GeoNames Map Explorer iOS MANUAL

GeoNames Map Explorer iOS App is a feature rich mapping app that focuses on allowing users to maintain situational awareness and get around a foreign town/city. It uses the NGA's Foreign Geonames data and USA GeoNames data in highly optimized data delivery formats both online and offline. This allows display of the data as well as advanced searching and even spatial search/filtering. It supports an offline D-DIL environment via defining a custom area of interest that builds all the required map data, databases and audio recordings. Advanced map viewer with support for Turn by Turn Navigation and bearing and distance. Support for user loaded GIS Map data. The map includes OSM vector tile basemap with style picker and many optional vector overlays like International Boundaries/Borders, Global Administrative Boundaries, TimeZones, GRIDS (MGRS/GARS), US States and Urban Areas.

(Winner of the 2020 IGAPP Grand Challenge Competition)

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Map - Features

Grids on Map

The user can also see grids on the Map.

3

Navigation Menu

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Add Local Data

Perform Local Data tests/checks

Test ONLINE Toggle

Geojson Labels, Tables and Popups

1

Home Screen

GeoNames Map Explorer home screen has following buttons:

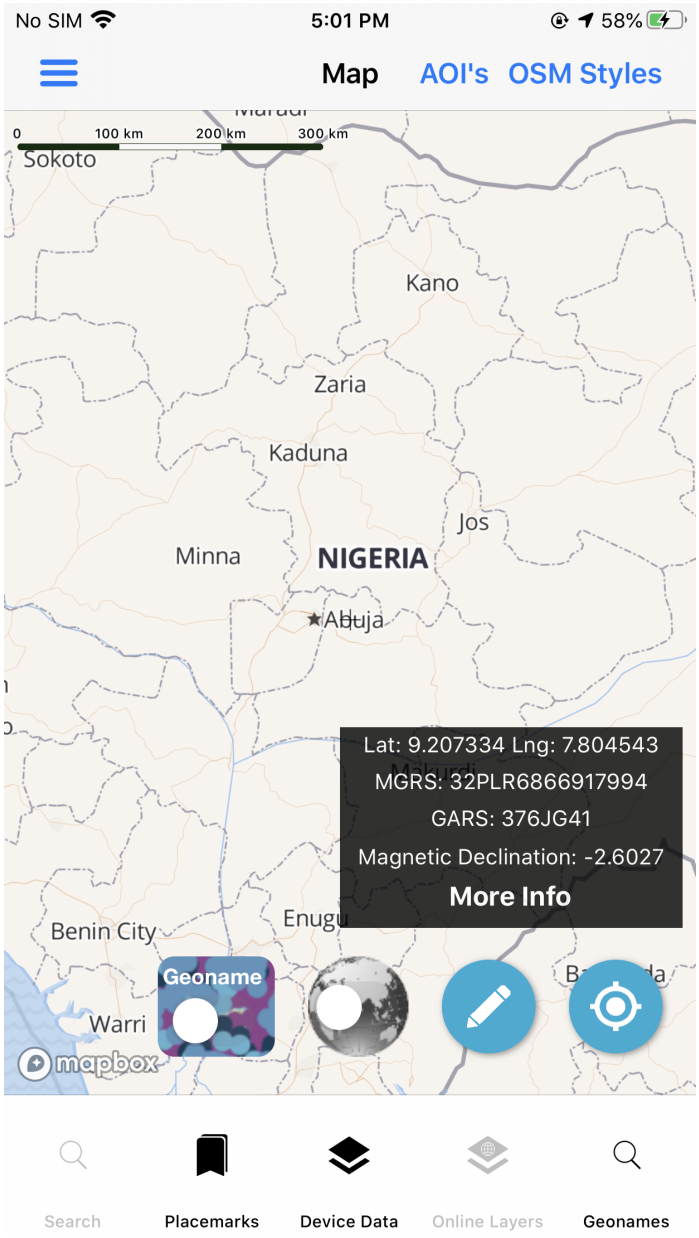
- Map
- AOI Requests
- Manual
- About App
- User PDF Documents
- GPS Tracker
- Currency Converter
- Travel Advisories
- US Embassies
- Emergency Contact
- Translators
- Reference Information
- GeoNames Contact

Map

(the map defaults to offline mode if you've loaded an AOI you can toggle back to online internet connected mode or click AOI's on the top to switch regions)

On clicking on the Map button opens the map. The map page has following features:

- GeoNames - to show points on the map
- Offline/ Online toggle button
- Search - Online
- Placemarks
- Device Data
- Online Layers
- Geonames Search
- Navigation Menu
- AOI's
- OSM Styles
- More Info - popup

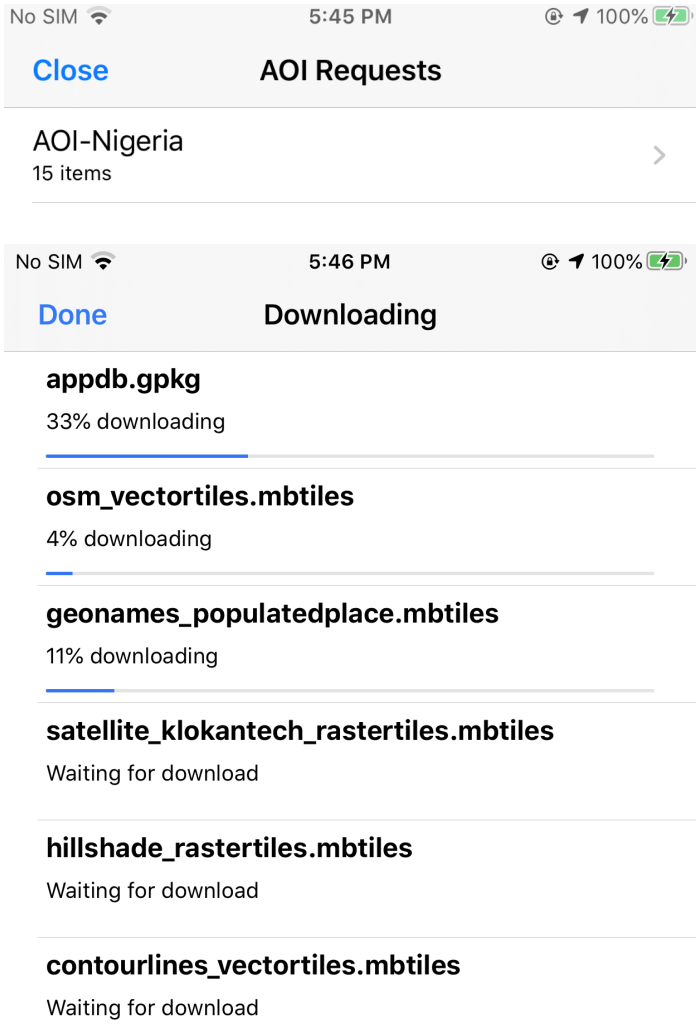


Downloading Offline Map and App Data

AOI- Area of Interest Requests

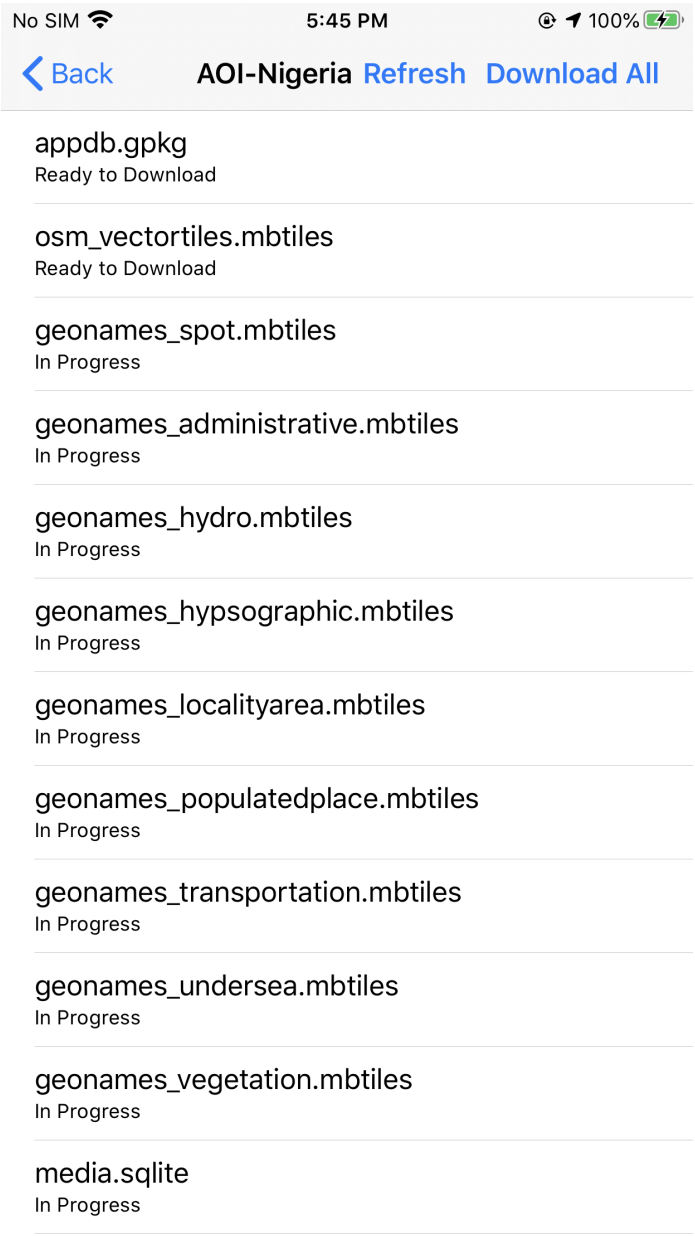
The user can select data to download from the map explorer and can use geonames and several features offline. The working of AOI Request button is as follow:

- List of requests
- On clicking specific request
- After saving AOI, close the map and go back to the menu screen where you click on ‘AOI Requests’.
- You can select your specified AOI Requests and click on the ‘Download All’ button.
- The page will display the available requests



Clicking Specific Request On

- Download progress of the specific request will be displayed
- List of files to be download will also be displayed



Required Files:

There is NO option to select these by default these will be downloaded when you click download

- appdb.gpkg - geonames database (this is used for all the searching and popup information)

We include full values from the lookup tables instead of abbreviations

- media.sqlite - recordings database with MP3's stored in blob field
- - osm_vectortiles.mbtiles - OpenStreetMap Vector Tiles Basemap

GeoNames vector tiles (mbtiles) for each Feature Class (9) - this is how the data is displayed on the map users can turn on/off which ones they want to see by default it shows all)

The data has been designed with Scale Dependency/Zoom Level information built in based on the Display Field in the GeoNames Database

- Geonames_administrative.mbtiles
- Geonames_hydro.mbtiles - Hydrographic
- Geonames_hypsographic.mbtiles
- Geonames_localityarea.mbtiles
- Geonames_populatedplace.mbtiles
- Geonames_spot.mbtiles
- Geonames_transportation.mbtiles - Streets, highways, roads, or railroad
- Geonames_vegetation.mbtiles
- GeoNames_undersea.mbtiles

Optional Files:

You have to Manually Select these files for them to be downloaded.

- contourlines_vectortiles.mbtiles
- Hillshade_rastertiles.mbtiles
- Satellite_klokantech_rastertiles.mbtiles - satellite is low resolution 0-13
- Gadm.gpkg - this enables a new map widget showing Level 2 Country, Locality/Placename breakdown for where your center point of the map is located

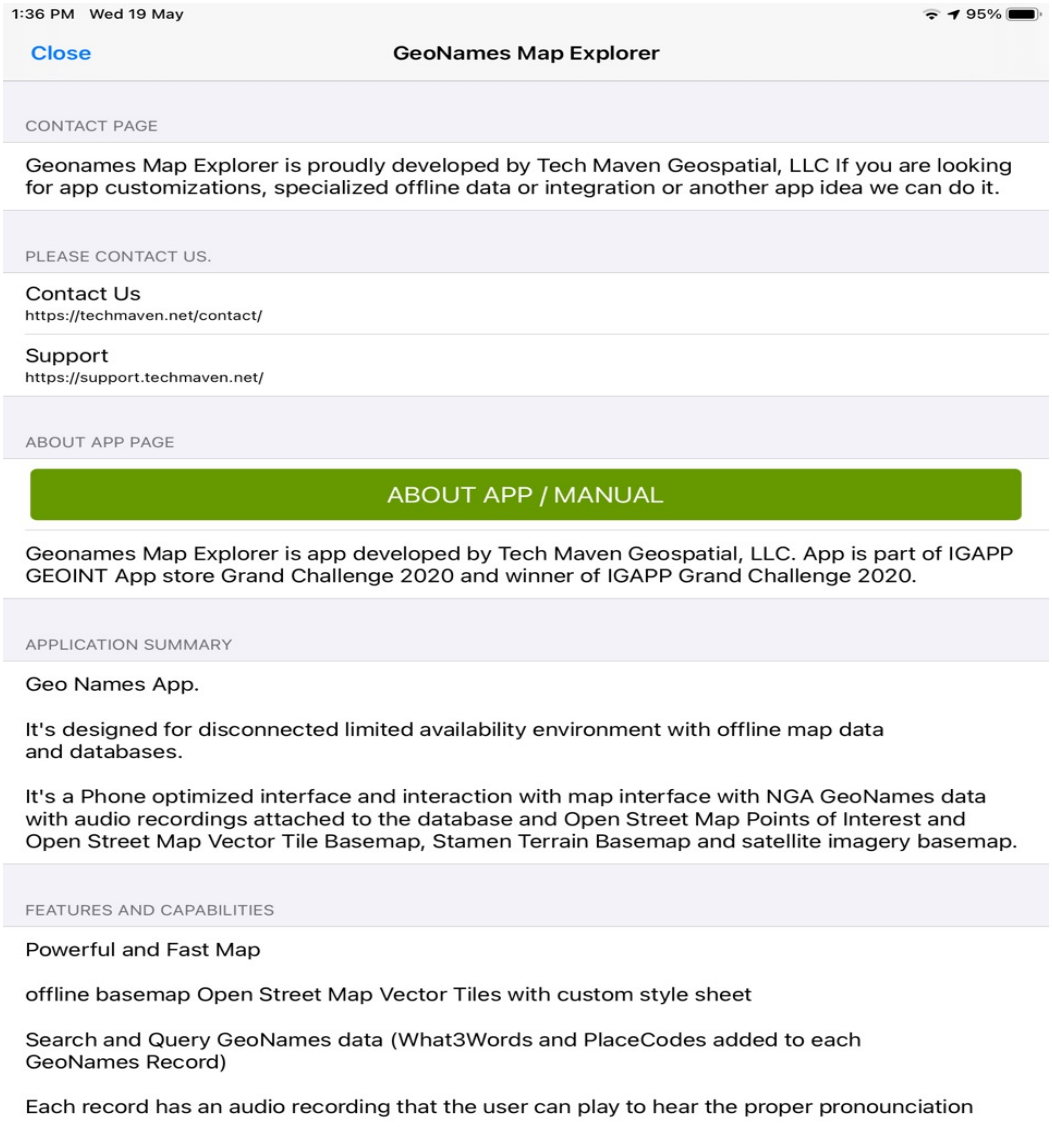
Manual

The Manual button click opens the about app pdf documentation that provides help to users about the application.

About App

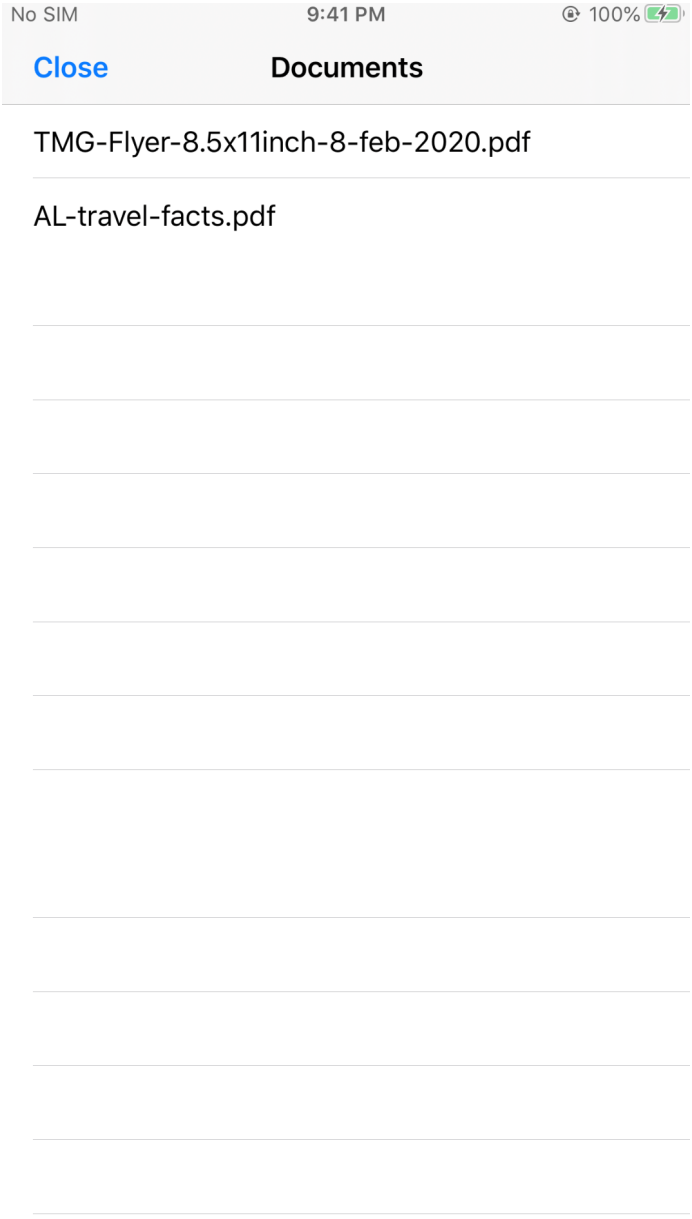
The About App button click opens the panel that has several options:

- Contact page
- Support us option
- User manual
- Application summary
- Features and capabilities of the application



User PDF Documents

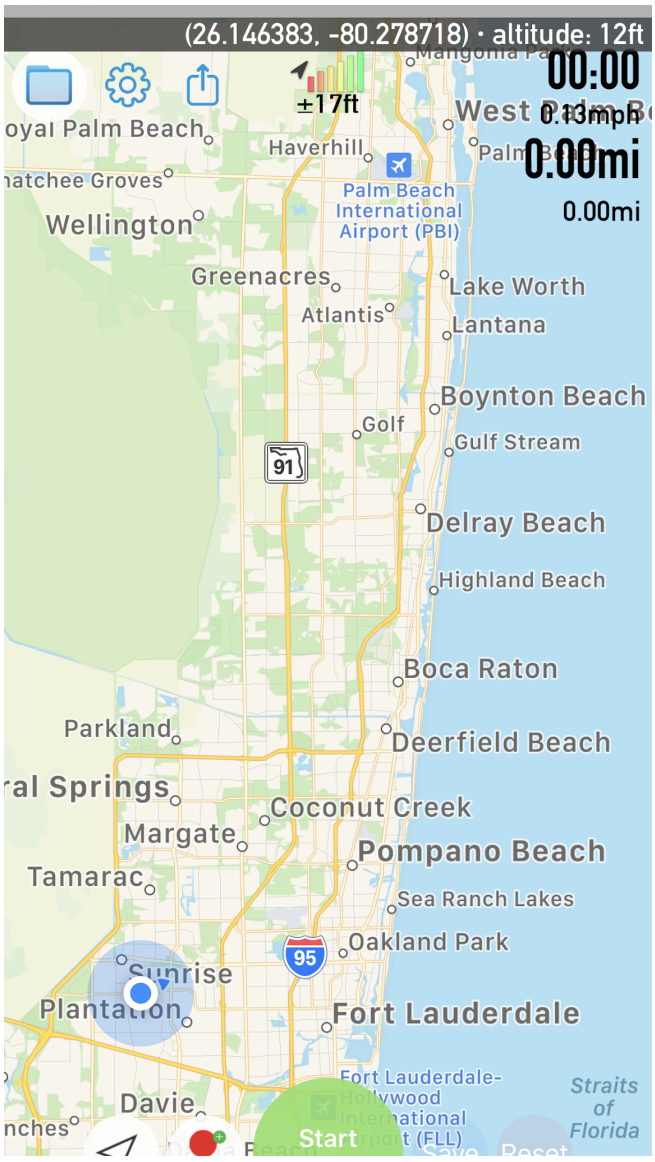
On clicking the User PDF Documents a page opens that asks the user to copy pdf files inside the GeoNamesMapExplorer folder so that the user can view documents as well.



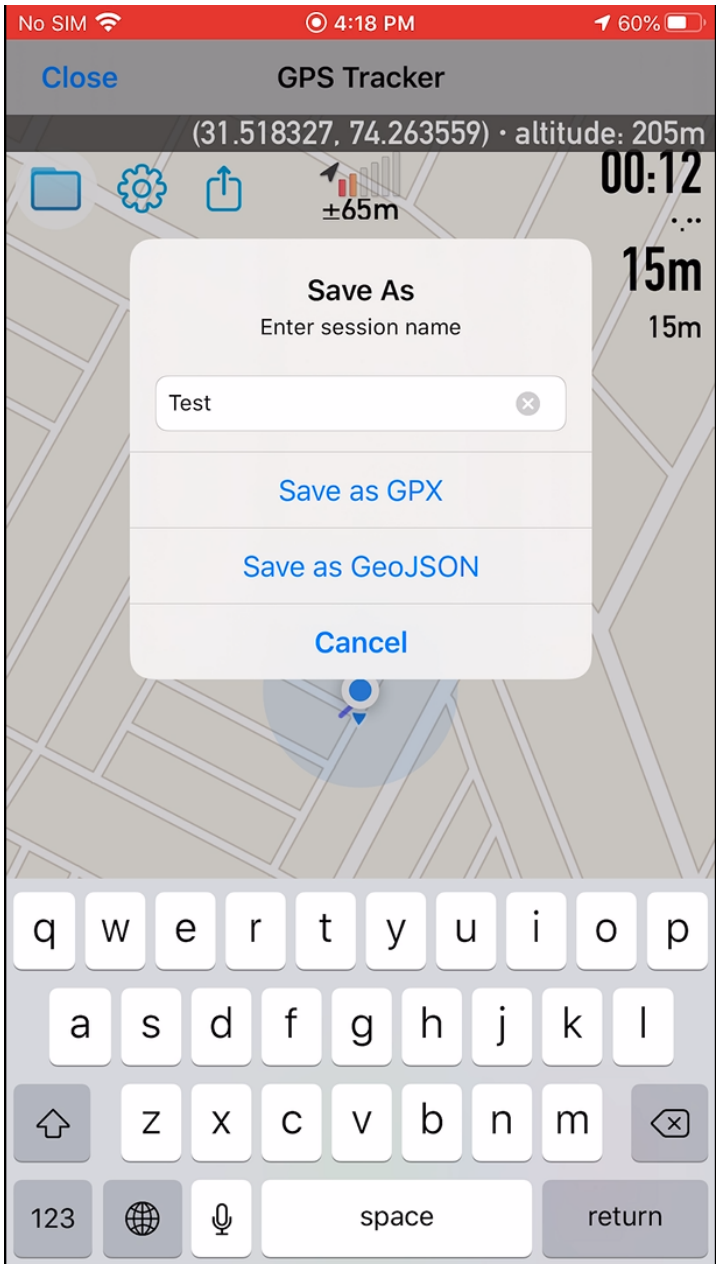
GPS Tracker

Note: This runs as a background process so you can start recording and leave this screen and it will still be recording.
On clicking the GPS Tracker button, it opens a separate map screen where user can perform multiple operations as follow:

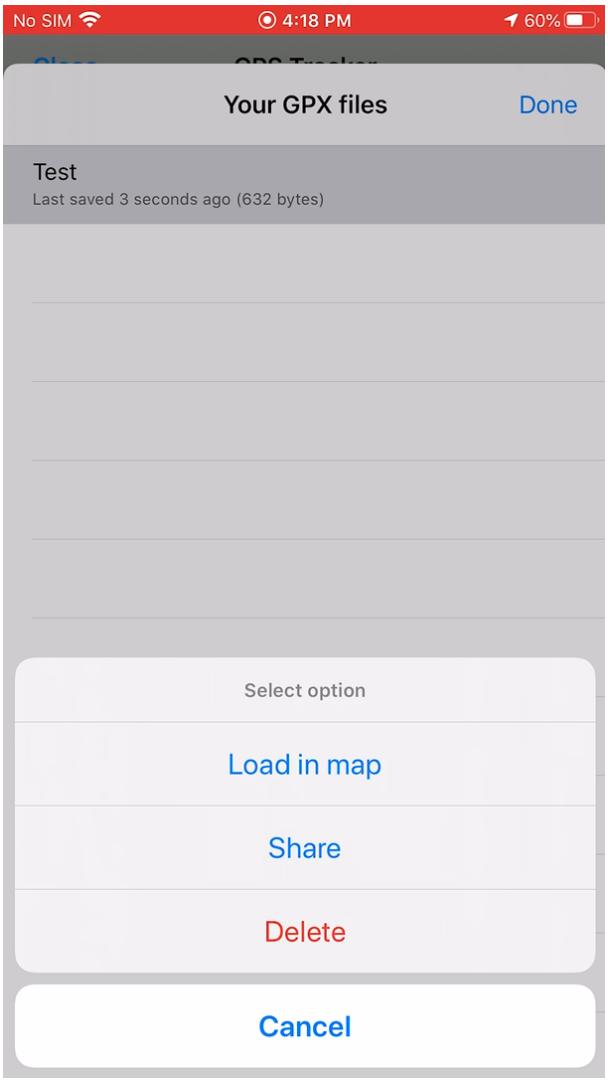
- Start tracking, save tracking results, reset tracking, update location, drop a point/waypoint



Click on the '**Start**' button . Your location captures start on map and

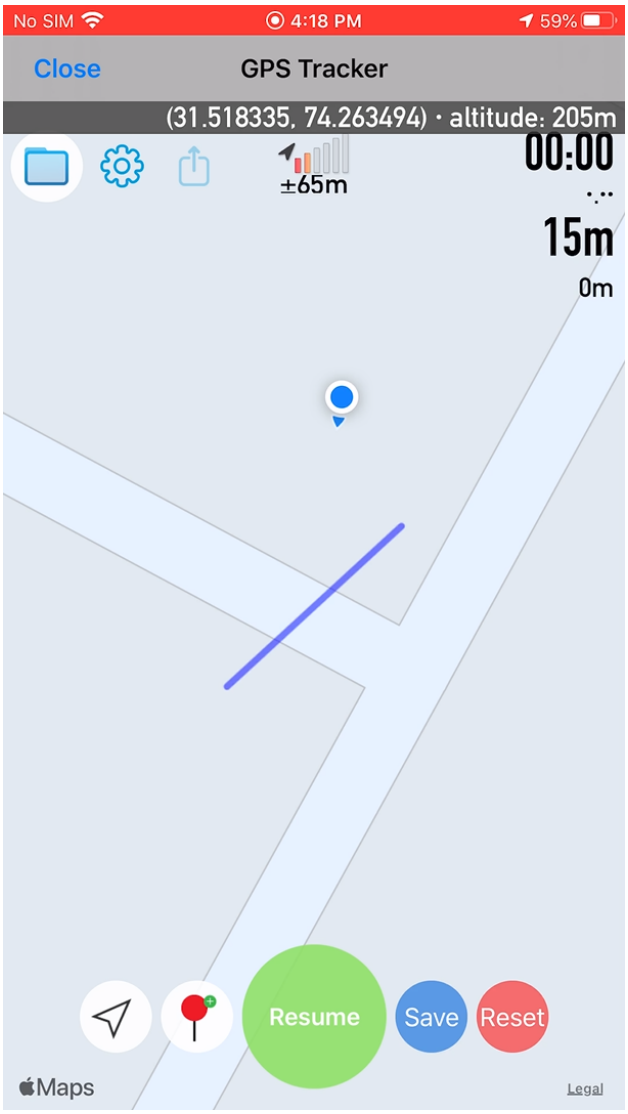


after clicking on pause, you can save it as **GPX** and **GeoJSON** both.



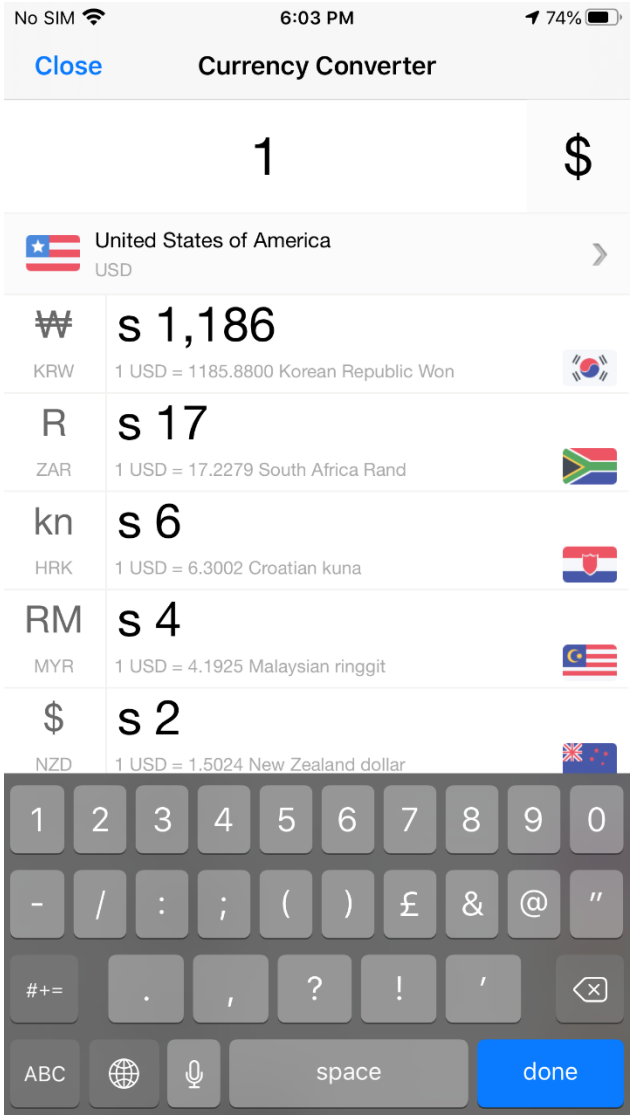
- Now load in the map, so it can be shown on the main map.

Display distance, coordinates and time and tracking information in a map with the Use of multiple map sources (**Apple Maps, Open Street Maps, CartoDB,OpenTopoMap**).



Currency Converter

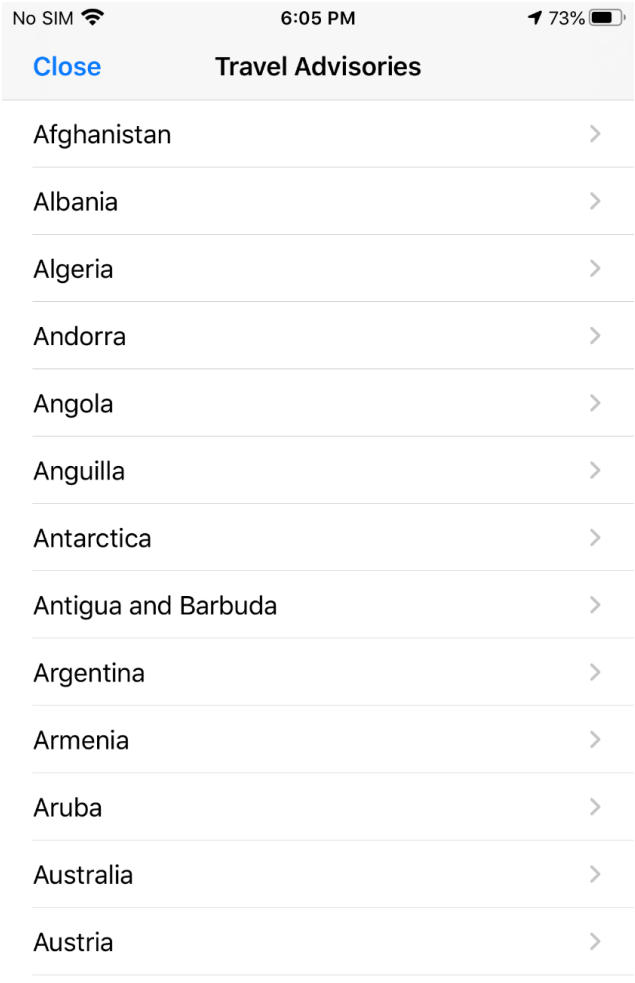
Currency Convert is an online feature that will convert currency from one currency to another currency with an easy and user-friendly interface.

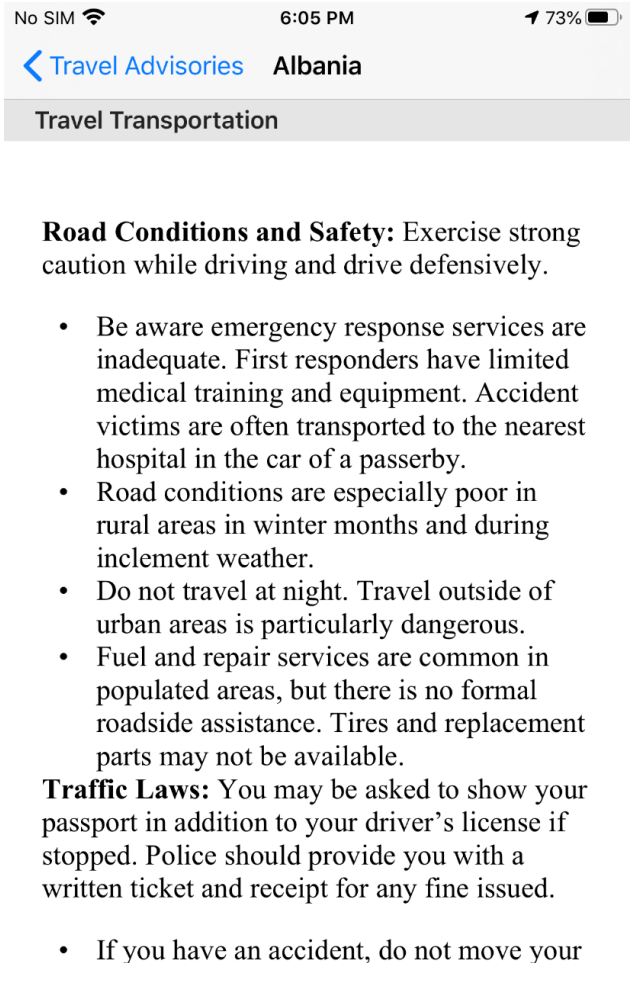


Travel Advisories

Travel Advisories is a great feature that guides user about the travel and tours, the interface of this page is defined below:

- The page opens with a bunch of countries
- User selects a specific county for travel
- This opens the information of that specific country
- The details provided to users are related to - Travel transportation, health, local laws and special circumstances, safety and security, entry exit requirements and security, destination description, travel embassy and consulate description and many relevant things.



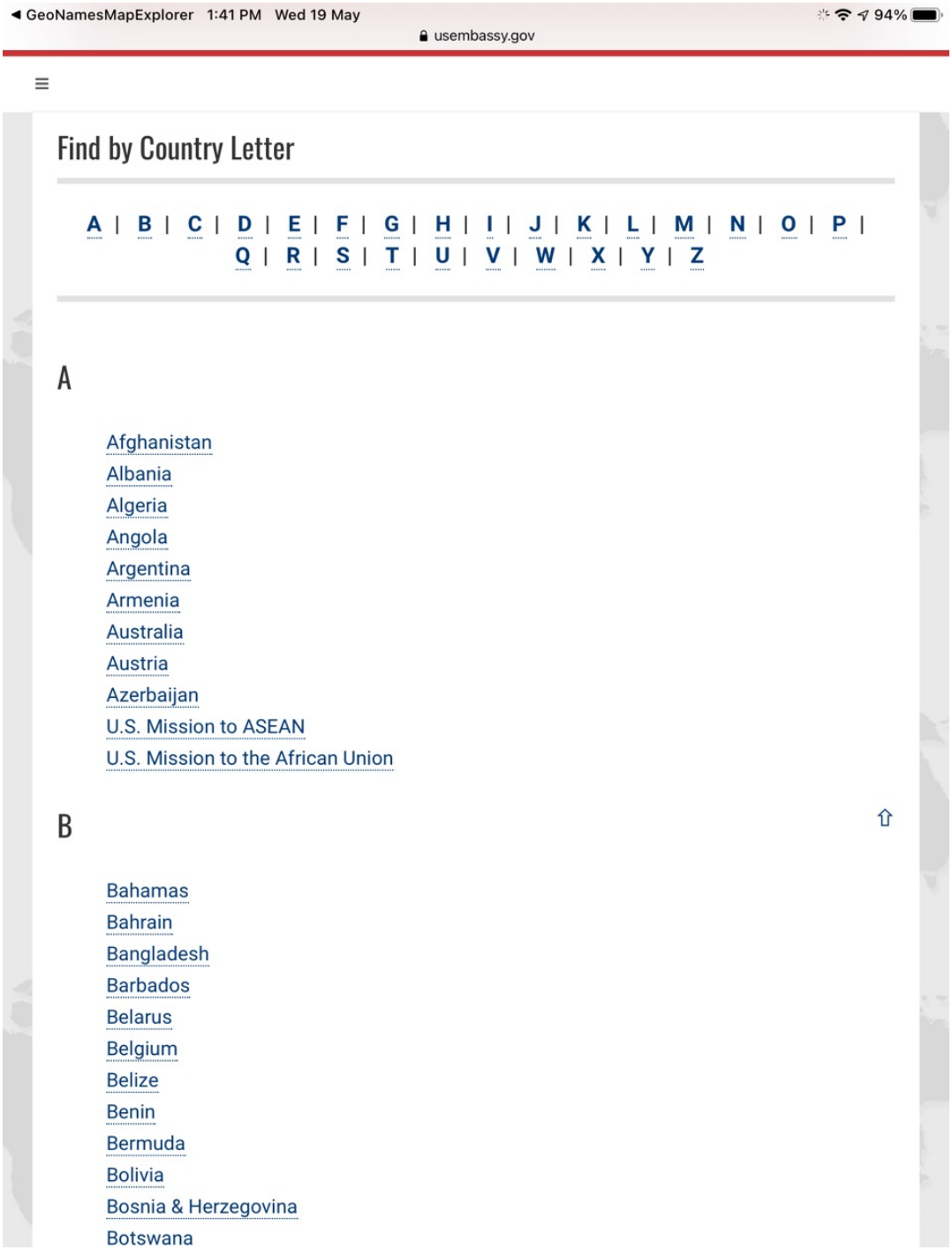


US Embassies

On clicking the US Embassies button, it opens a menu where user can get details about two different things:

- Embassies of US Department
- US Embassies and Consulates

Embassies of US Department



US Embassies and Consulates

Travel.State.Gov > U.S. Visas > List of U.S. Embassies and Consulates

List of U.S. Embassies and Consulates

Civil and personal documents may differ from country to country, depending on availability. There may be additional instructions for obtaining civil documents or additional documents you need to submit. These will be submitted to the NVC in Step 9. Select the U.S. Embassy or Consulate where you will apply for a visa to learn what additional requirements there are, if any.

Please click on the name of the city where you will apply for your Visa for specific information

A - H I - R S - Z

Embassy Cities - A through H

Abidjan - ABJ
Abu Dhabi - ABD
Accra - ACC
Addis Ababa - ADD
Algiers - ALG
Almaty - ATA
Amman - AMM

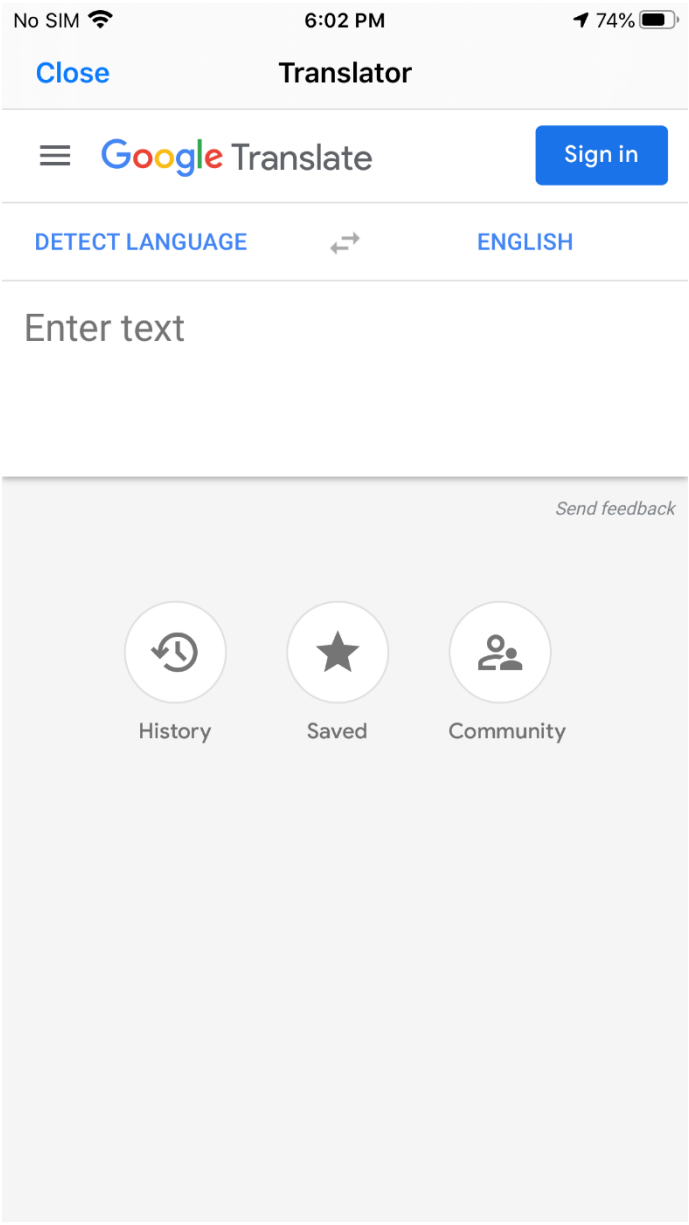
Buenos Aires - BNS
Bujumbura - BUJ
Cairo - CRO
Caracas - CRS
Casablanca - CSB
Chisinau - CHS
Ciudad Juarez - CDJ

Emergency Contact

Emergency Contact is a helpful feature and allows users to get contact information about different departments whenever he/ she is in a difficult condition.

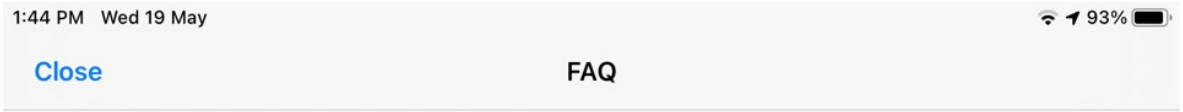
Translators

Translators are a helpful feature when a user wants to convert a phrase, text, voice from one language to another language. Users avail this feature inside the GeoNames Map Explorer App.



Reference Information

On clicking the Reference Information button, it opens the relative information - FAQ and other helping stuff about the application.



