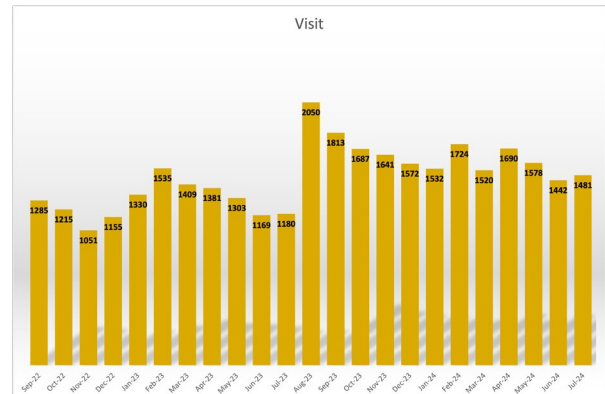# Enabling Cloud Optimized Data Format for Indiana Statewide Ortho Imageries
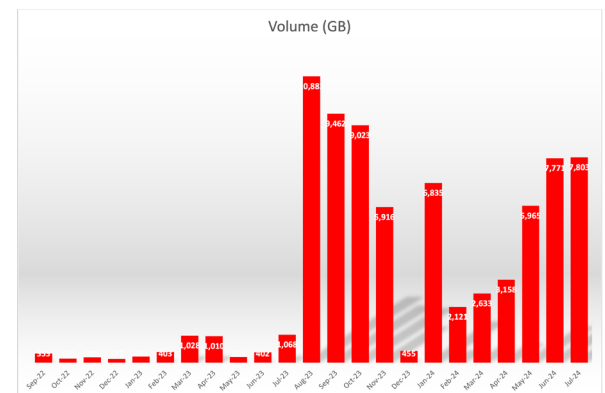
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Content: Thanks to the previous support from the IndianaView program, the statewide LiDAR data are easily accessible in COG format (Figure 1). However, statewide Indiana Ortho Imagery data products were still provided in a regular GeoTiff format. This project enabled COG support of all the statewide Indiana Ortho Imagery data products so that users can easily access not only the Indiana Statewide LiDAR data but also the Indiana Statewide Ortho Imageries via the LiDAR data portal without downloading the geospatial data products to their local machines. We converted all Indiana Ortho Imageries acquired since 2011 in this project and updated the Indiana Ortho QGIS plugins to enhance access.

After we started providing COG streaming services for Indiana statewide ortho imageries, we observed a significant increase in data volume served from the web services. As you can see from Figure 2, the volume of data served increased significantly after ortho imageries were provided in COG format. When comparing the data service volume of the same time period (Summer; May, June, July) of the last year, we can observe that data volume service increased significantly. This indicates that Purdue Digital Forestry LiDAR web service users are taking advantage of easy access to valuable geospatial data products.

- Converted all Indiana Statewide Ortho Imageries from 2011 into Cloud Optimized GeoTIFF format and uploaded them to the LiDAR data portal.
- Developed a QGIS plugin to aid easy access to the Indiana Statewide Ortho Imageries without downloading to local machines (Figure 3)
- Maintained consistent monthly visitors to the Purdue Digital Forestry web service
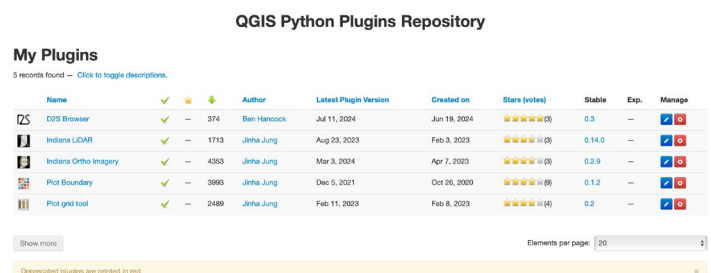- Increased data download volume on a monthly basis

FOR FURTHER READING:

- Indiana Statewide LiDAR data portal (https://lidar.jinha.org)
- QGIS plugin for Indiana Statewide LiDAR data (https://plugins.qgis.org/plugins/indiana_lidar)
- QGIS plugin for Indiana Statewide Ortho Imageries (https://plugins.qgis.org/plugins/indiana_ortho)

Figure 1. Average monthly visitor statistics of the Purdue Digital Forestry web service

Figure 2. Monthly data download volume (in Gigabyte) of the Purdue Digital Forestry web service

Figure 3. QGIS plugins download statistics