

TAK Aware User Guide

v1.9.2



flighttactics.com/takaware



TAK Aware v1.9.2

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TAK Aware v1.9.2

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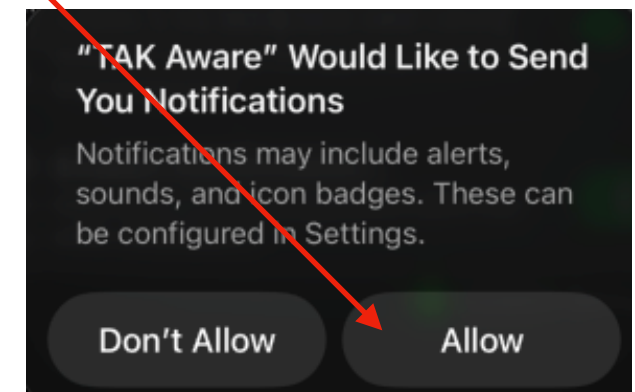
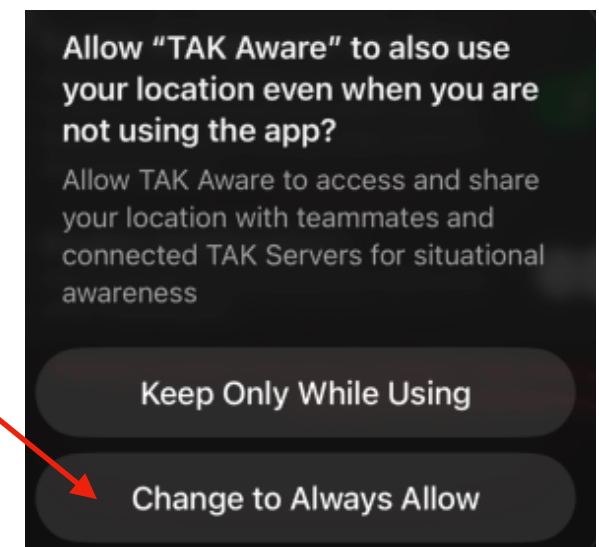
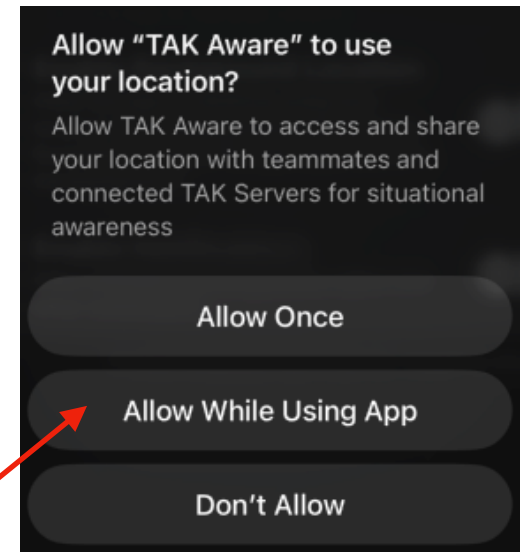
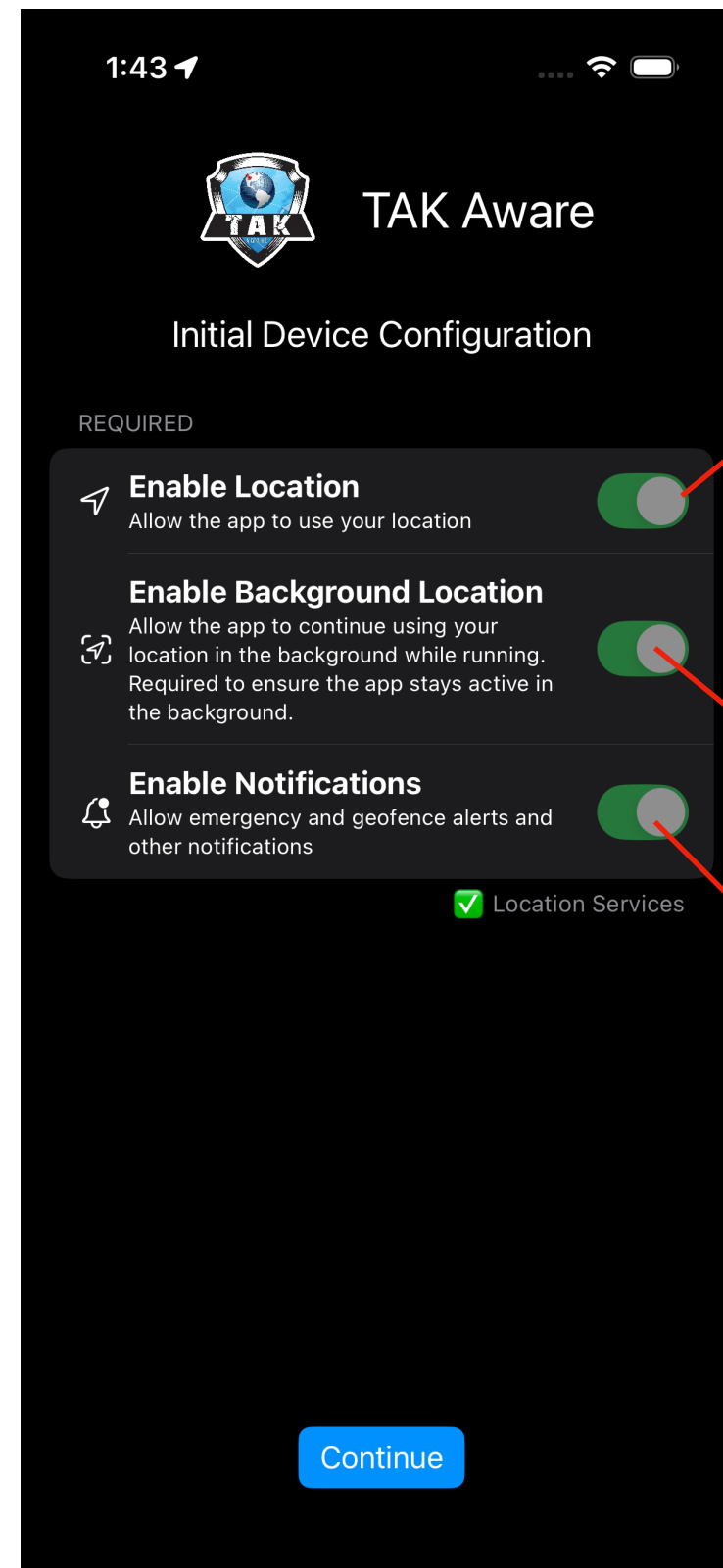
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ONBOARDING

When first launching TAK Aware users will be presented with an onboarding screen. It is important for users to allow finding devices on the local network and sharing their location information. **Select both Enable Location and Enable Background Location** to ensure the app remains functional in the background. **Location will not be shared while the app is closed.**

Note if users do not fully enable these options they will need to go in their phone settings to Settings -> Apps, then scroll down to TAK Aware and enable their location options there.

Users should also enable notifications to receive alerts about emergencies, geofence breaches and other system notifications.



ONBOARDING

Next, users will set up their user information, including call sign, team and role. Optionally they can add a phone number which will allow other TAK users to call them directly and additional information which will be displayed in the user remarks.

1:46

 TAK Aware

Initial Device Configuration

USER INFORMATION

 **Callsign**
How other users will see you
TRACKER-FF3C590B

 **Team**
The color you will be shown as on the map
Cyan

 **Role**
Your role on your team
Team Member

 **Phone Number**
Where people can call you
555-555-1234

 **User Information**
Additional information that will be displayed to map users
User Information

Back

Continue

- Blue
- Dark Blue
- Brown
- ✓ Cyan
- Green
- Dark Green
- Magenta
- Maroon
- Orange
- Purple
- Red
- Teal
- White
- Yellow

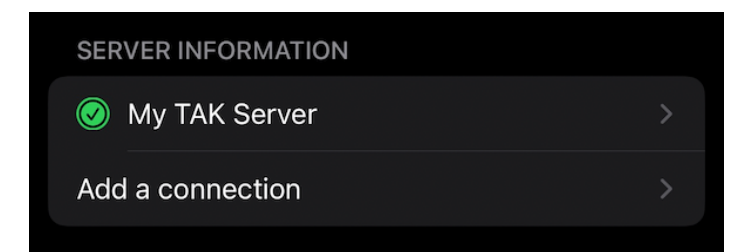
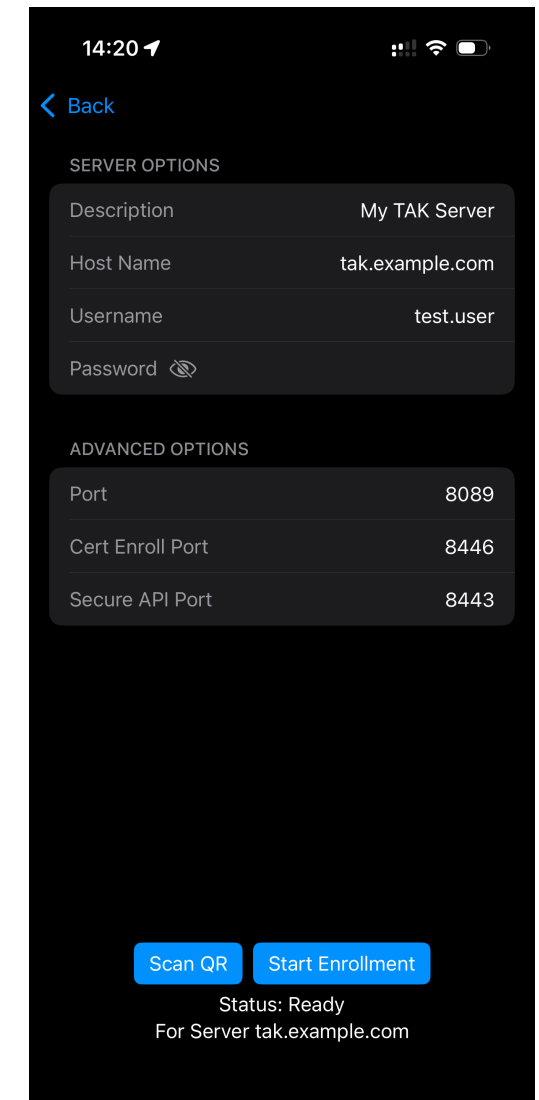
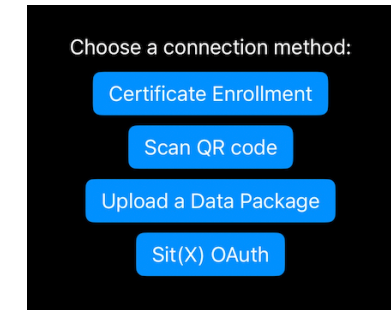
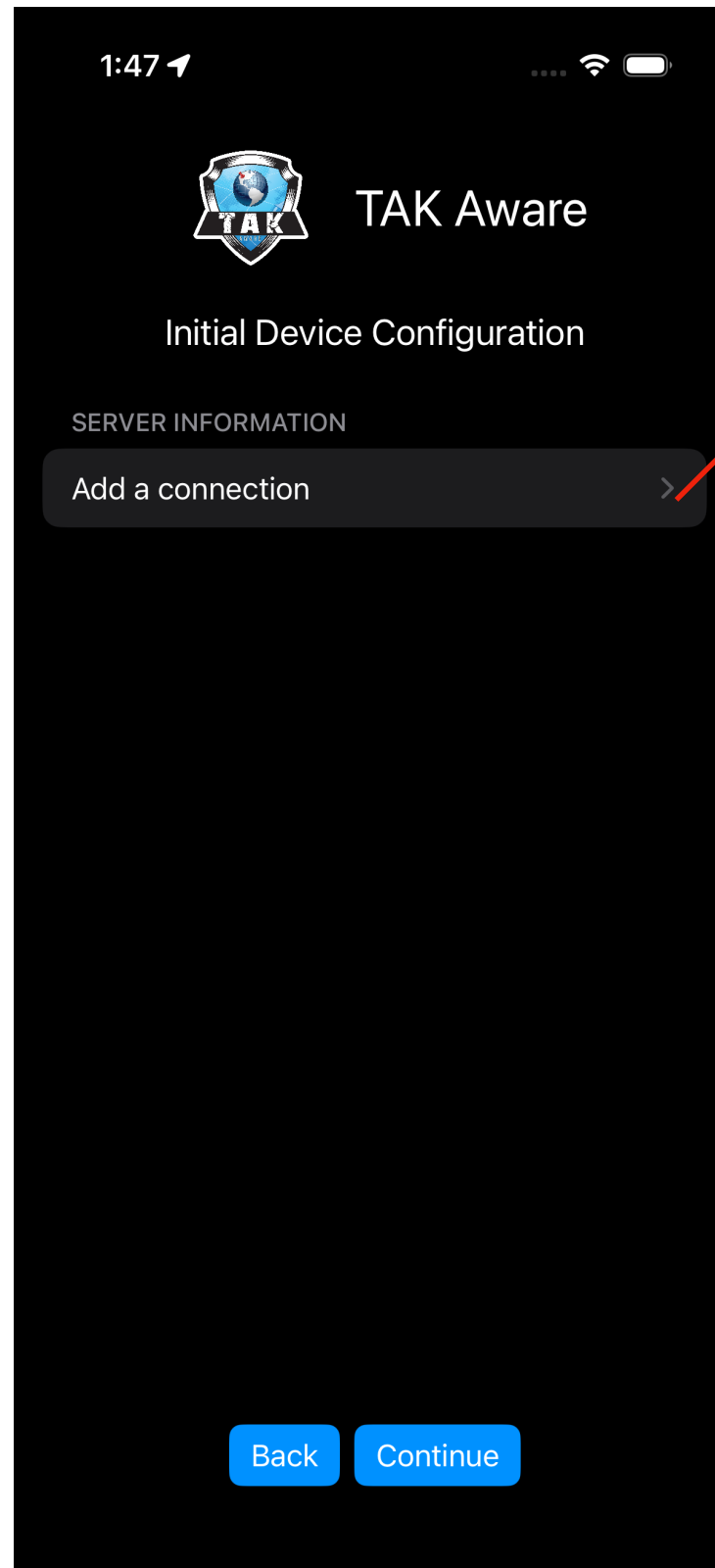
- ✓ Team Member
- Team Lead
- HQ
- Sniper
- Medic
- Forward Observer
- RTO
- K9



ONBOARDING

Users can now choose to connect to a TAK Server. TAK Aware supports multiple options for connections, including Certificate Enrollment, Data Package Upload, QR code Scanning (with both Cert Enrollment and Data Package download supported) and Sit(X) OAuth.

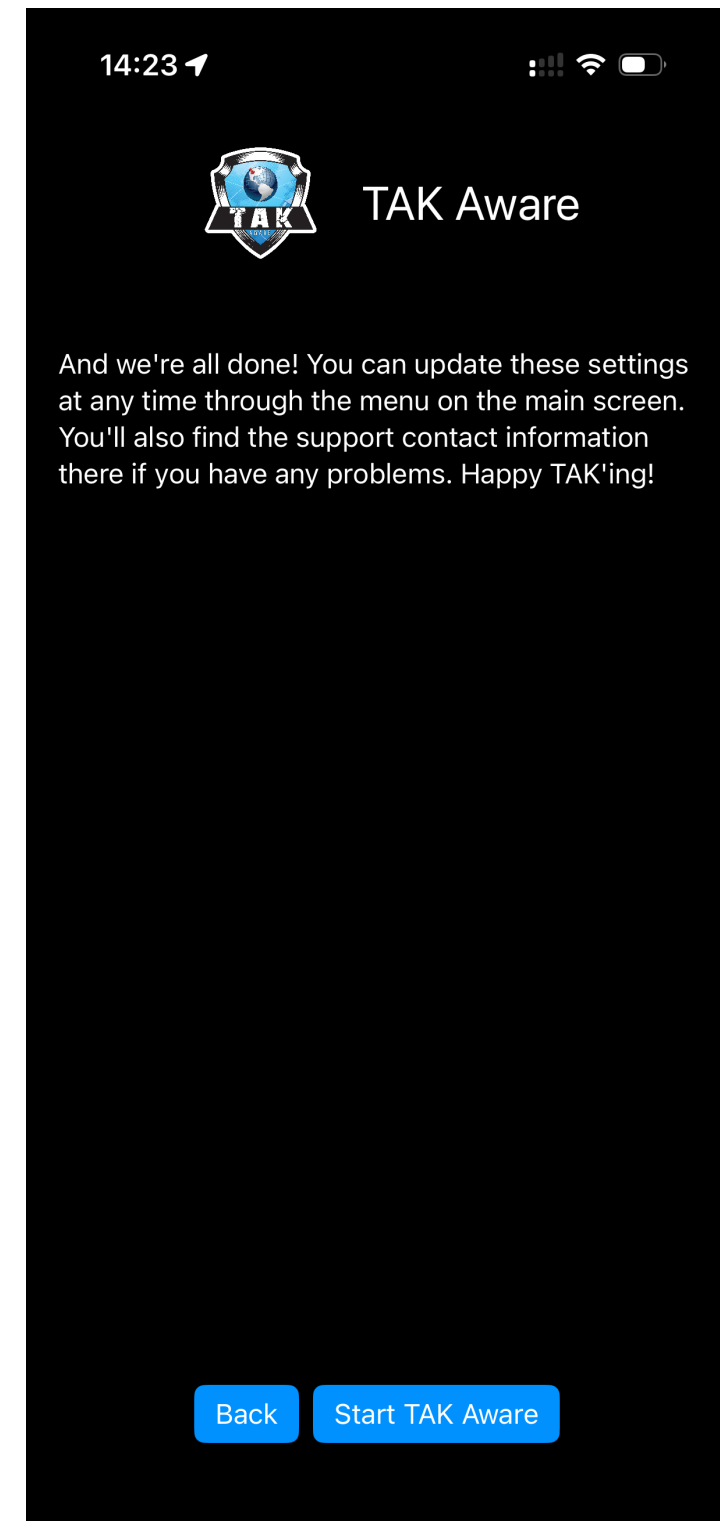
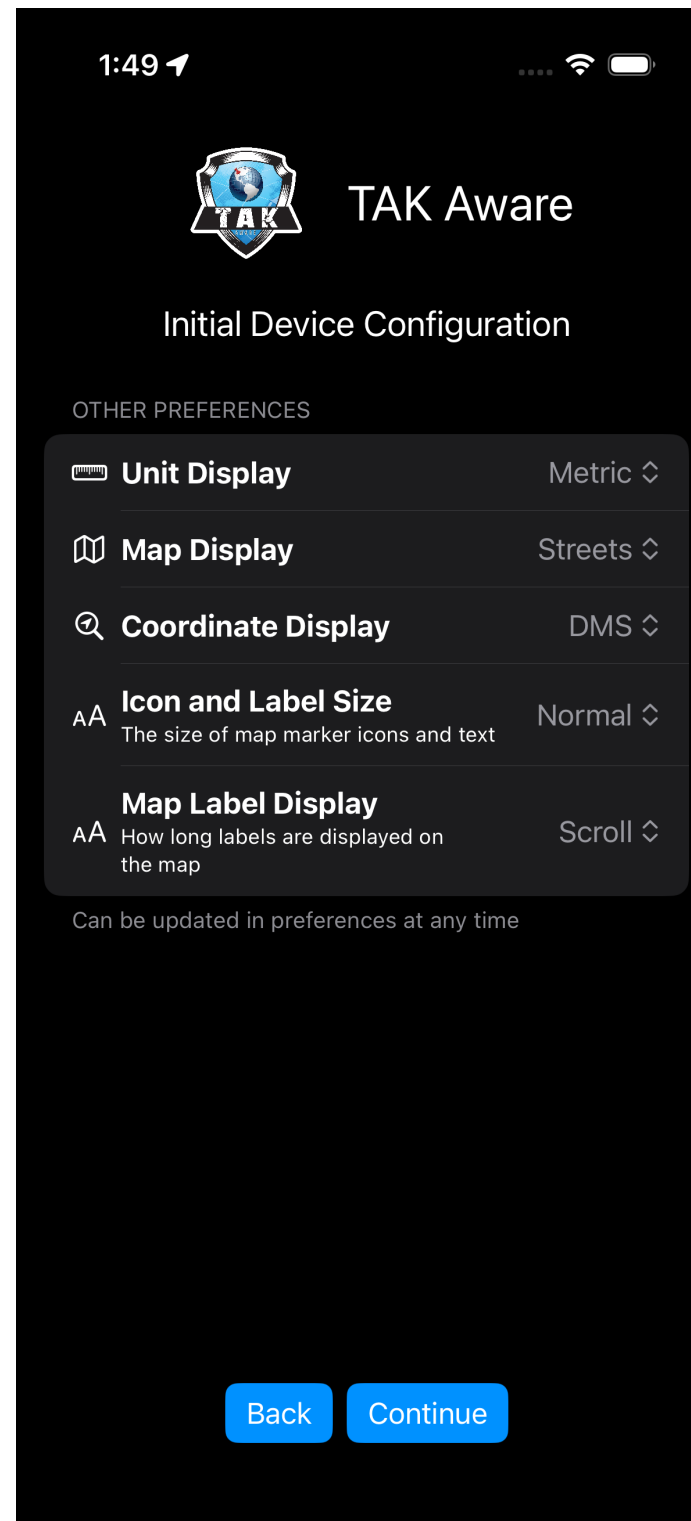
For QR code format admins can create complete or partial codes using any of the standard ATAK QR code formats including <tak://com.atakmap.app/enroll>, <tak://com.atakmap.app/import> and <tak://com.atakmap.app/preference>. The iTAK QR code format and the JSON Quick Code format are also supported.



ONBOARDING

Once server connections are added (or the screen is skipped) users can change the unit display, map type, coordinate display, icon size and marker title options here, or in Display Settings once the app is running.

