



DATA & APPLICATIONS ONLINE

Synthetic Aperture Radar (SAR) Data

Overview

The Alaska Satellite Facility (ASF) synthetic aperture radar (SAR) Distributed Active Archive Center (DAAC) specializes in SAR data collection, processing, archiving, and distribution. These data are supplied by SAR sensors on many different spaceborne and airborne platforms, including:

- European Remote Sensing Satellite (ERS-1 and ERS-2)
- Japan Aerospace Exploration Agency's Japanese Earth Resources Satellite (JERS-1) and Advanced Land Observing Satellite (ALOS)
- Canadian Space Agency's RADARSAT-1 Satellite
- NASA's SeaSAT Satellite
- NASA's Airborne Synthetic Aperture (AIRSAR), Uninhabited Aerial Vehicle Synthetic Aperture Radar (UAVSAR), and Airborne Microwave Observatory of Subcanopy and Subsurface (AirMOSS)



The SAR DAAC also supports several projects from which data can be downloaded directly from the ASF web site. These include the Arctic and Wetlands MEaSUREs (Making Earth System Data Records for Use in Research Environments) Programs and RADARSAT-1 Antarctic Mapping Project (RAMP)

About the Data

A large amount of information about the Earth's surface at high spatial resolutions can be derived from the return signals from active microwave sensors (radars). Such signals easily penetrate clouds, allowing all-weather observations.

The SAR DAAC holds a wide range of data products from raw data to processed SAR imagery. Critical information on land and sea ice, snow, vegetation properties, and land use can be extracted from these products.

Data from the Arctic MEaSUREs program include many sea ice parameters such as ice motions and new sea ice thickness. Wetlands MEaSUREs data include maps of wetland extent, vegetation type, and inundation dynamics. RAMP data include imagery of the entire Antarctic continent at 25 m resolution and ice velocity products.

Data Access

- For search and order, go to Reverb: <https://reverb.echo.nasa.gov>
- For Vertex, ASF's Data Portal: <https://vertex.daac.asf.alaska.edu/>

References

- Sensing Our Planet, 2012, Leaking Lakes, <http://earthdata.nasa.gov/featured-stories/featured-research/leaking-lakes>
- