrivals**.

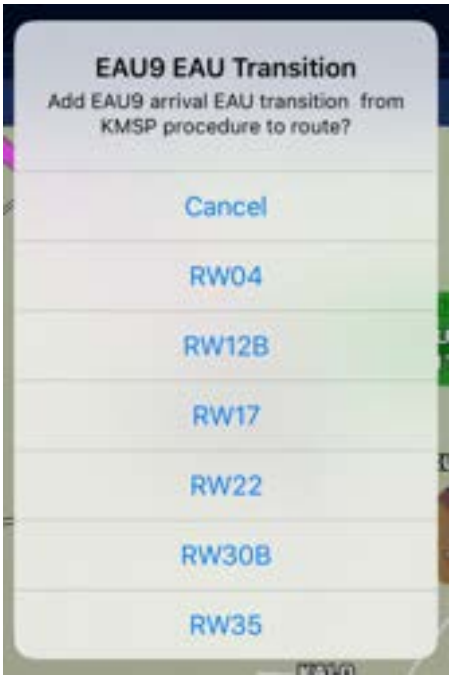


2. Tap anywhere on the procedure that matches your route of flight.



3. Tap the transition for this procedure. Otherwise, tap **Back** to select a different procedure.

4. If the procedure requires a runway selection, tap the active runway. The route is now updated.

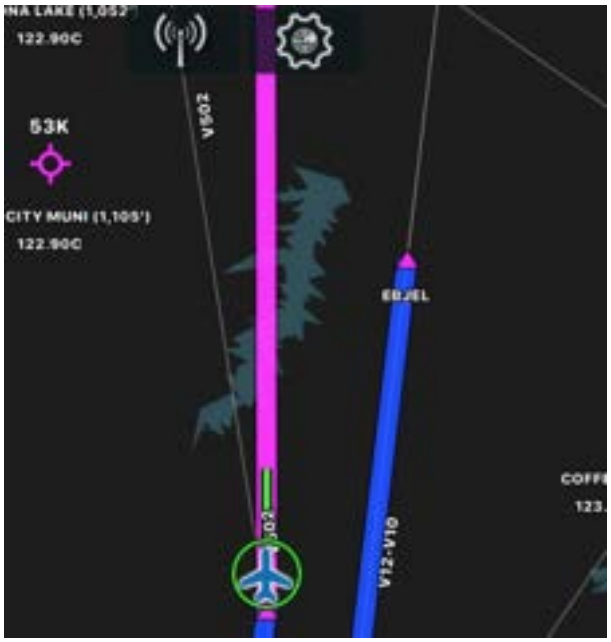


Changing GPS Tracking Mode

Tap the GPS tracking icon on the top navigation to toggle between tracking modes.

Icon	Tracking Mode
	Disable tracking
	North-up
	Track-up

North-up



Track-up

You can zoom in and out of the map and still continue tracking. However, panning the map will disable tracking and orient the map back to north.

Measuring Distances

Press and hold on the map with two fingers to display the measuring tool. This tool shows the distance between two points, degrees between points, and no-wind time based upon cruise flight.

NOTE: If you're measuring very small distances, it will convert from nautical miles to feet.

Using Route Rubberbanding

Route Rubberbanding allows you to drag the route to a new path and view nearby airports, waypoints, or VORs to add to your route.

1. Press and hold on any point on the route, then drag and drop it to a new point on the map.

2. Tap **Add FPL** to add a new airport, VOR, or waypoint to your route. Otherwise, tap the close icon in the upper right corner to revert your route back to its original path.

TIP: You can also drag a waypoint to a new area on the map. This will replace that waypoint with the new one.

Viewing Overlays

Use the Maps & Overlays menu to add overlays to your map.

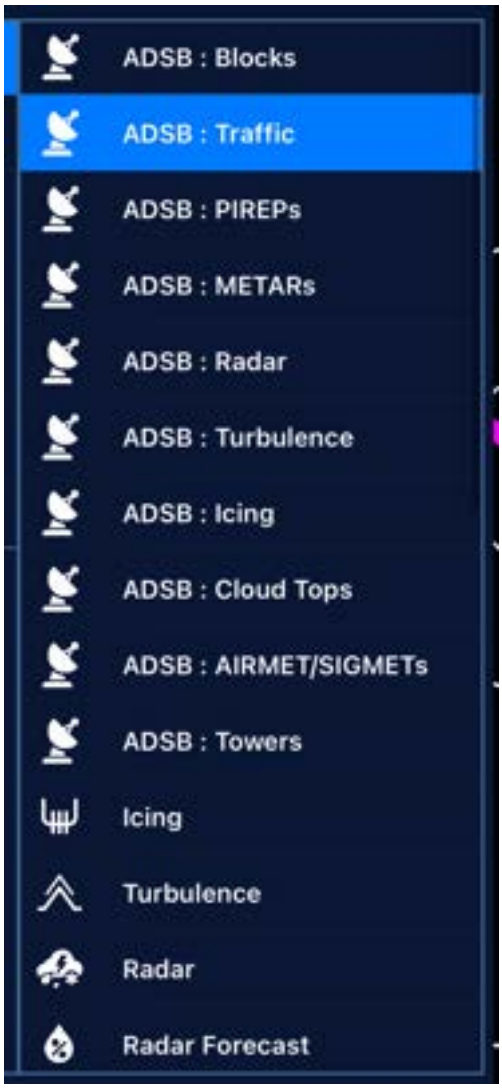
Using Overlays

Adding Overlays

1. Tap the Maps & Overlays icon in the top navigation.
2. Tap an overlay name to apply it on top of your base map. You can have multiple overlays showing at one time.

NOTE: If you're connected to an ADS-B receiver, ADS-B specific overlays will appear. Use these in flight. For more information on ADS-B overlays, refer to *Viewing ADS-B Overlays* on page 111.

Standard overlays



ADS-B overlays

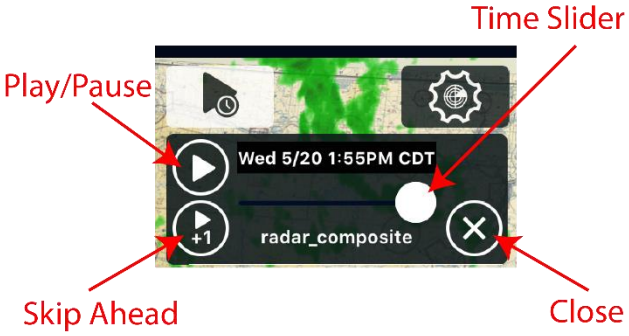
To remove an overlay, tap the overlay name again. Or, tap **Clear All** to remove all overlays.

Viewing Future Conditions

Once an overlay is selected, use the controls under the play icon to show future conditions.

IMPORTANT: Make sure that you advance the overlay to the time you will be flying to see accurate data.

- Tap the **Settings** icon to change settings for that overlay.
- Tap the top **Play** icon to show time advancement options.
  - Use the slider to select a time.
  - Tap the **Play** icon to advance in 1-hour increments in a continuous loop.
  - Tap the **Play +1** icon to advance in 3-hour increments.
  - Tap the top Play icon to close the controls and make more room on the screen.



NOTE: Times shown are in the time zone that your device is set to.

NOTE: If you have 3 or more overlays active, scroll up on the list of the overlay control boxes to see additional boxes.

Changing Altitudes

Some overlays allow you to see conditions at different altitudes. If there is a vertical altitude slider on the right side of the screen, use the slider to change altitudes (in feet). Set the slider to **MAX** to show conditions at all altitudes.

Icing Overlay

Overview

The icing overlay shows CIP (Current Icing Product) conditions. It is produced from the Aviation Weather Centers Current & Forecast icing product.

Settings

Tap the Settings icon to choose an icing setting.

Icing Severity: The icing severity forecast on the aviation weather centers CIP and FIP model.

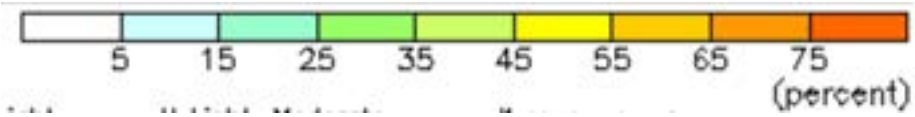
Icing Probability: The icing probability forecast on the aviation weather centers CIP and FIP model.

Global Severity: The icing severity based on GFS model data out to 3 days. The data is based on AWC model data, but it's produced in the GFS model.

IMPORTANT: GFS model data does not forecast SLD (supercooled large droplet icing, shown with red hatches)

Icing Severity & Global Severity Colors

Icing Probability Colors



Radar

The radar overlay shows past weather radar.

Settings

Tap the Settings icon to choose a radar setting.

Radar Bases

Lowest tilt radar mosaic, enhanced with vector data. Provided by Iowa State University.

Composite Radar

Composite radar mosaic, enhanced with vector data. Provided by Weather Decision Technologies.

Europe, Australia, and Japan Radar

Radar for Europe, Australia, and Japan. Select the corresponding radar if you're flying in one of these locations.

Global Precipitation

Shows the precipitation for all locations globally.

24 Hour Precipitation

Previous 24 hours precipitation.

Radar Vector Symbols

Radar vector symbols are visible when zoomed into the map and hidden when zoomed out.

Indicator	Meaning
	One hour storm track vector. Each arrow is 20 minutes.
	Non-severe hail (less than 1 inch)
	Severe hail (1 inch or more)
	Lightning strike
	Black numbers: Echo tops. **Magenta numbers:** 30 dbZ echo tops.
	TVS Marker (tornadic vortex signature) Indicates the likely presence of a strong mesocyclone that is in some stage of tornadogenesis. Detected by pulse-Doppler weather radar.

Composite Radar NEXRAD color map

dBZ	Color
5	
10	
15	
20	
25	
30	
35	

40	
50	
55	
60	
65	
70	
75	
95	

Radar Forecast

The radar forecast overlay shows what the radar might look like in the future.

Settings

Tap the Settings icon to choose a radar forecast setting.

HRRR Simulated

Simulated radar using the HRRR model. Updated once an hour and is valid between 18 to 36 hours.

It is not color coded with surface-based precipitation type.

