

Guide: Distribution

URL: <https://www.pgc.umn.edu/guides/arcticdem/distribution/>

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How to search, discover, and download ArcticDEM data.

Search, Discovery and Download

Polar Geospatial Center

The Polar Geospatial Center makes ArcticDEM data available for discovery and download through both HTTP and FTP protocols. The following links provide access to bulk downloads for ArcticDEM 2 meter strip and 2 meter mosaic files:

Bulk Strip Download

Strip DEMs available at 2-meter resolution.

- [Strip DEM extent index](#) (with data download links)
- HTTP (browser):
<https://data.pgc.umn.edu/elev/dem/setsm/ArcticDEM/geocell/v3.0/2m>

Bulk Mosaic Download

Mosaic DEMs available at 2-meter resolution.

- [Mosaic DEM Extent Index](#) (with data download links)
- HTTP (browser):
<https://data.pgc.umn.edu/elev/dem/setsm/ArcticDEM/mosaic/v3.0/2m>

Esri

Esri has developed web applications and web services in support of the ArcticDEM initiative data that, in addition to providing raw download capability, can be used to view, explore and perform basic analysis and geoprocessing tasks:

ArcticDEM Image Service

Esri web mapping services include both 2 meter strips and mosaics.

- Service REST Endpoint:
<http://elevation2.arcgis.com/arcgis/rest/services/Polar/ArcticDEM/ImageServer>
- ArcGIS Online Item:
<http://www.arcgis.com/home/item.html?id=e34dc5a706d04901b3ba8d0085435a3d>
- Imagery Layer Item:
<http://www.arcgis.com/home/item.html?id=db38a951a2b643478a942ab22cd78fc6>

ESRI ArcticDEM Explorer Web Application

Web application developed by Esri with a range of DEM rendering and analysis features, including time series evaluation and DEM elevation comparison.

- ArcGIS Online Item:
<http://www.arcgis.com/home/item.html?id=d4c0bbb847584dcd9768738a3c913935>
- Web Application:
<http://arcticdemapp.s3-website-us-west-2.amazonaws.com/explorer>

Open Geospatial Consortium (OGC) Services

Web mapping services compatible with open standards, defined by the [Open Geospatial Consortium](#).

- Service REST Endpoint:
http://elevation2.arcgis.com/arcgis/rest/services/Polar/ArcticDEM_map/MapServer
- Web Map Service (WMS):
<https://elevation2.arcgis.com/arcgis/services/Polar/ArcticDEM/ImageServer/WMServer>
- Web Coverage Service (WCS):
<https://elevation2.arcgis.com/arcgis/services/Polar/ArcticDEM/ImageServer/WCSServer>

Tile Service

Tile cache of the 5 meter mosaic for faster overviews and use in ArcGIS Story Maps that only require simple visualization. Note that this may not be updated as versions of the data change.

- ArcGIS Online Item:
<http://www.arcgis.com/home/item.html?id=1e3ca671bfa74b8398bea01fd808cb2f>
- Tile Service:
http://tiles.arcgis.com/tiles/P3ePLMys2RVChk/jx/arcgis/rest/services/Arctic_DEM_Hillshade/MapServer

Basemap Services

A basemap in the Alaska Polar Stereographic projection ([EPSG:5936](#)). If creating web applications from scratch, use this as the basemap. Please note, this service has no visual data, only the predefined projection and zoom levels (to Level 17, 1.8 meters).

- ArcGIS Online Item:
<http://www.arcgis.com/home/item.html?id=3b178458337c4d6caacf9c1f096bbc56>
- Tile Service:
http://tiles.arcgis.com/tiles/P3ePLMys2RVChk/jx/arcgis/rest/services/ArcticBasemap_Alaska_Projection/MapServer

National Geospatial-Intelligence Agency

ArcticDEM and other publicly-available geospatial data of the Arctic is made available through NGA's Open Data Application.

- Web Application:
<http://nga.maps.arcgis.com/apps/MapSeries/index.html?appid=cf2fba21df7540fb981f8836f2a97e25>

Organizational Structure

ArcticDEM Strips

Strips Strip ArcticDEM files are distributed in folders according to the 1° x 1° geocell in which the geometric center

resides. Geocell folder naming refers to the southwest degree corner coordinate (e.g., folder N72E129 will contain all ArcticDEM strip files with centroids within 72° to 73° north latitude, and 129° to 130° east longitude).

ArcticDEM Mosaic Tiles

ArcticDEM mosaic files have been clipped to 100 km x 100 km tiles and organized into HTTP/FTP directory folders for distribution. Each 100 km x 100 km mosaic folder contains four sub-tiled 50 km x 50 km DEM mosaics with appended naming according to the row/column position as illustrated in the example below:

