Detailed workflow for searching for pre-produced DEMs and requesting them from the PGC.

DEM Availability

DEM availability depends on the availability of pre-processed, quality stereo imagery coverage.

Each year the PGC works to coordinate stereo imagery collection over the polar regions with the goal of collecting as much stereo imagery over the greatest geographic region possible.

However, complete coverage during any given year is not guaranteed and is subject to weather variability, satellite capacity, and commercial competition.

If you’re interested in knowing whether DEMs have been generated over an area, contact your PGC point of contact or submit a request.

ArcticDEM

In 2015, the PGC and other collaborators were funded by the National Science Foundation to produce a pan-Arctic Digital Elevation Model using stereopair images collected by DigitalGlobe’s constellation of optical satellites.

When finished, ArcticDEM will become the highest resolution pan-Arctic terrain model available to the public. The final ArcticDEM release is scheduled for September 2018.

See the ArcticDEM page for more information.

Reference Elevation Mosaic of Antarctica (REMA)

The Reference Elevation Model of Antarctica (REMA) is a gridded raster elevation model currently in production by researchers at The Ohio State University with support from the Polar Geospatial Center.

Upon scheduled release in summer 2018, the REMA elevation model will be a publicly available, Antarctic continent-wide dataset posted at 8 meter pixel resolution.

See the REMA section on the Elevation page for more information.

Summary

In this Guide, we’ve covered:

- DEM creation depends on stereo imagery availability
- Resources for ArcticDEM
- Resources for REMA