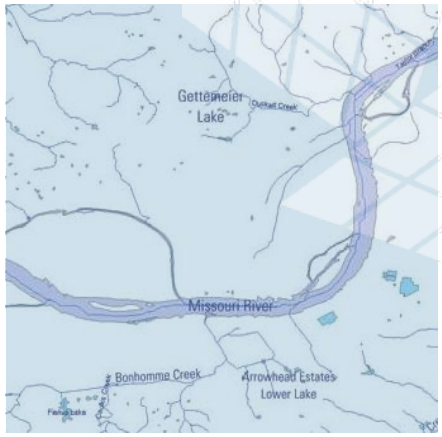
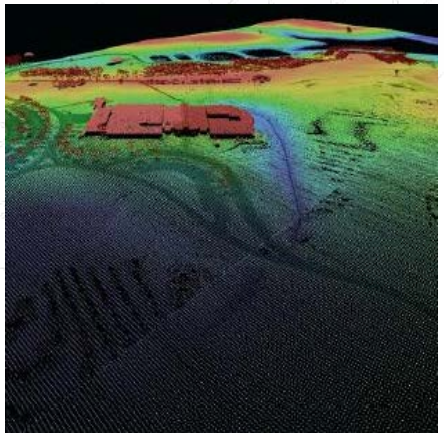
What's new in 2019 with the USGS National Geospatial Program





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Claire DeVaughan
South Central Arc User Group Conference
Tulsa, Oklahoma
April 23, 2019

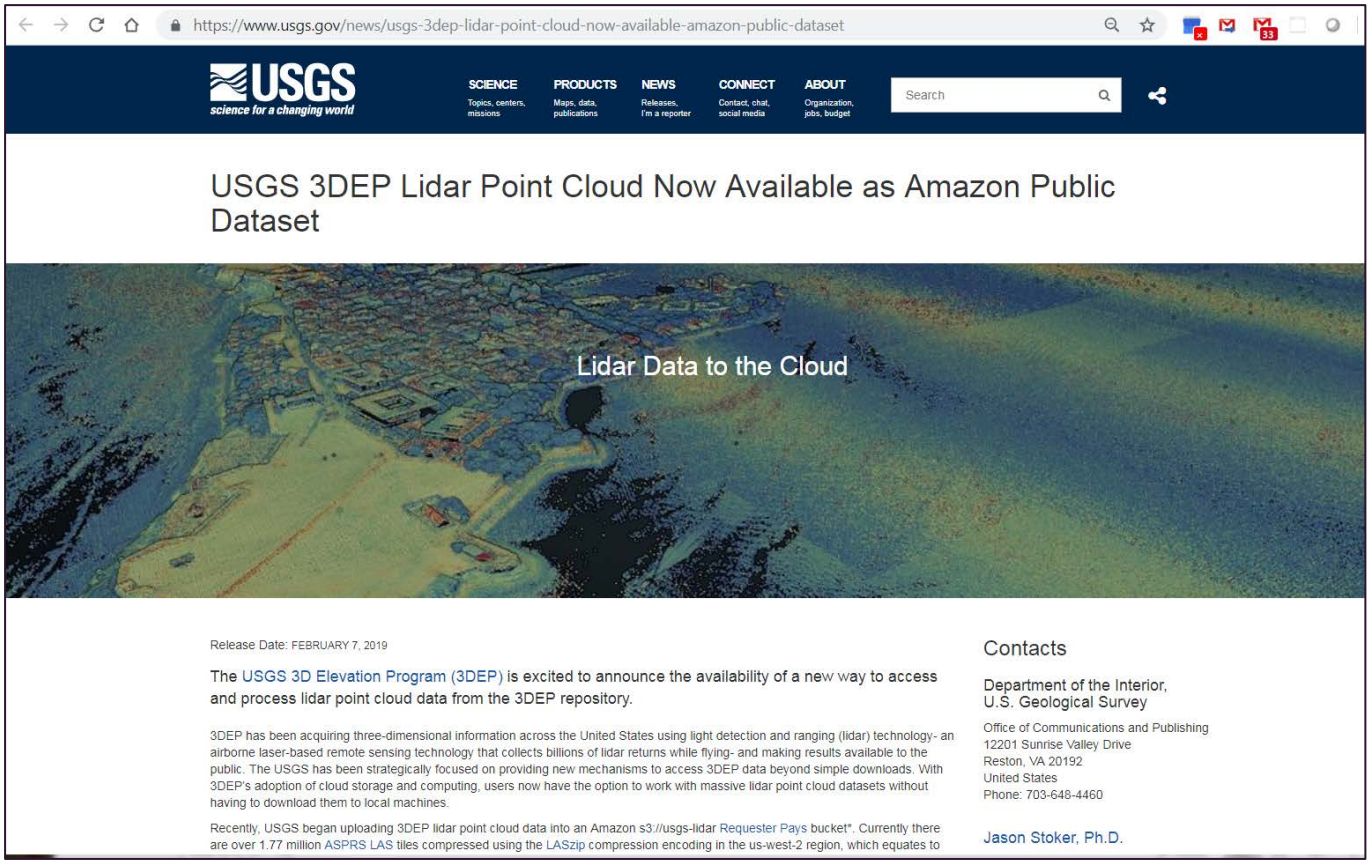
3DEP Point Cloud as Amazon Public Dataset

Point cloud via the cloud

- Users now have the option to work with massive lidar point cloud datasets without having to download them to local machines
- The data are now part of the Open Data registry provided by AWS, similar to the Landsat archive (in a 2-year period initially)
- USGS is now uploading 3DEP lidar point cloud data into an Amazon s3://usgs-lidar “Requester Pays” bucket
- Hobu, Inc. and USACE collaborated with the Amazon Web Services (AWS) Public Datasets team to organize these data as Entwine Point Tile (EPT) resources:
  - EPT enables 3D Visualization as well as optimized processing direct from the cloud
- Registry info: https://registry.opendata.aws/usgs-lidar/

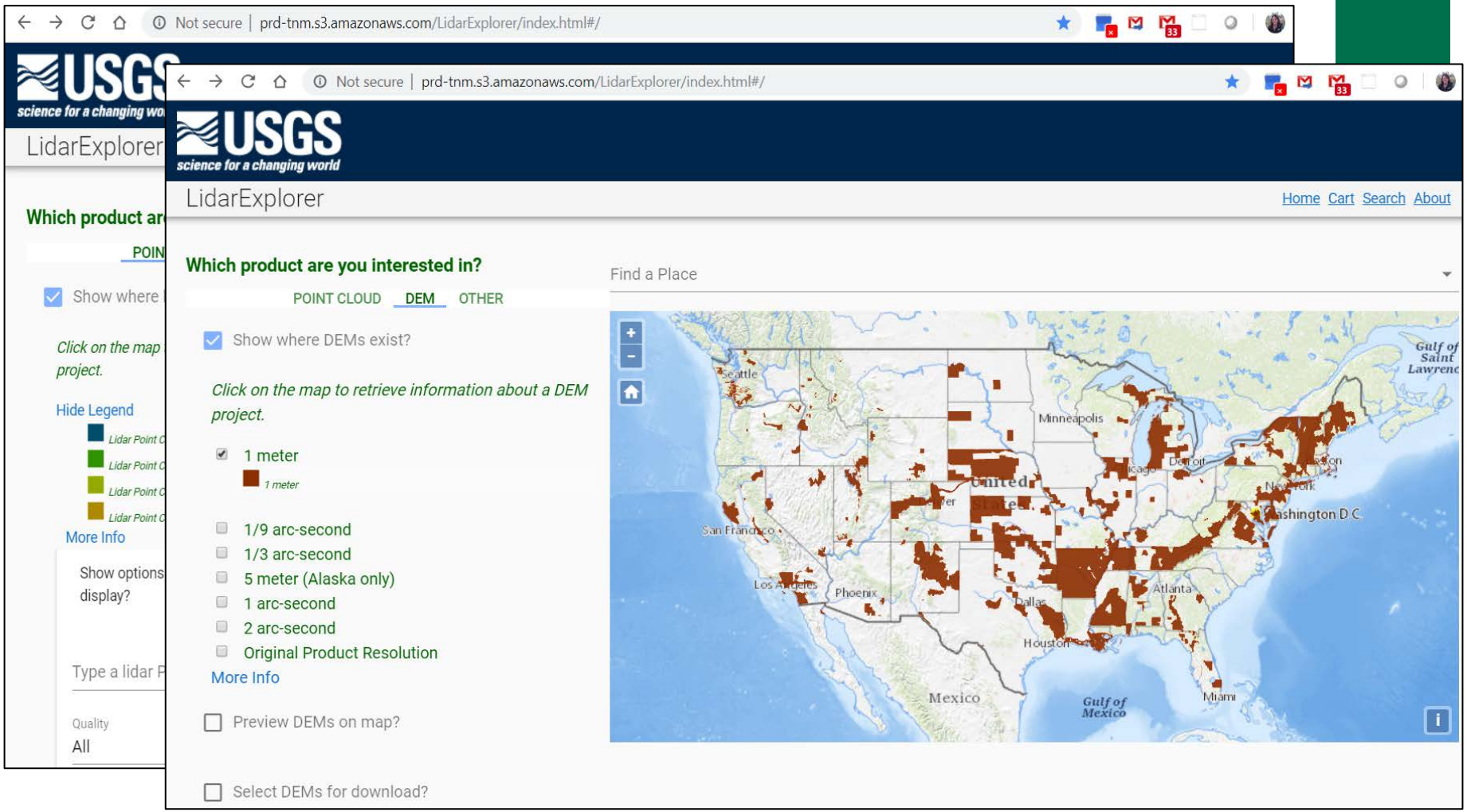
3DEP Point Cloud as Amazon Public Dataset

Visualization of USGS 3DEP Lidar Point Clouds as EPT with Potree and Plasio: https://usgs.entwine.io/



USGS LidarExplorer

http://prd-tnm.s3.amazonaws.com/LidarExplorer/index.html#/



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USGS National Hydrography Datasets

Hydrologic networks, units, catchments, and more…

National Hydrography Dataset (NHD)

- The drainage network with features such as rivers, streams, canals, lakes, ponds, and stream gages.

National Hydrography Dataset

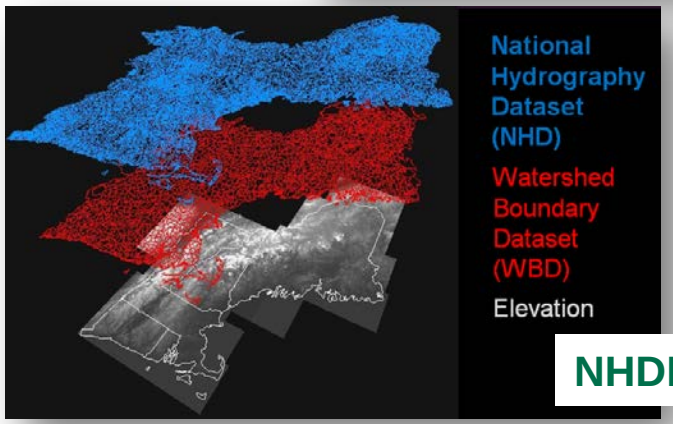
Watershed Boundary Dataset (WBD)

- The drainage basins at 8 scales of a nested hierarchy; defines the areal extent of surface water drainage to a point

Watershed Boundary Dataset

NHDPlus

- Incorporates many of the best features of the NHD, WBD and elevation data to enable estimates of flow volume and velocity



NHDPlus

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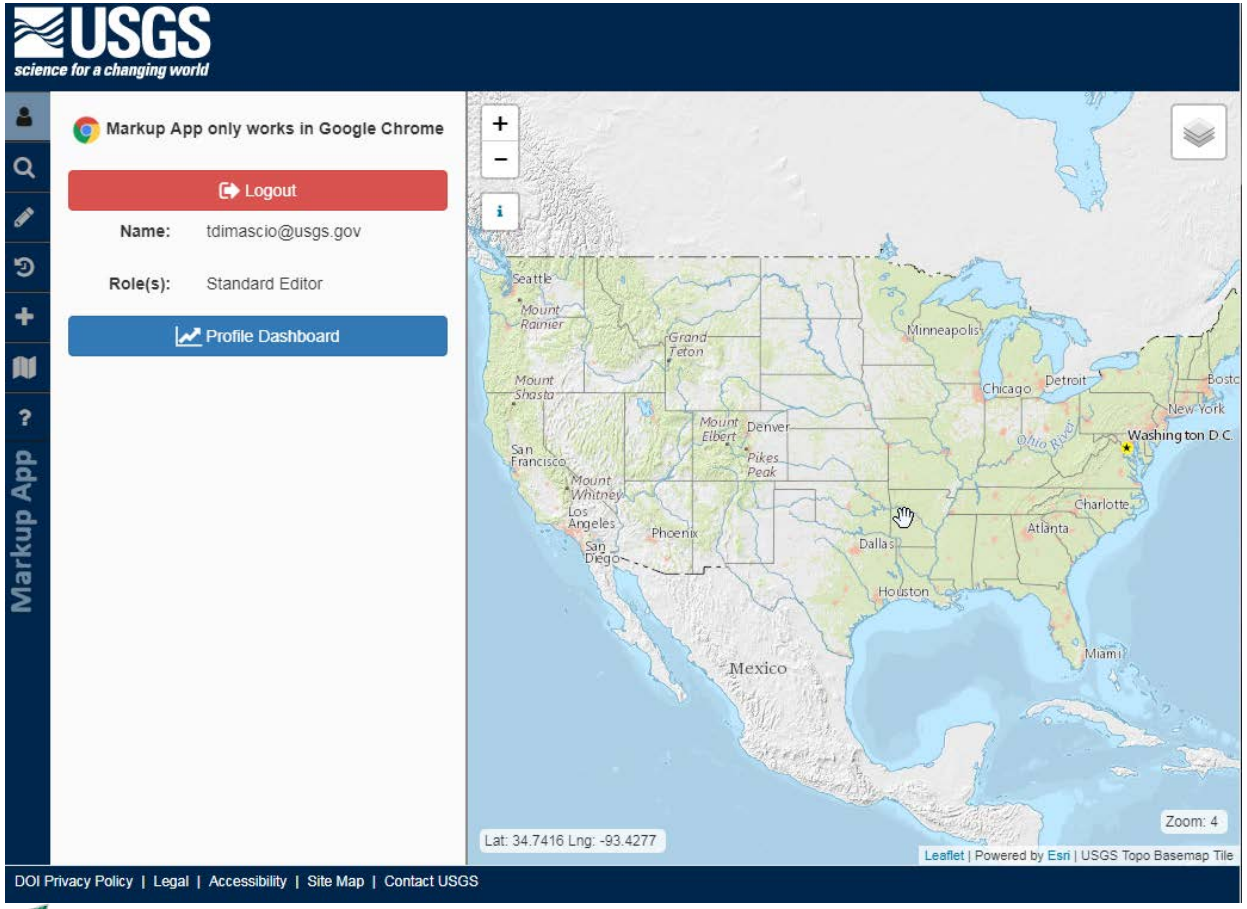
NHD Markup Application

https://edits.nationalmap.gov/markup-app

- Suggest edits to NHD, WBD, and NHDPlus HR
- Requirements: Gmail or AGOL account and Google Chrome



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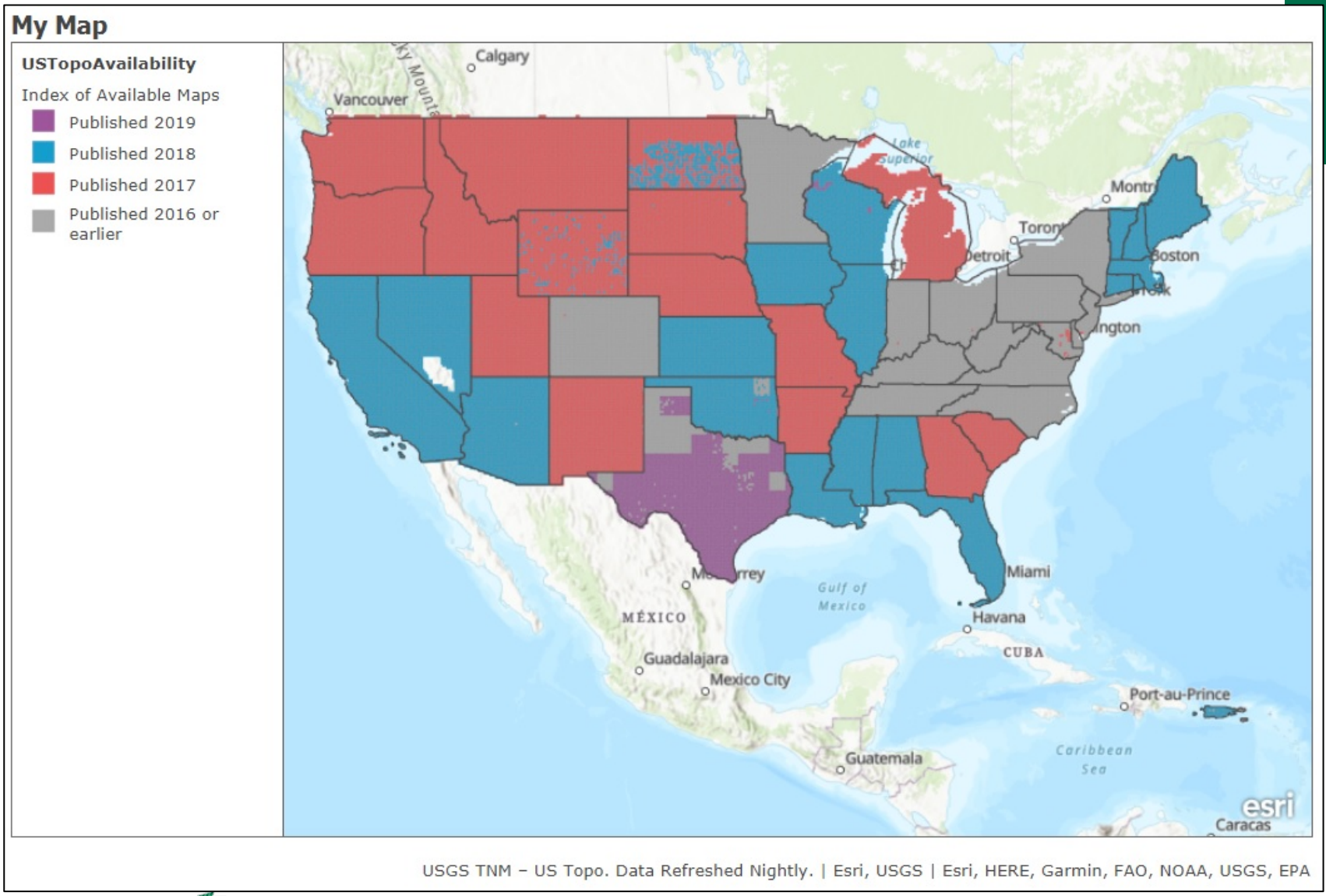
US Topo Status



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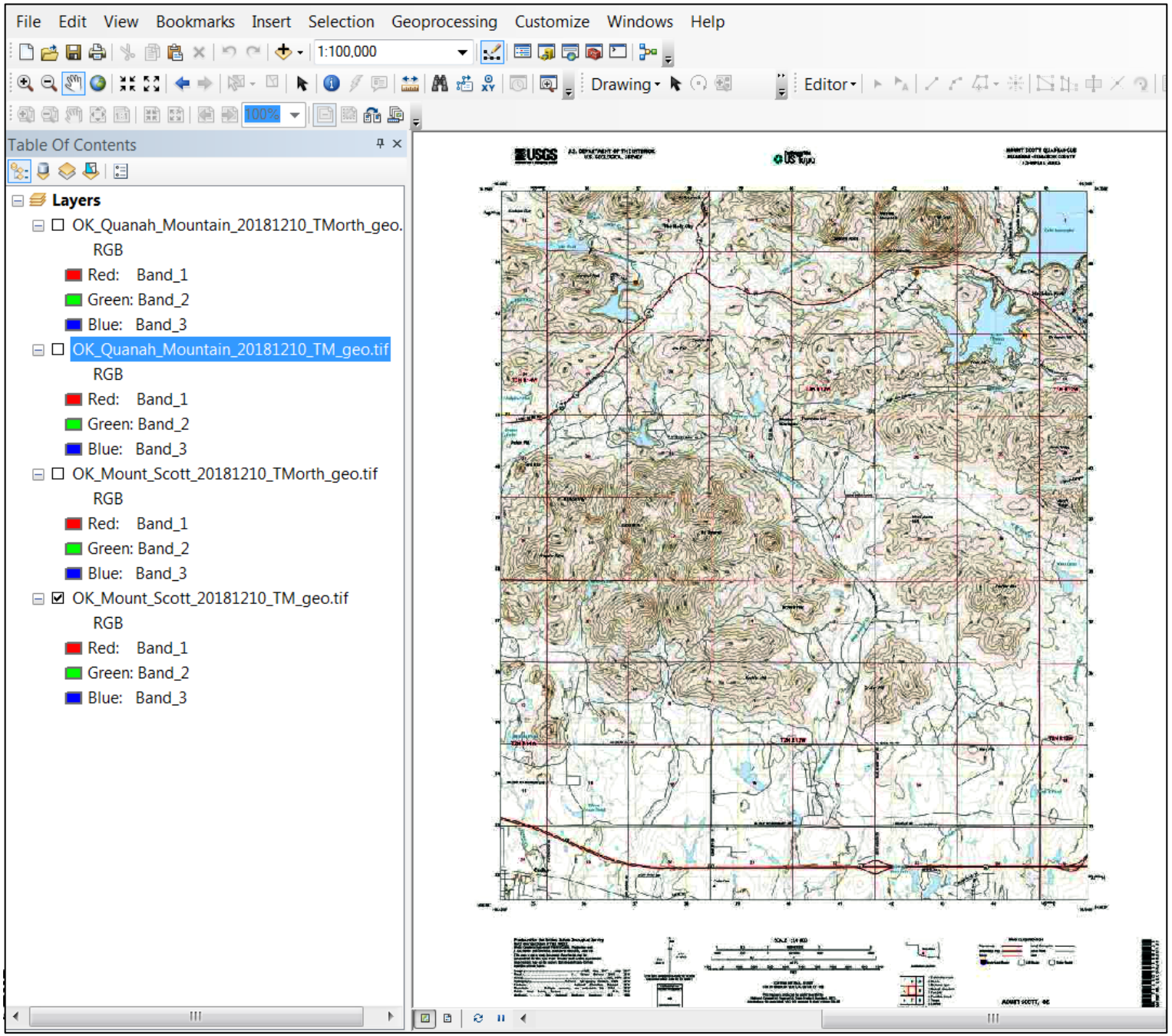
US Topo Access

