

Guide: Introduction to User Services

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All about PGC's geospatial services, users and scope. If you're new, start here.

About

The User Services staff at PGC is dedicated to providing high-level geospatial support to federally-funded researchers from U.S. institutions in the Arctic and Antarctic.

PGC data and services are available at no cost to National Science Foundation funded polar science initiatives and logistics operations.

PGC works with researchers, logistics and operations staff, military personnel, etc., on a variety of problems and solutions.

PGC's primary services include:

- Geospatial expertise
- Satellite imagery processing and analysis
- Custom mapping
- Digital Elevation Model (DEM) creation
- Seasonal, on-site support at McMurdo Station during the USAP Antarctic field season

PGC's User Services support team is staffed with specialists in GIS, cartography, web development, and remote sensing.

After initial contact with PGC, users are assigned a point of contact to streamline communication and provide the most effective geospatial expertise.

Users

PGC Users come from a variety of areas of expertise related to the polar regions, including oceanography, glaciology, ornithology, astronomy, operations management, and many others.

PGC is funded to provide geospatial support and data products to the polar science community, working with scientists, professors, logistics and operations staff, and military personnel, just to name a few.

To receive PGC supportive services such as imagery delivery, DEMs, and/or custom mapping, all Users must be either:

1. Participate on an active research award through NSF Office of Polar Programs at a U.S. institution; or,
2. Working to support a federal mission or initiative in the polar regions in affiliation with NSF Office of Polar Programs

Users have access to open and licensed data provided by PGC, custom services, and GIS expertise.

To provide high-quality support, timely responses to requests, and establish working relationships, PGC will assign

each User with an internal Point of Contact. The purpose of the Point of Contact is to initialize and streamline communication with Users, determine and propose project objectives, continue correspondence regarding project progress, and follow up with additional requests.

In order to provide the most effective and efficient support, PGC Points of Contact are selected to match each User's focus area.

Services Provided

PGC provides geospatial support and services to assist federally-funded polar researchers at U.S. institutions and logistics personnel to accomplish their goals.

Whether it's a paleontologist using satellite imagery to plan fossil explorations of exposed rock outcrops or assisting aircraft planning by identifying ideal landing site coordinates, PGC provides a range of supportive services to the polar community.

Geospatial Expertise

The staff and students within PGC User Services have backgrounds in geospatial fields such as GIS, remote sensing, and cartography. Assisting and educating the PGC user base on geospatial techniques and solutions is the primary function of PGC User Services.

Satellite Image Delivery and Processing

A primary service and dataset PGC provides to the polar community is access to high-resolution commercial satellite imagery collected by Maxar. This invaluable resource gives PGC users an unprecedented look at the features and conditions of the polar environments.

The PGC works with the National Geospatial-Intelligence Agency (NGA) and Maxar to coordinate imagery acquisitions and ordering to make the data available for processing and delivery to PGC users.

GIS Data and Analysis

PGC holds a variety of other geospatial data sets in addition to high-resolution commercial satellite imagery. You can read more about these data sets on our [Data + Services](#) page.

In addition to these datasets, we offer spatial analysis and modeling assistance to users who don't have sufficient resources to conduct those tasks independently.

Geospatial analysis and modeling support is assessed and scoped on a per-user basis given the user's resources and capabilities.

Map Catalog and Custom Mapping

PGC holds an extensive archive of public and private maps of the Arctic and Antarctic that have been gathered from a variety of sources and organizations. Visit the [Map Catalog](#).

PGC can provide custom mapping solutions in support of a science or logistics initiative or mission. PGC does not create maps for personal use, such as souvenirs.

Maps created by the PGC are to be used as intended in support of the original project, initiative, or mission unless

otherwise specified.

Seasonal On-Site Support at McMurdo Station, Antarctica

During the United States Antarctic Program (USAP) Antarctic Field Season, PGC staffs an office at McMurdo Station to provide on-site support to the science and operations personnel stationed there.

As resources and bandwidth are limited in McMurdo, so is the support the PGC can provide. We encourage deploying users who intend to employ PGC support to specify their need in their Support Information Package (SIP).

Requesting PGC support through the SIP process not only gives the PGC an idea of what users' needs are before the season, but in many cases allows PGC to meet the needs of users before the field season begins.

Should support conflicts arise, users deploying to Antarctica who request support through the SIP process are given priority.

Data Access

The Polar Geospatial Center holds a variety of open and restricted datasets.

Open data sets at the PGC are available on our [Data + Services](#) page. Open data sets available from the PGC include a historic and current map catalog, aerial photography, elevation models, including ArcticDEM, and LiDAR collections of the McMurdo Dry Valleys.

Restricted data sets are only available upon request and validation of proper funding details or permissions. Most notably, access to the PGC's archive of high-resolution commercial satellite imagery requires validation of funding.

Additional restricted datasets (e.g. copyright maps) may require permission from the authoring organization.

Scope and Limitations

The Polar Geospatial Center is funded to provide geospatial support for polar science and logistics personnel through polar data, mapping, and geospatial expertise.

PGC is a data provider and service organization; therefore, we do not conduct hypothesis-driven scientific investigations of our own or on behalf of any other parties. User requests submitted to the PGC are scoped on an individual basis.

The PGC not only prides itself on providing high-level data and expertise to users, but works to educate users on new geospatial data sets and techniques so users can employ geospatial skills in their own research initiatives.

For more information on our educational materials, visit [PGC Guides](#) and [PGC Polar Boot Camp](#) page.

Summary

In this Guide, we've covered:

- User Services: PGC staff providing direct User support
- Our core users: NSF-funded polar researchers at U.S. institutions

- Services provided: Geospatial expertise and imagery access
- Basic differences between Open and Restricted Data
- Scope of support to Users