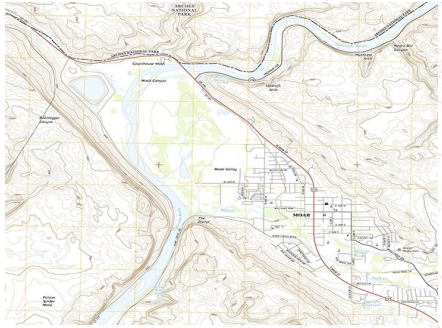
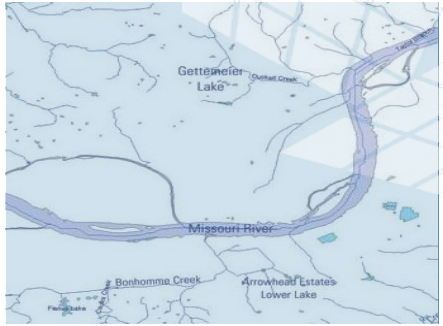
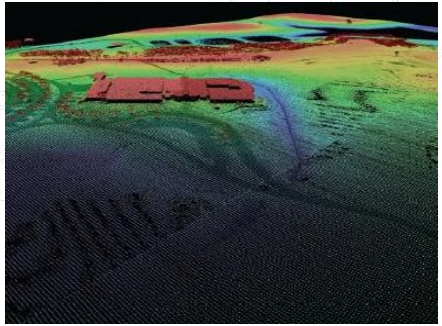
The National Map in Mobile

September 14, 2016 - SLT Meeting`







Rob Dollison (NGP)
Rick Brown (NGTOC)

USGS science for a changing world

The National Map
Your Source for Topographic Information

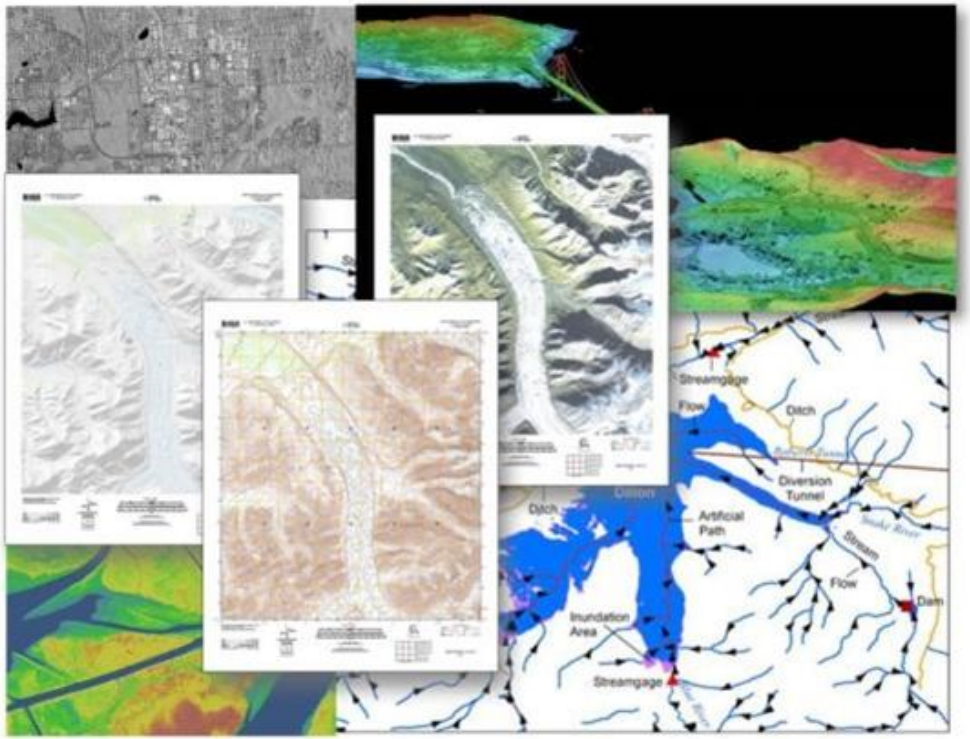
Outline

Goal - Show National Map Mobile resources available to our scientists for working in the field.

- Enabling through Services & APIs
- Some Mobile Metrics
- Mobile-enabled Web Apps
- Native Mobile Apps
- Disconnected Apps

Enabling others through...

- Products
  - US Topo, Map Data, etc.
  - Data Download
- Services
  - Base Maps
  - Theme Overlays
  - Index/Data Availability
- APIs
  - TNMAccess
  - ScienceBase.gov
  - Data.gov

