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No-Cost High Resolution Commercial Imagery Collection for Alaska

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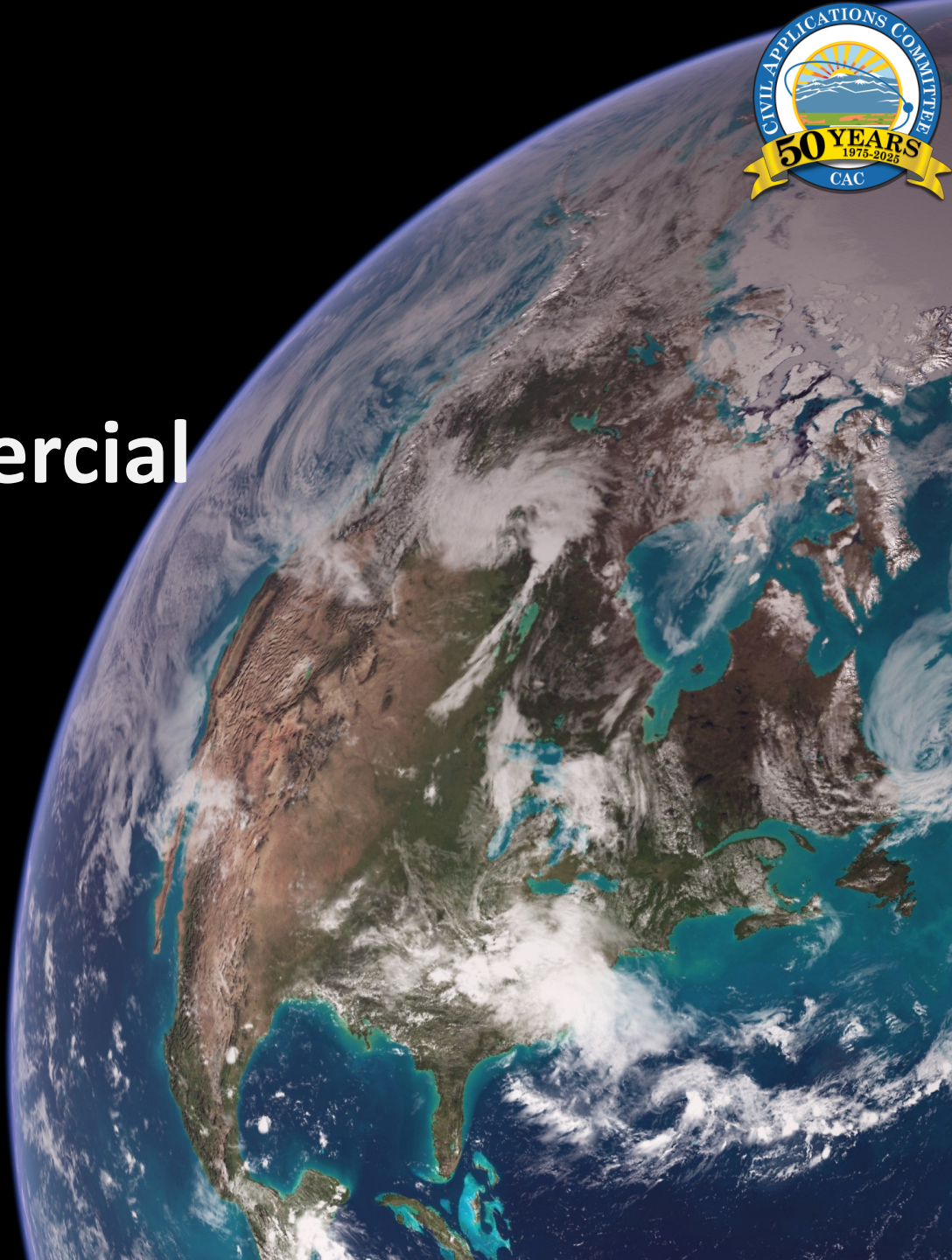
U.S. Department of the Interior
U.S. Geological Survey



