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Pairing the Asteri GNSS receiver to Diamond Maps Offline on iOS



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Recommended Reading

- Pairing the Asteri

Pairing the Asteri GNSS receiver to Diamond Maps Offline on iOS

Device and Software versions used:

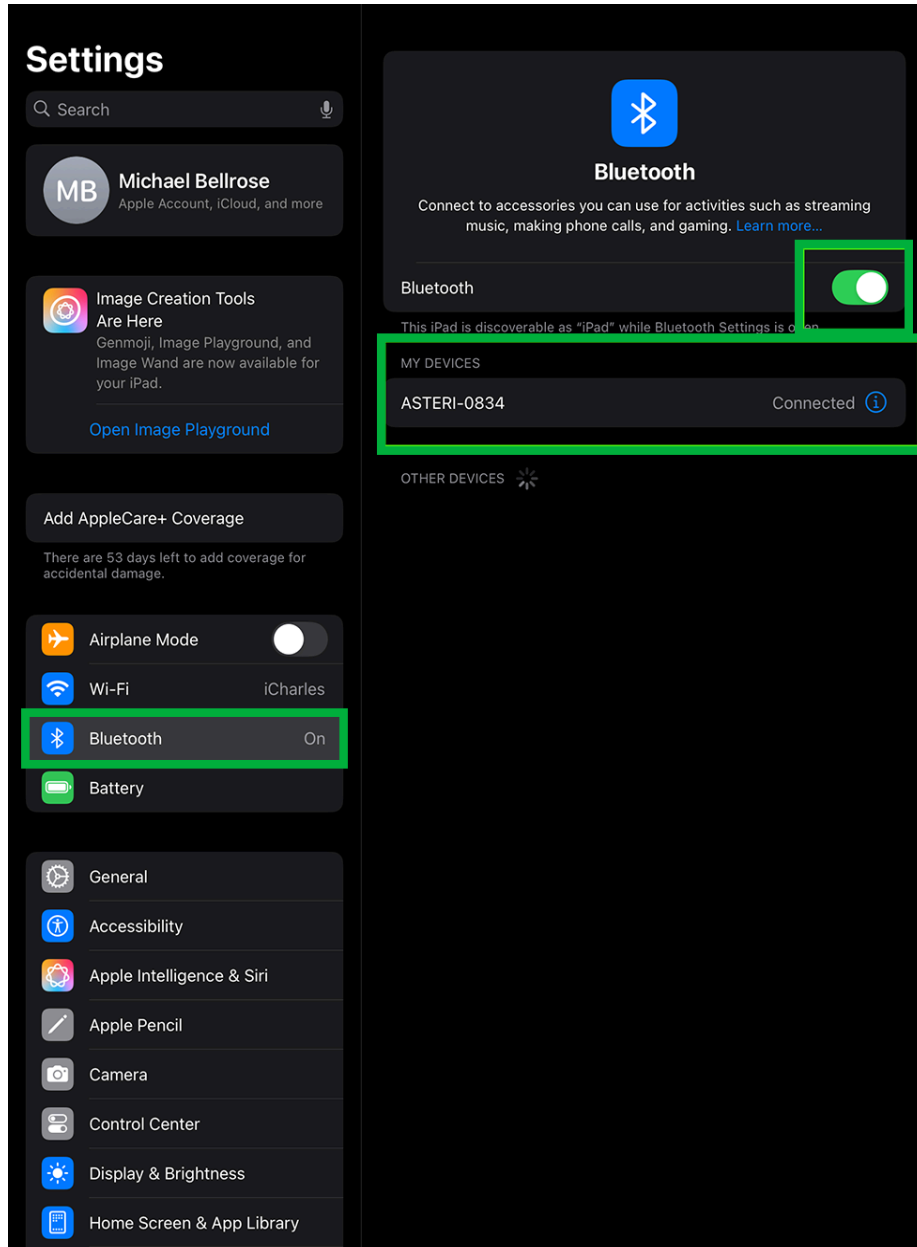
- Asteri X4i GNSS Receiver
- iPad Pro
- iOS version 18.3.2
- Diamond Maps Offline version 25.5.133

Asteri Navigation is proud to integrate with Diamond Maps, an app that is used by thousands of communities across the United States and Canada.

[Diamond Maps](#) allows for Maintenance Tracking, Editing, Data Management, Customization, and live Reporting. Follow this guide to seamlessly pair your Asteri Xi-Series GNSS receiver with Diamond Maps for unparalleled precision in data collection.

Initial Pairing to the iOS device

1. Turn on the Asteri receiver and place in clear view of the sky before you begin pairing to your iOS device.
2. On your iOS device go into the **MAIN SETTINGS** and ensure Bluetooth is **ON**.
3. Look for "**ASTERI-(last 4 digits of the serial number)**" in the list of Available Devices, and select it to connect.
4. It should now say "**CONNECTED**" next to the receiver name.

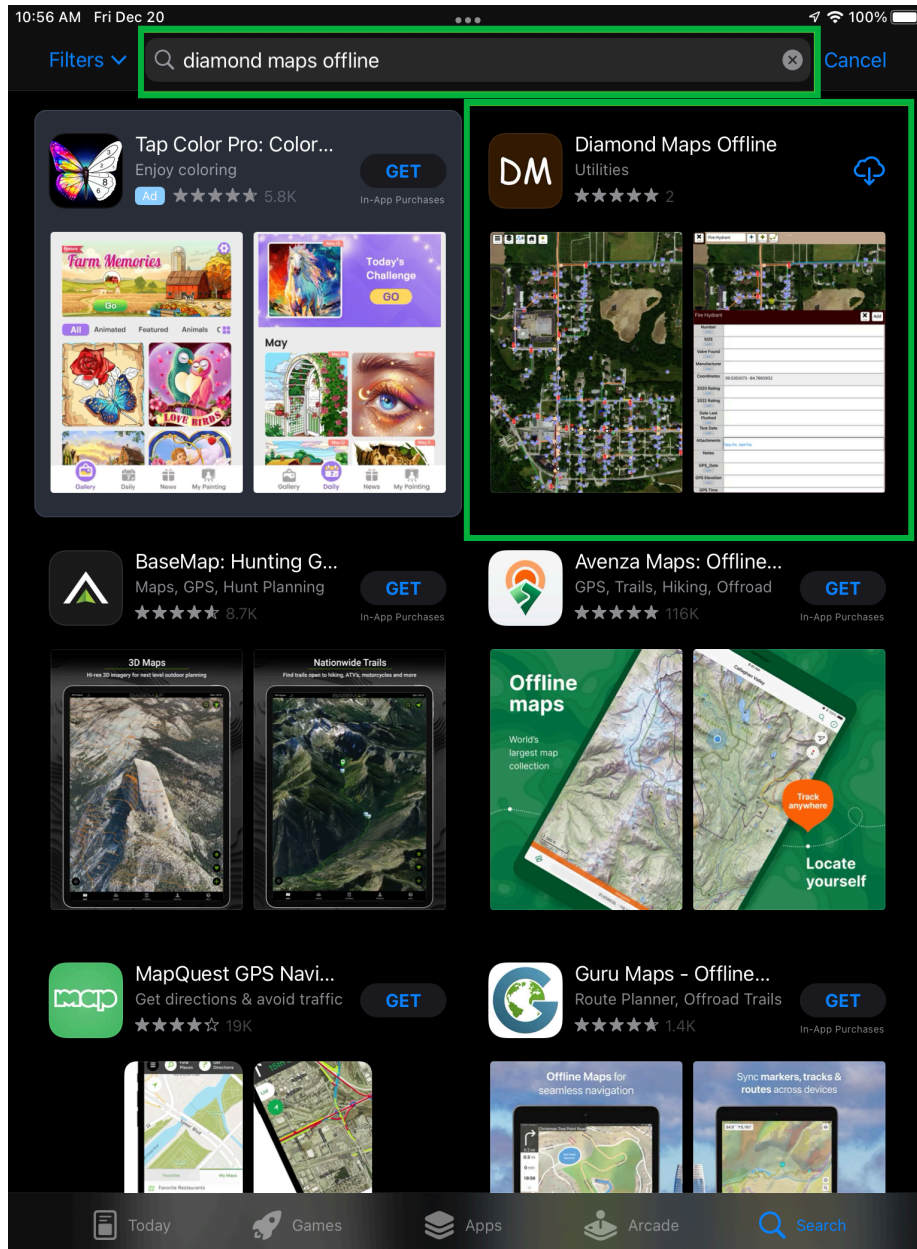


General Settings menu on an iOS device showing Bluetooth is on and the Asteri device is connected.