- Both the US Topo series and HTMC maps are offered as GeoPDFs through The National Map and the USGS Store. However, additional formats are now offered through topoView: https://ngmdb.usgs.gov/topoview/
  - GeoTIFF – compressed, 300 dpi TIFF image format, with embedded georeferencing information so that the map can be used directly in a GIS. The GeoTIFFs are generated at true scale, allowing users to plot the map at the intended map scale in cases where a hard copy is needed.
  - JPEG – The high-resolution JPEGs, or 'Browse JPEG' format are useful for getting a quick view of the map in order to find place names or simply explore the map area without the need for downloading a large file.
  - KMZ – The KMZ format is a compressed form of the KML format which is used for displaying the maps in Google Earth.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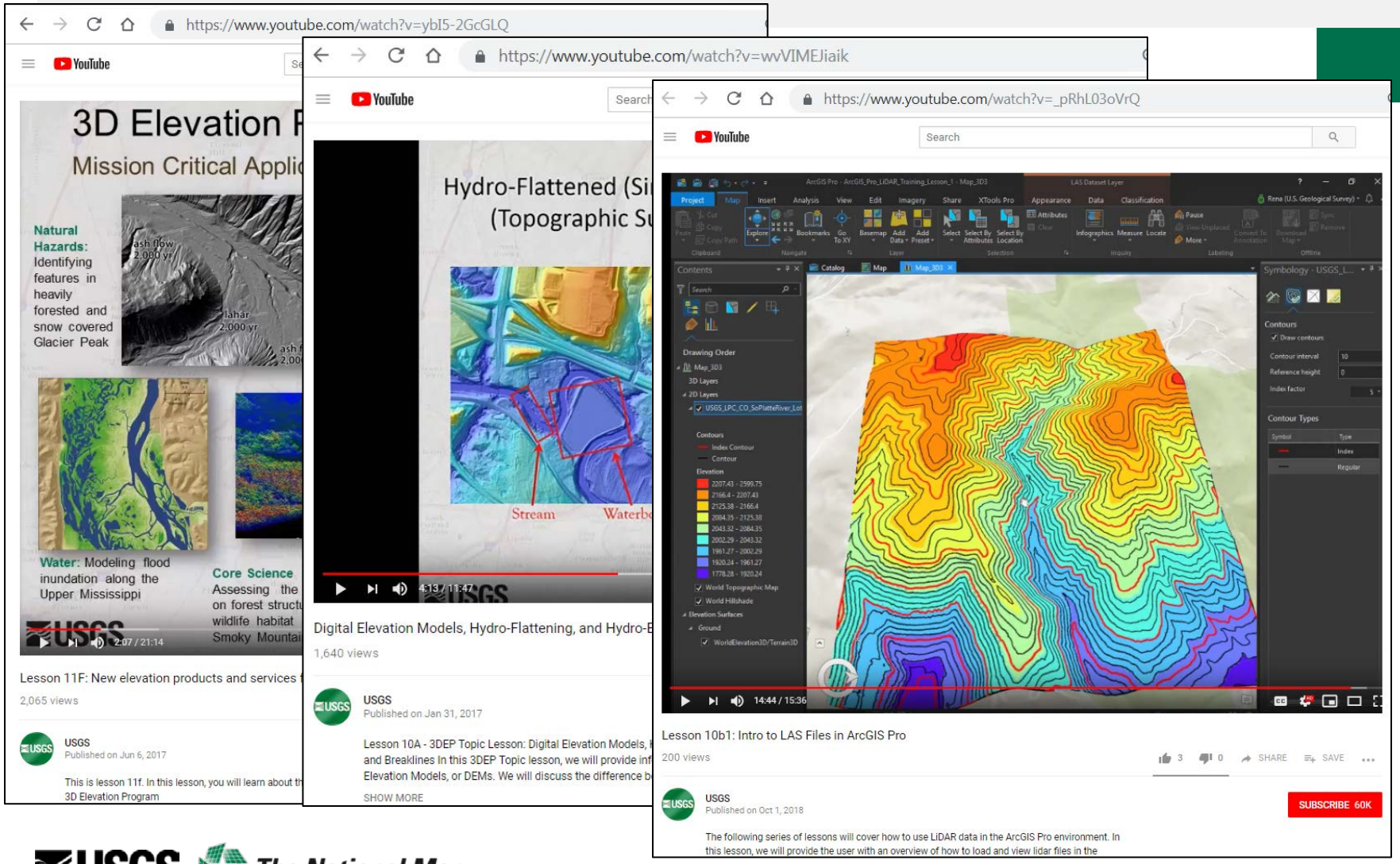
National Map Training Videos

https://www.usgs.gov/core-science-systems/national-geospatial-program/training

Or google “national map training videos”



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Questions?

Claire DeVaughan

National Map Liaison for Texas, Oklahoma, and Utah

512-927-3583

cdevaugh@usgs.gov