Geodesy

Contents

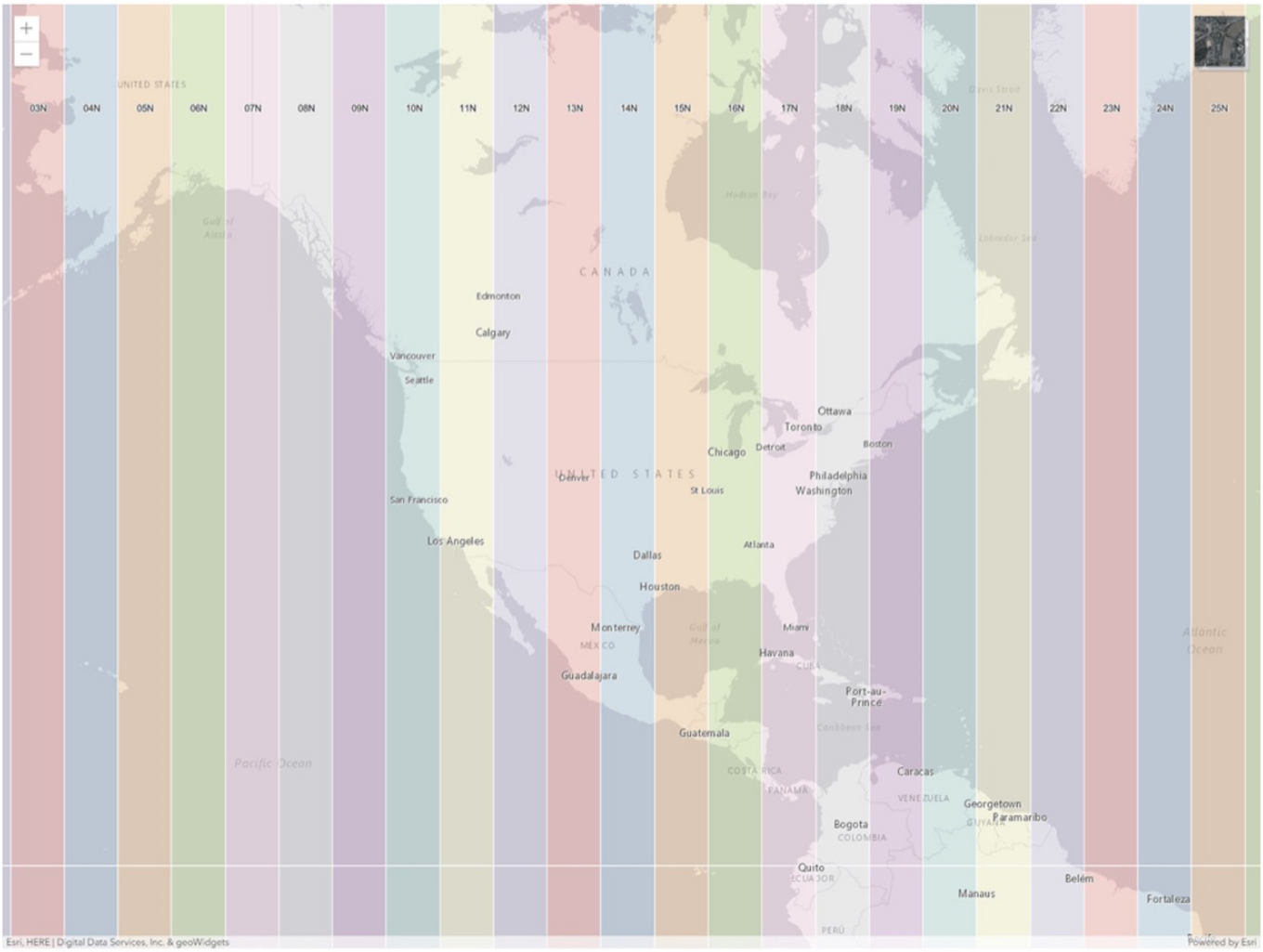
- Common Map Scales and Equivalents
- UTM Zones of the World
- US NAD 1983 State Plane Zones
- US NAD 1927 State Plane Zones

Common Map Scales and Equivalents

Map Scale	Architectual/ Engineering Scale	Visual Scale	Example map scale (areas to represent)
1:71	1 in ~ 6 ft 1 cm ~ 0.71 m	Really?	Web Map Zoom Level 23
1:141	1 in ~ 12 ft 1 cm ~ 1.41 m		Web Map Zoom Level 22
1:282	1 in ~ 24 ft 1 cm ~ 2.82 m	↑	Web Map Zoom Level 21
1:564	1 in = 47 ft 1 cm = 5.64 m	Large Scale	Web Map Zoom Level 20 (a mid-sized building)
1:1,000	1 in ~ 83 ft 1 cm = 10 m	↑	
1:1,128	1 in = 94 ft 1 cm ~ 11 m		Web Map Zoom Level 19 (a road and crossing details)
1:1,200	1 in = 100 ft 1 cm = 12 m		US Site Plans & Plan and Profiles
1:2,257	1 in ~ 188 ft 1 cm ~ 23 m		Web Map Zoom Level 18 (a group of buildings)
1:2,400	1 in = 200 ft 1 cm = 24 m		Parcel Data
1:4,514	1 in ~ 376 ft 1 cm ~ 45 m		Web Map Zoom Level 17 (a block, park, or range of addresses)
1:5,000	1 in ~ 417 ft 1 cm = 50 m		
1:6,000	1 in = 500 ft 1 cm = 60 m		Parcel Data
1:9,028	1 in ~ 752 ft 1 cm ~ 90 m		Web Map Zoom Level 16 (a street)
1:10,000	1 in ~ 833 ft 1 cm = 100 m	↓	

UTM Zones of the World

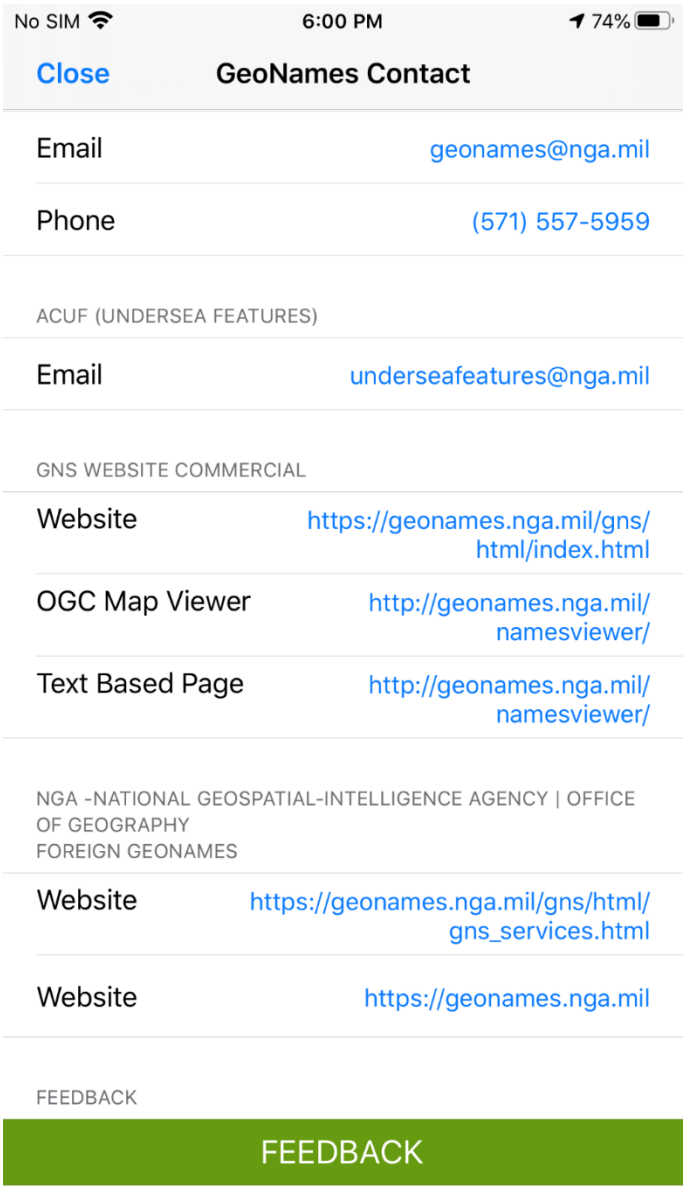
Click on the image to link to a basic map of all the UTM zones of the world. Each zone map tip includes a link to EPSG.io with filtered results to make finding EPSG/WKID codes easier.



Geonames Contact

On clicking this button, users get the information email and phone of the relevant authorities of the application.

- User can also send Feedback about the application



2

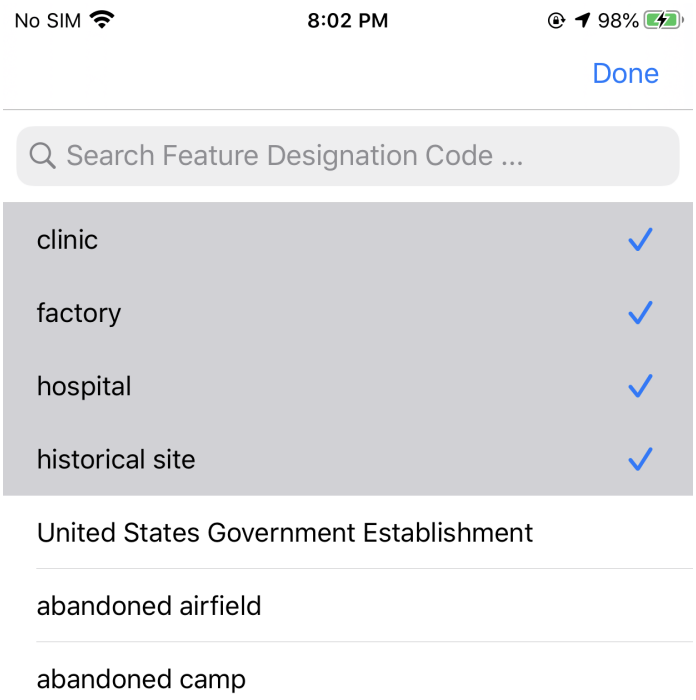
Map - Features

The Map comes with several features which makes this app more useful for the users, the list of features are:

- Online search - online mode
- Geonames search - offline mode
- Select area of interest
- Select OSM style - offline
- Geoname toggle button
- Offline toggle button
- Measure tool - length and area
- Geolocation button
- Add place-mark on map
- Change Layers - online
- Navigation menu

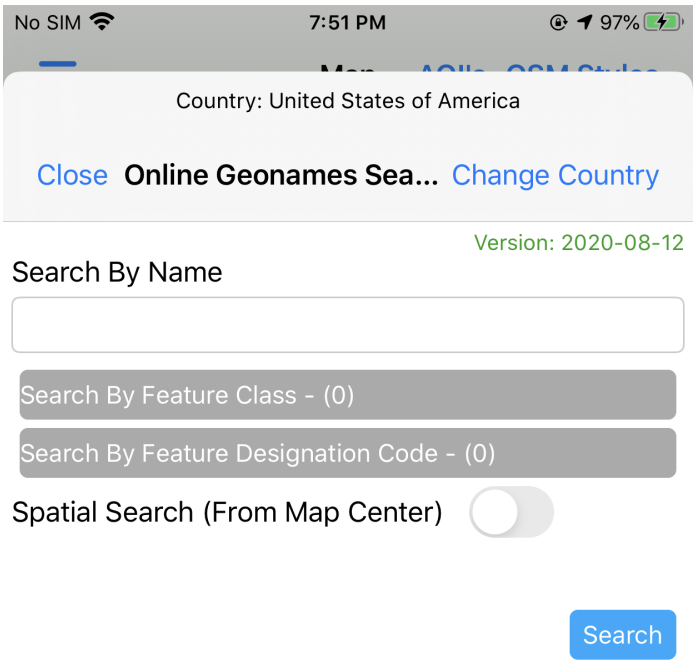
Online Search

- Toggle must be set to online mode
- Select one or more Feature Classes and the Designated Codes are Filtered based on that Selection.
- There are 9 Feature Classes administrative_region, Locality_area, populated_places, spot,streets_highways_roads_railroad, undersea, vegetation, hydrographic, hypsographic



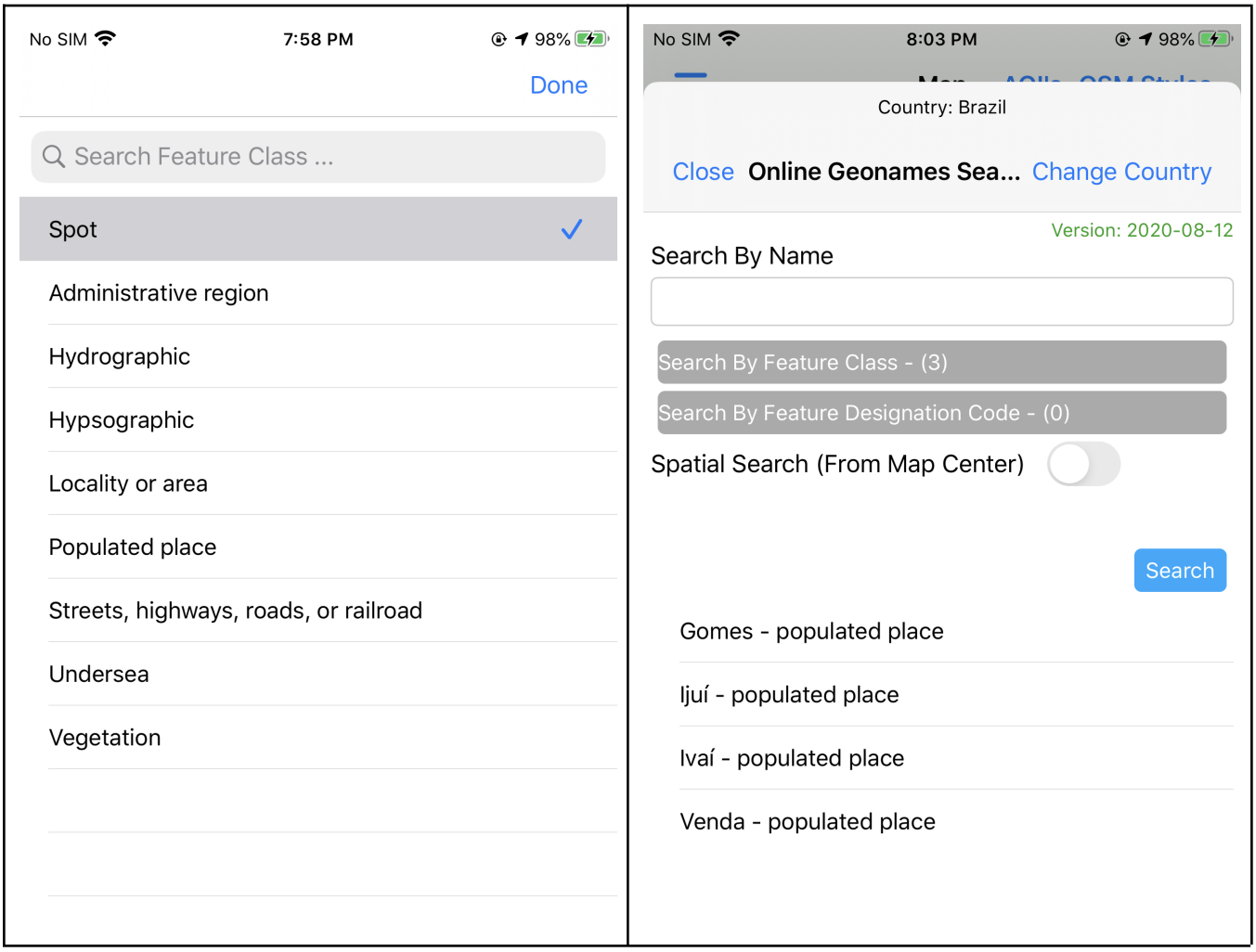
Search Steps:

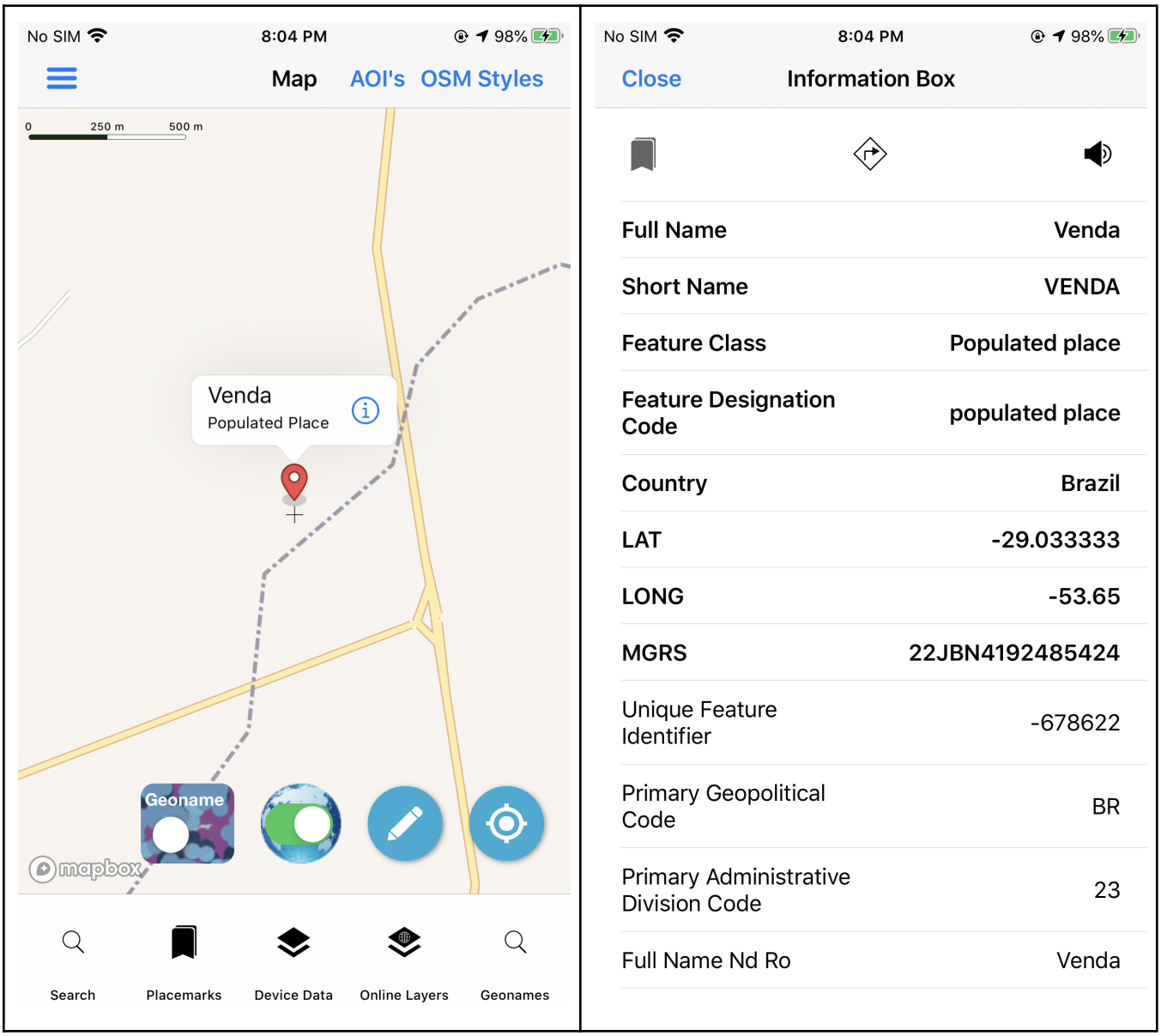
- Select a Country (Change Country you can have a default Country)
- Optionally, Search by Name
- Filter by Feature Class and Feature



Designated Code:

- For USA Domestic Geonames TMG has added FeatureClass but there is NO Feature Designated Code
-

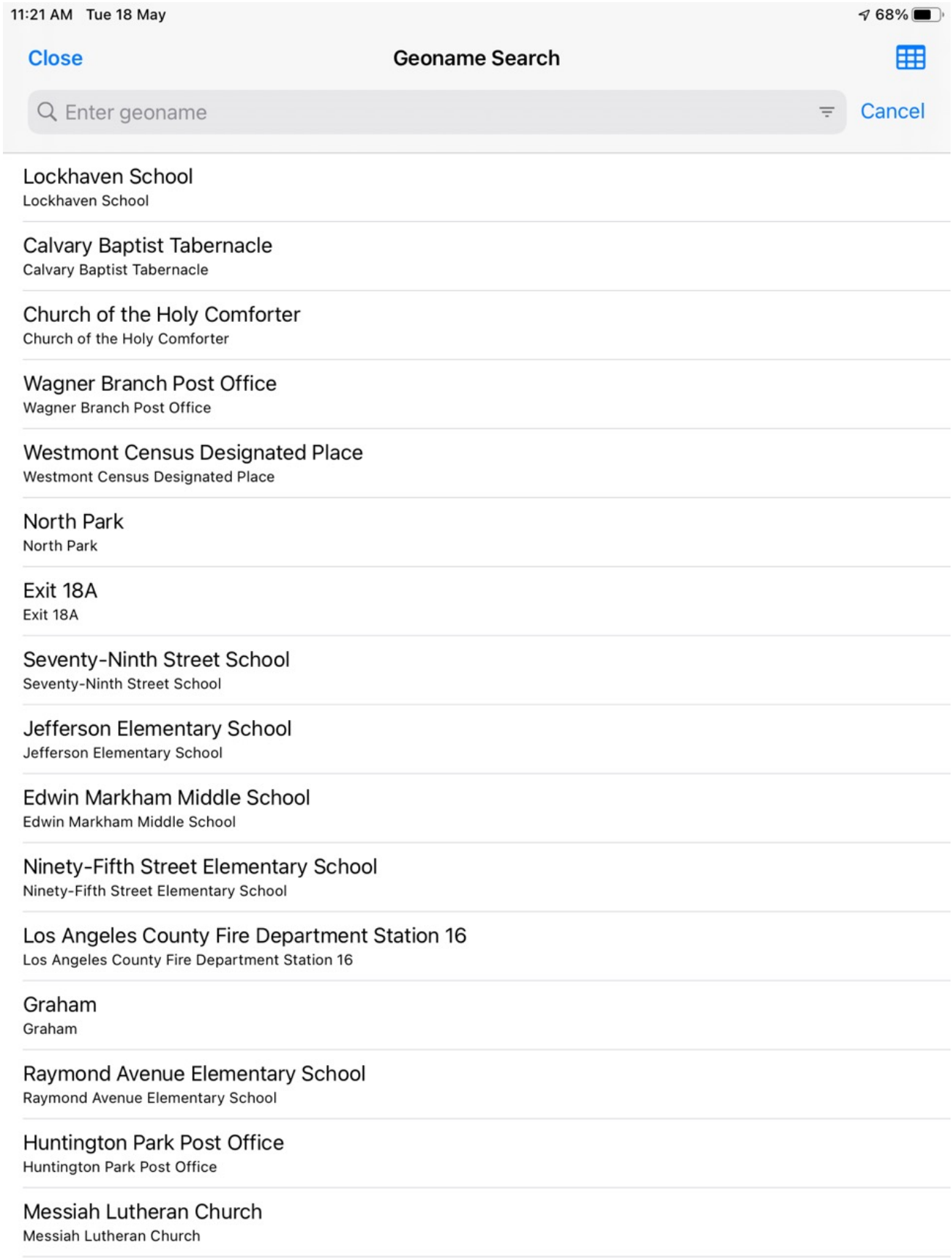


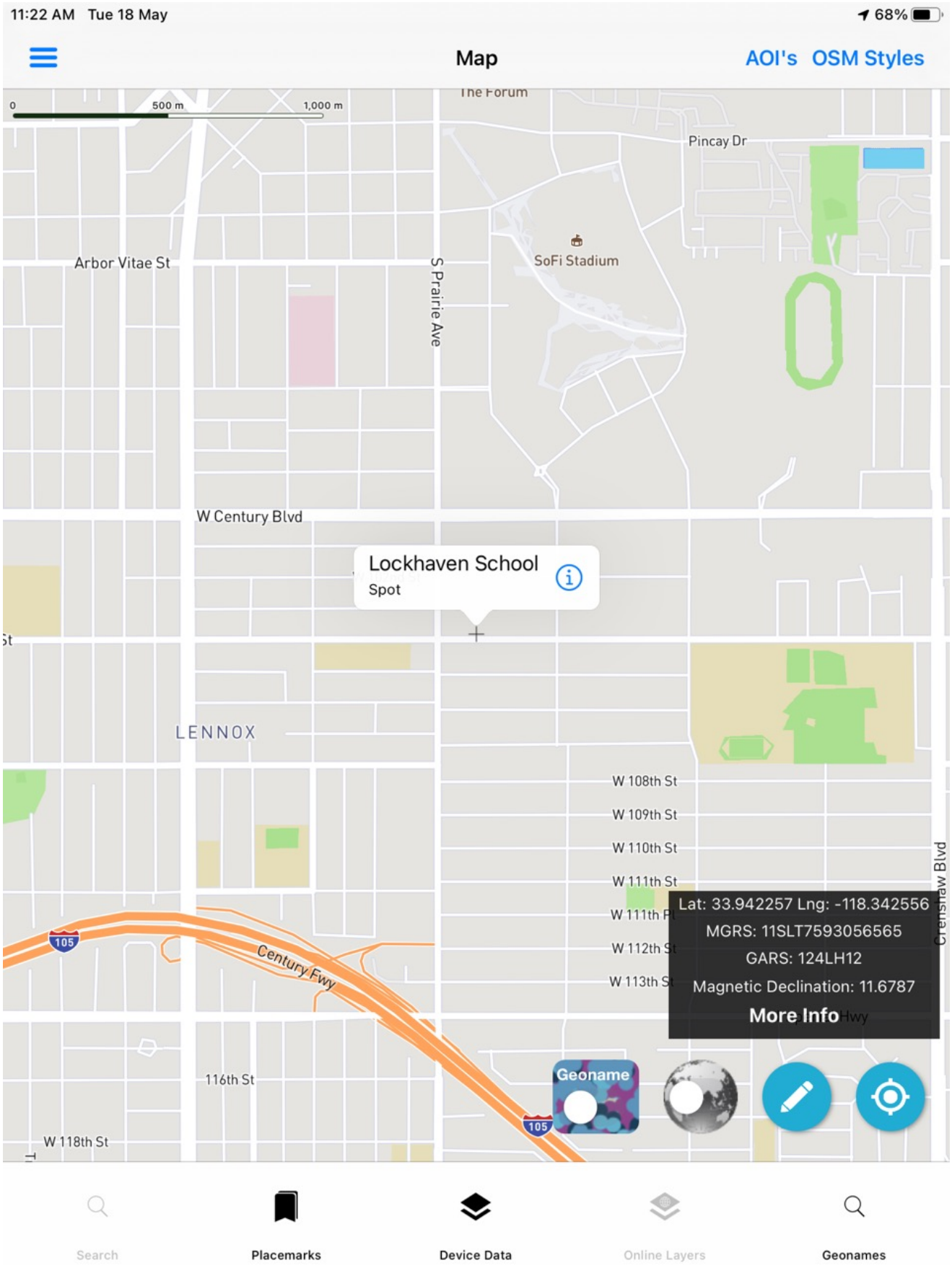

No SIM
8:04 PM
98%
Map
AOI's
OSM Styles
0
250 m
500 m
Venda
Populated Place
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames
No SIM
8:04 PM
98%
Close
Information Box
Full Name
Venda
Short Name
VENDA
Feature Class
Populated place
Feature Designation Code
populated place
Country
Brazil
LAT
-29.033333
LONG
-53.65
MGRS
22JBN4192485424
Unique Feature Identifier
-678622
Primary Geopolitical Code
BR
Primary Administrative Division Code
23
Full Name Nd Ro
Venda

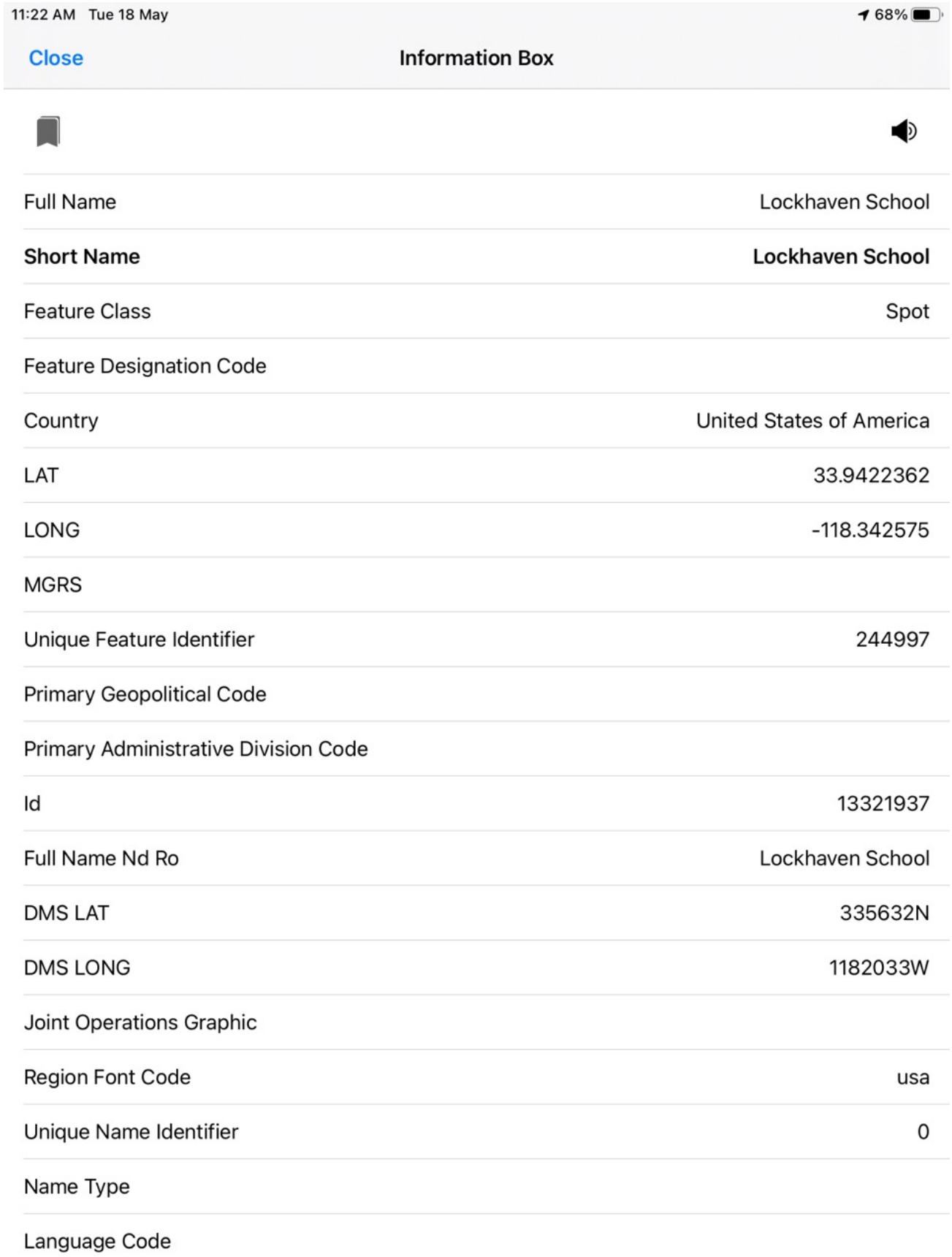
Geonames Search

The app has both Online and offline searching for NGA's Foreign GeoNames Database and USGS Domestic Geonames (GNIS).

- Offline (lower right geonames button)
- You can do a text search, filter by Feature Class and Feature Designated Code
- For offline geonames and spatial search(Offline) needs offline data
- You must have an active AOI (downloaded the AOI Request and be in offline mode toggle)

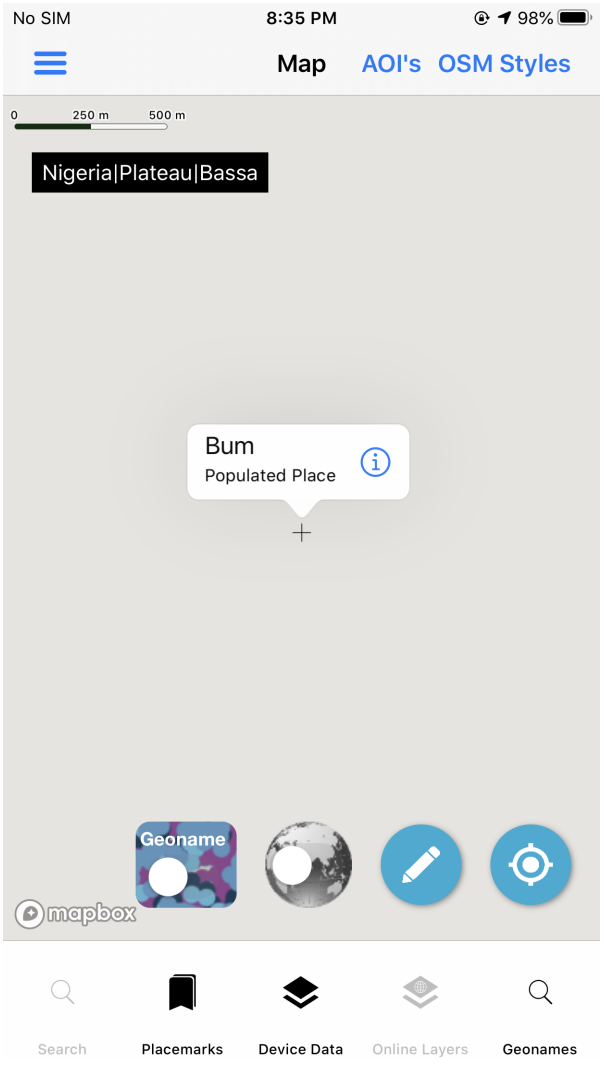

11:21 AM Tue 18 May
68%
Close
Geoname Search
Enter geoname
Cancel
Lockhaven School
Lockhaven School
Calvary Baptist Tabernacle
Calvary Baptist Tabernacle
Church of the Holy Comforter
Church of the Holy Comforter
Wagner Branch Post Office
Wagner Branch Post Office
Westmont Census Designated Place
Westmont Census Designated Place
North Park
North Park
Exit 18A
Exit 18A
Seventy-Ninth Street School
Seventy-Ninth Street School
Jefferson Elementary School
Jefferson Elementary School
Edwin Markham Middle School
Edwin Markham Middle School
Ninety-Fifth Street Elementary School
Ninety-Fifth Street Elementary School
Los Angeles County Fire Department Station 16
Los Angeles County Fire Department Station 16
Graham
Graham
Raymond Avenue Elementary School
Raymond Avenue Elementary School
Huntington Park Post Office
Huntington Park Post Office
Messiah Lutheran Church
Messiah Lutheran Church

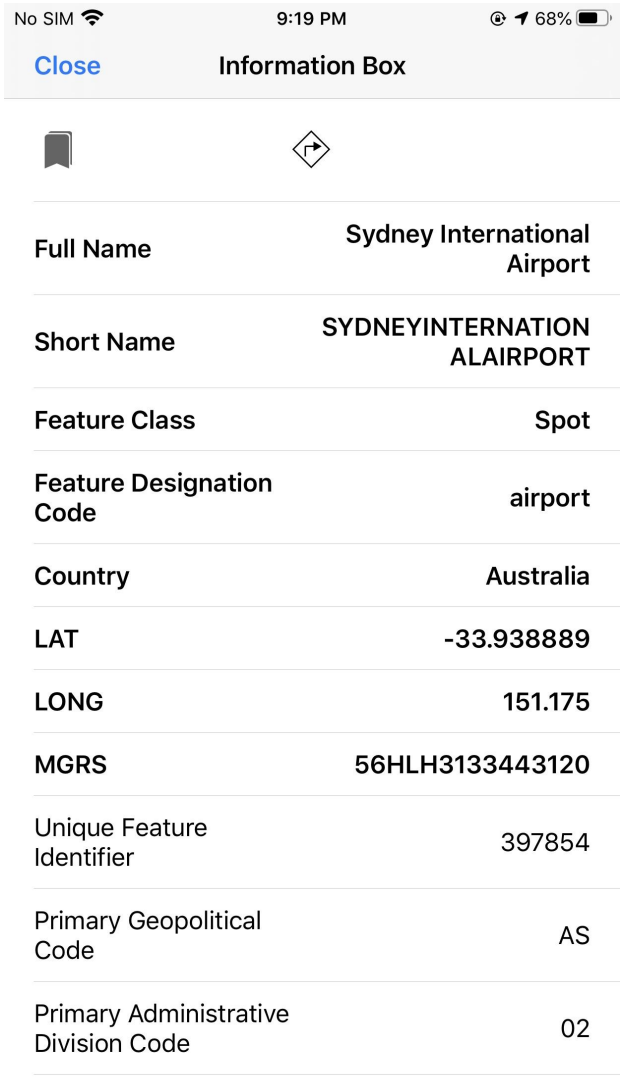

11:22 AM Tue 18 May
68%
Map
AOI's
OSM Styles
0
500 m
1,000 m
The Forum
Pincay Dr
Arbor Vitae St
S Prairie Ave
SoFi Stadium
W Century Blvd
Lockhaven School
Spot
LENNOX
W 108th St
W 109th St
W 110th St
W 111th St
W 112th St
W 113th St
Crenshaw Blvd
Lat: 33.942257 Lng: -118.342556
MGRS: 11SLT7593056565
GARS: 124LH12
Magnetic Declination: 11.6787
More Info
105
Century Fwy
116th St
W 118th St
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames


11:22 AM Tue 18 May
68%
Close
Information Box
Full Name
Lockhaven School
Short Name
Lockhaven School
Feature Class
Spot
Feature Designation Code
Country
United States of America
LAT
33.9422362
LONG
-118.342575
MGRS
Unique Feature Identifier
244997
Primary Geopolitical Code
Primary Administrative Division Code
Id
13321937
Full Name Nd Ro
Lockhaven School
DMS LAT
335632N
DMS LONG
1182033W
Joint Operations Graphic
Region Font Code
usa
Unique Name Identifier
0
Name Type
Language Code

Geonames Popup

- Click on the i to bring up the popup
- AUDIO playback feature
- We have about 108 Countries with Audio
- If you don't see the speaker icon there is no audio for particular GeoNames

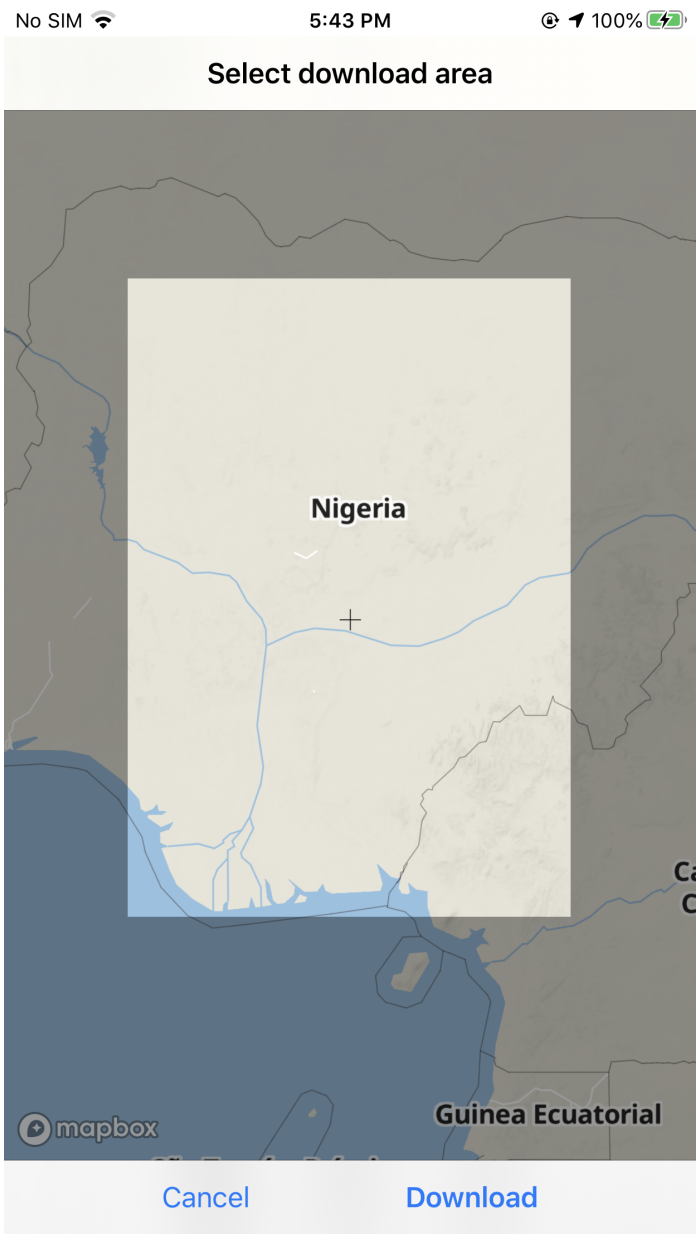


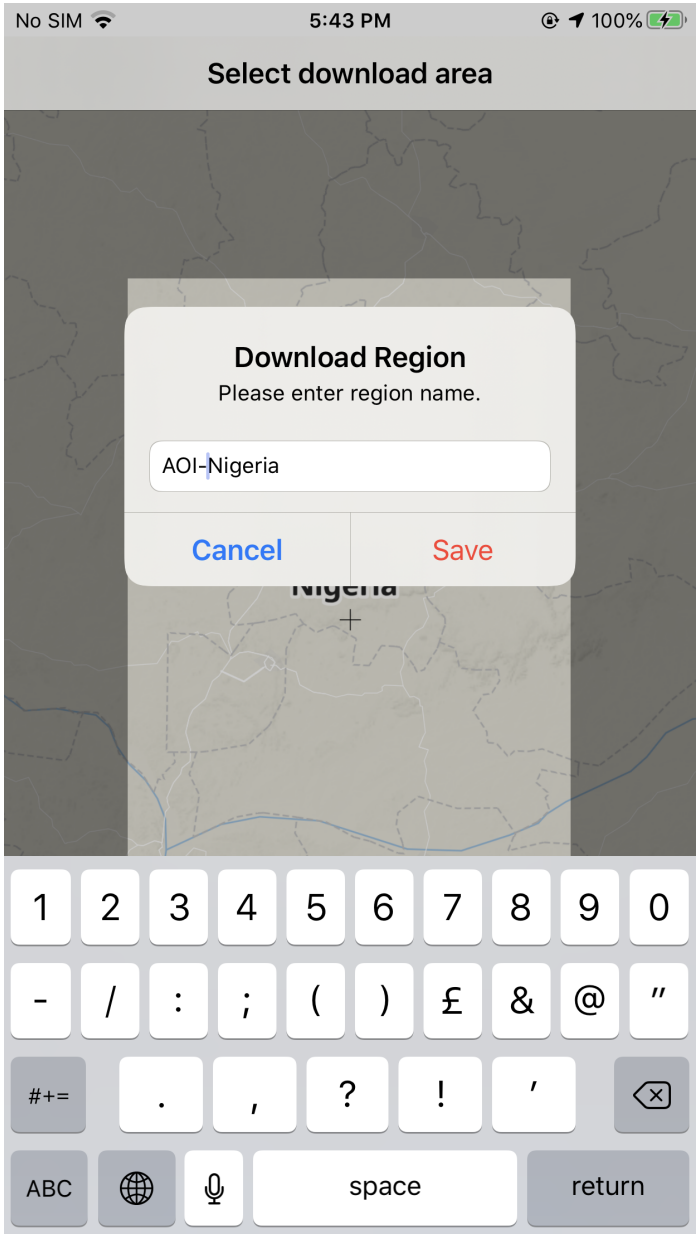


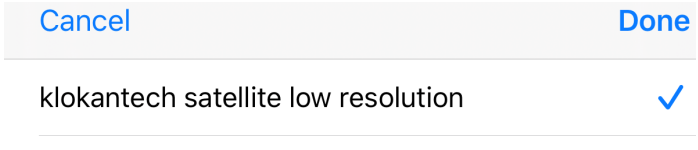
Note: If there is no audio for that GeoNames the speaker icon will not show.

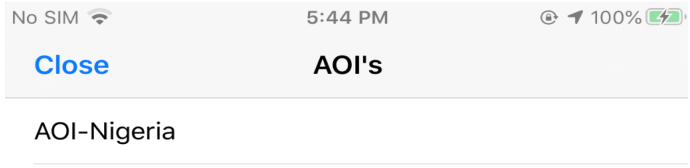
Select Area of Interest

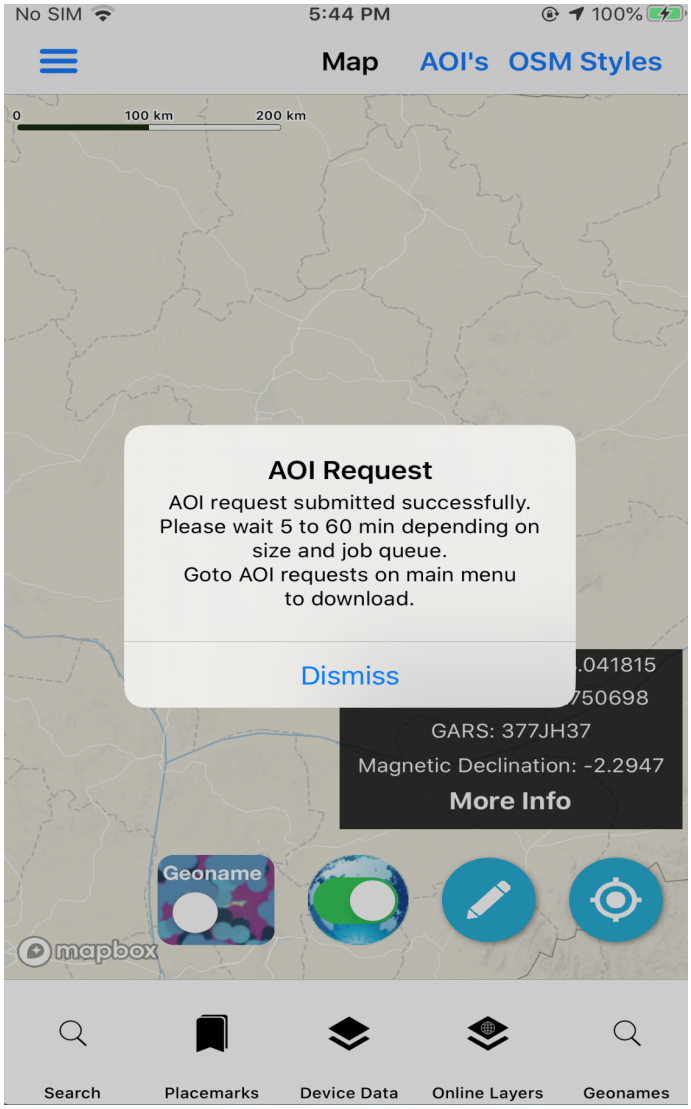
- Go to side Navigation Menu & click on Offline Maps (AOI)
- Pan and Zoom the Map to your Area of Interest (you can use the Search bottom left to search for a Place/City/Address or the Go To Coordinate Feature)
- Click Download
- Name your Region - click Save
- Go back to Side Navigation click Close Map (back to main menu)
- Click AOI Requests - Select your Region Name
- Click Download All (you will see Status In Progress, Ready, Download Completed) You may need to click Refresh or Download All several times to get all the data
- Offline Data is downloaded for the Area of Interest that you specify. (it may take anywhere from 5min to 60 min to build the offline data depending on the queue of jobs at the server and the size of your area).
- After clicking on ‘Download’. You can see a popup where you can enter and save your AOI with a region name
- Select the optional data to be cut into areas of interest.
- Required data is automatically selected. CLick Done and Job will be submitted. You will see dialog message

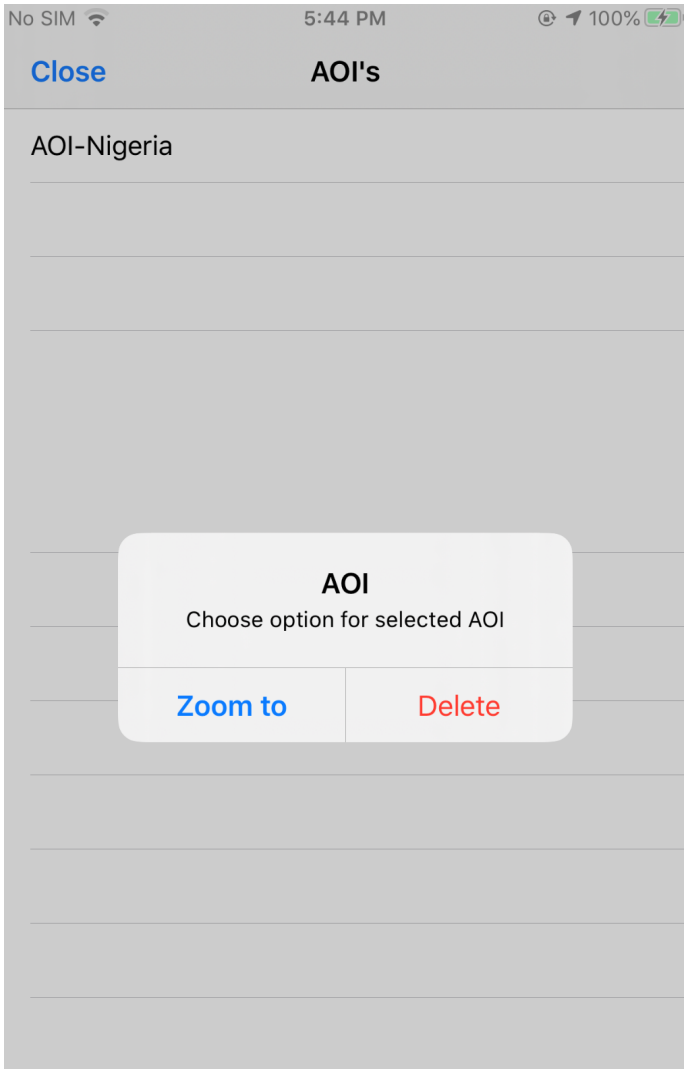

No SIM
5:43 PM
100%
Select download area
Nigeria
Guinea Ecuatorial
mapbox
Cancel
Download


No SIM
5:43 PM
100%
Select download area
Download Region
Please enter region name.
AOI-Nigeria
Cancel
Save
1 2 3 4 5 6 7 8 9 0
- / : ; ( ) £ & @ "
#+= . , ? ! '
ABC
space
return


Cancel
Done
klokantech satellite low resolution
hillshade raster tiles
contour lines vector tiles


No SIM
5:44 PM
100%
Close
AOI's
AOI-Nigeria


No SIM
5:44 PM
100%
Map
AOI's
OSM Styles
0
100 km
200 km
AOI Request
AOI request submitted successfully.
Please wait 5 to 60 min depending on size and job queue.
Goto AOI requests on main menu to download.
Dismiss
.041815
750698
GARS: 377JH37
Magnetic Declination: -2.2947
More Info
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames


No SIM
5:44 PM
100%
Close
AOI's
AOI-Nigeria
AOI
Choose option for selected AOI
Zoom to
Delete

Select OSM Style

This control works with both the default internet connected vector tile OpenStreetMap basemap (from OpenMapTiles hosted by Tech Maven Geospatial) as well as the optional offline data.