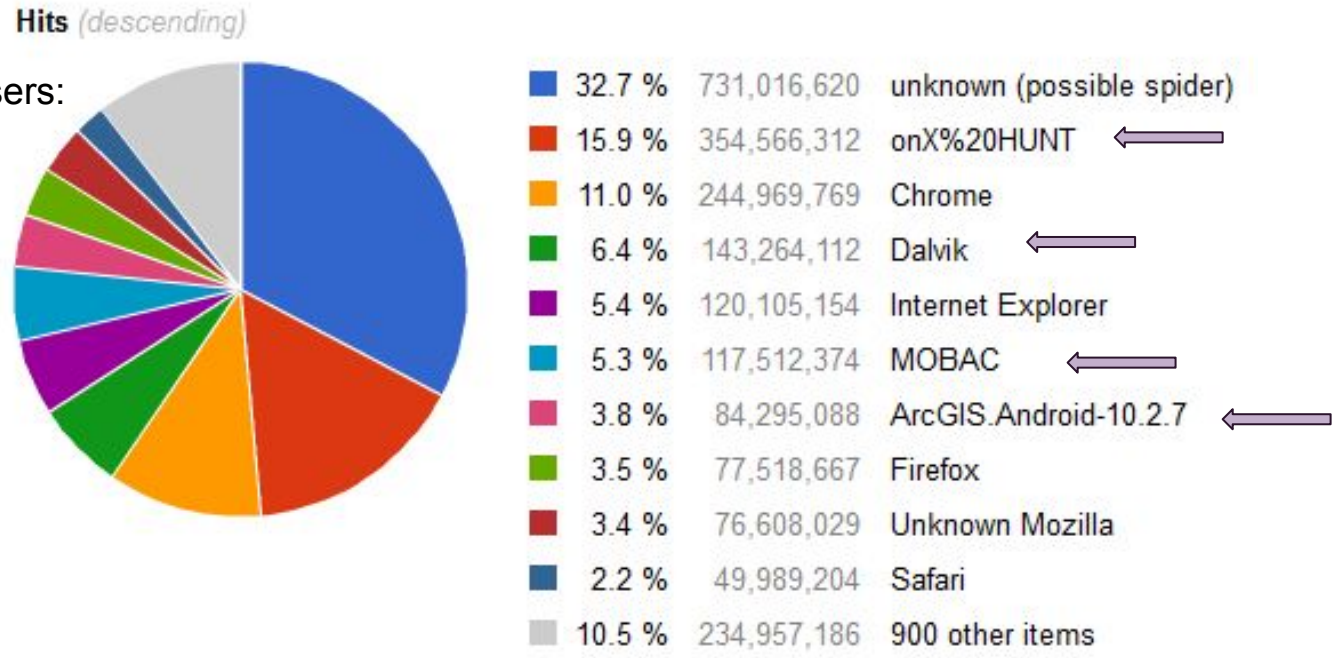


Metrics - Basemap Services

National Map Services > 10 million hits per day

Mobile Web Browsers:

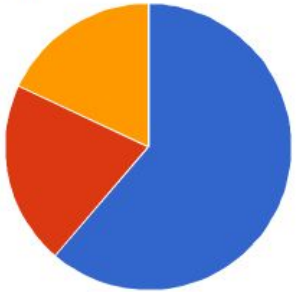
- onXHunt
- Dalvik
- MOBAC
- Android



Metrics - Base Maps - Mobile

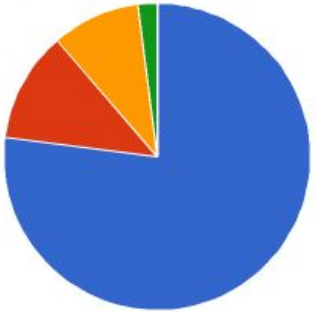
Device Category 01/Jan/2016 – 08/Sep/2016, 252 days (entire date range)

Hits (descending)



61.3 %	1,369,241,873	Unknown
20.7 %	463,037,988	Non-mobile (desktop, laptop, server)
18.0 %	402,125,782	Mobile (phone, tablet)
0.0 %	396,872	Spider

Hits (descending)



77.1 %	309,843,902	Android Tablet
11.6 %	46,669,741	iPhone
9.3 %	37,578,369	iPad
2.0 %	7,887,539	Android Phone
0.0 %	146,231	iPod
0.0 %	104	Symbian Phone

Mobile-enabled Web

National Map Launch Page

USGS science for a changing world | The National Map — Your Source for Topographic Information

USGS Home
Contact USGS
Search USGS

The National Map

Follow @USGSTN

Data Download and Visualization Services

Maps

- Download Maps
- Explore Historical Topo Maps and Download
- Buy a Printed Map
- CSV of Map Products

GIS Data

- Download GIS Data
- Cloud Browse
- FTP Access
- Small-scale Data
- Historical Data Archives
- Hazards Events

Visualization

- TNM Viewer (legacy)
- List of Map Services
- How to Use Map Services
- Map Service Status
- Viewer Prototypes

Applications

- TNM Download Client
- TNM Download Manager
- TNM Mobile
- USGS Streamer
- Application List

Tools

- Elevation Tools
- Point Query Service (PQS)
- Raster Conversion Tools
- Topo TNM Style Template
- Other API Example Demos

More Information

- How To Videos
- FAQs
- List of Datasets
- TNMAccess API
- TNM Metrics
- Contact Us

What's New

2016-08-23 00:00:00 **PADUS Service Updates**
Updated the USGS PADUS services based on new service URLs from *https://gis1.usgs.gov/arcgis/rest/services/* and also visible in the PADUS Viewer: *https://maps.usgs.gov/padus/*.

2016-08-15 00:00:00 **Updated National Products**
National products are being updated. These national products are available only in FileGDB formats.

2016-08-10 00:00:00 **Small-scale Link**
Added a link to the small-scale data web site from our Launch page.

2016-07-27 00:00:00 **Lidar Point Cloud Prototype**
Added a link from our Viewer Prototypes page to a 3D Lidar Point Cloud viewer prototype.

2016-07-26 00:00:00 **TNMAccess API Update**
Added support for multiple download URLs in the Download API. A new "version" parameter was added to enable backward compatibility for existing users. Specifying version=2 as a parameter will return the new capability in the response. No existing response fields were changed. This update was just an addition.

2016-07-20 00:00:00 **Topo TNM Style Template FAQ Update**
The FAQ for the Topo TNM Style Template was updated.