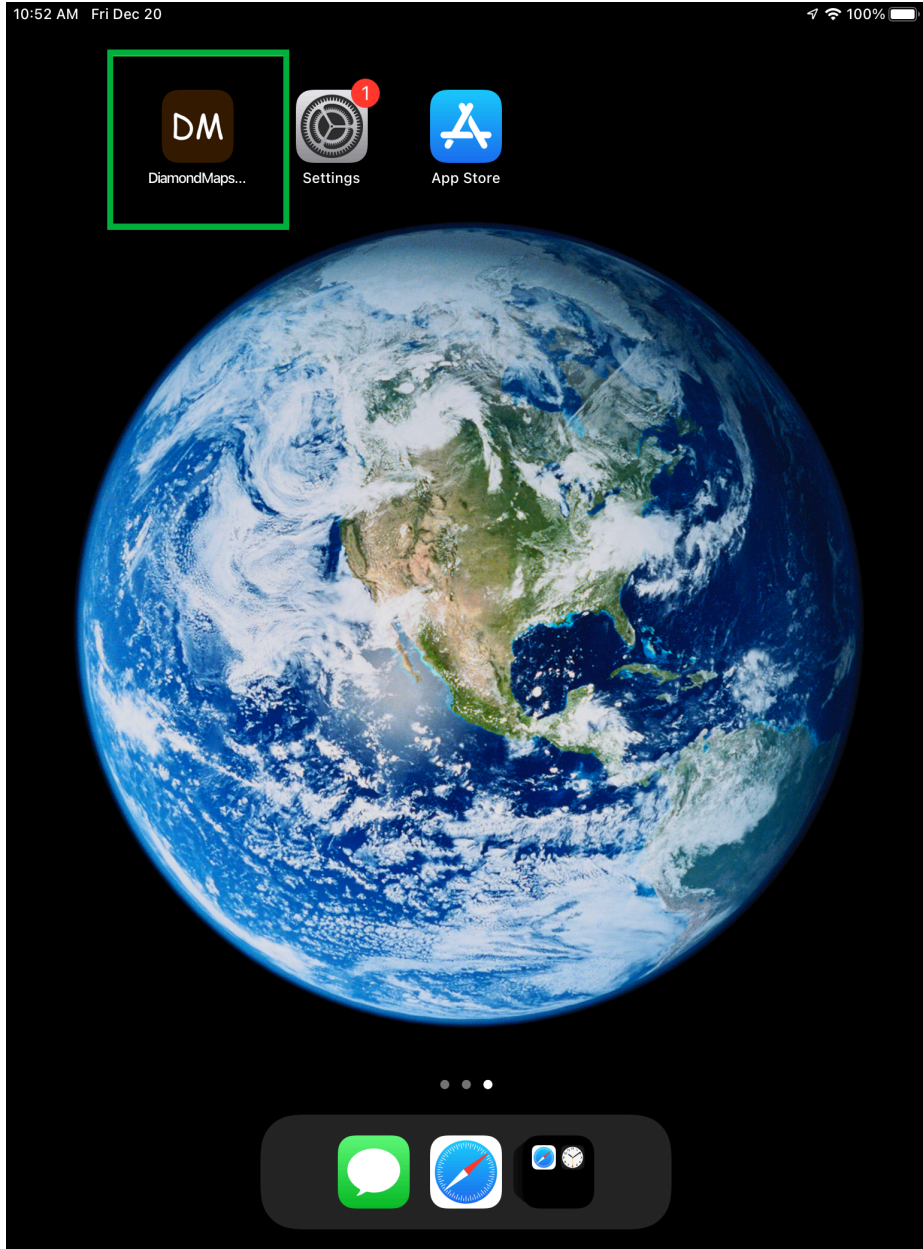
Downloading and Activating Diamond Maps

1. Launch the app store on your iOS device and search for Diamond Maps Offline.
2. Open the app and log in using your Username and Password that was given to you by DiamondMaps.
3. Once logged in, click on Download New Map to download one of your maps to your phone/tablet for offline use.

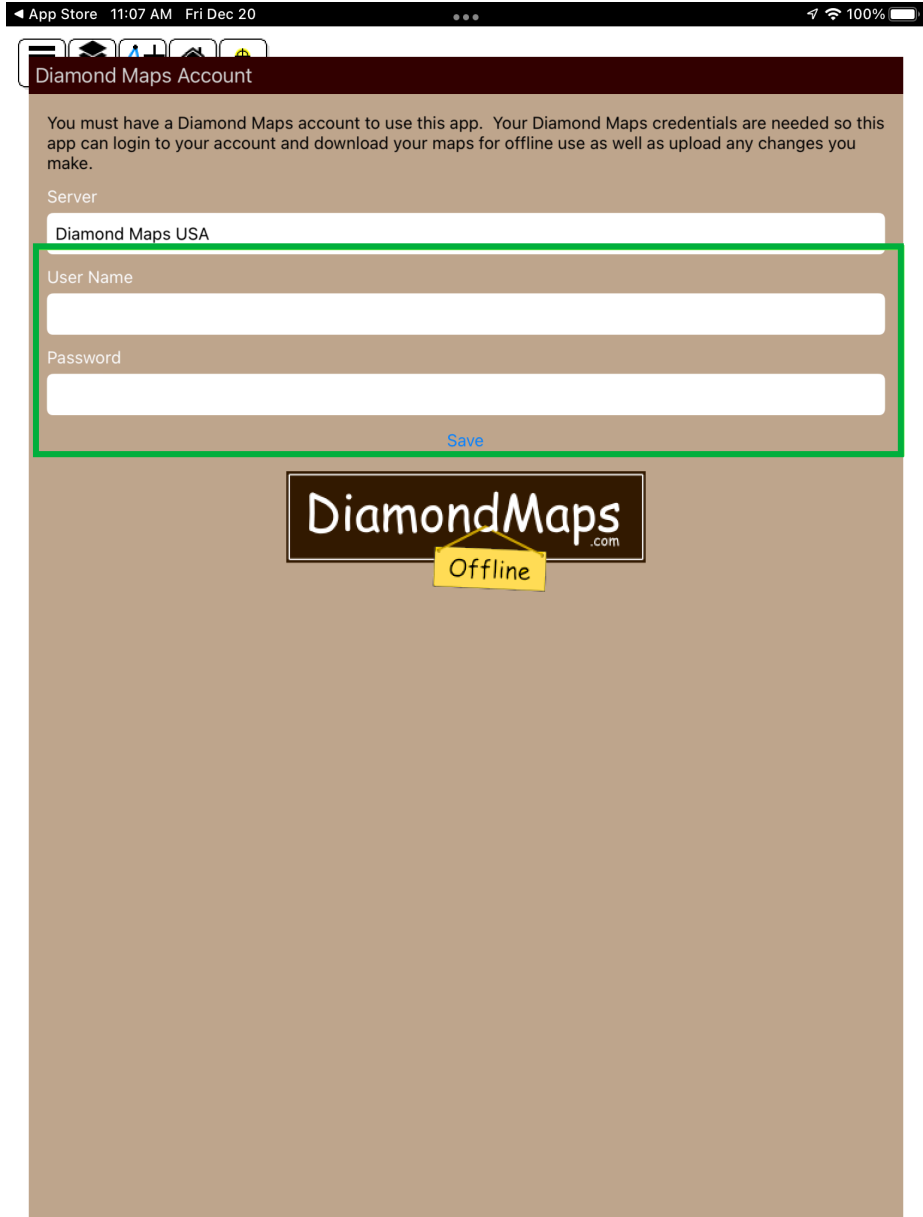
4. Then click on the map name to open the map within the app.