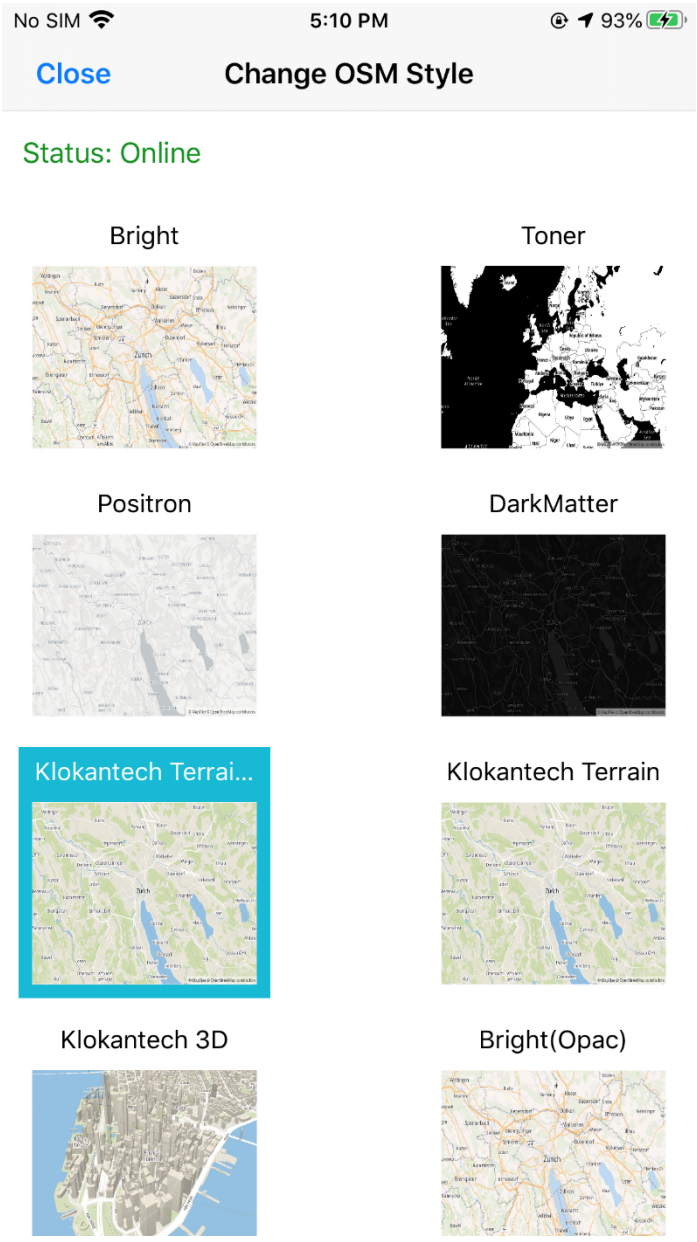
The app includes support for the following Styles:

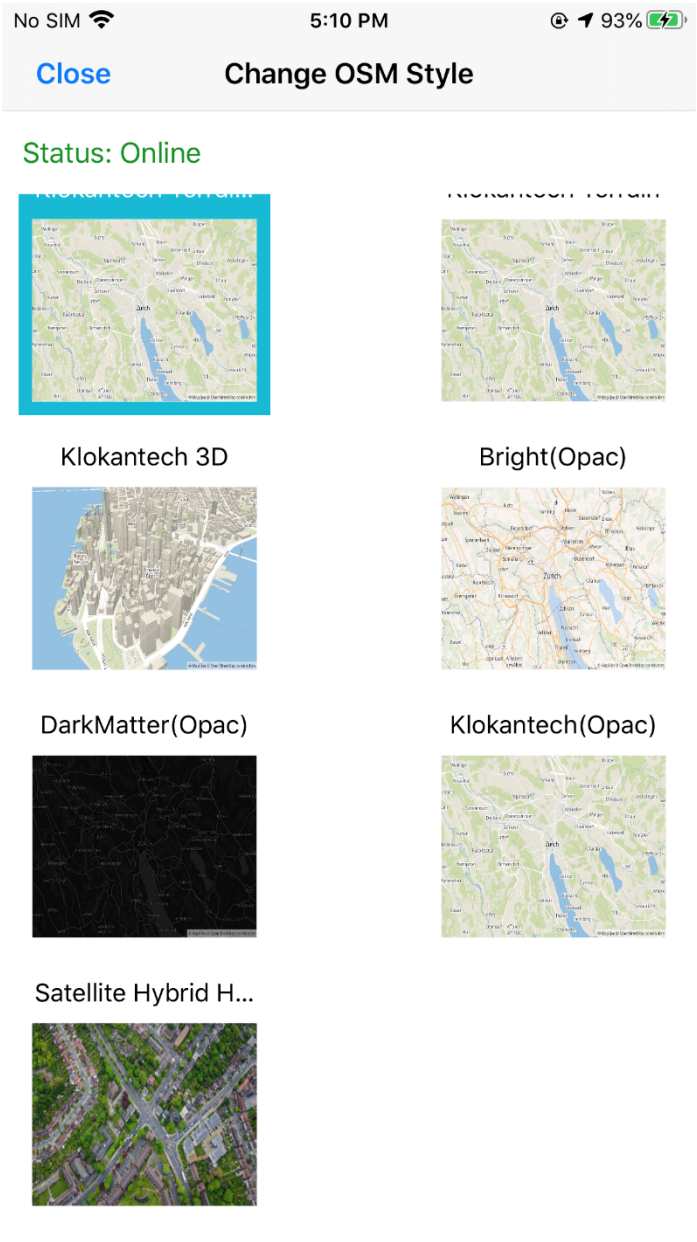
- Bright
- Toner
- Positron
- Dark Matter
- Klokantech
- Klokantech 3D

3 styles for use with other basemaps below the OSM vector tiles so those styles have Opacity settings/transparency for the polygons:

- Bright
- Dark Matter
- Klokantech

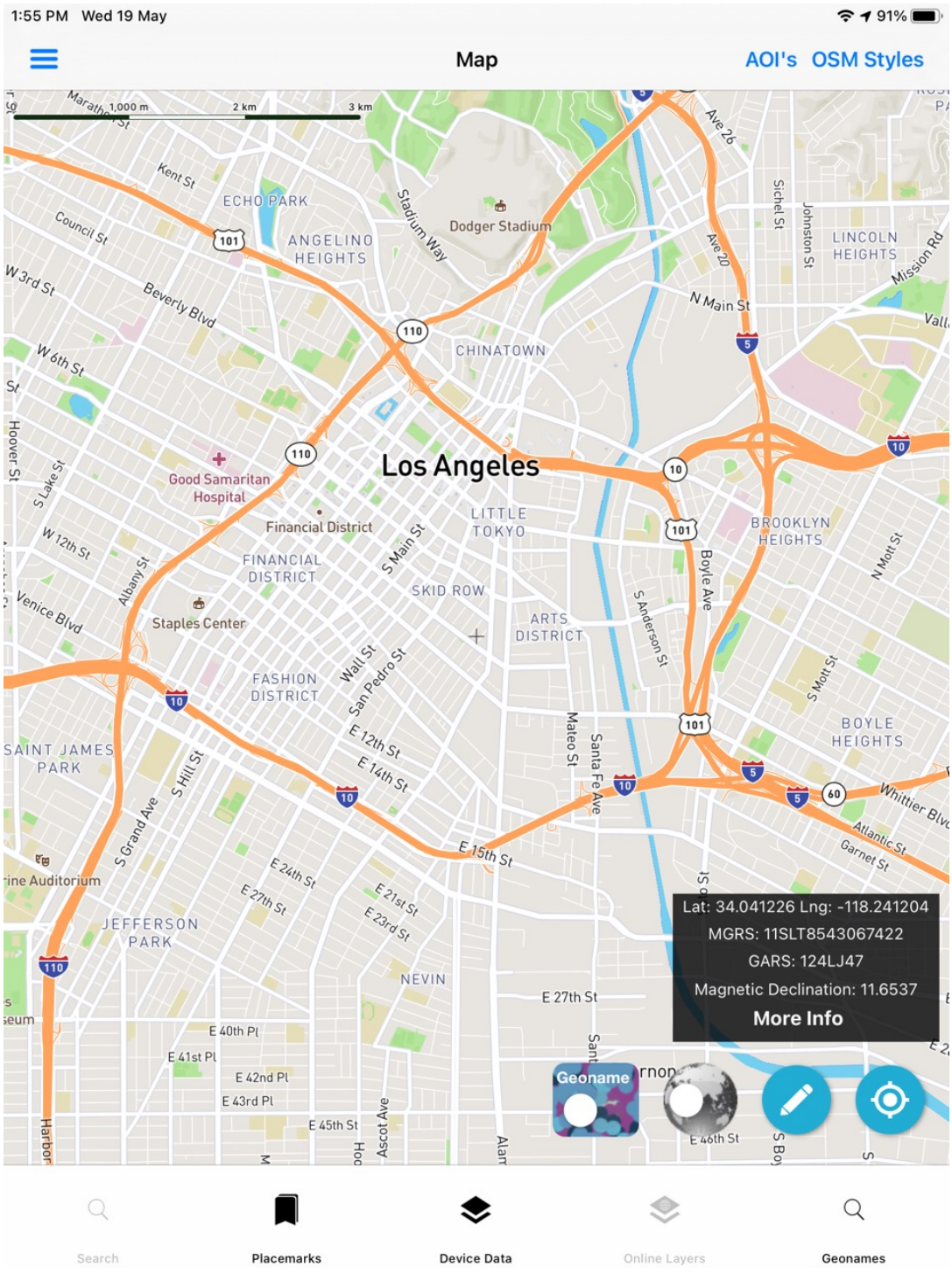
Note: There is a toggle to turn off the OSM Basemap. If you load a Raster Tile Basemap from the Basemap Picker you will NOT see if unless you've either turned off the OSM Basemap or switched the style to one with Opacity

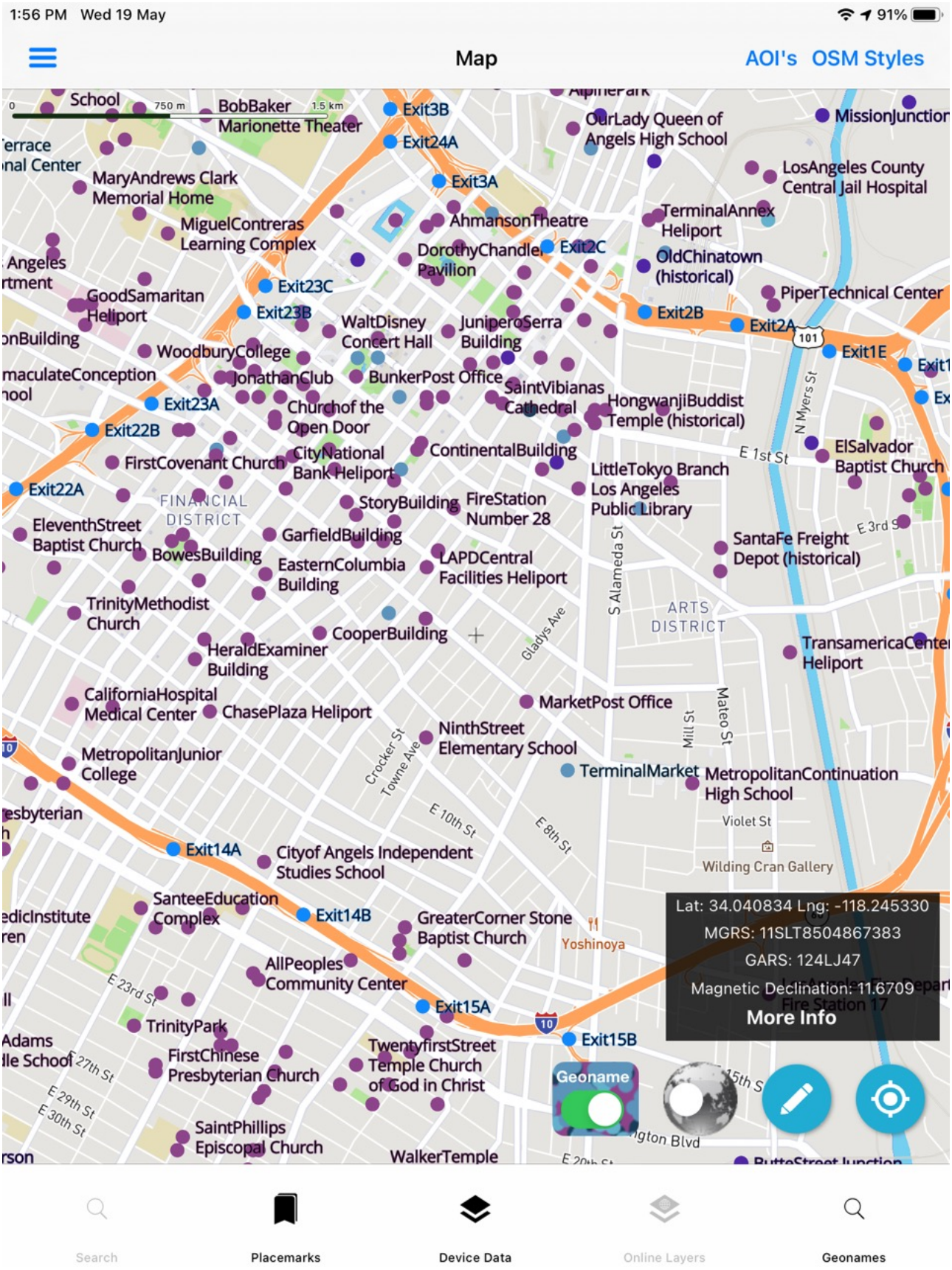




Geoname Toggle Button

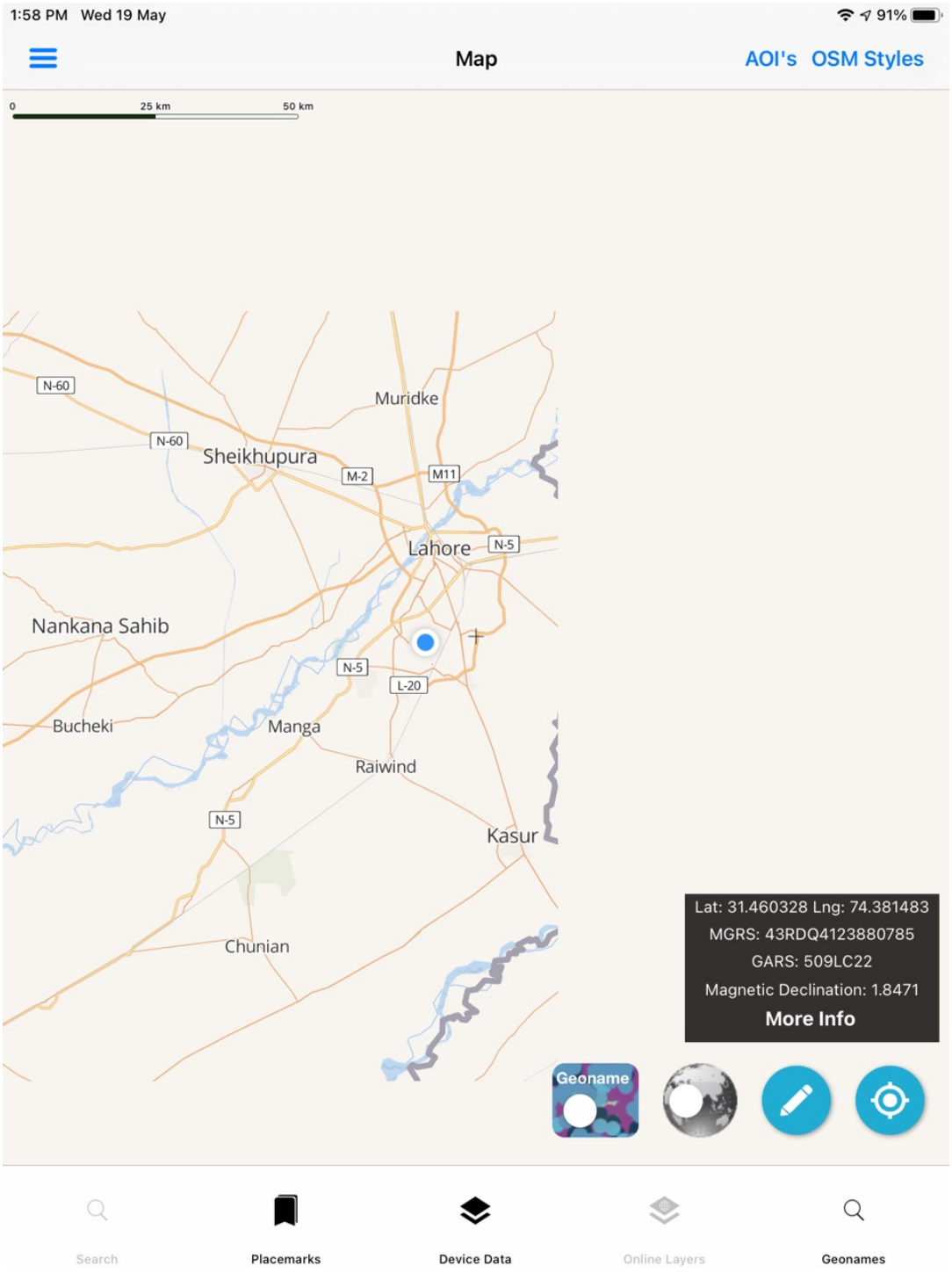
The toggle button at the button named Geonames allows the users to enable and disable the geonames points on the map.

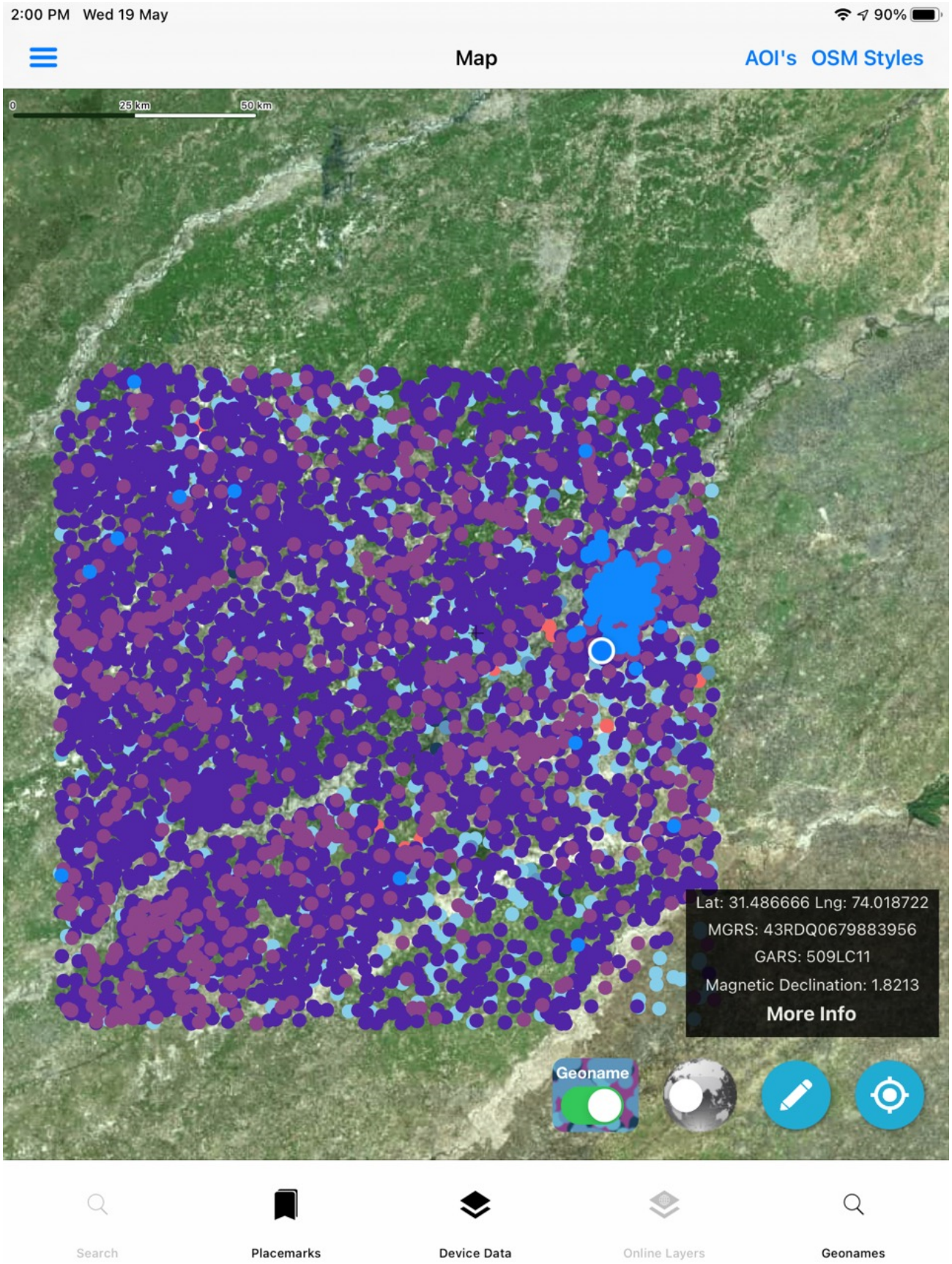



1:56 PM Wed 19 May
91%
Map
AOI's
OSM Styles
Lat: 34.040834 Lng: -118.245330
MGRS: 11SLT8504867383
GARS: 124LJ47
Magnetic Declination: 11.6709
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames

Offline Toggle Button

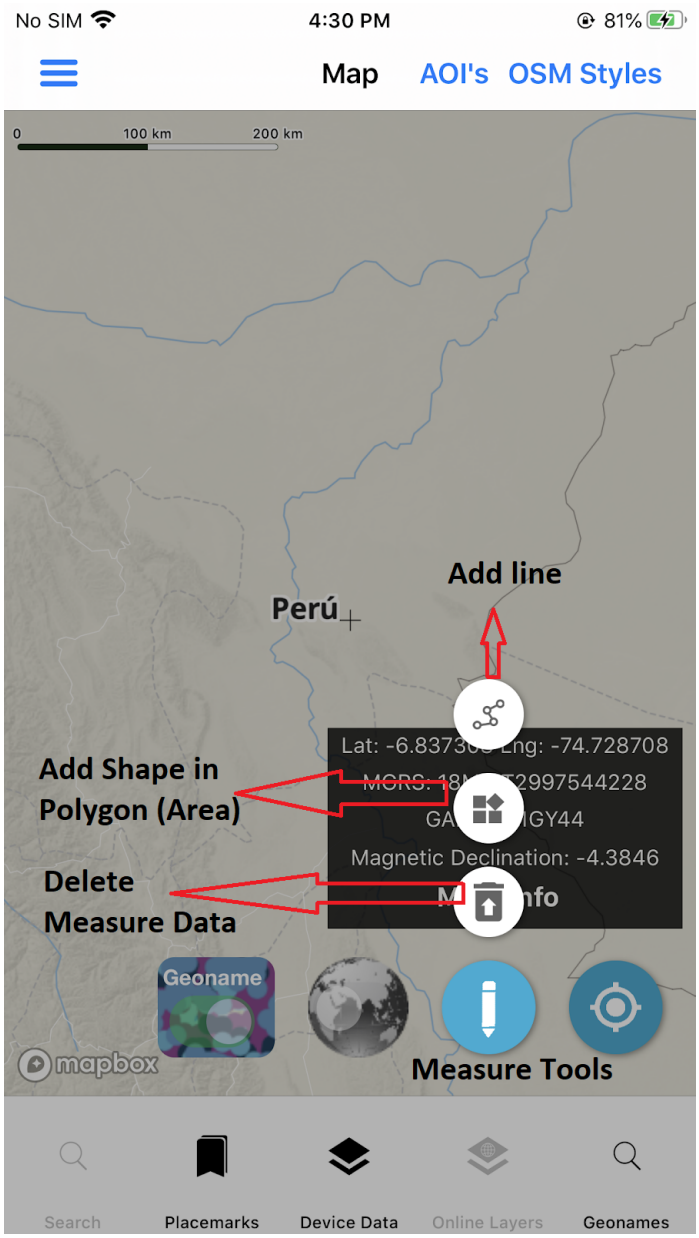
The toggle button to turn on and off the online mode is very handy, users can select AOI and then they can see the geonames data while mode is offline, similarly if the user turns offline mode to online, he/ she can see the geonames data that is not even downloaded.

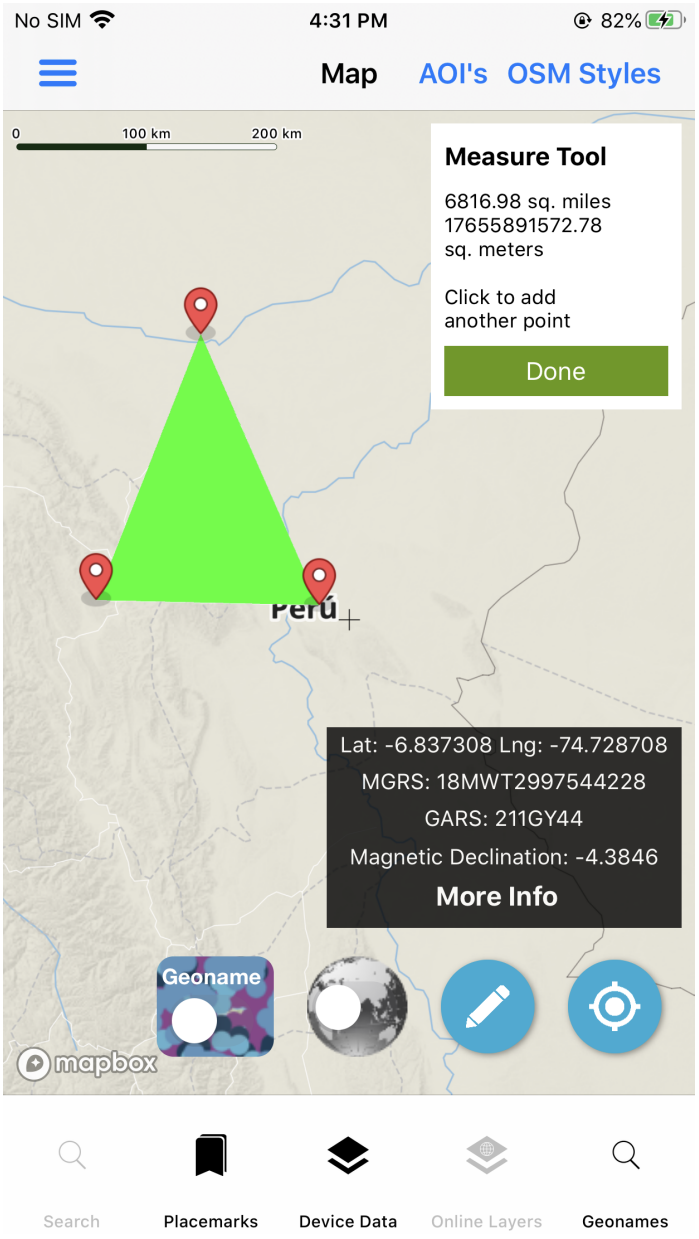



2:00 PM Wed 19 May
90%
Map
AOI's
OSM Styles
0
25 km
50 km
Lat: 31.486666 Lng: 74.018722
MGRS: 43RDQ0679883956
GARS: 509LC11
Magnetic Declination: 1.8213
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames

Measure Tool

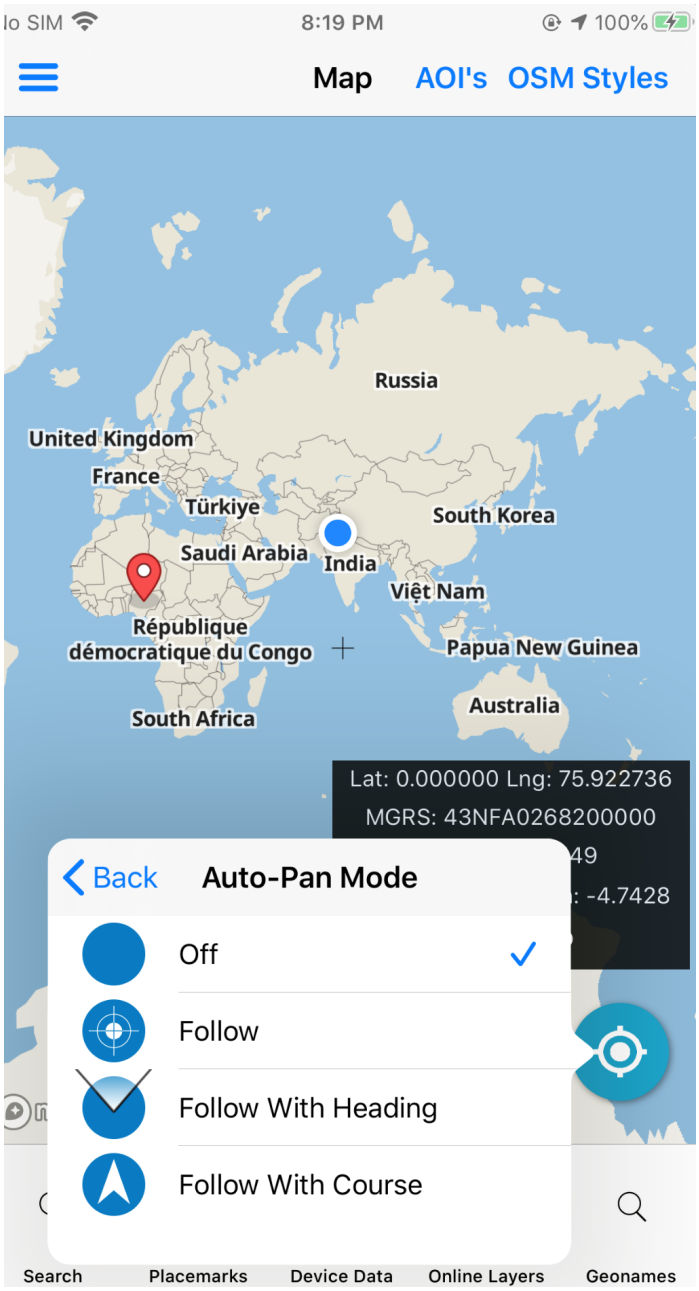
The little pencil icon Enables tools for Measure Linear and Area measurements

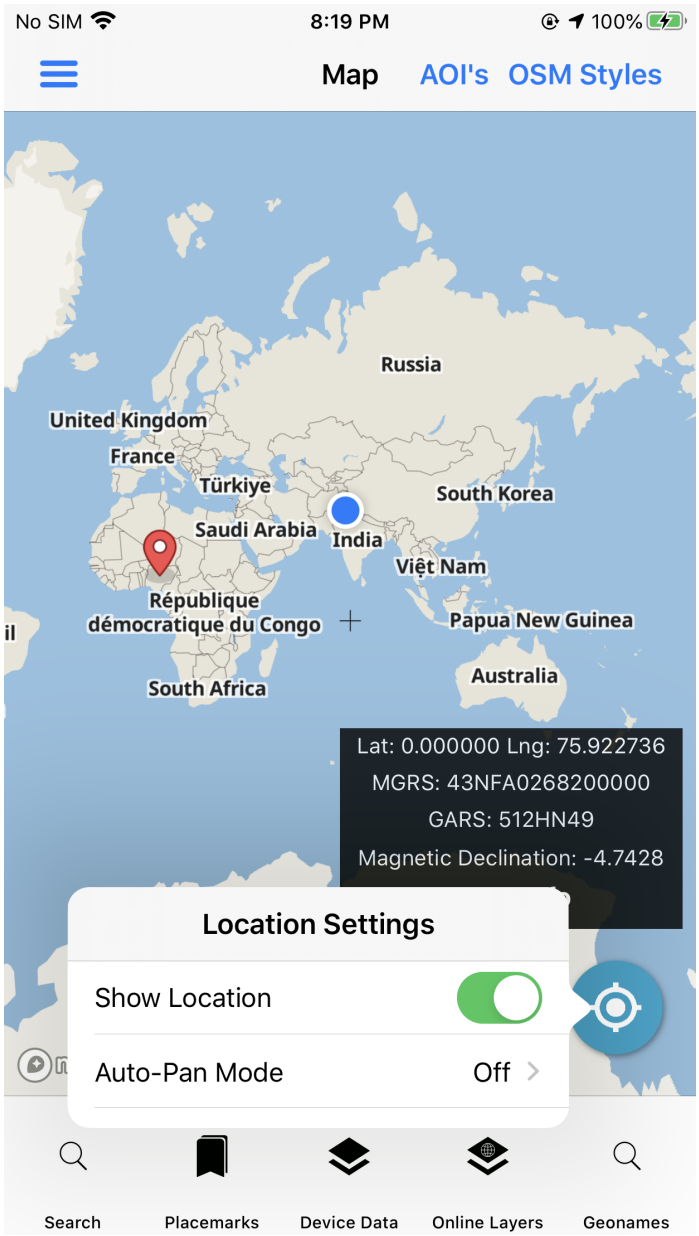



No SIM
4:31 PM
82%
Map
AOI's
OSM Styles
0
100 km
200 km
Measure Tool
6816.98 sq. miles
17655891572.78
sq. meters
Click to add
another point
Done
Perú
Lat: -6.837308 Lng: -74.728708
MGRS: 18MWT2997544228
GARS: 211GY44
Magnetic Declination: -4.3846
More Info
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames

Geolocation Button

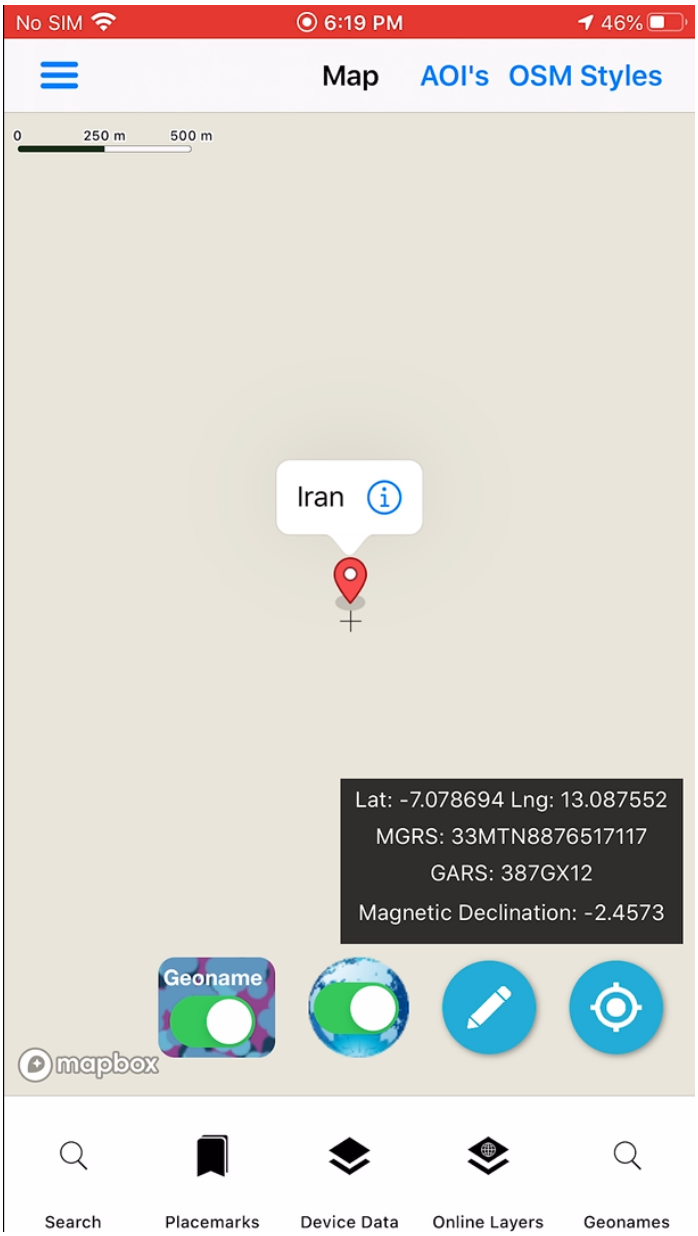
By Default GeoLocation is enabled you will see your location on the map.

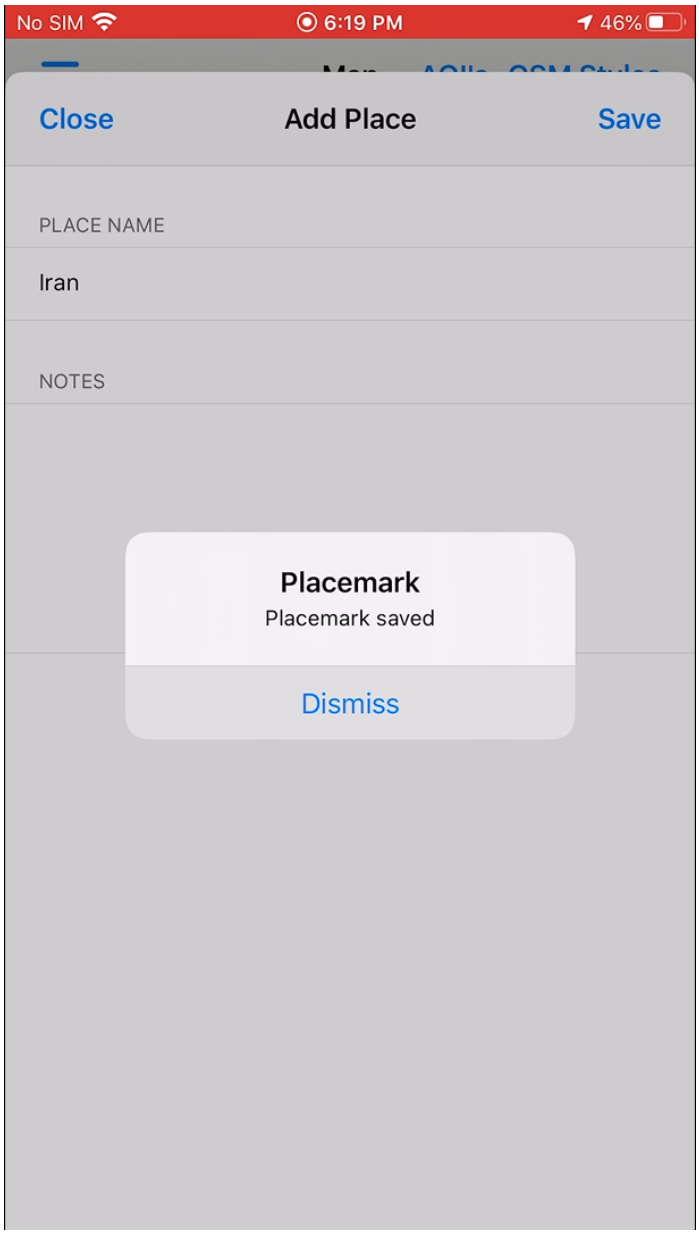




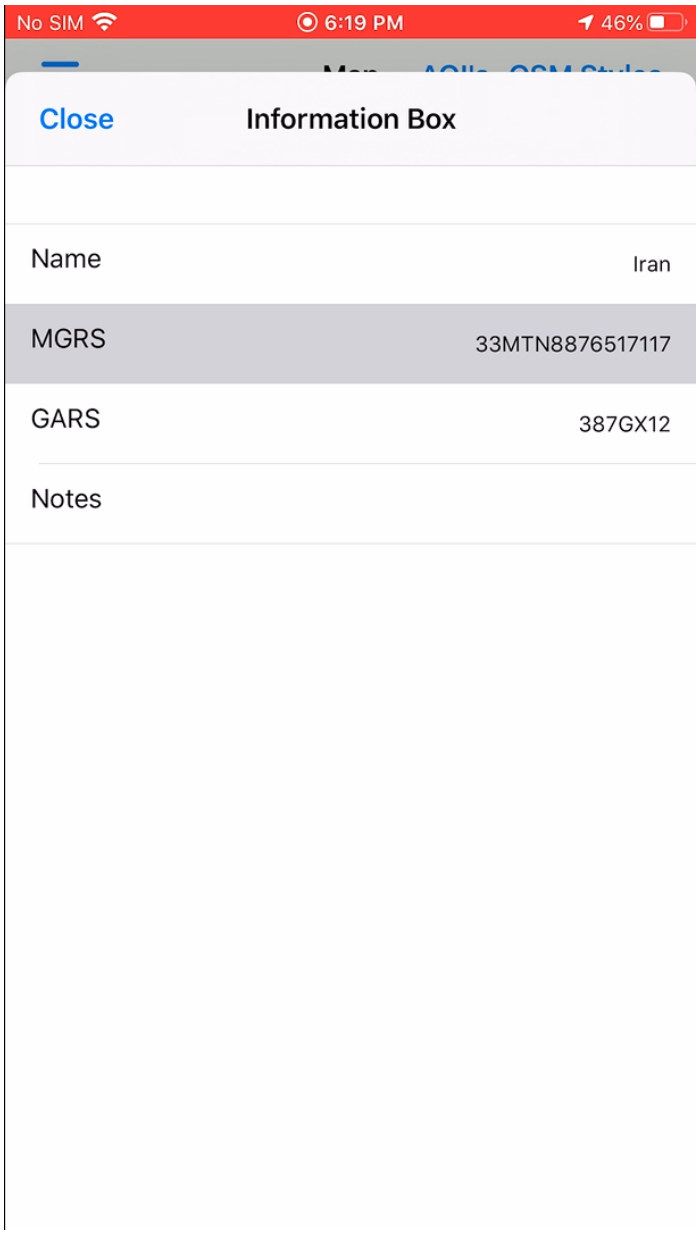
Add Place-mark

You can placemark using the ‘Placemarks’ option or using Geonames search below on map



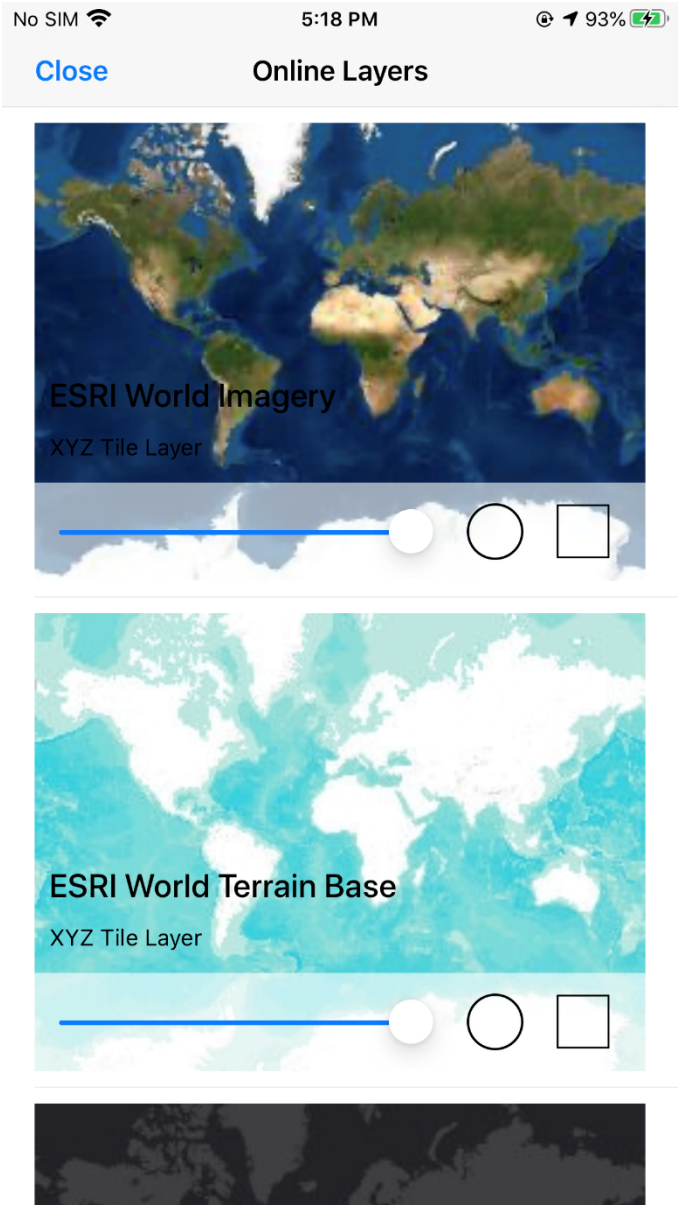


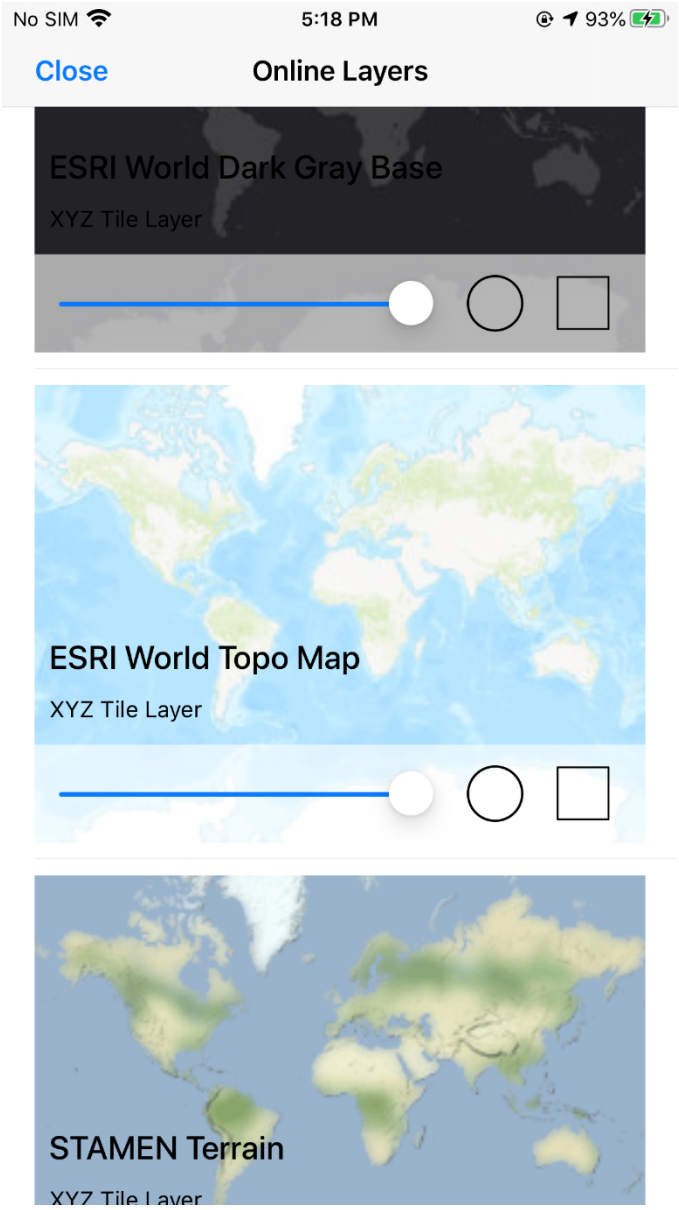
Placemarks is a spatial Bookmark and records notes/comments about locations and automatically adds MGRS / GARS information.