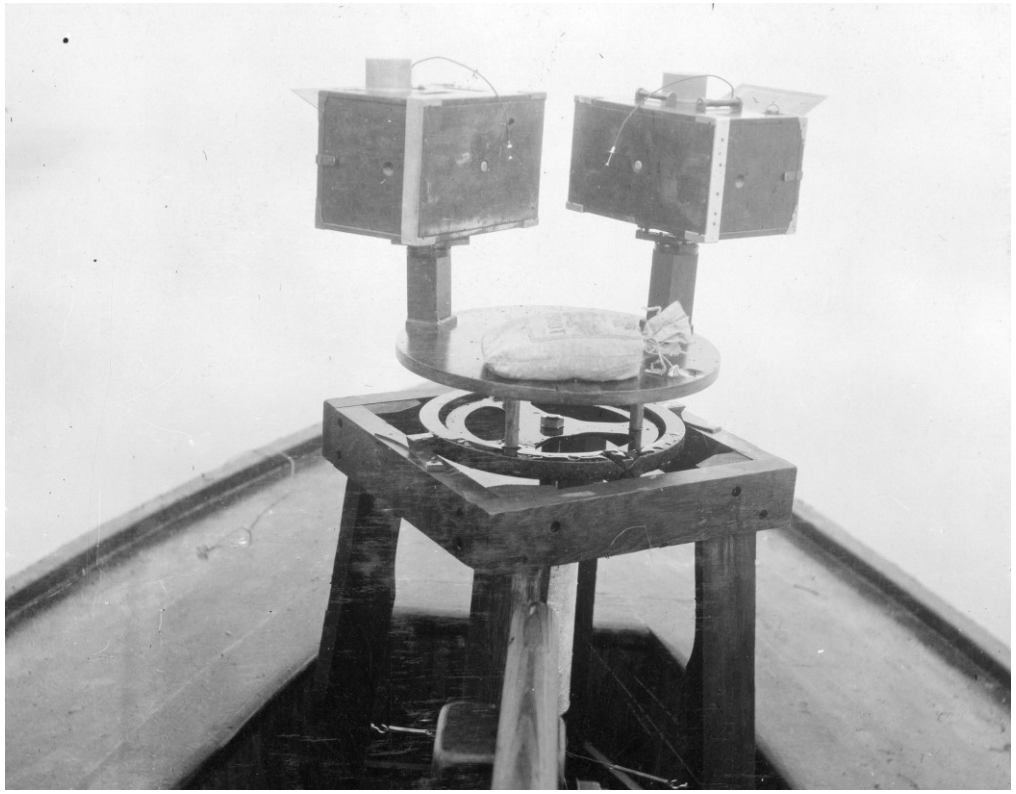
Dedication: James W. Bagley

Maj. James W. Bagley

James W. Bagley (1881-1947)

- USGS Topographic Engineer – mapped Alaska (1902 – 1917)
  - Used panoramic camera to compile topographic maps
  - Wrote “The Use of the Panoramic Camera in Topographic Surveying,” USGS Bulletin 657, 1917
- Joined the Army in 1917 (photograph on left), remained in the Army after the war, and retired in 1937
- Developed 3-lens aerial camera, assisted by Fred Moffit and J.B. Mertie
- Pioneered use of aerial photographs for mapping

Dedication: James W. Bagley



Bagley twin panoramic camera, Prince William Sound, Alaska, 1916.

James W. Bagley (right) and USGS topographers.

Distant Glacier Bay, Jack Bay District

Town of Seward

High Spatial Resolution Commercial Imagery

- Imagery from National Reconnaissance Office Electro Optical Commercial Layer and the National Geospatial-Intelligence Agency NorthernView contracts
  - Available to federal agencies and state, local, and tribal governments, academia and others supporting a US federal government mission or project
- Civil Applications Committee
  - Oversees and facilitates Federal civil agencies appropriate use of Department of Defense and Intelligence Community overhead remote sensing capabilities including commercial

Pan Sharpened Natural Color, Maxar Worldview 3, 30 cm ground sample distance, 20% off Nadir, acquired March 29, 2025

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Accessing Commercial Data

Five ways to access:

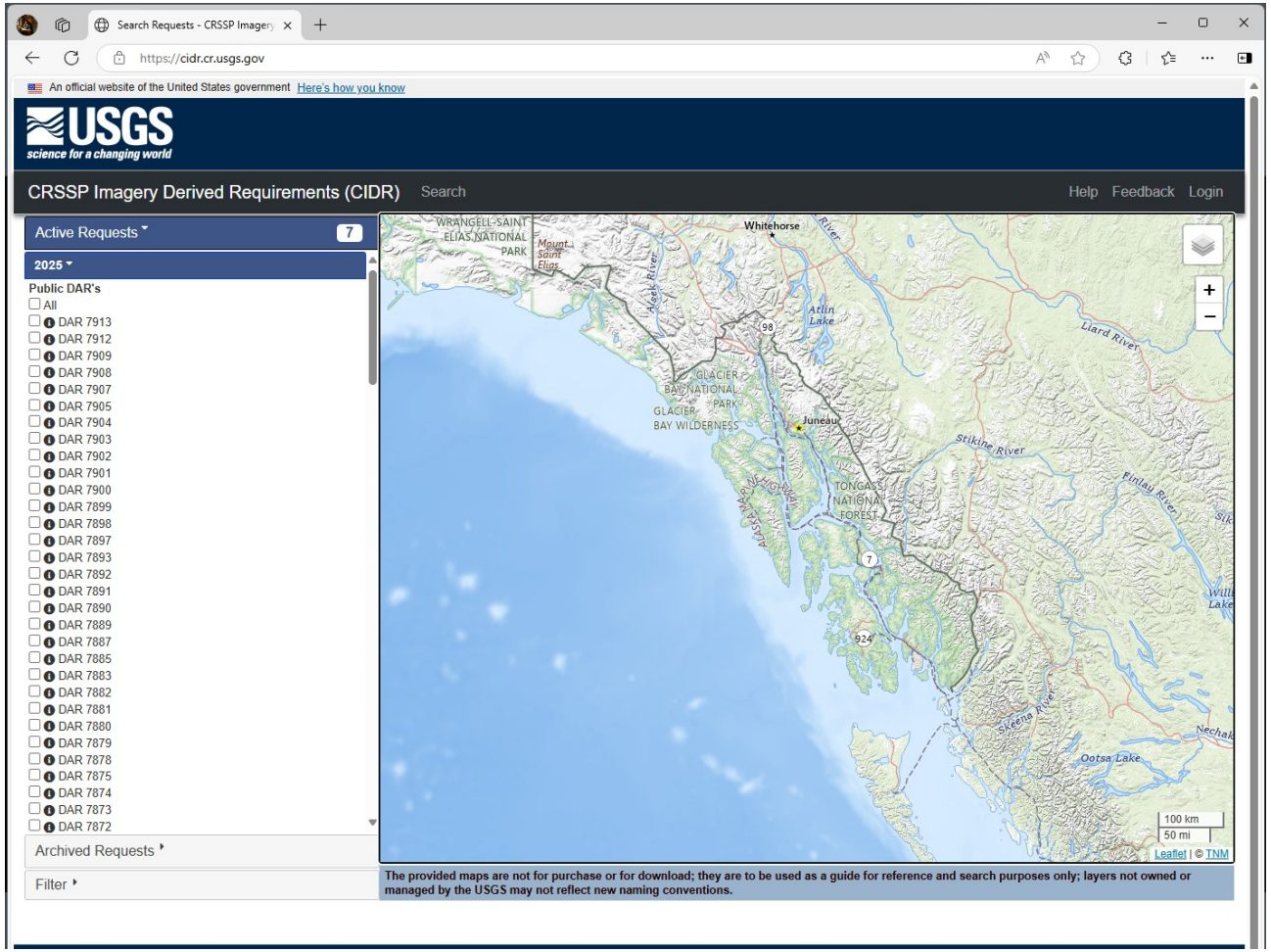
- Via the Global Enhanced Geospatial-Intelligence Delivery (G-EGD) Pro web hosting service (see right)
- Request new collections via CIDR or CMT (next slide)
- Download existing/archive data
- Ad Hoc Requests (typically from NRO Study Contracts)
- Direct Access Portal

https://pro.gegd.com

Requesting Image Collection

- For scientific new collection requirements enter information into USGS CIDR tool
  - Instructions: https://www.usgs.gov/centers/eros/science/crssp-imagery-derived-requirements-cidr-tool-help-document
  - CIDR: https://cidr.cr.usgs.gov/

- For data response new collection requirements enter information into USGS Collection Management Tool (CMT):
  - https://cmt.usgs.gov/



CIDR= CRSSP Imagery Derived Requirements

CRSSP = Commercial Remote Sensing Space Policy

(U) ELECTRO OPTICAL

(U) Electro Optical Commercial Layer (EOCL)

