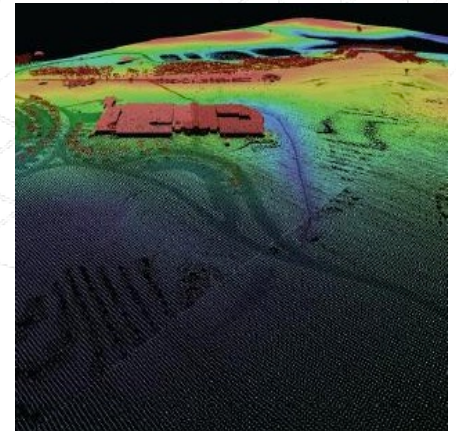
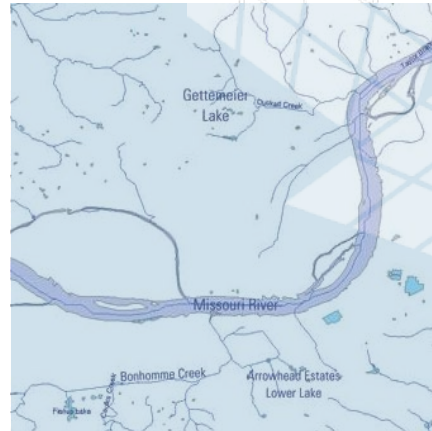
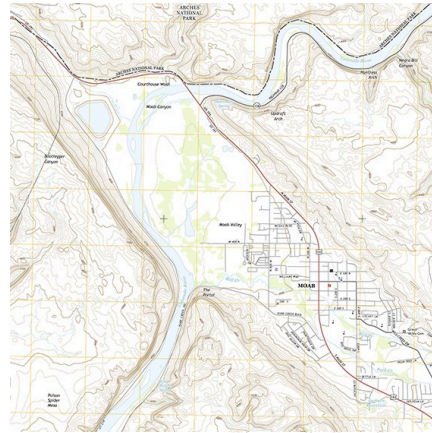




US Geological Survey National Geospatial Program



Alaska Mapping Initiative



Brian Wright
National Map Liaison – Alaska
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National Geospatial Program

The mission of the National Geospatial Program is to provide national topographic information to advance science, support government, enlighten citizens, and enable decision making.

The program provides a foundation of digital geospatial data representing the topography, natural landscape, and the manmade environment.

National Map Liaisons perform outreach and coordination among the geospatial community by establishing partnerships.

Partnerships are the foundation of the program leveraging funding across organizations to provide significant cost savings, reduce redundancy in geospatial data acquisition and stewardship, and ensure the availability of common base data to a broad range of users and applications.

Products and Services

**NHD/WBD/NHDPlus HR - The National Map - US TOPO - 3DEP -
BAA - GPSC - topoBuilder**

+ Alaska Mapping Initiative

The Alaska Mapping Initiative is a multi-agency effort to acquire and enhance foundational digital map layers such as elevation, imagery hydrography used to produce new US Topo maps for Alaska.

- 2007 - Statewide Digital Mapping Initiative (SDMI)
- 2008 - Alaska Geographic Data Committee, Digital Data for SDMI
- 2011 - Congressional Delegation request federal support to modernize Alaska map data
- 2012 - Alaska Mapping Roundtable, formation of the Alaska Mapping Executive Committee (AMEC) and the Alaska Mapping Initiative (AMI)
- 2014 - Alaska Mapping and Modernization budget line item added to USGS appropriation

Department of the Interior and Department of Commerce co-chair the Alaska Mapping Executive Committee (AMEC) to coordinate and oversee those activities.

Agencies collaborate with AMEC where appropriate for their missions while also addressing their unique mapping requirements

Alaska Mapping Technical Subcommittee and Alaska Coastal Mapping Subcommittee formed to respond to requests from the Executive Committee and guide annual geospatial data acquisition programs

+ AMEC Mapping Theme Status

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Theme	Metric	2020 Goal	FY22 Status
Terrestrial Hydrography	NHD	Complete by 2030	34% contracted
Gravity	GRAV-D	Mainland by 2022 Aleutians by 2022	Mainland Completed 52% Aleutians
Shoreline Mapping	AK shoreline	Complete in 5 years	62.0% Updated
Imagery	1 meter GSD Statewide mosaic	Complete by 2023	Completed
Coastal Mapping	In development	Complete by 2030	Implementation Plan approved spring 2022
Wetlands	NWI	Complete by 2029	86% available or contracted

+ Terrestrial Hydrography Update

USGS began updating the statewide hydrography (surface water - lakes and rivers) in 2019 under the Alaska Mapping and Modernization.

Hydrographic features and watershed boundaries are being derived from the Alaska IfSAR elevation data using elevation-derived-hydrography methodology via GPSC contracts.

The National Hydrography Dataset (NHD), the Watershed Boundary Dataset (WBD), and NHDPlus High Resolution (NHDPlus HR) for Alaska are being updated through collaborative partnerships to meet accuracy and content specifications suitable for 1:24,000-scale mapping.