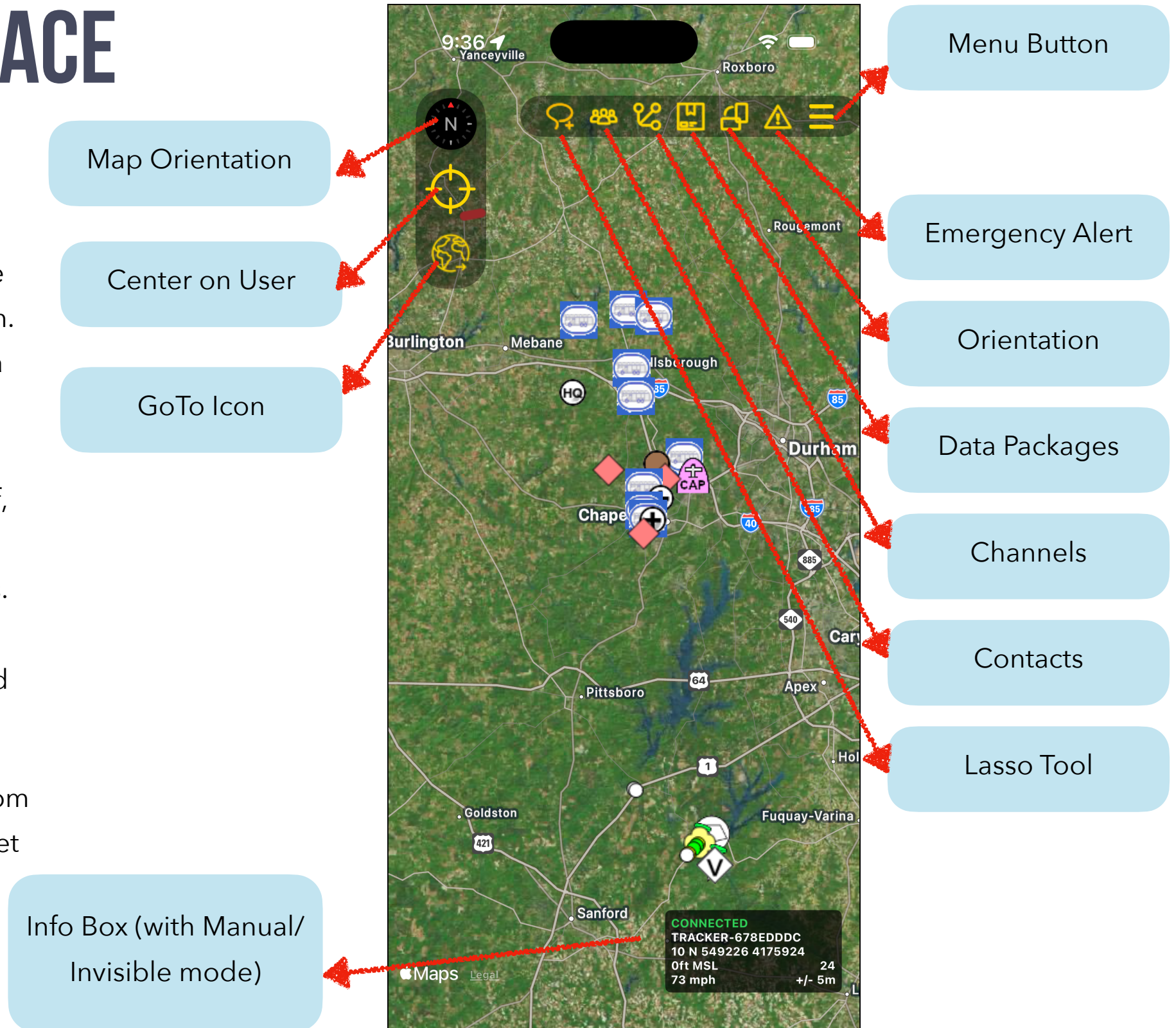
Once connected (or if skipping connecting) users will be finished with the onboarding screen and can start using TAK Aware



USER INTERFACE

The TAK Aware User Interface consists of two main interfaces - the map interface and the menu system. On the map, users will initially see a compass, locator and GoTo icon in the upper left, a menu bar in the upper right, the map interface itself, and an info box in the bottom right with their location and server status. They will also see a blue arrow representing the user's location and heading

If users tap the info box in the bottom right they will bring up a menu to set manual location or invisible mode (see the Location section for more details)



USER INTERFACE

Other map annotations are dependent on the user interacting with the map. Tapping on a marker will show a marker-specific context menu where users can get more information, start a bloodhound line, center on the marker, track the history of the marker, or delete. If the marker has video information, a video player icon will be visible, and if the marker represents a user with a phone number, a phone icon will also be present.

If multiple icons are within the tapped range, a deconfliction screen will present allowing the user to tap the specific marker they desire.

In addition, when a marker is selected, a marker info box will be visible in the upper right. Users can long-press to copy the marker's coordinates

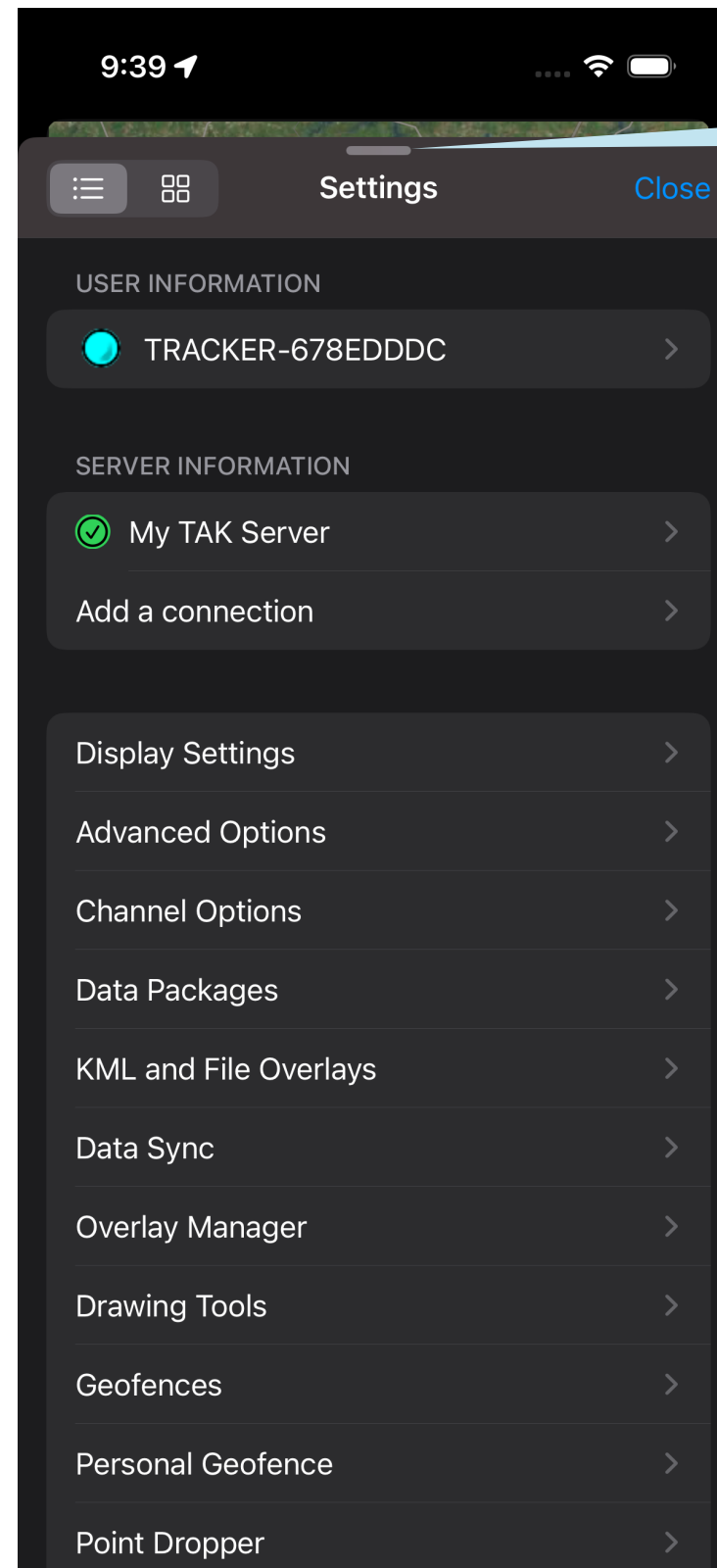
When a bloodhound line is active, the bloodhound information is visible in the bottom left, as well as showing the active bloodhound icon in the menu bar.



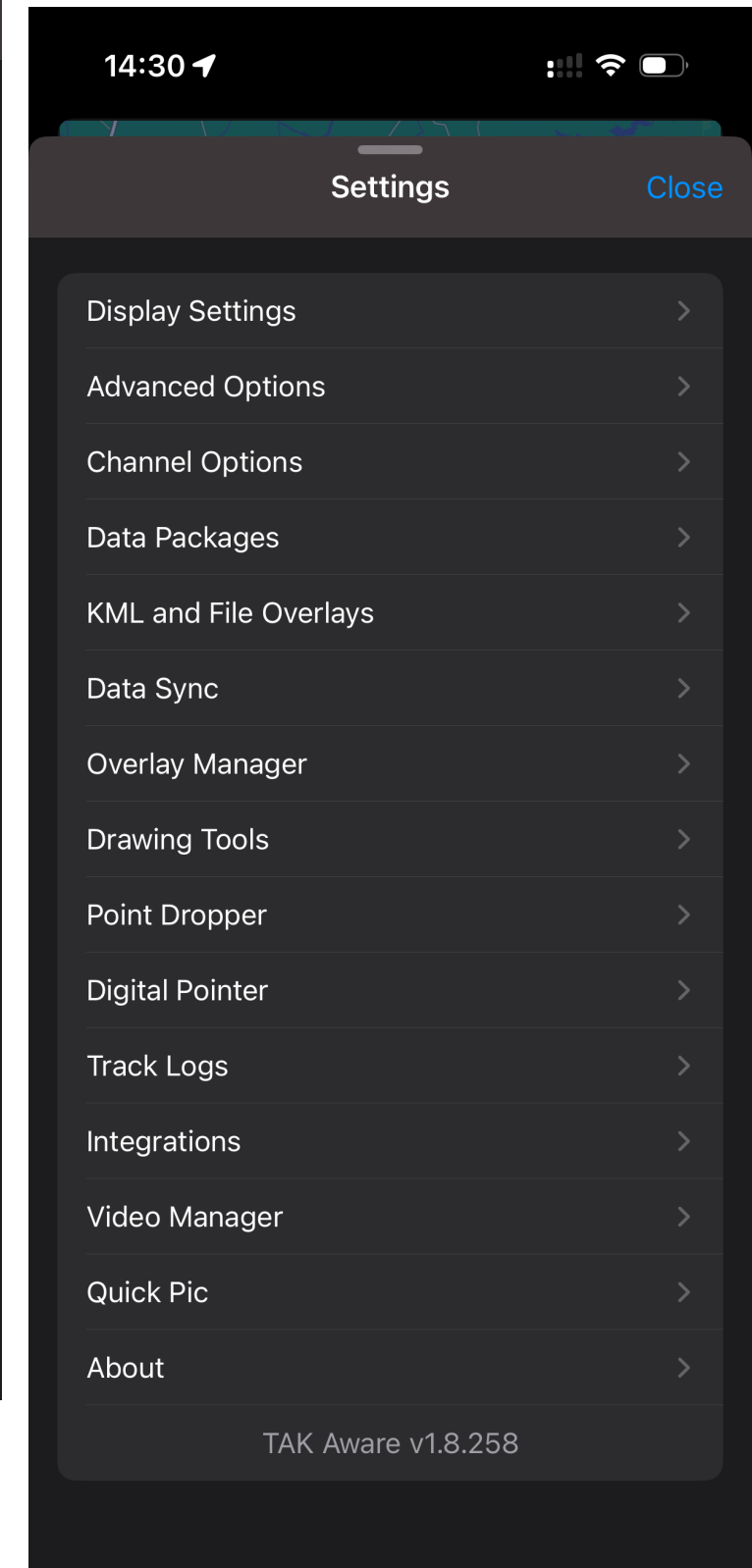
USER INTERFACE

When a user taps on the menu ("hamburger") icon in the upper right of the map, the settings screen becomes visible. Users can slide the screen up to get more room. This settings screen provides options for the user information, server information, and all available application features.

If using on an iPad, the menu will present as a modal window in the center of the screen. This will be updated in TAK Aware 2.0 to be a more familiar slide out screen depending on device orientation.



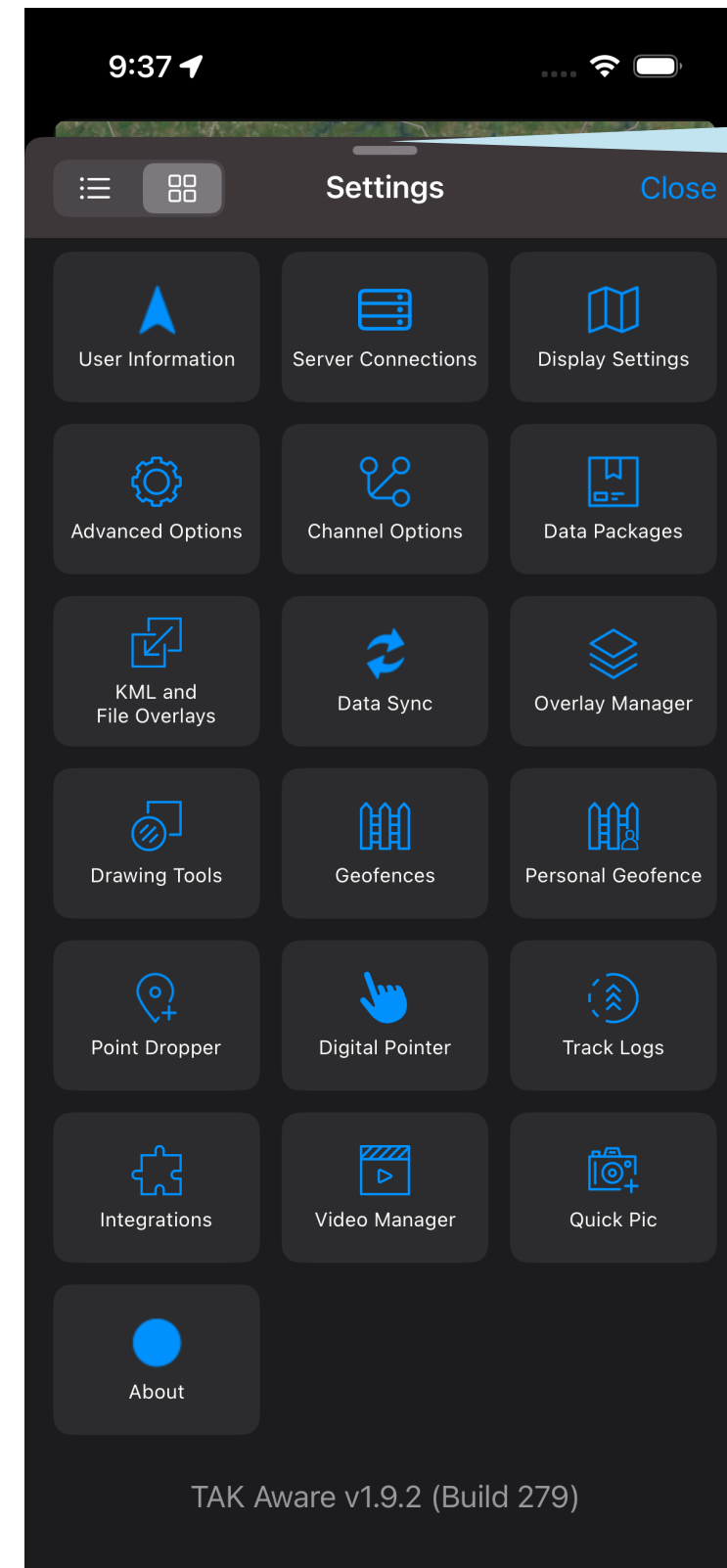
Grab handle to resize the slider screen



USER INTERFACE

Users can also choose to tap the “Grid” icon in the settings menu to display a grid list of the various menu options.

This is not currently customizable, but is planned for a future release.



Grab handle to resize
the slider screen

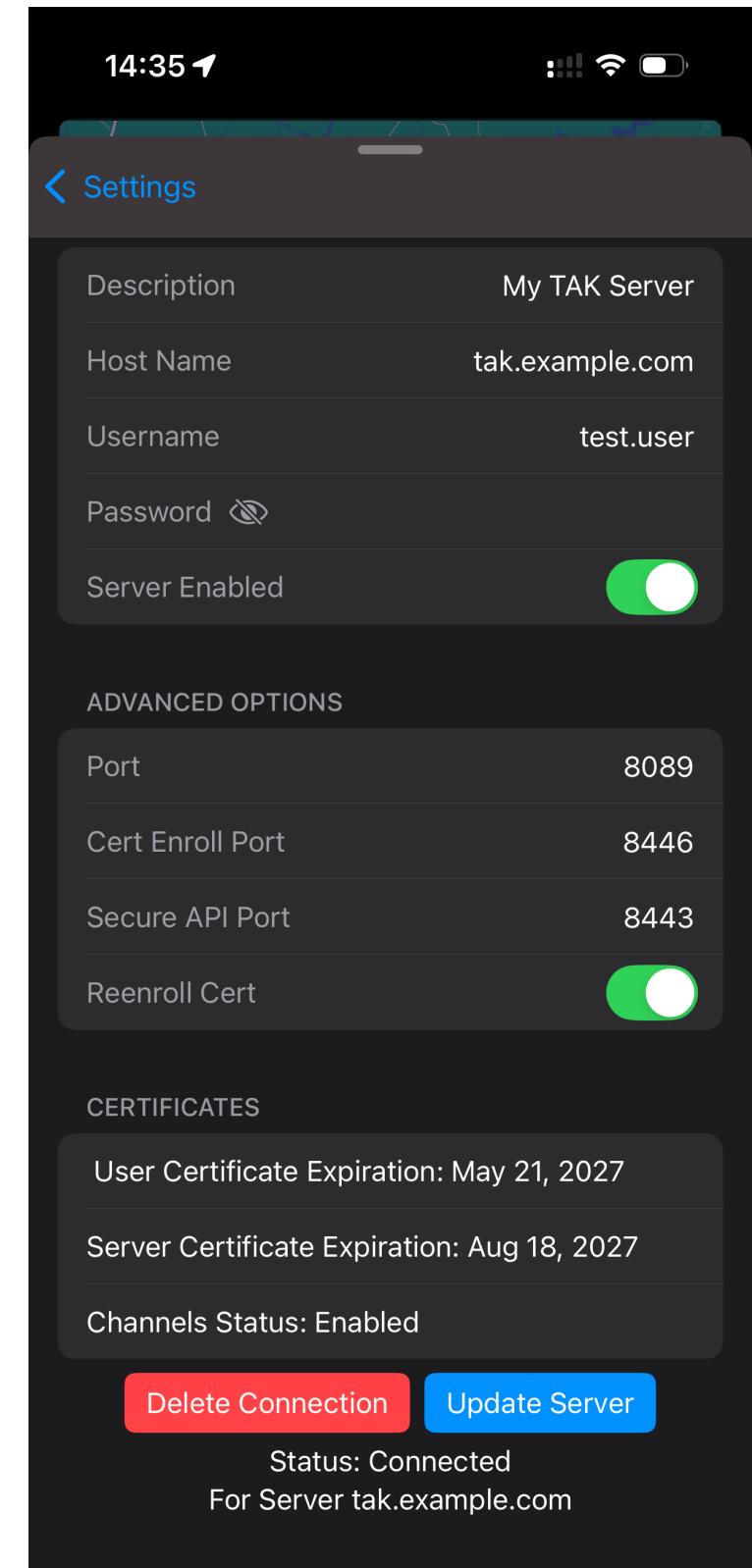
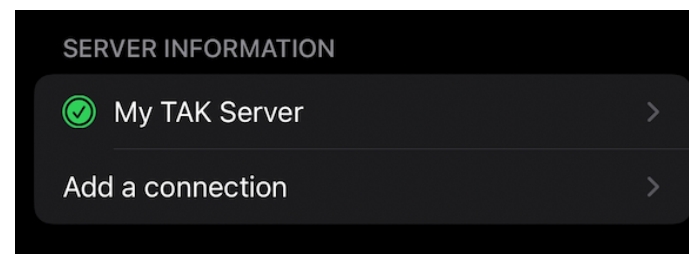
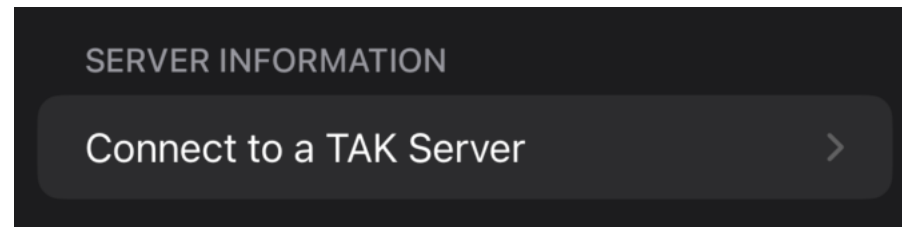
CONNECTING TO A TAK SERVER

Connecting to a TAK Server

If a user did not connect during the onboarding, they can go to the Settings page and tap on "Connect to a TAK Server" to bring up the connection workflow.