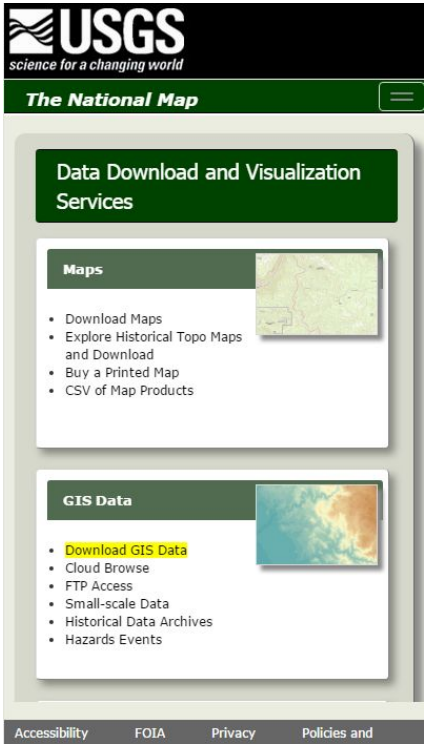
2016-06-23 00:00:00 **Topo Style Template Update**
Updated Topo Style Template.

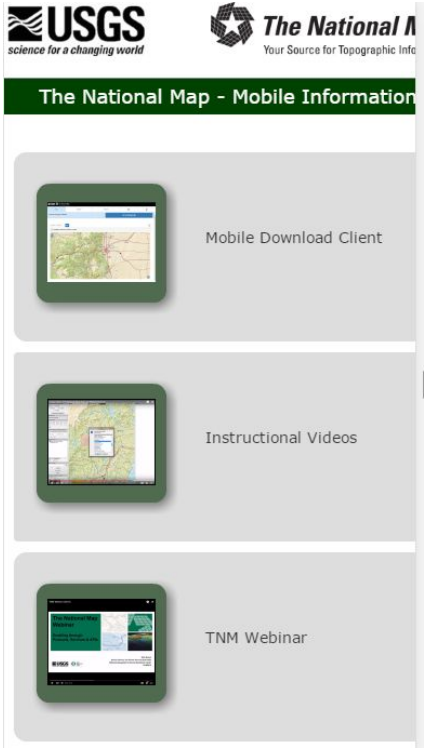
2016-06-22 00:00:00 **Added Karst Map**
Added Karst Map to Other Featured Data Group in Cesium/TerriaJS Advanced Viewer prototype.

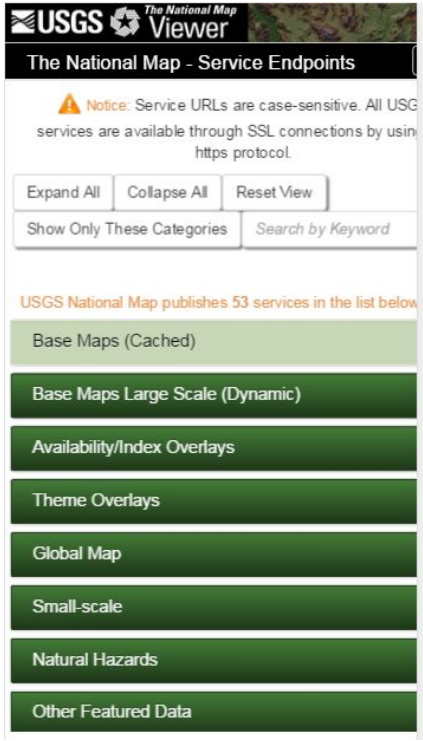
2016-06-20 00:00:00 **Dataset List Print**
Added print capability to the Dataset List: *http://viewer.nationalmap.gov/datasets/*

2016-06-17 00:00:00 **FGDC Service Checker**
Added FGDC Service Checker link to Status page.