NAM Simulated

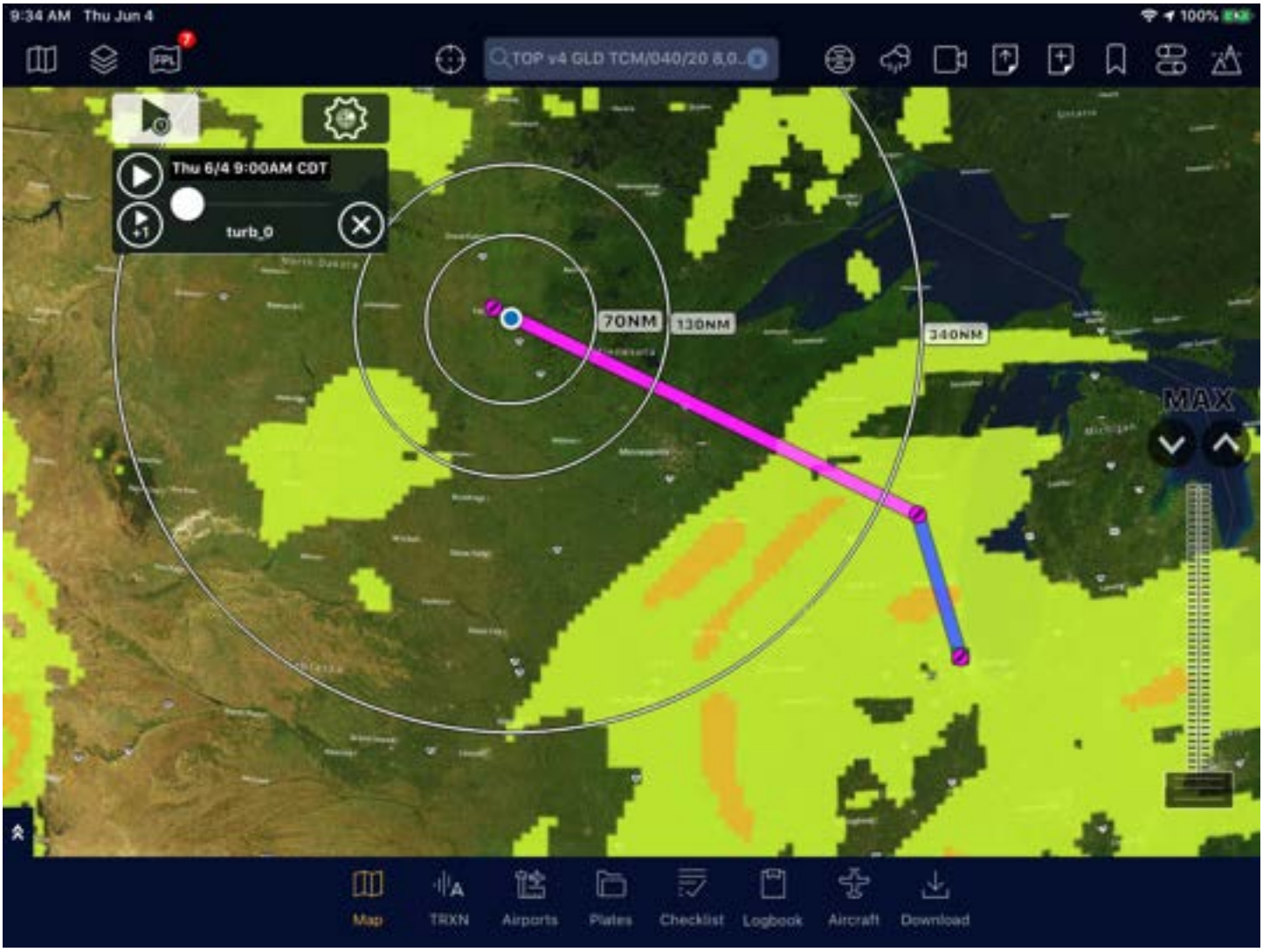
Simulated radar using the NAM model. Updated every 6 hours and is usually valid for about 3 days.

It is color coded with surface-based precipitation type:

- **Green:** Rain
- **Blue:** Snow
- **Magenta:** Freezing rain

Turbulence Overlay

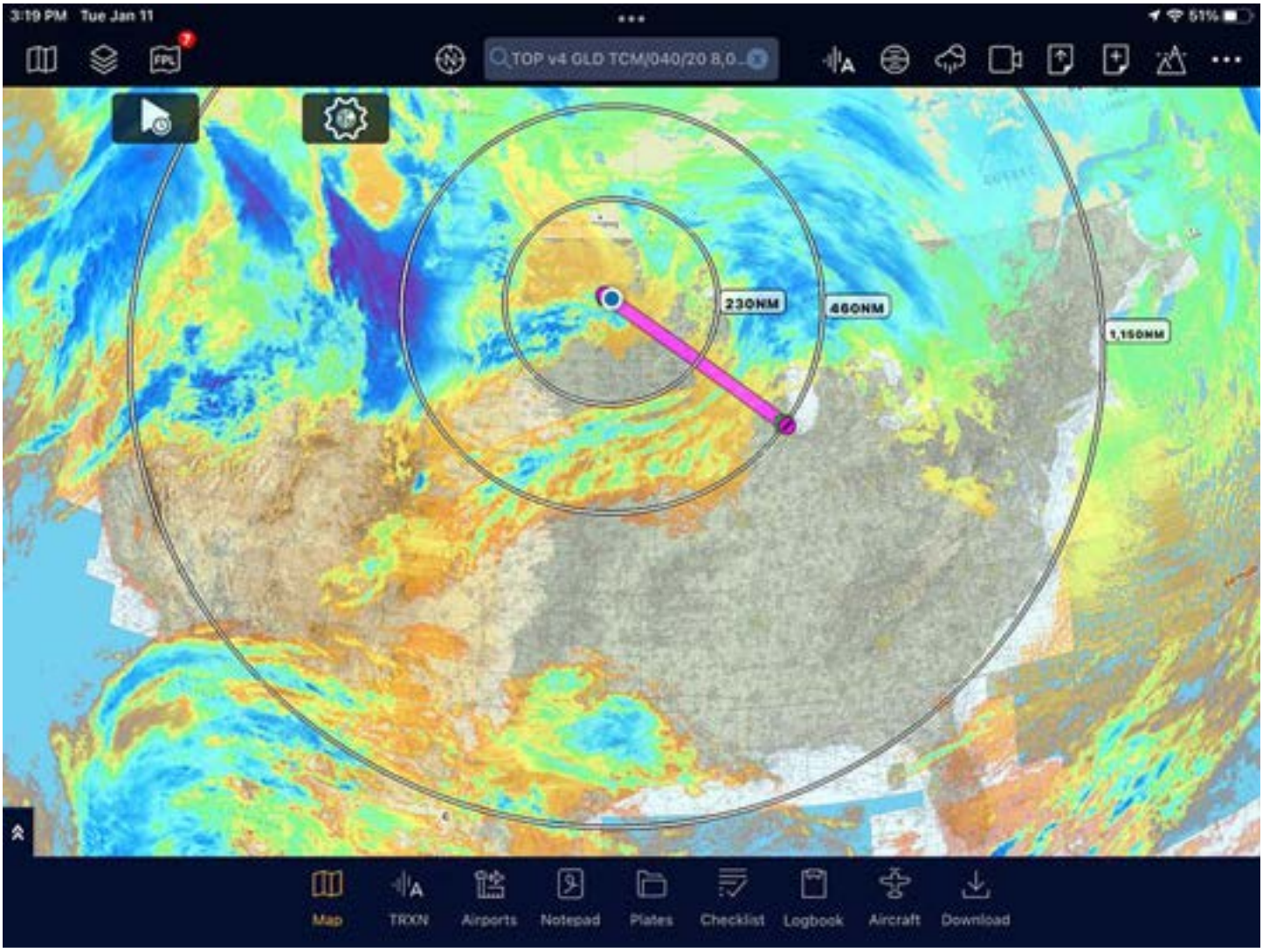
The turbulence overlay shows maximum intensity of turbulence.



The colors on the turbulence overlay correspond to the EDR (Eddy Dissipation rate).

Satellite

The satellite overlay shows satellite imagery.



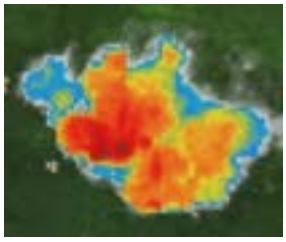
Settings

Tap the Settings icon to choose a satellite setting.

Visible Satellite

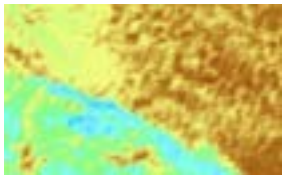
Shows satellite images based on the light from the sun reflecting on the clouds and surface. At night, there is no imagery.

Enhanced Infrared



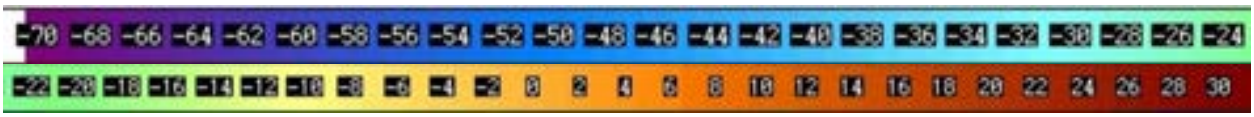
Shows the temperature of the highest object, such as a cloud or the surface of the earth. Cold temperatures are color enhanced to make them easy to spot. Colder temperatures can sometimes be associated with thunderstorms due to the height of the clouds.

Global Infrared



Shows the temperature of the highest object, such as a cloud or the surface of the earth. Cold temperatures are not color enhanced.

Infrared Color Temperature Key



METARs

The METAR overlay shows METARs.

Overview

The METAR background color is coded as follows:

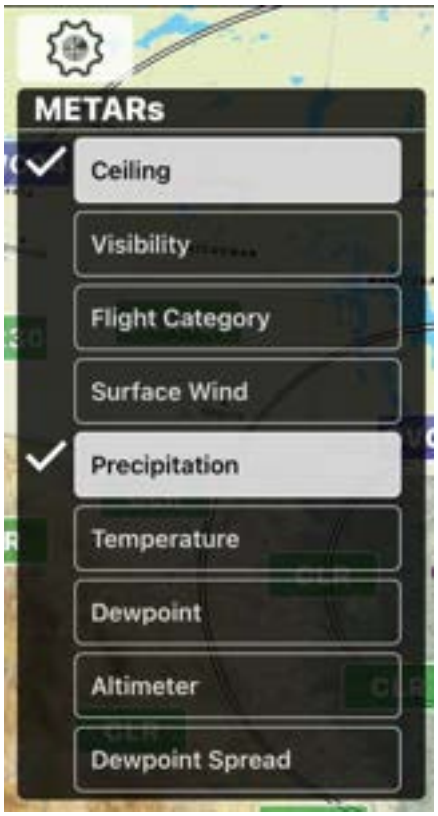
- **Green:** VFR
- **Blue:** MVFR
- **Red:** IFR
- **Magenta:** LIFR

Zoom in to see more METAR stations. Tap on a METAR for more information.