Available options include:

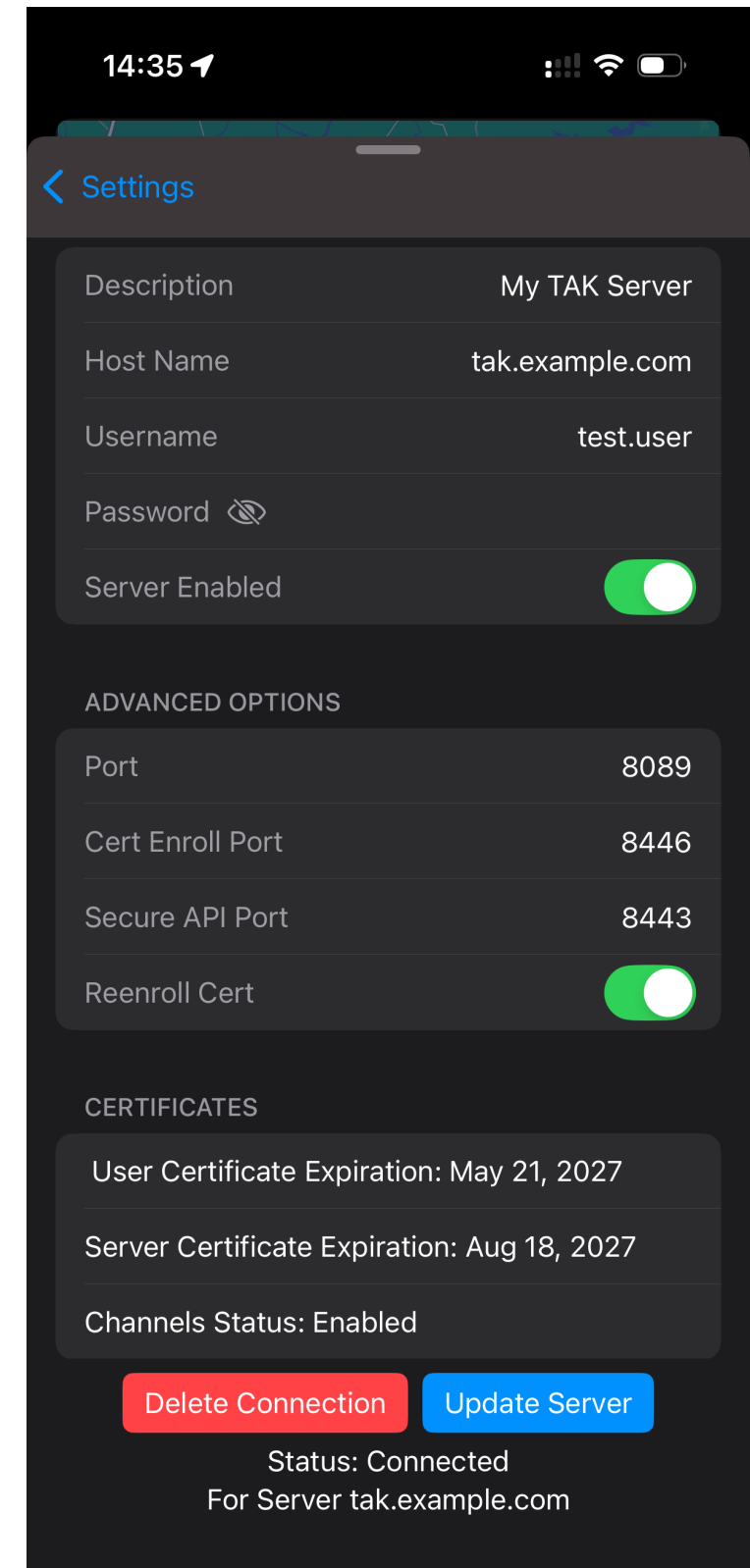
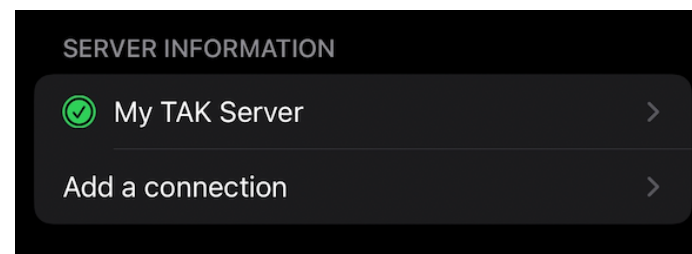
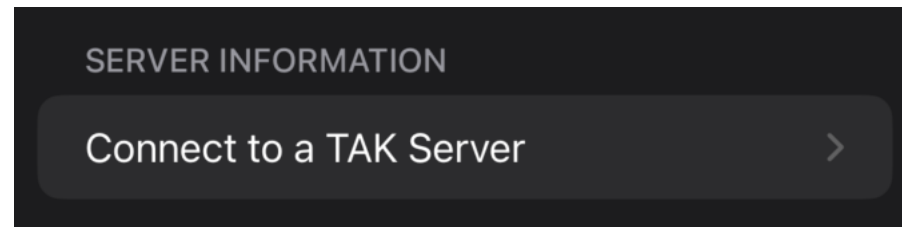
- Certificate Enrollment - Login via username and password
- Data Package - Upload a zip file containing connection information
- Scan QR code - use the atak:// style import codes to enroll or download a package
- Sit(X) OAuth - Connect to a Sit(X) server



CONNECTING TO A TAK SERVER

Editing and deleting connections

If a user is already connected to a TAK Server, they can tap the server name to bring up the server connection screen. From here users can update the server information, disable the connection, or reenroll for a new server certificate. Users can also see the user and server certificate expiration, as well as channels status

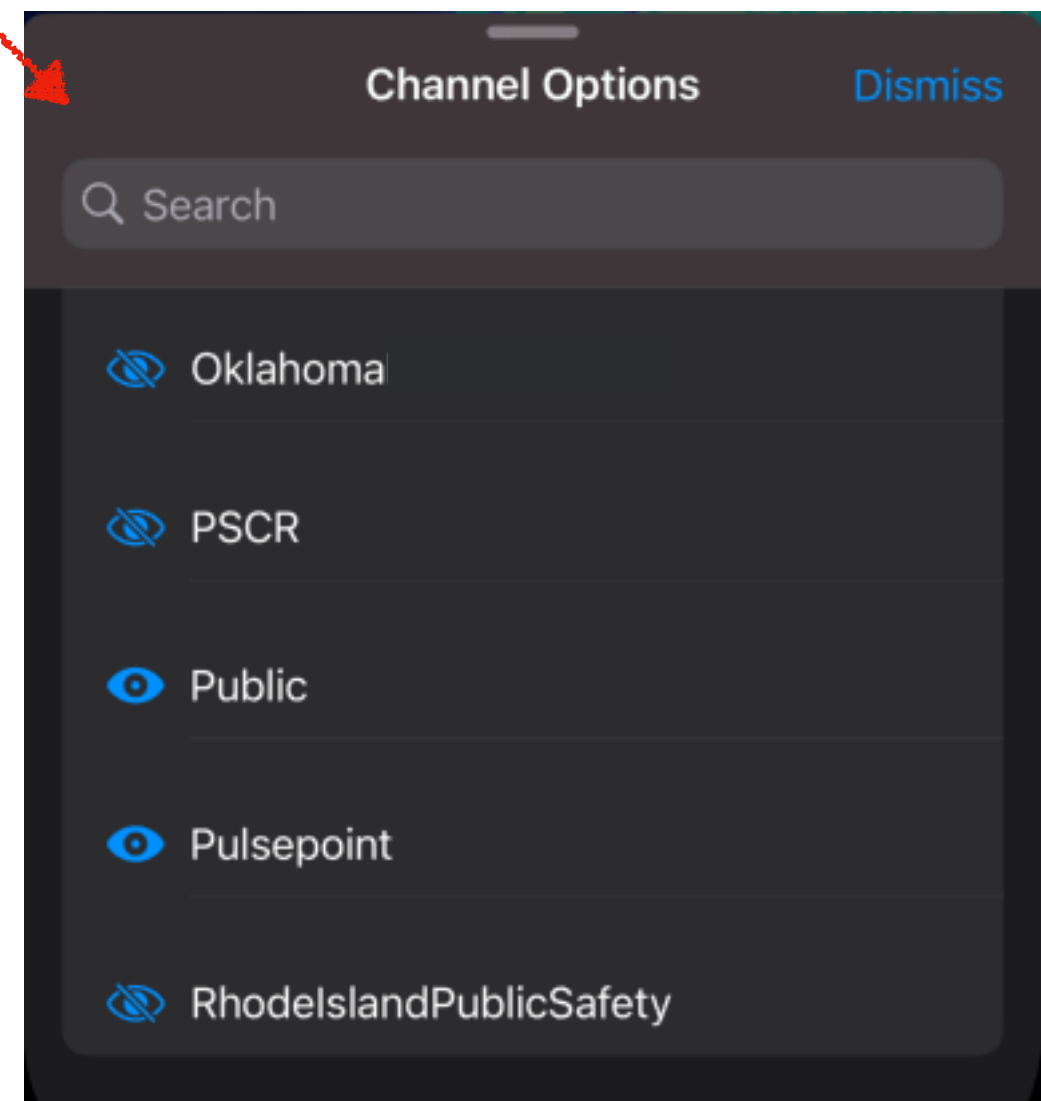
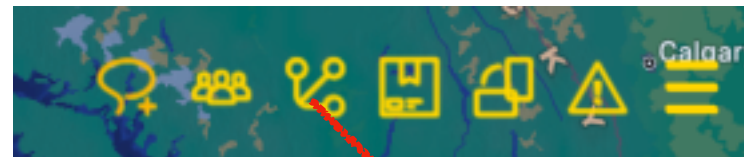


CHANNELS / GROUPS

Managing Channels

TAK Channels are a way of selecting what data is received or shared with a specific TAK Server. Tap on the Channels icon in the nav or main menu to access the Channel Options. Tapping on an icon will turn on/off the channel. Note that toggling a channel will also clear the map of all 'transient' markers. Also note that changing channels updates the channels for *all* devices using the same username.

Your TAK Server administrator might also have restricted the ability to update groups, in which case you will see a message about which groups you are part of without being able to update them.

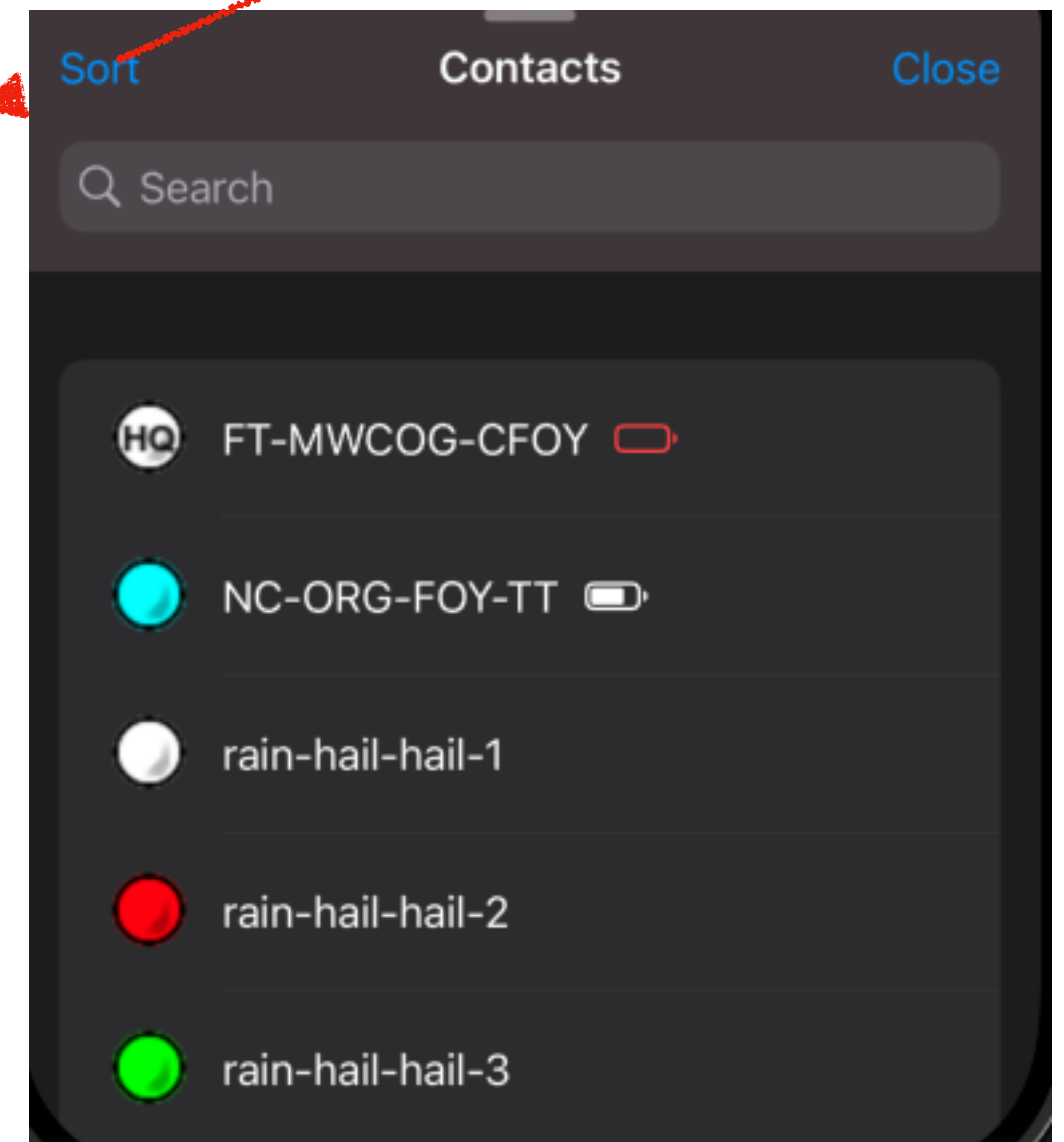
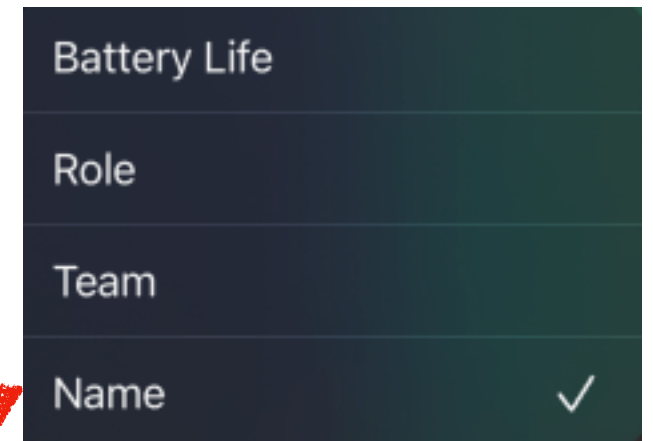


CONTACTS

Finding Contacts

Tapping on the Contacts icon will show you a list of currently connected users across all of your configured TAK servers. You can Sort the list by Battery Life, Role, Team or Name, as well as Searching for a given callsign.

Tapping on a contact scrolls the map to their location and selects the marker, allowing you to interact with them.

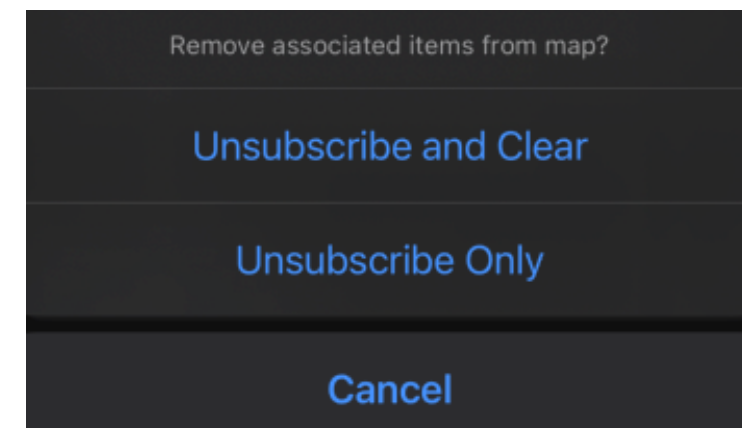
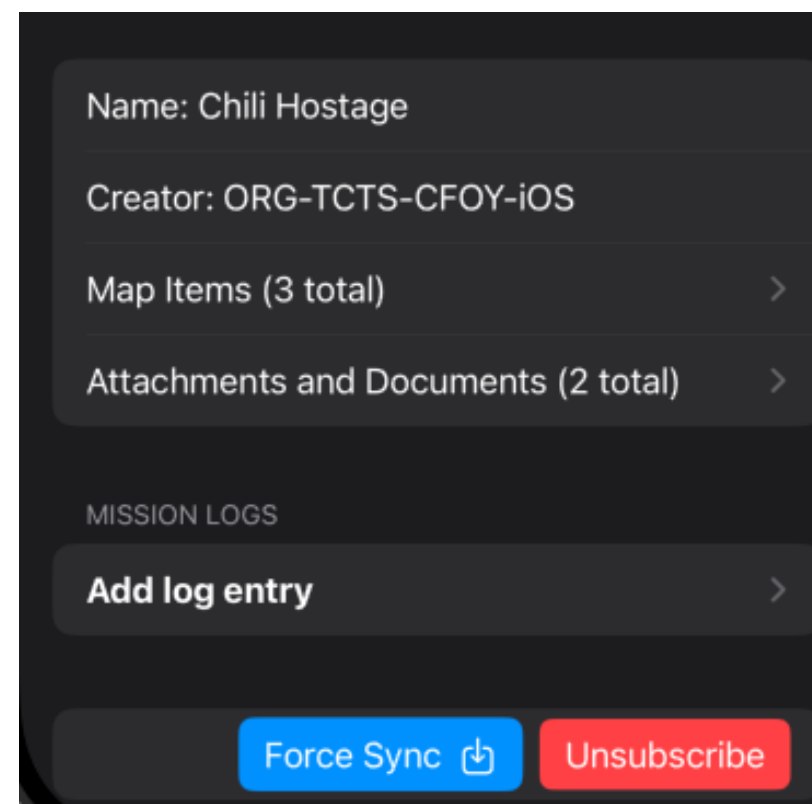
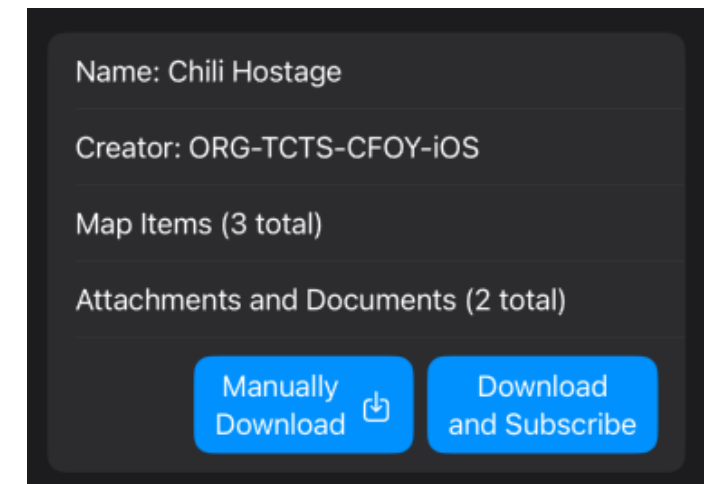
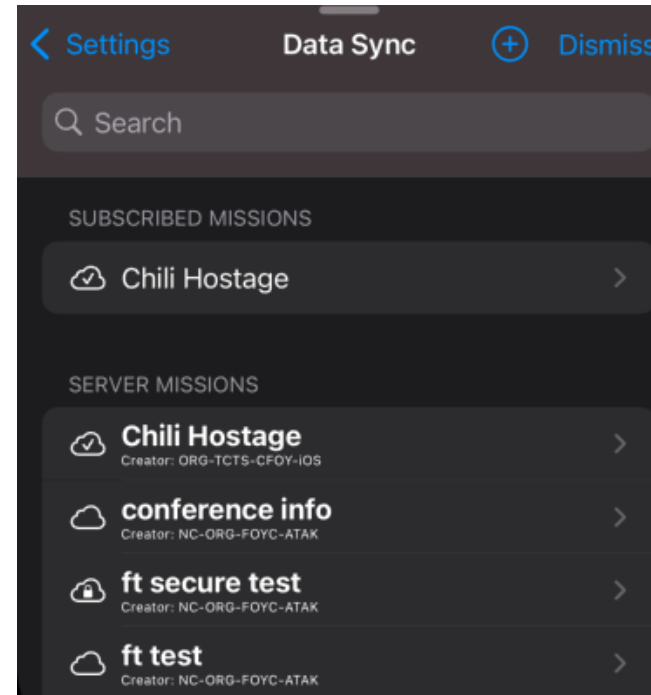


DATA SYNC MISSIONS

Subscribing and Unsubscribing

Tapping on Data Sync Missions in the menu allows users to see a list of available Data Sync Missions per server. From this list users can tap on a mission to get more information, as well as subscribe to the mission. Once subscribed users can view information about the mission and see both map markers and documents associated with the mission.

Users can also unsubscribe from a mission, choosing to clear their map of all items or simply stop receiving updates. Server deleted missions will prompt the user to clear the map automatically.



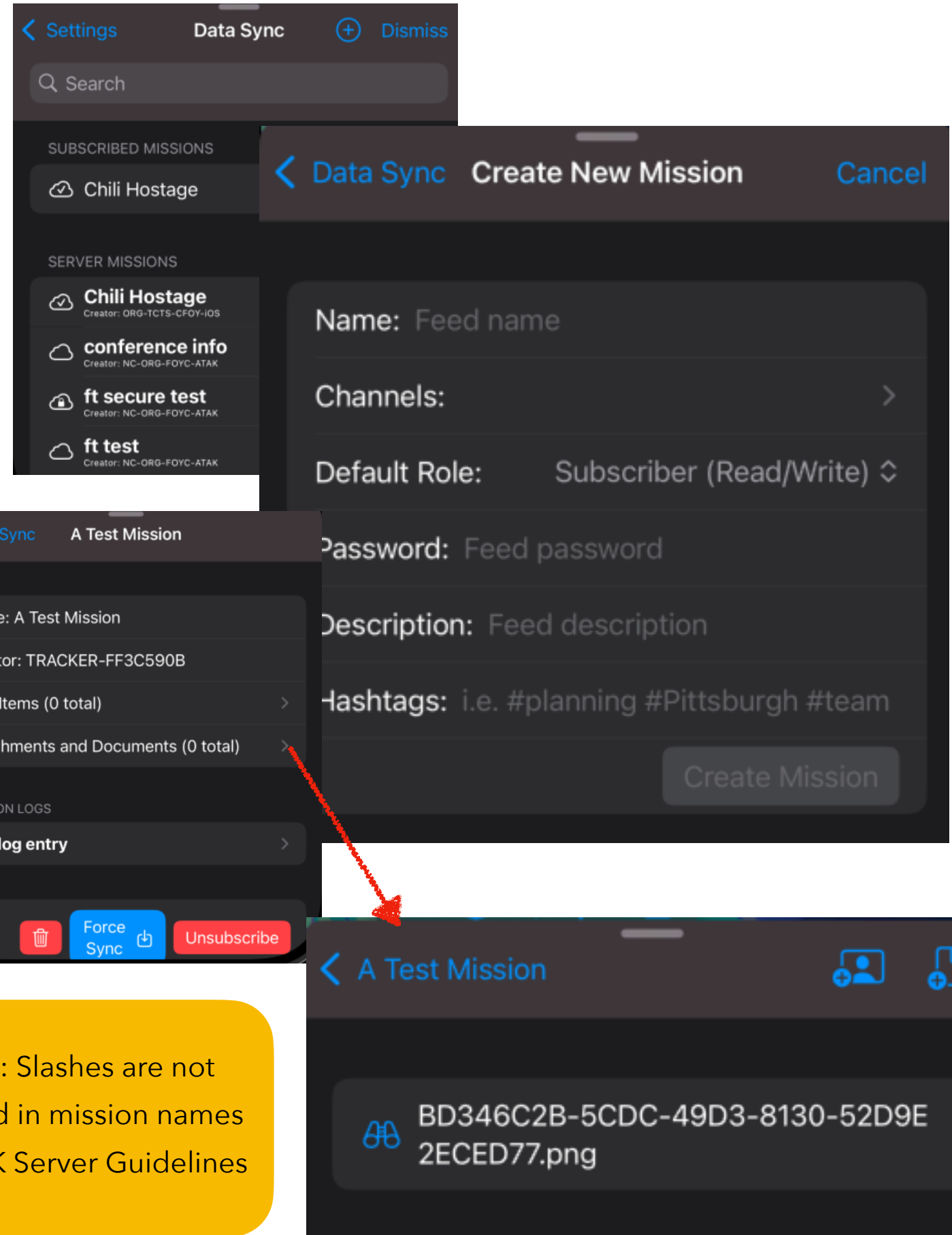
DATA SYNC MISSIONS

Creating

Tapping on the plus sign allows the user to create a Data Sync mission on a specific TAK Server. The user will need to enter a Feed Name, select which channels will have access to the mission, what the default role for people subscribing to the mission will be, and optionally setting a password, description and hashtags.