Mobile-enabled Information Pages

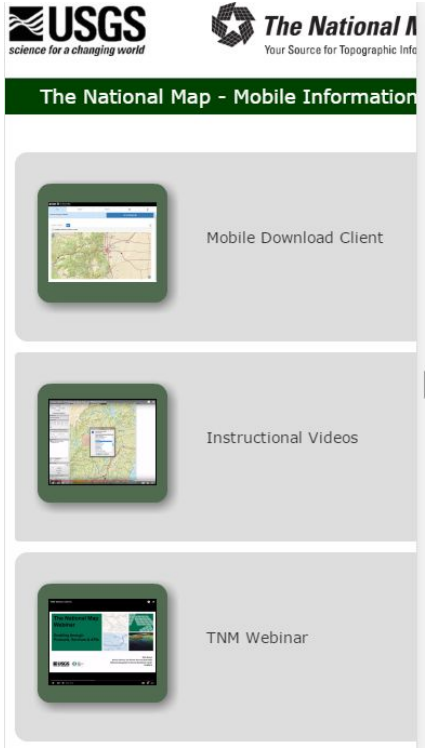




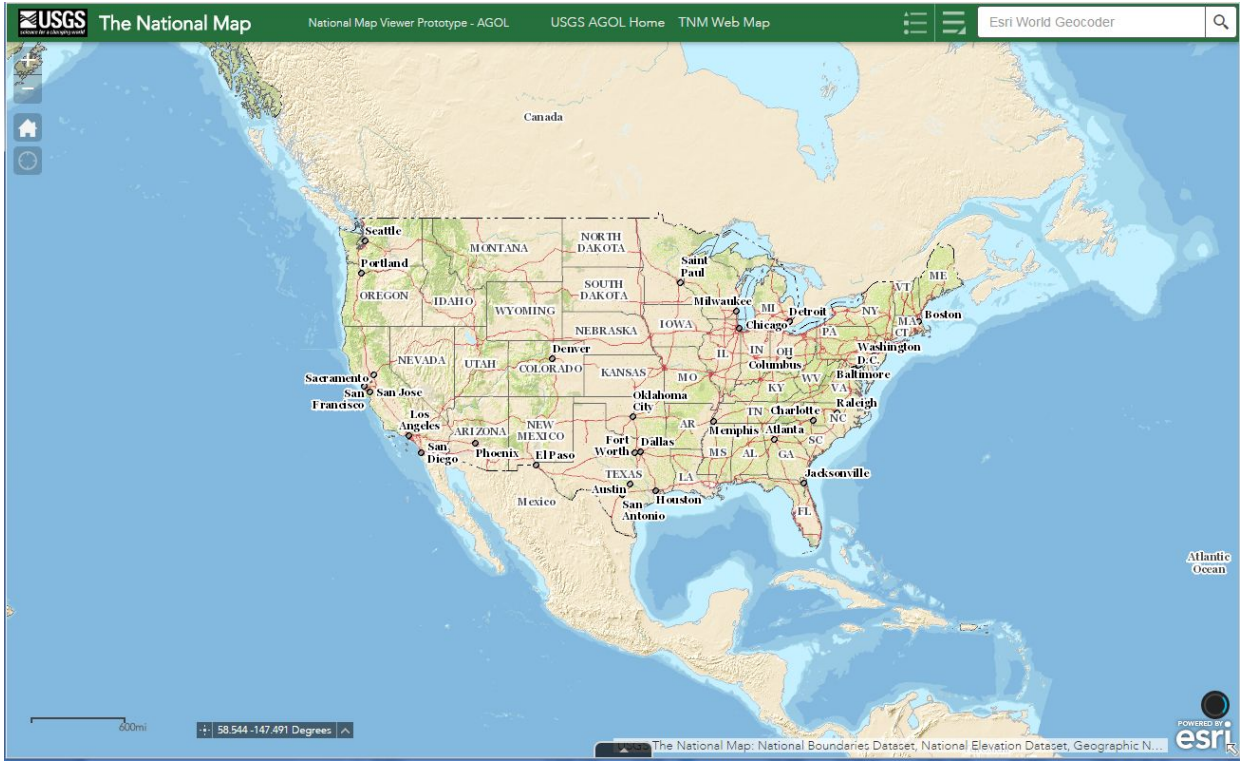


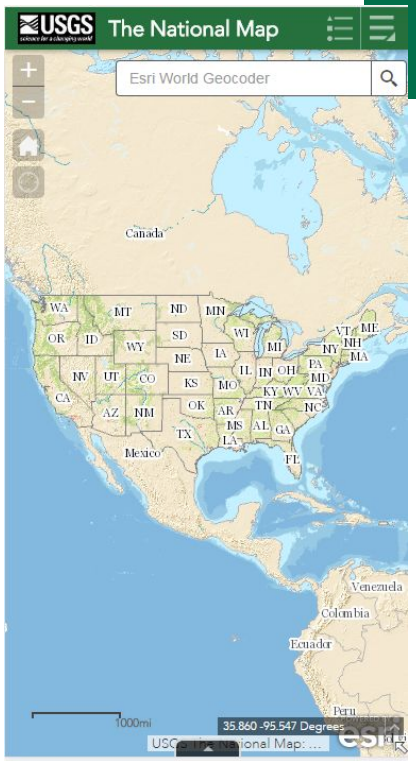
Mobile Information Page

- **Mobile Map and Data Download Client**
  - A client optimized for mobile
- **Instructional Videos**
  - Using US Topo and Historical Topo on Mobile Devices
  - Using National Map Data on Mobile Devices
  - Downloading Maps with the Download Client
- **Webinars** - Using TNM to enable Mobile Mapping
  - 2015: AlpineQuest
  - 2014: SingleTracks
- **Step-by-Step Instructions**
  - Using TNM Data on Mobile Devices
  - The National Map Basemap Caches on Mobile iOS
  - Using US Topo and Historic Topo Maps on Mobile Devices
- **PowerPoint Presentations**