- 34% of Alaska has been contracted
- BLM funding agreement for NPRA units
- Partnership with Fish and Wildlife Service updating wetlands and hydrography in Aleutians Islands
- Assisting US Forest Service (FS) with collaborative approached in SEAK
 - USGS contracted one USFS hydrologic unit to test quality of vendor-edited data
 - USGS providing funding to support FS hydrography editing utilizing lidar

+ Hydrography Technical Working Group

- Provide the opportunity for Alaska stakeholder to advocate hydrography data needs and mapping collectively and collaboratively for the state
- Serve as the Stewardship body advancing statewide terrestrial hydrography mapping needs
- Working group comprised of federal, state, academia, commercial/industry, and non-governmental organizations
- State and federal co-chairs host quarterly virtual meetings
- Contact Kevin Petrone, kevin.petrone@alaska.gov or Brian Wright, bwright@usgs.gov for more membership or questions.
- Visit Working Group Hub Site at: [AGC Hydrography TWG \(arcgis.com\)](https://arcgis.com)



The Alaska Geospatial Council provides inter-agency coordination between local, state, federal, tribal, academic and private organizations on geospatial initiatives. Through effective collaboration the council aims to improve the availability and quality of geospatial information and ensure it is publicly available to support data driven decisions.

Priority Lidar Collection Strategy

Federal agencies and the State of Alaska coordinating on future lidar acquisitions for coastal change, hazards, and permafrost degradation.

- **FY22 Acquisitions via Geospatial Product Service Contract (GPSC)**

Natural Resource Conservation Service collection of 14 western native communities at QL2

- **FY22 Acquisitions via the Alaska Mapping and Modernization**

- Southeast Alaska Hazards. QL1 lidar. Ketchikan, Petersburg, Sitka, Juneau, Yakutat, and Mount Edgecumbe
- Supplemental funding requests for Typhoon Merbok
- Digital Service Model (1 m) derived from satellite stereo imagery. Completion dependent upon on FY23 appropriations

+ Imagery Updates

AMEC Technical Subcommittee developing a collection requirement for the Civil Applications Committee to implement a 5-year statewide refresh program.

- Bureau of Land Management developed a web service to determine the collection date of imagery tiles for High Resolution Imagery



Alaska High Resolution Imagery (OIM) Status

Bureau of Land Management, Alaska

- US Forest Service - contracted 30 cm resolution, 4-band, public domain airborne imagery to meet specific requirements for Chugach and Tongass National Forests. USGS providing funding assistance for acquisition.
- USGS providing funding to support of the Geoportal Data Manager via in Intergovernmental Position Agreement

Alaska High Resolution Imagery (RGB)

+ Broad Agency Announcement

The Broad Agency Announcement is the competitive solicitation mechanism to select and partially fund lidar acquisition projects in support of the 3DEP program.

The FY23 BAA submissions are being accepted until June 1, 2023, pending available funding.

Statewide IfSAR 3DEP coverage for Alaska was completed in FY 2020. However, proposals for lidar in Alaska will be considered over targeted acquisition listed in the Program Announcement.

- Proposal has matching funding per cost estimate
- Potential federal funding match award to acquire QL2 lidar
- Need to identify why IfSAR does not meet your needs
- Begin planning process one-year in advance to identify partnerships
- Contractors can work with partners to devise cost estimates

+ Geospatial Products and Services Contract

Geospatial Products and Services Contracts (GPSC) is a suite of contracts used by federal, state, and municipal governments, as well as non-profits, Tribes, and private entities to partner with the USGS to fulfill their geospatial data requirements.

USGS provides technical assistance to agencies who wish to use the GPSC. The USGS Commercial Partnership Team (CPT) drafts task orders based on an agency's specific product requirements, conducts negotiations with the contracting firms, and manages each task throughout its lifecycle. The USGS National Geospatial Technical Operations Center (NGTOC) assists in validation of contractor-produced data.

The GPSC gives customers quick-access one-stop shopping to the professional geospatial services they require. Selected through a competitive, quality-based selection process, the GPSC contractors are highly skilled, with the full gamut of geospatial and cartographic products. They are industry leaders with product-specific expertise who maintain technical liaisons with the USGS.

Customers seeking nonstandard products, or those requiring singular applications of geospatial data, have ready access to the same pool of certified firms. The Commercial Partnerships Team's familiarity with each contractor coupled with the breadth of USGS technical expertise create an environment whereby detailed products are accurately described and appropriately assigned

+ topoBuilder Application

- A new USGS web application
- Application enables users to create topographic maps on demand using the best available *The National Map* data.
- Users can generate topographic maps, called OnDemand Topo, centered anywhere in the United States or Territories, with customized contour smoothing, and export formats GeoTIFF or Geospatial.
- Maps are made at 1:25,000 for Alaska.
- Future releases are planned for additional customizations such as user-selected layers, user-added content, GIS data exports, and other map scales.
- TopoBuilder, its capabilities, and OnDemand Topo maps will be demonstrated.
- <https://topobuilder.nationalmap.gov/>

+ Resources

FY23 Broad Agency Announcement

<https://www.usgs.gov/3d-elevation-program/fy23-usgs-broad-agency-announcement-baa>

Geospatial Products and Services Contracts

<https://www.usgs.gov/programs/national-geospatial-program/geospatial-products-and-services-contracts>

3DEP Lidar Base Specifications

<https://www.usgs.gov/ngp-standards-and-specifications/lidar-base-specification-online>

AGC Hydrography Technical Working Group

<https://agc-hydrography-soa-dnr.hub.arcgis.com/>

Alaska Mapping Initiative

<https://www.usgs.gov/ngp-user-engagement-office/alaska-mapping-initiative>

The National Map – Viewer

<https://apps.nationalmap.gov/viewer/>

The National Map – Downloader

<https://apps.nationalmap.gov/downloader/>