Once created users can “send” map items to the mission, as well as tap on Attachments and Documents to add files and images to the mission.

Admin users will see a delete icon for the mission which will remove it for all users.



Note: Slashes are not allowed in mission names per TAK Server Guidelines

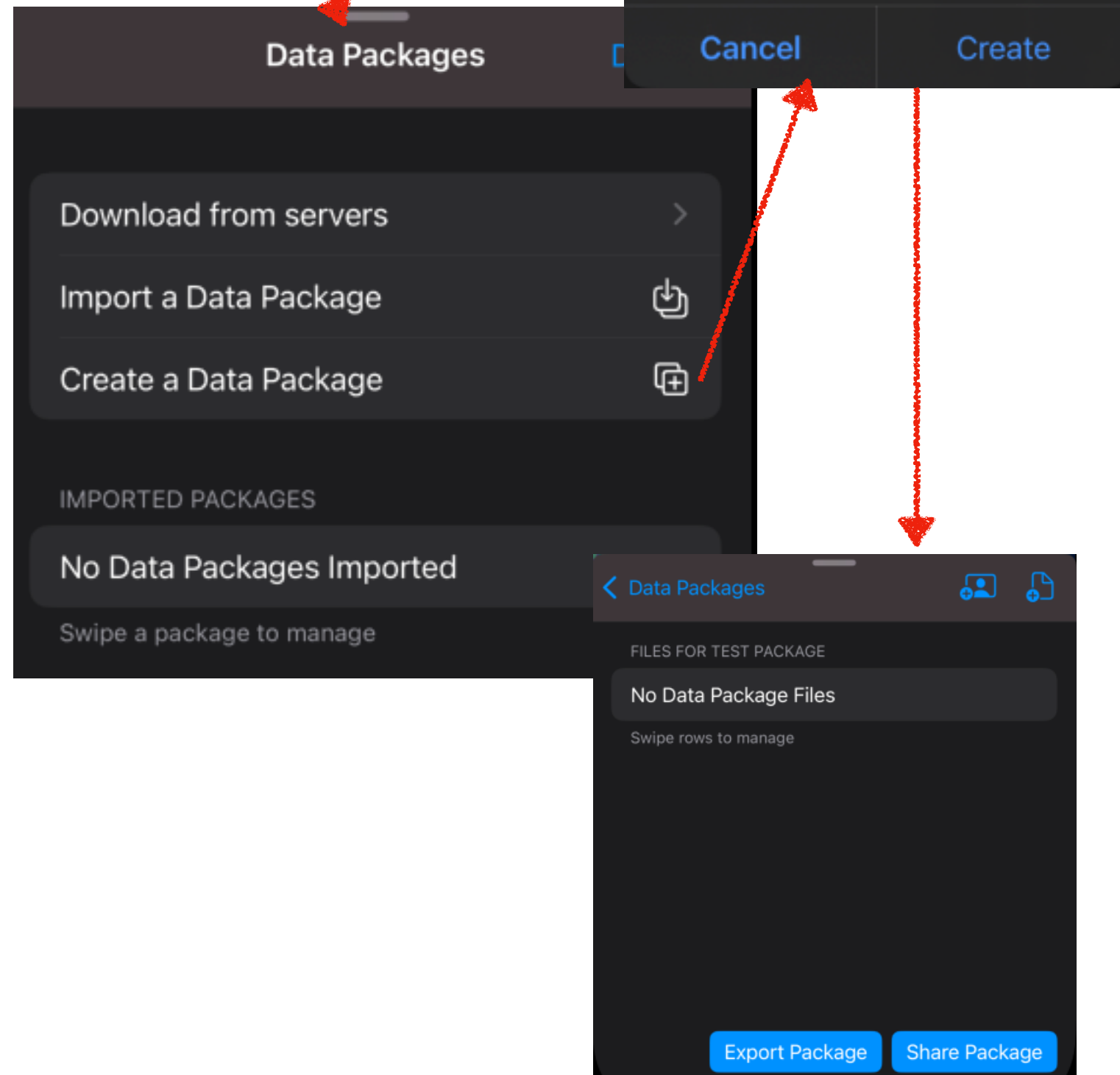
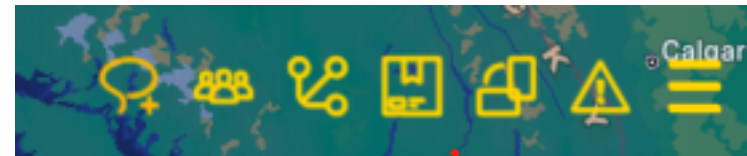
DATA PACKAGES

Importing Packages

Users import packages from their local filesystem as well as download packages that have been shared to a TAK Server. In addition, any shared Data Packages will be visible in this list and can be hidden or deleted.

Creating Packages

Users can also create a data package from this screen. Doing so will prompt them for the name of the package and any description. Users can then "Send" markers to the data package, or tap on the package to add files or images. Users can also choose to export the package or share it with other users or servers.

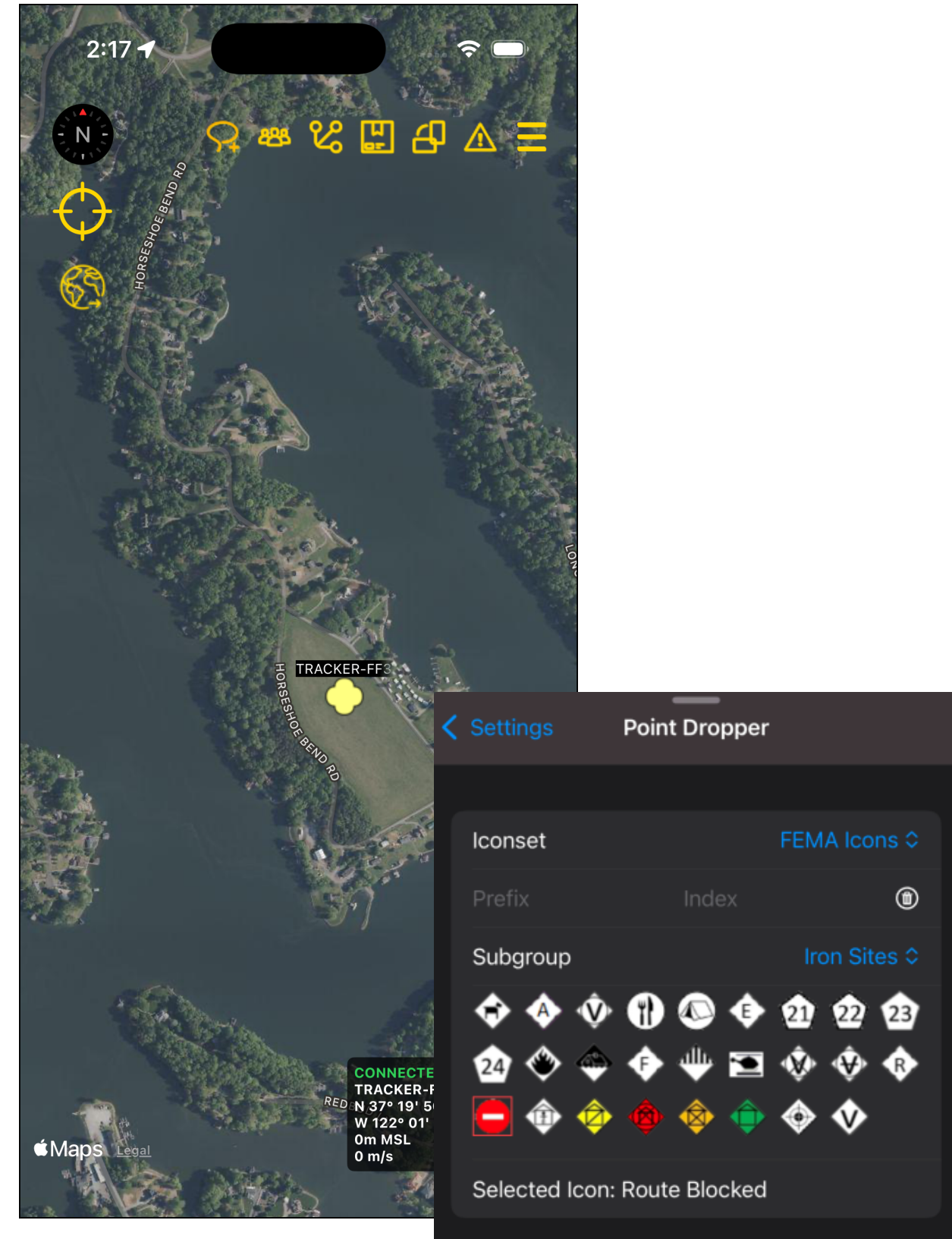


MARKERS AND SHAPES

Creating Markers

Users can place markers on the maps using three methods:

- 1) Long Press anywhere on the map. This will drop a point as either the last selected icon type or a yellow cloverleaf.
- 2) Using the Point Dropper which will allow the user to select a specific icon, and will place a marker each time they tap the map. If a Prefix is entered then it will be used to name each marker with an auto incrementing index of either numbers or letters.
- 3) Using GoTo (shown later)



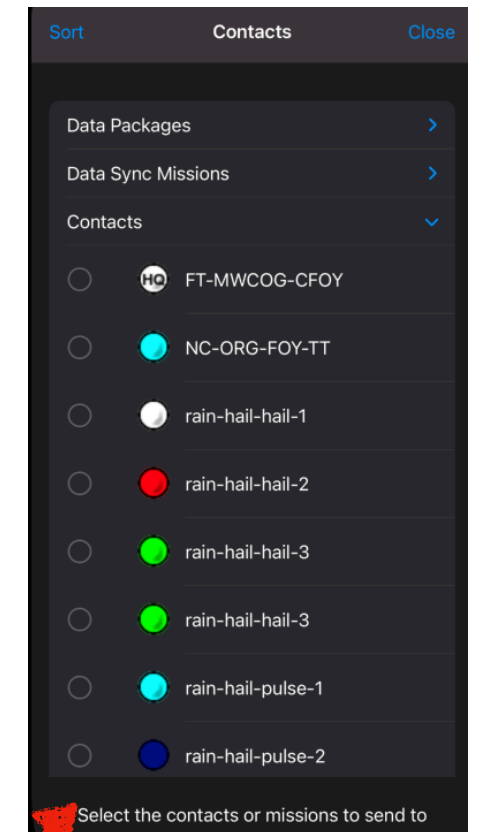
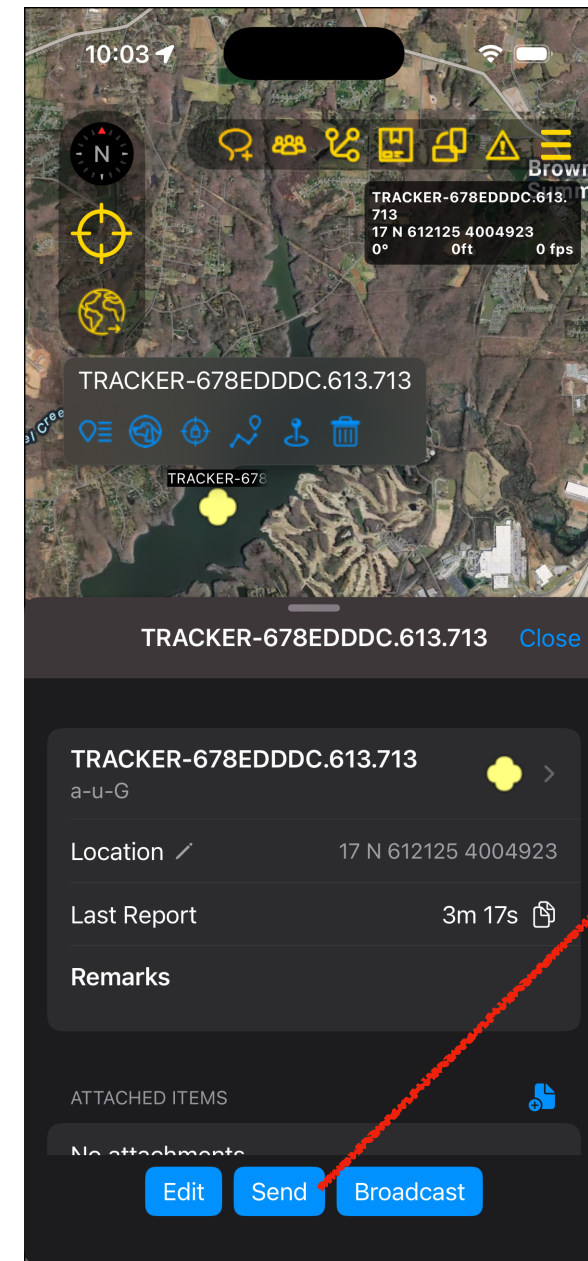
MARKERS AND SHAPES

Viewing Markers

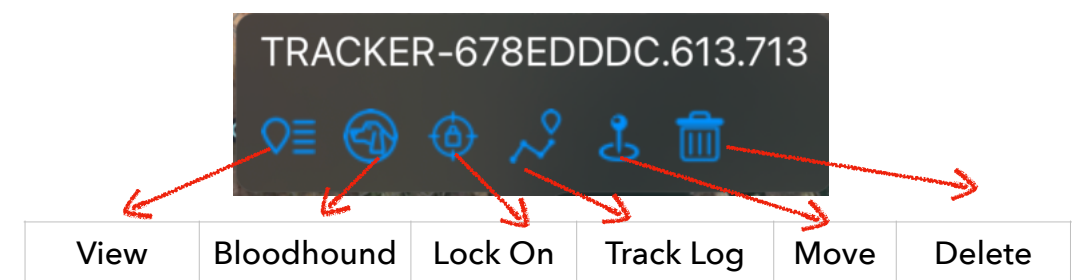
Users can tap on a marker to bring up the interaction menu. From here users can:

- 1) View and edit marker information
- 2) Create a Bloodhound line from their location to the marker
- 3) Lock the map on the marker
- 4) Start a breadcrumb trail for the marker
- 5) Move the marker
- 6) Delete the marker

From the view menu users can also edit information like Callsign and Icon, as well as send or broadcast the marker



Note: All added markers and edits only happen on your map. Markers that are part of data sync missions will prompt you to send your changes back to the mission.



Note: When sending a marker with attachments you must "send as data package" if you want to include the attachments. Otherwise only the marker information will be sent.



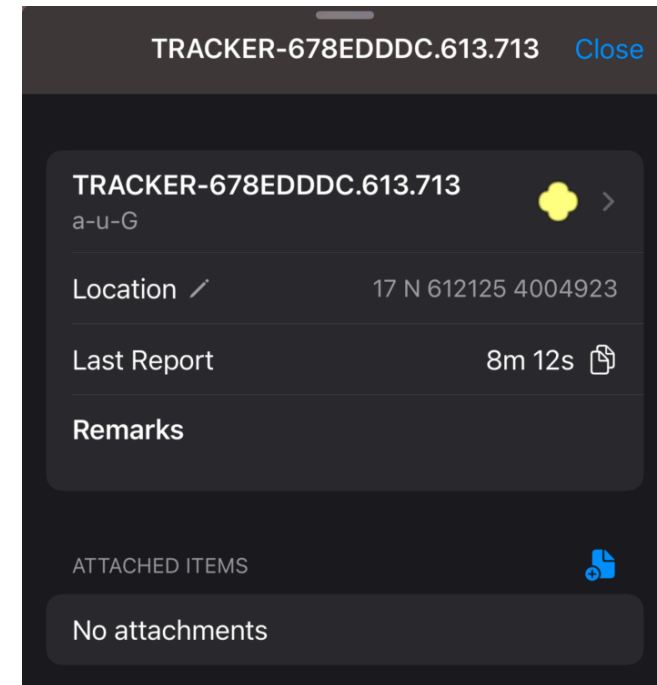
MARKERS AND SHAPES

Editing Markers

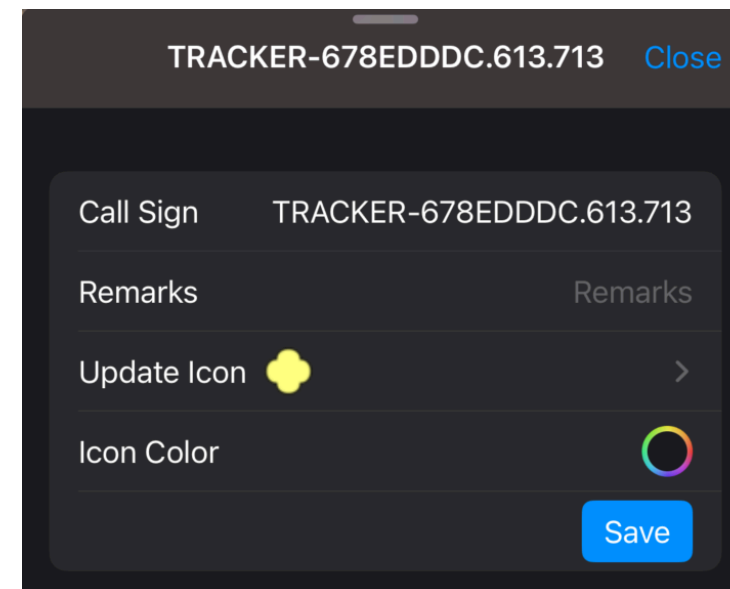
From the marker detail screen you can:

- Copy the coordinates by tapping on the coordinate display
- Copy the Date Time Group (DTG) by tapping the copy icon next to the last report counter
- Quickly change the icon by tapping on the icon symbol in the upper right.
- Users can also add attachments to a marker from this screen.

To change Call Sign, remarks, icon color, etc, tap on the Edit button to bring up the edit screen.



Note: All added markers and edits only happen on your map. Markers that are part of data sync missions will prompt you to send your changes back to the mission.



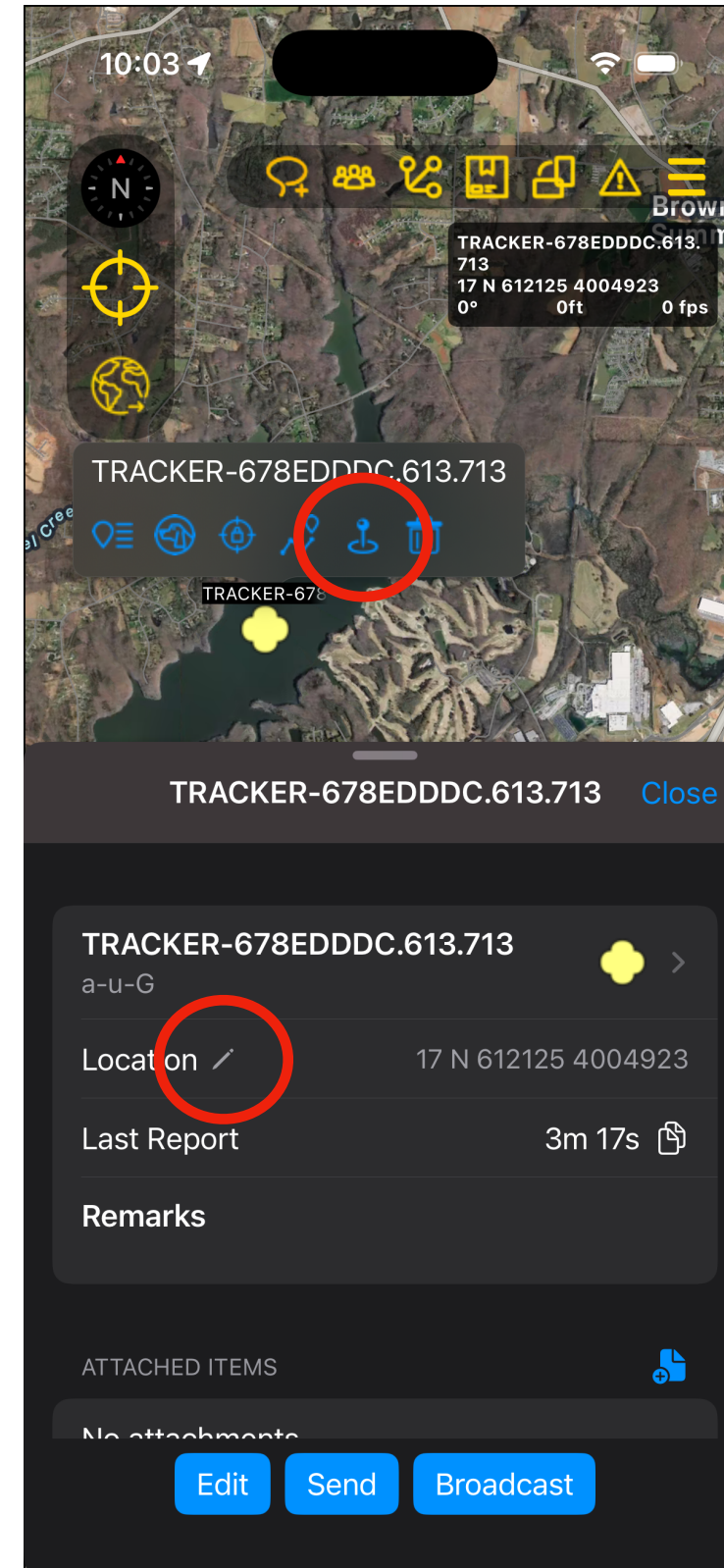
MARKERS AND SHAPES

Moving Markers

Users can move a manually placed marker using several methods:

- 1) Tapping on the marker and then tapping on the map pin icon
- 2) Tapping on the pencil icon next to the coordinates for the marker in the detail screen, then tapping on the map location
- 3) Long pressing on the pencil icon to bring up the coordinate entry screen.