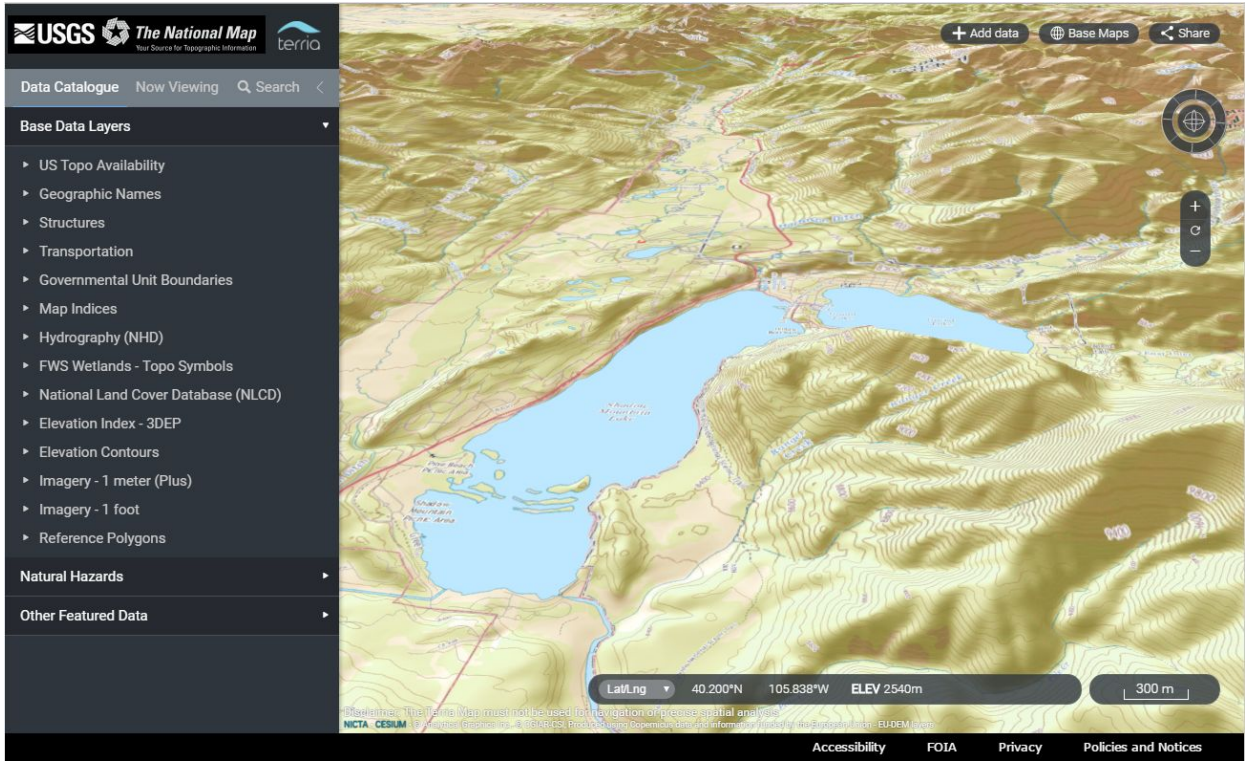


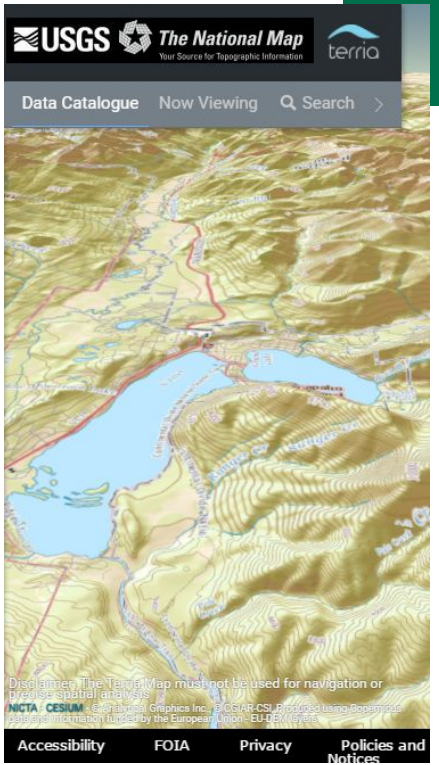
ArcGIS Online Advanced Viewer



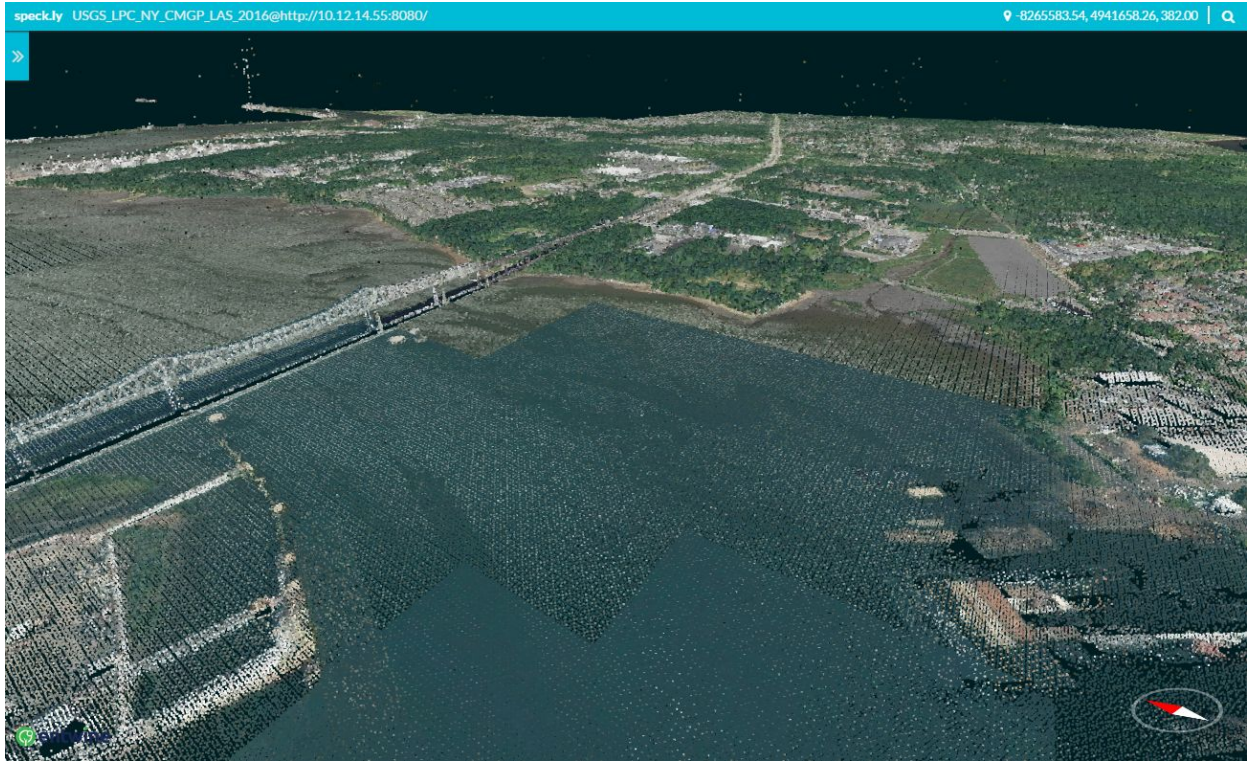


Cesium Advanced Viewer

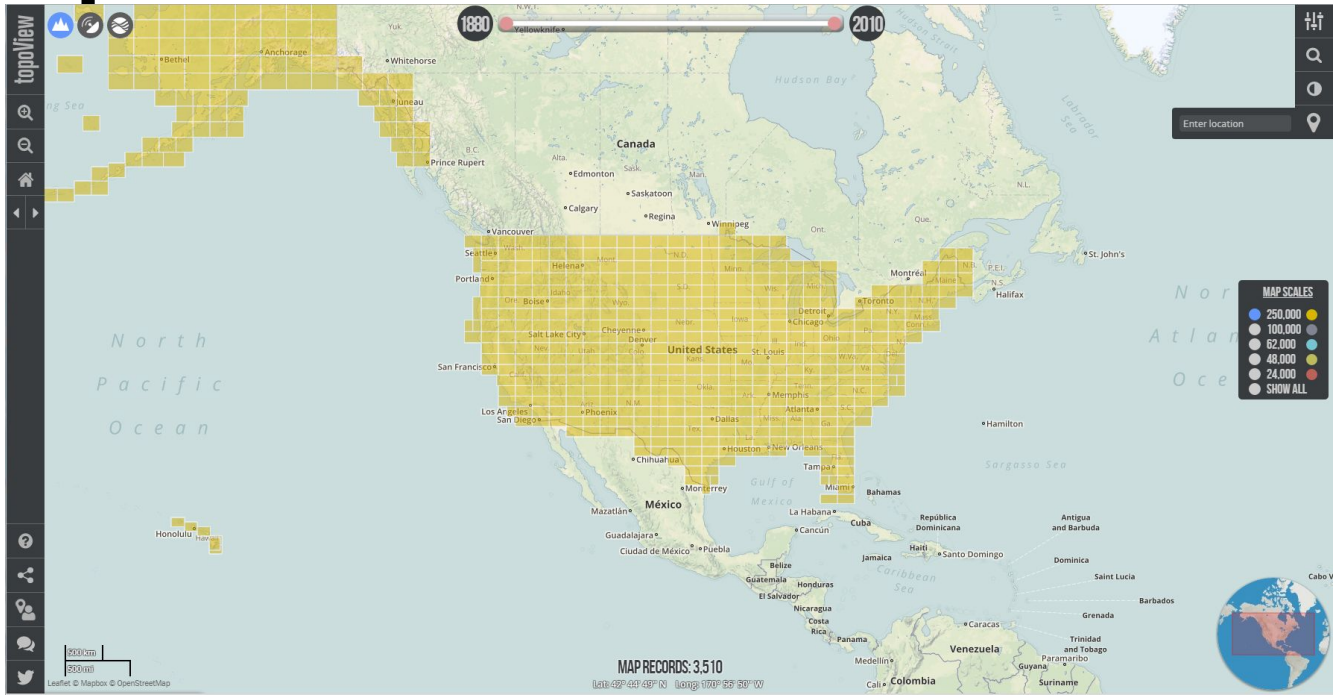


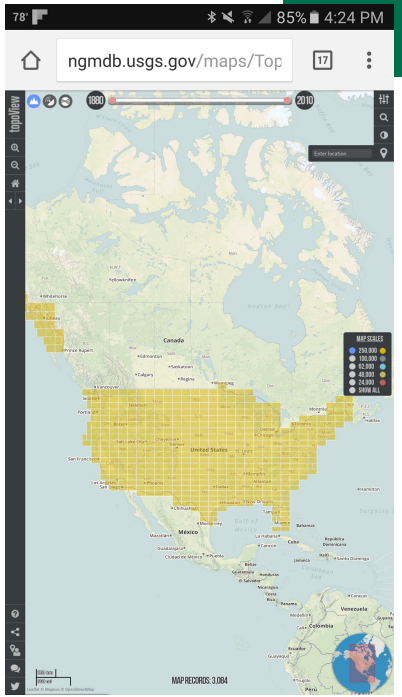


Lidar Point Cloud Viewer

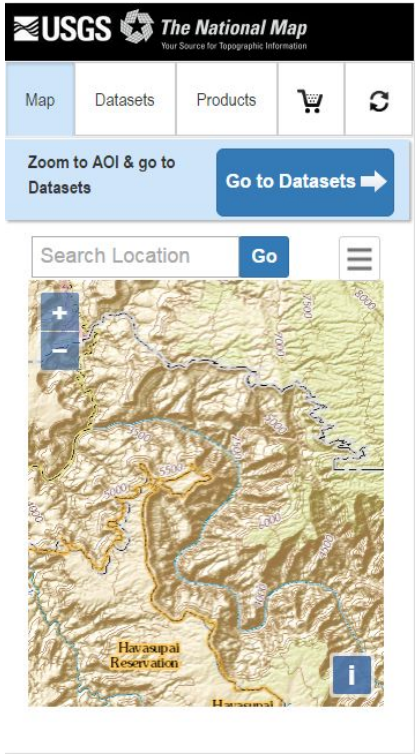