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GRAPHICS ARE UNCLASSIFIED

(U) SYNTHETIC-APERTURE RADAR

(U) Strategic Commercial Enhancement (SCE) or Northern View Contract

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(U) COMMERCIAL SYSTEMS AVAILABILITY REFERENCE SHEET

Sensor	Vendor	Spectrum/Polarization	Point Size	Area Size	Best Resolution	Access	Tasking	Delivery	Contract
EO	Maxar	PAN/MSI/SWIR	13 x 13km	Best: 25 x 40km	PAN: 0.31m MSI: 1.24m SWIR: 3.7m	90N/90S	Yes, through: CIDR (Science/Research) CMT (Hazards)	EarthExplorer HDDS G-EGD	EOCL (NRO)
EO	BlackSky	PAN/MSI	4 x 4km	NA	0.85m	55N/55S	Yes, through: CIDR (Science/Research) CMT (Hazards)	G-EGD	EOCL (NRO)
EO	Planet SkySat	PAN/MSI	6 x 6km	Best: 12 x 12km	0.5m	84N/84S	Yes, through: CIDR (Science/Research) CMT (Hazards)	G-EGD	EOCL (NRO)
EO	PlanetScope (Doves)	PAN/MSI	NA	NA	3m	84N/84S	No, always collecting. Reach out to Planet PMO: planetuseraccountreq@nga.mil	PlanetExplorer	EOCL (NRO)
SAR	Capella	VV or HH	5 x 5km	Max: 10 x 100km	0.25m	90N/90S	Yes, through: CIDR (Science/Research) CMT (Hazards)	G-EGD	SCE/CRC (NRO)
SAR	ICEYE(US)	VV	5 x 5km	Max: 100 x 100km	0.5m	90N/90S	Yes, through: CIDR (Science/Research) CMT (Hazards)	G-EGD	SCE/CRC (NRO)
SAR	Umbra	VV or HH	5 x 5km	NA	0.25m	90N/90S	Yes, through: CIDR (Science/Research) CMT (Hazards)	G-EGD	SCE/CRC (NRO)
SAR	RADARSAT	Single: HH or VV Dual: HH+HV or VV+VH Quad: HH+VV+HV+VH	4 x 4km	Max: 500 x 500km	1m	90N/90S	Yes, through: CIDR (Science/Research) CMT (Hazards)	E-mail	NorthernView (NGA)

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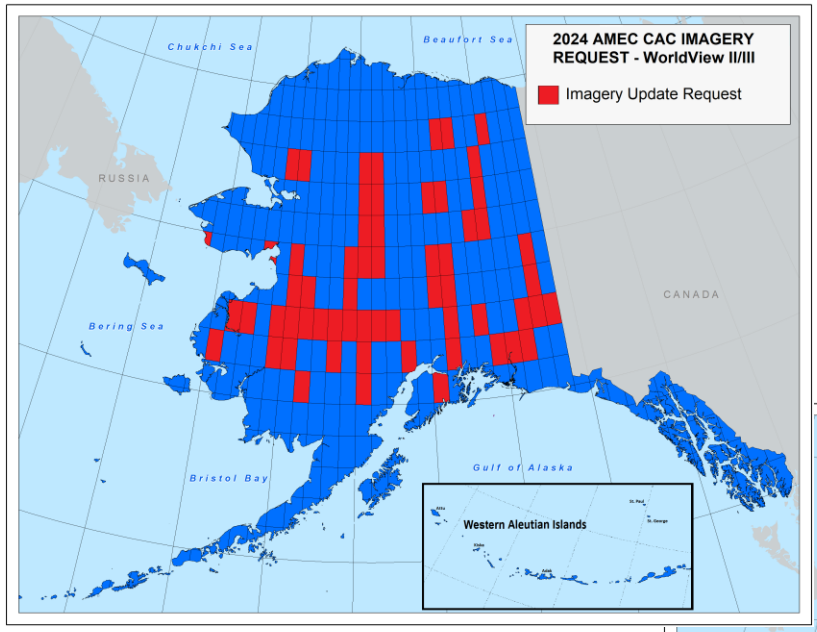
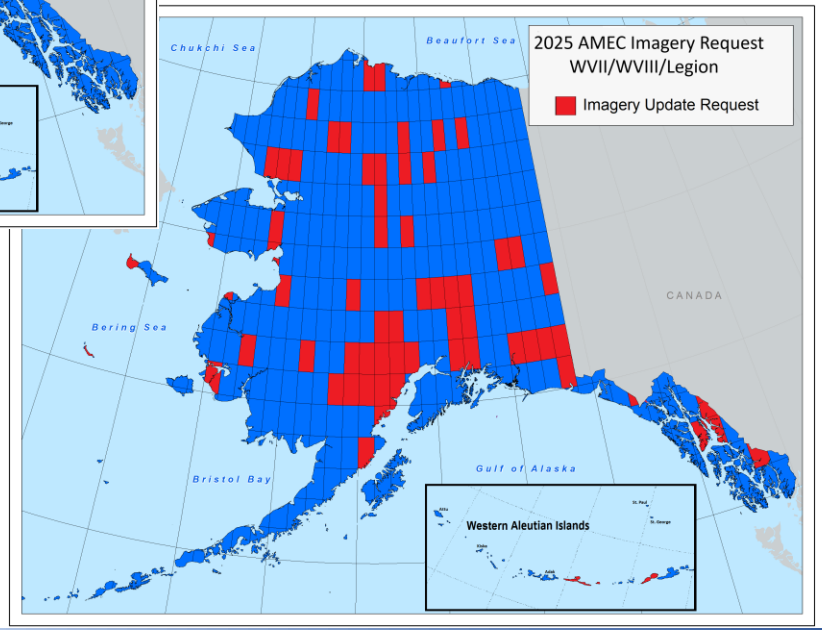
Statewide Collection