Note that machine generated markers will show a radio waves icon in their coordinates and can not be edited.



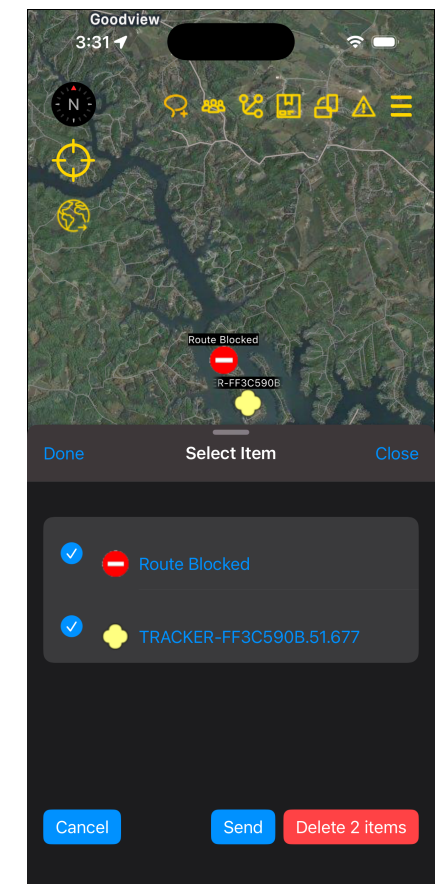
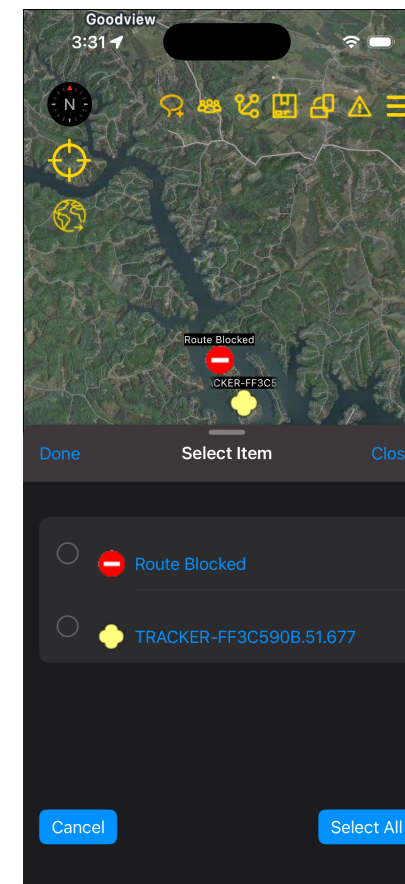
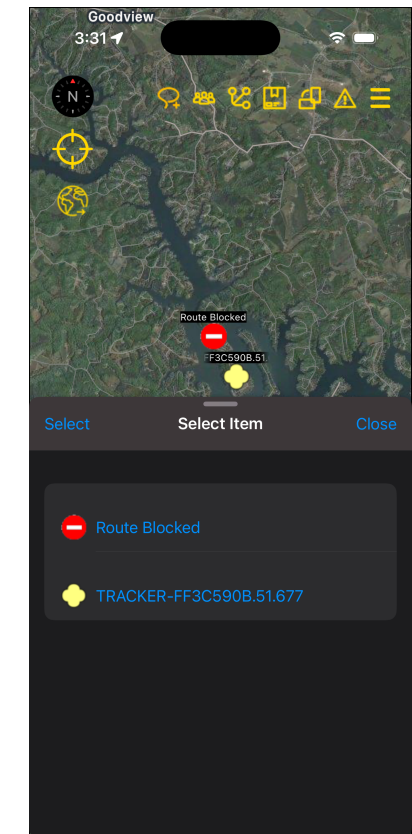
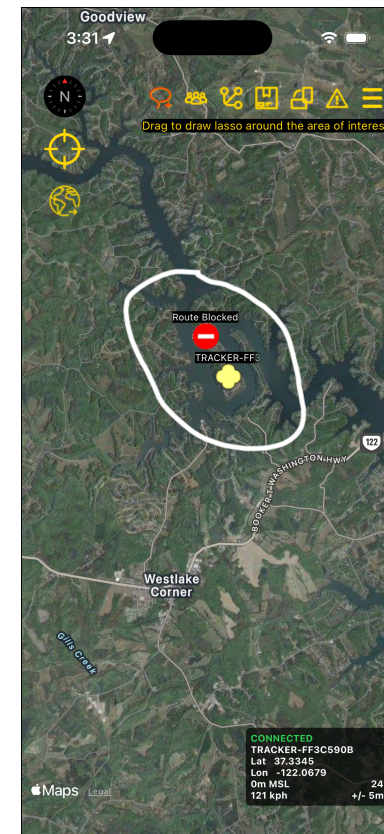
Note: All added markers and edits only happen on your map. Markers that are part of data sync missions will prompt you to send your changes back to the mission.



MARKERS AND SHAPES

Selecting Markers

In addition to selecting markers by tapping on them, users can tap on the “Lasso” icon and draw a circle around multiple markers. This will bring up a screen allowing them to interact with the markers, including selecting multiple markers for sending or deletion.



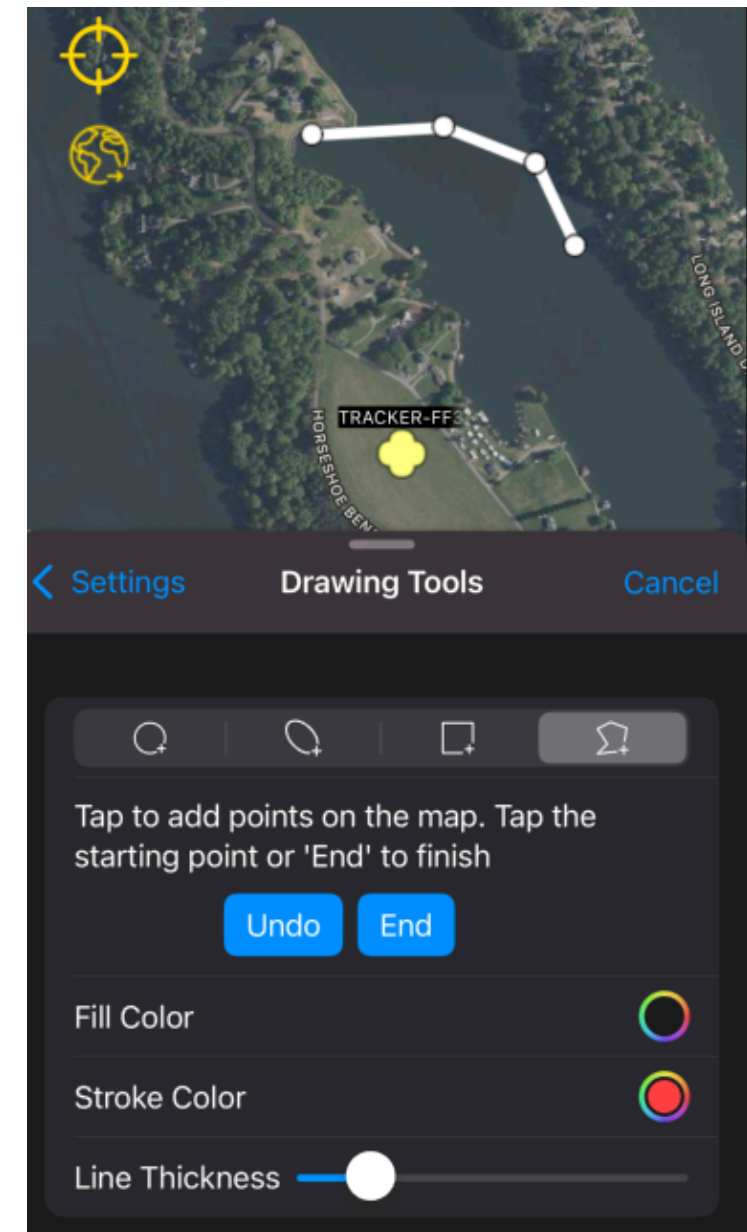
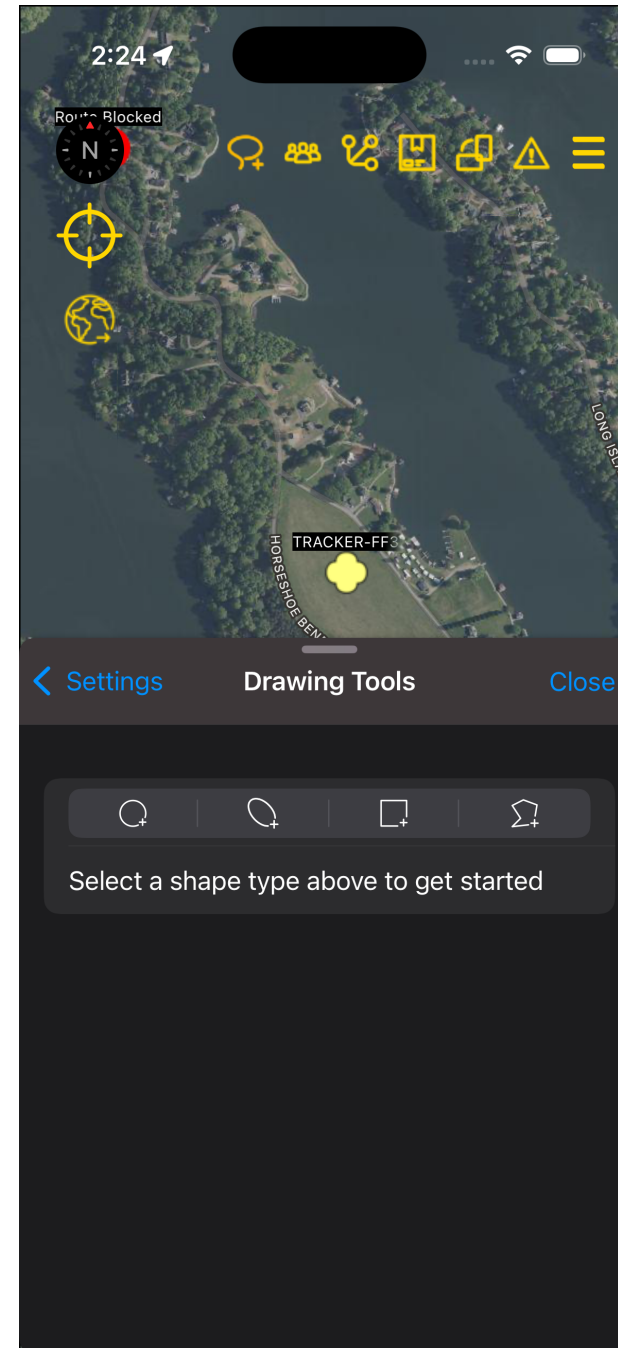
MARKERS AND SHAPES

Creating Shapes

Shapes are created through the Drawing Tools menu item. Upon bringing up the menu you can select from four shape types. Tapping on a shape will bring up options for fill and stroke colors as well as line thickness. These can also be edited from the shape after it is created.

For Polygons and Polylines you will tap each part of the line. To create a line shape, tap the "End" button when you are done. To create a closed polygon tap the starting point to close the shape.

Once created you will need to tap on the shape to edit details about it.

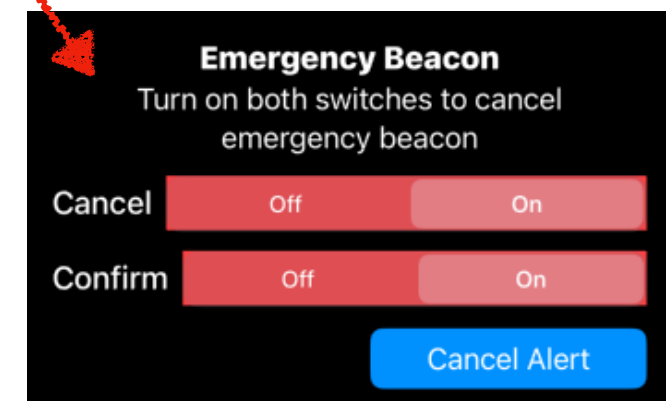
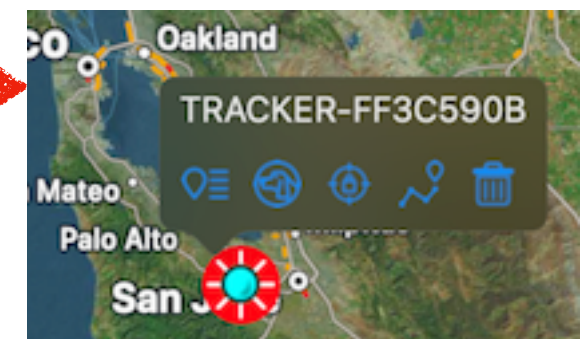
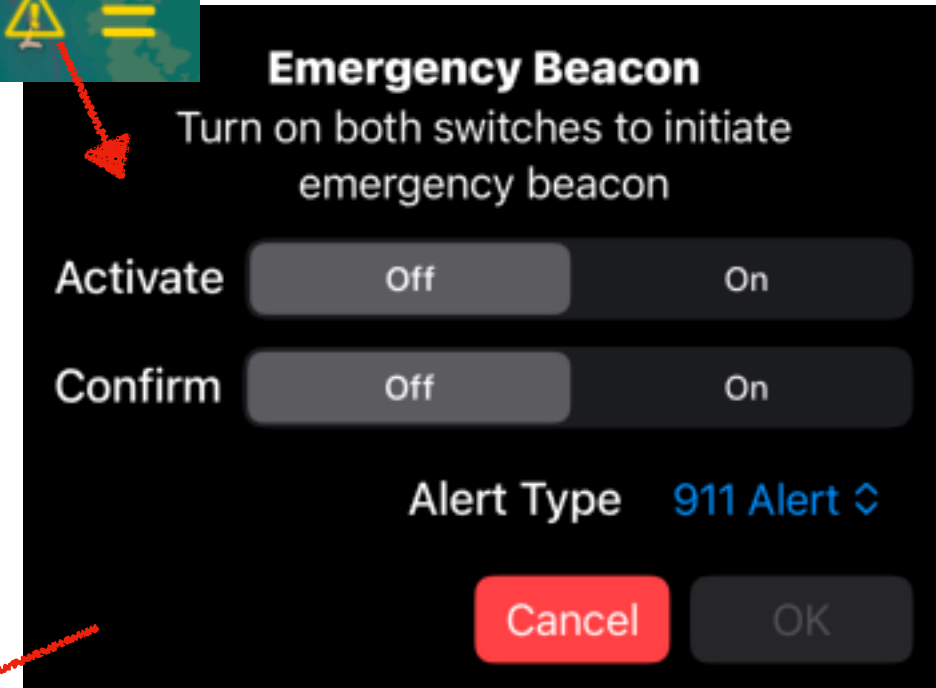
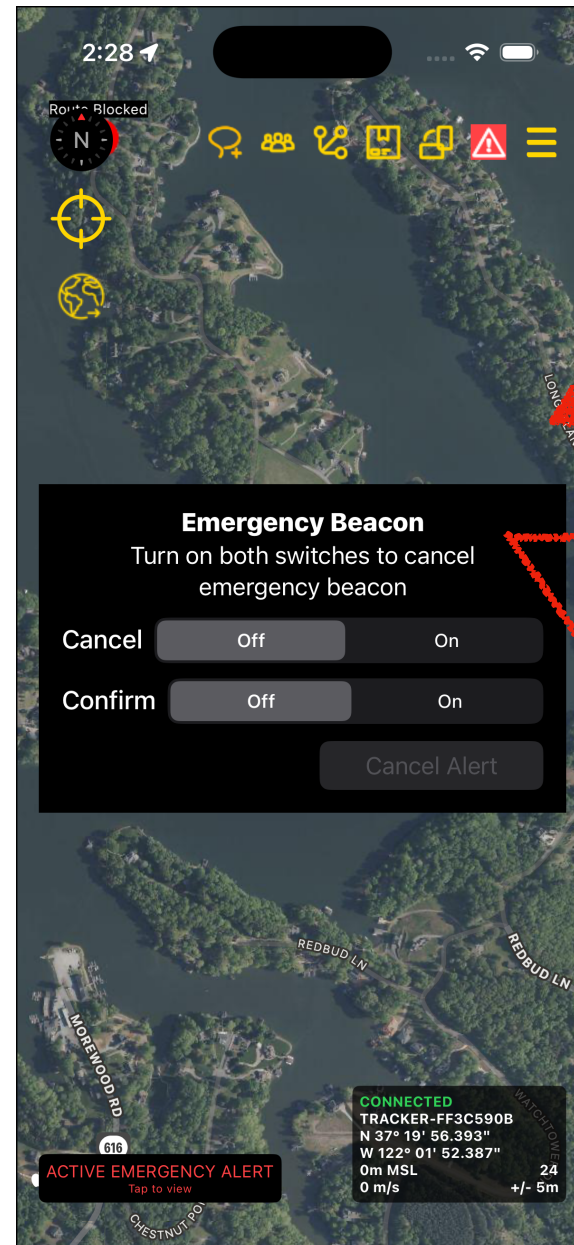


EMERGENCY ALERTS

Triggering and Clearing Alerts

When a user taps on the emergency alert button a quick menu appears allowing them to activate and confirm an emergency alert. Once created other users will be notified and the user's marker will begin flashing for other users. In addition, a persistent window will show for the user until they clear the alert.

To cancel the alert the user needs to turn on both boxes and tap "Cancel Alert". This will clear the alert for all users.



LOCATION ON THE MAP

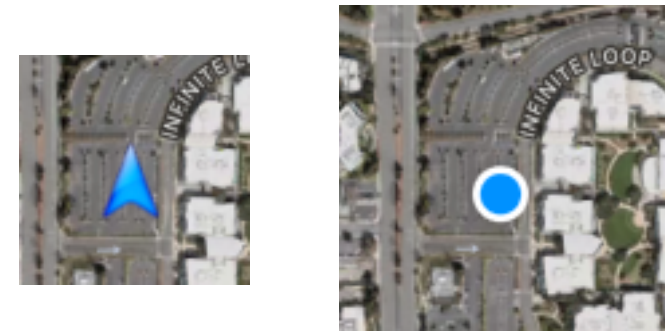
Your Location

Your location on the map is represented by a blue arrow pointing to your current heading. Optionally you can display a blue circle by turning off "Show Directional Arrow for Self" in Advanced Options.

Your location information is shown in an info box in the lower right. Tapping on this box will cycle through the various location display options, such as Lat/Long or MGRS.

Tapping on the compass icon will reset the map back to North, and tapping on the lock button will lock and scroll the map to your location.

Location is determined via Apple Location Services using a combination of methods.