Diamond Maps Offline app on the iOS app store

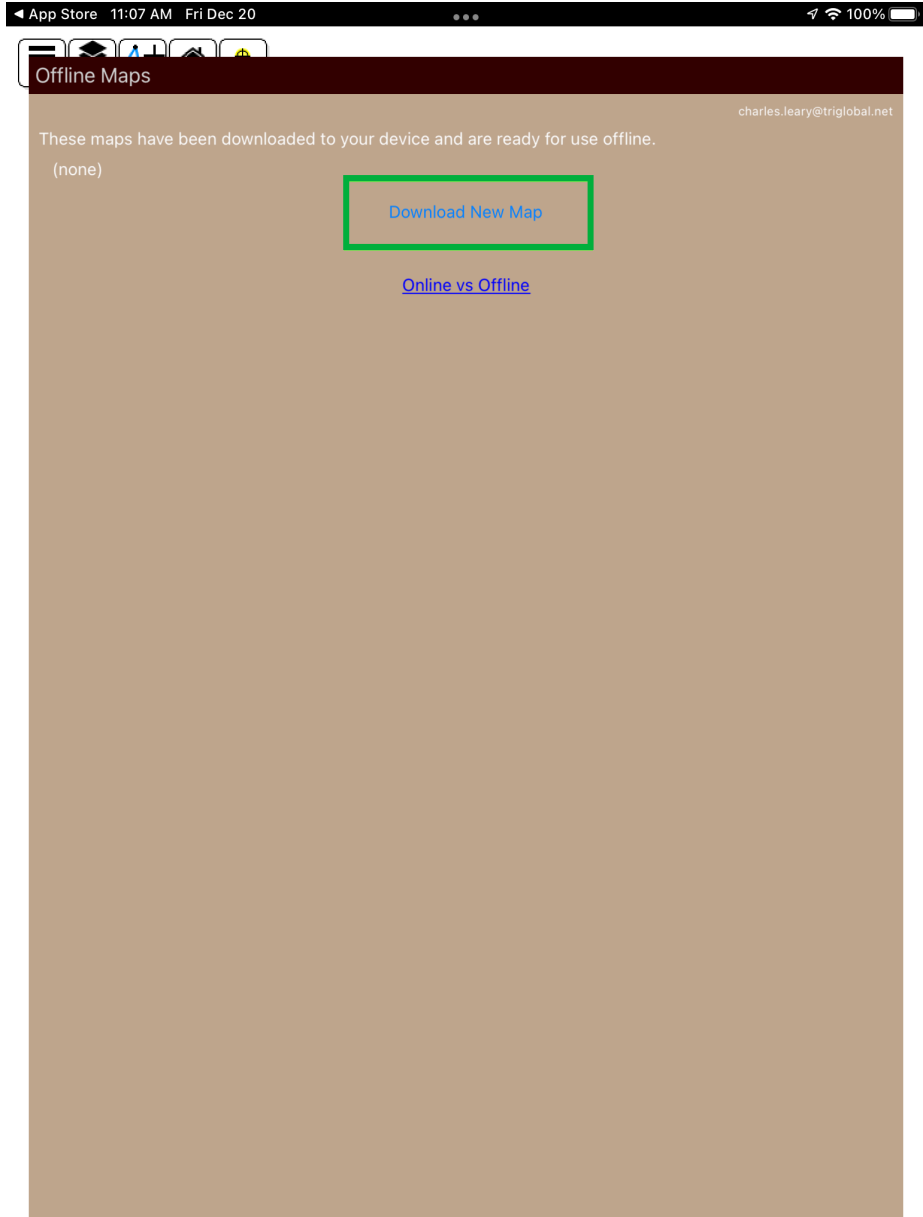


Diamond Maps Offline app installed on iOS

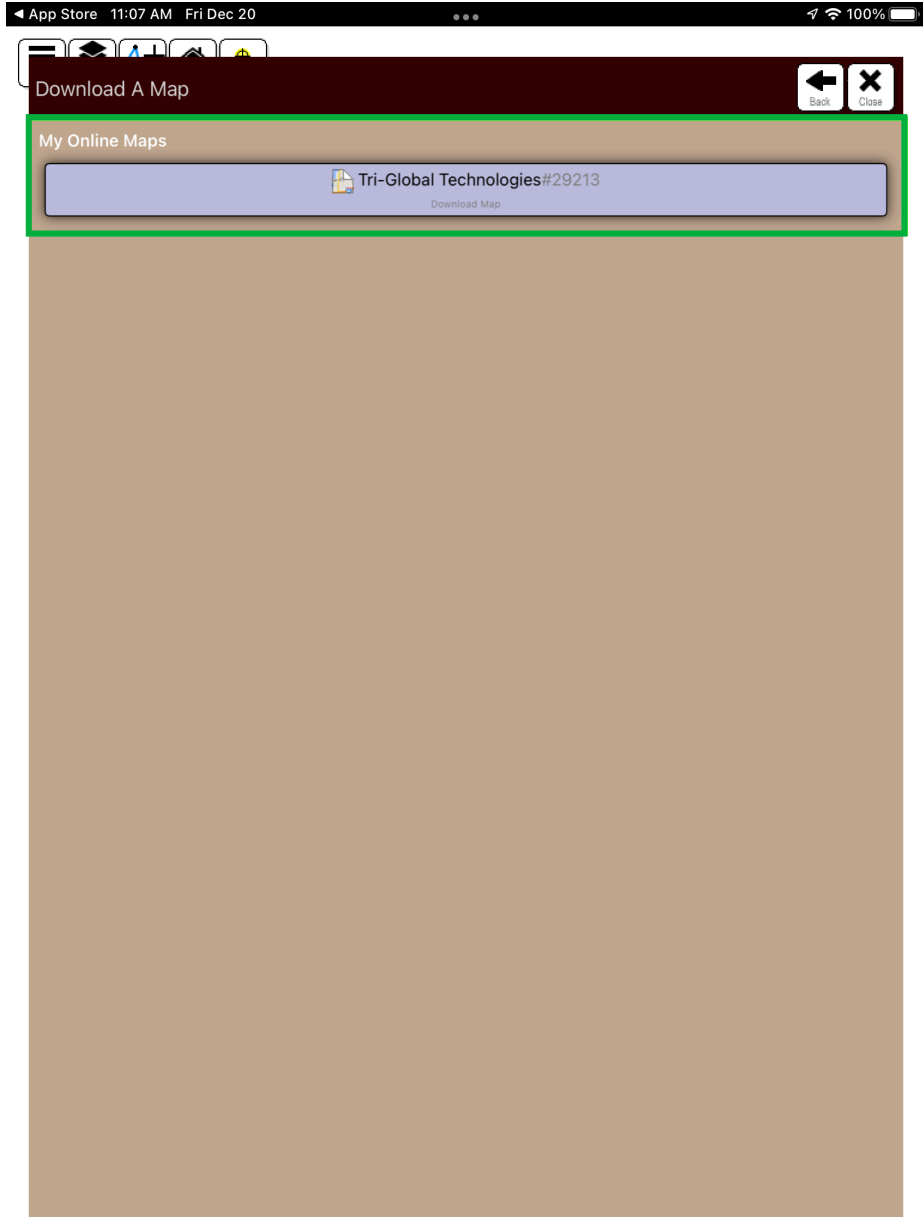


+/- 0.50m

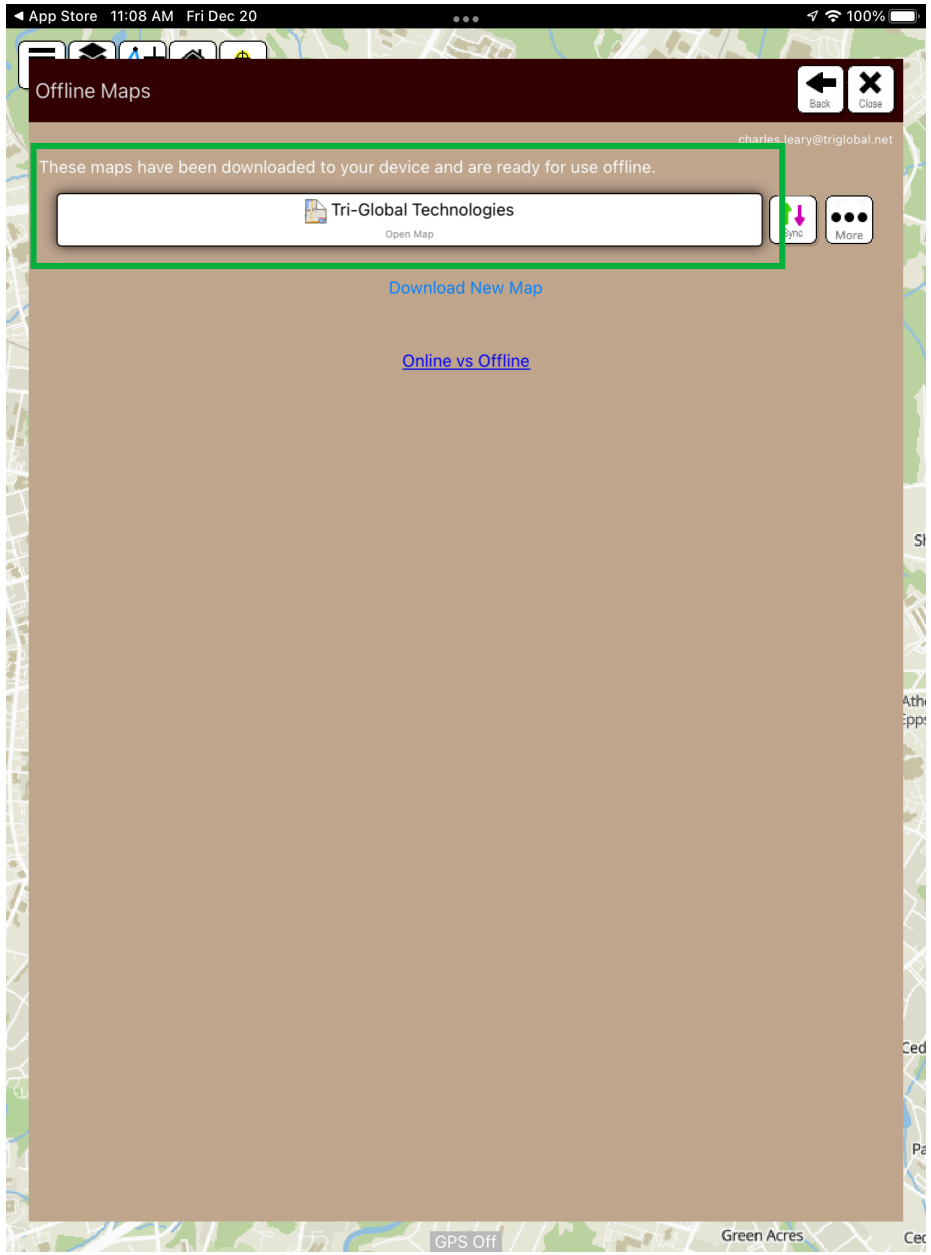
Logging into the Diamond Maps Offline app



Downloading a new map within Diamond Maps Offline on iOS



Selecting the available map to download for use within Diamond Maps Offline on iOS

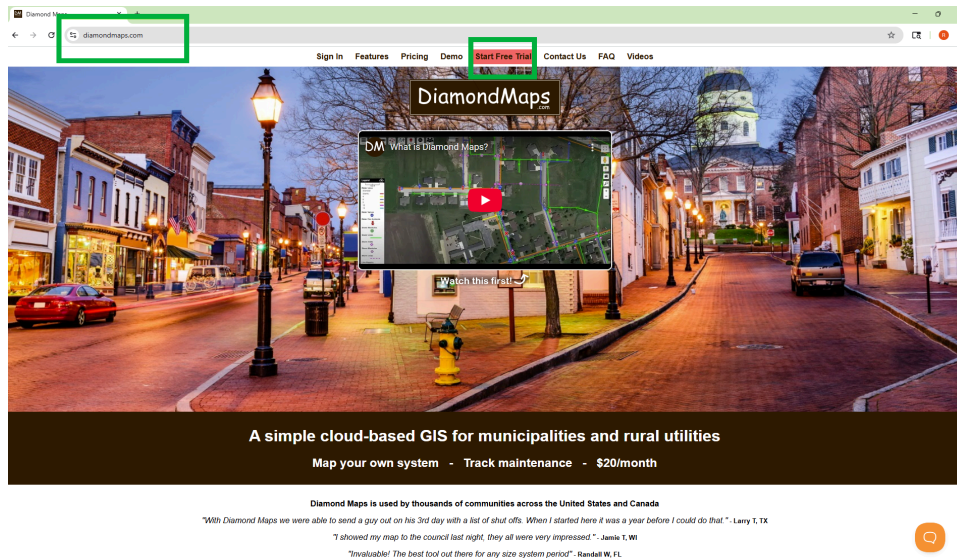


Selecting the downloaded map for use within Diamond Maps Offline on iOS

Requesting a Free Trial

If you do not have an account with DiamondMaps, you can request a free trial.

