

Alaska Division of Geological & Geophysical Surveys Agency Update

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Alaska Miners Association Online Meeting
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Alaska Division of Geological & Geophysical Surveys (DGGS)

Statutory Mission:

Determine the potential of Alaskan land for production of metals, minerals, fuels, and geothermal resources; the locations and supplies of groundwater and construction materials; and the potential geologic hazards to buildings, roads, bridges, and other installations and structures.

(AS 41.08.020)

Focus of All Geologic Studies

- Grow state economy
- Improve lives and safety of Alaska residents



DGGS Sections

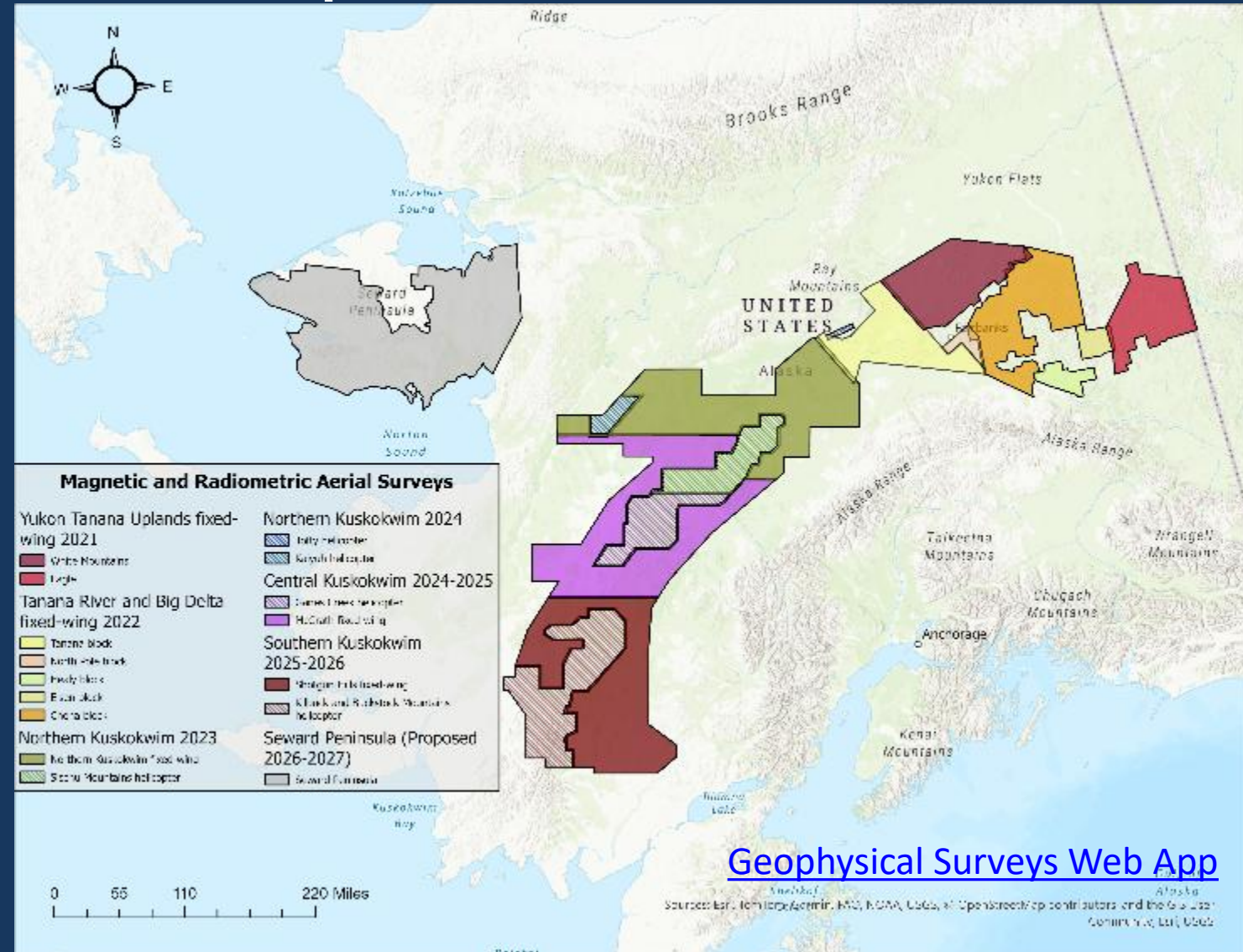
- Mineral Resources
- Energy Resources
- Hydrology and Surficial Geology
- Geologic Hazards
- Geologic Materials Center
- Alaska Geospatial Office
- Geologic Information Center



