

Imagery Services (Visualization and Download) FAQ

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Imagery Visualization

Q. What sources were used to create the imagery services?

A. The small scale imagery service was created using a NASA Blue Marble Next Generation (BMNG) product for the smallest scales, and a subset of the Global Land Survey 2000 (aka Landsat) product for the other scales. More information on products can be found at:

BMNG - <http://earthobservatory.nasa.gov/Features/BlueMarble/>

Global Land Survey 2000 - http://eros.usgs.gov/#Find_Data/Products_and_Data_Available/GLS.

The large scale imagery service source is the National Agriculture Imagery Program (NAIP) for the continental United States (CONUS). The data is a 1 meter resolution and “leaf-on” product. The imagery is acquired by the United States Department of Agriculture and then compiled and quality assured by the USGS. USGS *The National Map* is still working on acquiring and providing large scales imagery for non-CONUS locations.

Q. What is or are the URL(s) for the imagery service(s)?

A. The Imagery service is provided as two URLs – One for small scale and one for large scale

The small scale imagery service can be found at this URL:

http://raster1.nationalmap.gov/ArcGIS/rest/services/TNM_Small_Scale_Imagery/MapServer

The large scale imagery service can be found at this URL:

http://raster.nationalmap.gov/ArcGIS/rest/services/Combined/TNM_Large_Scale_Imagery/MapServer

Users can utilize this URL to view parameters, service formats, and contact information.

Q. At what scale the imagery service(s) available/initiated?

A. The small scale imagery service becomes viewable at 1:591,657,527.59 to 1:288895.27. The large scale imagery service becomes viewable at 1:288895.27 to 1:1.

Q. Is/Are the Imagery Service(s) cached or dynamic?

A. The small scale imagery service is cached using JPG tiles of 256x256 pixels with 75% compression. The large scale imagery service is dynamic and can be provided in many image file formats.

A cached service is one that has been broken down into static tiles, or pre-processed images. A dynamic service is one that generates a new image based upon the sources at the time of a request. **Dynamic** means the resulting image may change as source data or request parameters change. **Cached** means that the static image never changes, unless specifically updated, and is easily kept in memory on the client or the server.

Q. How often is the content in the imagery service updated?

A. The large scale imagery service content is updated when newer imagery is received. The National Map offers the best available, meaning most current, imagery. The source, National Agriculture Imagery Program (NAIP), product is acquired on a three year flight cycle. But, the small scale imagery service content is updated very infrequently and only on an as-needed basis.

Q. What projection does the imagery service use in the viewer?

A. Imagery services both use WGS 1984 Web Mercator. The small scale service is pre-cached at this projection, but the large scale imagery service can be reprojected easily over the web to many projections such as WGS 1984 Geographic.

Q. Can the imagery service be reprojected and/or used in Desktop Applications?

A. Both imagery services can be used in most popular projections in heavy GIS Desktop Applications as background services.

Imagery Download

Q. How do I download the large scale imagery products?

A. The instructions for downloading data and products from The National Map viewer are located at <http://viewer.nationalmap.gov/help/>. In short, imagery can be downloaded by selecting your area of interest, checking "Imagery", selecting which large scale imagery product you would like. Note that the small scale imagery products are actually not managed by USGS *The National Map*. To acquire the small scale imagery products, visit:

BMNG - <http://earthobservatory.nasa.gov/Features/BlueMarble/>

Global Land Survey 2000 - http://eros.usgs.gov/#Find_Data/Products_and_Data_Available/GLS.

Q. I do not see high-resolution imagery products in the imagery visualization service(s) – are those still available?

A. **Yes.** They are still available to download today, but USGS *The National Map* is still rolling out the visualization of the high-resolution imagery over the rest of 2010 and 2011.

Q. Where can I get the metadata for the large scale imagery products?

A. A metadata link is available for each imagery product listed in the Data Download Options when the Download Data tool is utilized. For download help use: <http://viewer.nationalmap.gov/help/>. FGDC metadata is included in the download package for the product.

Q. What are the available formats for Large Scale Imagery products?

A. The formats available for the products in the service are GeoTIFF, IMG, JPG, and JPG2000.

Q. When downloading imagery, my request is broken into many tiles or chunks - Why?

A. Due to the nature of imagery, especially high-resolution, being quite large in file size, we currently provide a way to break the file delivered to the user in “chunks” that can be reasonably transported over the internet. Over 2010 and 2011, USGS *The National Map* is working on improving the user experience for delivery imagery tiles to users in different ways, more efficient ways.

Q. I am requesting a large area, but can only download part of that area - Why?

A. A red bounding box will draw on the map indicating the extent of the selected product. The amount of data returned is limited to 1.5 GB. Consequently, some high resolution products will not entirely cover a large polygon, such as a large county. The red bounding boxes can be clicked to download the data directly without checking out. Over 2010 and 2011, USGS *The National Map* is working on improving the user experience for delivery imagery tiles to users in different, more efficient ways.

Q. I am receiving an error trying to download a specific imagery product - why?

A. Due to the current algorithm which looks at your area, and what is the overlap with a specific imagery product, the overlap may be so small or just outside of the “red bounding box” created.

During the download steps, when on the USGS Available products window, click on the imagery product title you are looking to download. Before clicking on “Add to Cart”, notice the “blue border” over the base map – you may need to drag the USGS Available products window to the side. If the “blue border” covers most of the viewport or all of it (if all of it, the blue border will be around the edge of the full viewport, then this will likely not cause the error.

BUT, if the “blue border” is small, and not towards the center of the screen, it is likely that you will need to cancel the order, change your are of interest by zooming in to that area, then restarting a download request.

A good training test of this would be to try to download imagery over Washington DC. Search for Washington DC, then click download date, select click here to download by current map extent, select imagery, then when on the USGS Available products window select different products.

Over 2010 and 2011, USGS *The National Map* is working on improving the user experience for delivery imagery tiles to users in different, more efficient ways as well as working on more explicit user interface feedback and better error handling to avoid this error.