1. Go to diamondmaps.com and select "start a free trial".
2. Reference [DiamondMaps Support resource video #201](#) for instructions on adding some layers to your map which you will need prior to proceeding.



Requesting a free trial of Diamond Maps Offline on their website

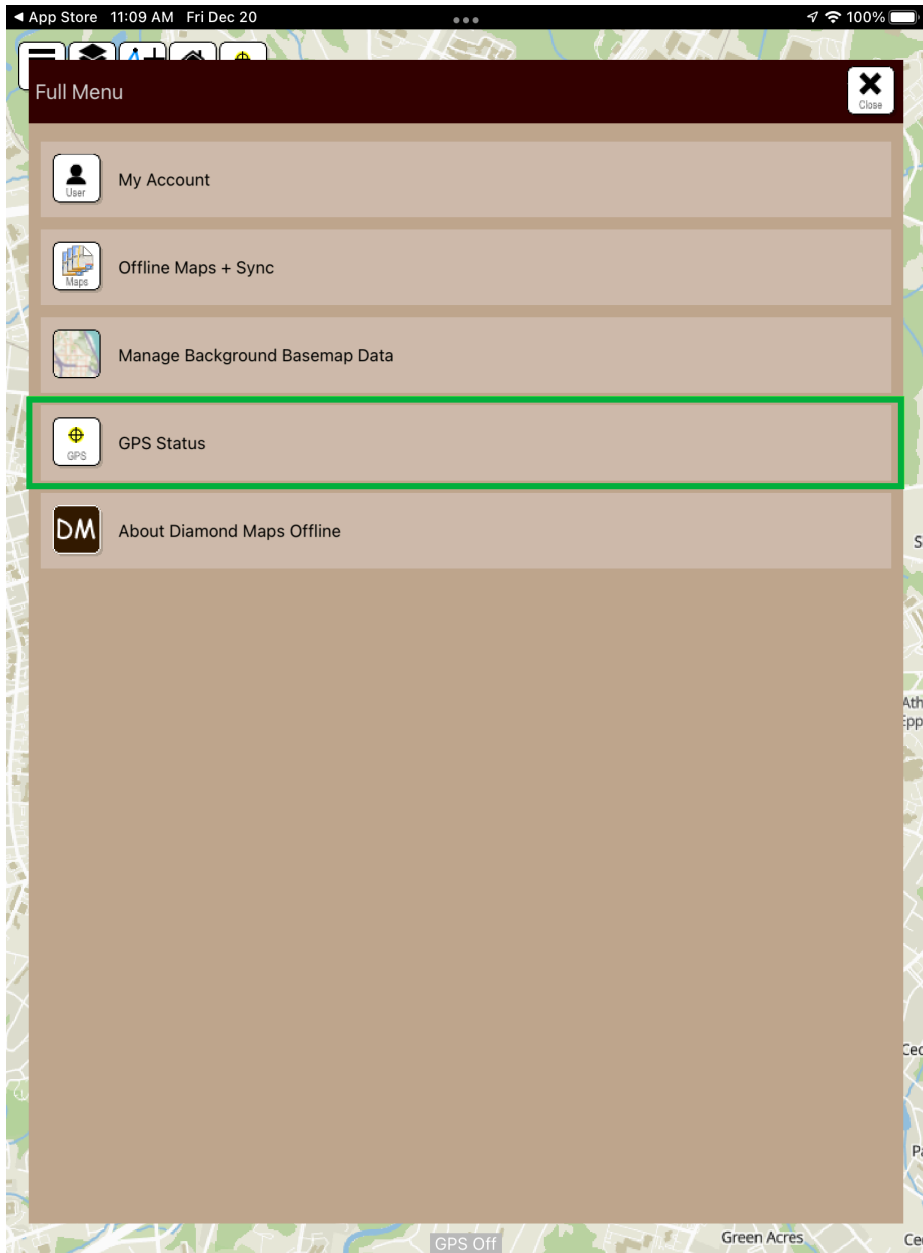
Utilizing Asteri GNSS within Diamond Maps Offline

1. Within Diamond Maps Offline, click on **Menu** and choose **GPS Status** from the options.
2. Leave the source datum set to **WGS84**

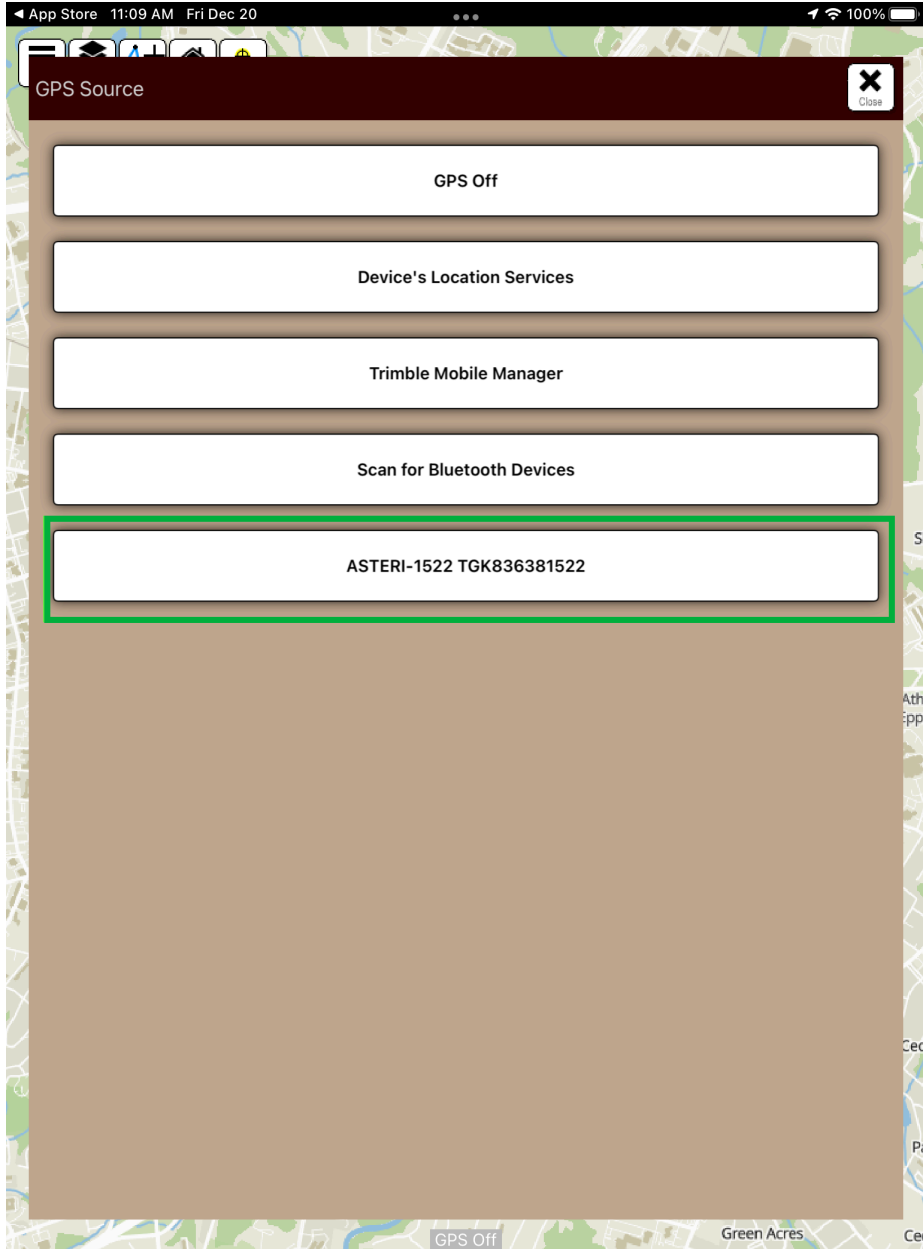
If the Asteri is being mounted on a pole, enter the pole height in the box provided. *These settings will be remembered.*