FY2025 Key Accomplishments

Geophysics

- 46 new mining claims in 2025 based on state-funded airborne geophysics (Silver Sage prospect for silver, lead, zinc)
- Airborne geophysical data publicly released for three surveys covering 2,761 sq. mi.

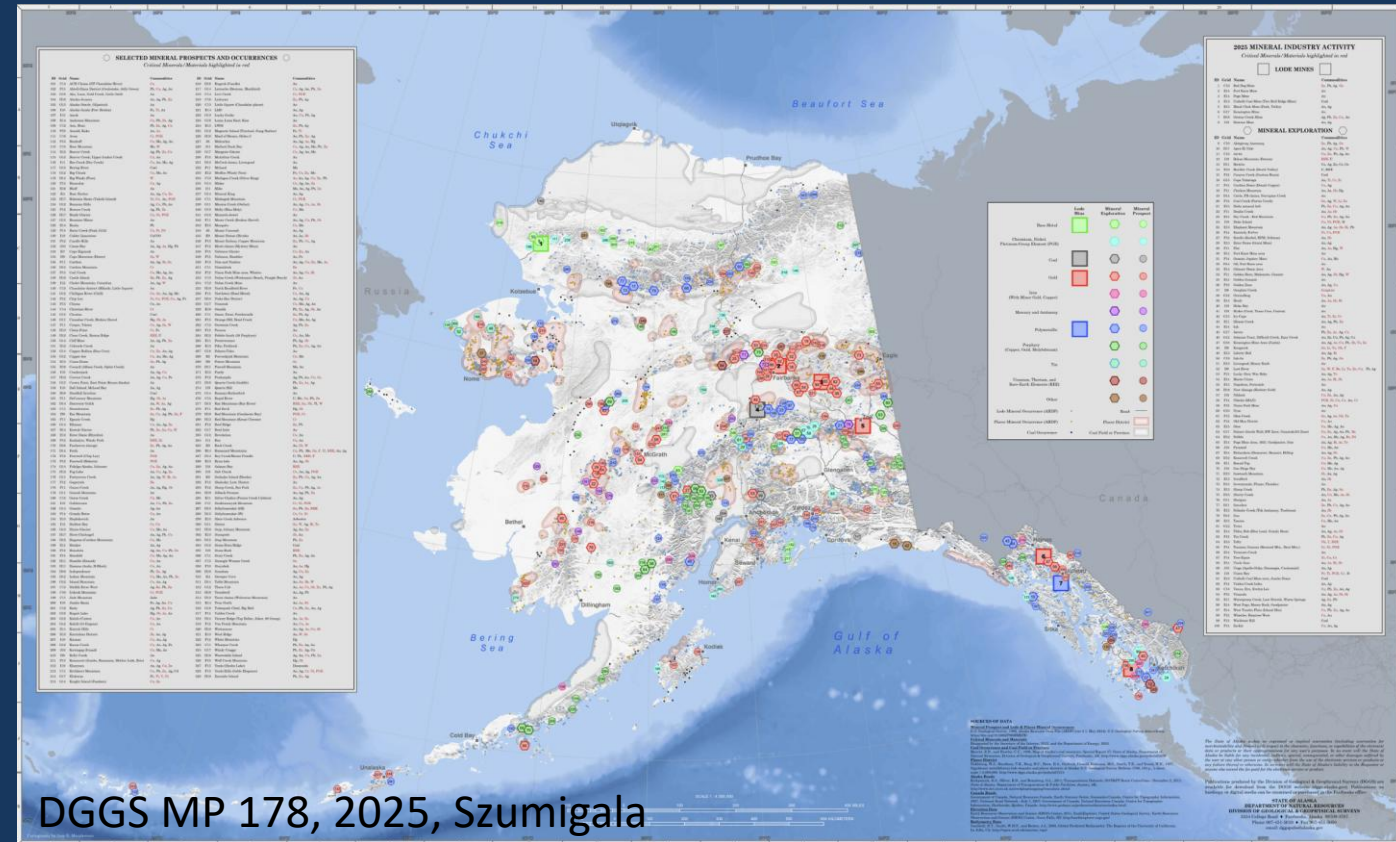


Mineral Resources

FY2025 Key Accomplishments

Geology

- 4,000 acres of mining claims staked after discussion with DGGs and review of 1998 Chulitna STATEMAP geologic mapping (Tinova Resources Corp. tin-silver Coal Creek property)
- Ten-week field mapping program in Circle Mountain District/Steese Highway/White Mountains
- 14 public reports, maps and datasets released on mineral resource geology
- Updated map of Alaska's Mineral Resources to include critical minerals
- Online Interest in federally funded Earth MRI geologic data tripled



Alaska's Mineral Resources Map

Energy Resources

FY2025 Key Accomplishments

Oil and Gas

- North Slope geologic mapping, including Nanushuk Formation-the highest prospective onshore hydrocarbon prospect in North America
- Cook Inlet Oil and Gas assessment ongoing with USGS
- NW Cook Inlet research for DOE-funded carbon storage project
- Five publications on energy-related geologic data
- 8,500 sq. mi. prospective hydrocarbon resource areas evaluated

Geothermal

- New program established, year 1 of 3 of state funding
- Private investment—two geothermal prospecting permits awarded for Augustine Island and Mount Spurr