Show Directional Arrow for Self



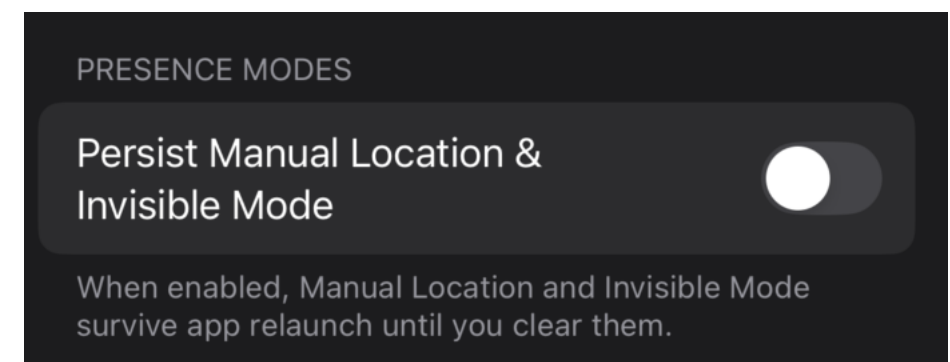
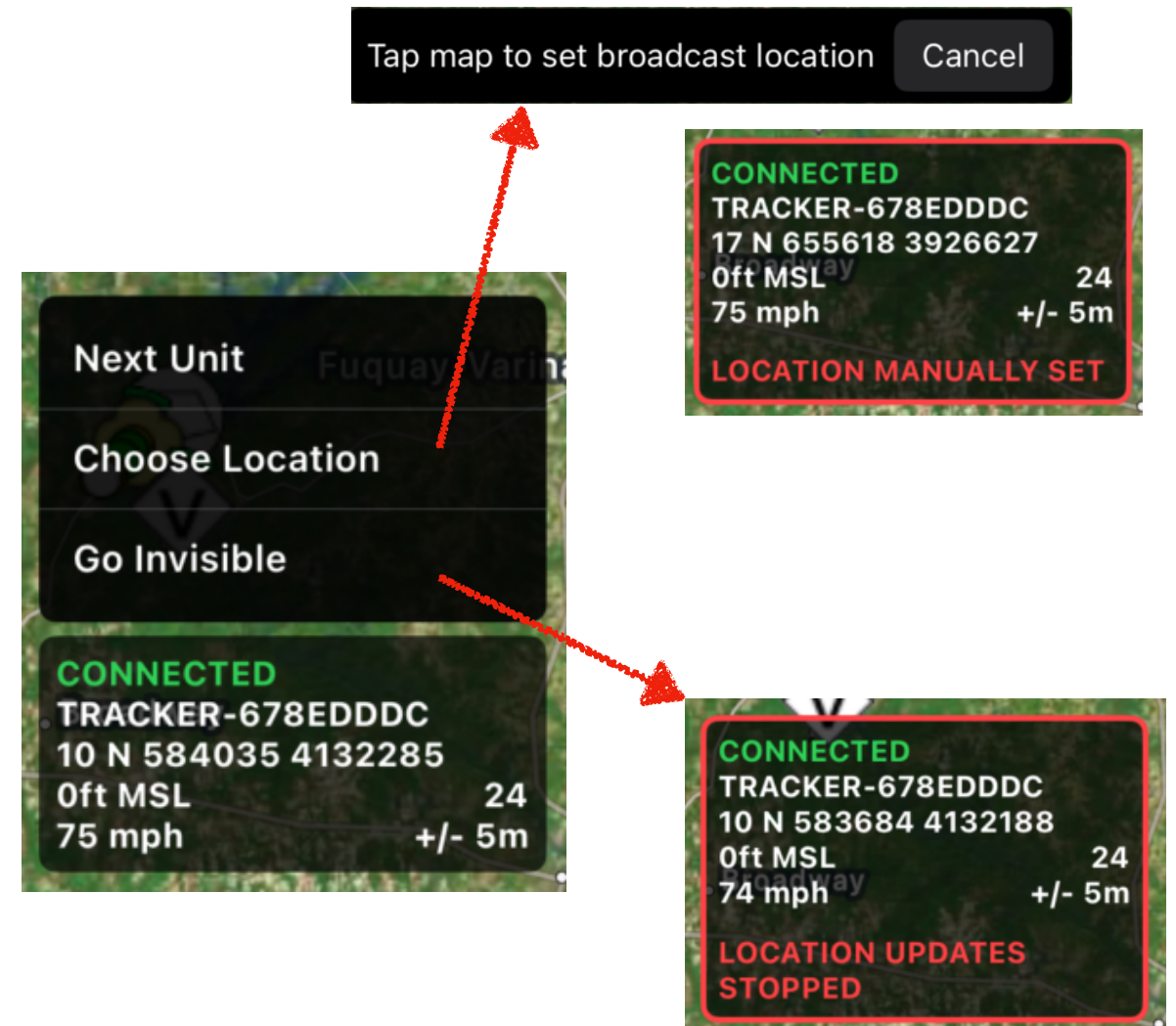
LOCATION ON THE MAP

Manual / Invisible Mode

Users can also choose to set a manual location or switch to invisible mode. To do so, tap on the user info box in the lower right hand side of the map. A menu will appear allowing users to select the next coordinate unit, choose a manual location, or go invisible.

Manual location will prompt the user to set a location on the map, and will include a persistent warning that location is manually set. Invisible will stop sending SA updates but will stay connected to the server. Emergency alerts broadcast from the device will use the user's GPS position.

Manual and Invisible modes are reset on app restart - this can be overridden by a toggle in Advanced Options



GOTO BUTTON

Entering coordinates / addresses

The GoTo button located on the main screen allows users to rapidly enter coordinates or address locations to either scroll the map or drop a point. Users access it by tapping on the globe icon which will open the coordinate entry screen.

From here users can choose the type of entry format for coordinates, as well as an Address entry screen which offers a geocoded lookup (using Apple's geocoding) for addresses or location names.

Once entered in a user can choose to either Go to the point or Drop Point which will place a marker at those coordinates with the name of the place or address as the callsign



Coordinate Entry UTM Clear

Zone	Easting	Northing
Zone	Easting	Northing

Cancel Go Drop Point

DMS

DDM

MGRS

Decimal

✓ UTM

Address

Coordinate Entry Address Clear

Enter Address: Dallas Con

Dallas Convention Center
650 S Griffin St, Dallas, TX 75202, United States

Dallas Contemporary
161 Glass St, Dallas, TX 75207, United States

Dallas, TX
United States

Cancel Go Drop Point



OVERLAYS

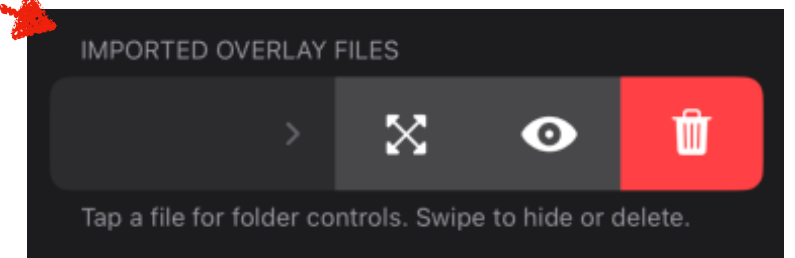
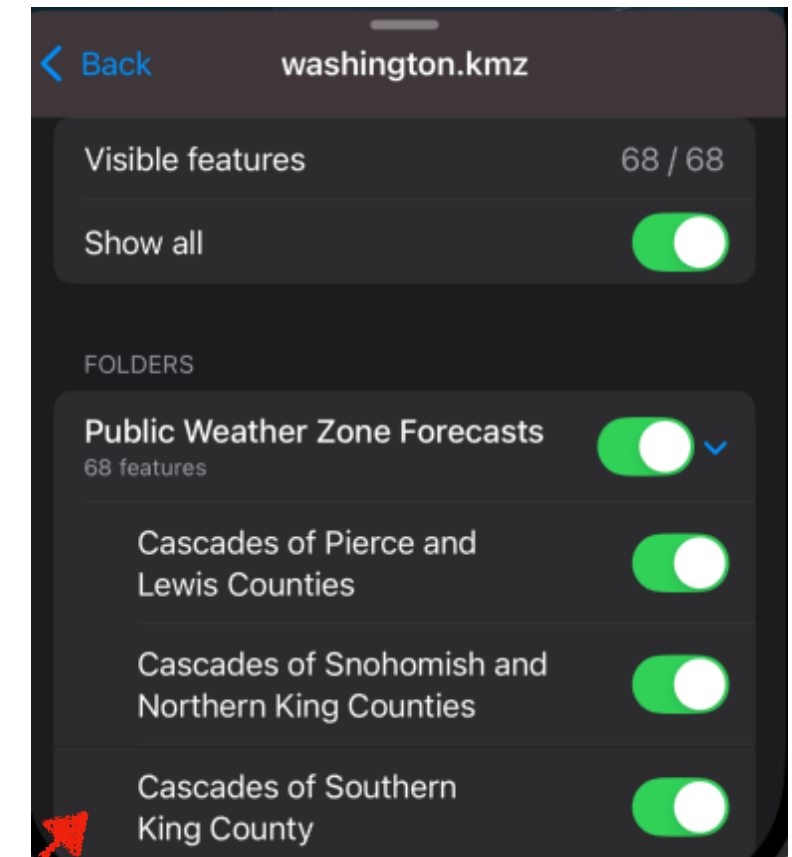
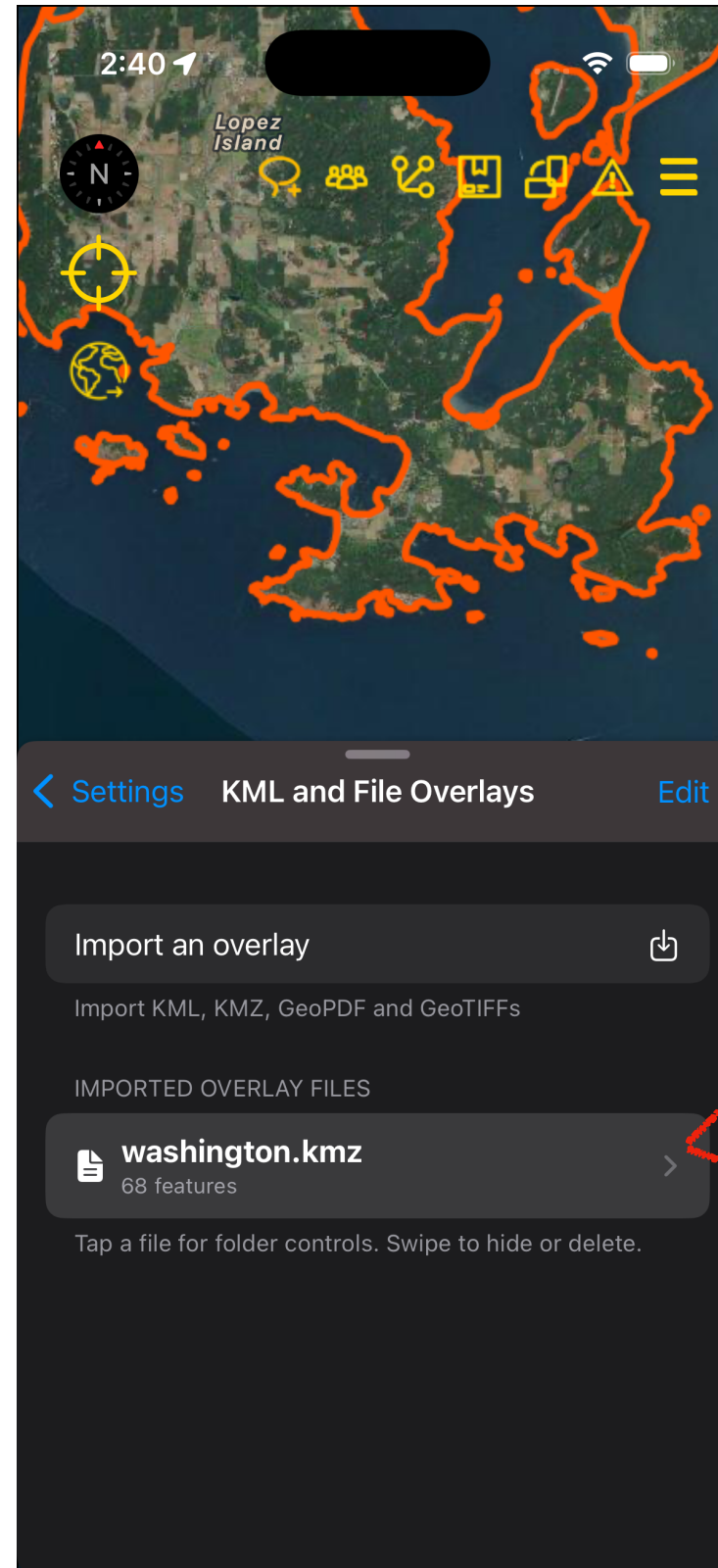
KML and File Overlays

TAK Aware currently supports overlays in KML/KMZ, Image Overlays and GeoTIFF/GeoPDF. These are all visible from the KML and File Overlays menu.

Users can import an overlay, as well as manage existing overlays. KML/KMZ files containing multiple features or folders can be further managed by turning layers on or off.

Overlays can be hidden or deleted by swiping on the individual item.

Note that very large KML/KMZ files of more than 1,000 features will have all features off by default when imported.



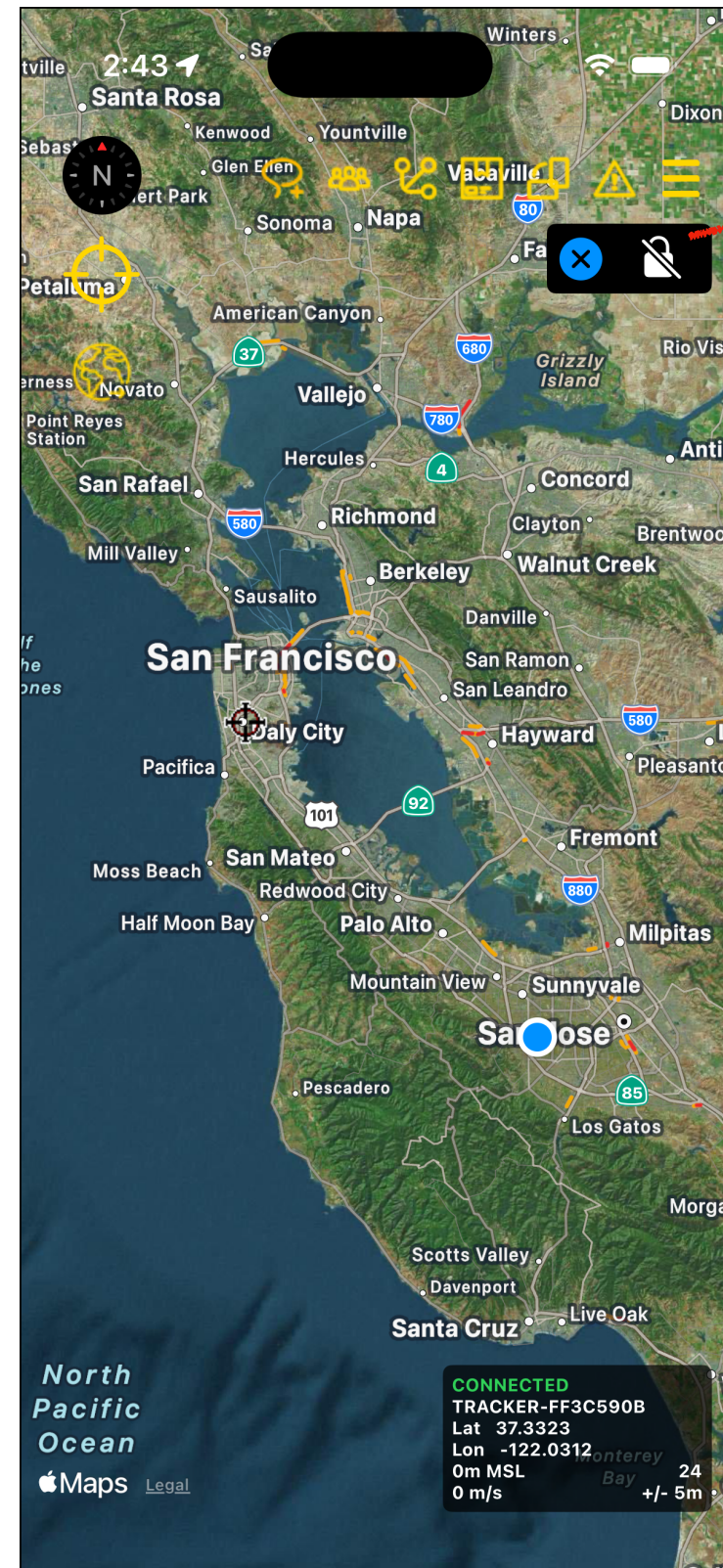
DIGITAL POINTERS

Creating Digital Pointers

Digital Pointers are a rapid way of allowing everyone to see a common point. First, tap on "Digital Pointers" in the menu. You will see an "unlock" marker in the upper right. When you tap on the map you will see a bullseye icon, while anyone connected to the TAK Server will see a line from you to the point you tapped. As you tap additional locations the marker and line will move for everyone.

You can tap the lock icon to temporarily lock the position so you can tap on other things on the map.

Once done, tap the "x" icon to clear the digital pointer for all users.

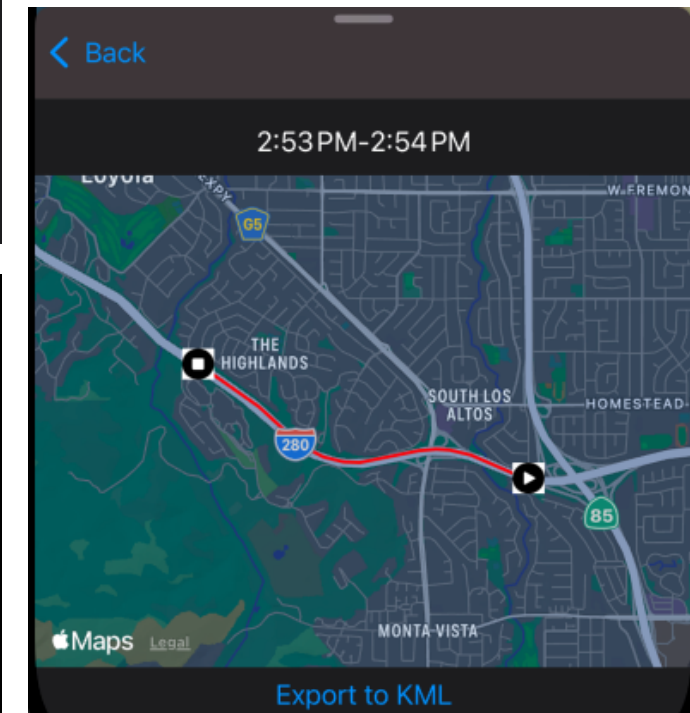
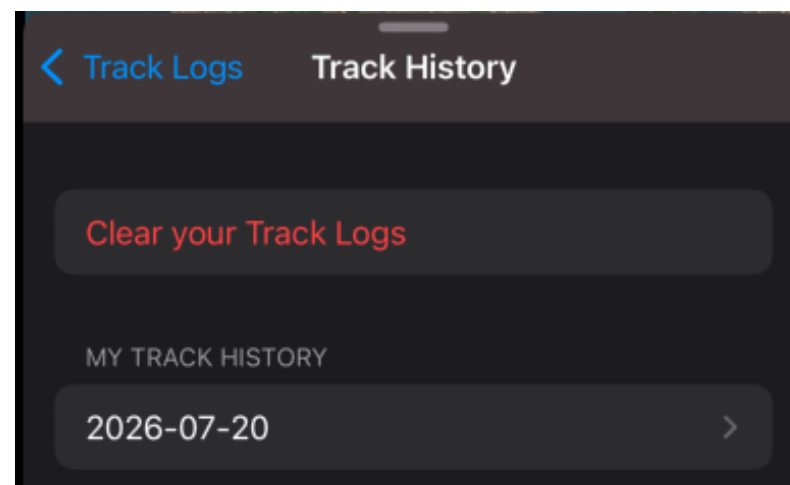
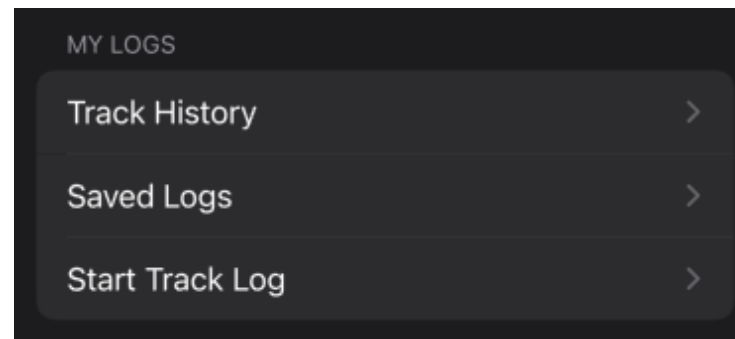
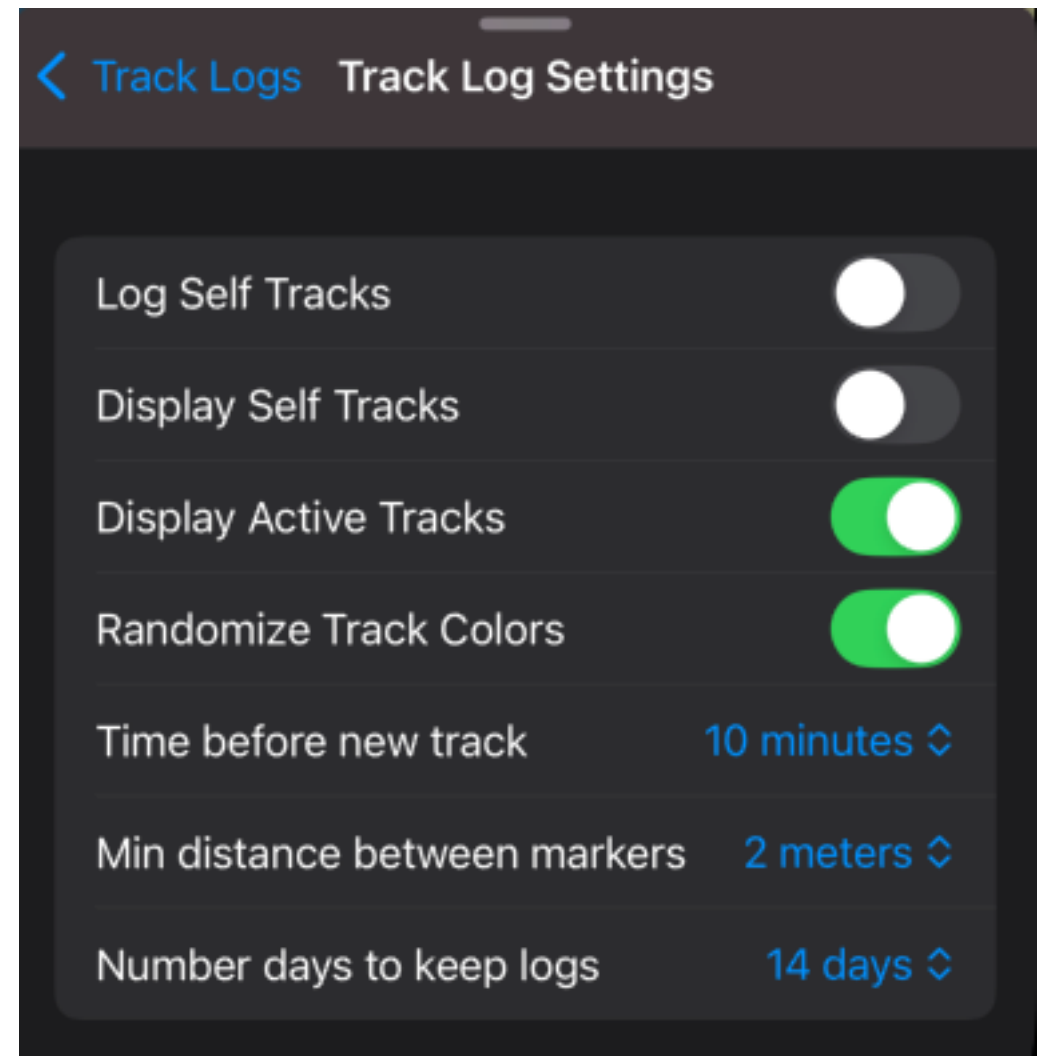


TRACK LOGS

User Track Logs

TAK Aware has the ability to show your track logs for the previous 14 days - however this functionality is off by default. To enable, go to "Track Logs" in the settings menu, tap the gear icon, and enable "Log Self Tracks". You can also choose the stale time before the manager considers something a new track, and distance to consider adding a new marker.