1. Click on the Select button next to **GPS SOURCE**, and select **Asteri** from the list provided.

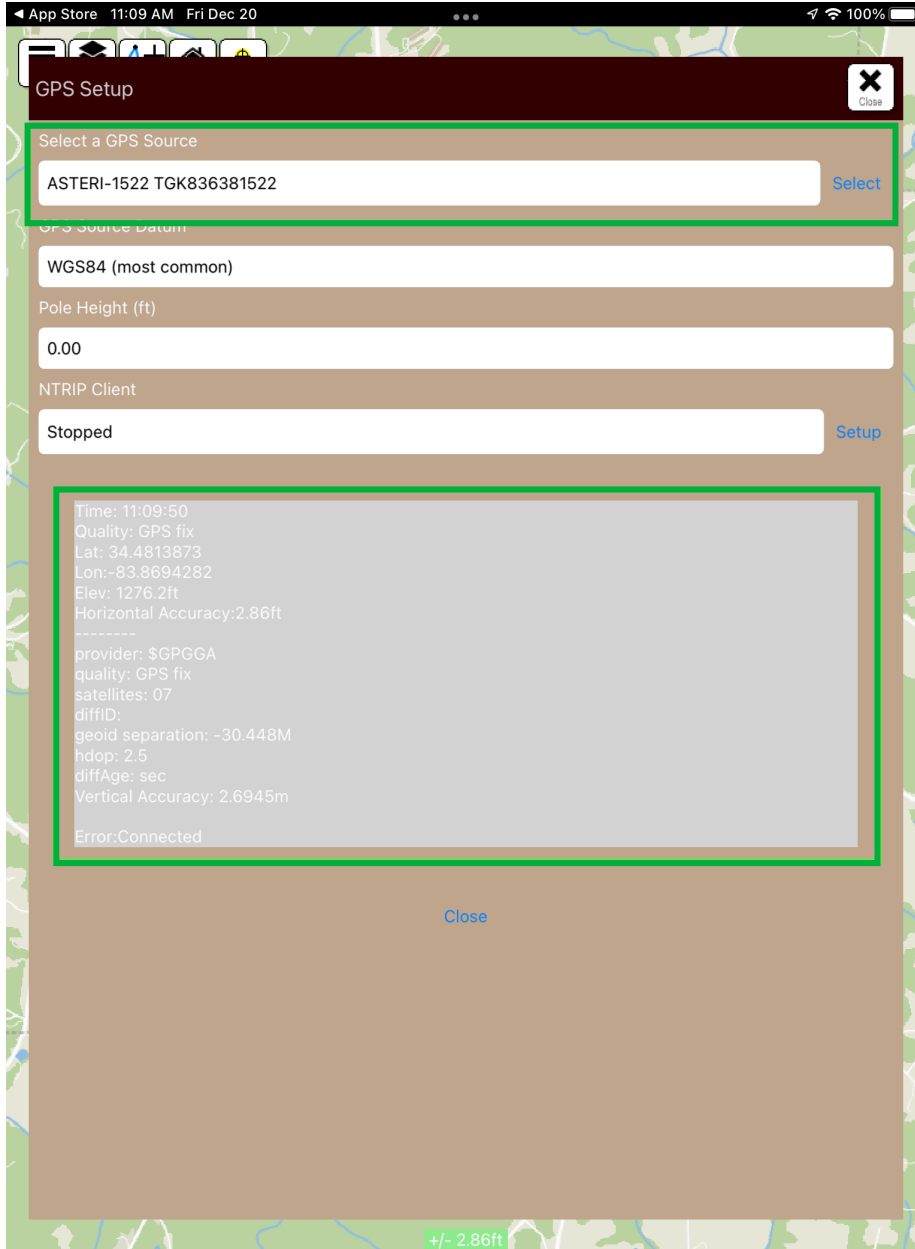
Latitude, Longitude, and Accuracy values should now begin to display in the grey box indicating the Asteri has been successfully paired.



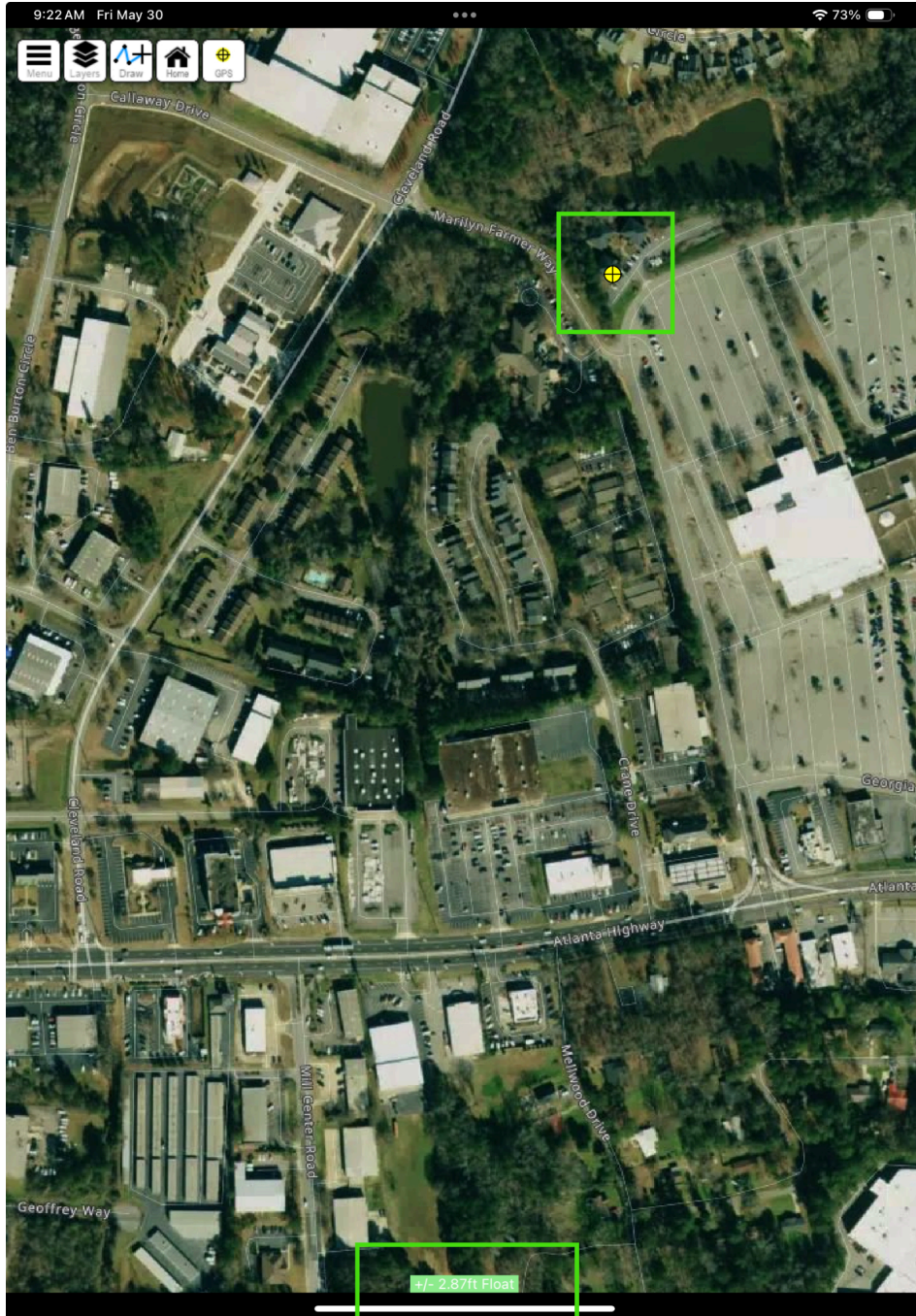
Selecting GPS Status within Diamond Maps Offline settings



Selecting the Asteri GNSS receiver for use within Diamond Maps Offline on iOS



Asteri GNSS receiver being utilized within Diamond Maps Offline on iOS



Asteri GNSS device being utilized within Diamond Maps Offline on iOS

Using Orbitas and the Asteri GNSS receiver for RTK corrections.

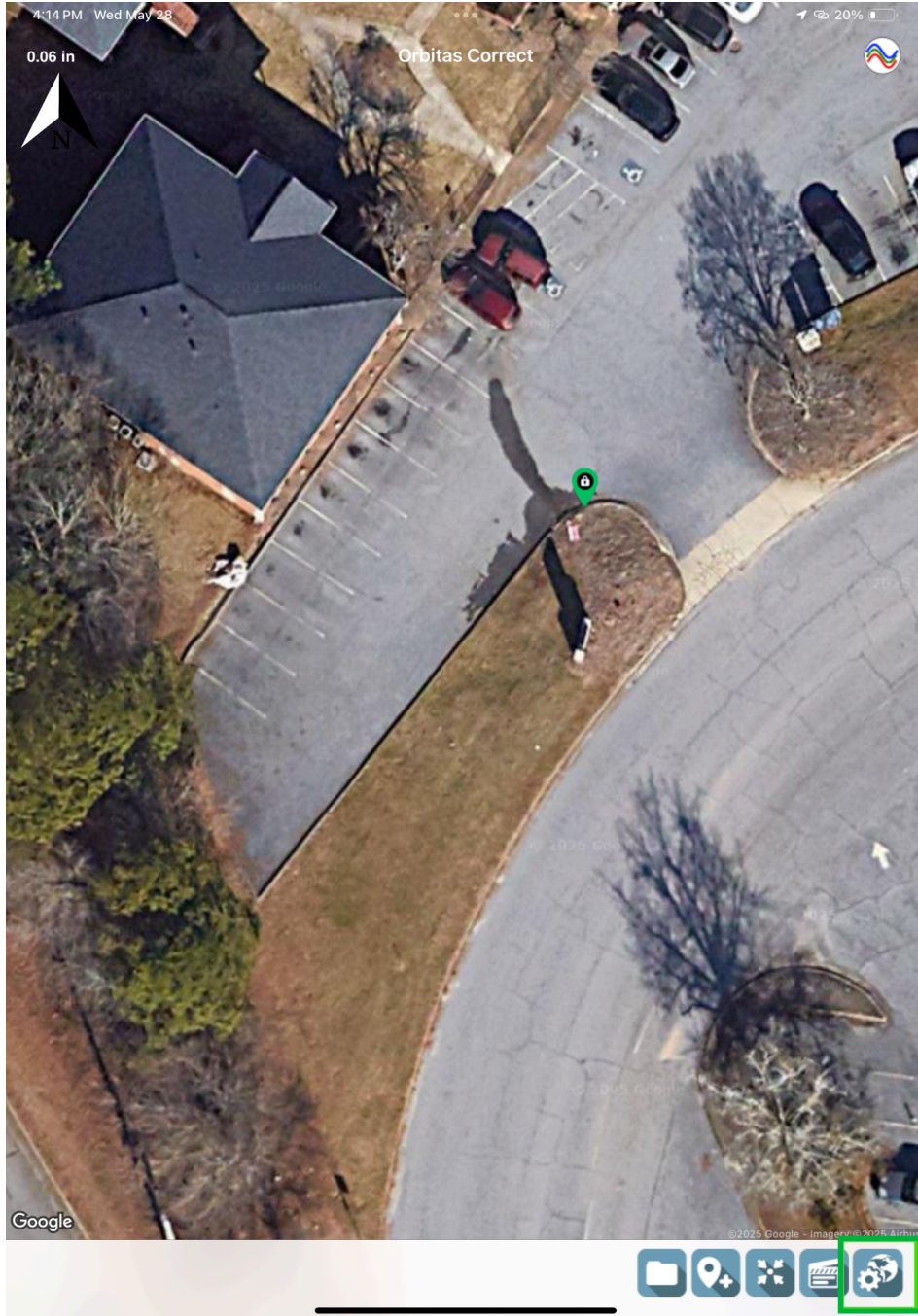
*RTK corrections require an internet connection either through wi-fi or data plan.