- International recognition of Alaska's Superhot Geothermal potential



Hydrology and Surficial Geology FY2025 Key Accomplishments

- Responded to over 50 requests from agencies and communities for surficial geologic hazards and hydrologic information
- Collected data over 508 sq. mi. area encompassing access corridor north of Cook Inlet
- Downloaded hydrologic data and conducted equipment maintenance near the proposed Triangle Road corridor
- Processed 200 sq. mi. of lidar data across the state
- Lidar datasets Chilkat Valley, Wrangell, etc. recognized nationally for crucial landslide assessment studies
- Renewable Hydropower Program established for in-river hydrokinetic projects



Geologic Hazards

Programs

- Coastal Hazards
- Climate and Cryosphere Hazards
- Earthquake and Tsunami Hazards
- Geologic Health Hazards
- Landslide Hazards
- Volcano Hazards



Ketchikan landslide, August 2024

Geologic Hazards FY2025 Key Accomplishments

- Published 30 hazards-related reports and datasets (lidar, coastal flood assessments, tsunami inundation, landslides)
- Evaluated 2,525 sq. mi. for geologic hazards
- Responded to over 175 requests for assessment of geologic hazards, including responses to natural disaster events (Barry Arm, Shishmaref, Wrangell)
- Mount Spurr Volcano monitoring and public education
- Published hundreds of analyses from 16 volcanoes to better assess volcanic hazards
- 900 requests for radon data or radon test kits