To view your logs, go into Track Logs, Track History and drill down to the date you want. You can then click on a time period to see the route, and optionally export to KML. If you need to combine tracks, consider increasing the "time before new tracks" and then trying again.

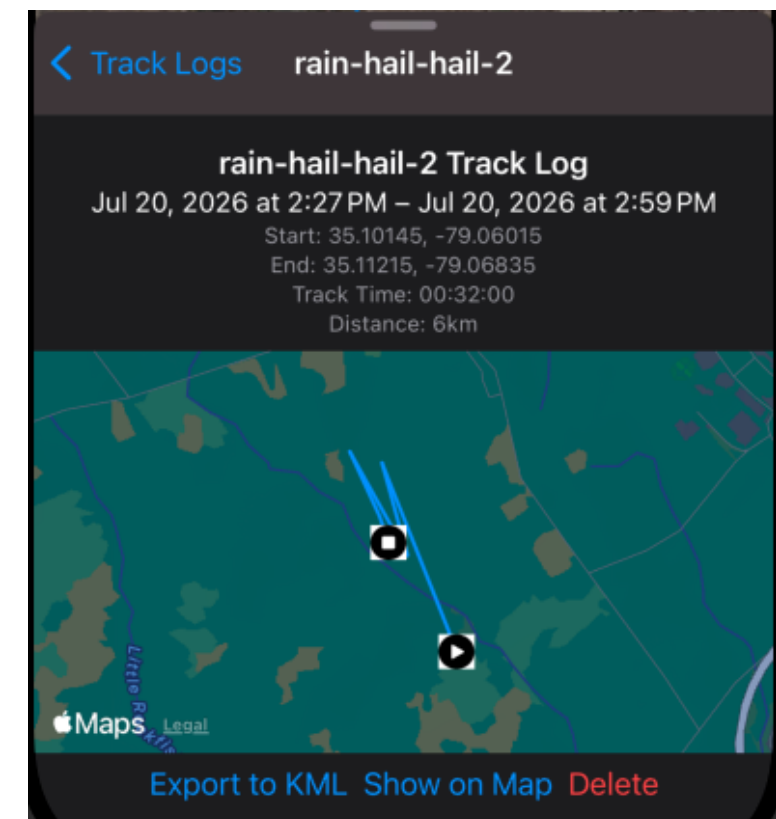
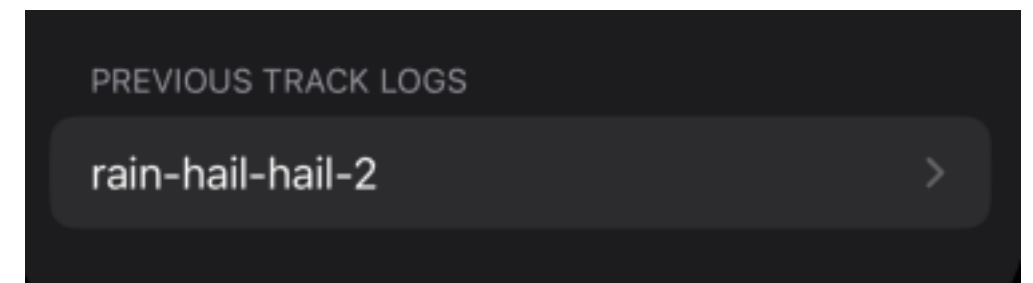
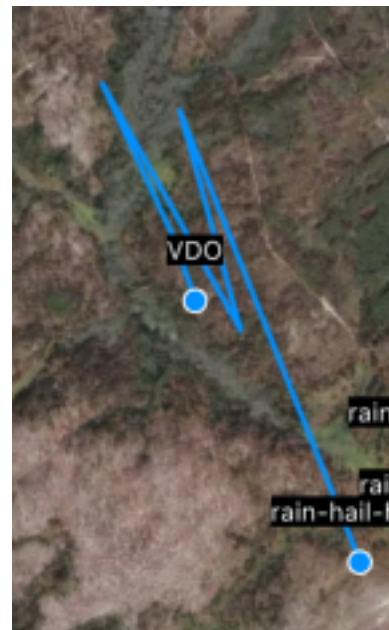
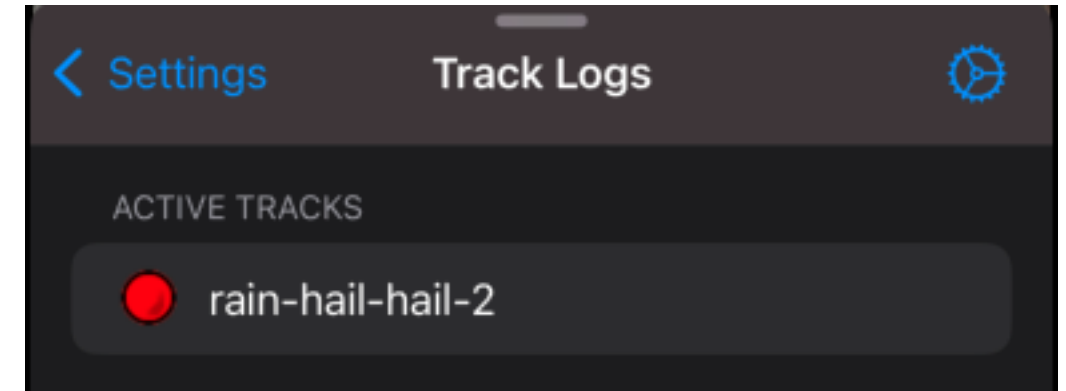


TRACK LOGS

Marker Track Logs

To track an individual marker, tap on the marker and select the "track icon". This will begin dropping breadcrumbs for the marker each time it moves and will also be visible in the "Active Tracks" section. Multiple markers can be tracked at one time.

When finished (or if the marker disappears from the map) the track line will turn into a route as well as be available in "Previous Track Logs" where you can view statistics about the route.

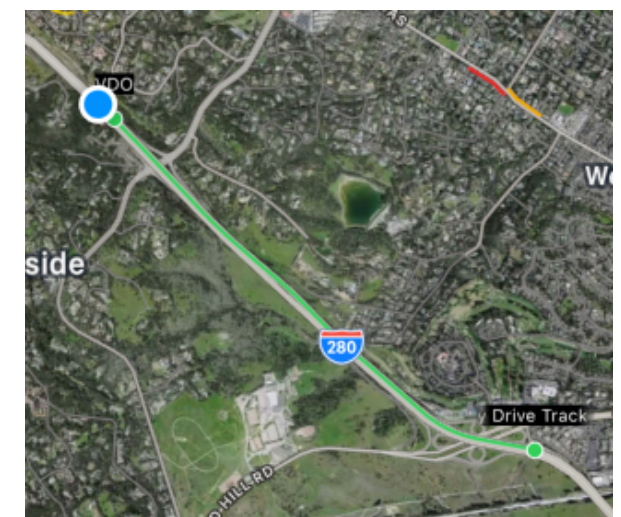
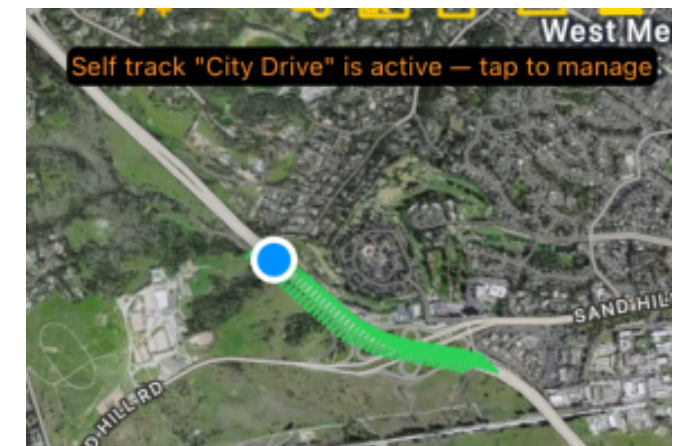
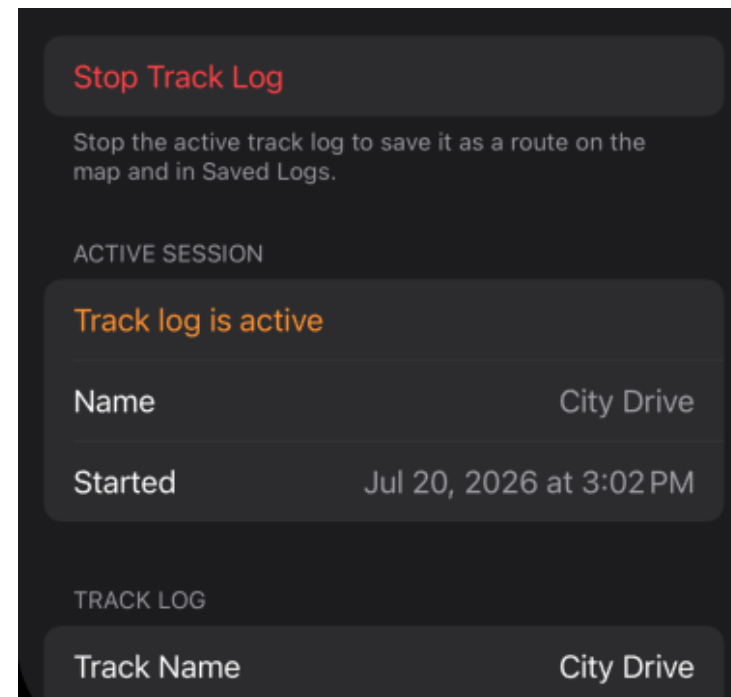
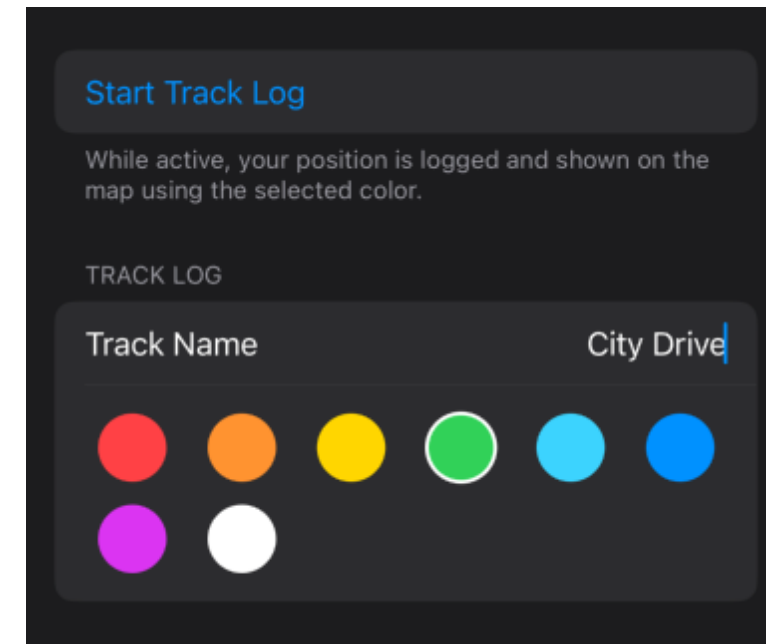
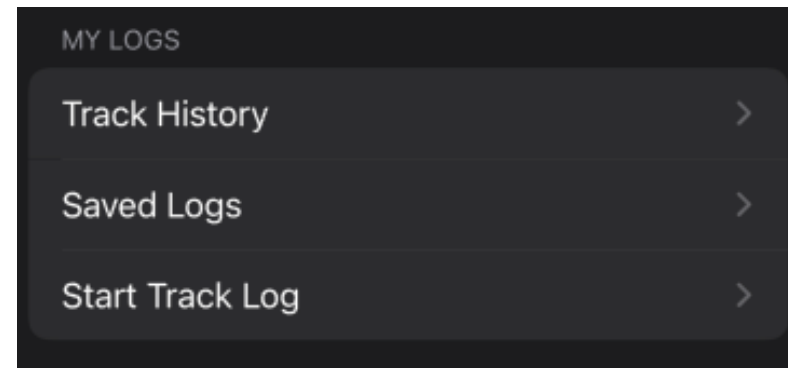


TRACK LOGS

Custom Track Logs

Like Markers, you can create an explicit route for yourself. To do this, go into Track Logs -> Start Track Log. You can choose a name and route color, then click "Start Track Log". Breadcrumbs will be dropped for each location recorded, and a warning will be present in the upper right.

To complete, either go back to track logs or tap on the self track warning message, then click "Stop Track Log". This will turn the path into a route and display it in your Saved Logs section.

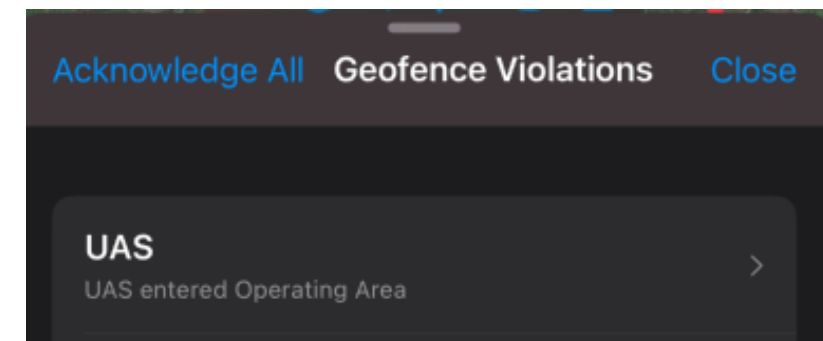
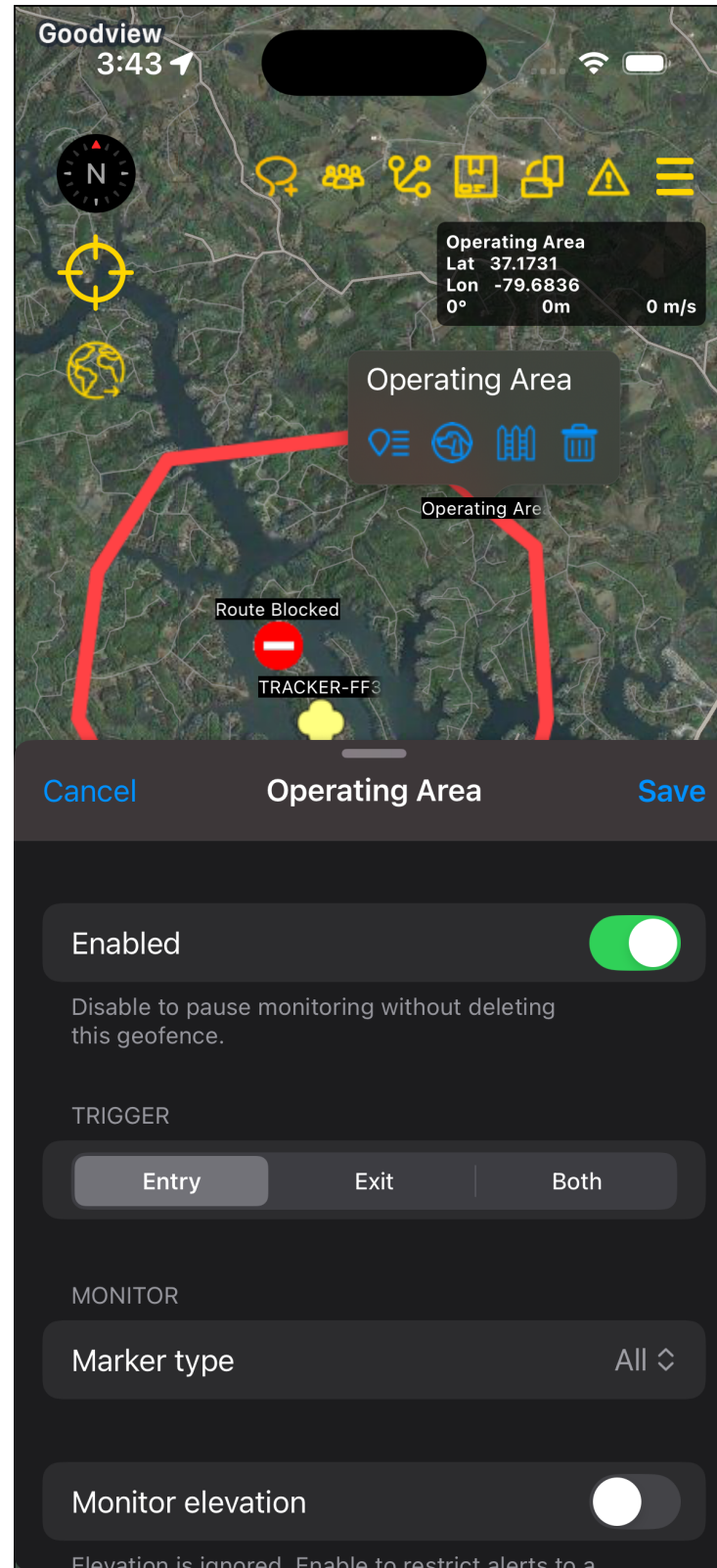


GEOFENCES

Managing Geofences

Once a user has created a shape, they can turn it into a geofence by tapping on the fence icon for the shape. This will bring up the Geofence menu, allowing users to set the type of monitoring (entry / exit / all) and the marker types, as well as optionally setting an elevation filter.

When the geofence conditions are met the user will be sent an alert as well as a warning box in the lower right. Tapping on this box will bring up the geofence breaches. They can then clear the alert by tapping "Acknowledge All"

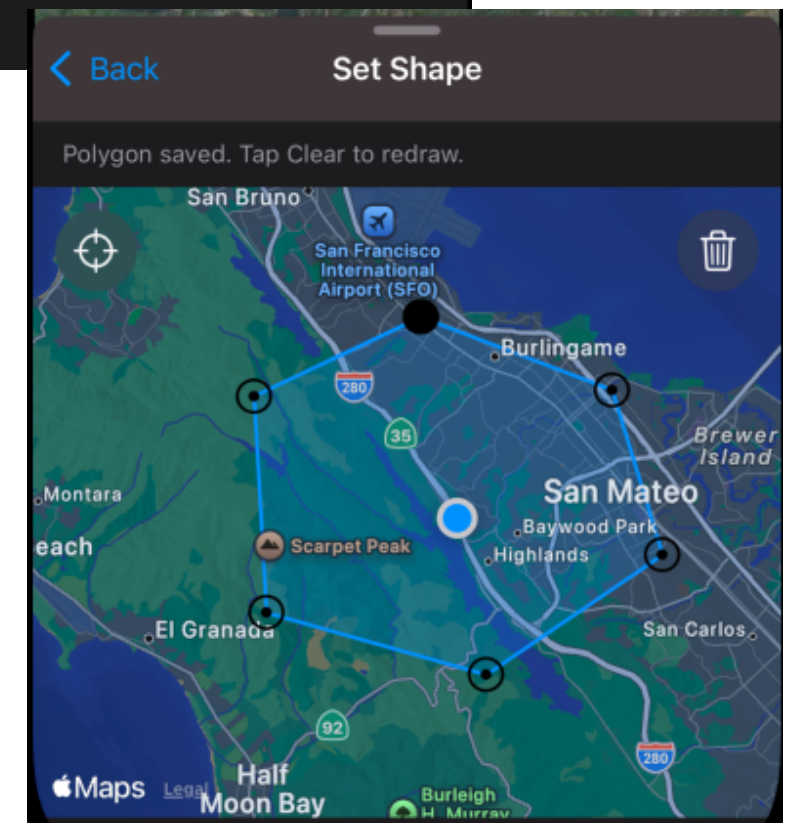
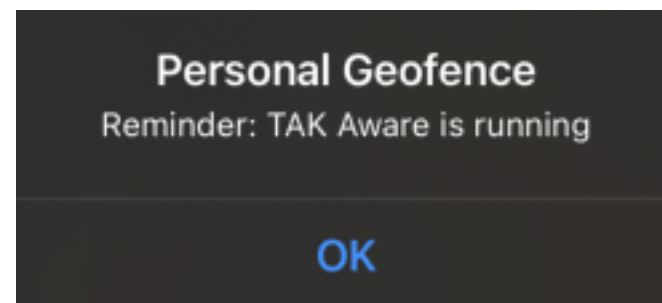
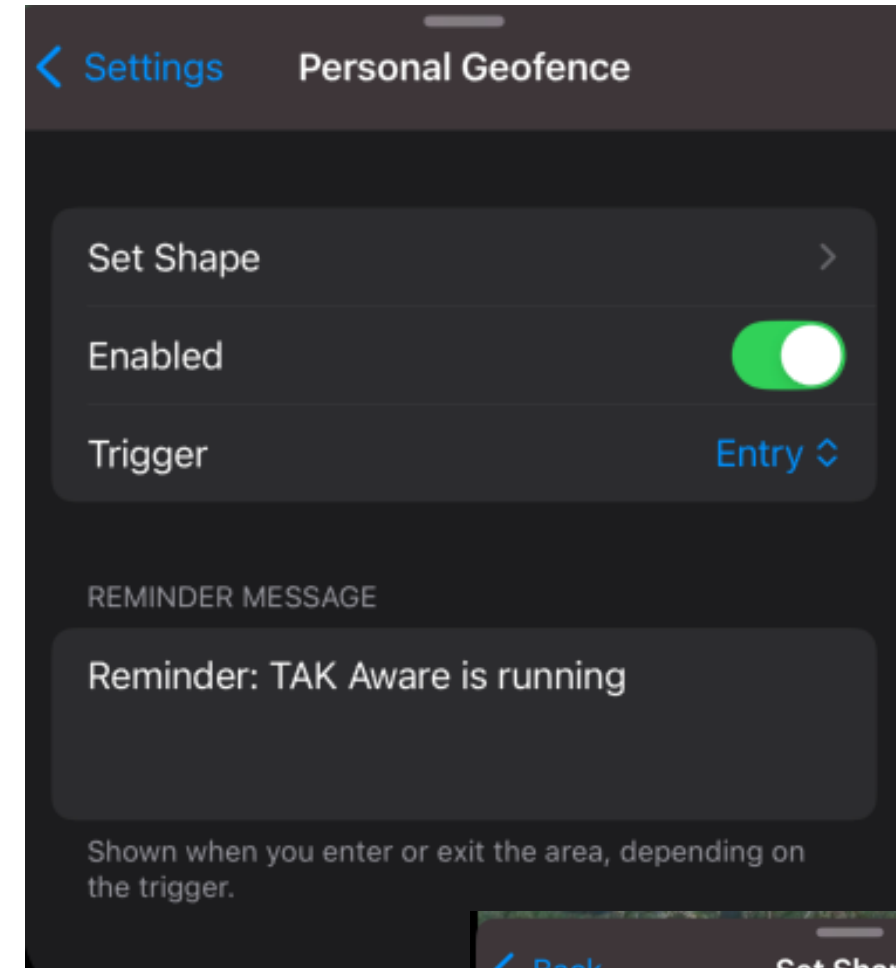


PERSONAL GEOFENCES

Setting Custom Alerts

It can be easy to forget that TAK Aware is running, so we provide a mechanism to warn you when it is. This is done through the “Personal Geofence” menu option. You enter in a shape and a reminder message, and choose to be alerted when you either enter or exit this area.