Settings

Tap the Settings icon to choose which METAR types are shown.

NOTE: Multiple METAR overlays can be selected at once.



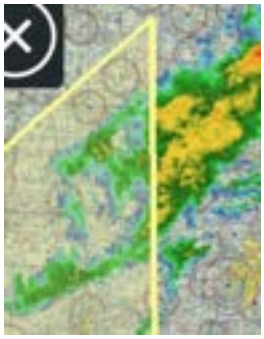
AIRMETs & SIGMETS

The AIRMETs & SIGMETS overlay shows AIRMETs and SIGMETs (issued by the Aviation Weather Center) and ARTCC Center Weather Advisories (CWAs).

NOTE: AIRMETs shown are G-AIRMETs. You can use the time slider to see how AIRMETs affect your flight time. Moving the slider does not affect SIGMETs, CWAs, and Convective Outlooks. They will always be shown on the screen if they're enabled.

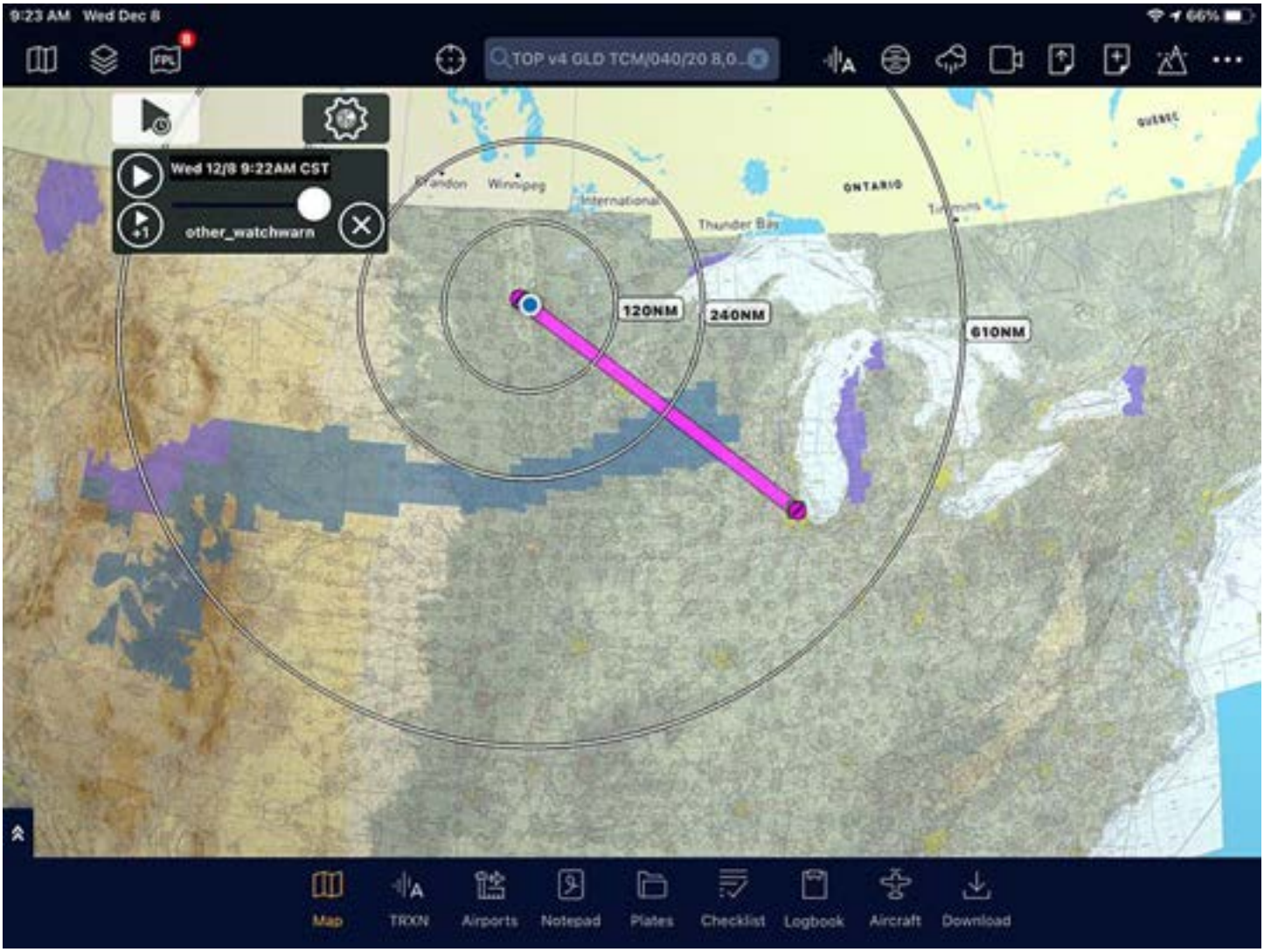
Settings

Tap the Settings icon to choose an AIRMETs & SIGMETs setting.

### SIGMETs and Center Weather Advisories SIGMETs and Center Weather Advisories are shown in a red shaded area. **NOTE:** SIGMETs include Convective SIGMETs.	
### Convective Outlooks Convective Outlooks indicate that conditions are favorable for issuance of a Convective SIGMET. They are shown in a yellow shaded area.	
### AIRMET Zulu (Ice) AIRMET Zulus (ice) are shown in a blue shaded area.	
### AIRMET Tango (Turbulence) AIRMET Tangos (turbulence, low and high) are shown in an orange shaded area.	
### AIRMET IFR AIRMET IFRs (and mountain obscuration) are shown in a magenta shaded area.	

Watches & Warnings

The Watches & Warnings overlay shows watches, warnings, and mesoscale discussions.



Settings

Tap the Settings icon to choose a Watches & Warnings setting.

Watches & Warnings

The Watches & Warnings overlay shows county-based watches and warnings issued by NWS.

Some examples are shown in the table below.

Color	Meaning
	Winter Weather Advisory
	Winter Storm Watch
	Winter Storm Warning
	Blizzard Warning

Mesoscale Discussions

A mesoscale discussion occurs before a watch is issued. The Storm Prediction Center (SPC) in Norman, Oklahoma issues a mesoscale discussion while meteorologists collaborate over the exact size and basis for issuing a watch. Mesoscale discussions can be for thunderstorm watches, tornado watches, winter storm watches, and other weather events.

PIREPs

The PIREPs overlay shows PIREPs and their severity.

The standard PIREP symbol is shown at the top of the PIREP indicator, and the altitude of the PIREP is indicated at the bottom. Tap the PIREP for more information.

The symbol corresponds with the key below:

The border of the PIREP corresponds with the severity below:

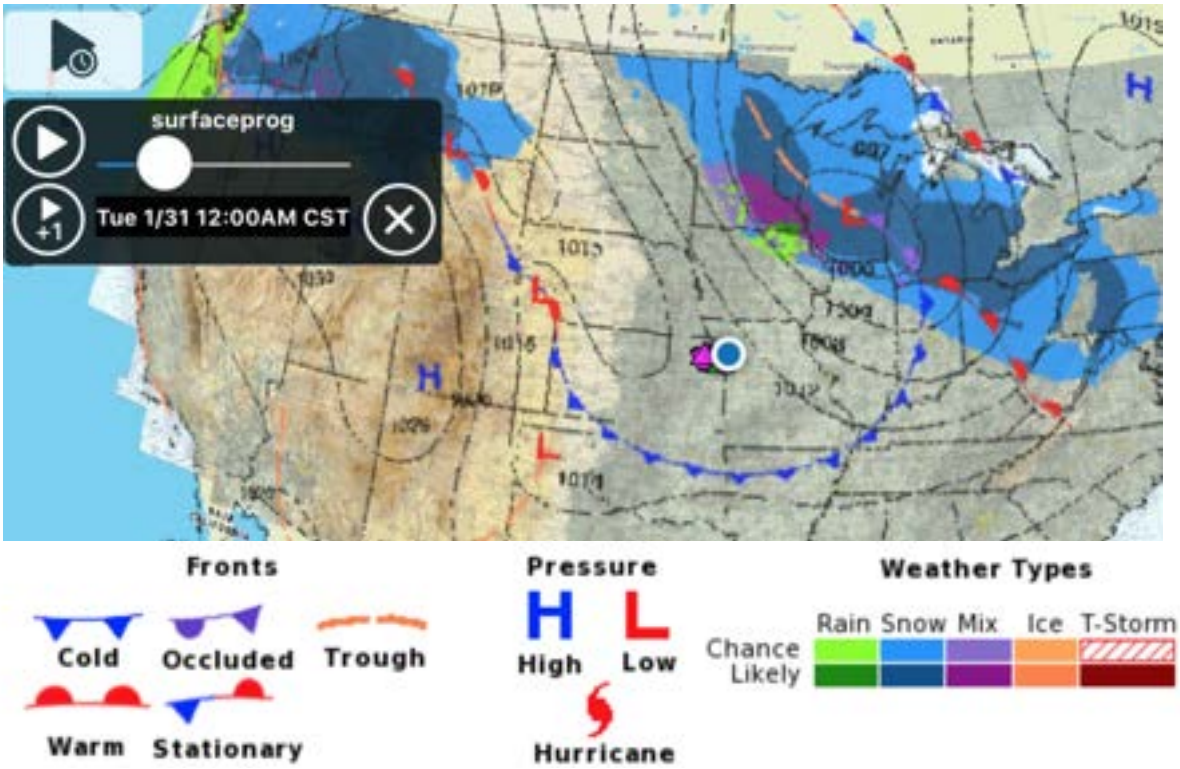
- **Orange:** Moderate
- **Red:** Severe

Use the filter sliders in the upper left corner to filter PIREPS by altitude and time. Tap **ALL ALT** or **NOW** to view all altitudes or times.