*Tri-Global advises setting up the RTK correction within Orbitas, before launching Diamond Maps Offline

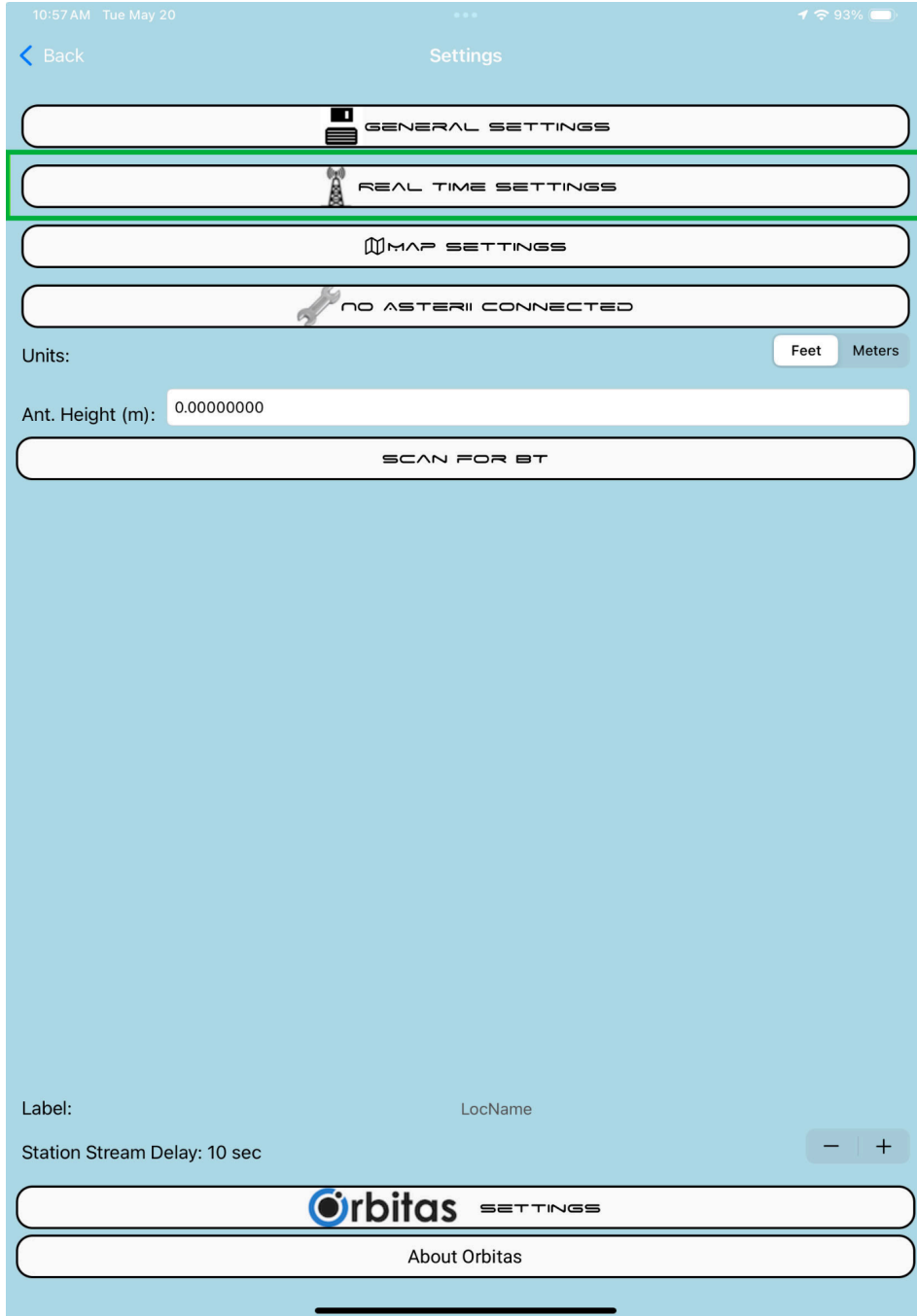
You can utilize Orbitas on iOS to apply RTK correction to the Asteri GNSS receiver in conjunction with Diamond Maps Offline

Follow the steps listed in the first section of this guide above to make sure the Asteri GNSS device is connected to the iOS device via Bluetooth.

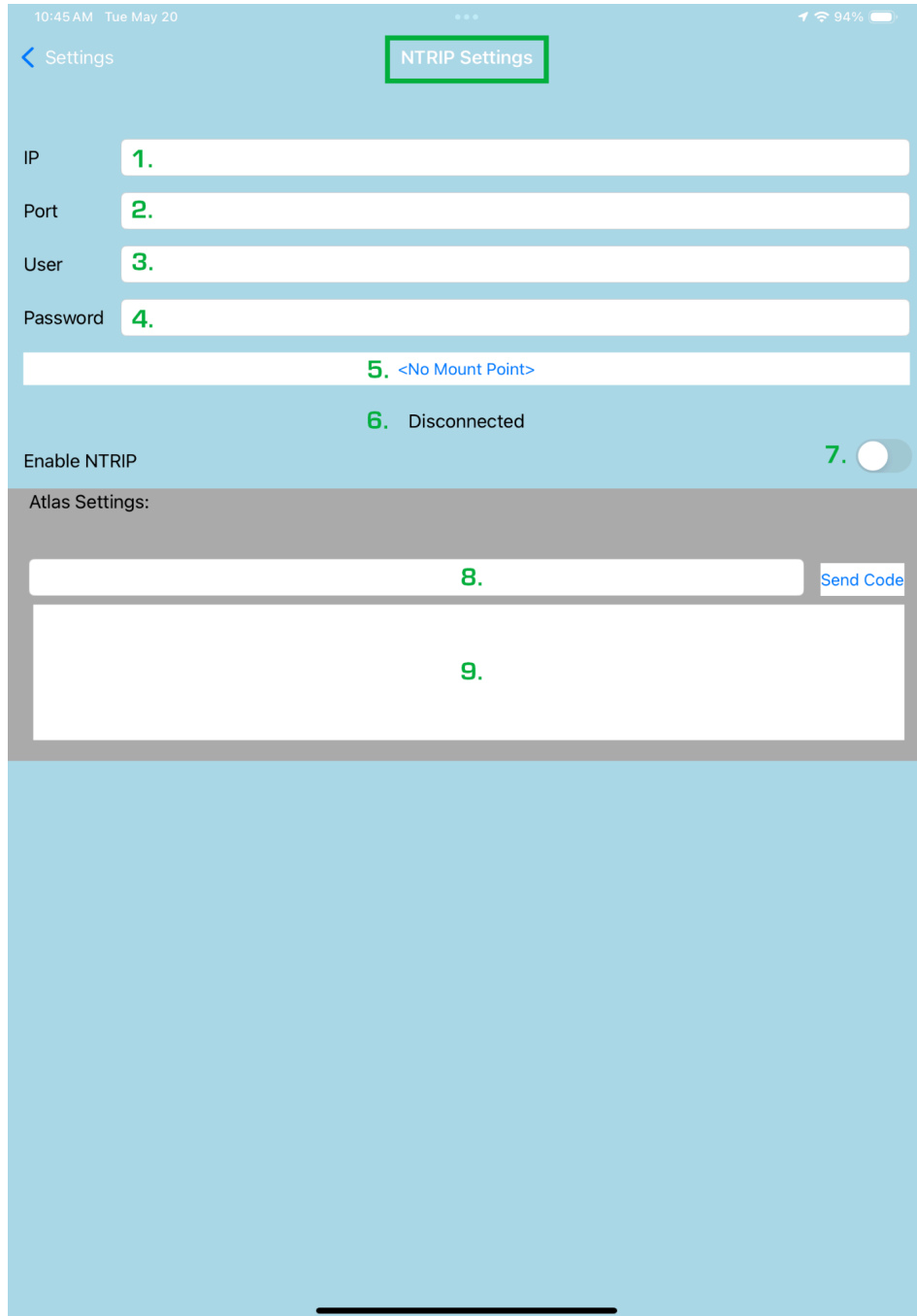
1. Launch the Orbitas on iOS app and ensure the Asteri is connected and tracking.
2. Go into the **SETTINGS** and select **REAL-TIME SETTINGS**.
3. Enter in your RTK credentials and select your mounting point.
 - 3.1. IP Address (address of your RTK server given by your RTK provider)
 - 3.2. Port (port number assigned by your RTK provider)
 - 3.3. User (username assigned by your RTK provider)
 - 3.4. Password (password assigned by your RTK provider)
 - 3.5. Mounting Point (available list of mounting points, refer to your RTK provider for more details)
 - 3.6. RTK Connection status (will state "Connected" once NTRIP is enabled)
 - 3.7. Enable NTRIP (turn this toggle ON once all above information has been provided)
 - 3.8. ATLAS / Tech code input (used for applying ATLAS correction codes)
 - 3.9. RTK log (return log for NMEA stream while connected to RTK correction services)