When you do it will pop up your alert message as a reminder to turn off the app. This is not available as an option to turn on the app currently.

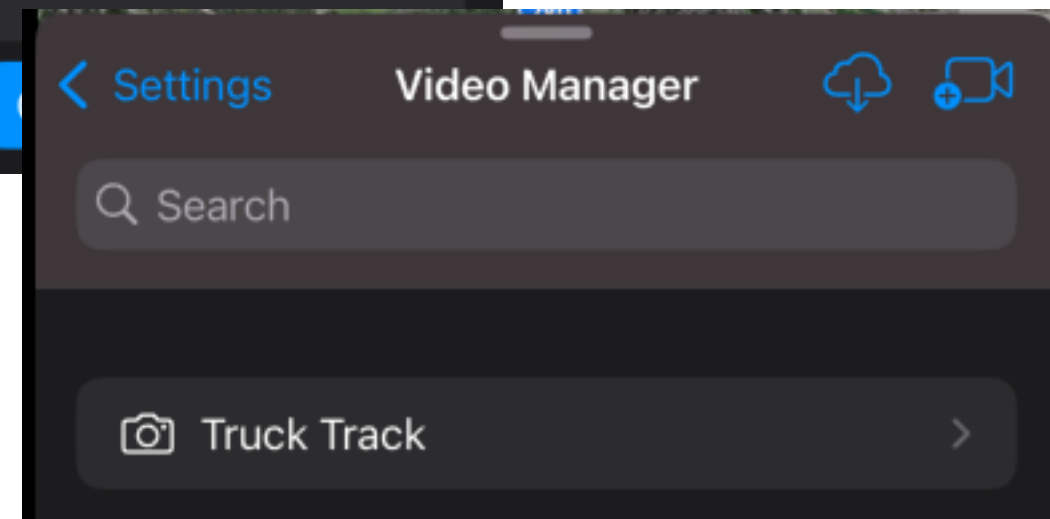
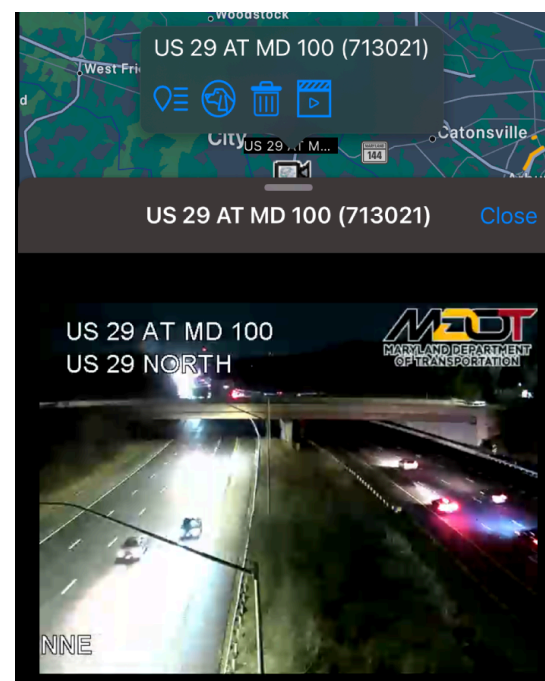
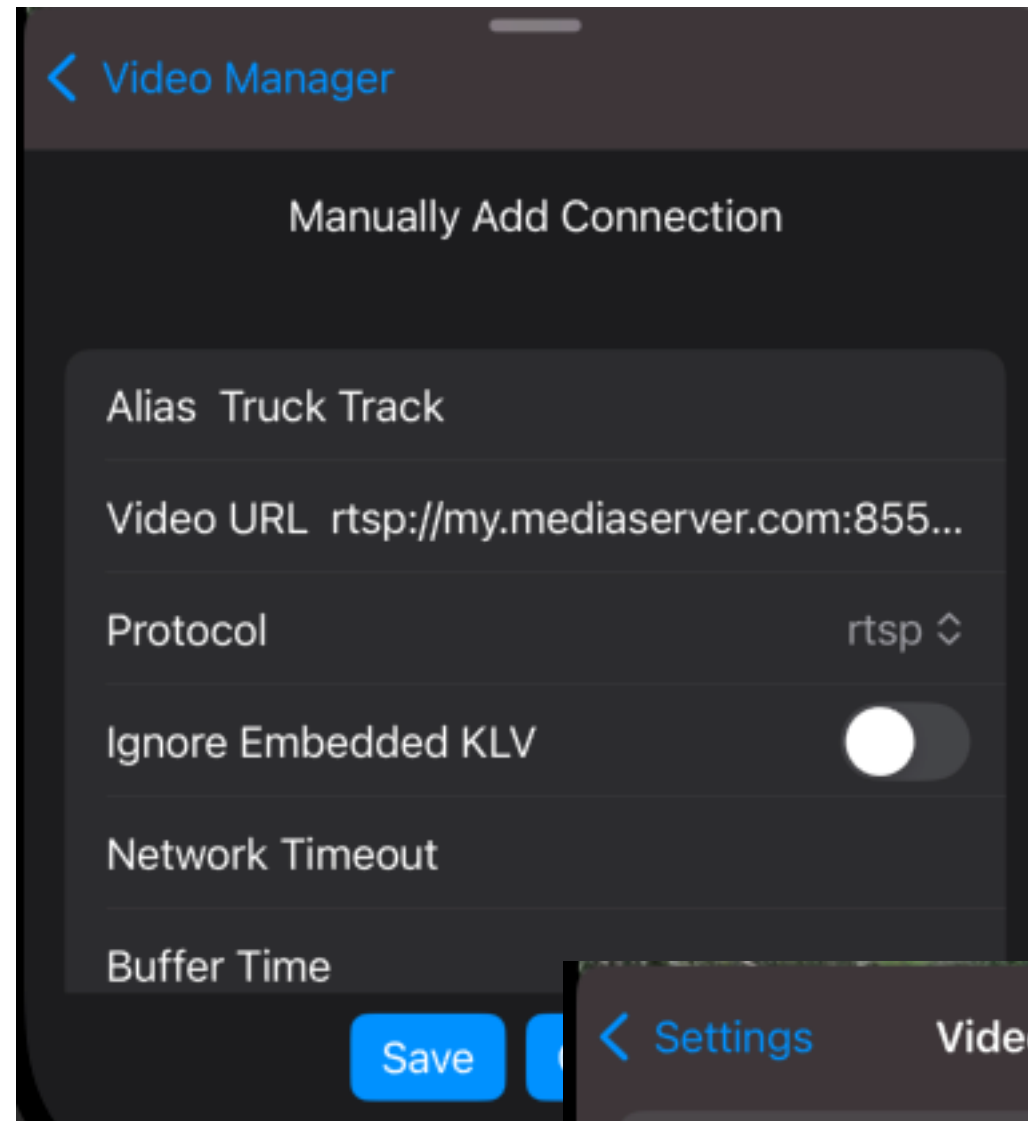


VIDEO MANAGER

Managing Video Feeds

TAK Aware will automatically add any video feeds that have been processed by it to the video manager list. In addition, users can download feeds from a TAK Server or manually enter feeds.

Tapping on a feed will display the video for that feed. Note that not every protocol is supported by TAK Aware / iOS.

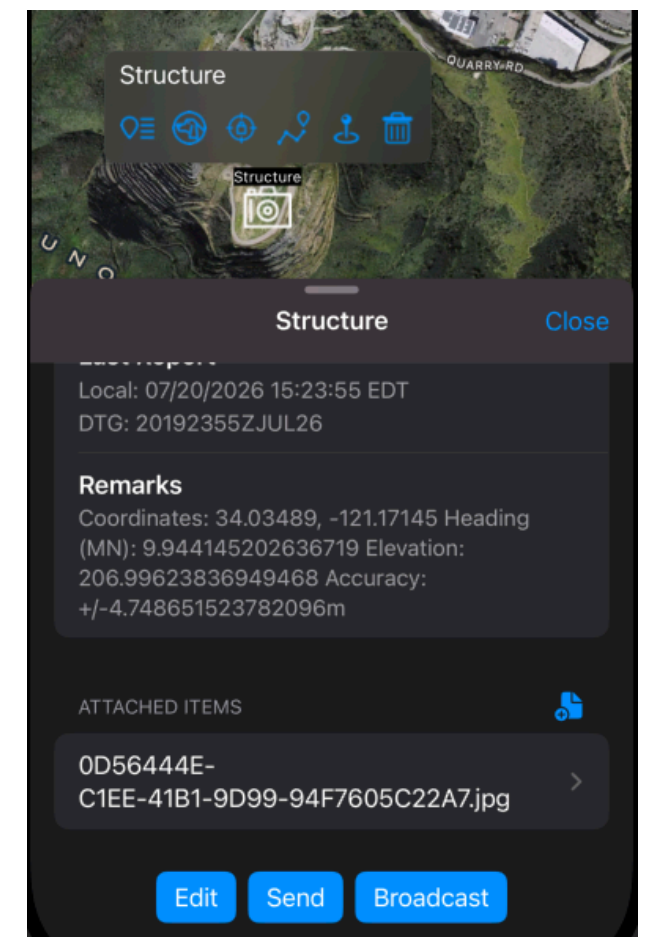


QUICK PIC

Creating a Quick Pic

Upon tapping the "Quick Pic" menu option - and if camera access has been enabled - the app will open the camera with an embedded location, heading and altitude display.

Upon taking a picture, the photo will be georeferenced on the map at the location it was taken, with the picture attached and all metadata captured in the remarks section. The heading and azimuth will be transmitted and will appear as an FOV on the marker.



INTEGRATIONS

Managing Integrations

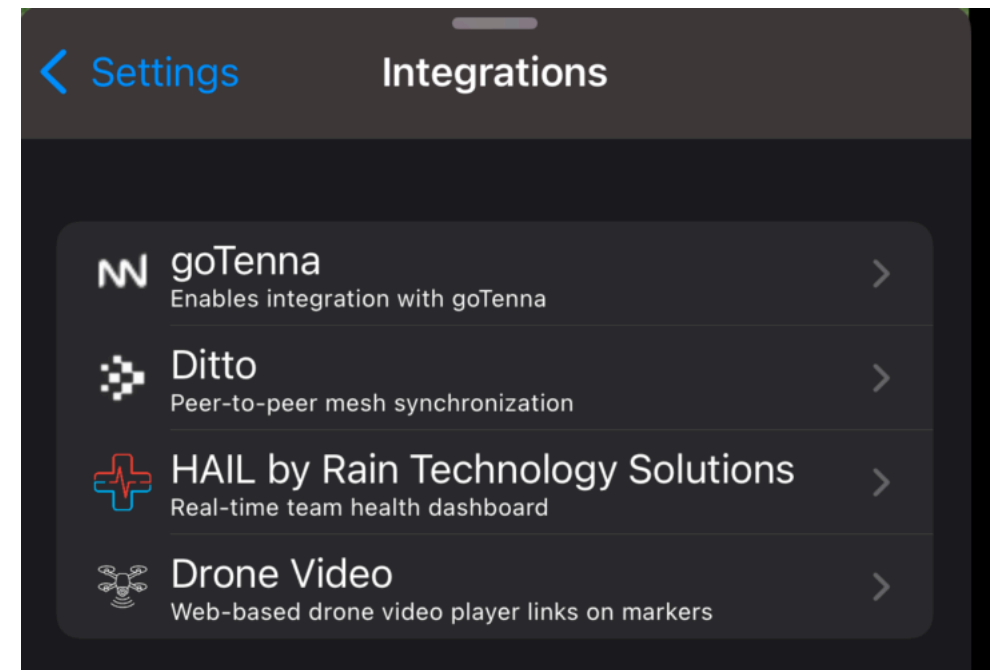
TAK Aware supports several integrations out of the box, including goTenna, Ditto, HAIL by Rain Technologies, and a custom Drone Video plugin for displaying DroneSense magic video links as video feeds. These can be managed in the Integrations menu. Additional integrations are planned.

Note:

For goTenna integration, you will need to go into phone settings -> Apps -> TAK Aware and toggle on "Enable Experimental Radio Support".

For Ditto integration, you will need to go to phone settings -> Apps -> TAK Aware and toggle on Ditto.

HAIL and Drone Video require server configuration to be supported.

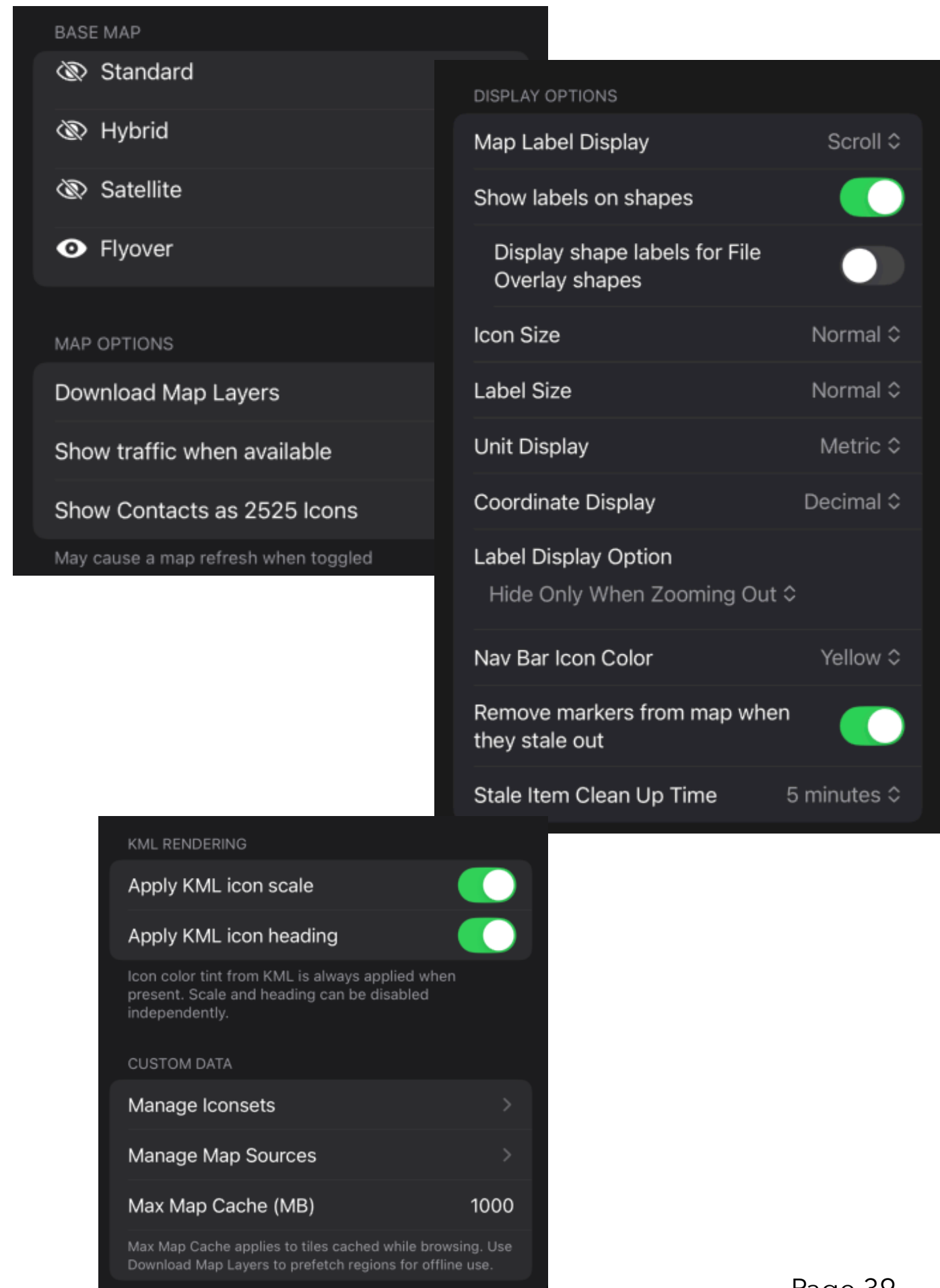


SETTINGS

Display Settings

Display Settings allow users to change the map type, download map layers, update the display size of labels and icons and manage custom icon sets and map sources. Of note:

- Base Map changes the map type used by the system. Custom map types will be displayed here and are automatically cached as users use them.
- Download Map Layers allows users to precache areas of the map while they have internet access
- Map Label Display allows users to decide whether they want labels to scroll, be truncated, or show all text.



SETTINGS

Advanced Options

Advanced Options allows users to tweak additional parameters, including the reporting strategy for location, whether they want to receive notifications, and other preferences.

In addition, this is where the debug log file can be toggled when requested by support.

LOCATION REPORTING

Reporting Strategy

Dynamic ↕

Min Broadcast Interval (sec)

30

Max Broadcast Interval (sec)

2

Dynamic reporting adjusts the reporting time based on the speed of the device. Static reports at a constant rate.

NOTIFICATIONS

Enable Notifications

☒

Hide Notifications while app is active

☒

Configure display of alert notification pop-ups for emergencies, geofence breaches and other notifications

CONFIGURATION

Stale Time (mins)

5

User COT Type

a-f-G-U-C

Max File Size Upload (MB)

100

Prevent Screen from Shutting Off

☒

Show Directional Arrow for Self

☐

Open Marker Links Externally

☐

Mesh Broadcast Enabled

☒

Auto Accept Mission Invites

☒

Open Marker Links Externally sends links from marker detail views to Safari instead of the in-app browser.

DEBUG OPTIONS

Clear All Markers

Unsubscribe from all DataSync Missions

Write Debug Log File

☐



SUPPORT

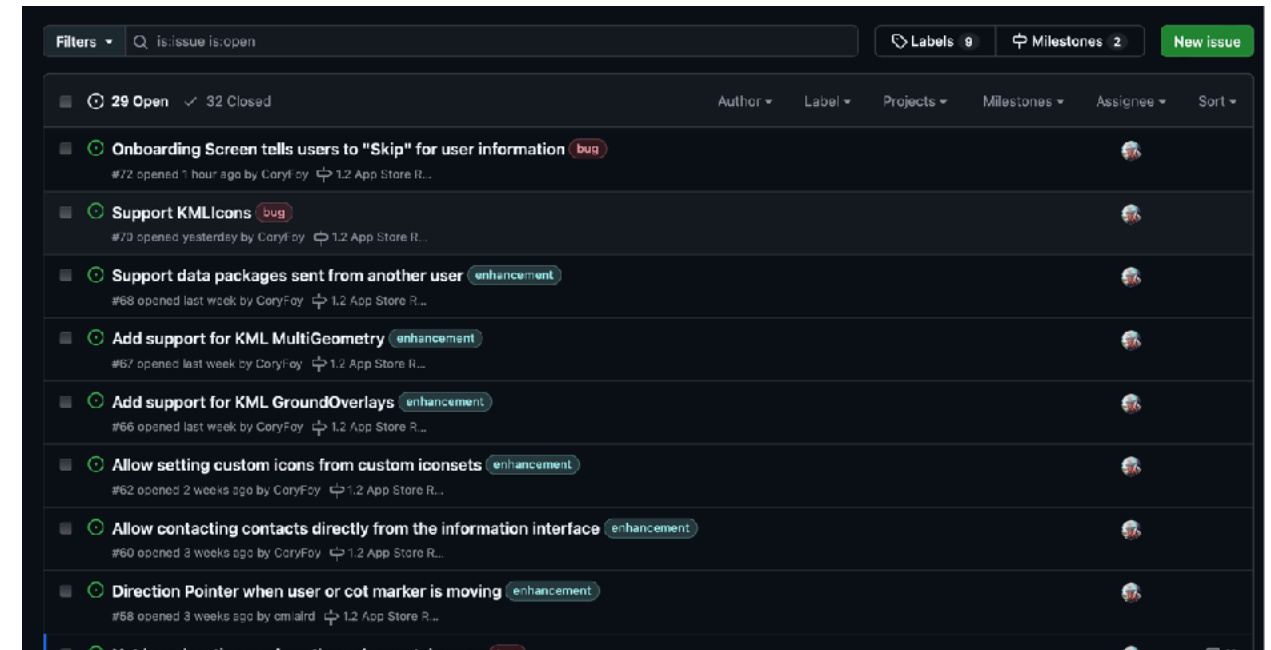
TAK Aware support is provided on a best-effort basis for agencies or individuals using the software without a support contract. Issues can be entered at GitHub issues

<https://github.com/flighttactics/TAKAware/issues>

or you can reach out to support@flighttactics.com.

For more information, please visit

<https://flighttactics.com/takaware>



SUPPORT

For specific issues, the app provides a mechanism for capturing a debug log file. Users can go to Advanced Options in the main menu and scroll down to the Debug Options. They can then toggle on “Write Debug Log File”. Note that while this is active a debug message will be displayed on the user interface. You can further turn on CoT debugging once the debug log file toggle is activated.

To view the debug log file, click on the “View” button. Optionally you can share this file with support and development teams to troubleshoot specific issues. It is not recommended to keep this log running, and to delete it once complete.

Support questions can be sent to support@flighttactics.com