Surface Prog

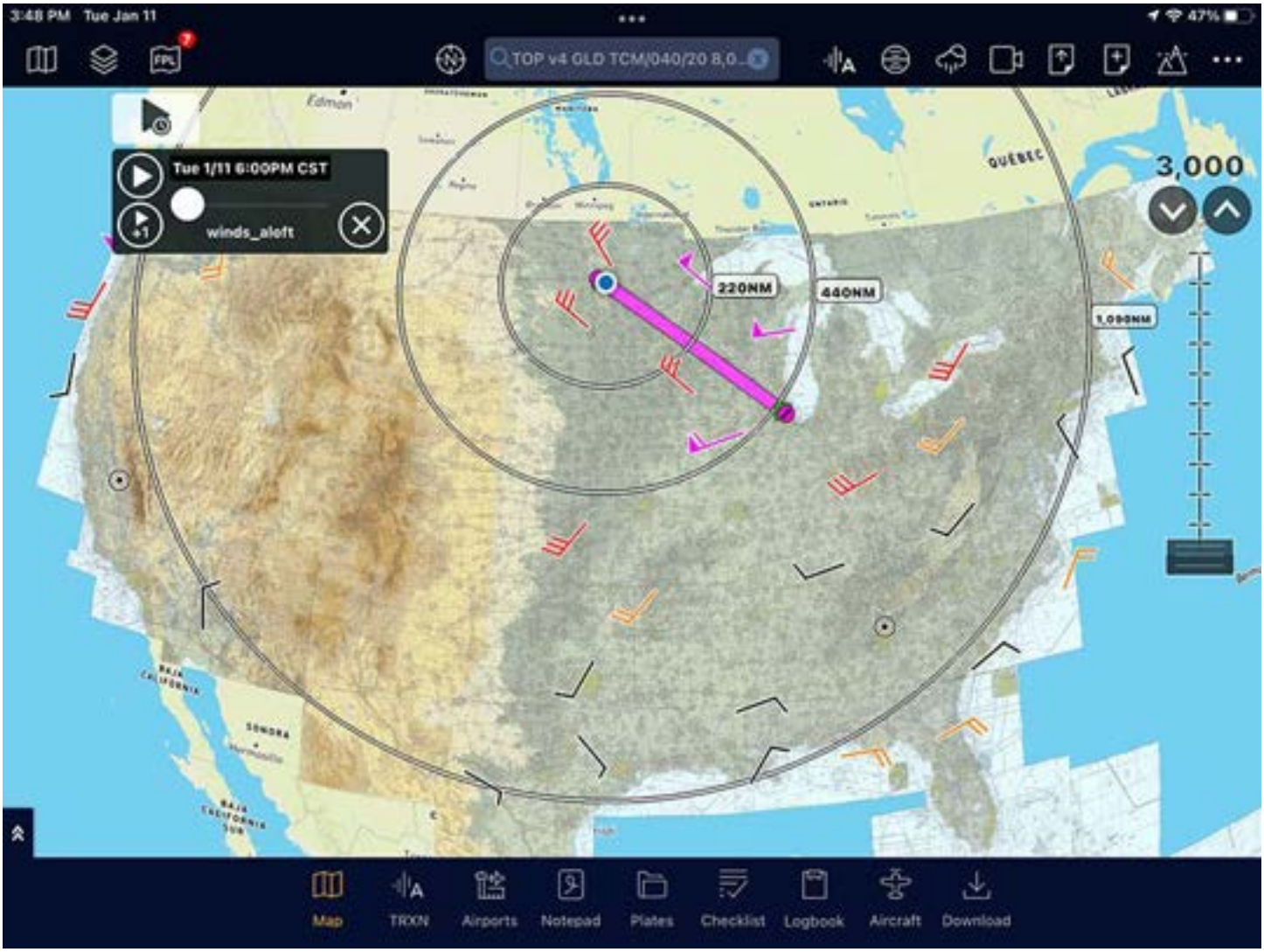
The Surface Prog. Overlay shows upcoming surface prognostic charts.

NOTE: Precipitation type is only shown for the upcoming 72 hours.



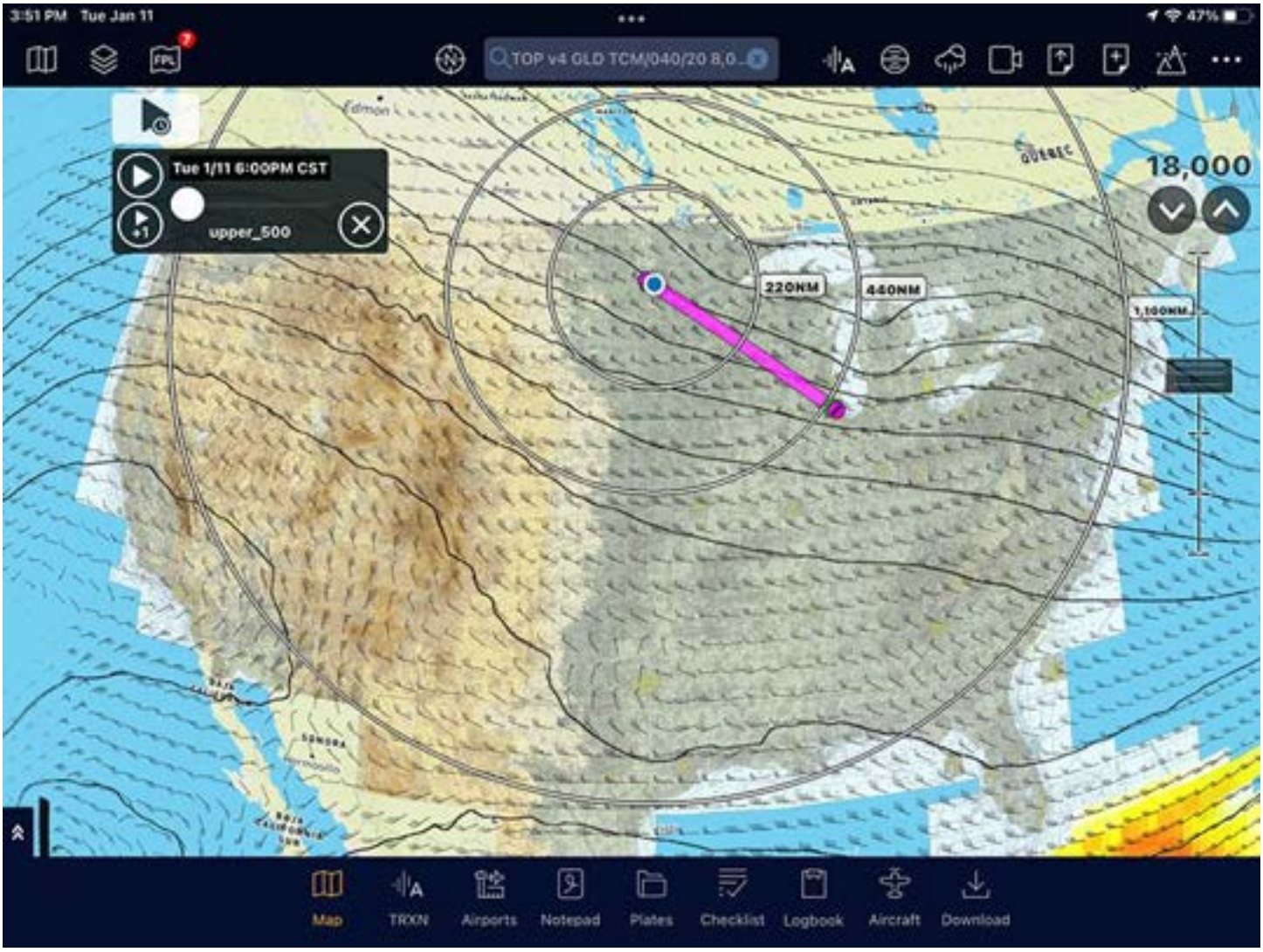
Winds Aloft

The Winds Aloft overlay shows wind direction, speed, and temperature using standard wind barb symbols.



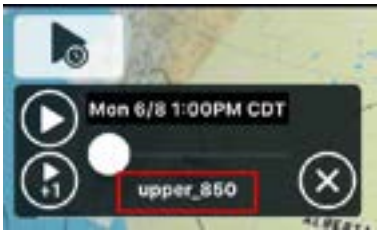
Upper Air

The Upper Air overlay shows macro weather patterns over the next week, based on the GFS model.



Settings

Use the altitude slider on the right to view upper air charts for different altitudes. The corresponding air pressure is shown in the time slider.



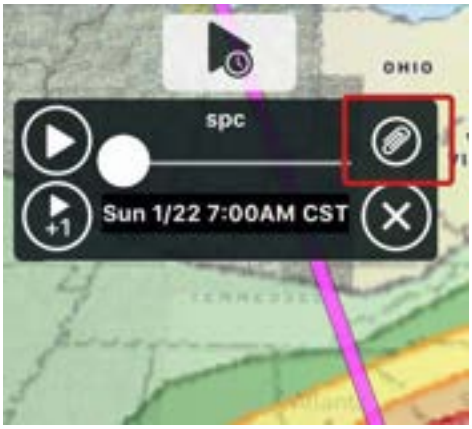
Choose from the following chart layers:

- Upper Surface
- GFS 850MB
- GFS 700MB
- GFS 500MB (Absolute Vorticity)
- GFS 300MB
- GFS 200MB

T-storm Outlook (SPC)

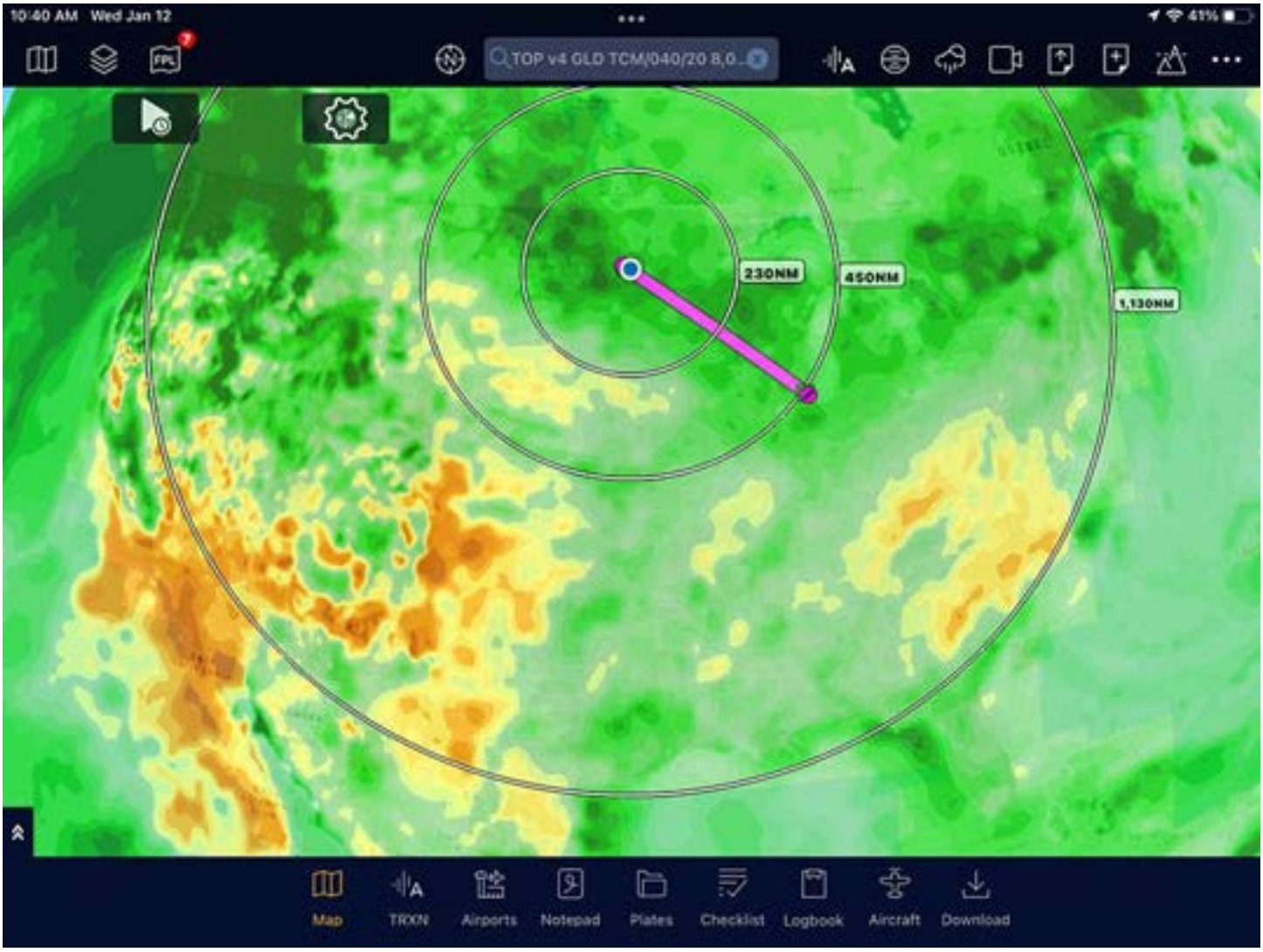
The T-storm Outlook (SPC) overlay shows a 24-hour thunderstorm outlook for the next 7 days.

To view the text of the SPC Outlook, tap the attachment icon in the upper right corner of the time slider.



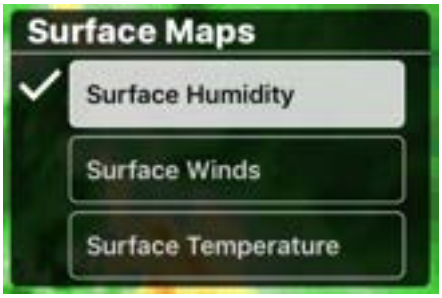
Surface Maps

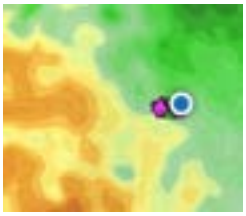
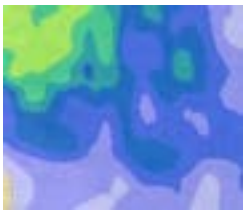
The Surface Maps overlay shows surface humidity, winds, or temperature.



Settings

Tap the Settings icon to choose a Surface Maps setting.



Surface Humidity	
Surface Winds	
Surface Temperature	

TFRs

The TFRs overlay shows current TFRs.

IMPORTANT: Stadium and published TFRs are not depicted. This is not a substitute for a briefing.

Trip Range Ring

The Trip Range Ring overlay shows the farthest you can travel without a fuel stop (based on information such as fuel, aircraft performance, and weather at your time of departure and altitude). Standard range rings only show a fixed distance around your location.

The colors on the range rings indicate the severity of tailwind.

Obstacles

The Obstacles overlay shows obstacles provided from the FAA obstacle database. Tap an obstacle to view more information.

Obstacles appear in one of three colors:

- **Red:** Current GPS altitude is at or below the elevation of the obstacle (less than 200').
- **Yellow:** Current GPS altitude is near the elevation of the obstacle (less than 1000').
- **White:** Current GPS altitude is well above obstacle elevation (greater than 1000').

TIP: You can download the database for offline use on the **Downloads** tab.

TIP: Zoom in to the map to view more obstacles.

TAWS

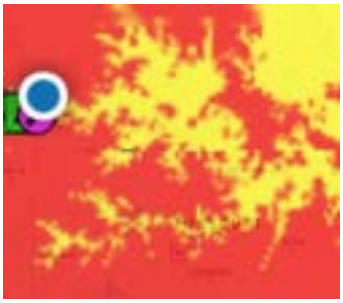
The TAWS overlay shows shaded areas of terrain relative to GPS altitude.

Settings

Tap the Settings icon to choose a TAWS setting.

TAWS Ownship

TAWS Ownship uses the current GPS altitude to shade the TAWS overlay. This is most useful in-flight.



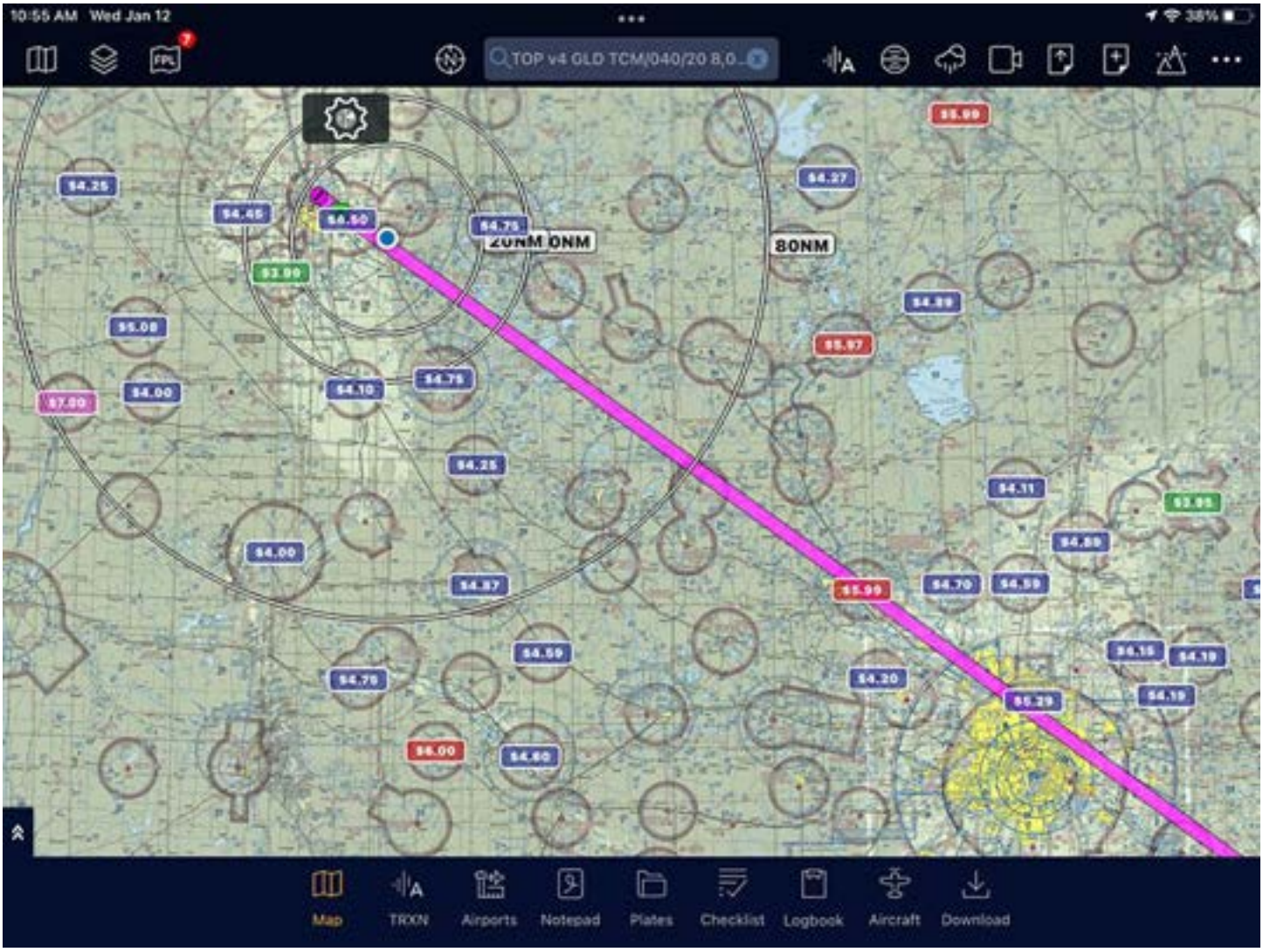
TAWS Planning

TAWS Planning highlights areas relative to your planned cruise altitude for preflight planning. This is most useful on the ground.

Fuel

The Fuel overlay shows avgas and Jet-A fuel prices.

NOTE: The first time the fuel database is loaded it may take a couple of minutes to download.



Fuel prices are in one of three colors:

- **Green:** Lowest priced
- **Blue:** Moderately priced
- **Red:** Highest priced

Settings

Tap the Settings icon to choose a Fuel setting.

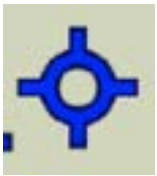
Vector Layer

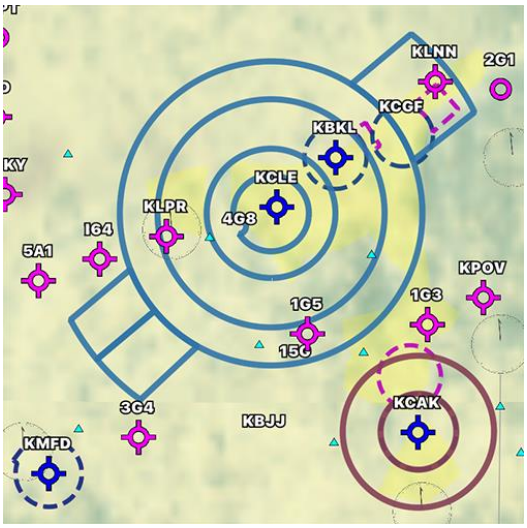
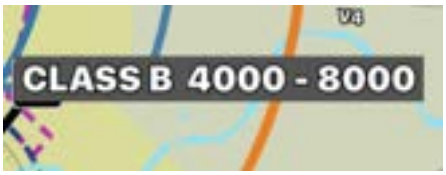
The Vector Layer overlay shows vector-based data driven charts including airspace, airways, VORs, and airports.

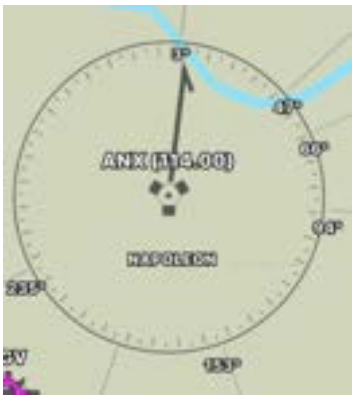
TIP: Overlay the Vector Layer on top of any base map.

TIP: Zoom in to the map to view more objects.

Vector Symbols

ARTCC sector boundary	
Towered airports	
Special use airspace	

Airspace classes **EXAMPLE:** **Solid blue circle:** Class B airspace **Solid magenta circle:** Class C airspace **Dashed blue circle:** Class D airspace. **Dashed magenta circle:** Class E airspace	
Water and urban areas	
Airways	
Waypoints	
MEA (tap an airway to view)	
Vertical boundaries (tap an airspace to view)	

VOR names and radials of airways	
Runway centerlines, airport name, CTAF & ASOS/ATIS with runway elevation.	
Taxiway diagram via FAA chart or vector	

Vector Settings

Tap the Settings icon to customize the vector overlay settings.

Airways: Show low airways, high airways, or hide airways (off).

Map Style: Select a light or dark theme.

Text size: Use the slider to adjust text size.

Min. Rwy Length: Use the slider to select the minimum runway length of airports to show. Airports with runways shorter than your selected length will not be shown.

Airspace: Show or hide airspace boundaries.

SUA: Show or hide SUA (Special Use Airspace).

Lat/Lon Grid: Show or hide latitude and longitude markings (similar to the VFR sectional chart).

Private Airports: Show or hide private airports.

Heliports: Show or hide heliports.

Paved Runways Only: if enabled, show only paved runways.

Show Obstacles: When enabled, show obstacles (instead of layering a separate Obstacles overlay).

Viewing Airport Information

Tap **Airports** on the bottom navigation bar to view airport information. You can also view the same airport information in a smaller pop-up window by:

- Tapping an airport in your flight plan, then tapping **info**.
- Tapping a METAR or airport on the Vectors layer.
- Typing an airport identifier in the top search bar.

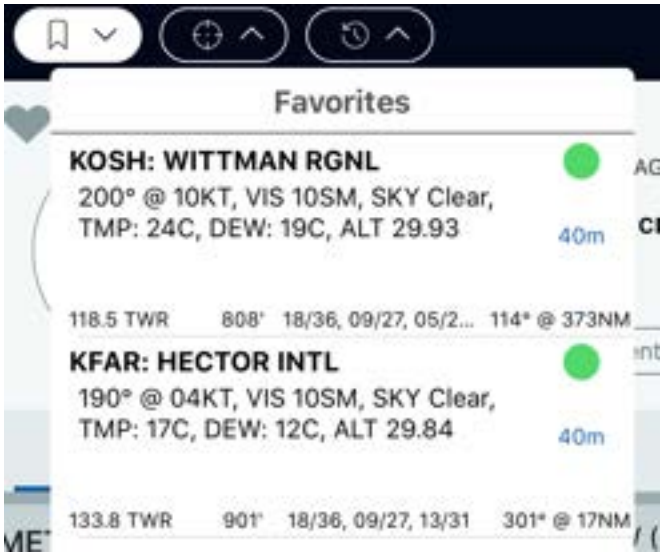
Airports tab

Airport pop-up

Use the navigation tabs to view weather, frequencies, runways, procedures, NOTAMS, and FBO & services information for the airport.

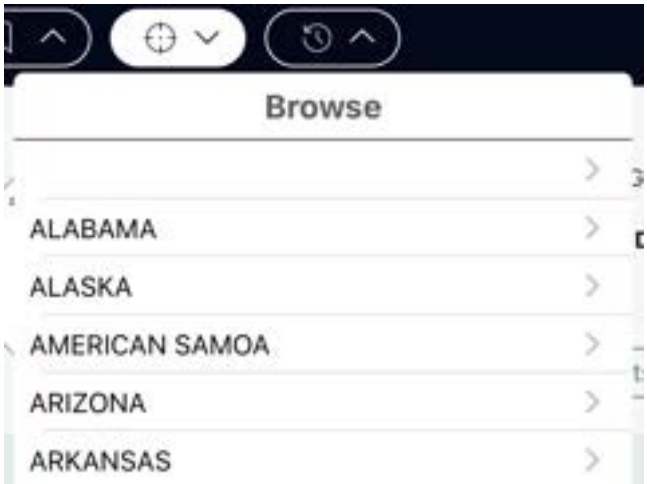
Favoriting an Airport

Tap the heart icon at the top of the full airport page to add the airport to your favorites list. Tap the favorites icon to view your favorites list and a weather summary of that airport.



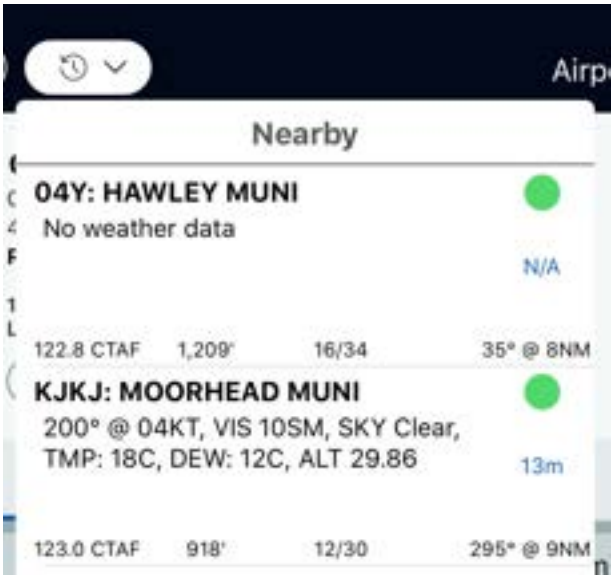
Browsing for Airports by City/State

Tap the browse icon and select a state and city. A list of airports will appear.



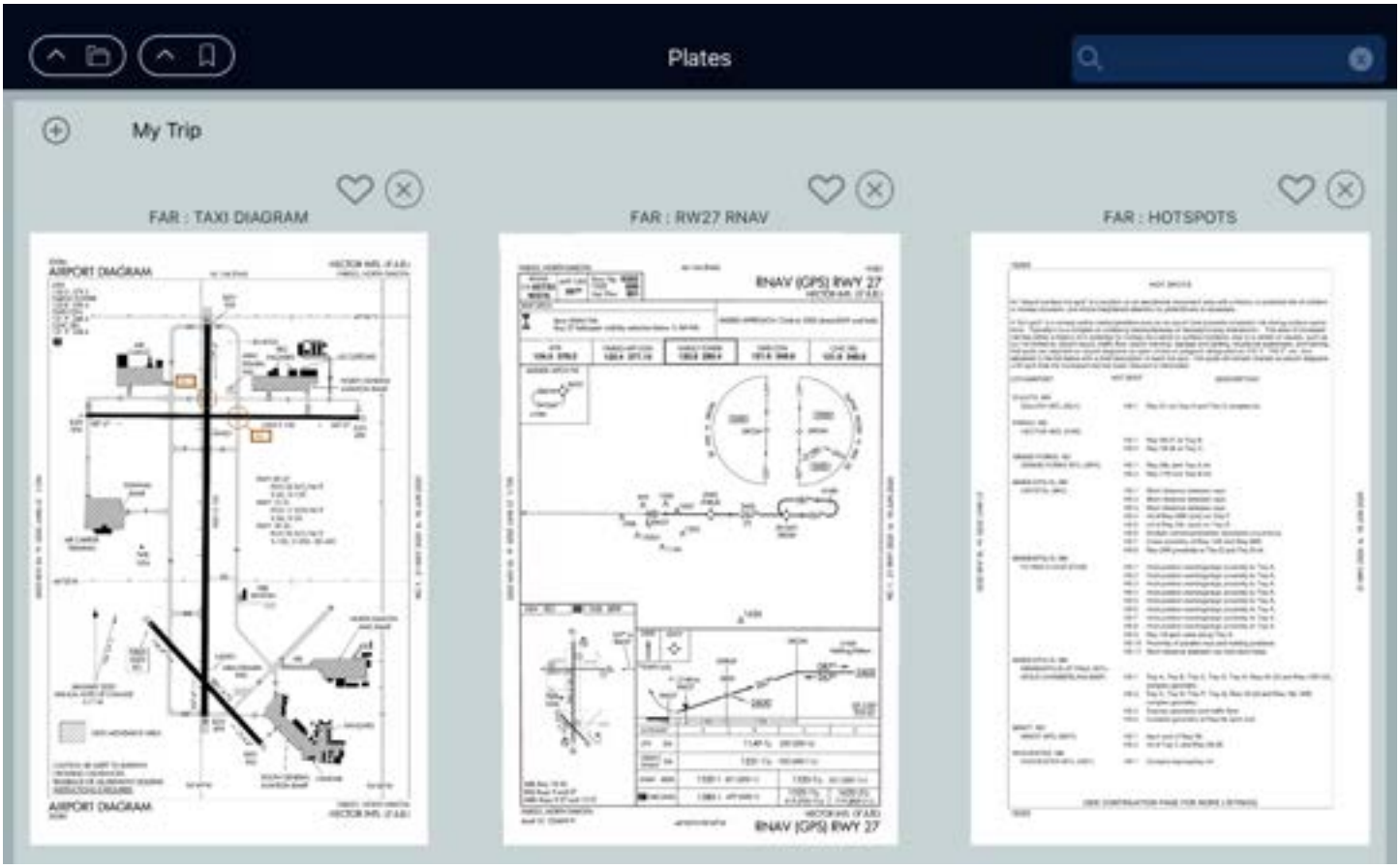
Browsing for Nearby Airports

Tap the nearby airports icon to show weather and airports near your current location.



Viewing Plates

Tap **Plates** on the bottom navigation bar to access your frequently used charts.



Creating a New Plates Bundle

Plates are organized by bundles. The My Trip bundle is the default bundle.

If you want to add other bundles, click the add ⊕ icon in the upper left corner. Type a name, then tap **Save**.

Adding Plates to a Bundle

1. Tap the bundle icon in the upper left corner to select a bundle to add plates to.
2. Type a city name or airport identifier in the upper right search bar. Tap the airport that the chart is for.
3. Tap a chart to add it to the bundle.

Viewing a Plate

Tap a plate to enlarge it. Pinch to zoom in or out.