Change Online Layers

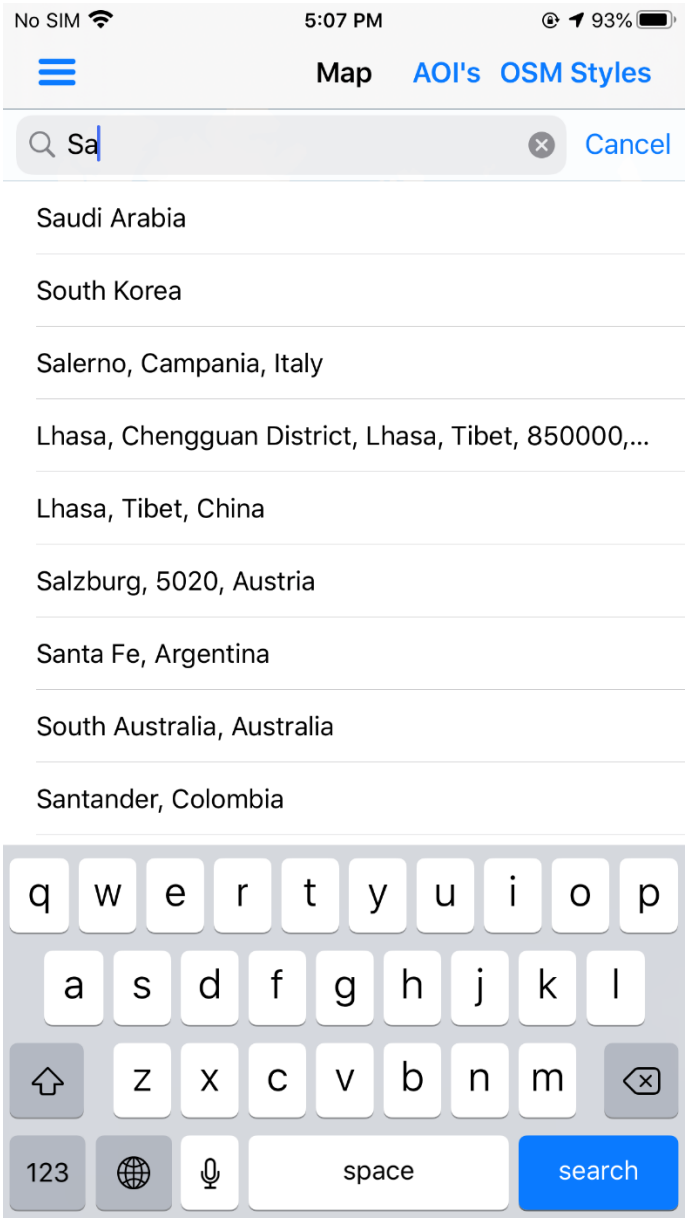
Users can also change the layers for online maps, the button to change the layers is at the bottom of the map.

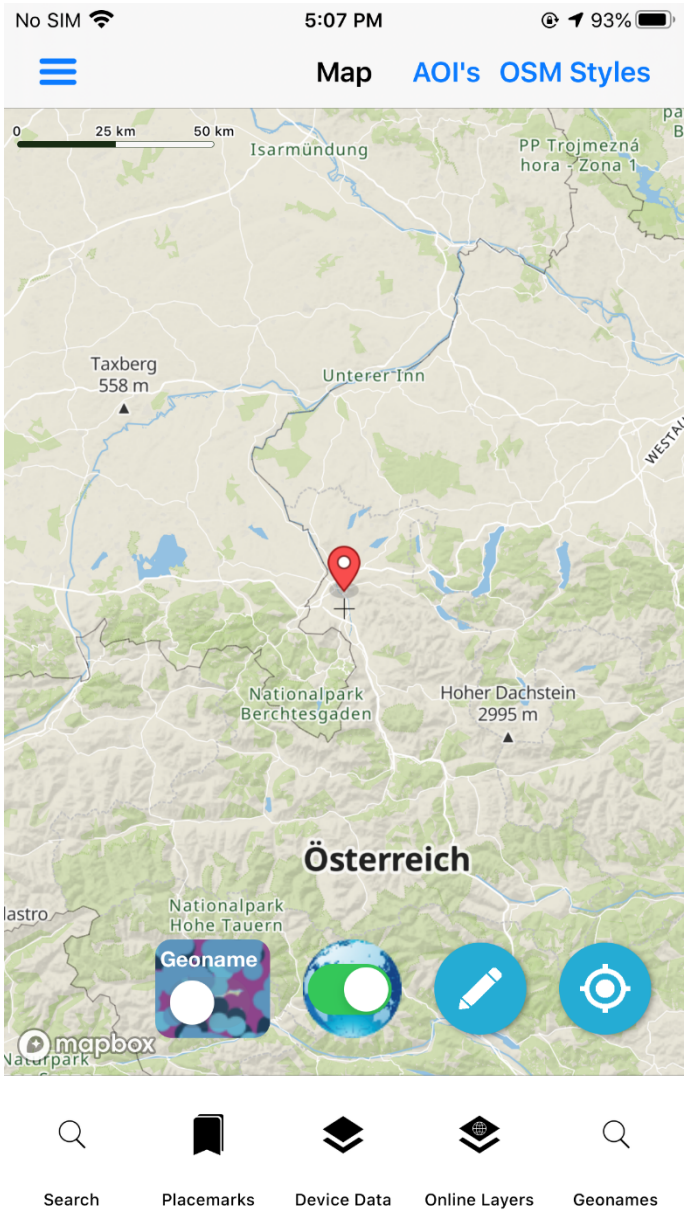




Search

You can search addresses or any type of location using the '**Search**' option.





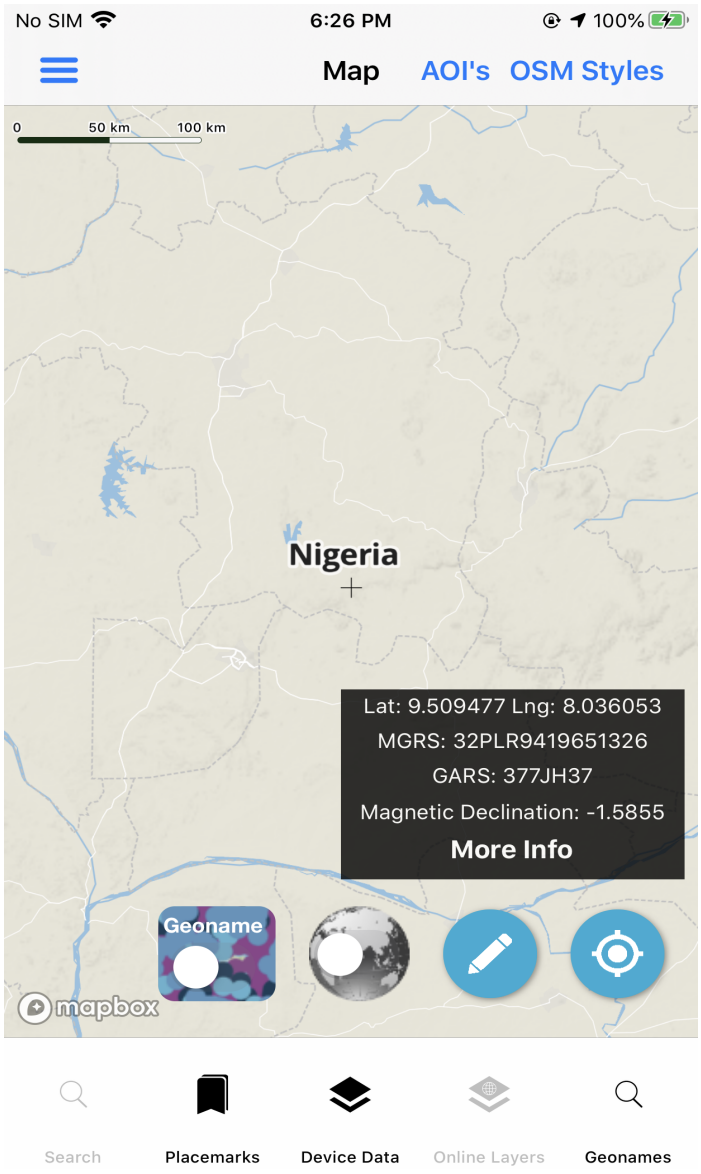
Coordinates on Map

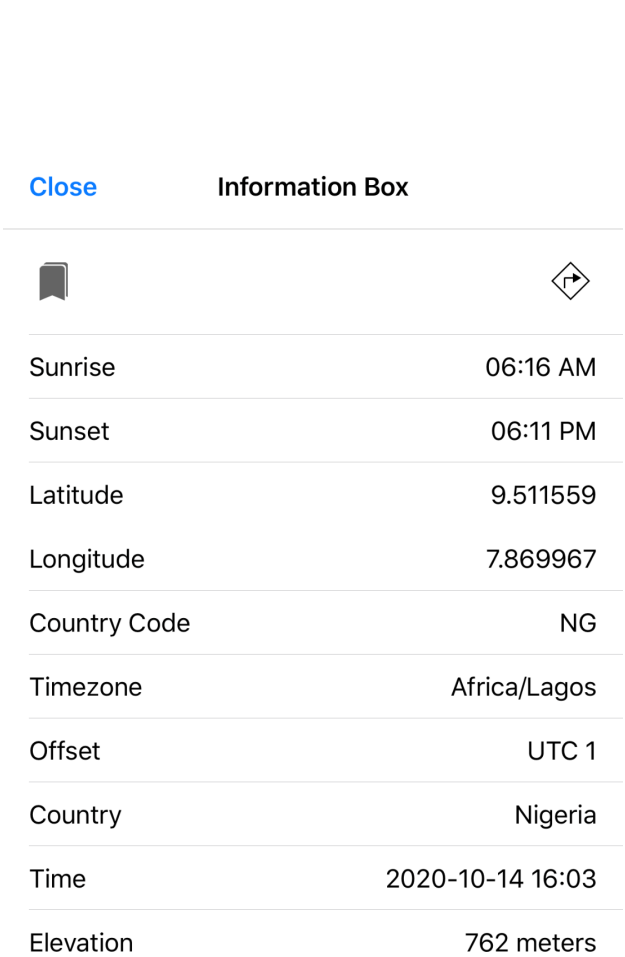
Widget Shows the center point of the Map location in the following:

- Latitude and Longitude in Decimal Degrees WGS84
- Military Grid Reference System (MGRS)
- Global Area Reference System (GARS)

More Info

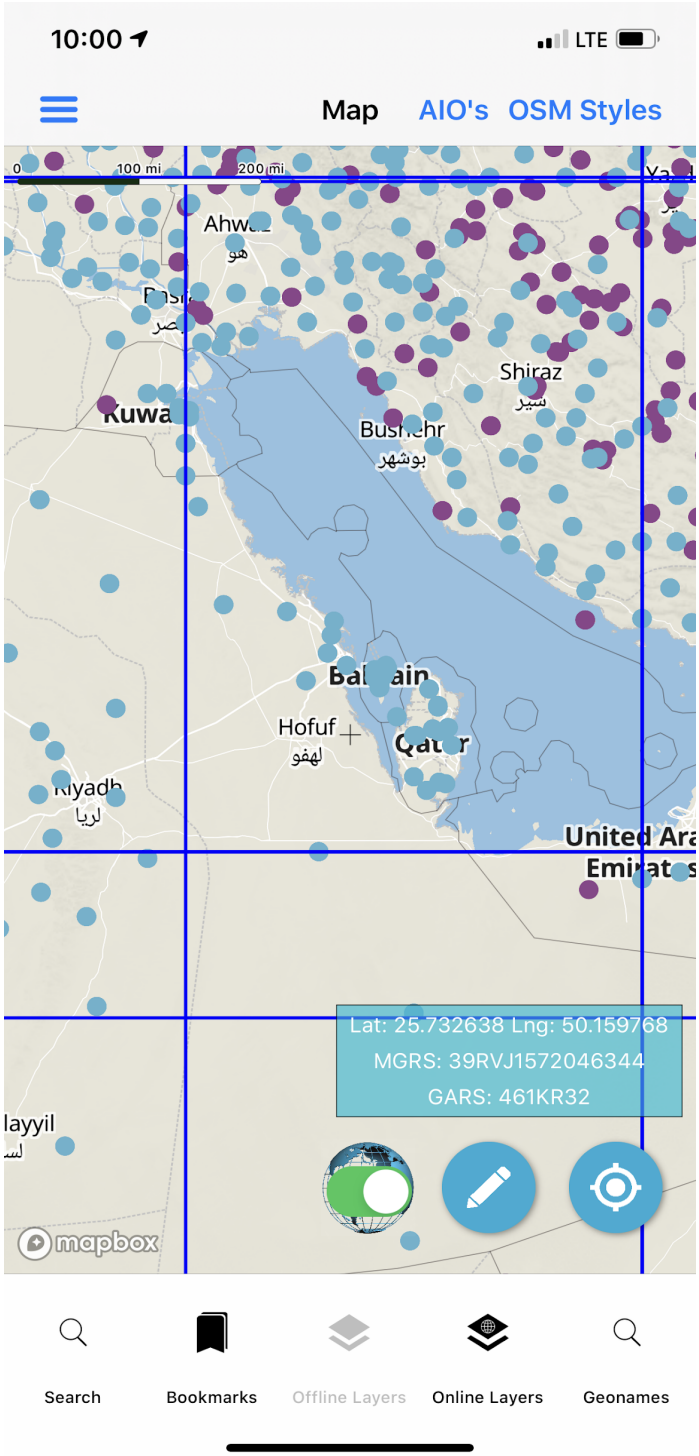
- Comes from GeoNames.org WebServices *Requires internet

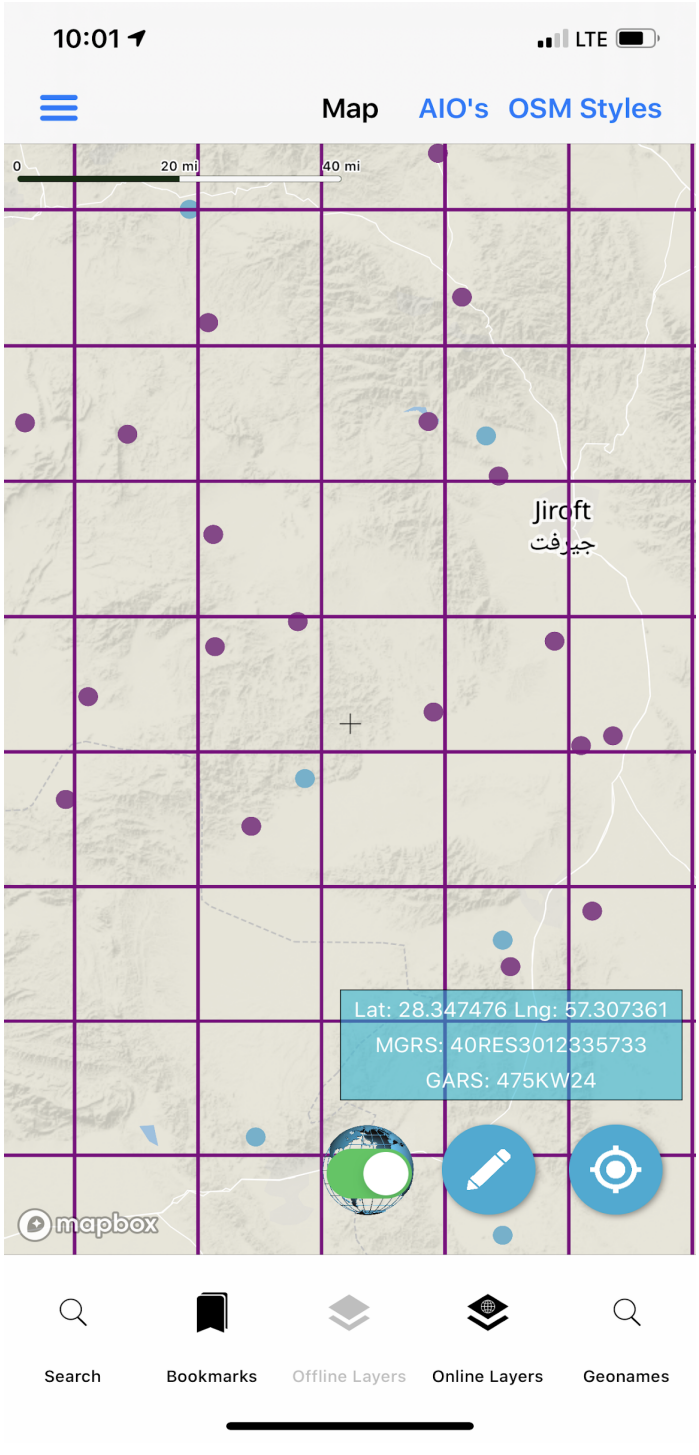




Grids on Map

The user can also see grids on the Map.



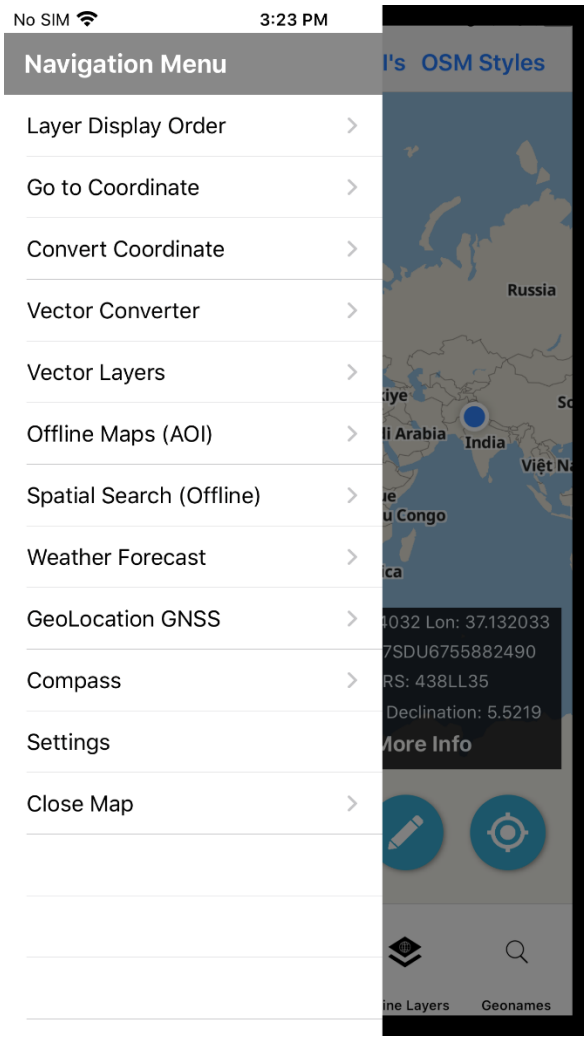


3

Navigation Menu

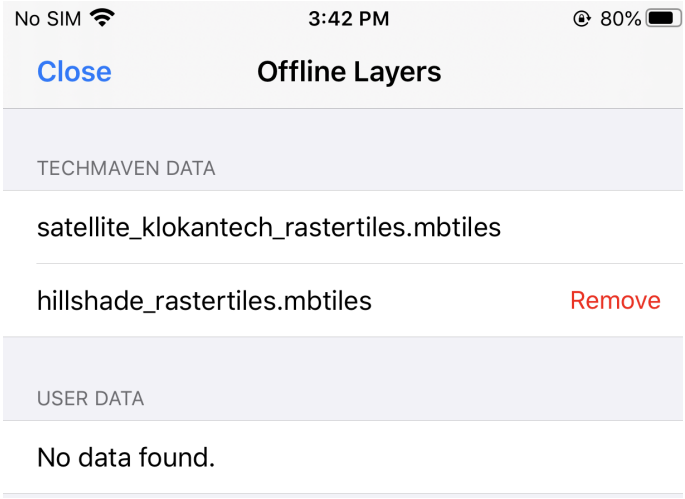
The navigation menu has several features :

- Layer display order
- Go to coordinate
- Convert coordinate
- Vector converter
- Vector layers
- Offline maps - Area of interest
- Spatial search offline
- OSM search
- Weather forecast
- Geolocation GNSS
- Compass
- Settings
- Close map

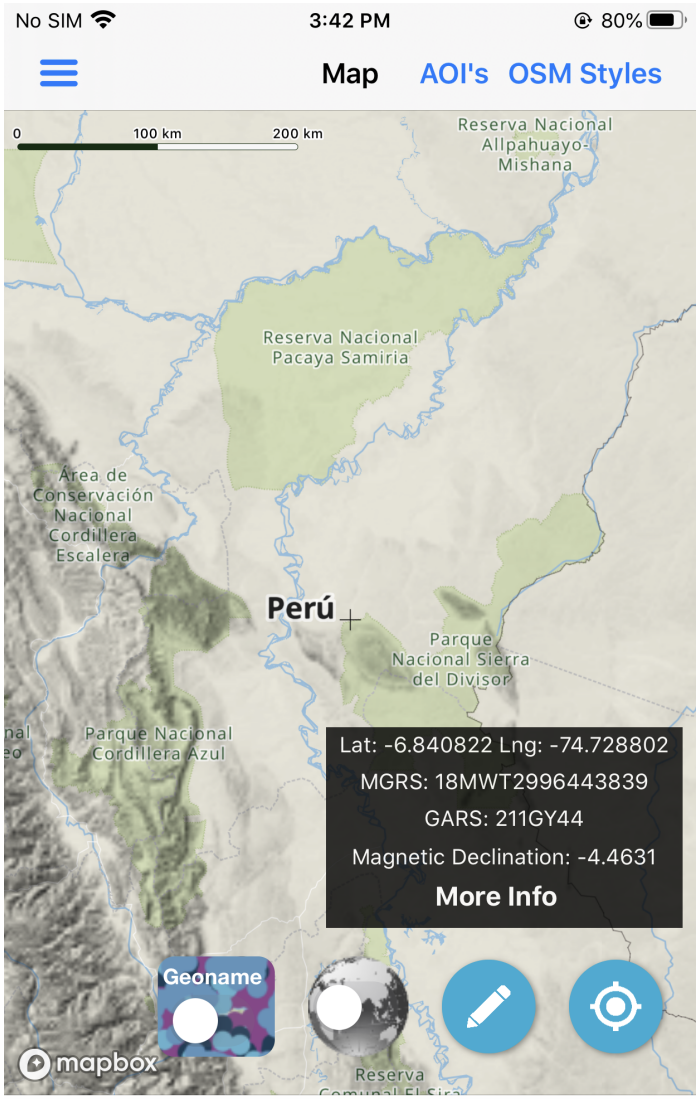


Layer Display Order

Allows the user to toggle on/off optional downloaded data as well as user data. You can also manage offline data from '**Layer Display Order**'.

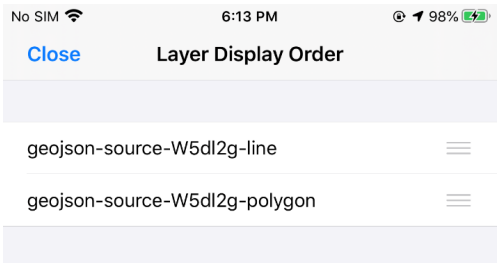


No SIM
11:17 PM
96%
Map
AOI's
OSM Styles
0
100 km
200 km
300 km
Lat: -6.626822 Lng: -75.472105
MGRS: 18MVT4781567480
GARS: 210GY14
Magnetic Declination: -3.8958
More Info
Geoname
mapbox


No SIM
3:42 PM
80%
Map
AOI's
OSM Styles
0
100 km
200 km
Reserva Nacional Allpahuayo-Mishana
Reserva Nacional Pacaya Samiria
Área de Conservación Nacional Cordillera Escalera
Perú
Parque Nacional Sierra del Divisor
Parque Nacional Cordillera Azul
Lat: -6.840822 Lng: -74.728802
MGRS: 18MWT2996443839
GARS: 211GY44
Magnetic Declination: -4.4631
More Info
Geoname
mapbox
Reserva

Search
Placemarks
Device Data
Online Layers
Geonames

Search
Placemarks
Device Data
Online Layers
Geonames

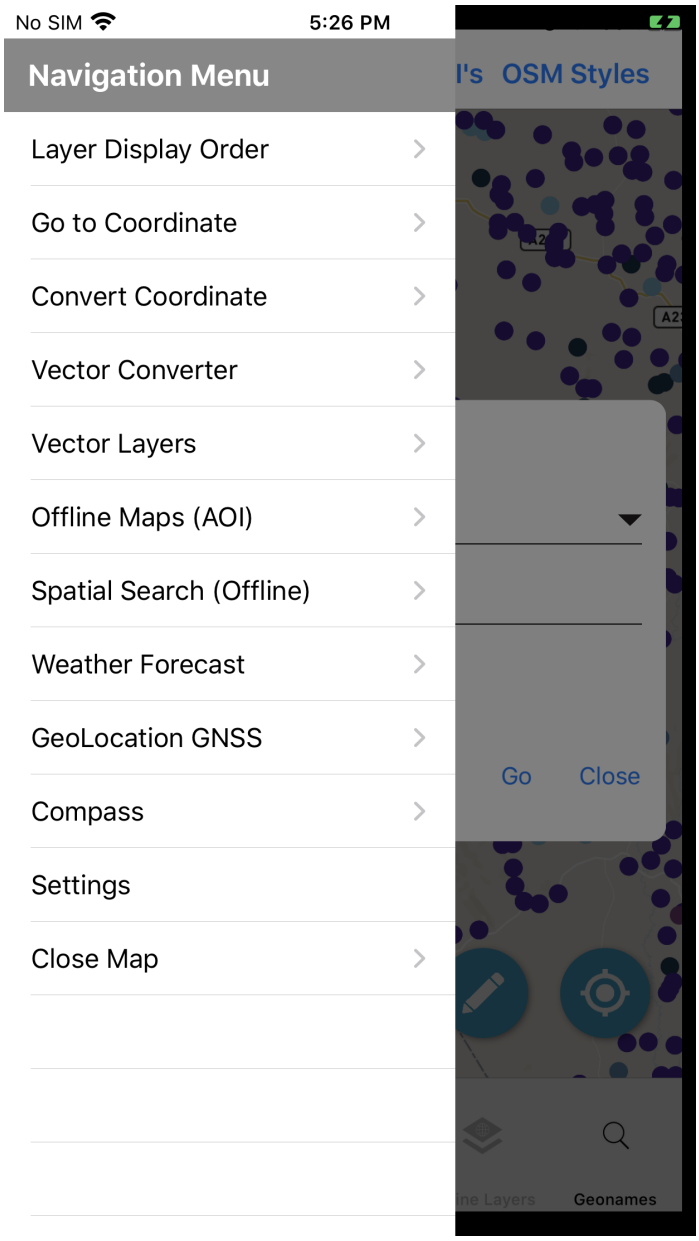

No SIM
6:13 PM
98%
Close
Layer Display Order
geojson-source-W5dl2g-line
geojson-source-W5dl2g-polygon

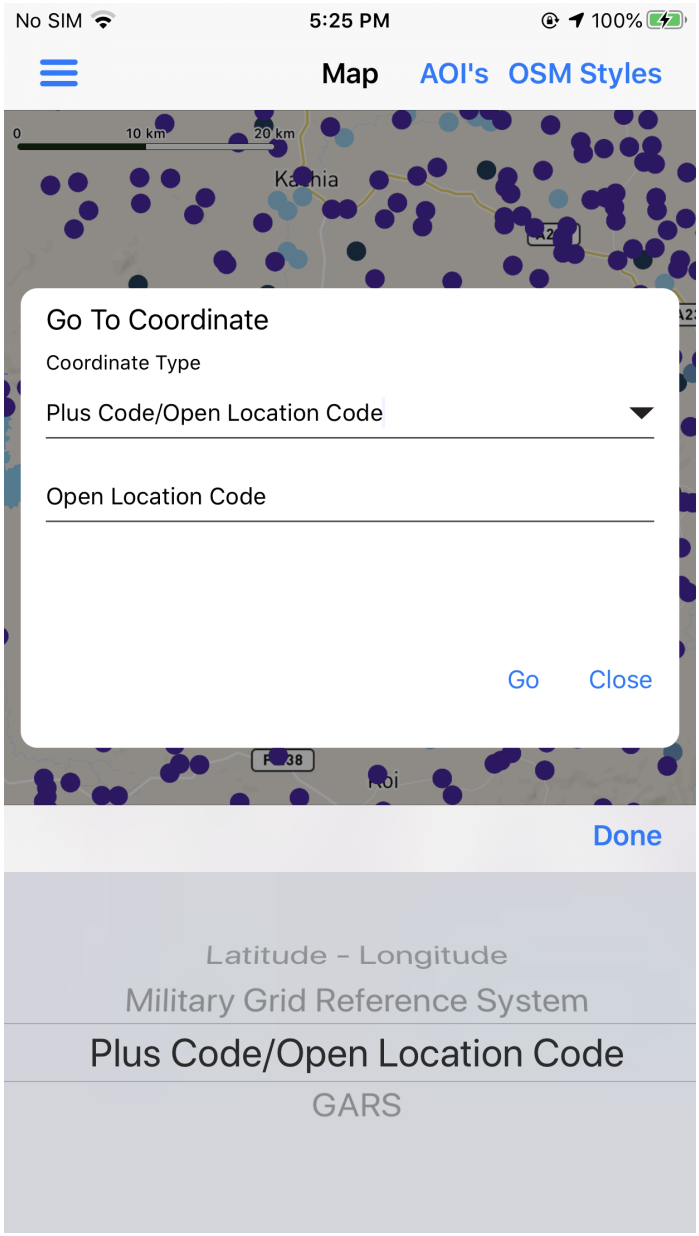
Go to Coordinates

This is a search form that allows users to quickly get to coordinates or grid cells.

- Latitude Longitude (WGS 84 Decimal Degrees)
- MGRS
- GARS

Note: future versions will include What3Words, PlaceKey

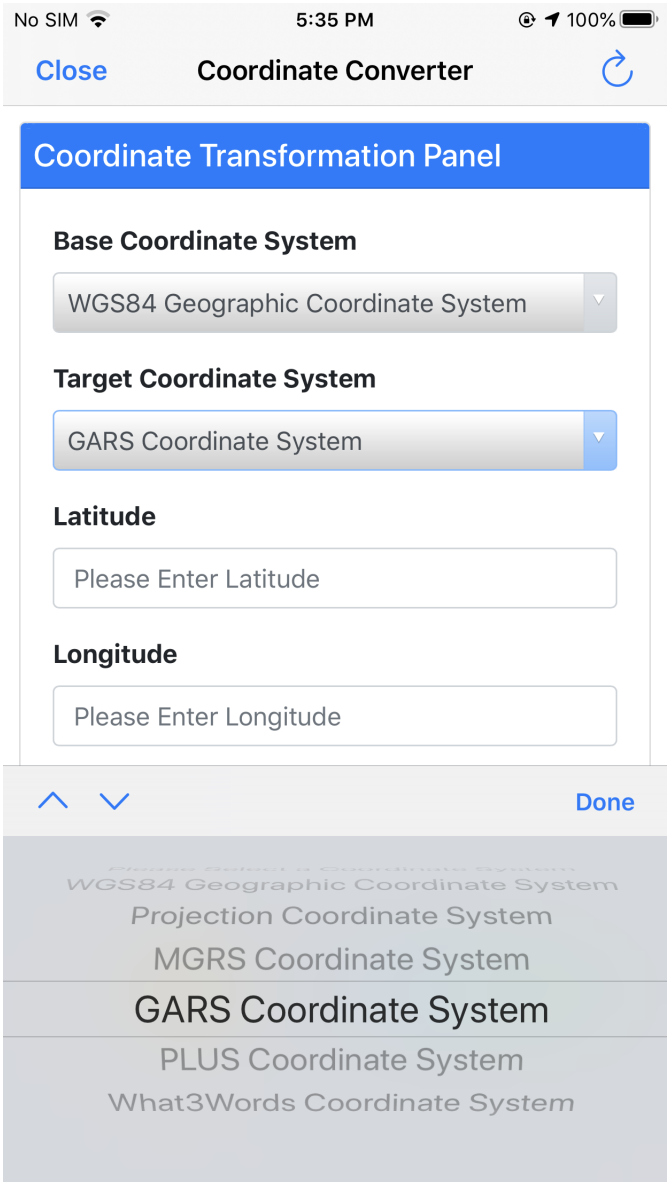

No SIM
5:26 PM
Navigation Menu
I's OSM Styles
Layer Display Order
Go to Coordinate
Convert Coordinate
Vector Converter
Vector Layers
Offline Maps (AOI)
Spatial Search (Offline)
Weather Forecast
GeoLocation GNSS
Compass
Settings
Close Map
Go
Close
Geonames


No SIM
5:25 PM
100%
Map
AOI's
OSM Styles
0
10 km
20 km
Kathia
Go To Coordinate
Coordinate Type
Plus Code/Open Location Code
Open Location Code
Go
Close
Roi
Done
Latitude - Longitude
Military Grid Reference System
Plus Code/Open Location Code
GARS

Coordinate Converter

Convert between different coordinate systems

- MGRS to/from Lat Long WGS84
- GARS to/from Lat Long WGS84
- What3Words to Lat Long WGS84
- It also supports projected coordinate/spatial reference systems



Vector Converter

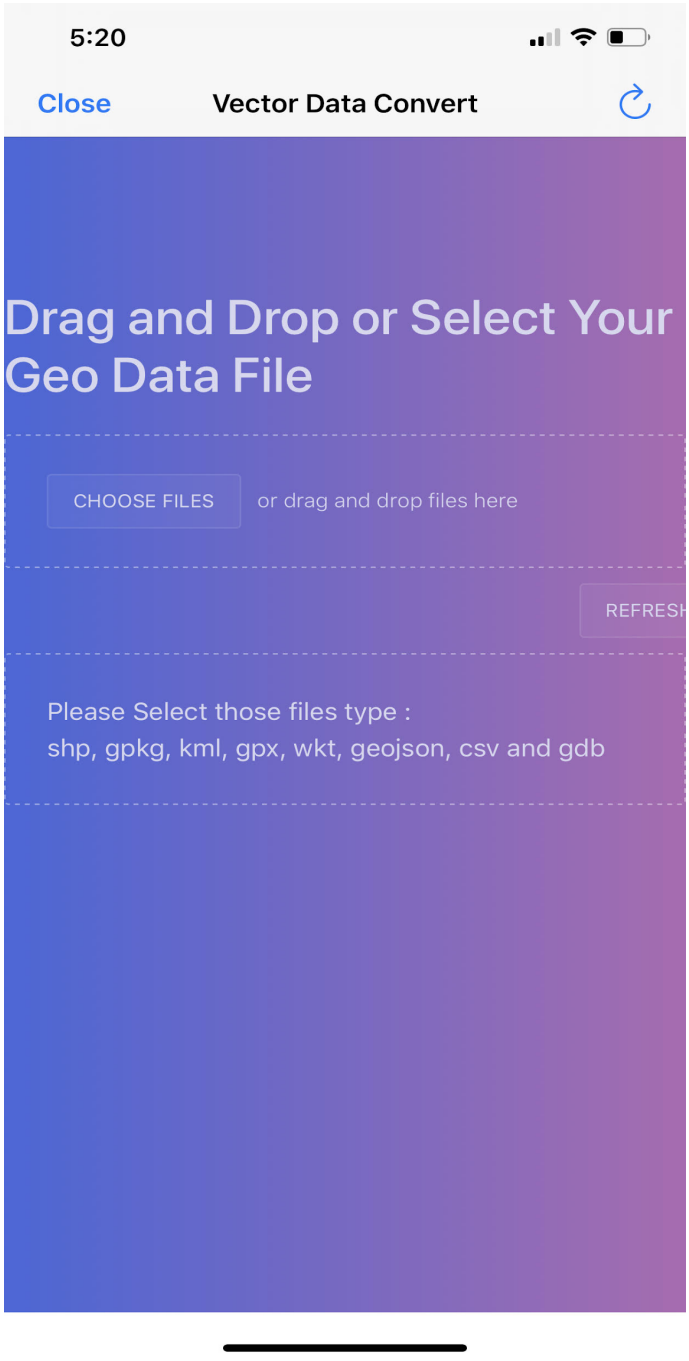
This screen allows you to convert GIS Mapping data to GeoJSON to load onto the map - there is NOT drag and drop - Just Select the button that says Choose Files and browse to the file to convert

Convert GIS Vector data from

- ESRI Shapefile (4326)
- OGC GPKG Vector Features (4326)
- GPX
- KML
- CSV (with lat long in decimal degrees 4326 WGS84)
- GeoJSON

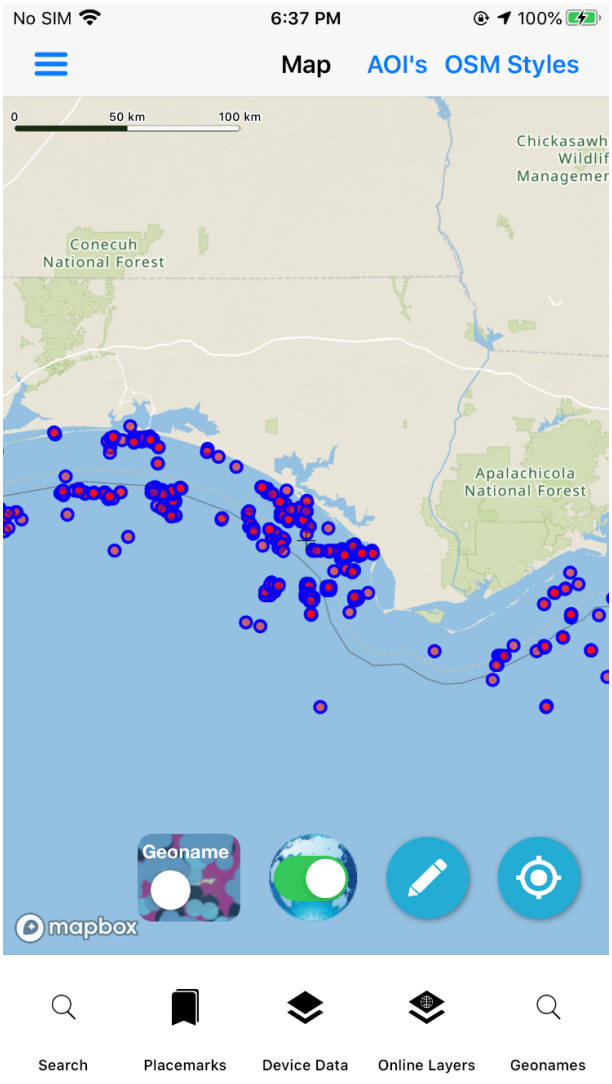
For Reference: ESRI ArcGIS calls it:

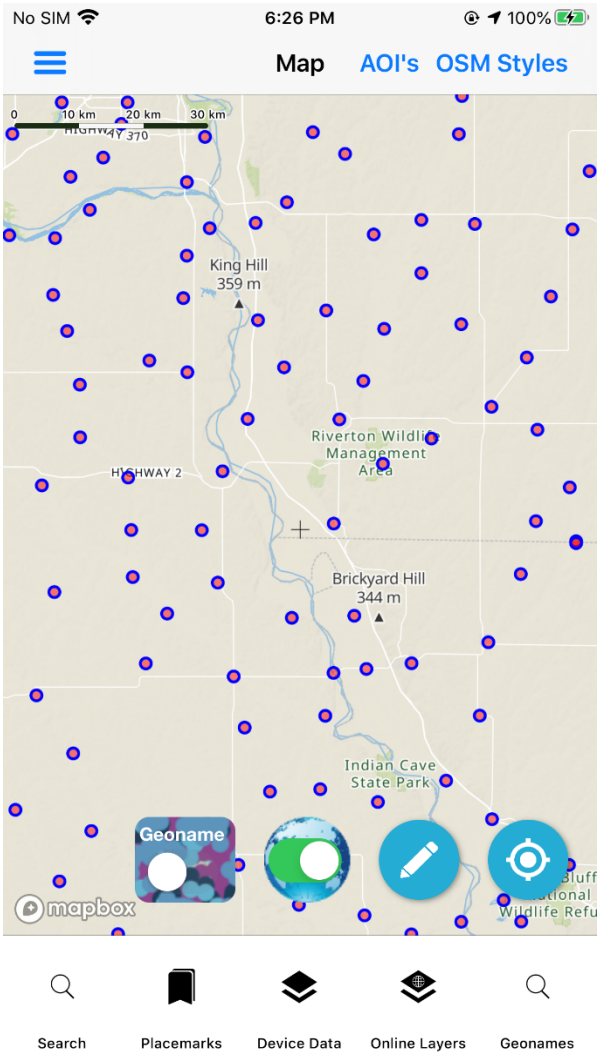
GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID["WGS_1984",6378137,298.257223563]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433295]]

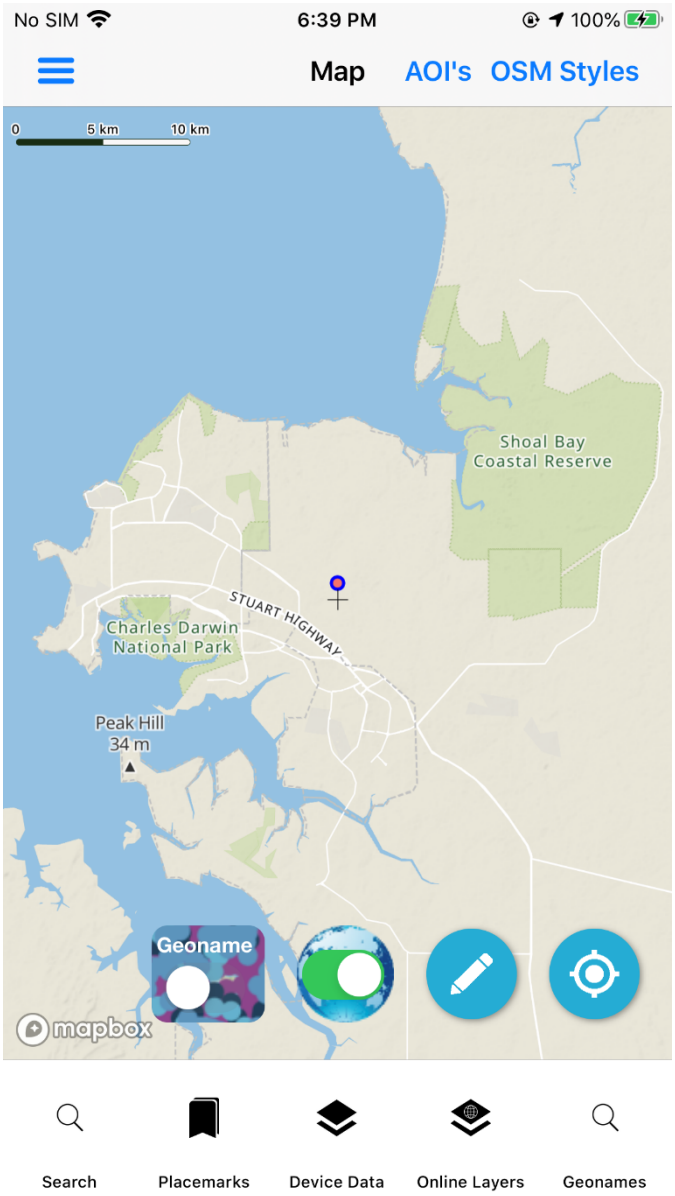


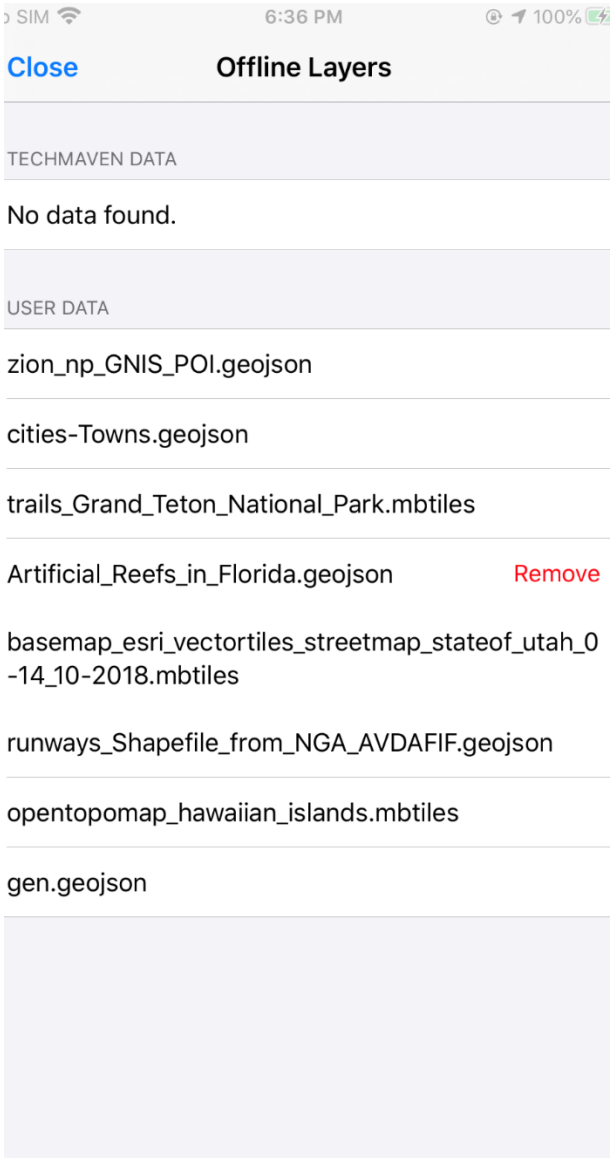
Note: The data should be fairly small, less than 2mb, ESRI FileGeodatabase is NOT supported, Shapefiles need to be zipped, Source data must be in 4326, Unprojected Geographic World Geodetic System 1984