- Since 2017 goal has been to ensure statewide images are available with images no more than 5 years old
- 20 percent collection each year coordinated by Alaska Mapping Executive Committee

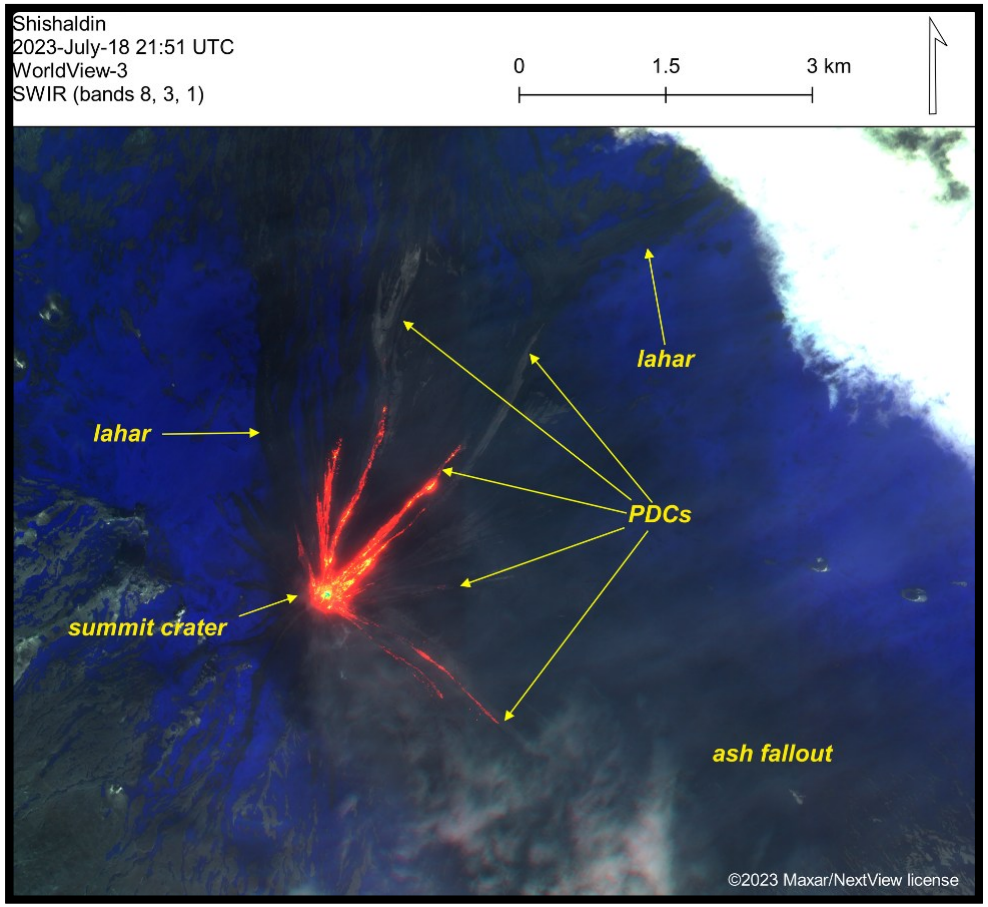


FY 2024 Request



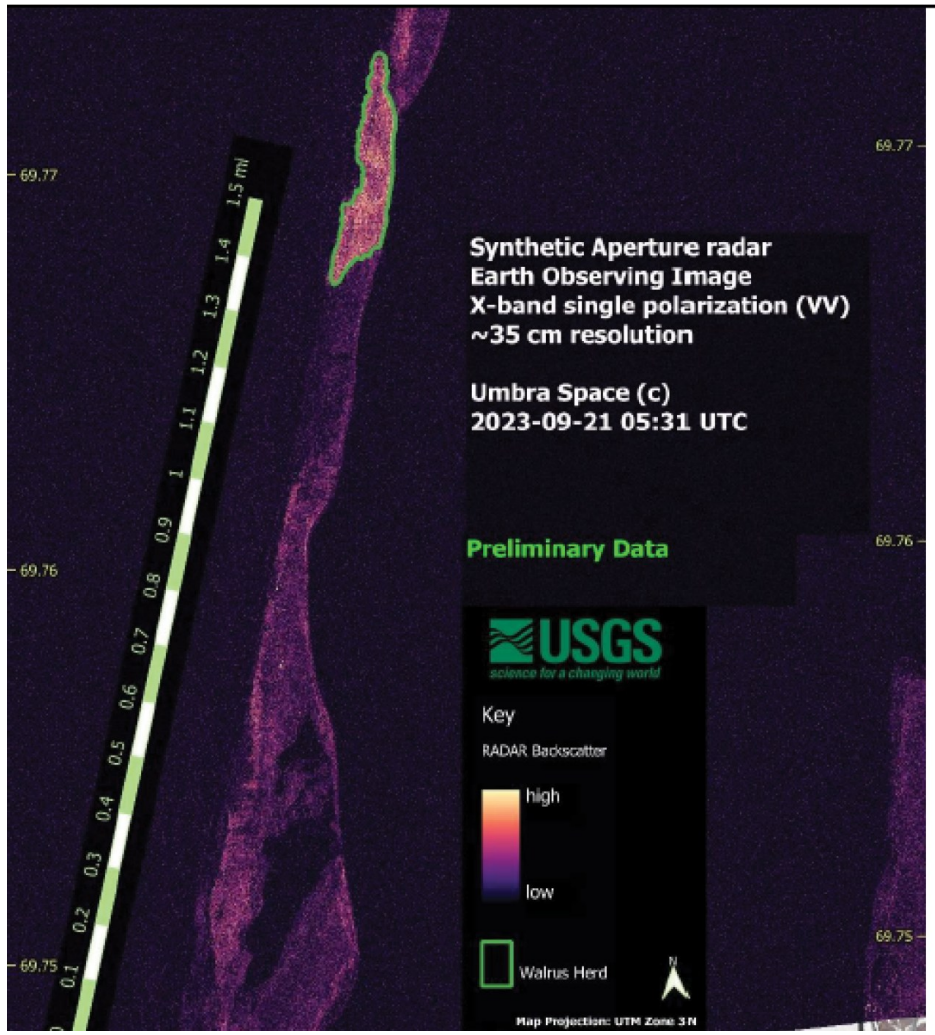
FY 2025 Request

Shishaldin Volcano



(Satellite image ©2023 Maxar Technologies)

Walrus Haulout Monitoring



Poker Flats

NASA & University of Alaska Fairbanks – Geophysical Institute Poker Flat Research Range is requesting a variety of sensors to determine best collection strategy for finding Sub-orbital rocket bodies after impact within the range increasing recovery and clean up efforts.

Benchmark Glacier Project

Root Glacier - Wrangell-St. Elias National Park, AK

- Imagery collected over eight separate sites to better understand present-day glacier and snow contributions to water resources, ecosystem change, and global sea level rise
- Stereo data used to compute seasonal snow depth, seasonal mass balance and annual mass balance for North American glaciers
- High-resolution DEM's with sub-meter horizontal and vertical accuracy to be produced

Image Source:
WV1 – 50 cm GSD – 4/21/24

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Data Acquisition Questions

CACSource@usgs.gov

NCAC is hosting a Data Acquisition Request walk through on April 29th at 1pm (ET) or 9am (AK)

Email CACsource@usgs.gov for invitation.

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