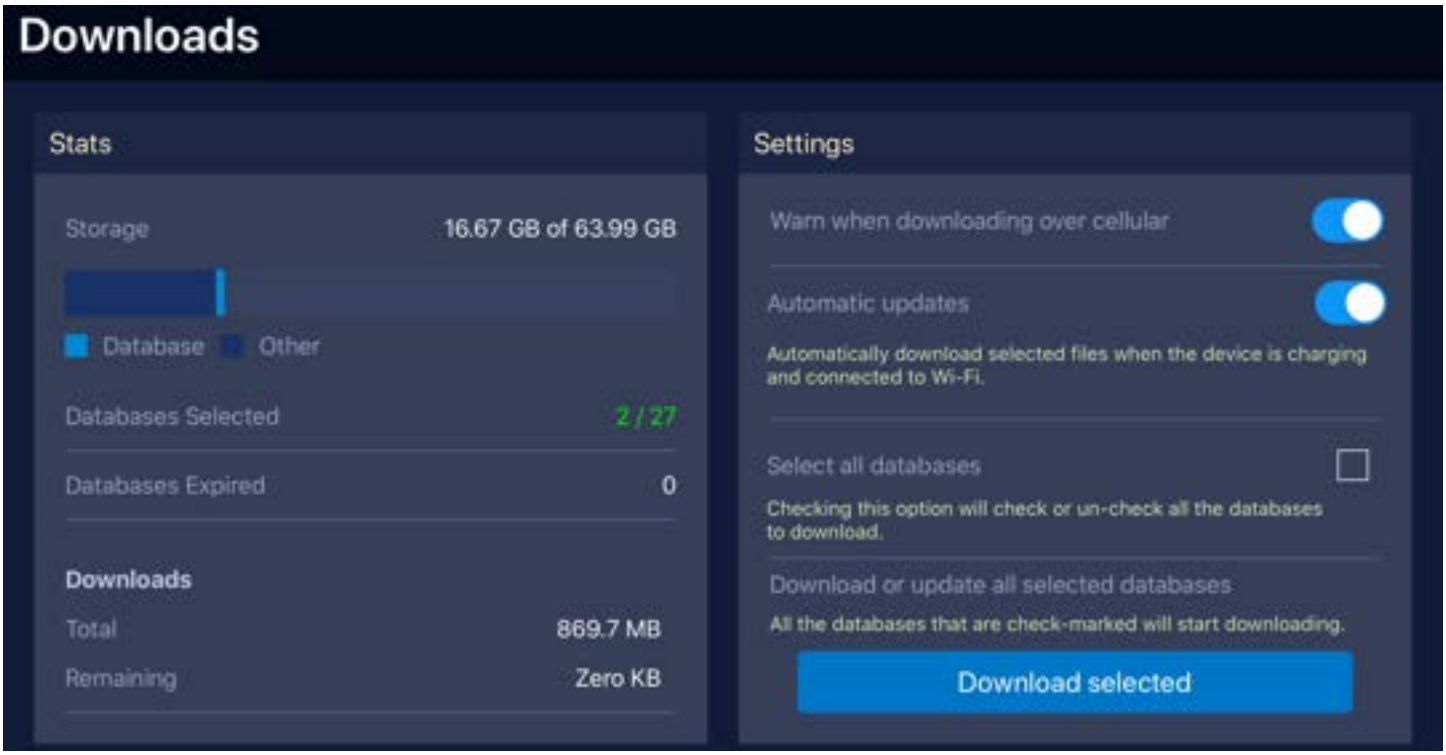
Favoriting a Plate

Tap the heart icon above the plate to add it to your favorites list. Tap the favorites icon to view your favorites list.

Downloading Databases

To access downloads, tap **Download** on the bottom navigation bar.

Downloads control databases, charts, and other information needed for the app to use in-flight (offline).



Downloading Databases

Download databases individually or in multiples.

- To download an individual item, tap the download icon to download it.
- To download multiple items, mark the check box next to multiple items, then tap **Start downloads**.
- To download all items, check Select all databases, then tap **Start downloads** to download all selected items.
- Tap the trash icon next to a download to delete it.

Changing Download Settings

- Toggle the **Automatic updates** switch to automatically download files when the device is plugged into a power source and connected to Wi-Fi.
- Toggle the **Warn when downloading over cellular** to prompt a notification before downloading if you're not connected to a Wi-Fi network.

Using the Flight Check Feature

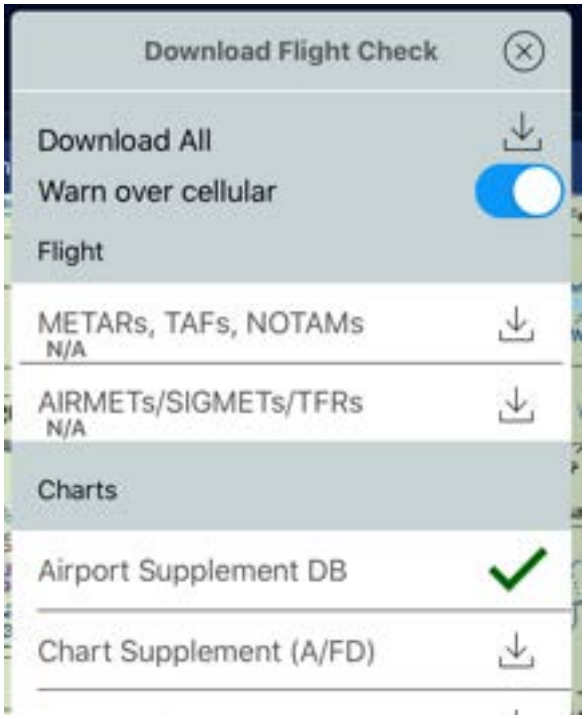
Use the download flight check feature in the **FPL** menu to make sure your charts are downloaded and ready to be used offline.

Each time you enter a flight route, Stratus Insight will do a systems check to make sure your entire route is covered by charts already downloaded. The number of items remaining and not downloaded will appear next to the **Downloads** icon. Tap to see what charts need to be downloaded.

Downloaded charts will have a green checkmark next to them. If a chart in your flight isn't downloaded, a download symbol will appear.

Tap the download icon to download an individual chart. Tap **Download all** to download all missing charts at once.

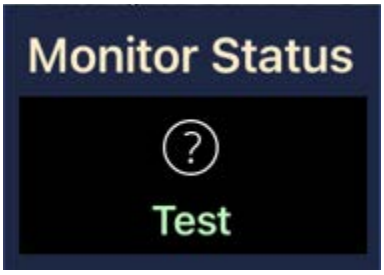
Enable **Warn over cellular** to alert you if you're not connected to a Wi-Fi network when you begin downloading items.



Using Portable TAWS & Flight Monitoring

Stratus Insight provides both audio and visual warnings. To hear audio warnings, plug your iPad or iPhone into the headset jack, avionics panel input port, or connect the device via Bluetooth to a headset.

IMPORTANT: Use the audio test feature on the Map Instrument Bar after connecting to your device to make sure that it's working correctly.



Airport Surface Monitoring

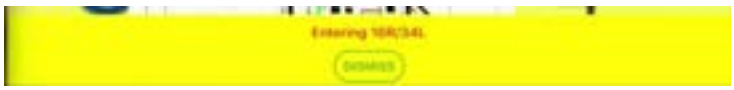
During ground operations, Stratus Insight will monitor your taxi to the runway and will alert you as you approach a runway. This is based on time in seconds to entering the runway environment.

NOTE: In certain cases, a fast taxi with a vector towards the runway could create a false positive alarm.

As you enter the runway another alert is heard.

Example:

- "Approaching runway 1, 19"
- "Entering runway 1, 19"



Altitude Descent and Climb from runway environment

Stratus Insight will alert you at altitudes you select during your descent or climb from the runway environment.

By default, Stratus Insight alerts at 500' above ground level during descent to the runway and climb from the runway. Refer to the *App Settings* section on page 39 for more information on changing altitude callout settings.

Example:
"Five Hundred"

Altitude Leaving

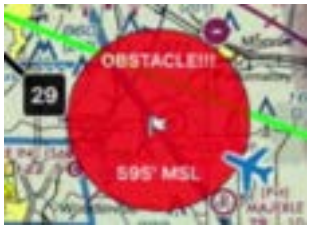
When you level off at a certain altitude for a few minutes, Stratus Insight automatically detects this. When you have deviated from this altitude by a couple hundred feet Stratus Insight will alert that you are leaving this altitude. This is a reminder that you're drifting off altitude or confirmation that you're changing altitudes as desired.

Examples:

- "Leaving flight level 1 8 0"
- "Leaving 13 thousand, five hundred"

Obstacle Alerting

Based on a 3D trajectory of the aircraft, an alert will sound if it looks like the clearing and proximity to the obstacle will be very close. A visual alert will also be shown around the obstacle with the height.



Example:
"Obstacle, pole, 4.2 miles, 595 feet"

Portable TAWS

EDR (Excessive Descent Rate)
Stratus Insight models the 3D trajectory of the aircraft at all times. Based on the aircraft's altitude, speed, and descent rate, an excessive descent rate alert may be triggered during a high descent.

Example:
"Sink Rate"

PDA (Premature Descent Alert)
An alert will appear if you're approaching a runway at a very low glideslope angle.

Example:
"Too low, terrain!"

Terrain
An alert will appear if a conflict with terrain is approaching.

Example:
“Terrain, Terrain”

Heartbeat

If you’ve connected an Apple Watch and enabled a flight timer from the watch, your heartbeat will be monitored. If it exceeds the threshold, an alert will appear. The default is 120 BPM but may be adjusted in the app’s Settings page.

A high heart rate can be a symptom of hypoxia. For best results, a pulse-oximeter should be used to verify.

Example:
“Heart rate high, check oxygen, 123 beats per minute”

Pressurization

Most iPhones and iPads have a barometric pressure sensor in the device. For pressurized aircraft, enable the Depressurization switch in the app’s Settings page. A high cabin climb rate will trigger this alert.

Example:
“Check Pressurization”

Viewing ADS-B Weather & Traffic

Using Portable Receivers

Compatible Receivers

Stratus Insight supports the following portable ADS-B receivers and in-panel ADS-B solutions.

- All Stratus portable receivers
- Open Flight Solutions FlightBox
- FreeFlight
- Dual XGPS 170, 190
- Avidyne IFD series navigators
- Lynx L3 transponders
- iLevil ADSB and AHRS receivers
- Iridium Satellite communicator (for PIREPs)

Connecting a Receiver

Receivers connect via Wi-Fi or Bluetooth; refer to each manufacturer for setup instructions. To connect to a Stratus portable receiver, refer to the steps below.