KML






No SIM
6:39 PM
100%
Map
AOI's
OSM Styles
0
5 km
10 km
Shoal Bay
Coastal Reserve
STUART HIGHWAY
Charles Darwin
National Park
Peak Hill
34 m
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames

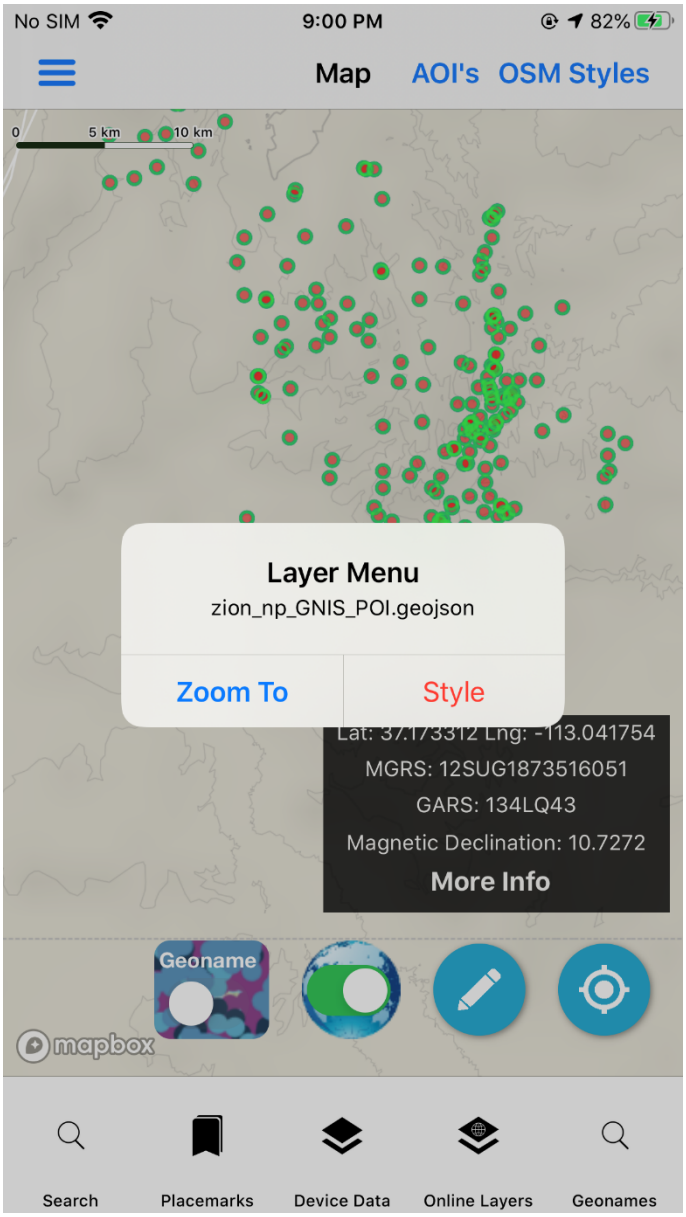

SIM
6:36 PM
100%
Close
Offline Layers
TECHMAVEN DATA
No data found.
USER DATA
zion_np_GNIS_POI.geojson
cities-Towns.geojson
trails_Grand_Teton_National_Park.mbtiles
Artificial_Reefs_in_Florida.geojson
Remove
basemap_esri_vectortiles_streetmap_stateof_utah_0-14_10-2018.mbtiles
runways_Shapefile_from_NGA_AVDAFIF.geojson
opentopomap_hawaiian_islands.mbtiles
gen.geojson

Shape File

No SIM
6:38 PM
Map
AOI's
OSM Styl
0
500 m
1,000 m
Internacional
Reina Beatrix
Parkietenbos
Geoname
mapbox

Layer Style

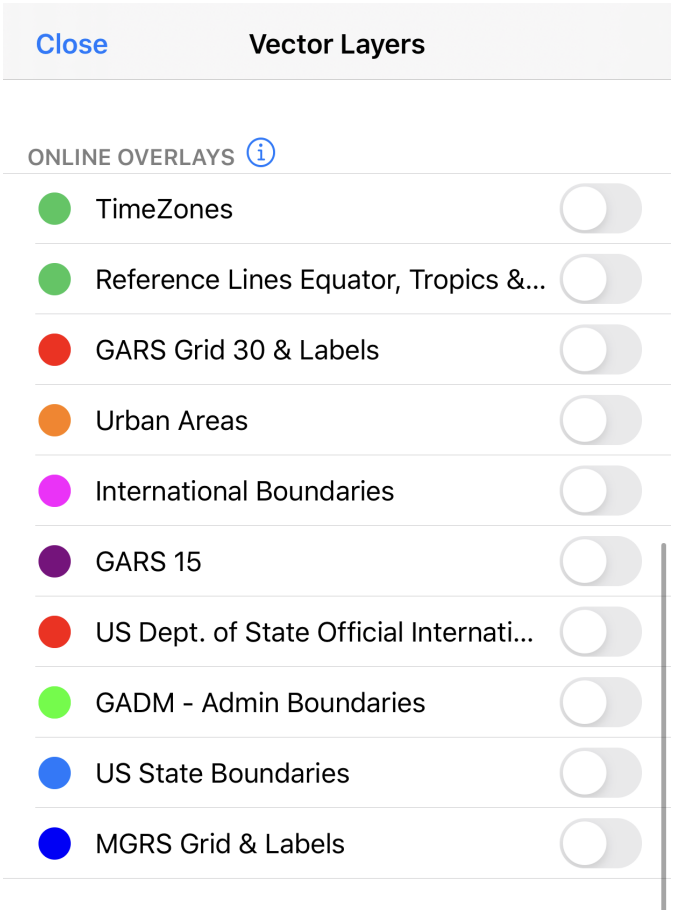
You can change style layers to their own colors.

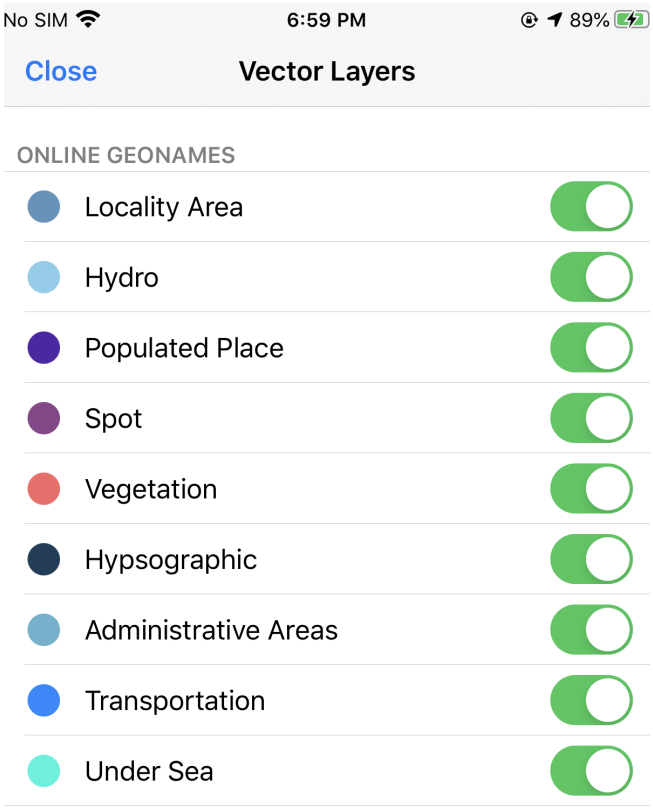


Vector Layer

Controlling the Display of the GeoNames data on the map.

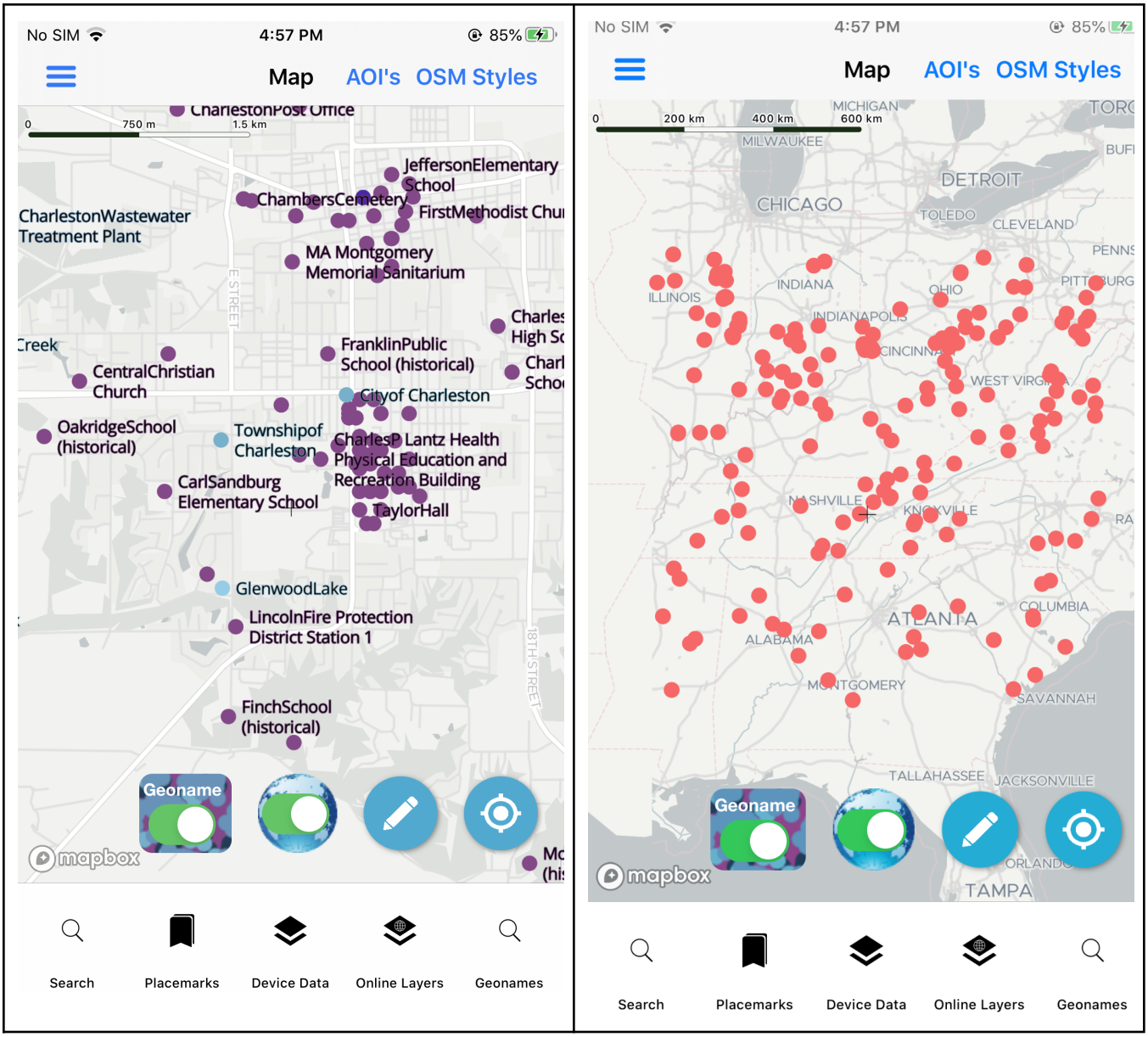
- You can decide what Feature Classes to Show. By default it's set to show all
- Includes Toggles for the GeoNames Data
- As well as Vector Tile Overlays
- These online overlays are vector tiles produced by and served by Tech Maven Geospatial
- By default they are all off
- Users can toggle on/off the geonames Feature Class Categories they want to see on the map.

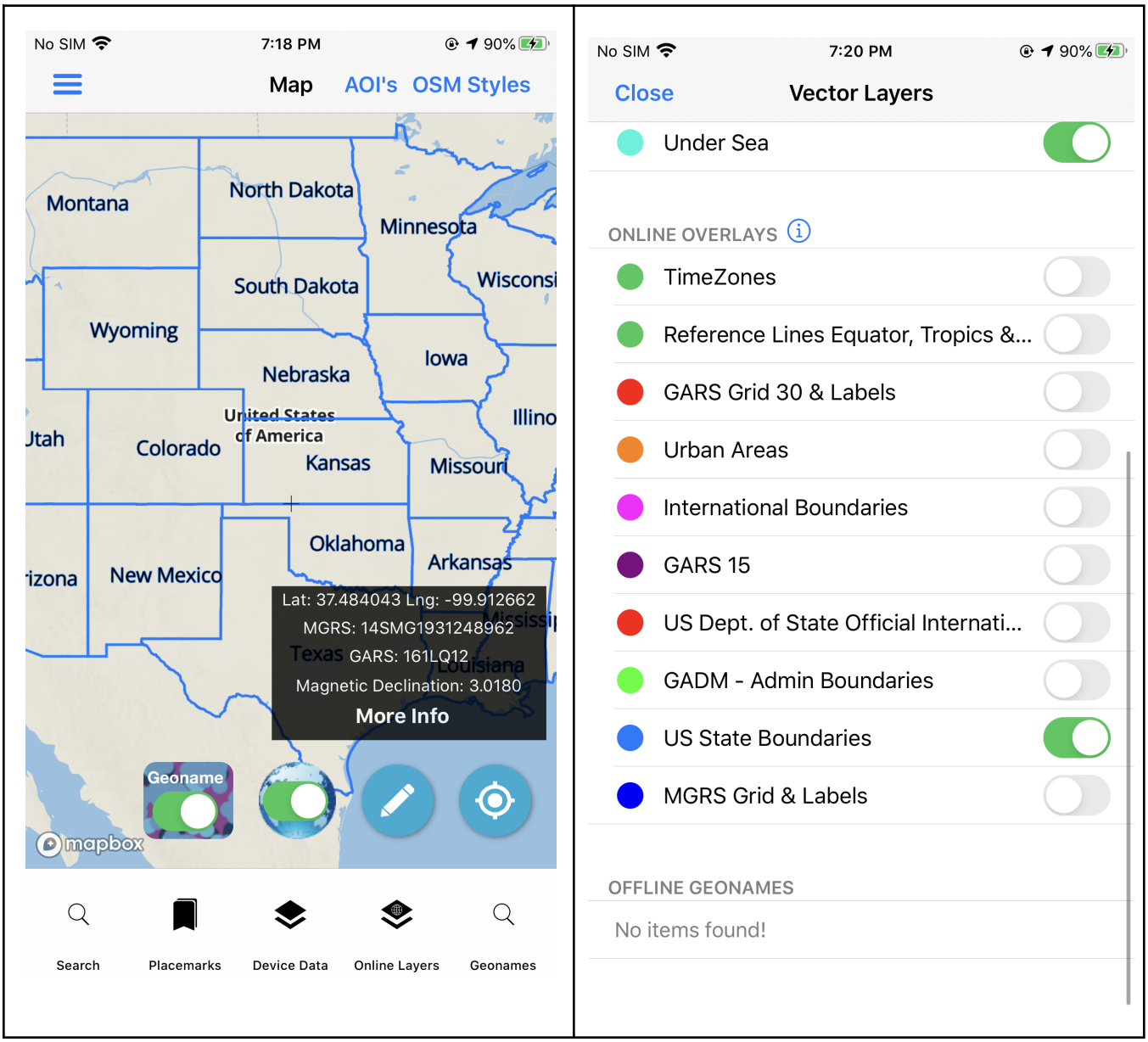




- GeoNames Data is shown on the map via optimized vector tiles
- We are utilizing the Display Field in controlling the scale dependency/zoom levels to show the data
- As you zoom in additional data will be shown (for USA USGS GNIS there is no display field so it shows all data at all zoom levels)
- Data starts displaying at level 5 (0-4 there are no GeoNames Displayed)
- Vector Tiles allow overzooming of the data so there is NOT stopping the GeoNames after 15 they continue showing to 25
- When Scale Bar Shows (you do not want to be viewing geonames data when zoomed out behind this)
- 4 miles = about zoom level 10 (1:500,000 map scale)
- 2 miles = about zoom level 12 (1:150,000 map scale)

- 1 mile = about zoom level 13 (1:70,000 thousand map scale)
- 0.5 miles = about zoom level 13.5
- 0.25 miles = about zoom level 14 (1:35,000 thousand map scale)




No SIM
7:18 PM
90%
Map
AOI's
OSM Styles
Montana
North Dakota
Minnesota
South Dakota
Wyoming
Nebraska
Iowa
Colorado
Kansas
Missouri
Oklahoma
Arkansas
New Mexico
Texas
Louisiana
Lat: 37.484043 Lng: -99.912662
MGRS: 14SMG1931248962
GARS: 161LQ12
Magnetic Declination: 3.0180
More Info
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames
No SIM
7:20 PM
90%
Close
Vector Layers
Under Sea
ONLINE OVERLAYS
TimeZones
Reference Lines Equator, Tropics &...
GARS Grid 30 & Labels
Urban Areas
International Boundaries
GARS 15
US Dept. of State Official Internati...
GADM - Admin Boundaries
US State Boundaries
MGRS Grid & Labels
OFFLINE GEONAMES
No items found!

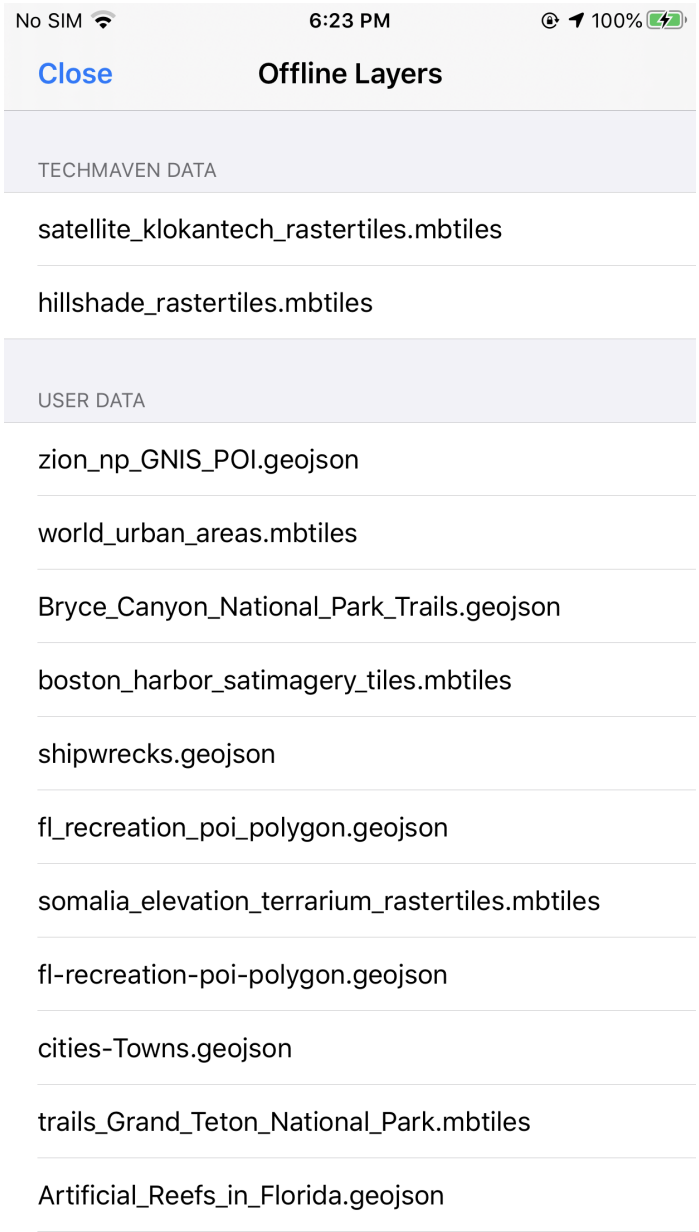
User Offline Data (Device Data):

Users can add:

- GeoJSON (expected to be 4326 and single geometry type in one file)
- raster tiles MBTiles files *(user vector tiles mbtiles are NOT supported at this point)*
- Data must be loaded into the GeoNames Map Explorer Documents Folder either transfer via itunes file transfer or using the Files app.
- We can’t access files outside of the app folder and it can’t be in subfolders/directories.

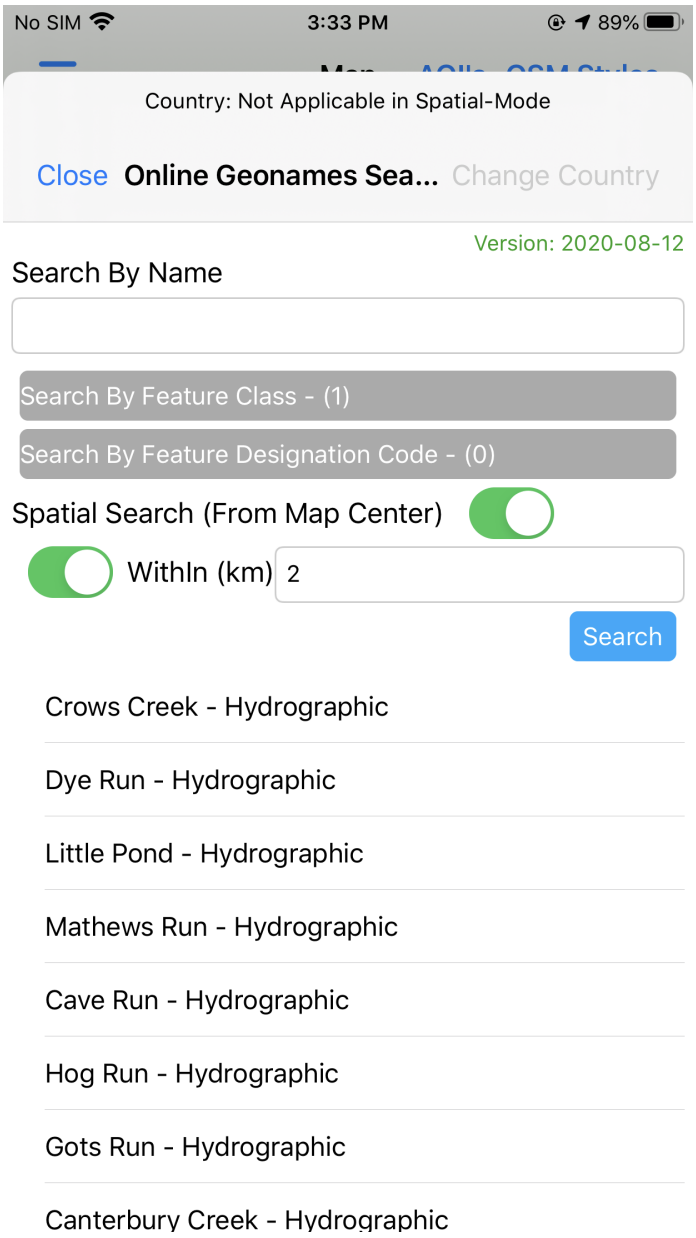
From the Map Screen Click Device Data bottom navigation. User Data and click to enable, If you enable multiple go to Navigation Menu and Layer Display Order to change the Order of the Data. You want a GeoJSON file on top of a Raster Tile layer and also support other types of files:

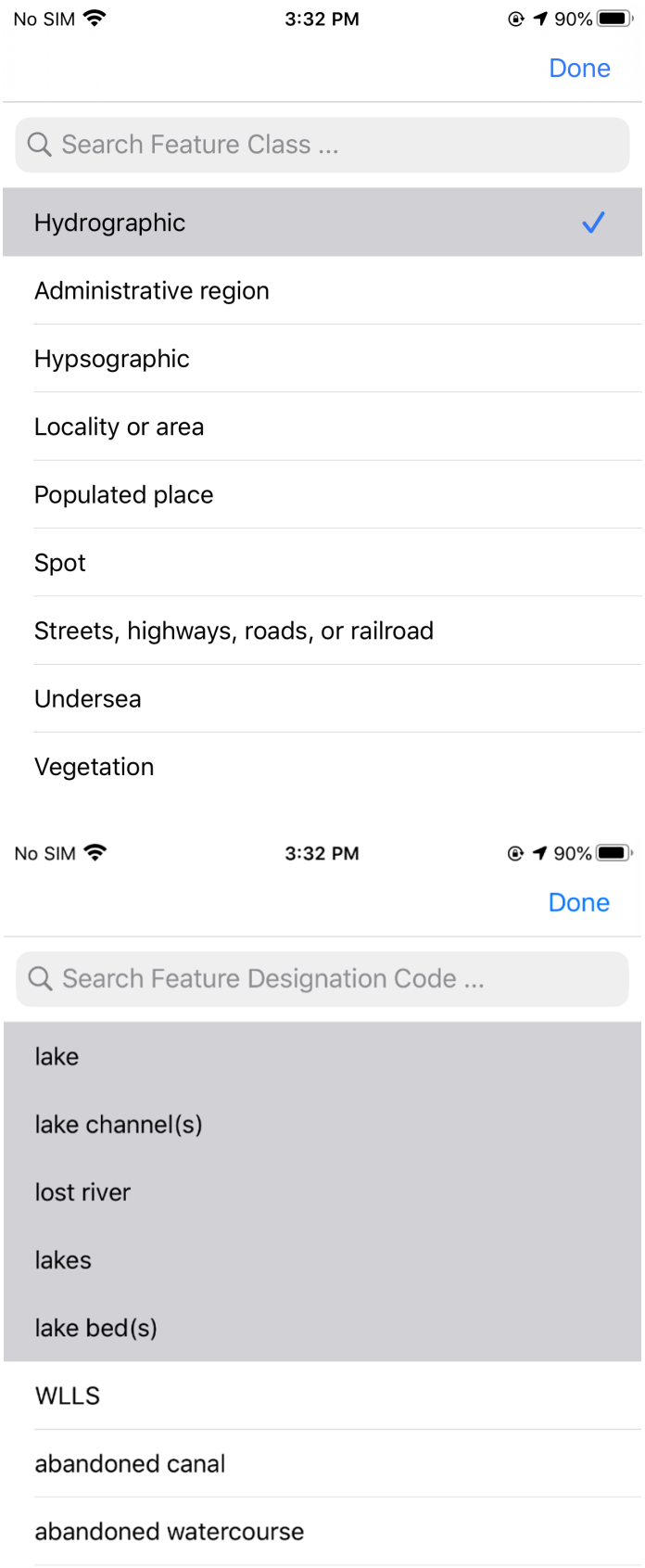
- GeoPackage (.gpkg)
- Shapefile(.shp)
- KML
- CSV

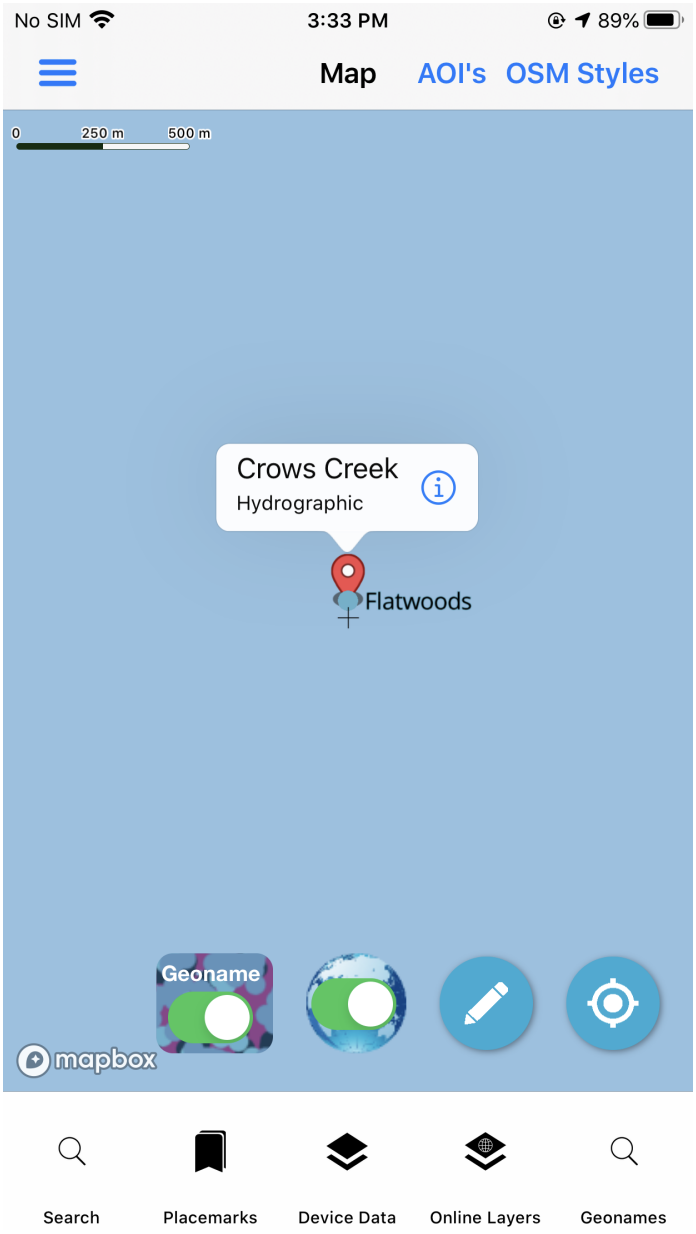

No SIM
6:23 PM
100%
Close
Offline Layers
TECHMAVEN DATA
satellite_klokantech_rastertiles.mbtiles
hillshade_rastertiles.mbtiles
USER DATA
zion_np_GNIS_POI.geojson
world_urban_areas.mbtiles
Bryce_Canyon_National_Park_Trails.geojson
boston_harbor_satimagery_tiles.mbtiles
shipwrecks.geojson
fl_recreation_poi_polygon.geojson
somalia_elevation_terrarium_rastertiles.mbtiles
fl-recreation-poi-polygon.geojson
cities-Towns.geojson
trails_Grand_Teton_National_Park.mbtiles
Artificial_Reefs_in_Florida.geojson

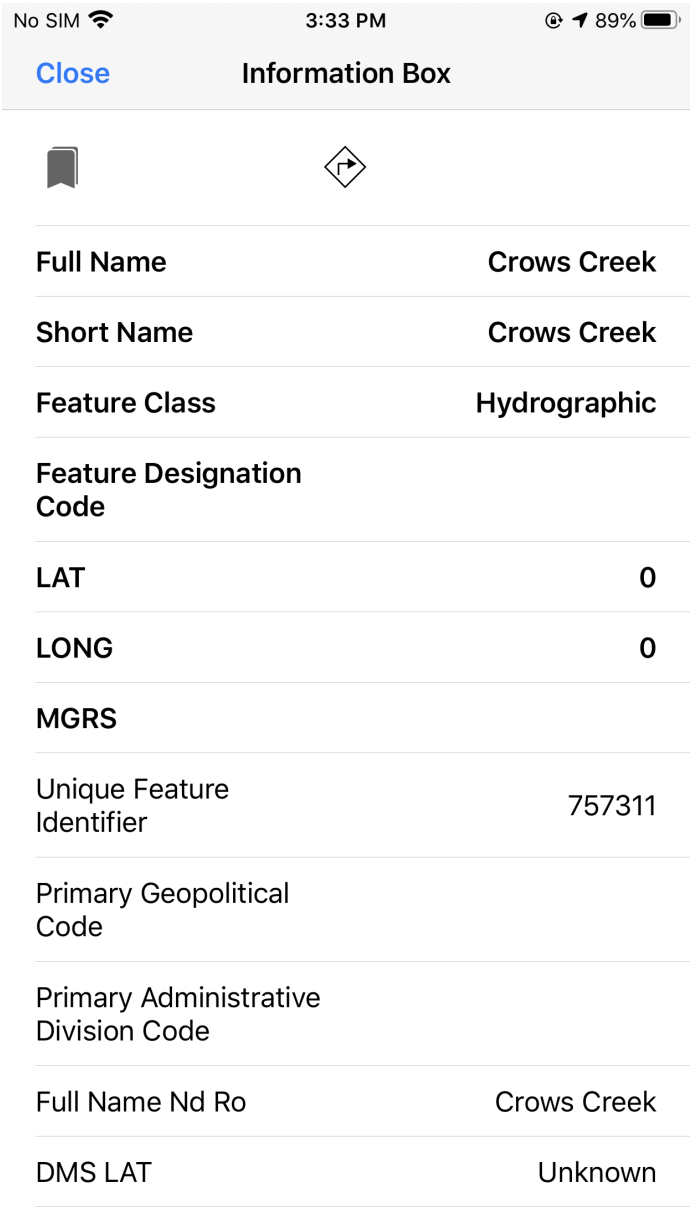
Offline Maps

You can do online geonames search with toggle Spatial Search with specific areas in Kilometers Distance from your center point.




No SIM
3:32 PM
90%
Done
Search Feature Class ...
Hydrographic
Administrative region
Hypsographic
Locality or area
Populated place
Spot
Streets, highways, roads, or railroad
Undersea
Vegetation
No SIM
3:32 PM
90%
Done
Search Feature Designation Code ...
lake
lake channel(s)
lost river
lakes
lake bed(s)
WLLS
abandoned canal
abandoned watercourse

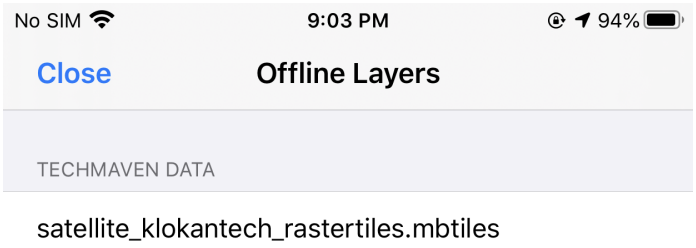

No SIM
3:33 PM
89%
Map
AOI's
OSM Styles
0
250 m
500 m
Crows Creek
Hydrographic
Flatwoods
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames

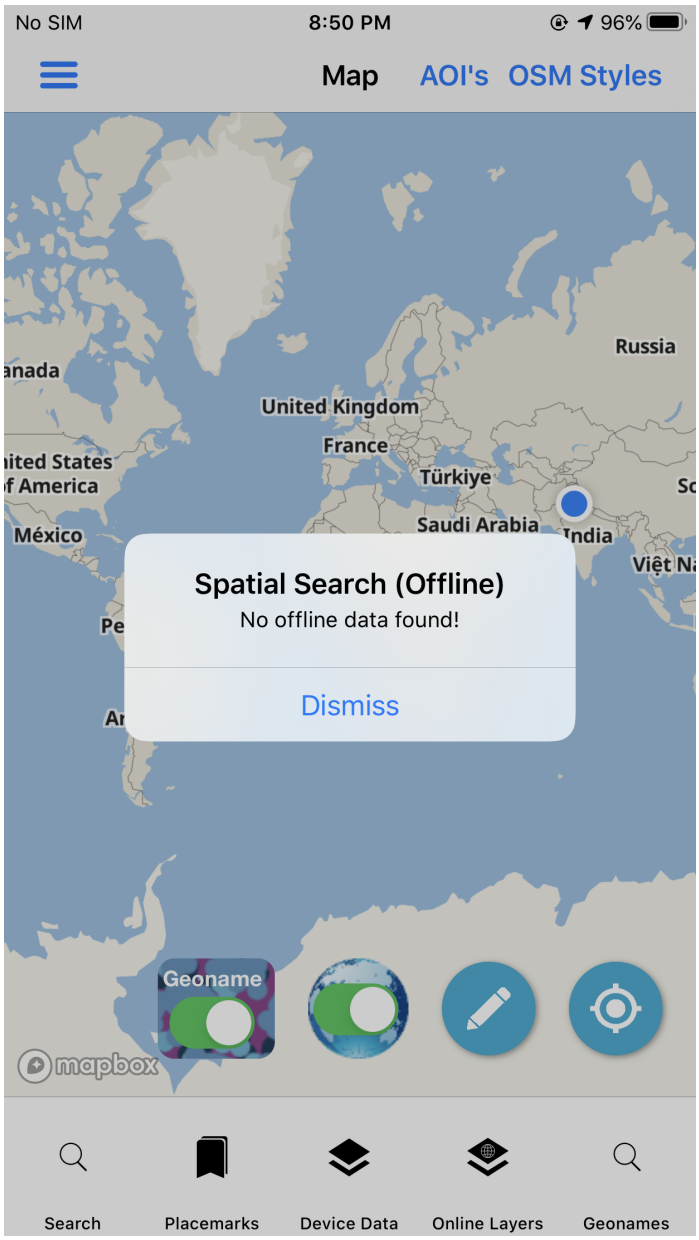

No SIM
3:33 PM
89%
Close
Information Box
Full Name
Crows Creek
Short Name
Crows Creek
Feature Class
Hydrographic
Feature Designation Code
LAT
0
LONG
0
MGRS
Unique Feature Identifier
757311
Primary Geopolitical Code
Primary Administrative Division Code
Full Name Nd Ro
Crows Creek
DMS LAT
Unknown

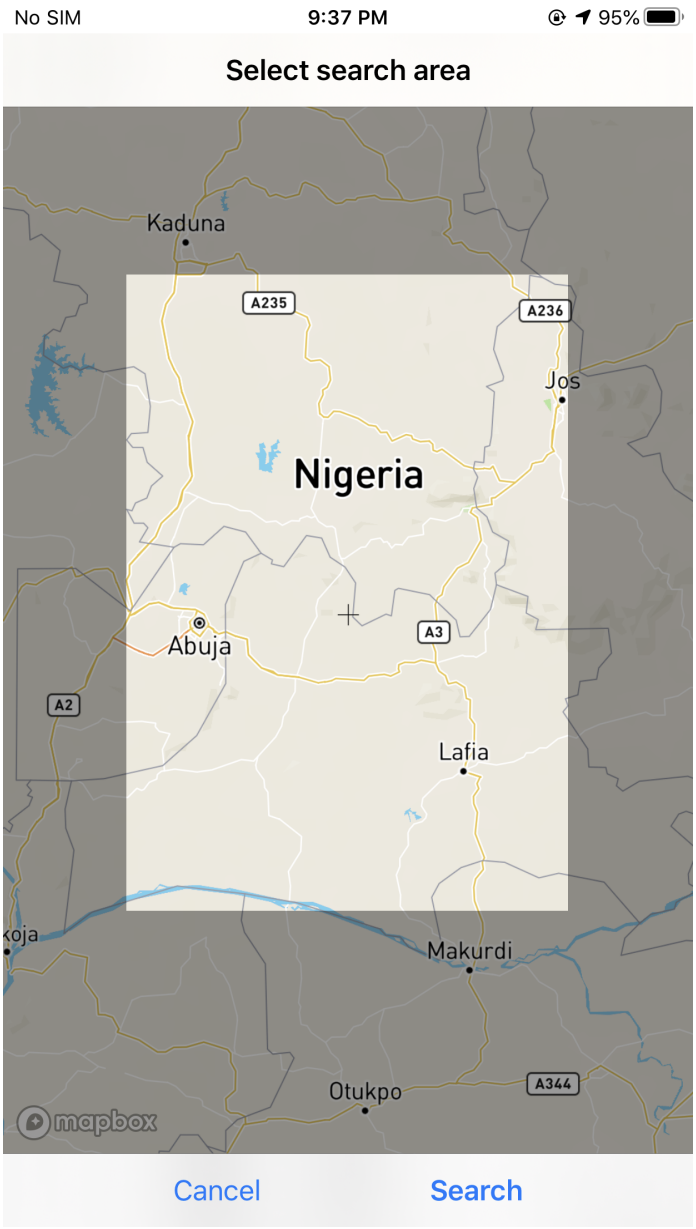
Spatial Search Offline

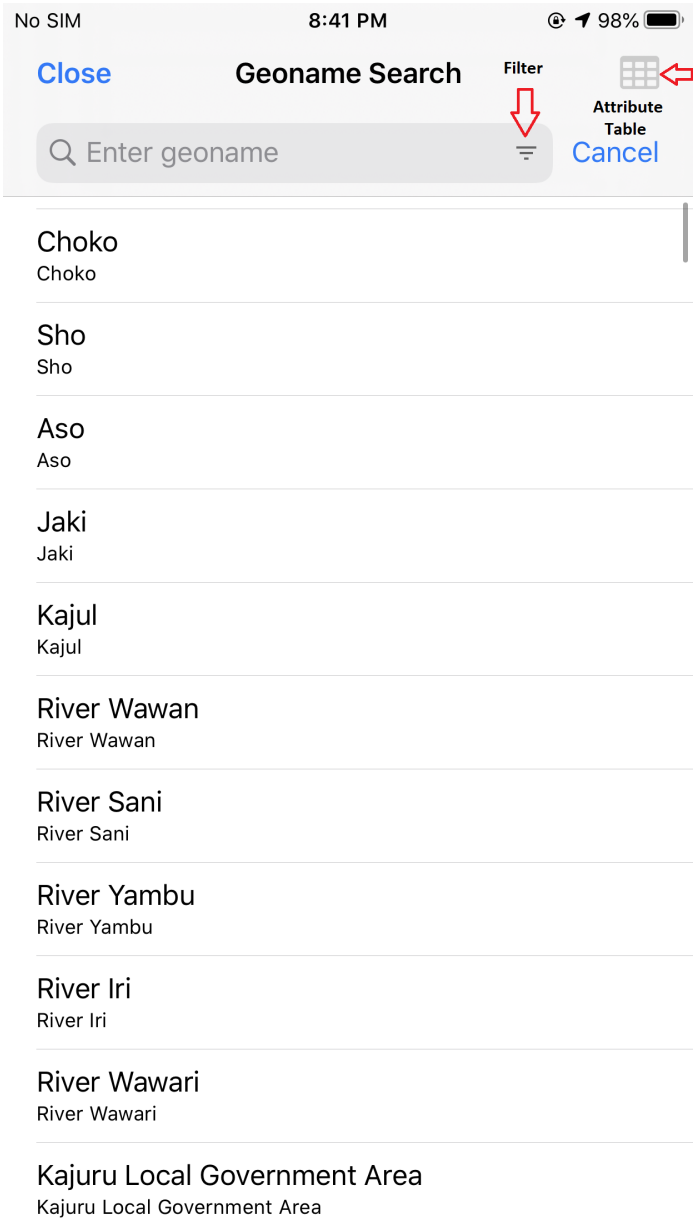
If you don't have downloaded AOI then map appears popup message:

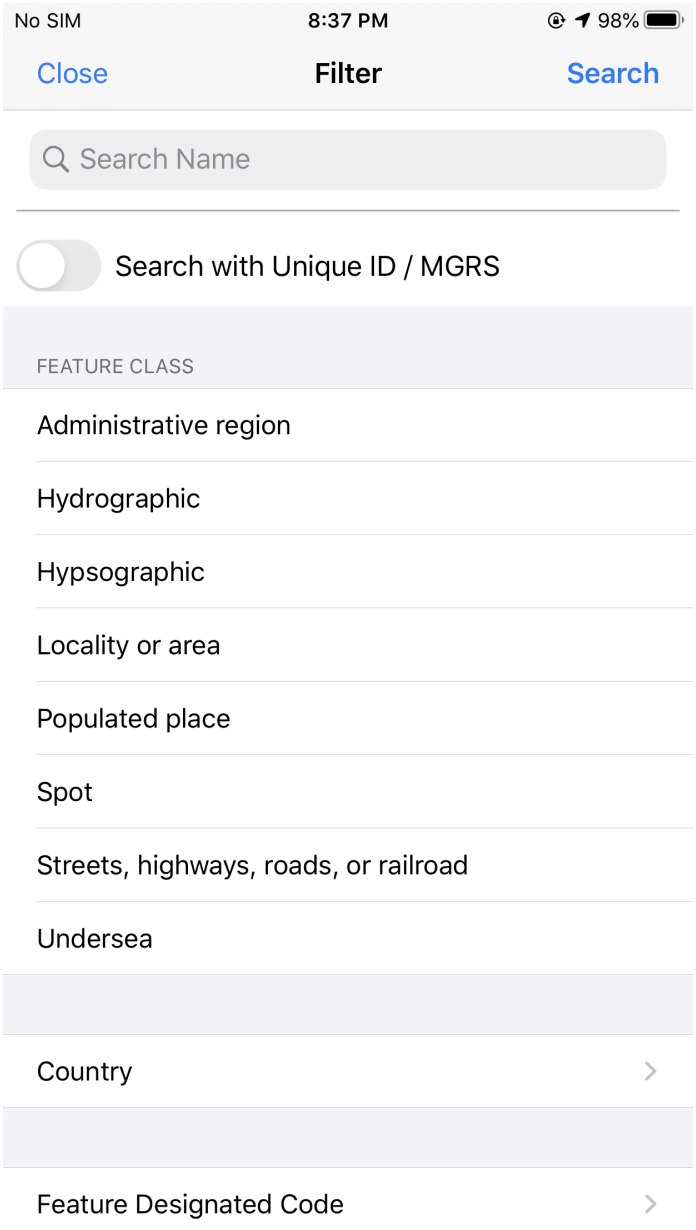
- Then **AOI** is already selected on the map
- If you already have offline data in '**Device data**'



