NGA Brings Geospatial Intelligence to the Arctic

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Penn State Arctic Symposium

October 20th, 2015
Anticipated Arctic Transit Routes

Source: U.S. Navy Arctic Roadmap 2014-2030
What is the NGA Mission?

The National Geospatial-Intelligence Agency has a responsibility to provide the products and services that decision makers, warfighters, and first responders need, when they need it most. Geospatial intelligence, or GEOINT is the exploitation and analysis of imagery and geospatial information to describe, assess and visually depict physical features and geographically referenced activities on the Earth. GEOINT consists of imagery, imagery intelligence and geospatial information.
Bringing GEOINT to the Arctic

- Support for the United States as Chair of the Arctic Council:
  - NGA Arctic GEOINT Services Website
  - Digital Elevation Models
- Arctic Geophysical Information
  - Earth Gravitational Model 2008
  - Gravity measurements
- NGA’s other unclassified opportunities
NGA supported the GLACIER Conference with new maps and access to NGA data holdings
A Changing Landscape
The Arctic is becoming a region of strategic importance; its icecap is diminishing and human activity driven by economic opportunity is increasing in response to the area's growing accessibility. Some countries are trying to take advantage of the more accessible area that is emerging as a source of natural resources as shipping corridors become more apparent.

Energy Resources

Zones and Submissions
- Country: EEZ, ECS
- US
- Russia
- Norway
- Iceland
- Denmark
- Canada

Potential overlap
*exclusive economic zone
**extended continental shelf (national and submitted)

Shipping Routes

Ice Extent
North American area comparison showing minimum sea ice extent and modeled future extent (millions of square kilometers)

1980: 7.7 mil km²
1990: 5.9
2000: 6.1
2010: 4.7
2030: 4.5
2050: 1.8
2100: 0.1

Projection: Lambert Azimuthal Equal-Area

Names and boundary representation are not necessarily authoritative.

Map: www.NGA.mil: Arctic Support
Arctic Stereo Imagery Coverage (9/10/2015)
Polar Geospatial Center DEM 2m Test: Iceland
Earth Gravitational Model 2008 (EGM2008)

Source: Pavlis et al. 2008
Opportunities to Partner with NGA

- Academic research grants
- Business opportunities
- Cooperative agreements
- See [www.nga.mil/partners](http://www.nga.mil/partners) for a full list