General Settings icon within Orbitas on iOS



Real Time settings within the main settings menu of Orbitas on iOS

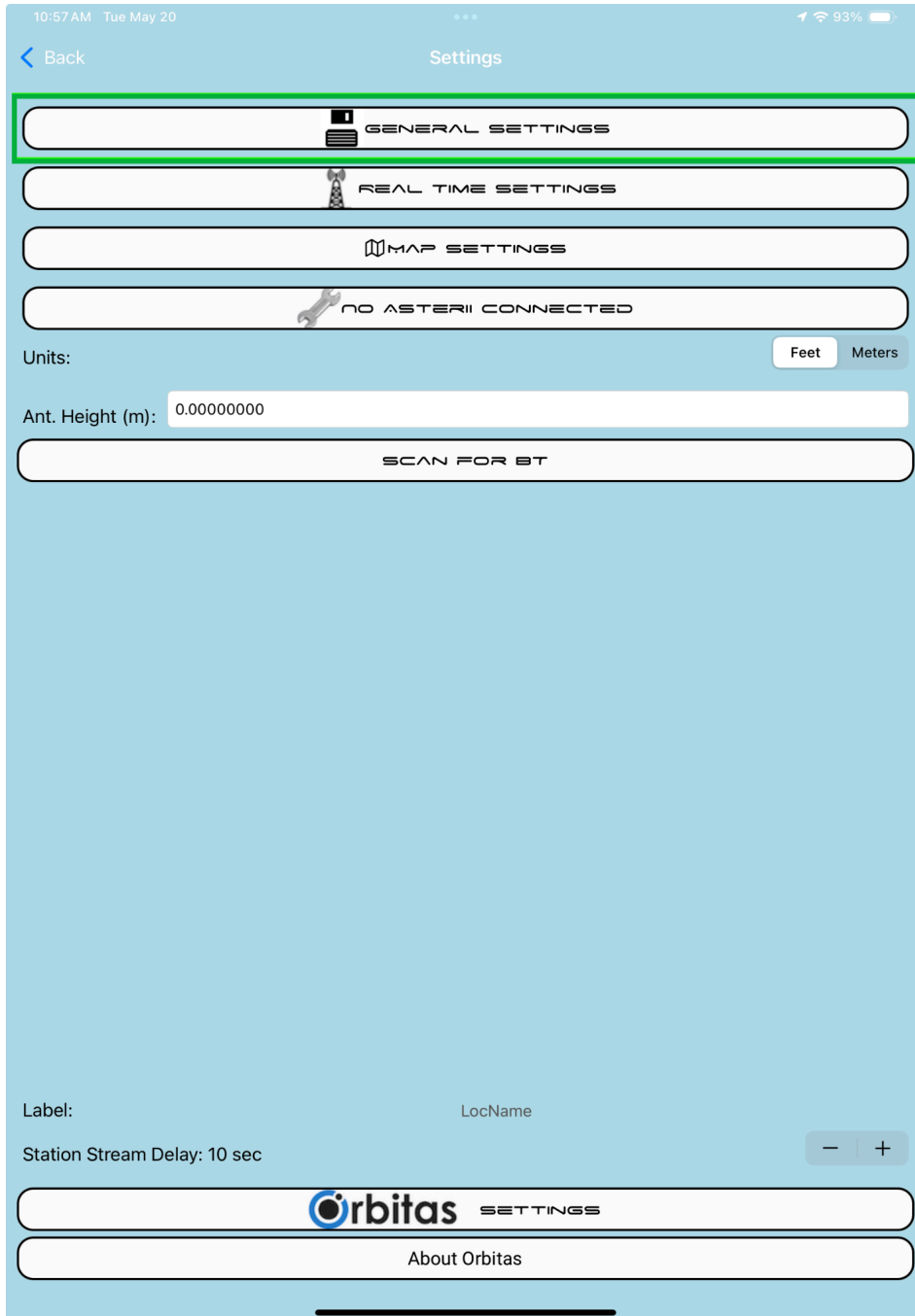


Real Time correction setup within Orbitas on iOS

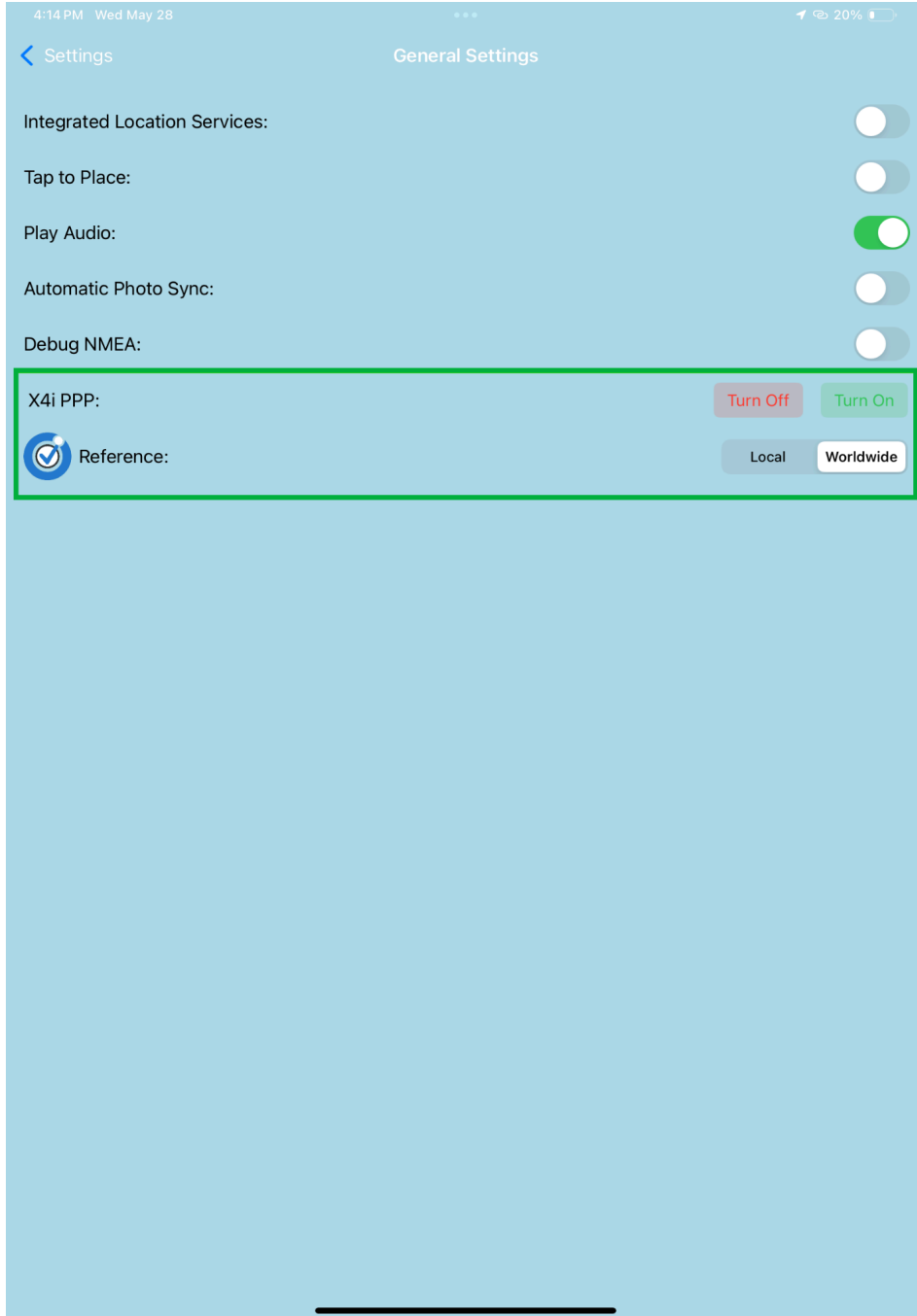
Orbitas Correct Settings

If you have an active and valid license of Orbitas Correct, Orbitas Correct will be applied automatically and there is no need to enter any credentials.