Geologic Hazards

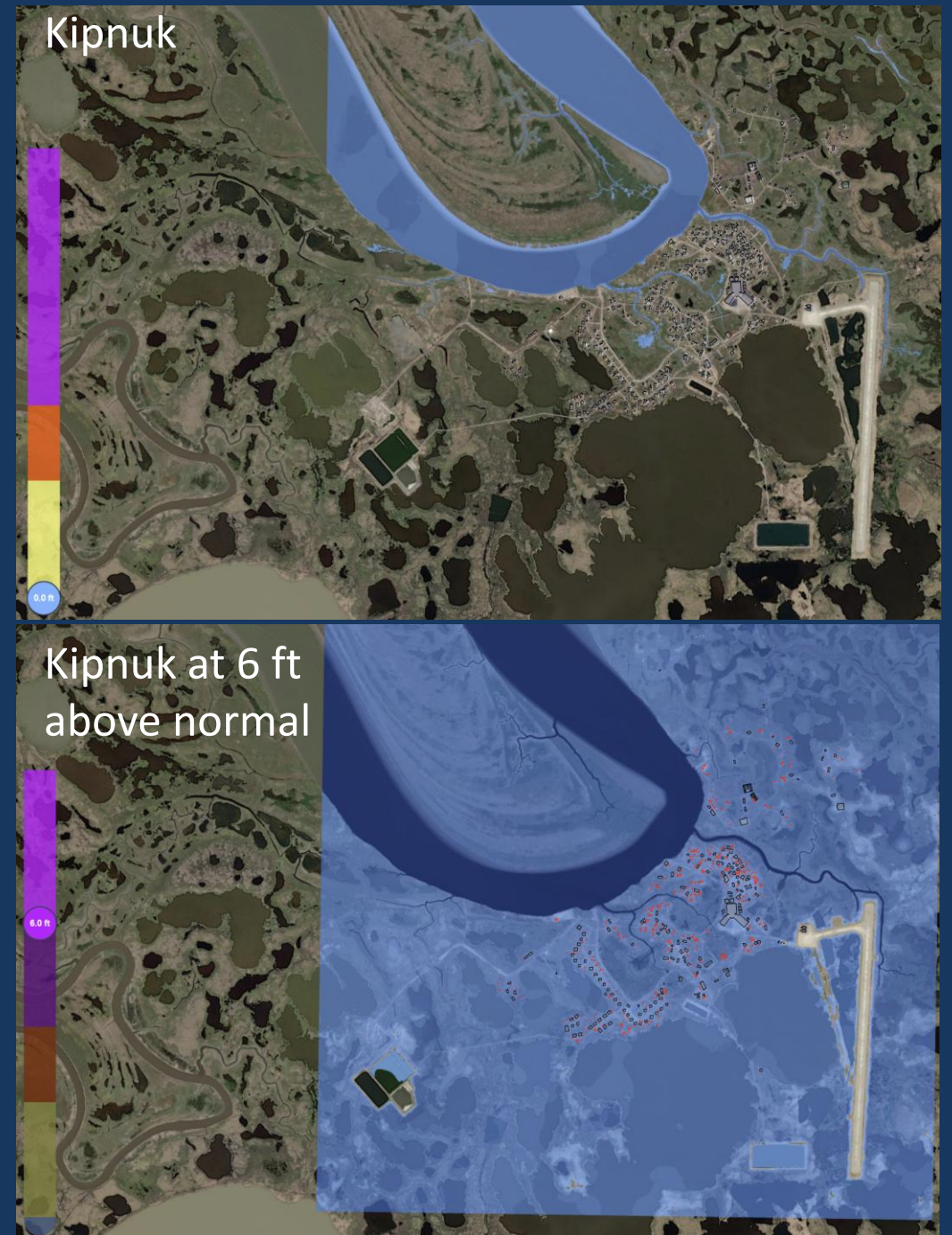
Coastal Hazards-Typhoon Halong

Pre-Storm

- Flood Assessments
- Alaska Flood Inundation Tool (AK FIT)
maps.dggs.Alaska.gov/akfit/

During Storm

- Added 24 communities to Flood Inundation Tool—32 total
- Coordinated Geospatial Data (AGO)
- Gathered Direct Reports on Flood Impacts



Geologic Hazards

Coastal Hazards-Typhoon Halong

Post Storm

- High water mark data
- Coastal Erosion
- Planning lidar data collection
- Assessments to assist with damage determination, community rebuilding, and updated flood inundation models
- Working directly with FEMA to assess communities for recovery




Geologic Materials Center FY2025 Key Accomplishments


- 31 public tours; multiple large workshops on core analysis
- 818 visitors viewed 4,396 boxes of samples and utilized some of over 800,000 archived geologic samples
- 48,538 online search queries
- Mining company predicted ~2% increase in estimated ultimate recovery based on GMC data