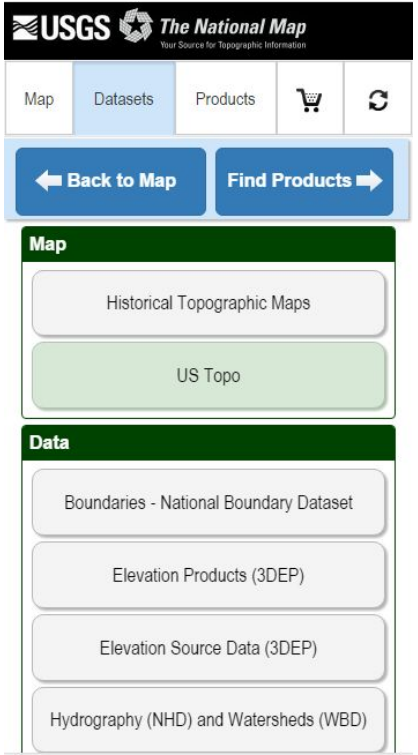
TopoView Mobile





TNM Mobile Download Client



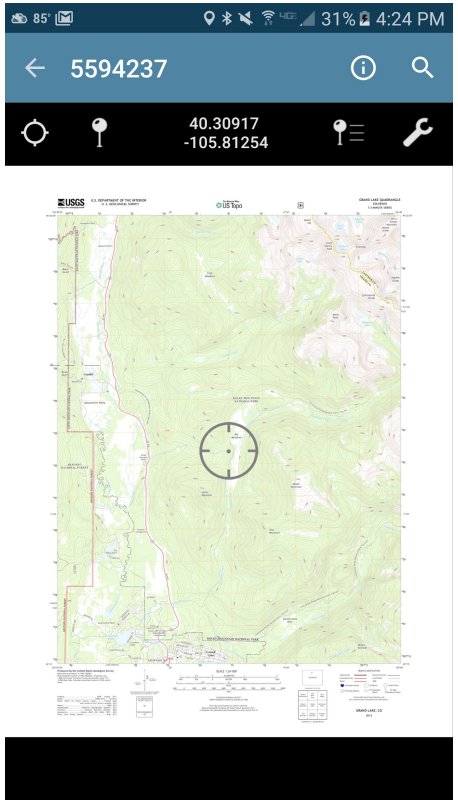


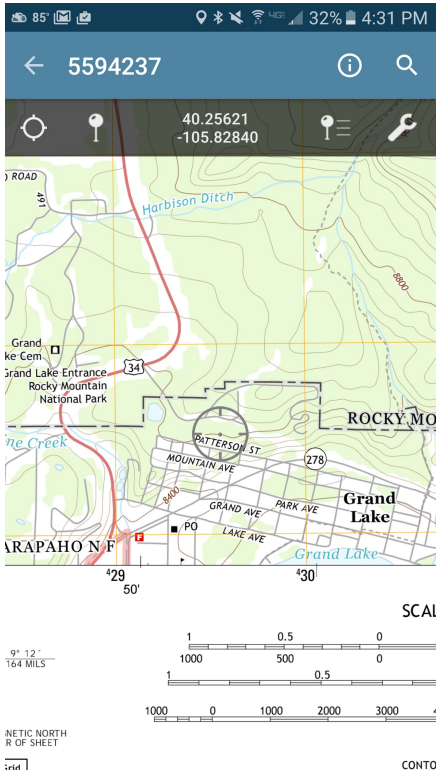
Native Mobile Apps

US Topo GeoPDF on Mobile Device

Avenza PDF Maps

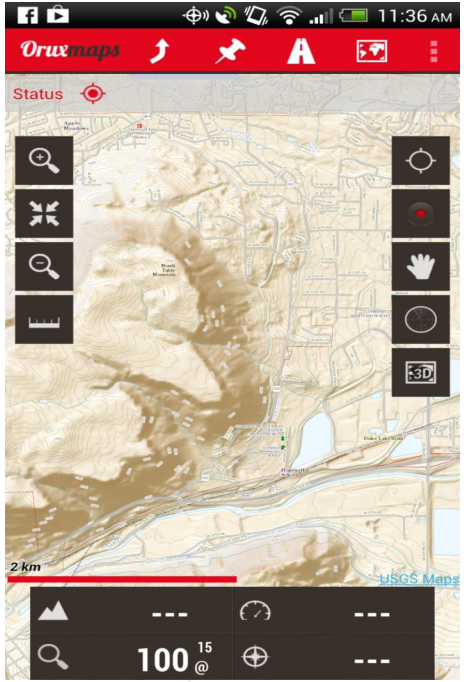
- Download US Topo