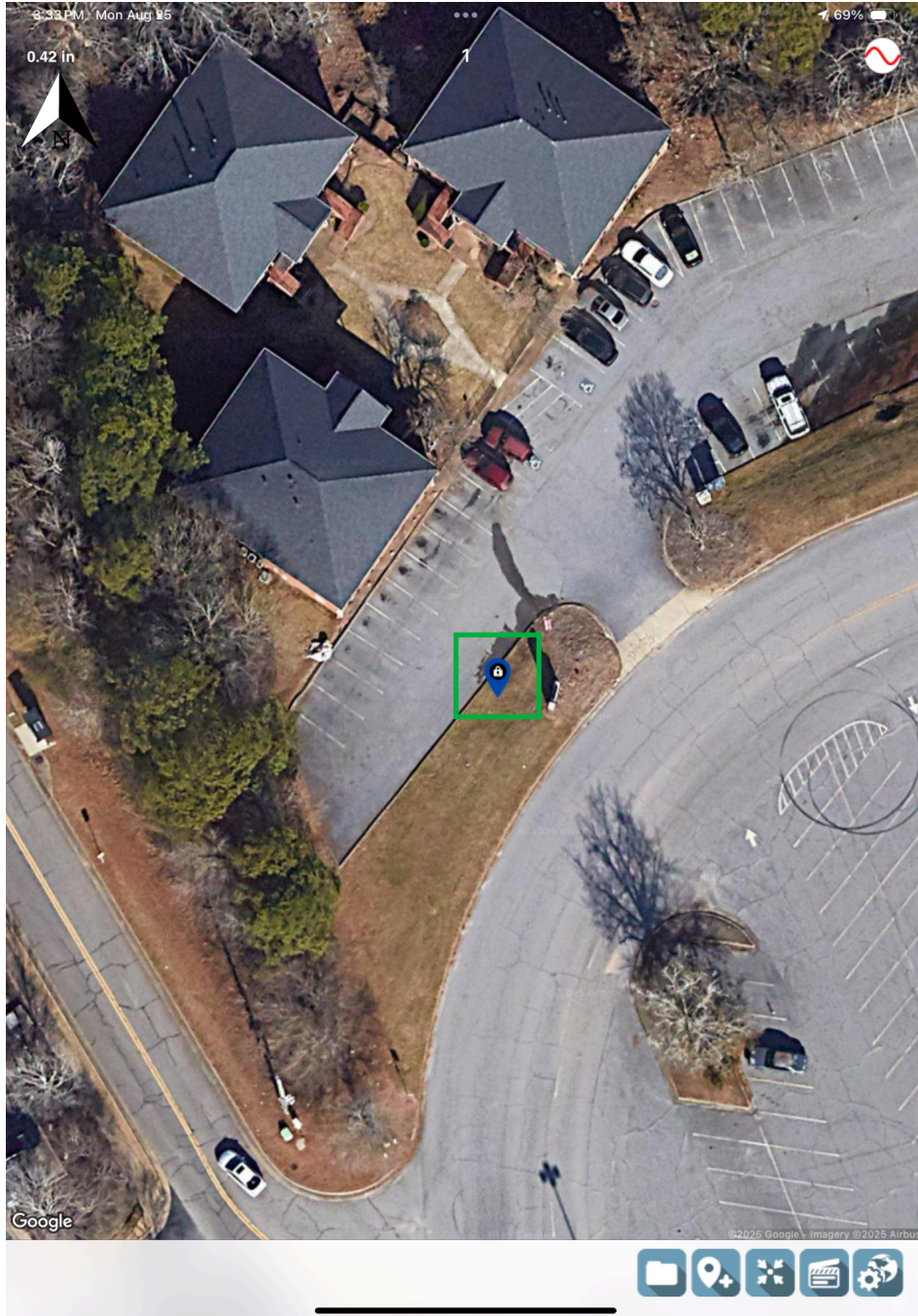
1. The default and recommended Orbitas Correct Reference is "Worldwide" (WGS84). The Local Reference is NAD83 2011 and would be used to align with data that has been collected in the NAD83 2011 reference.
2. Select if you wish to [enable PPP](#) (exclusive to the X4i) service or not. For more information on PPP refer to this [article](#).



General Settings within Orbitas on iOS



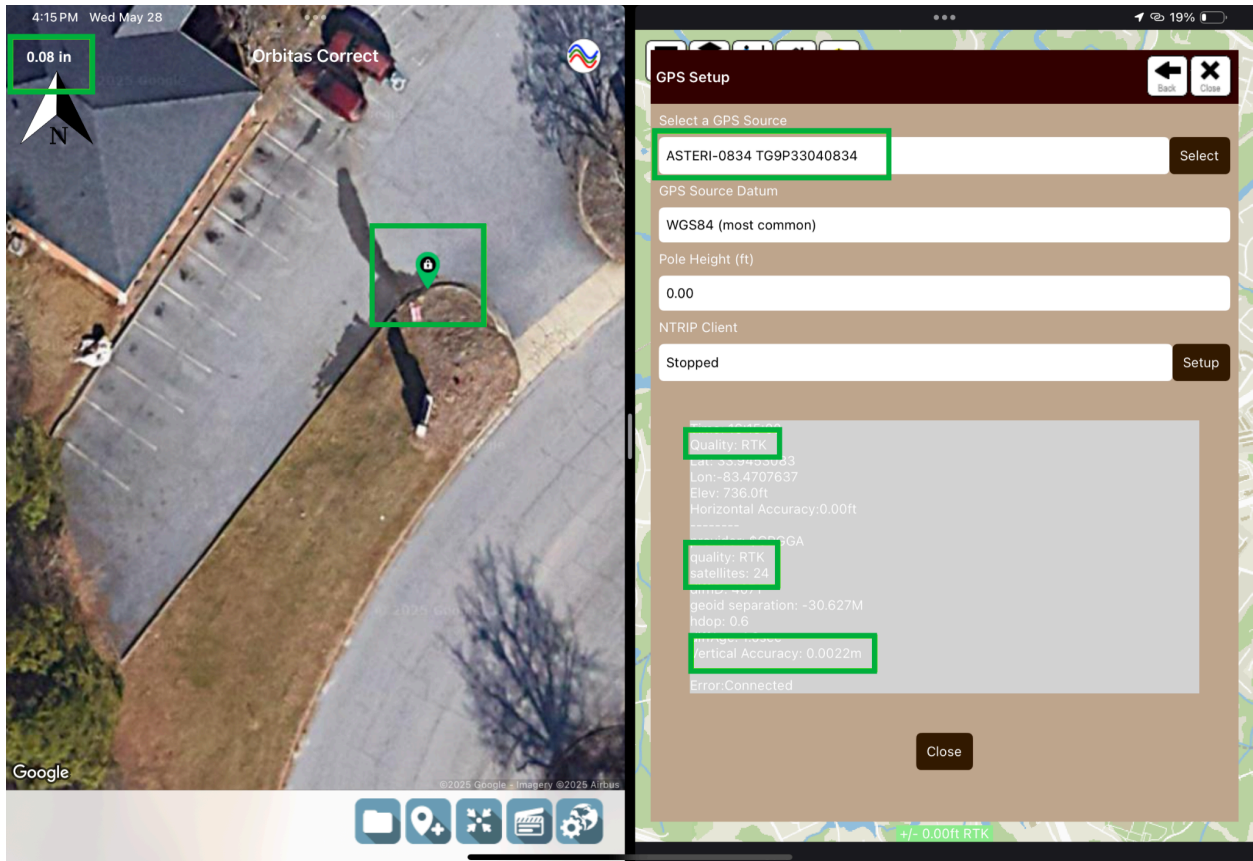
Orbitas Correct reference and PPP (X4i only) settings within Orbitas on iOS



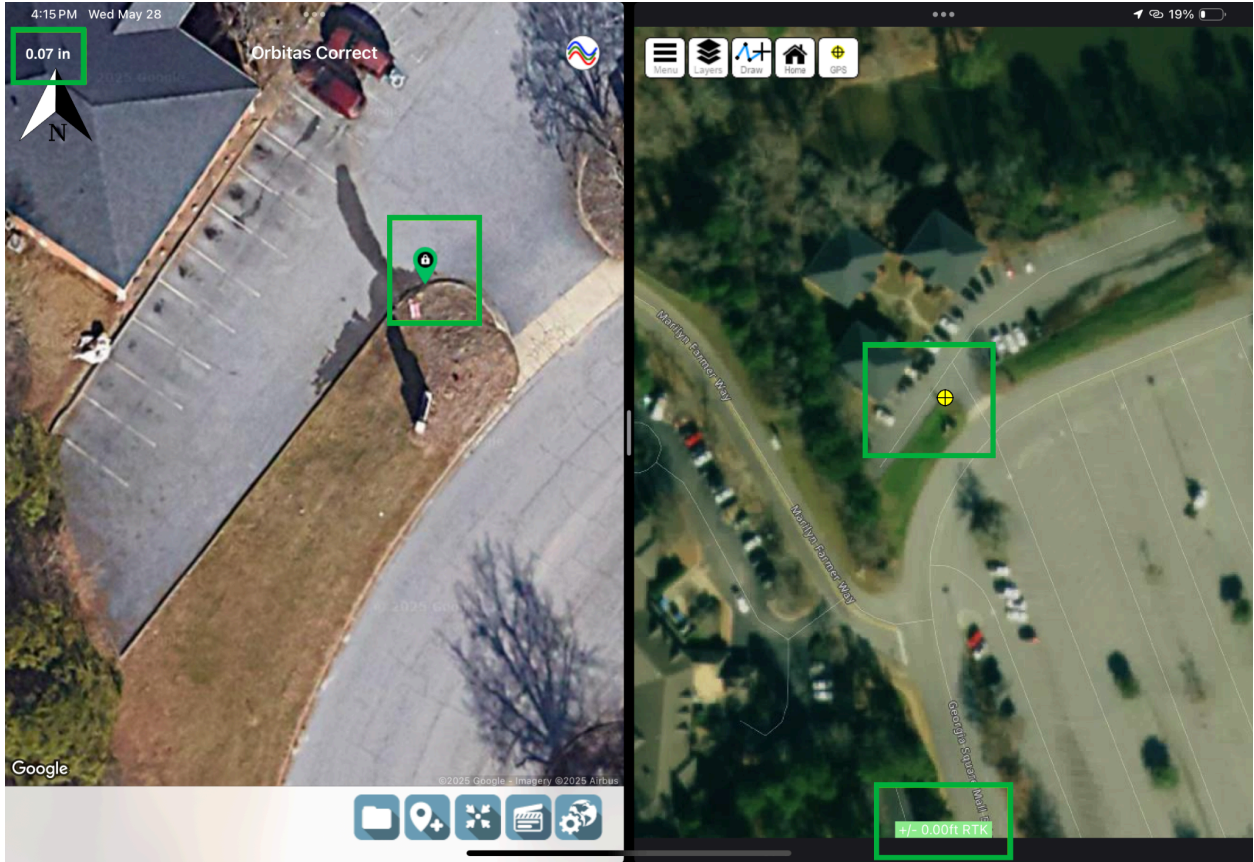
PPP option enabled on the Asteri X4i that is paired to Orbitas on iOS

Leave Orbitas open in the background to ensure consistent RTK correction.

1. Launch Diamond Maps Offline as described earlier in this guide and ensure the Asteri is being used. RTK corrections are now being applied to the Asteri receiver and results being shown in Diamond Maps Offline



Orbitas Correct being used in conjunction with Diamond Maps Offline on iOS



Orbitas with Orbitas Correct being used in conjunction with Diamond Maps Offline on iOS

Related Resources

- Resolving Connection Issues