Alaska Geospatial Office FY2025 Key Accomplishments

- 51,000 Geoportal users accessing state geospatial data
- 176,000 imagery basemap users
- Coordinated acquisition of 22,000 sq. mi. of lidar data; 4,750 sq. mi. delivered in FY 2025

State Em




State of Alaska Geoportal

[Home](#) [Imagery](#) [Elevation](#) [Partnerships](#) [Alaska Geospatial Council](#) [Get Involved](#)


Featured Maps and Apps

Local, State, and Federal organizations are creating new ways to
Explore some of the most popular maps and apps across



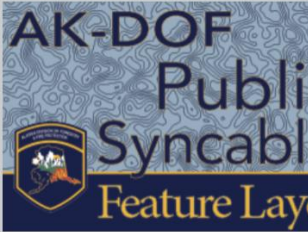
[Best Practices for Authoritative Data...](#)

Maximize the deliciousness of your shared geospatial content



[Alaska Address Database](#)


This National Geospatial Data Asset (NGDA) dataset, shared ...




[Alaska Statewide Parcel](#)

Combined land parcel data from various local government bodies

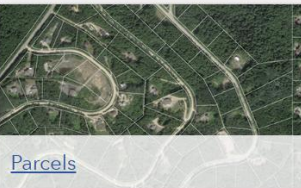
Framework Datasets




[Transportation](#)



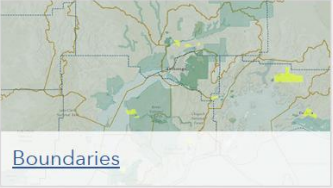
[Imagery](#)




[Parcels](#)



[Hydrography](#)



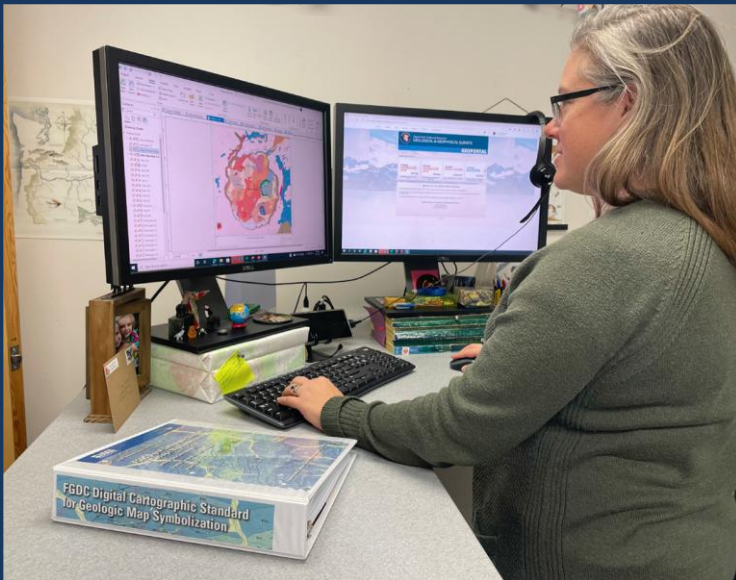
[Boundaries](#)



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Geologic Information Center FY2025 Key Accomplishments

- 57 new geologic publications to the public
- 38 Terabytes of digital geologic data downloaded by clients from division website and geoportals
- 11,000 sq. mi of paper geologic maps converted to digital data
- Supported field projects and emergency response activities with data, hardware, software, and safety equipment



Sample Web Apps:

- AK Elevation Portal
- Geologic Materials Center Inventory
- Geologic Photos of Alaska
- Alaska Geochemistry
- Palynology Database
- Alaska Geologic Data Index (AGDI)
- Weather Stations
- Geothermal Sites of Alaska Web App
- Alaska Radon Web App
- STATEMAP Projects Web App
- Map Index Web App
- Exploration Geochemistry Web App
- Airborne Geophysics

DGGS Mineral Research Survey

Will be seeking input on

- Useful past reports
- Future work regions
- Types of future work

Watch for AMA email with survey link....