- Imports GeoPDF
- Creates Tiles for mobile
- Disconnected



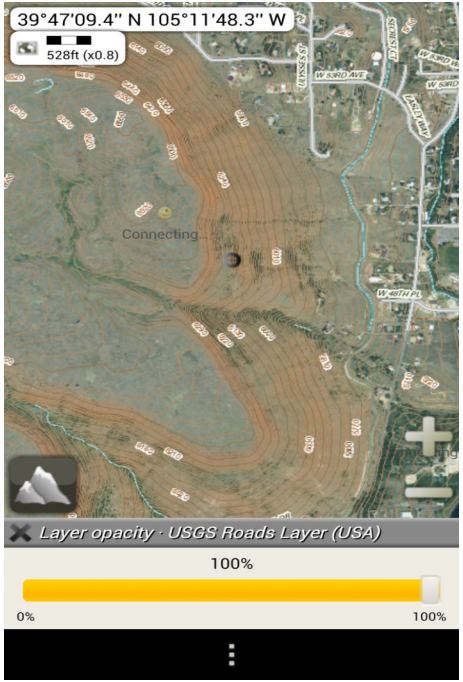


Android Apps that Use Map Tiles

OruxMaps



AlpineQuest



Galileo (iOS) App Uses Map Tiles

Follow instructions to add TNM data on Galileo at http://blog.galileo-app.com/post/49508755114/usgs-topo-maps.