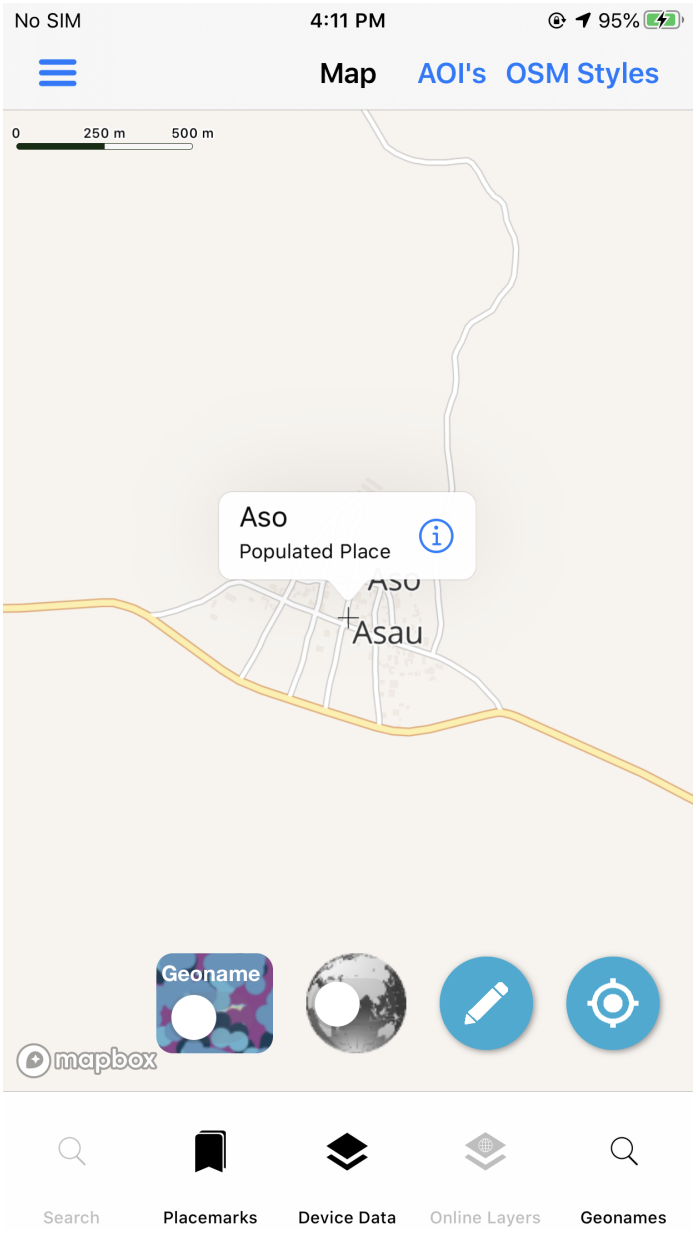

No SIM
8:50 PM
96%
Map
AOI's
OSM Styles
Russia
United Kingdom
France
Türkiye
Saudi Arabia
México
Spatial Search (Offline)
No offline data found!
Dismiss
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames


No SIM
9:37 PM
95%
Select search area
Kaduna
A235
A236
Jos
Nigeria
Abuja
A3
A2
Lafia
Makurdi
Otukpo
A344
mapbox
Cancel
Search


No SIM
8:41 PM
98%
Close
Geoname Search
Filter
Attribute Table
Enter geoname
Cancel
Choko
Choko
Sho
Sho
Aso
Aso
Jaki
Jaki
Kajul
Kajul
River Wawan
River Wawan
River Sani
River Sani
River Yambu
River Yambu
River Iri
River Iri
River Wawari
River Wawari
Kajuru Local Government Area
Kajuru Local Government Area

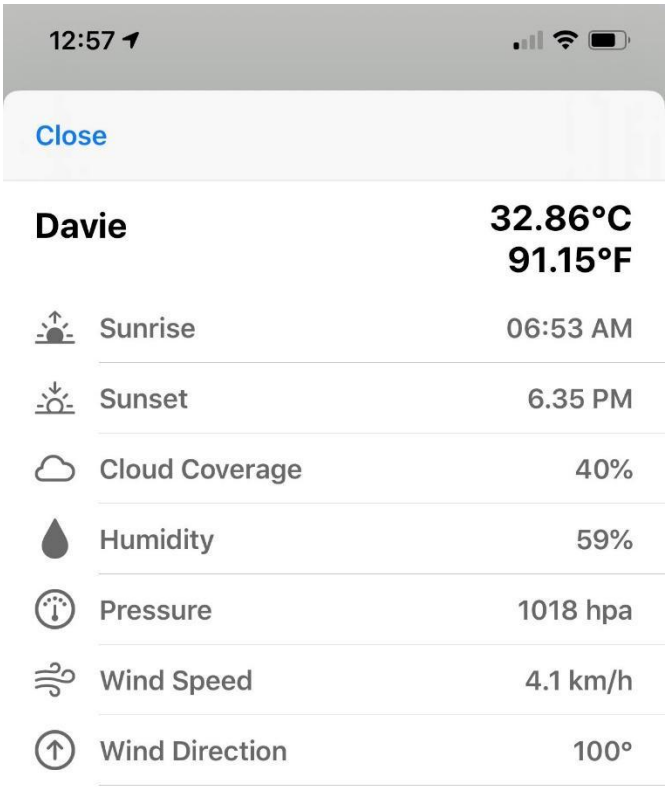

No SIM
8:37 PM
98%
Close
Filter
Search
Search Name
Search with Unique ID / MGRS
FEATURE CLASS
Administrative region
Hydrographic
Hypsographic
Locality or area
Populated place
Spot
Streets, highways, roads, or railroad
Undersea
Country
Feature Designated Code

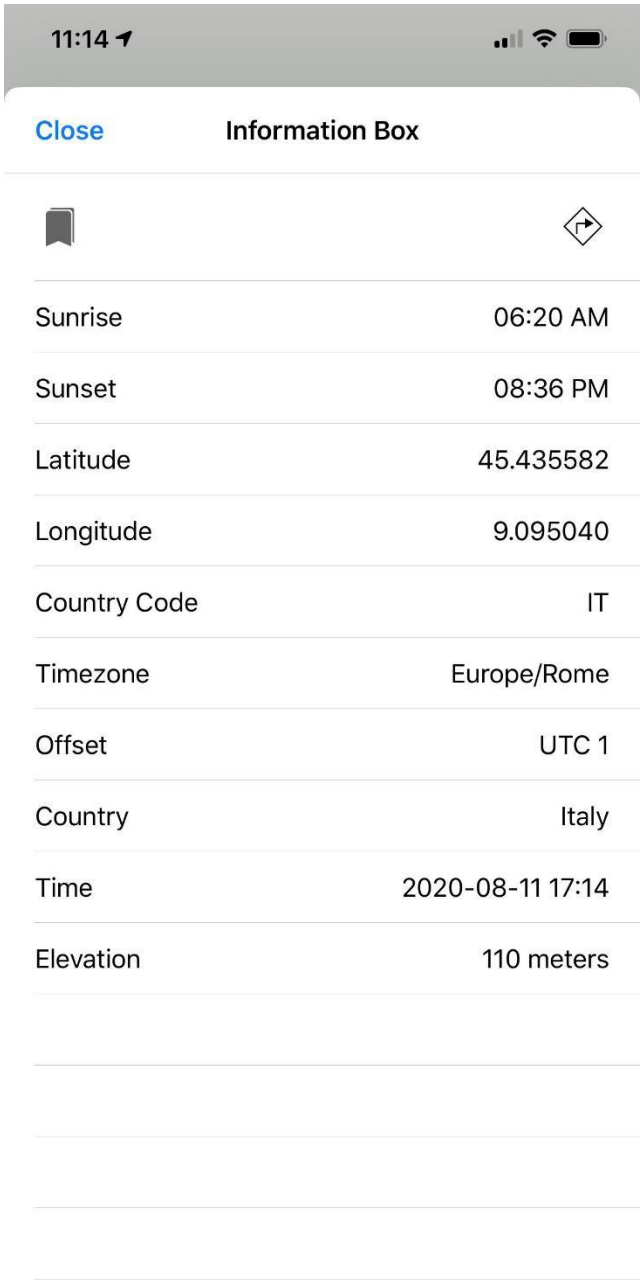
No SIM
8:36 PM
98%
Back
Page 2 of 38
Search Geonames
FULL_NAME
SORT_NAME
FULL_NAM
Ungwanpa
UNGWANPA
Ungwanpa
Gidan Bawa
GIDANBAWA
Gidan Bawa
Kurmin Ajiyya
KURMINAJIYYA
Kurmin Ajiyy
Gidan Madaki
GIDANMADAKI
Gidan Madak
Gidan Galadima
GIDANGALADIMA
Gidan Galadi
Gidan Abaseya
GIDANABASEYA
Gidan Abase
Gidan Akwaja
GIDANAKWAJA
Gidan Akwaj
Ariko
ARIKO
Ariko
Amfu
AMFU
Amfu


No SIM
4:11 PM
95%
Map
AOI's
OSM Styles
0
250 m
500 m
Aso
Populated Place
Asau
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames

Weather Forecast

Sunrise/Sunset ,Timezone, Elevation, Country Code & Other information - comes from OpenWeatherMap web service. Requires Internet access for use

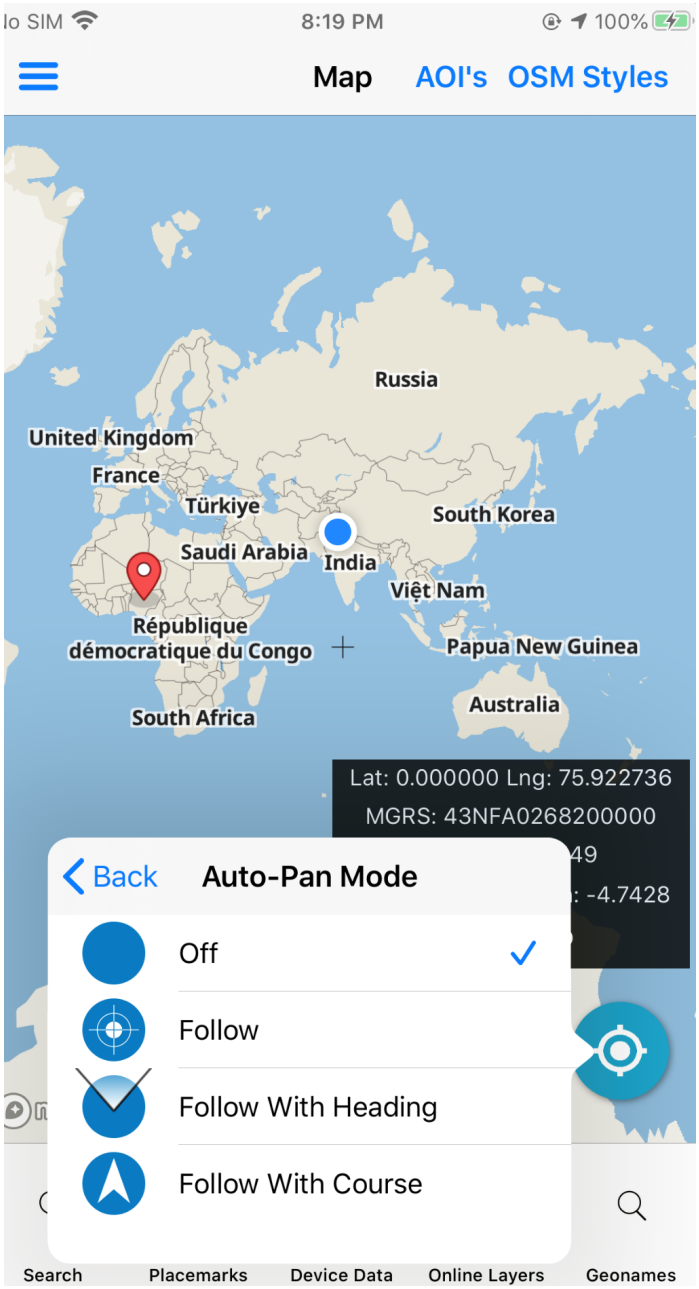


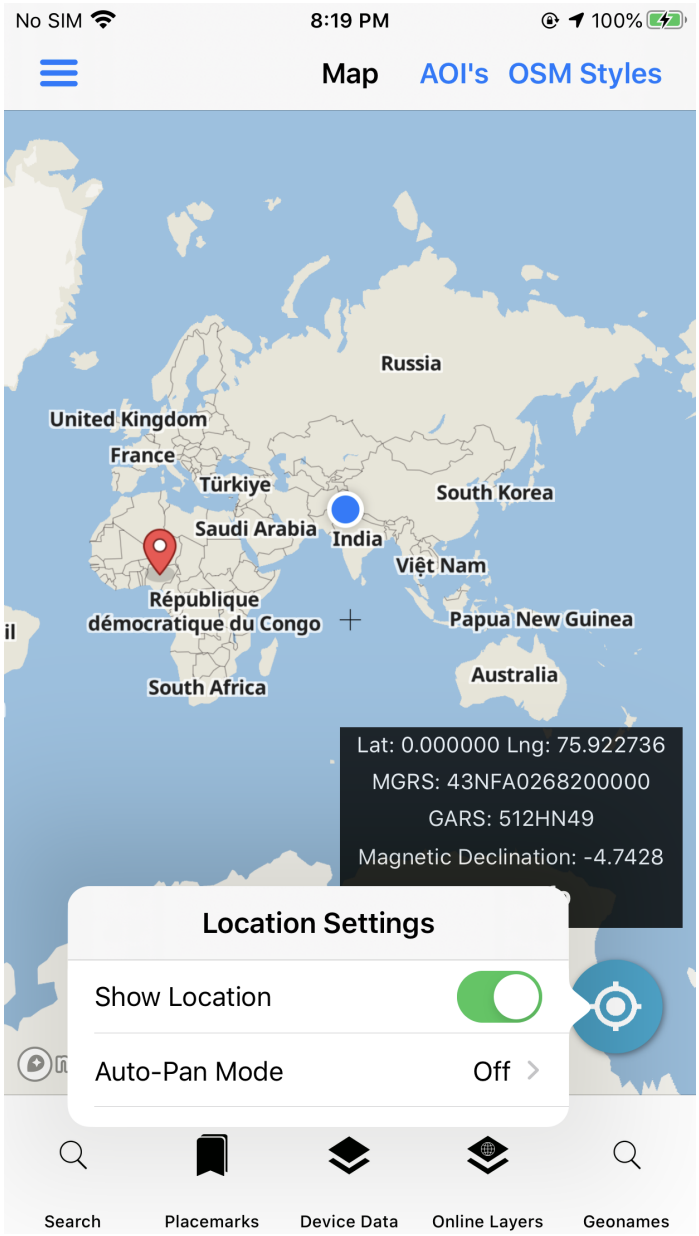


Geolocation GNSS

By Default GeoLocation is enabled you will see your location on the map.

- You can Toggle Off - Show Location on the Map
- You can Configure your desired Auto-Pan Mode (Off default, Follow, Follow with Heading, Follow with Course)
- If you have selected a Follow option
- Map will continuously moved with your geolocation


8:19 PM
100%
Map
AOI's
OSM Styles
Russia
United Kingdom
France
Türkiye
South Korea
Saudi Arabia
India
Việt Nam
République
démocratique du Congo
Papua New Guinea
Australia
South Africa
Lat: 0.000000 Lng: 75.922736
MGRS: 43NFA0268200000
Back
Auto-Pan Mode
Off
Follow
Follow With Heading
Follow With Course
Search
Placemarks
Device Data
Online Layers
Geonames


No SIM
8:19 PM
100%
Map
AOI's
OSM Styles
Russia
United Kingdom
France
Türkiye
South Korea
Saudi Arabia
India
Việt Nam
République
démocratique du Congo
Papua New Guinea
Australia
South Africa
Lat: 0.000000 Lng: 75.922736
MGRS: 43NFA0268200000
GARS: 512HN49
Magnetic Declination: -4.7428
Location Settings
Show Location
Auto-Pan Mode
Off
Search
Placemarks
Device Data
Online Layers
Geonames

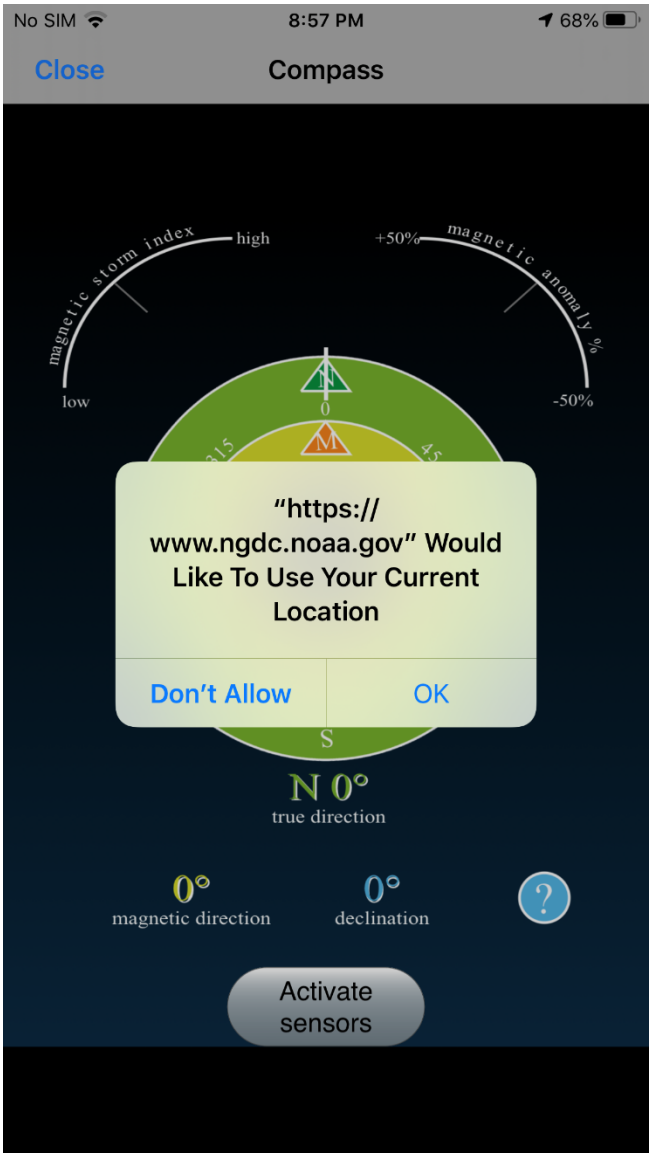
The Map works with your iPAD’s 4G GNSS/GPS Chip or IP Geolocation

1) Click the Geolocation button on the map. Click Show Location

2) Allow the Permissions

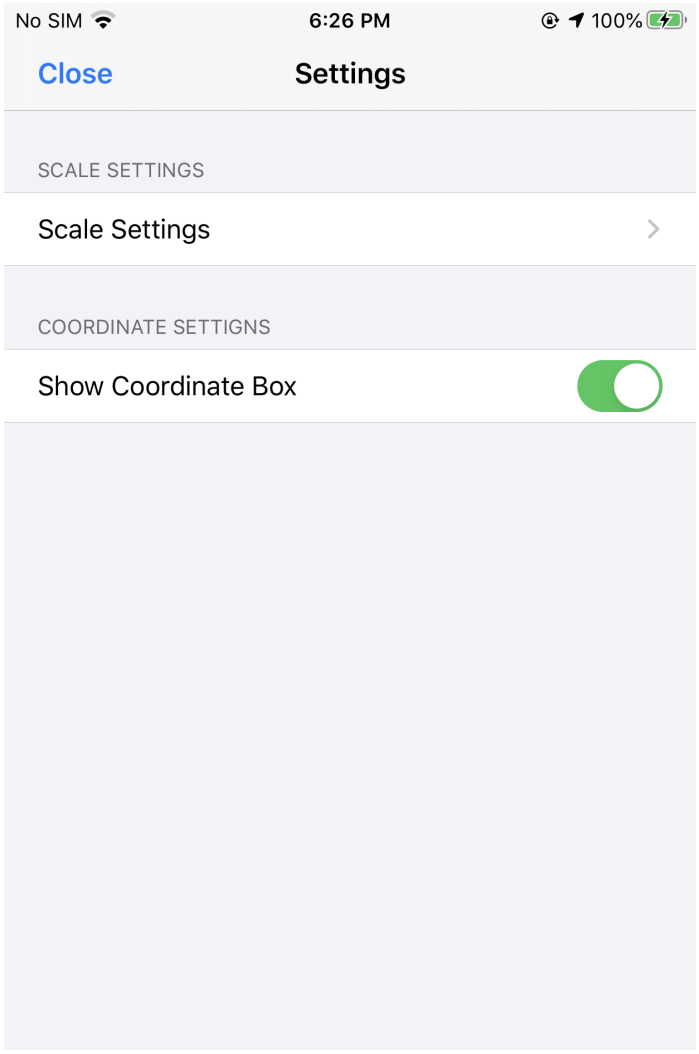
Compass

No SIM
8:57 PM
68%
Close
Compass
NOAA Magnetic Field Calculator
magnetic storm index
high
low
+50%
magnetic anomaly %
-50%
N 0°
true direction
0°
magnetic direction
0°
declination
Activate sensors
Compass
Calculator


No SIM
8:57 PM
68%
Close
Compass
magnetic storm index
high
low
+50%
magnetic anomaly %
-50%
"https://www.ngdc.noaa.gov" Would Like To Use Your Current Location
Don't Allow
OK
N 0°
true direction
0°
magnetic direction
0°
declination
Activate sensors

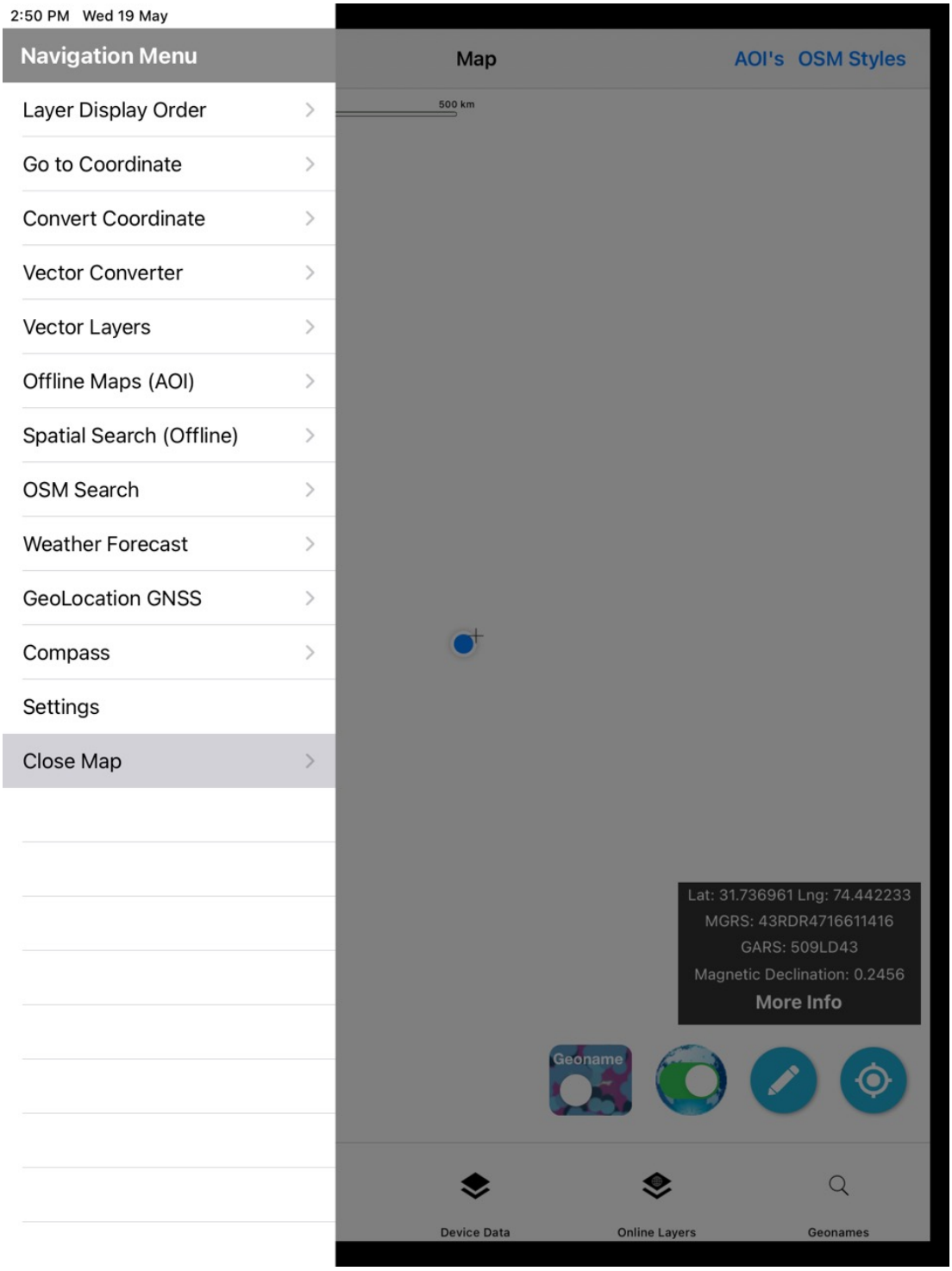
Settings

The units of measure in 1.0.0 are NOT adjustable it's set to Statute Miles In future versions of the app we will enable in these settings to adjust to other units of measure



Close Map

Clicking on the Close Map button will close the map and return back to the main menu of the application.

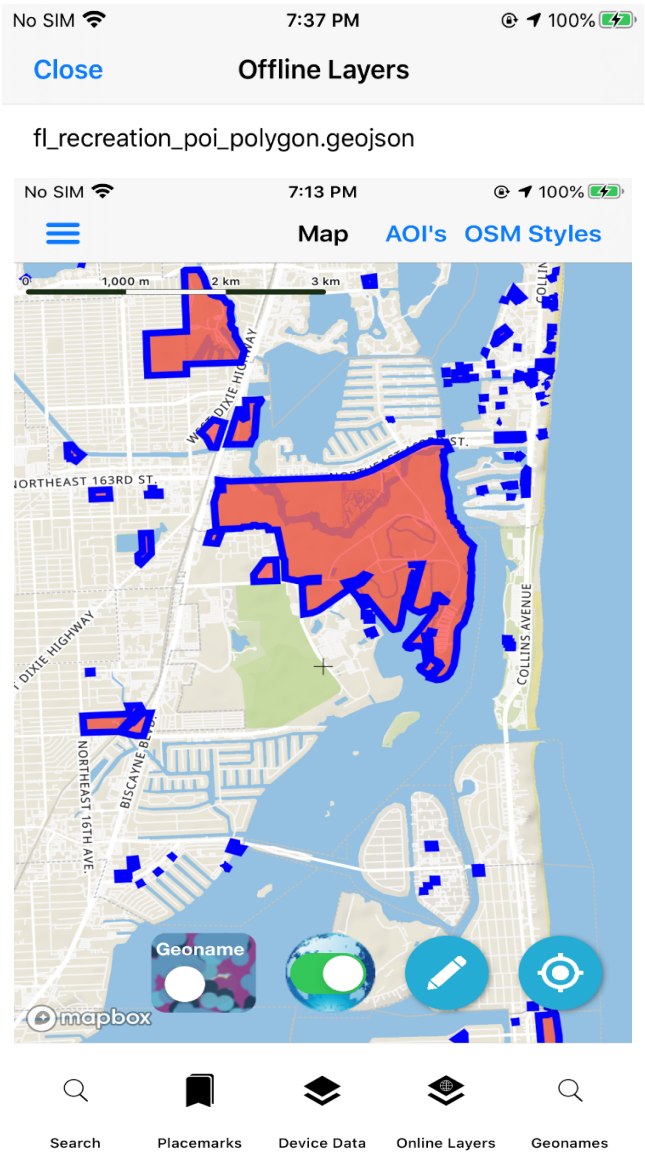


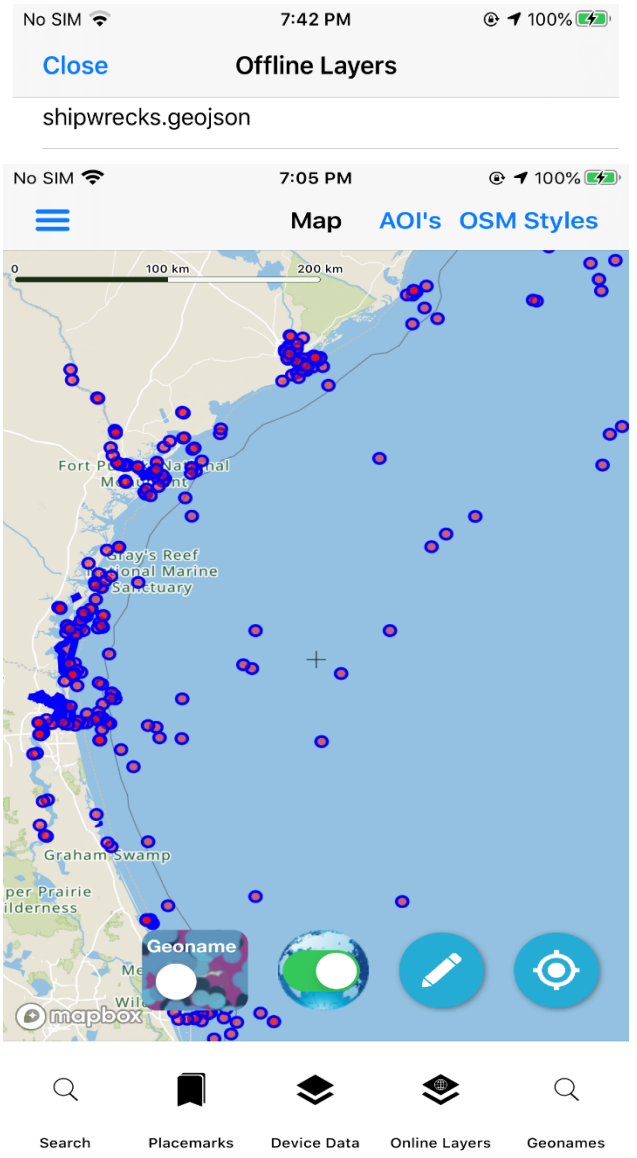
Local Data

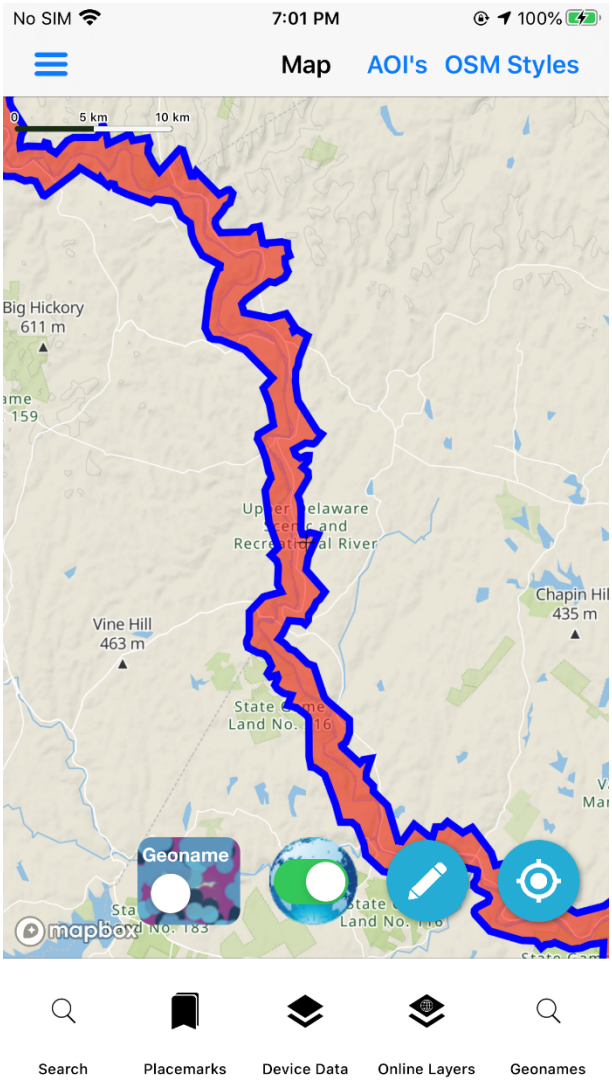
Users can load their own data via iTunes File Sharing and iCloud and other iOS methods. GeoJSON and GPKG Vector features (GIS Data) and Raster Tiles in MBTILES and GeoPackage (GPKG) and Mbtiles vector tiles are supported.

Add Local GeoJson

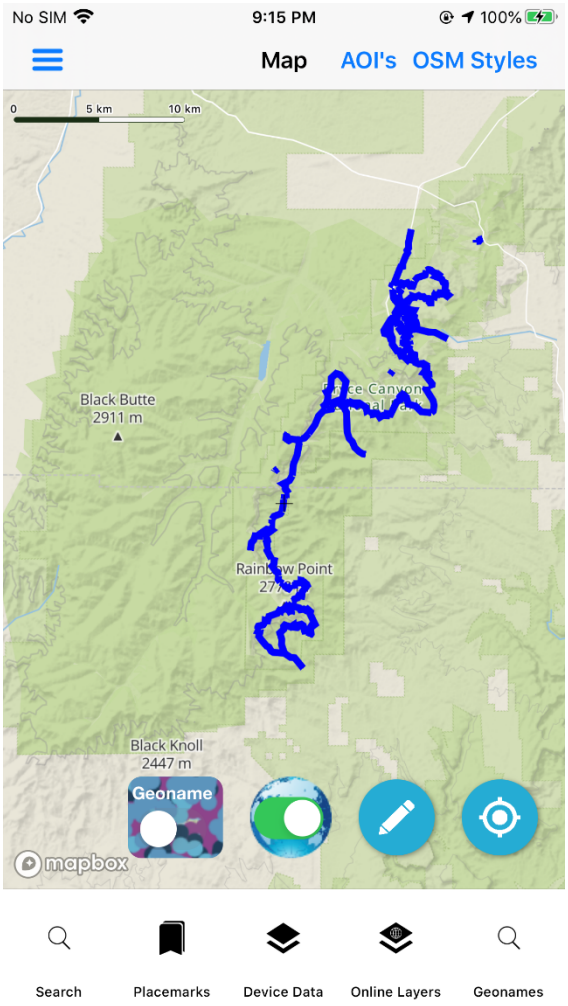
GeoJSON geospatial data interchange format based on JavaScript Object Notation (JSON) can support multiple geometries types in one file it's best to keep them simple and small sized and keep the GeoJSON 4326 geographic wgs84. QGIS Desktop can create or convert data into GeoJSON. Users can also create geojson online http://geojson.io/#map=2/20.0/0.0 and export for loading into the app. Users can also use tools like OGR2OGR to convert existing GIS data and databases into GeoJSON



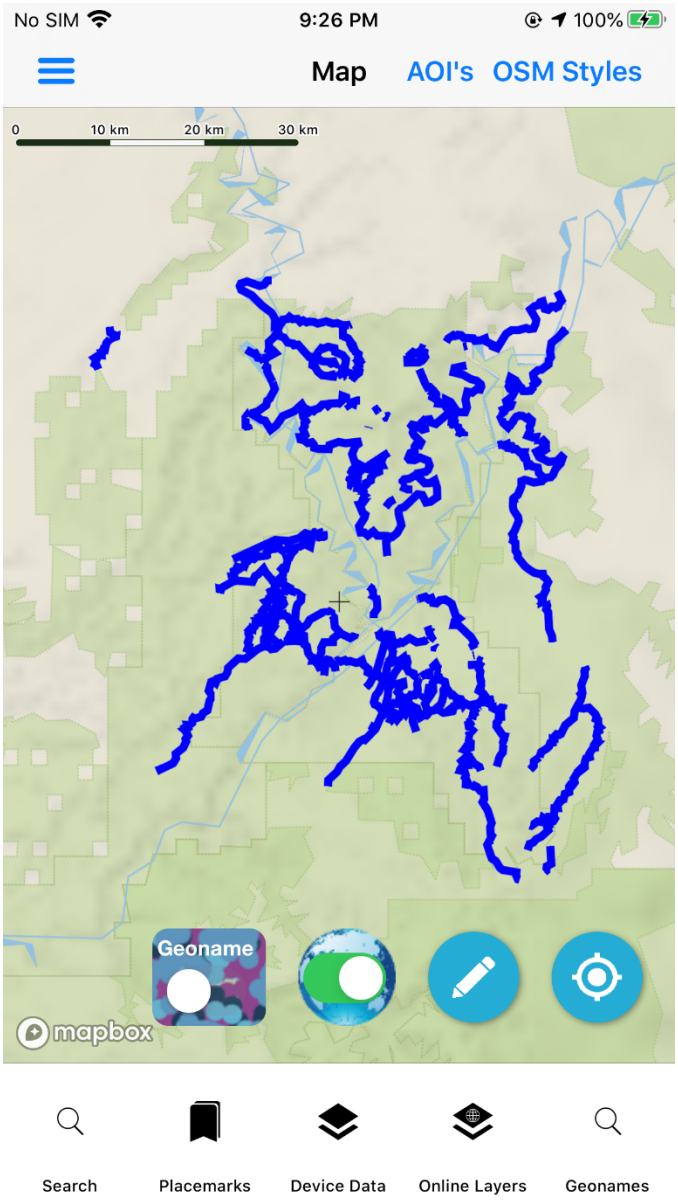


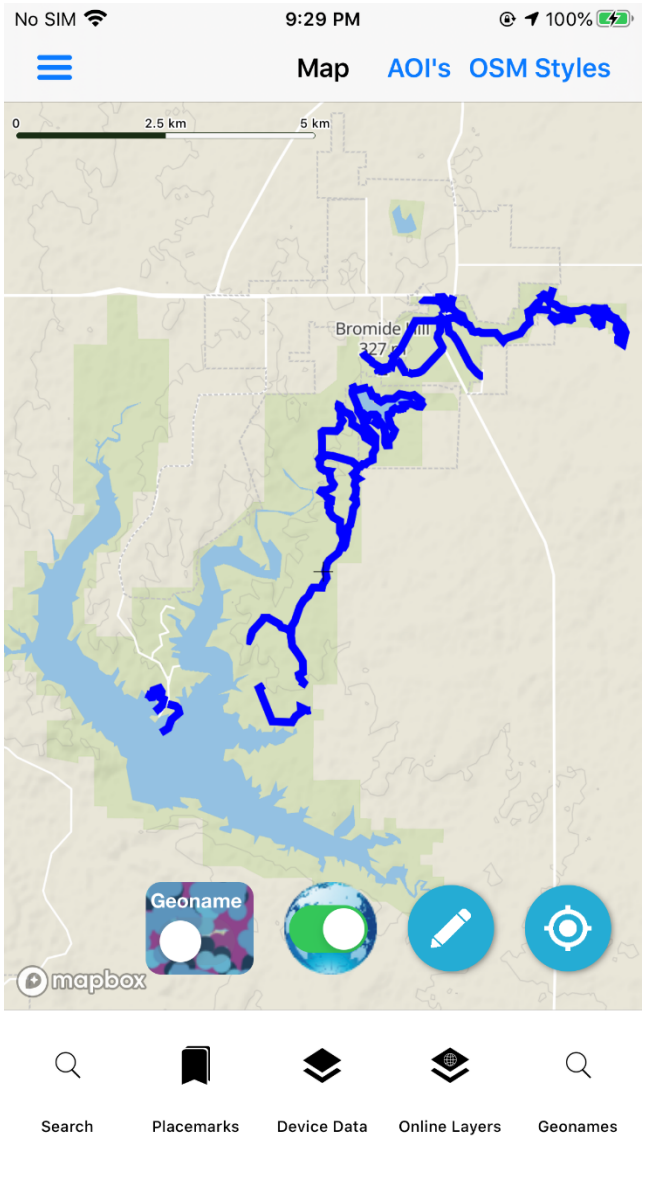


Canyonlands_National_Park_Trails.geojson Remove



Chickasaw_National_Recreation_Area__Trails.geojson Remove

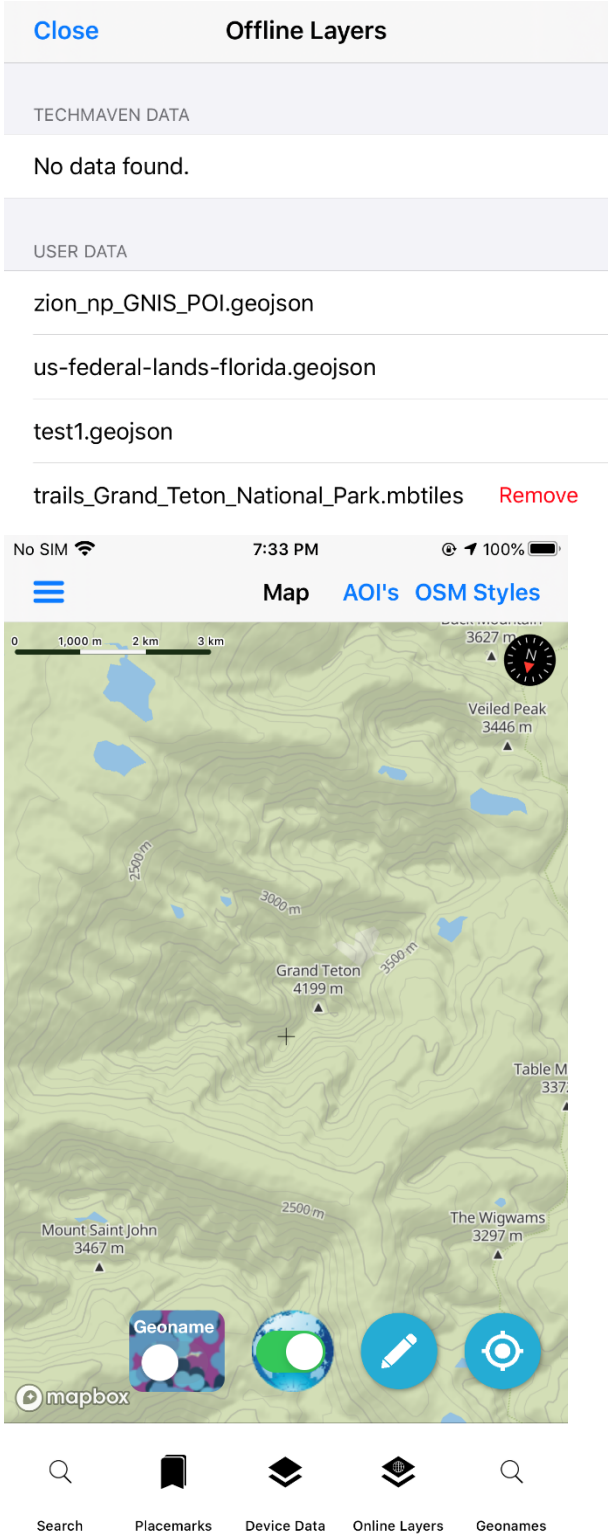

No SIM
9:26 PM
100%
Map
AOI's
OSM Styles
0
10 km
20 km
30 km
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames


No SIM
9:29 PM
100%
Map
AOI's
OSM Styles
0
2.5 km
5 km
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames

Add Raster Tiles MBTILES

Raster Tiles with image formats PNG, JPG, WebP are supported other image formats are NOT supported, Supports Hybrid tiles with mix of JPG and PNG. Tiles can be a view or a table. Metadata table must include the following required records: name, description, format, minzoom, maxzoom and bounds. Center is optional, Mbtiles are always in Spherical Web Mercator Coordinate Reference System as per the spec some tools/implementations allow for building mbtiles in others but we do not support that. The raster tiles can be in multiples of 256x256 pixels 512x512 or 1024x1024 are also supported. The APP currently does NOT allow OVERZOOMING of Raster Tiles if the data goes to Zoom Level 17 you will not be able to zoom to 18, 19, 20,etc

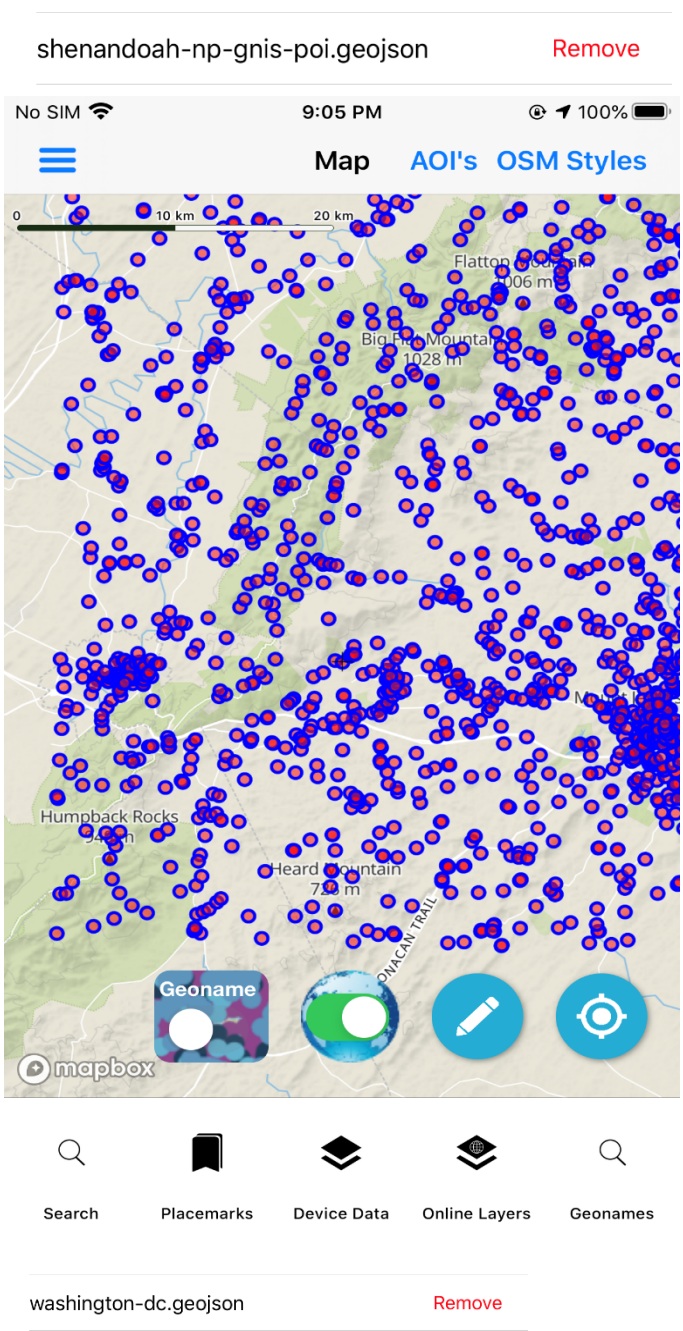
world_urban_areas.mbtiles
Remove
11:09 PM Sat 3 Jul
Not Charging
Map
AOI's OSM Styles
Canada
United States of America
México
Colombia
Perú
Brasil
Argentina
Nigeria
Ethiopia
South Africa
Saudi Arabia
Iran
India
Türkiye
España
Italia
Russia
South Korea
Việt Nam
Australia
Lat: 1.229854 Lng: 0.689197
MGRS: 31NBB4285436047
GARS: 362HQ33
Magnetic Declination: -8.8662
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames

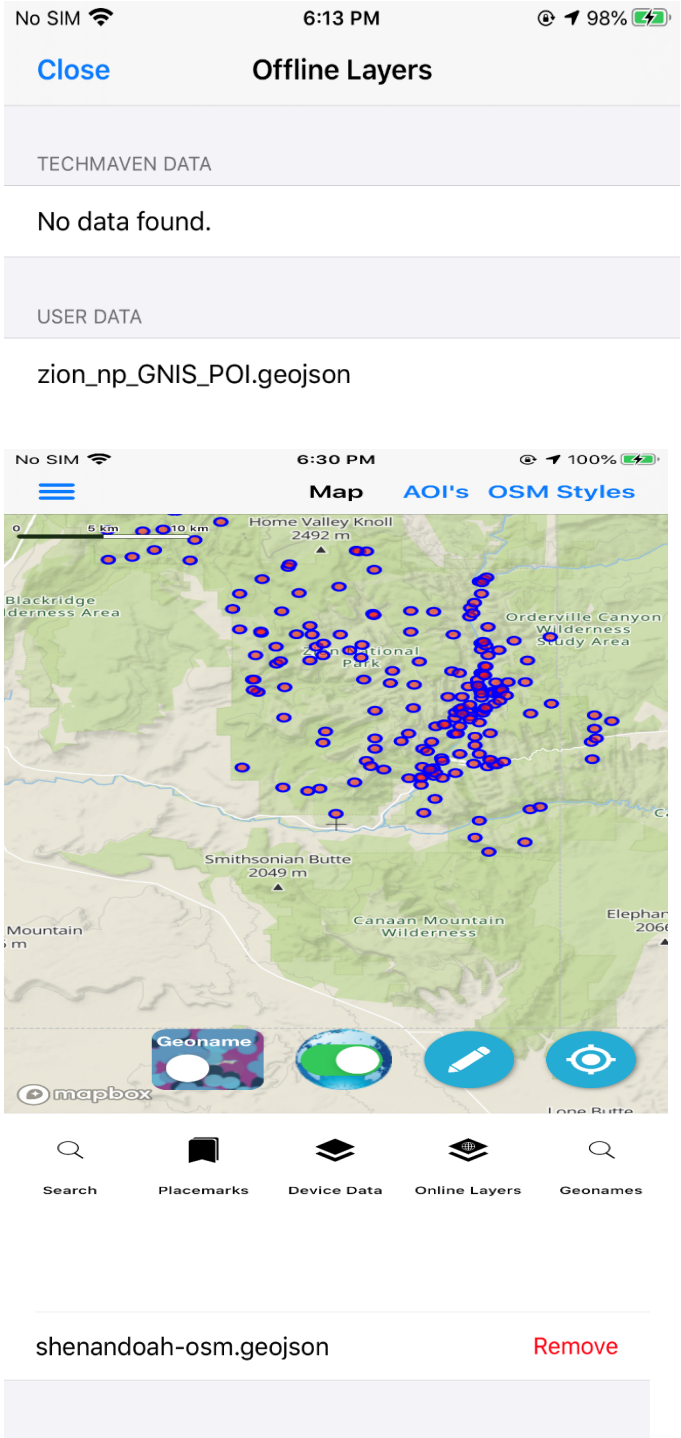

Close
Offline Layers
TECHMAVEN DATA
No data found.
USER DATA
zion_np_GNIS_POI.geojson
us-federal-lands-florida.geojson
test1.geojson
trails_Grand_Teton_National_Park.mbtiles
Remove
No SIM
7:33 PM
100%
Map
AOI's
OSM Styles
0
1,000 m
2 km
3 km
Veiled Peak
3446 m
Grand Teton
4199 m
Mount Saint John
3467 m
The Wigwams
3297 m
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames

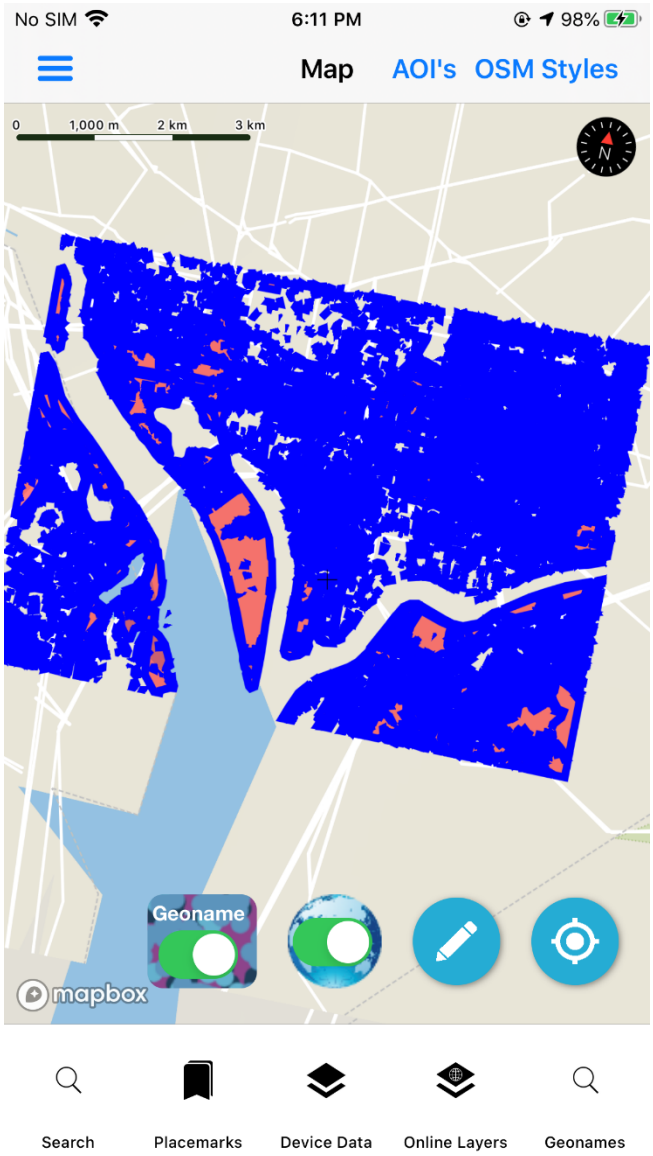
Add Raster Tiles GPKG (GeoPackage)

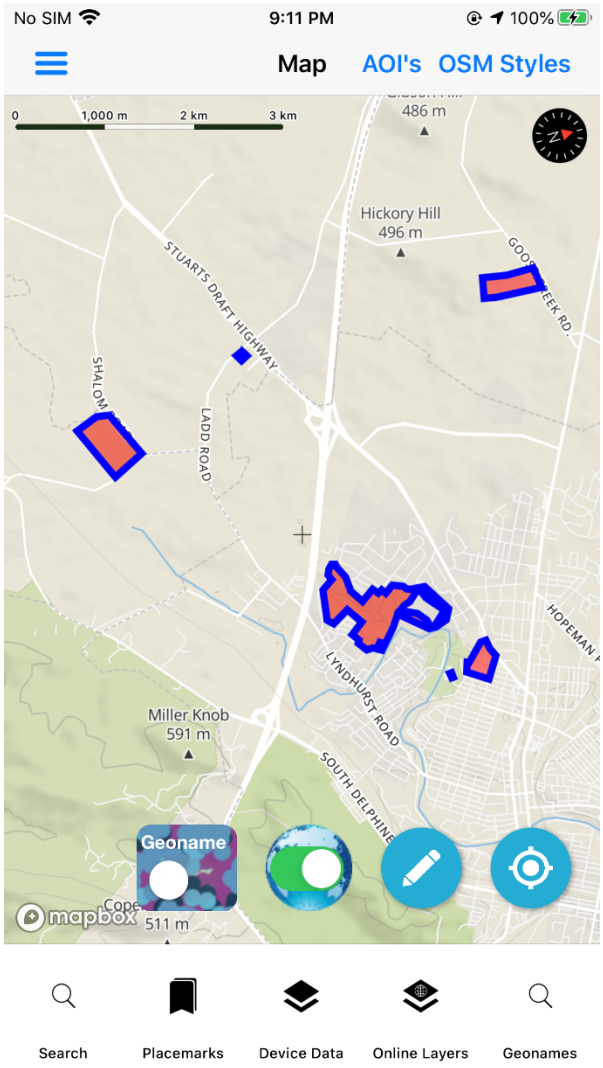
GeoPackage raster tiles must be EPSG: 3857 Spherical Web Mercator/Auxiliary Web Sphere *(We are working to fully support NSG Spec GPKG 3395 and 4326 GeoPackages in future versions of the app)*

If users have GeoTIFF, SID, JP2 Raster Imagery they can build Raster Tiles with GDAL or QGIS Desktop

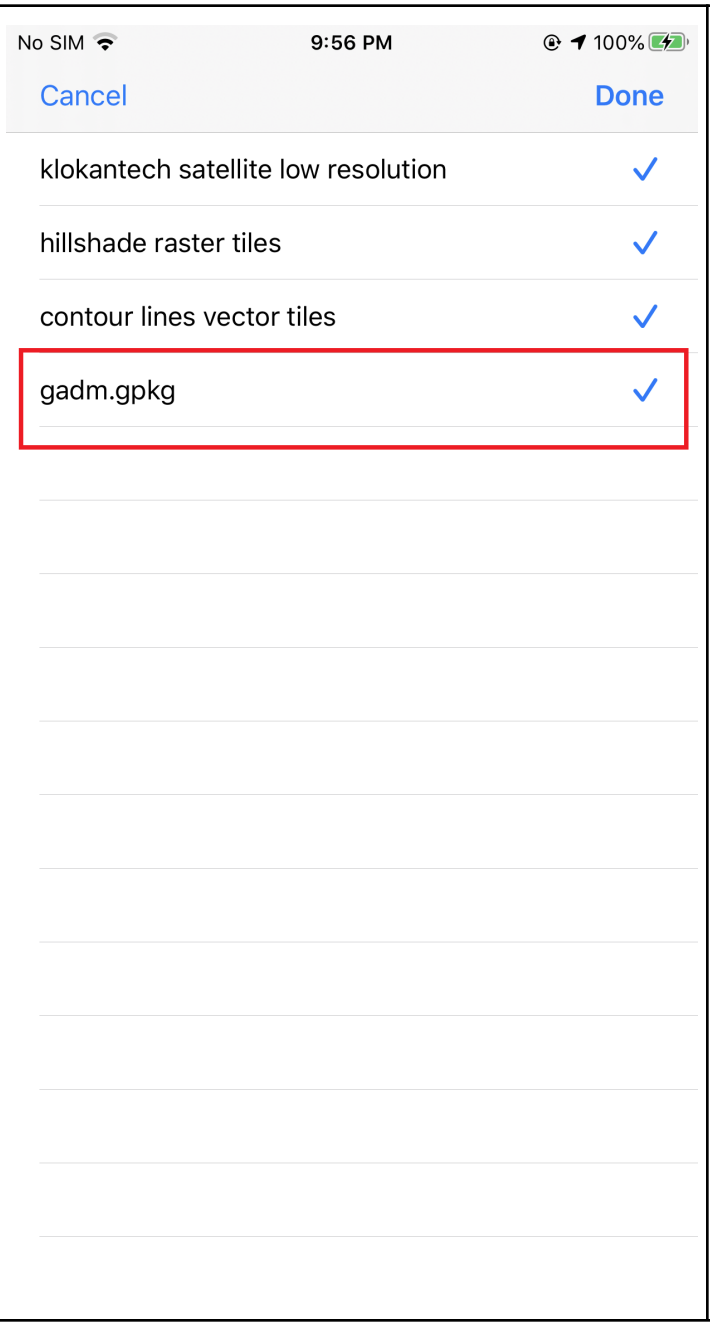





No SIM
6:11 PM
98%
Map
AOI's
OSM Styles
0
1,000 m
2 km
3 km
N
Geoname
mapbox
Search
Placemarks
Device Data
Online Layers
Geonames


No SIM
9:11 PM
100%
Map
AOI's
OSM Styles
0
1,000 m
2 km
3 km
486 m
Hickory Hill
496 m
STUARTS DRAFT HIGHWAY
SHALOM
LADD ROAD
LYNDHURST ROAD
SOUTH DELPHINE
Miller Knob
591 m
Geoname
mapbox
511 m
Search
Placemarks
Device Data
Online Layers
Geonames

GADM Country Place Name Widget Only available ,if you have downloaded that optional gadm.gpkg data during downloading AOI.	



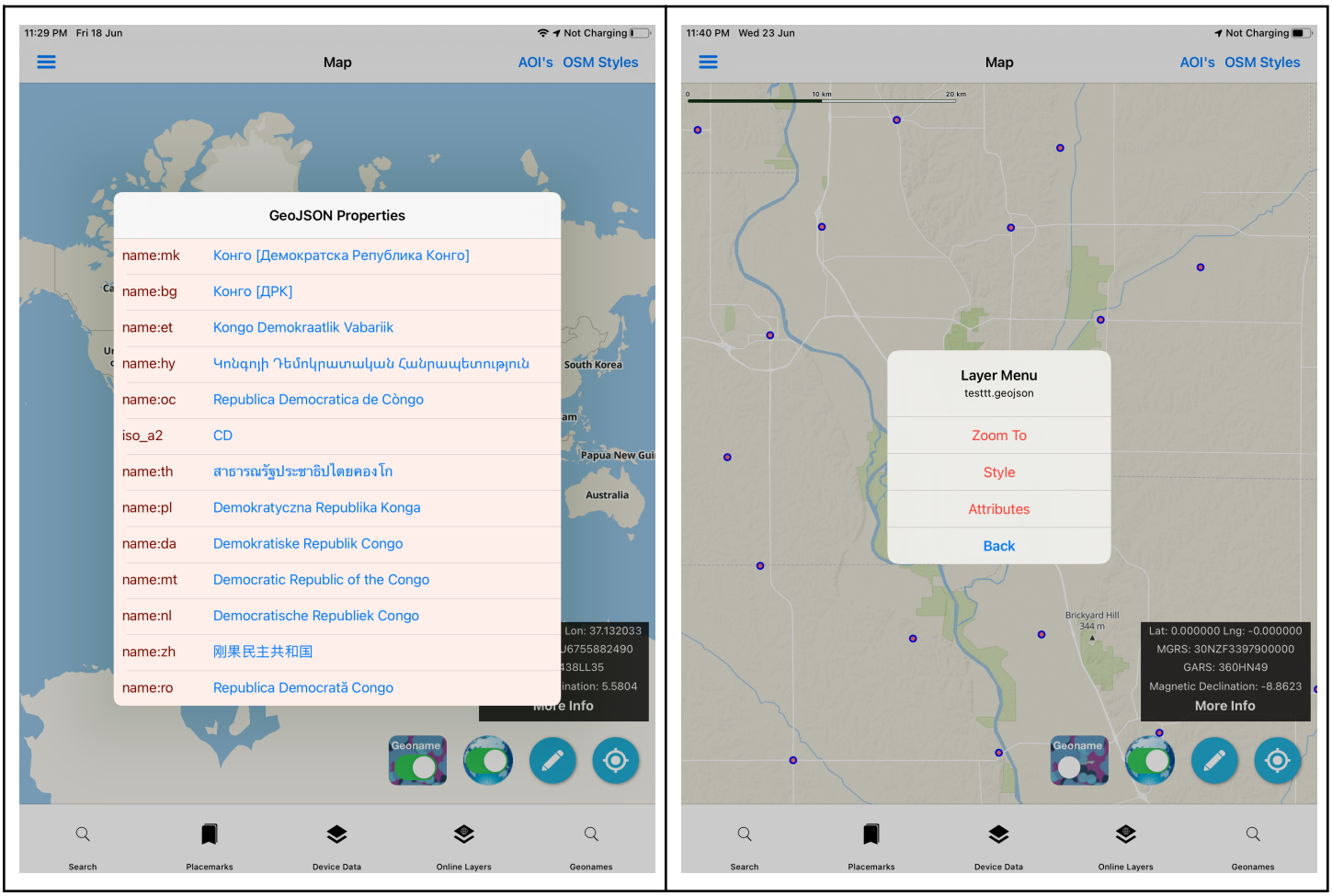
Perform Local Data tests/checks

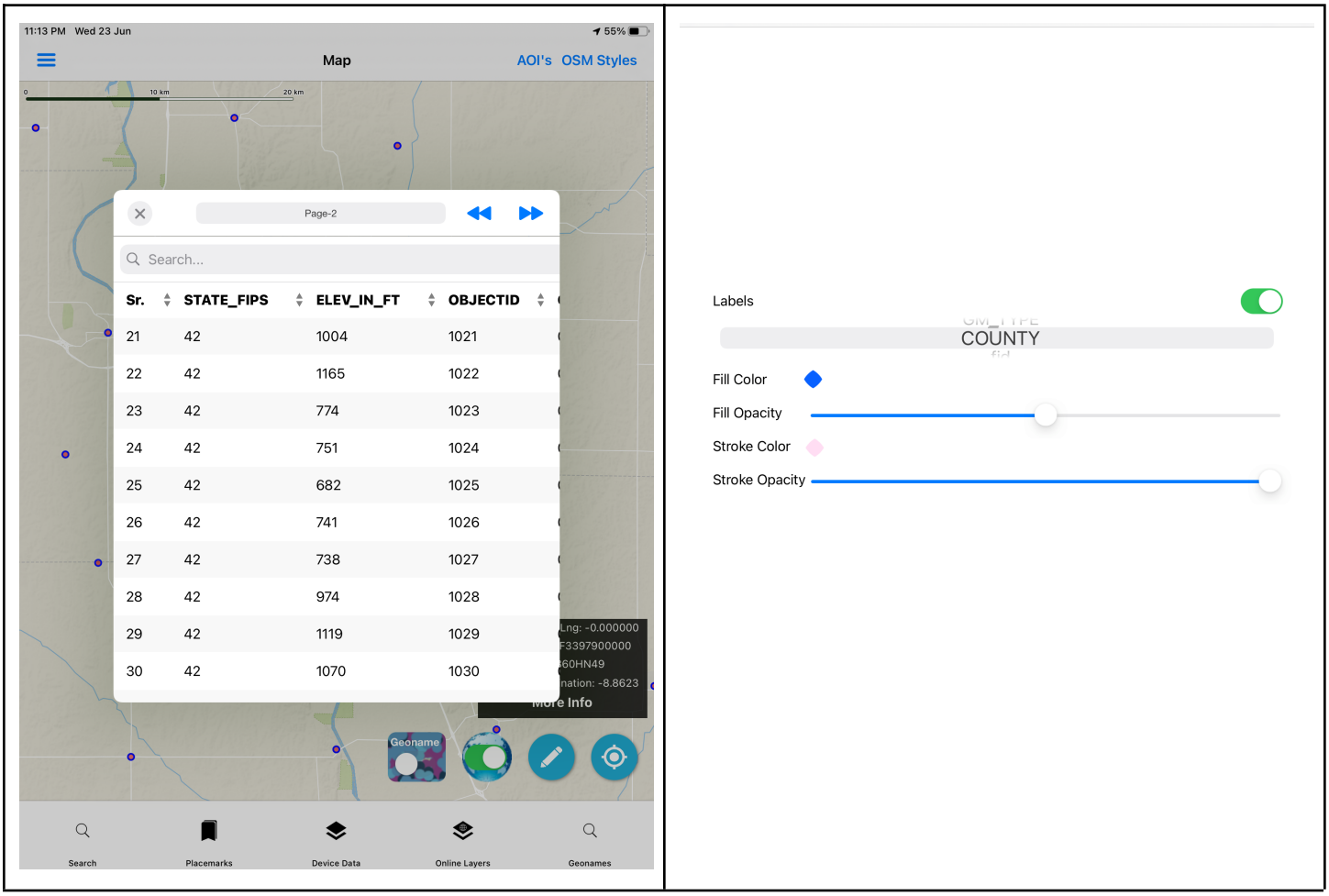
Test ONLINE Toggle

if toggle to Offline Mode Internet Base Maps and MapServices should be disconnected

Geojson Labels, Tables and Popups

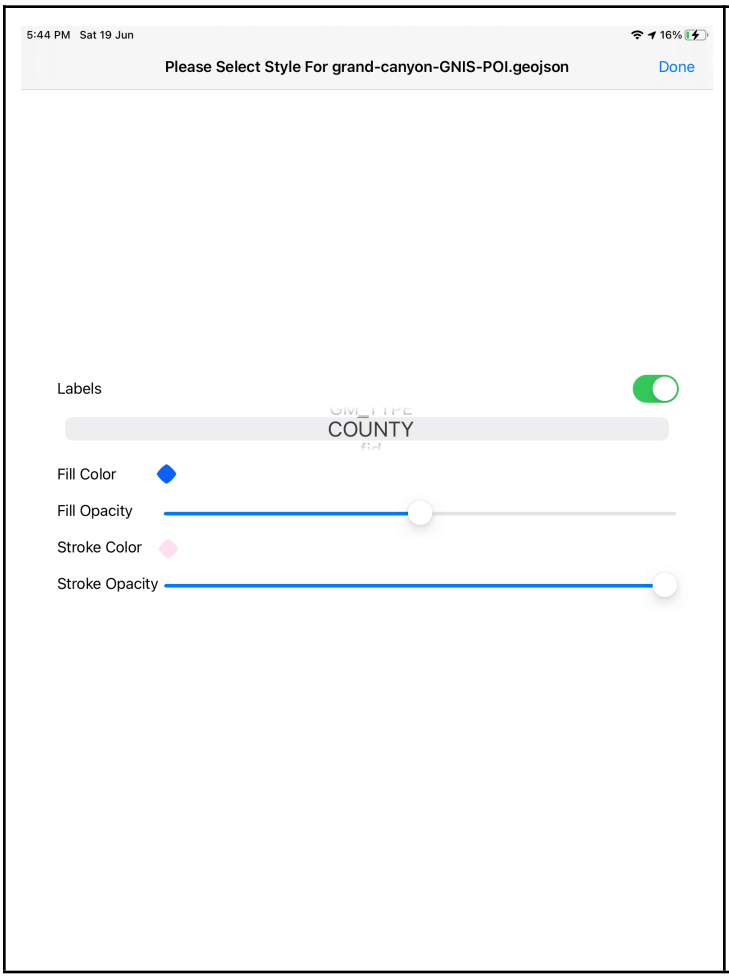
Users can click on a map and can see geojson properties in tabular form.

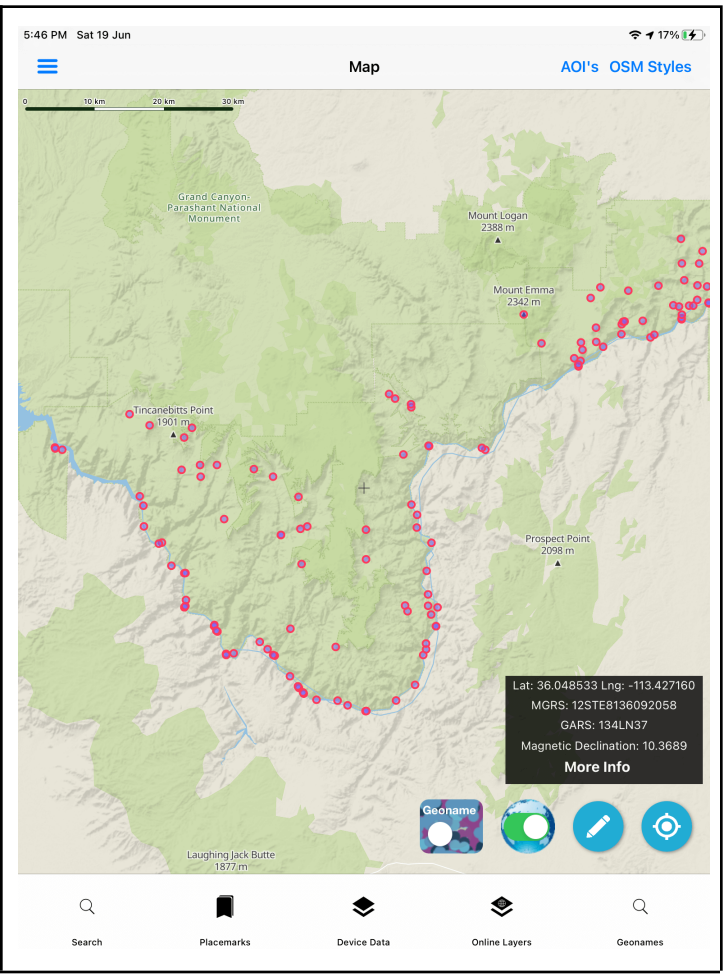


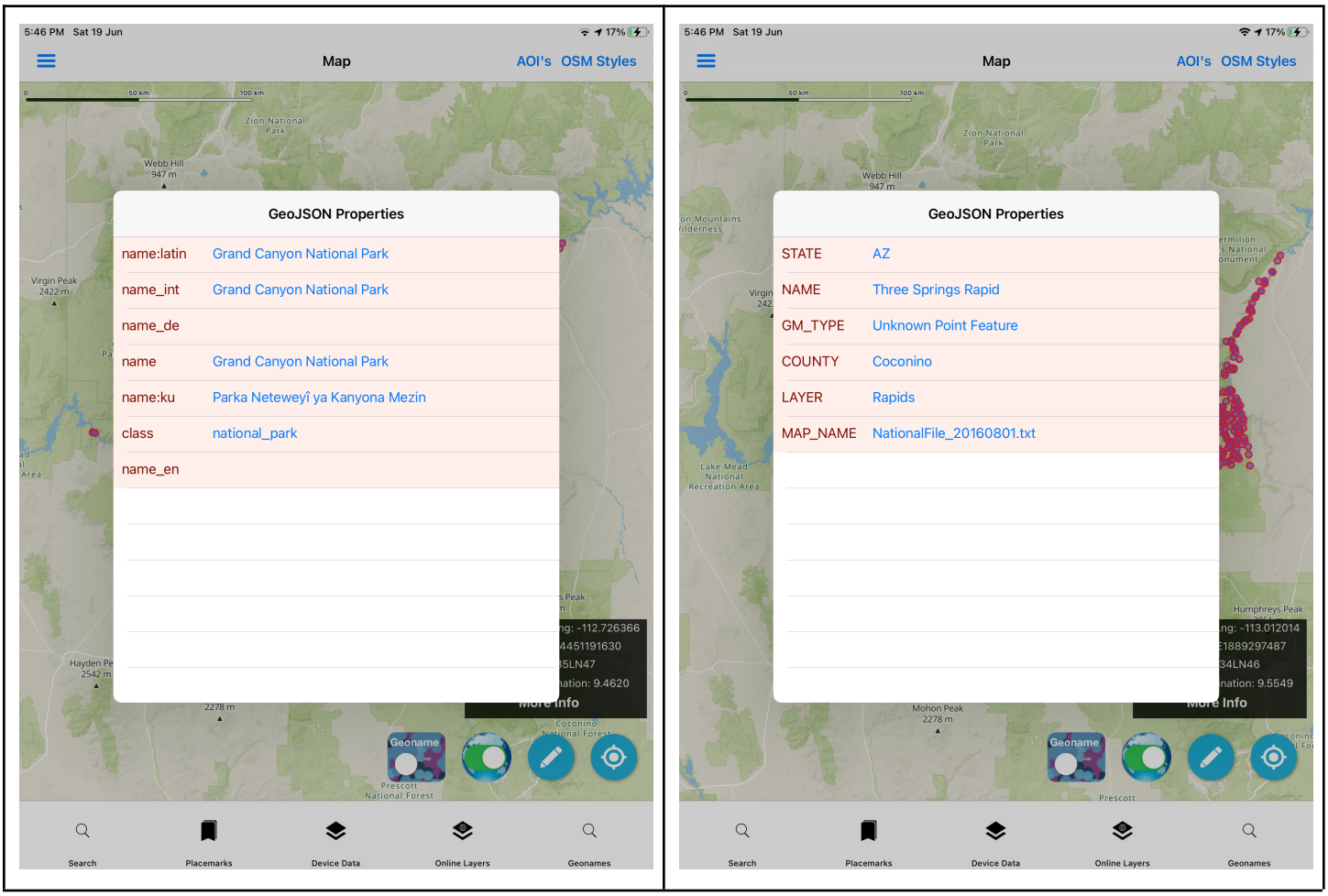


GPKG Vector Features Attribute/Grid table

Users can load vector gpkg on map and change style and labels of respective vector layers and see on map .

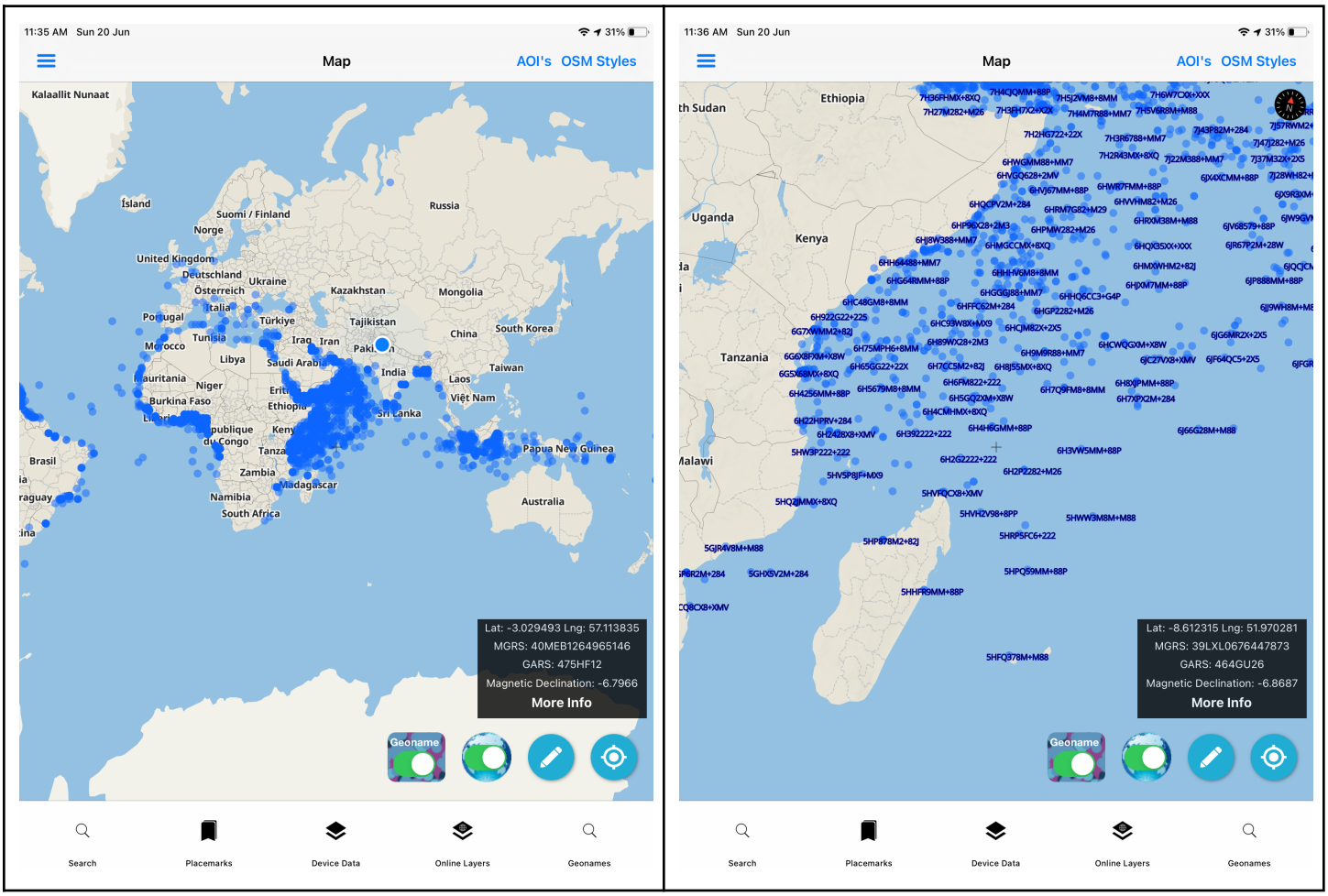

5:44 PM Sat 19 Jun
16%
Please Select Style For grand-canyon-GNIS-POI.geojson
Done
Labels
COUNTY
Fill Color
Fill Opacity
Stroke Color
Stroke Opacity

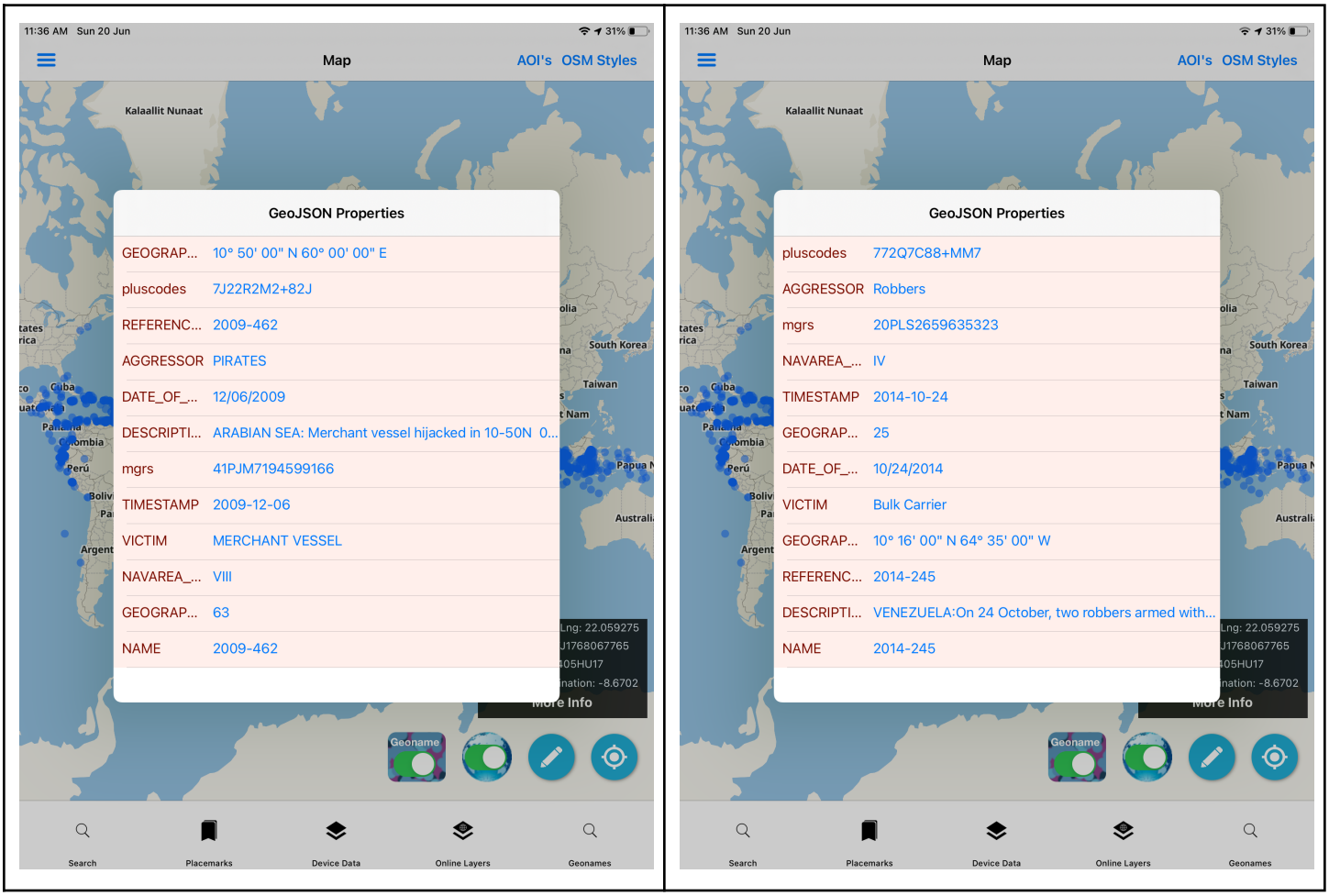

5:46 PM Sat 19 Jun
17%
Map
AOI's
OSM Styles
Grand Canyon-Parashant National Monument
Mount Logan 2388 m
Mount Emma 2342 m
Tincanebitts Point 1901 m
Prospect Point 2098 m
Laughing Jack Butte 1877 m
Lat: 36.048533 Lng: -113.427160
MGRS: 12STE8136092058
GARS: 134LN37
Magnetic Declination: 10.3689
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames

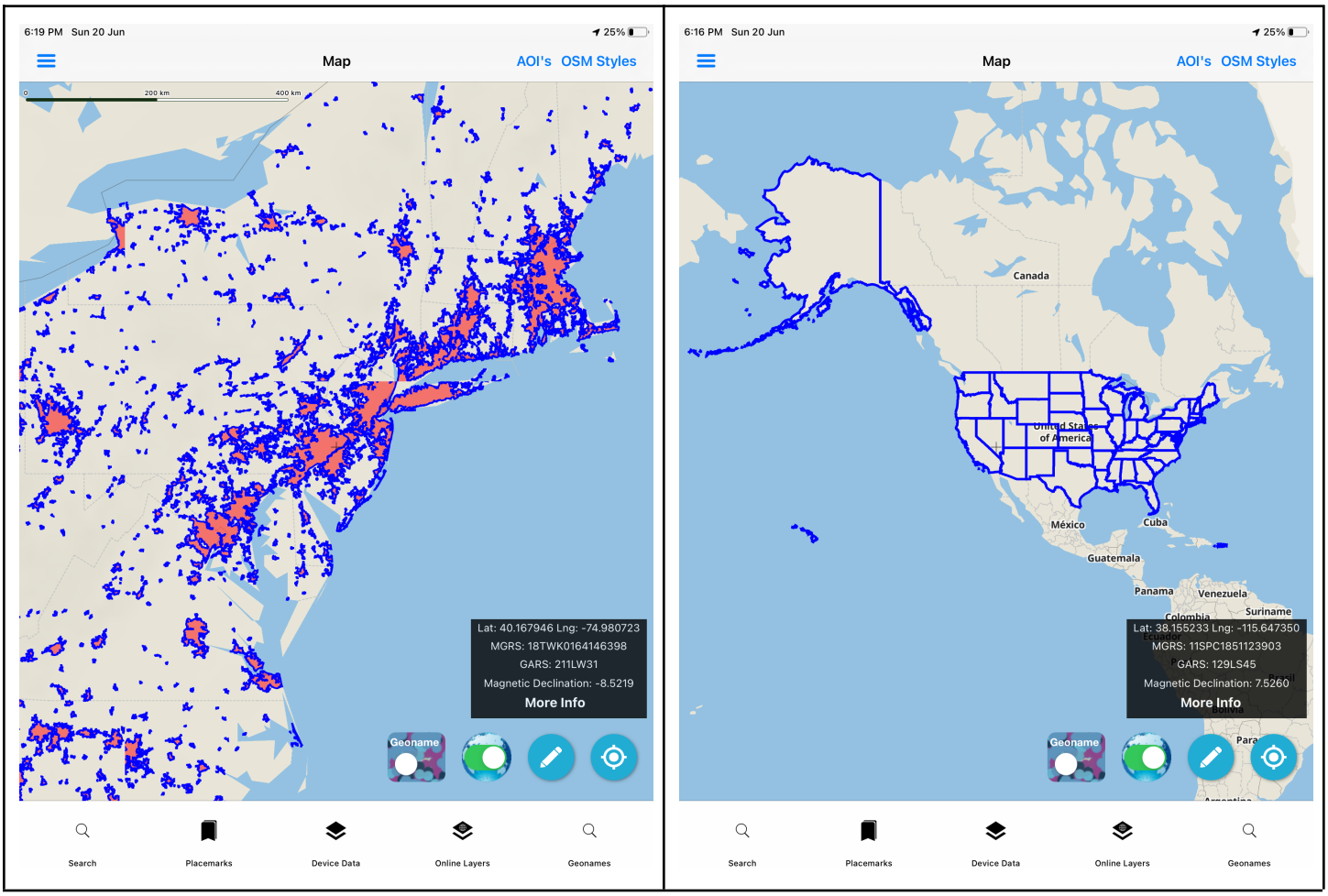


Mbtiles Vector Tiles

Users can upload mbtiles vector tiles using the device data option, and can style fill color , and change fill opacity and labels respectively. Currently we are not supporting multiple layers vector tiles, And data must be gzipped/gzf PBF inside tile_data blob.