1. Turn on the Stratus portable receiver by pressing the power button or turning on the aircraft if it's configured to power on with aircraft power.
2. Tap the **Settings** icon on your iOS device's home screen.
3. Tap **Wi-Fi**.
4. Make sure that Wi-Fi is enabled. Tap the Stratus wireless network, displayed under **Choose a Network**, to connect. Your Wi-Fi network name is on the label on the back of your receiver.

   When your device is connected to the Stratus wireless network, a checkmark appears next to the network name.

   To check if Stratus Insight has successfully connected to your receiver, look for the ADS-B receiver icon on the Map page of Stratus Insight.

Viewing Receiver Status Information

Tap the ADS-B receiver icon to see status information for your receiver, such as firmware version and GPS data.

Changing Stratus receiver settings

On the ADS-B receiver screen, toggle the GPS **Internal** (iOS device GPS) or **Receiver** switch to change the GPS source.

To change other receiver settings, tap the settings icon in the main top navigation and scroll down to the Stratus Settings section.

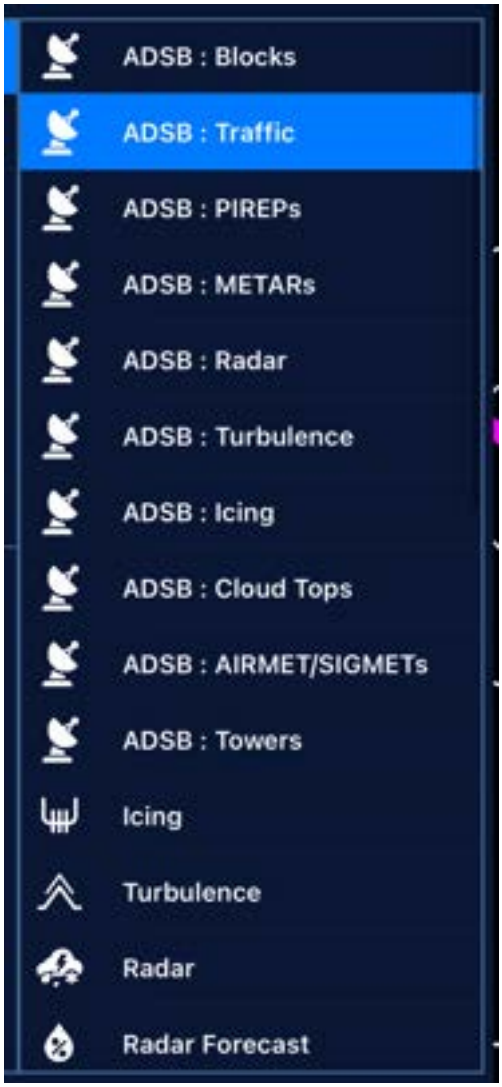
Updating Stratus receiver firmware

1. Tap the settings icon in the top navigation (you might have to tap ••• to see it). Then, scroll down and tap **Stratus Settings**.
2. Tap **Firmware Update**.
3. Install the firmware update if one is available. If there is not an update, you will see your current firmware version.

Viewing ADS-B Overlays

Once your ADS-B receiver is connected, a new set of ADS-B overlays will appear in the Overlays menu, including a new ADS-B Traffic overlay. In general, the ADS-B overlays show the same information as the standard overlays but allow you to use them while in flight via ADS-B signal. For more information on individual overlays, refer to *Viewing Overlays* on page 61.

As you receive data over ADS-B, Stratus Insight will log this data internally where it can be accessed several different ways, such as the airports informational tab for METARs, TAFs, and NOTAMs.



ADS-B: Blocks Overlay

Used for troubleshooting only.

ADS-B: Traffic Overlay

Overview

NOTE: Depending upon your aircraft capability you may or may not receive the TIS-B feed.

Traffic over ADS-B is received in several ways, such as:

- 1090Mhz direct air to air
- 978Mhz UAT air to air
- 978Mhz UAT TIS-B in

Traffic display includes direction of travel, altitude, and a two-minute trend vector.

Tap on the item to reveal additional details.

Filtering nearby traffic

Use the Relevant Traffic filter to only show ADS-B targets near you.

The Targets button at the top of the screen shows the number of traffic targets that the device is monitoring. Tap this button to switch between the following filters:

Setting	Traffic Shown
Unrestricted	All traffic
20 NM, 15K’	Traffic within 20 nautical miles and 15,000 feet altitude
10 NM, 10K’	Traffic within 10 nautical miles and 10,000 feet altitude

You can also type a call sign or registration in the search box to filter by a specific aircraft.

Using Stratus Insight with Apple Watch

Use the Stratus Insight app on your Apple Watch to quickly view nearby airport weather, radar imagery, start a flight timer, monitor your heartbeat, and more.

Connecting to your Apple Watch

The first time you use the app on your watch, the watch app will need to sync to the iPhone app. Open Stratus Insight on your watch, then open the app on your iPhone (make sure it's nearby).

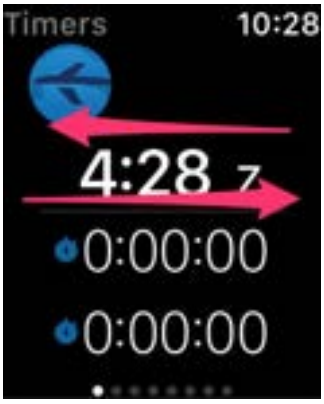
If you're having trouble connecting, make sure the phone is close. Then, restart the app on both the phone and watch and try again.

Navigating the Watch App

- Swipe left and right to navigate through the Stratus Insight screens.
- Swipe up and down or use the watch's side wheel to scroll up and down the screen.
- Tap and hold on the screen to access additional settings.
- Deep press on any page or tap **Settings** to select the pages you would like displayed. Tap **Reset**, then select the pages in the order you'd like them displayed. Tap **Back** when complete.

Timers Page

Tap one of the timers to start the timer. Tap it again to pause.



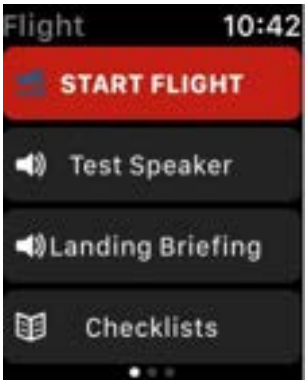
Flight Page

The Flight page shows the current flight timer status. The colors of the text indicate the following:

Color	Meaning
Red	Communication received from iPhone and timer is stopped
Yellow	Communication is pending with iPhone, not yet received
Green	Communication received from iPhone and timer is started

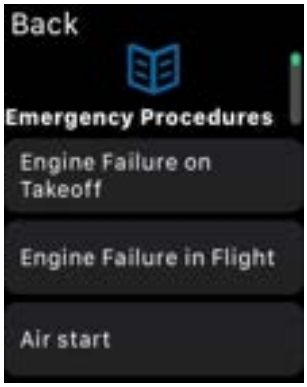
Tap **START FLIGHT** or the timer to toggle between the active and inactive timer. An active flight timer will begin background monitoring on iPhone for portable TAWS and other awareness features.

Tap **Test Speaker** to test the aural alerts from your iPhone. You can use this to test avionics or headset connectivity.



Tap **Landing Briefing** to play the landing briefing at the next airport in the waypoint list.

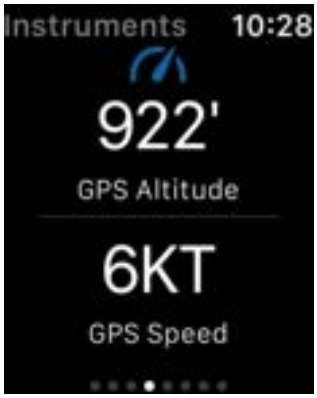
Tap **Checklists** to show the digital checklist (as set up on the iPhone companion app). Use the side wheel to scroll through checklist items, then tap on them to start a checklist.



To play the checklist over your iPhone headset or Bluetooth connection, tap the **speaker icon**. Tap the **restart icon** to restart the checklist.

Instruments Page

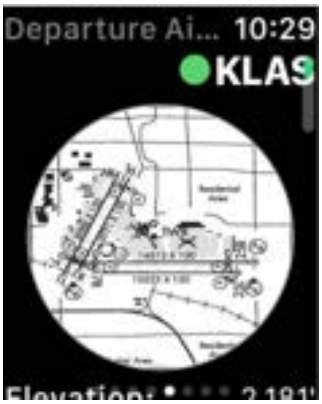
The Instruments page shows two instrument readings. To change which instrument is displayed, tap it, and select a new one.



Departure Airport Page

The departure airport page shows an airport thumbnail and the current METAR weather conditions (VFR, MVRF, IRF, and LIFR).

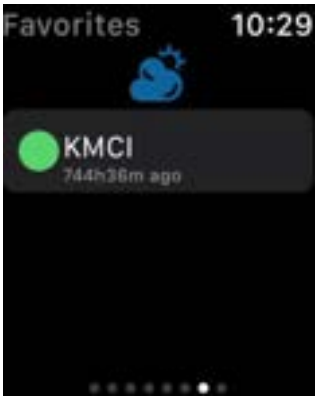
- Scroll down to see elevation and frequencies for the airport.
- Press and hold to toggle between airport information and additional METAR, TAF, and TAF discussion information.



Favorites Page

The Favorites page shows airports that you've favorited on the iPhone companion app.

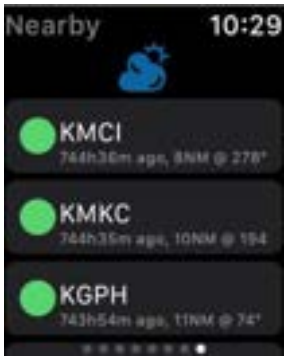
Tap and hold to show detailed weather information.



Nearby Page

The Nearby page shows nearby airports and the METAR color code.

Tap and hold to display detailed weather information for each airport.



Adding Stratus Insight to Watch Face

Tap and hold on the main watch screen to customize your watch face. We recommend using the Modular watch face to view the most information. Tap **Customize**, then use the side wheel to rotate between widgets until you find Stratus Insight.

The Stratus Insight widget shows the nearest major airport METAR, TAF, and GFS MOS.

In the example to the right, the information represents:

- **KMCI:** IDENT
- **VFR:** Weather conditions
- **5:53Z:** Time of observation
- **10SM Clear:** Current conditions
- **020°@08KT:** Current conditions expanded or next significant weather change event
- **+FCST:** Fair weather forecast in TAF