GALILEO OFFLINE MAPS TEAM

WEBSITE FACEBOOK TWITTER APP STORE RSS

3RD MAY 2013

USGS TOPOGRAPHIC MAPS ON YOUR IPHONE & IPAD

The USGS announced the other day that topographic maps from The National Map are now freely available for viewing by iOS users on their mobile devices, "*leveraging USGS maps together with the power of GPS to zoom in on their precise location while hiking, biking, running, or any other activity that benefits from precision navigation*".

We have prepared these links to make it easier to add USGS map sources into the Galileo Offline Maps:

USGS National Map - Topo

USGS National Map - Satellite

USGS National Map - Vector

Note: map download speed can vary and depends on the speed of your Internet connection and the speed of the server from where the map is downloaded.

Read more: "USGS Topo Data on the Go".

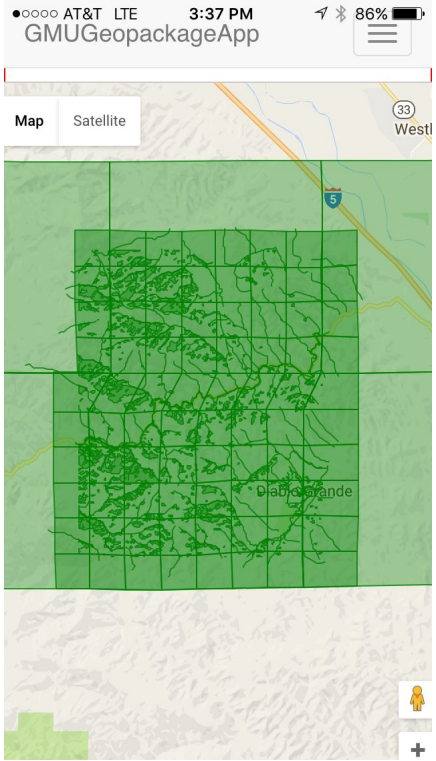
Disconnected Apps

MOBAC Tile Creator

- http://mobac.sourceforge.net/
- Allows users of this desktop application to build small "mobile atlases" with USGS data.
- Instructions: http://viewer.nationalmap.gov/mobile/tnm_data_on_mobile_devices.html

George Mason (iOS) App

- Imports **GeoPackages**
- Samples provided of USGS Topo Map Data converted to GeoPackage
- OpenLayers or Google Maps

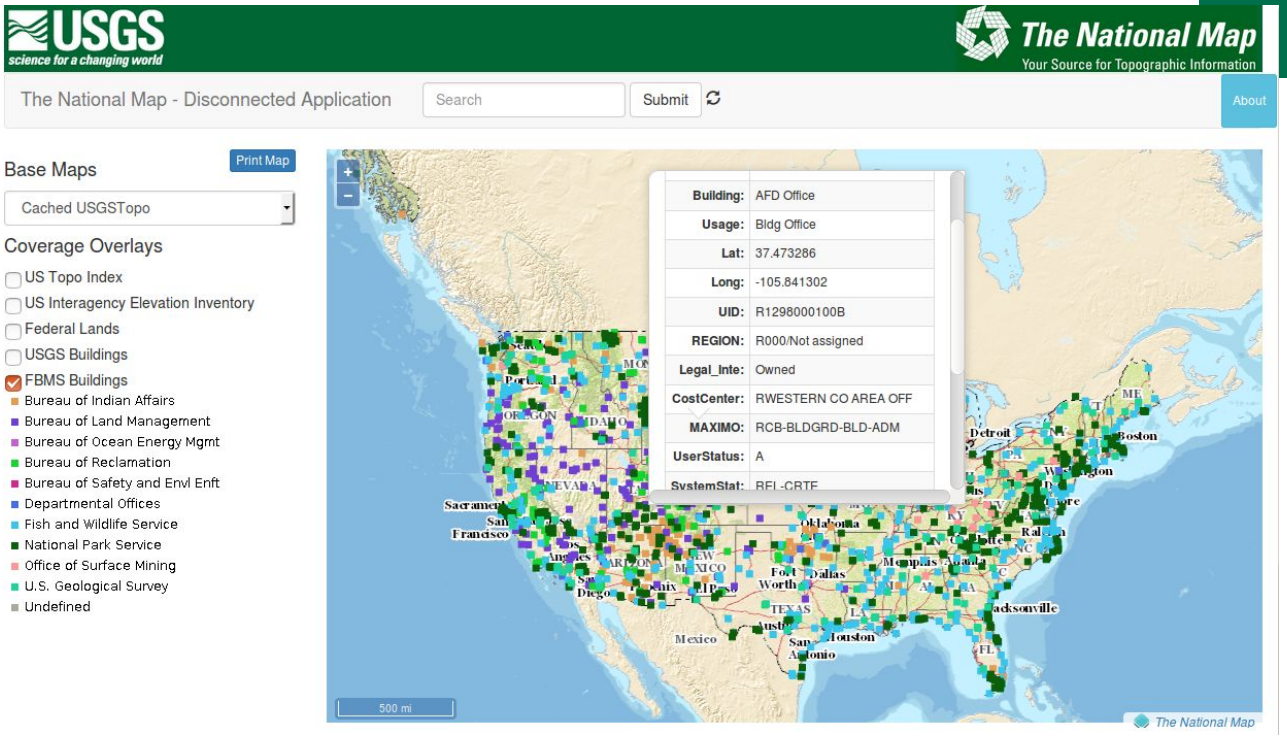


Disconnected Interactive Content Explorer (DICE)

- NGA
- USGS Topo Map Tiles in GeoPackage
- Zipped application content.
- iOS or Android

USGS Disconnected App

Map server on a USB disk.



Demo and Questions