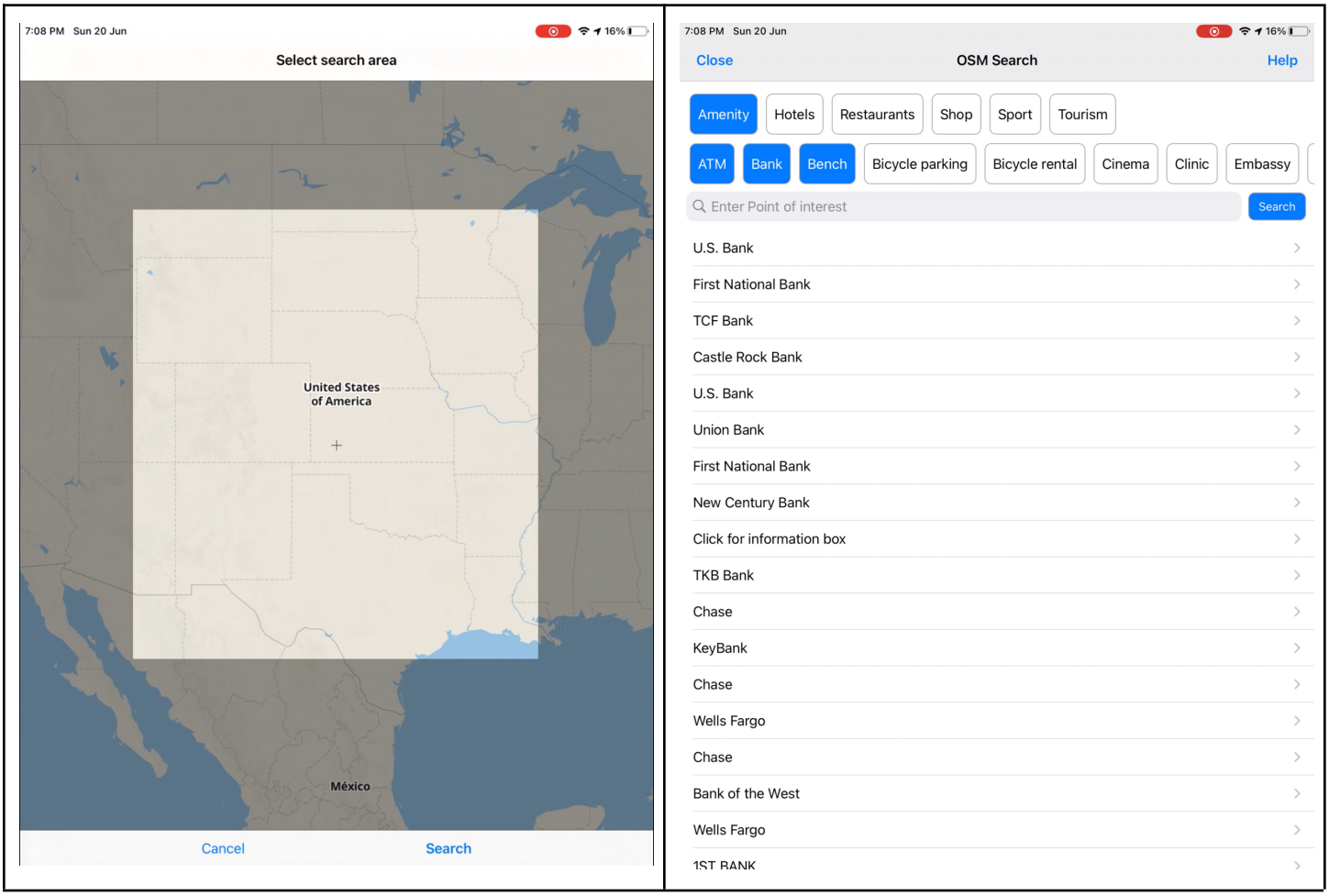

11:35 AM Sun 20 Jun
31%
Map
AOI's OSM Styles
Kalaallit Nunaat
Ísland
Suomi / Finland
Norge
Russia
United Kingdom
Deutschland
Ukraine
Österreich
Kazakhstan
Mongolia
Italia
Portugal
Türkiye
Tajikistan
China
South Korea
Tunisia
Iraq
Iran
Libya
Saudi Arabia
India
Taiwan
Niger
Laos
Việt Nam
Burkina Faso
Ethiopia
Sri Lanka
Kenya
Tanzania
Zambia
Madagascar
Namibia
South Africa
Papua New Guinea
Australia
Brasil
Lat: -3.029493 Lng: 57.113835
MGRS: 40MEB1264965146
GARS: 475HF12
Magnetic Declination: -6.7966
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames
11:36 AM Sun 20 Jun
31%
Map
AOI's OSM Styles
Ethiopia
Uganda
Kenya
Tanzania
Malawi
Lat: -8.612315 Lng: 51.970281
MGRS: 39LXL0676447873
GARS: 464GU26
Magnetic Declination: -6.8687
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames

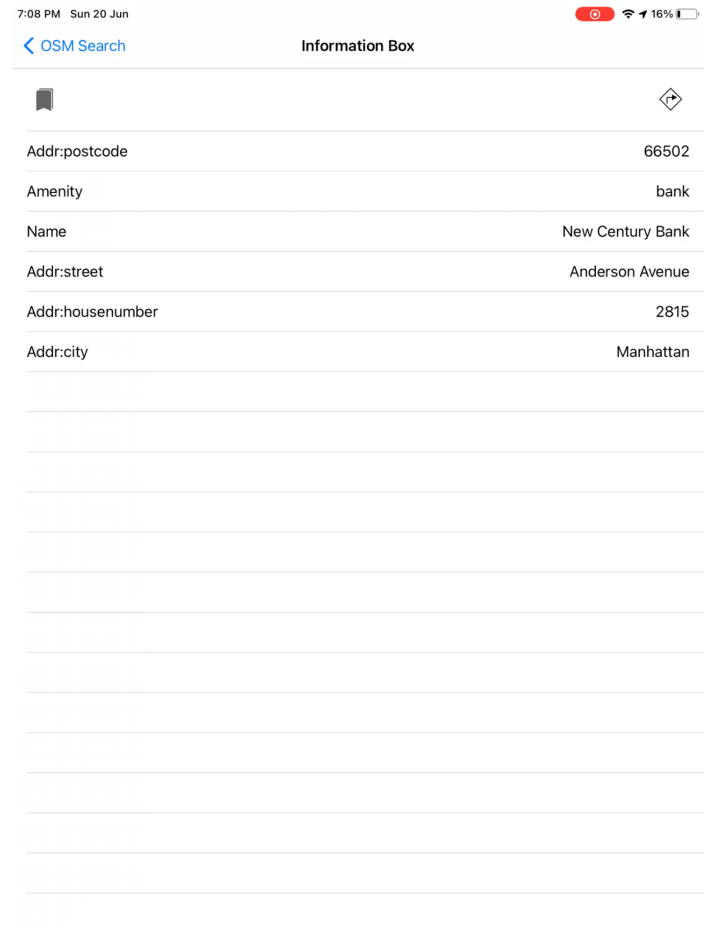

11:36 AM Sun 20 Jun
31%
Map
AOI's
OSM Styles
Kalaallit Nunaat
GeoJSON Properties
GEOGRAP... 10° 50' 00" N 60° 00' 00" E
pluscodes 7J22R2M2+82J
REFERENC... 2009-462
AGGRESSOR PIRATES
DATE_OF_... 12/06/2009
DESCRIPTI... ARABIAN SEA: Merchant vessel hijacked in 10-50N 0...
mgrs 41PJM7194599166
TIMESTAMP 2009-12-06
VICTIM MERCHANT VESSEL
NAVAREA_... VIII
GEOGRAP... 63
NAME 2009-462
Cuba
South Korea
Taiwan
Perú
Papua N
Australi
Argent
Lng: 22.059275
J1768067765
105HU17
nation: -8.6702
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames
11:36 AM Sun 20 Jun
31%
Map
AOI's
OSM Styles
Kalaallit Nunaat
GeoJSON Properties
pluscodes 772Q7C88+MM7
AGGRESSOR Robbers
mgrs 20PLS2659635323
NAVAREA_... IV
TIMESTAMP 2014-10-24
GEOGRAP... 25
DATE_OF_... 10/24/2014
VICTIM Bulk Carrier
GEOGRAP... 10° 16' 00" N 64° 35' 00" W
REFERENC... 2014-245
DESCRIPTI... VENEZUELA:On 24 October, two robbers armed with...
NAME 2014-245
Cuba
South Korea
Taiwan
Perú
Papua N
Australi
Argent
Lng: 22.059275
J1768067765
105HU17
nation: -8.6702
More Info
Geoname
Search
Placemarks
Device Data
Online Layers
Geonames



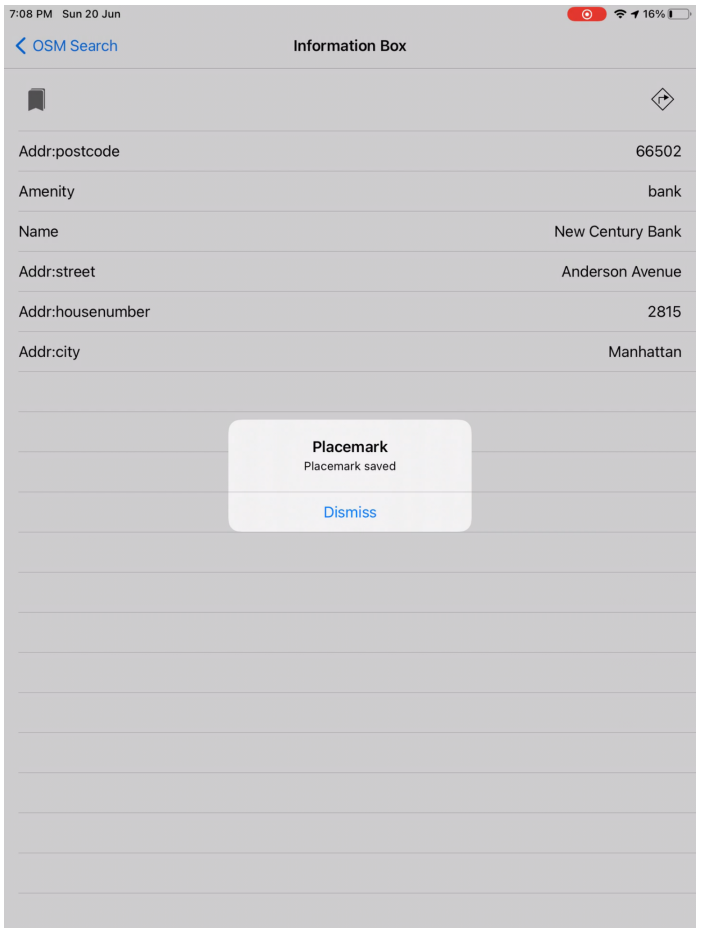
OSM-Open Street Map SEARCH - Points of Interest (using the Overpass-API) **Searching** * Requires Internet

Users can search in an area of POI (Points of Interest) and amenities within a geographic area they specify.
First pick the top level category and then the sub category/type (example: Ammenity Bank or ATM)

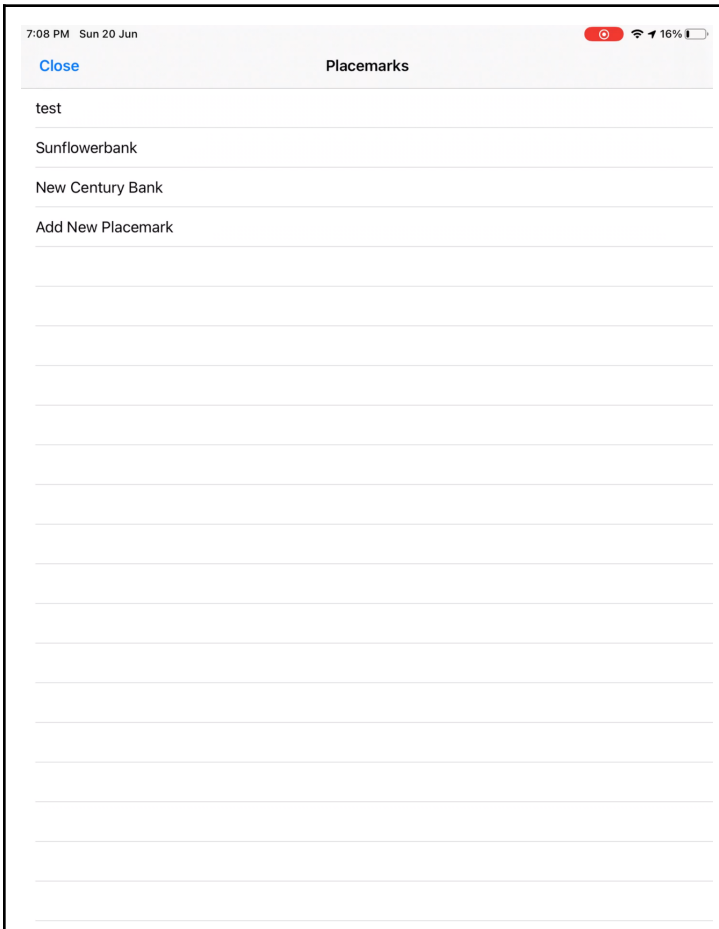

7:08 PM Sun 20 Jun
16%
Select search area
United States of America
México
Cancel
Search
7:08 PM Sun 20 Jun
16%
Close
OSM Search
Help
Amenity
Hotels
Restaurants
Shop
Sport
Tourism
ATM
Bank
Bench
Bicycle parking
Bicycle rental
Cinema
Clinic
Embassy
Enter Point of interest
Search
U.S. Bank
First National Bank
TCF Bank
Castle Rock Bank
U.S. Bank
Union Bank
First National Bank
New Century Bank
Click for information box
TKB Bank
Chase
KeyBank
Chase
Wells Fargo
Chase
Bank of the West
Wells Fargo
1ST BANK

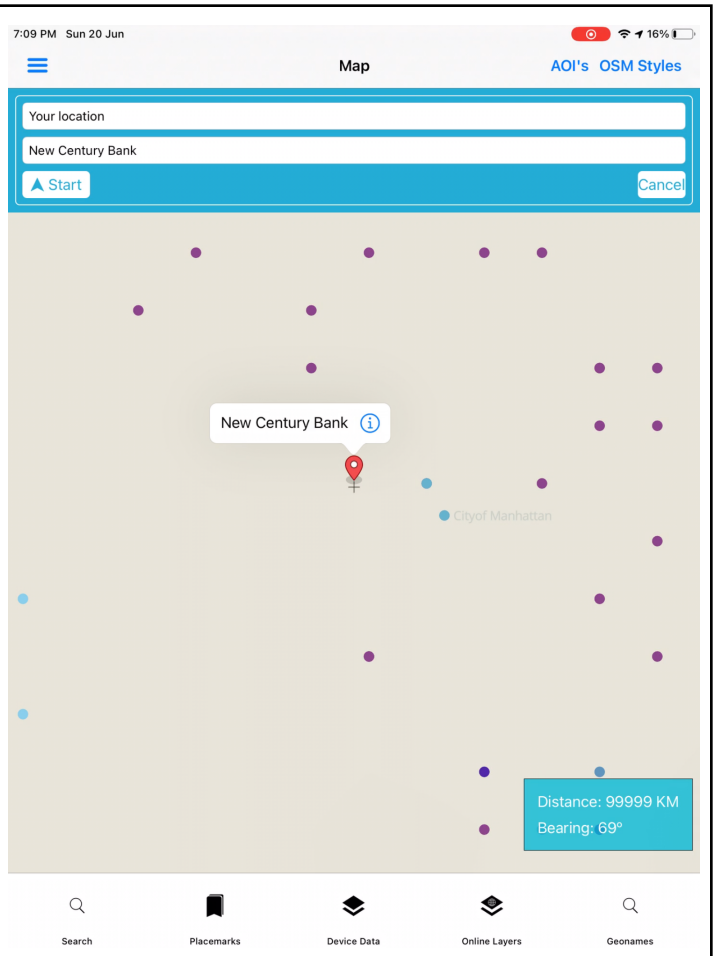


View the detail information and even copy and paste to do a web search in your browser

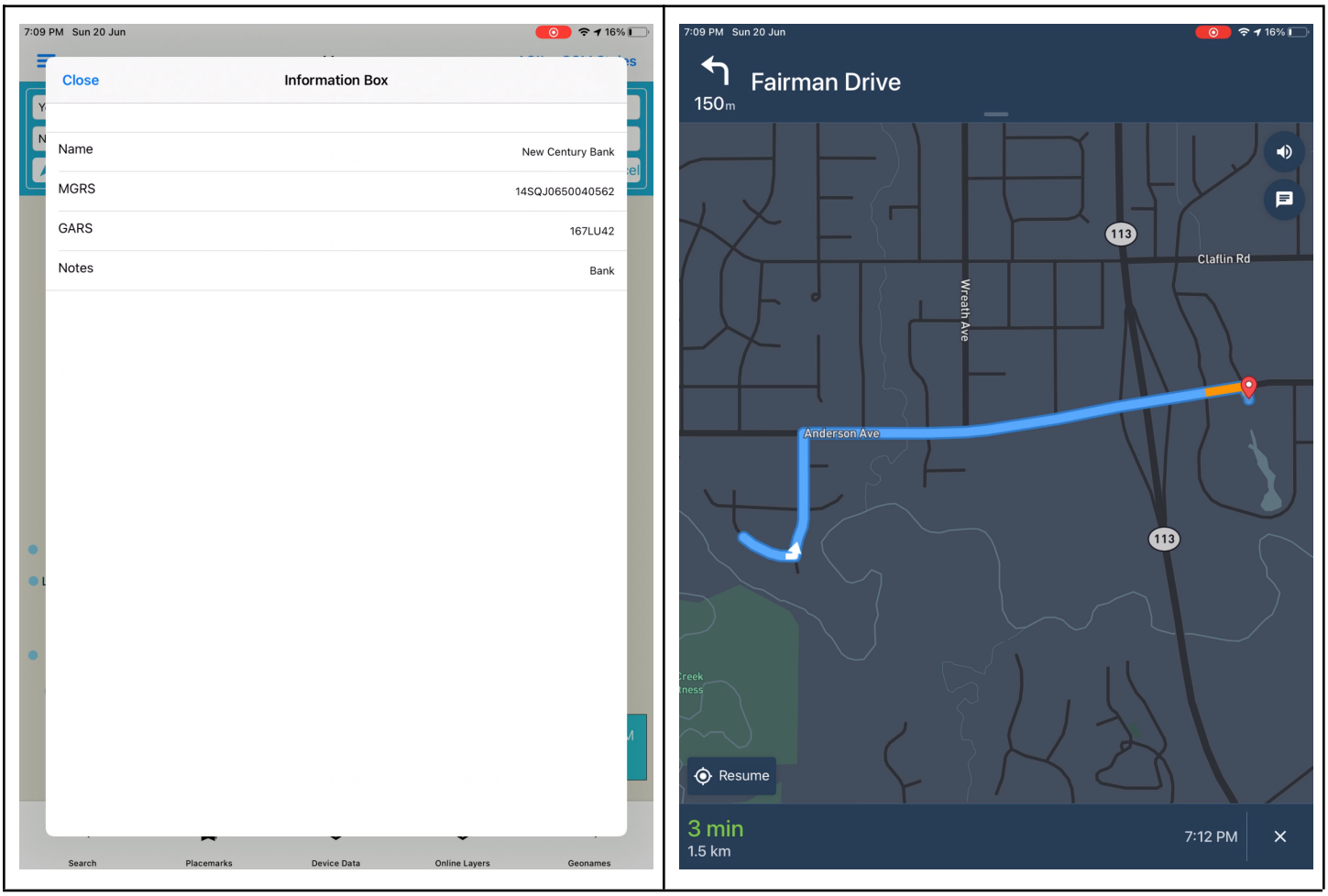


You can save the OSM Point of Interest in



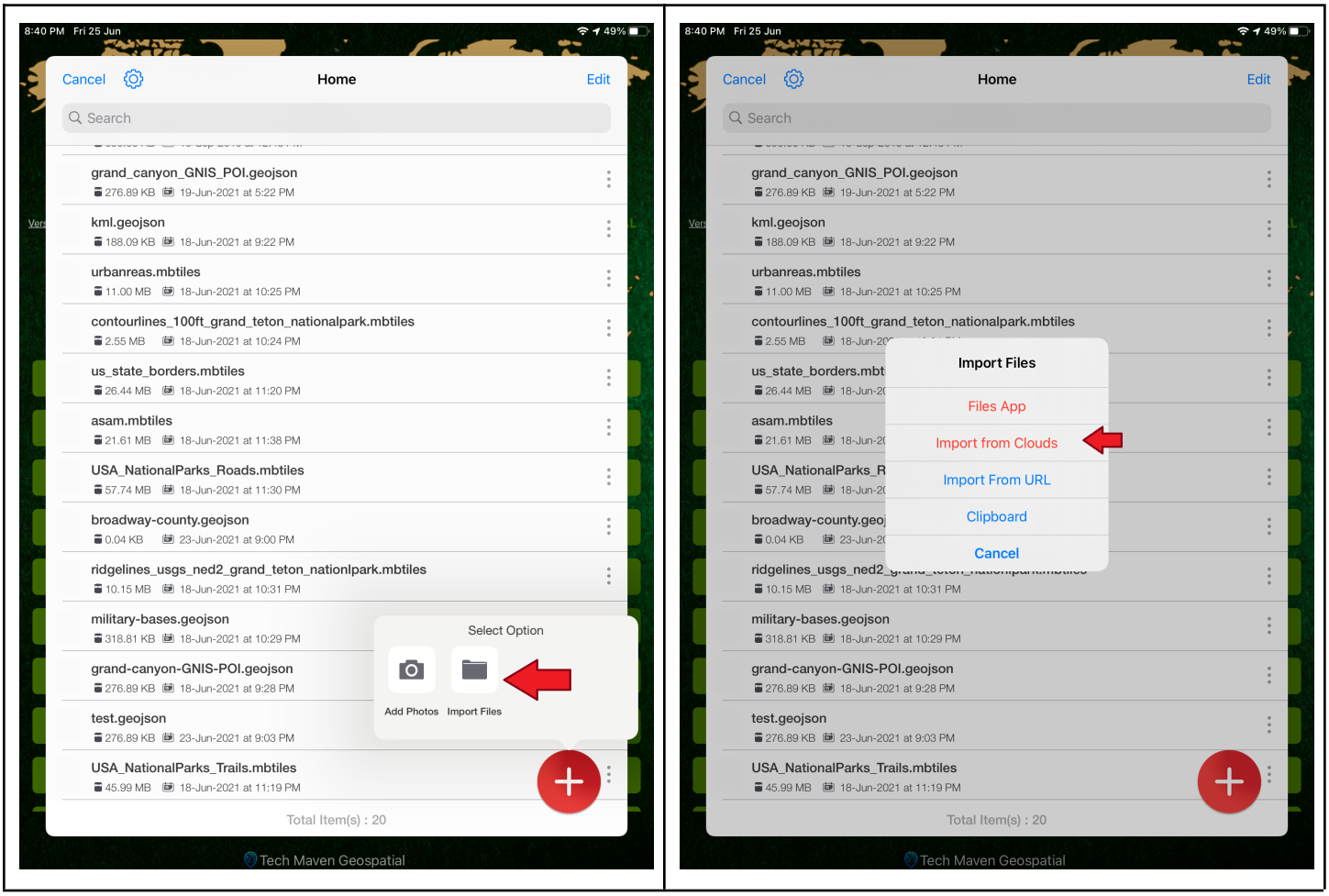


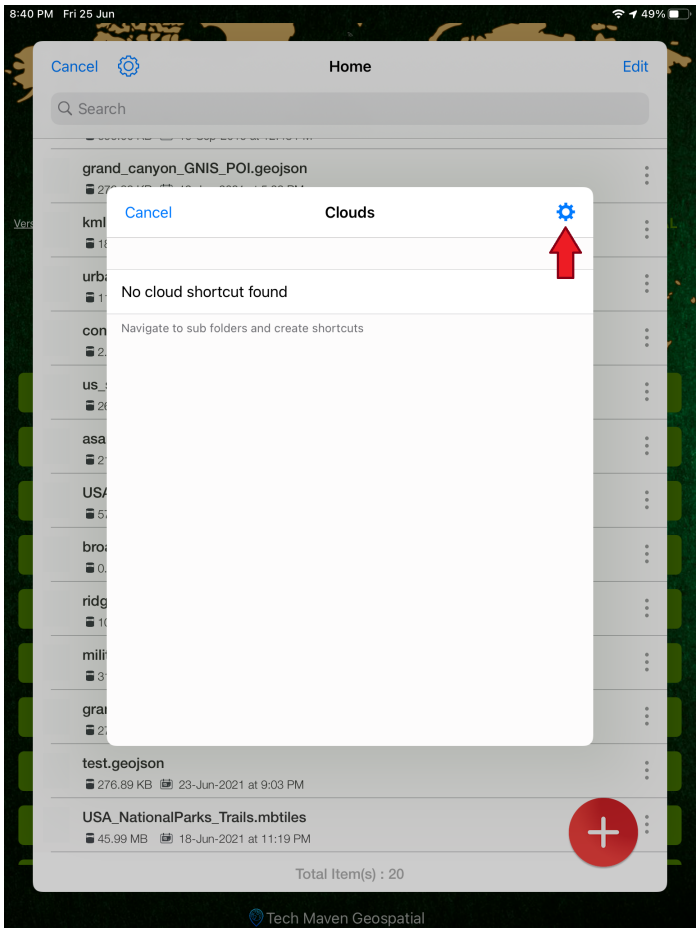
The ability to get directions to that location

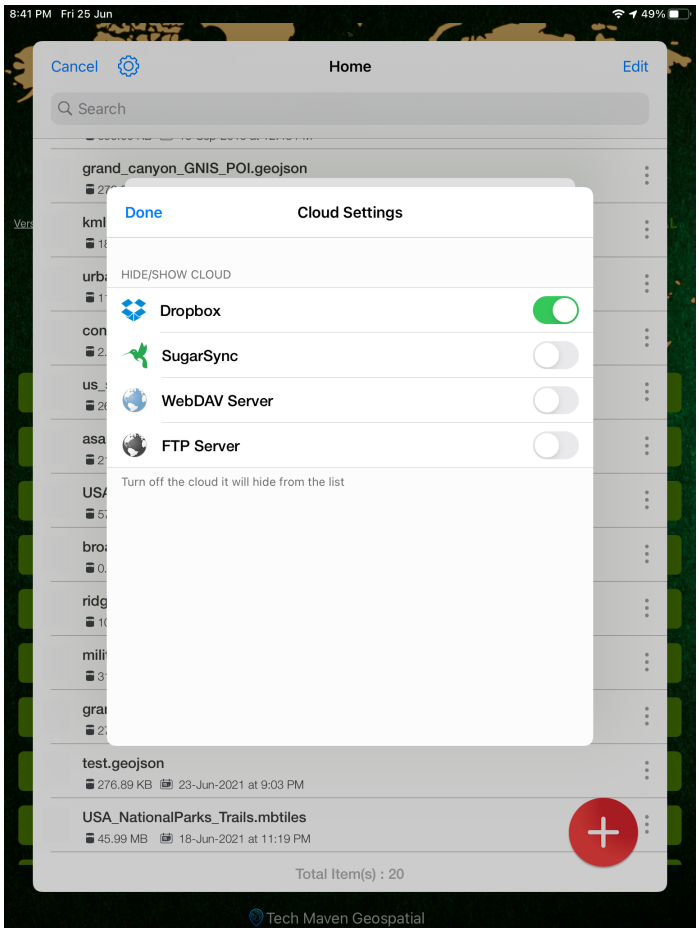


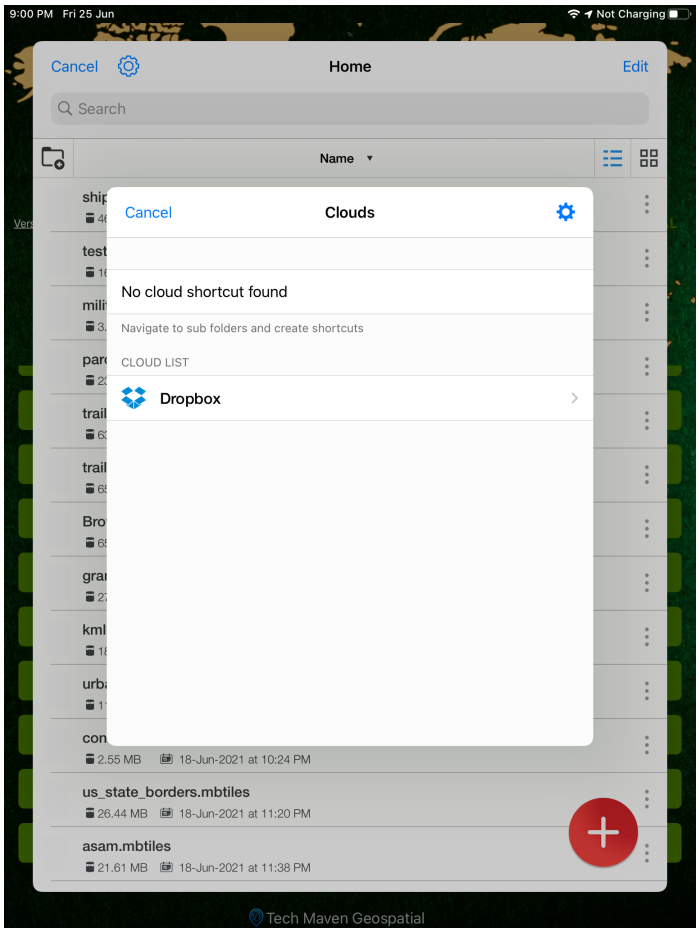
File Manager - Cloud Integration

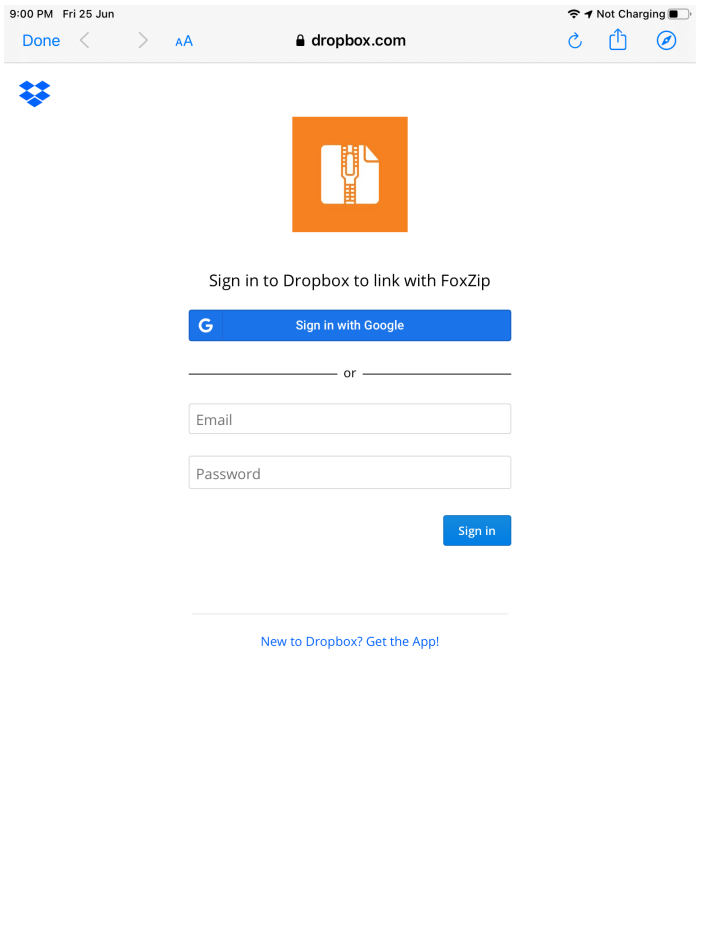
You can import files (Documents & images) from your directory & clouds(DropBox,Box.Net).

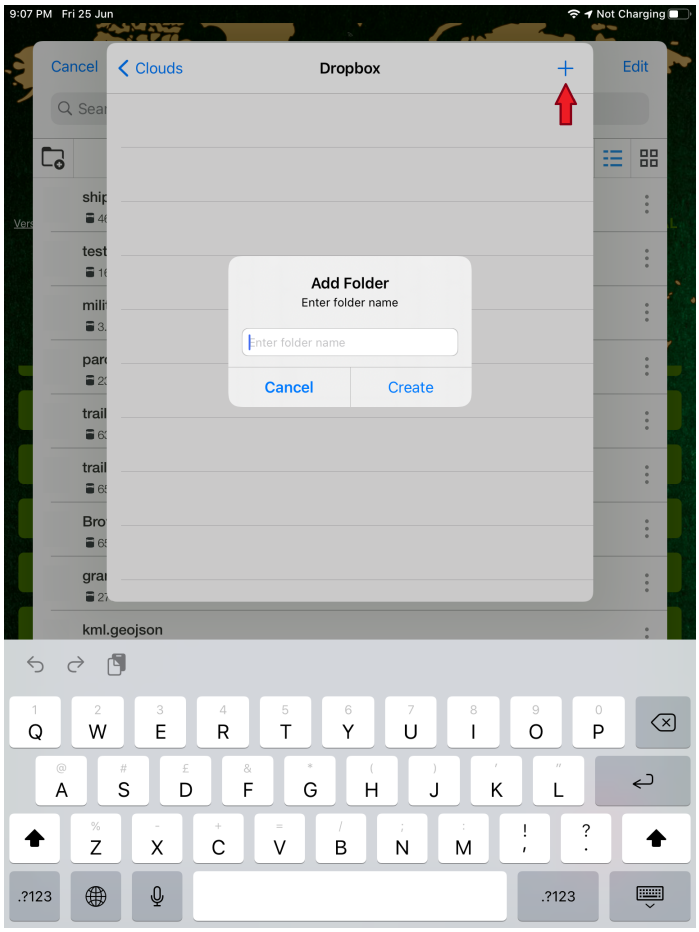

8:40 PM Fri 25 Jun
49%
Cancel
Home
Edit
Search
grand_canyon_GNIS_POI.geojson
276.89 KB 19-Jun-2021 at 5:22 PM
kml.geojson
188.09 KB 18-Jun-2021 at 9:22 PM
urbanreas.mbtiles
11.00 MB 18-Jun-2021 at 10:25 PM
contourlines_100ft_grand_teton_nationalpark.mbtiles
2.55 MB 18-Jun-2021 at 10:24 PM
us_state_borders.mbtiles
26.44 MB 18-Jun-2021 at 11:20 PM
asam.mbtiles
21.61 MB 18-Jun-2021 at 11:38 PM
USA_NationalParks_Roads.mbtiles
57.74 MB 18-Jun-2021 at 11:30 PM
broadway-county.geojson
0.04 KB 23-Jun-2021 at 9:00 PM
ridgelines_usgs_ned2_grand_teton_nationlpark.mbtiles
10.15 MB 18-Jun-2021 at 10:31 PM
military-bases.geojson
318.81 KB 18-Jun-2021 at 10:29 PM
grand-canyon-GNIS-POI.geojson
276.89 KB 18-Jun-2021 at 9:28 PM
test.geojson
276.89 KB 23-Jun-2021 at 9:03 PM
USA_NationalParks_Trails.mbtiles
45.99 MB 18-Jun-2021 at 11:19 PM
Total Item(s) : 20
Select Option
Add Photos
Import Files
Tech Maven Geospatial
8:40 PM Fri 25 Jun
49%
Cancel
Home
Edit
Search
grand_canyon_GNIS_POI.geojson
276.89 KB 19-Jun-2021 at 5:22 PM
kml.geojson
188.09 KB 18-Jun-2021 at 9:22 PM
urbanreas.mbtiles
11.00 MB 18-Jun-2021 at 10:25 PM
contourlines_100ft_grand_teton_nationalpark.mbtiles
2.55 MB
Import Files
Files App
Import from Clouds
Import From URL
Clipboard
Cancel
military-bases.geojson
318.81 KB 18-Jun-2021 at 10:29 PM
grand-canyon-GNIS-POI.geojson
276.89 KB 18-Jun-2021 at 9:28 PM
test.geojson
276.89 KB 23-Jun-2021 at 9:03 PM
USA_NationalParks_Trails.mbtiles
45.99 MB 18-Jun-2021 at 11:19 PM
Total Item(s) : 20
Tech Maven Geospatial


8:40 PM Fri 25 Jun
49%
Cancel
Home
Edit
Search
grand_canyon_GNIS_POI.geojson
Cancel
Clouds
No cloud shortcut found
Navigate to sub folders and create shortcuts
test.geojson
276.89 KB 23-Jun-2021 at 9:03 PM
USA_NationalParks_Trails.mbtiles
45.99 MB 18-Jun-2021 at 11:19 PM
Total Item(s) : 20
Tech Maven Geospatial


8:41 PM Fri 25 Jun
49%
Cancel
Home
Edit
Search
grand_canyon_GNIS_POI.geojson
Done
Cloud Settings
HIDE/SHOW CLOUD
Dropbox
SugarSync
WebDAV Server
FTP Server
Turn off the cloud it will hide from the list
test.geojson
276.89 KB 23-Jun-2021 at 9:03 PM
USA_NationalParks_Trails.mbtiles
45.99 MB 18-Jun-2021 at 11:19 PM
Total Item(s) : 20
Tech Maven Geospatial

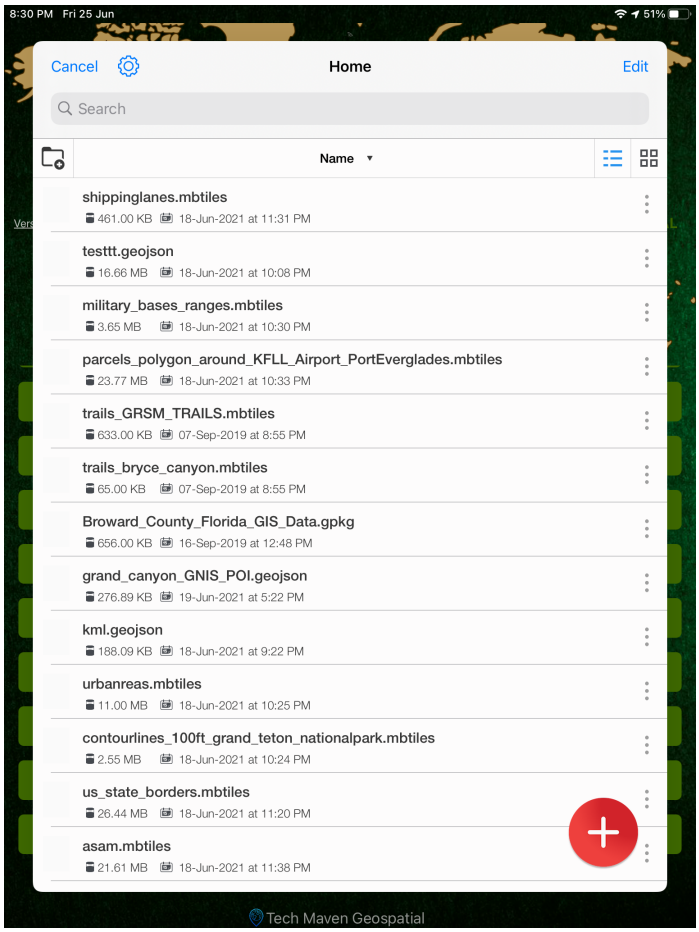

9:00 PM Fri 25 Jun
Not Charging
Cancel
Home
Edit
Search
Name
Cancel
Clouds
No cloud shortcut found
Navigate to sub folders and create shortcuts
CLOUD LIST
Dropbox
2.55 MB 18-Jun-2021 at 10:24 PM
us_state_borders.mbtiles
26.44 MB 18-Jun-2021 at 11:20 PM
asam.mbtiles
21.61 MB 18-Jun-2021 at 11:38 PM
Tech Maven Geospatial

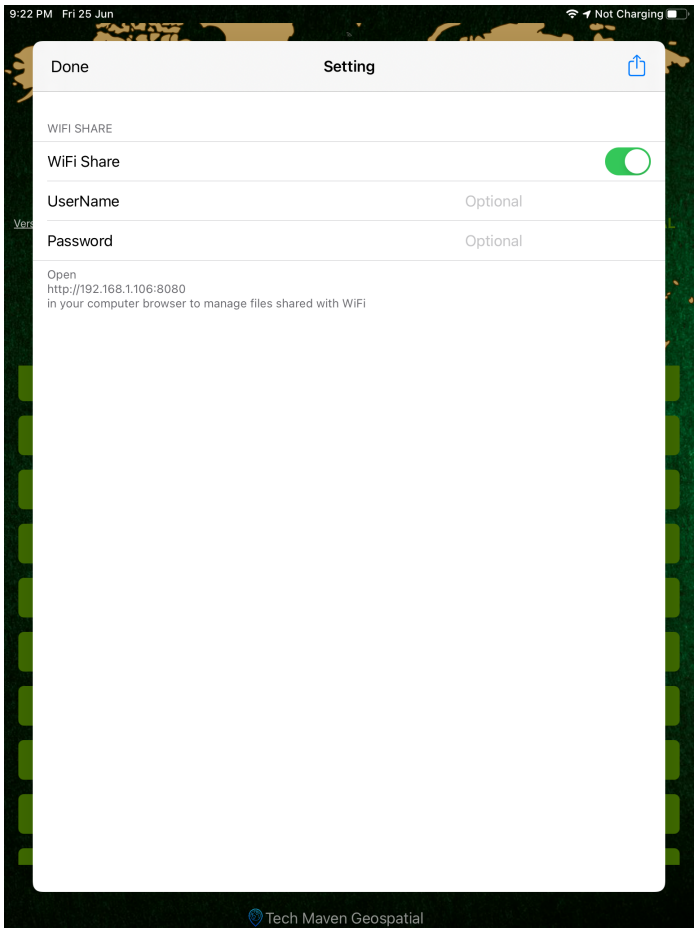

9:00 PM Fri 25 Jun
Not Charging
Done
AA
dropbox.com
Sign in to Dropbox to link with FoxZip
Sign in with Google
or
Email
Password
Sign in
New to Dropbox? Get the App!

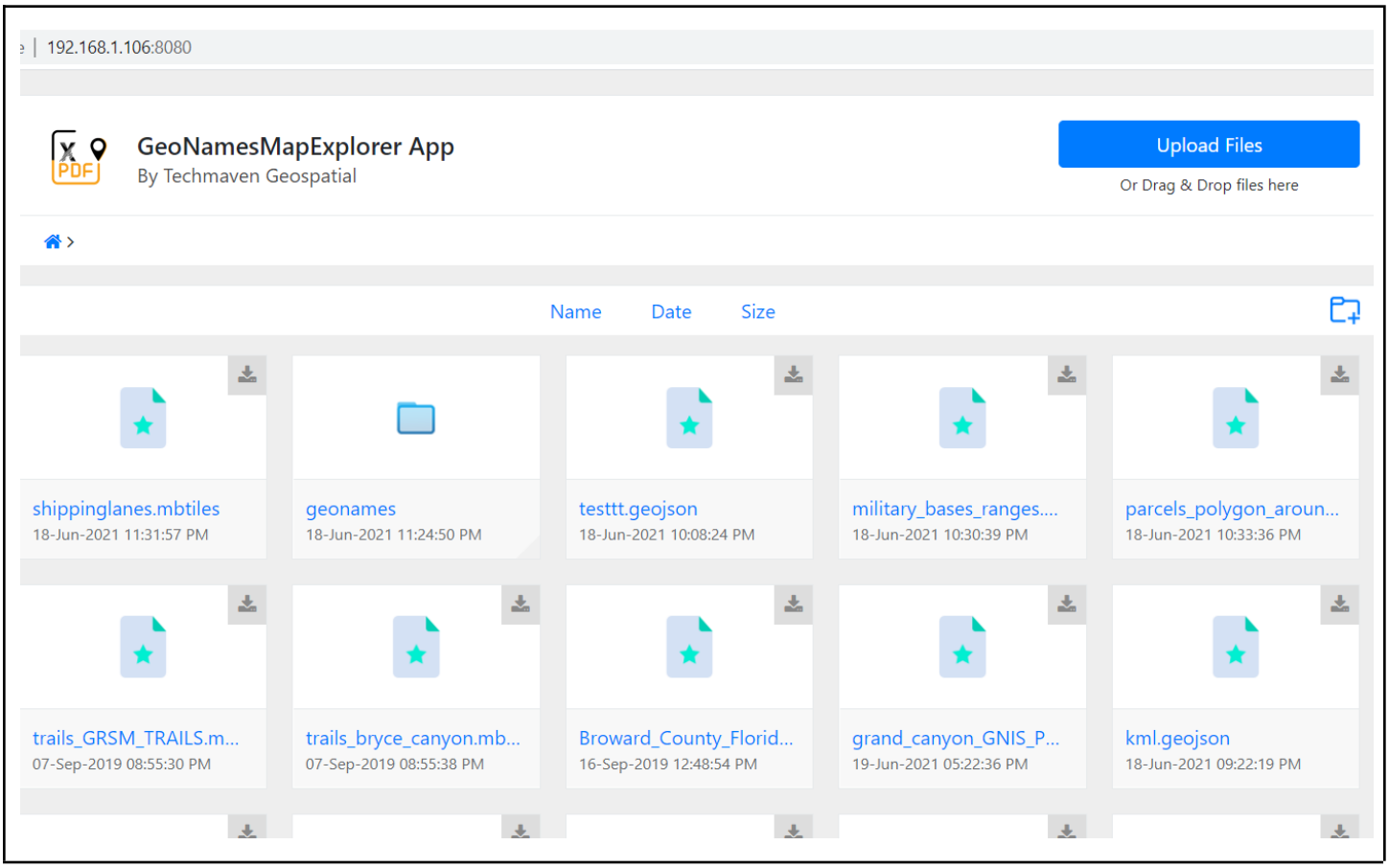


Wifi Sharing

Share Files with devices on the same Wifi network and even allow uploading of files to the iphone/ipad.

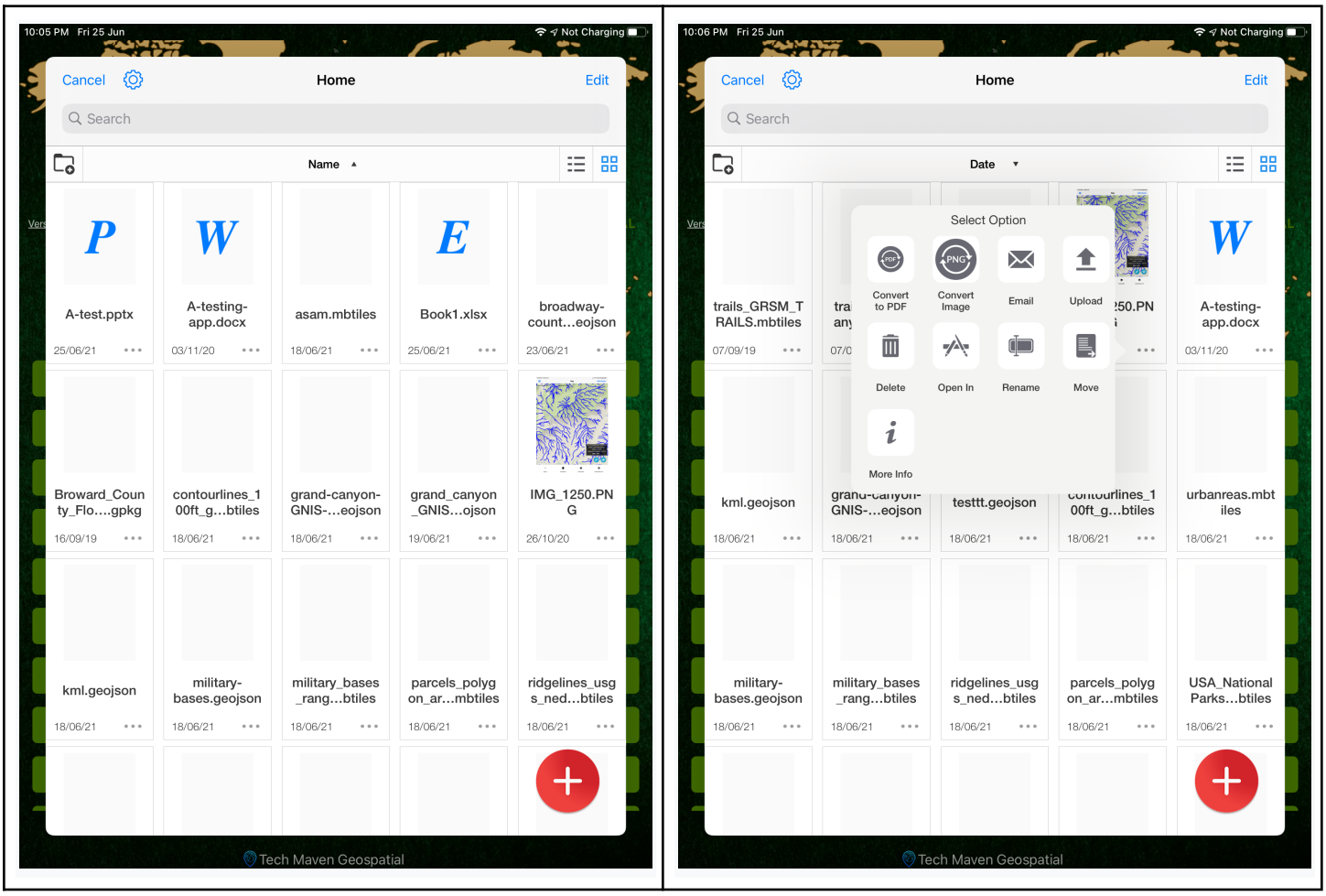

8:30 PM Fri 25 Jun
51%
Cancel
Home
Edit
Search
Name
shippinglanes.mbtiles
461.00 KB 18-Jun-2021 at 11:31 PM
testtt.geojson
16.66 MB 18-Jun-2021 at 10:08 PM
military_bases_ranges.mbtiles
3.65 MB 18-Jun-2021 at 10:30 PM
parcels_polygon_around_KFLL_Airport_PortEverglades.mbtiles
23.77 MB 18-Jun-2021 at 10:33 PM
trails_GRSM_TRAILS.mbtiles
633.00 KB 07-Sep-2019 at 8:55 PM
trails_bryce_canyon.mbtiles
65.00 KB 07-Sep-2019 at 8:55 PM
Broward_County_Florida_GIS_Data.gpkg
656.00 KB 16-Sep-2019 at 12:48 PM
grand_canyon_GNIS_POI.geojson
276.89 KB 19-Jun-2021 at 5:22 PM
kml.geojson
188.09 KB 18-Jun-2021 at 9:22 PM
urbanreas.mbtiles
11.00 MB 18-Jun-2021 at 10:25 PM
contourlines_100ft_grand_teton_nationalpark.mbtiles
2.55 MB 18-Jun-2021 at 10:24 PM
us_state_borders.mbtiles
26.44 MB 18-Jun-2021 at 11:20 PM
asam.mbtiles
21.61 MB 18-Jun-2021 at 11:38 PM
Tech Maven Geospatial


9:22 PM Fri 25 Jun
Not Charging
Done
Setting
WIFI SHARE
WiFi Share
UserName
Optional
Password
Optional
Open
http://192.168.1.106:8080
in your computer browser to manage files shared with WiFi
Tech Maven Geospatial



View Office Docs (Word/PowerPoint/Excel/PDF) and Image/Photos

App supports file viewer. Users can easily view and sort out all your Office documents (word, powerpoint, excel),including PDFs and images using File Manager.



Last Updated June 25, 2021 for Apple App Store 1.0 version

Document maintained at [Link]

Manual is available online at:https://techmavengeo.cloud/manuals/geonames_map_explorer_manual.pdf

The app does NOT collect any user data and does not Report any Geolocation information or any third party analytics or tracking. Any user data loaded stays on the device and never gets uploaded to any servers.

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contact info:
Tech Maven Geospatial, LLC
775-573-0164 General
775-573-0253 Support
maps@techmaven.net
support@techmaven.net
http://support.techmaven.net/

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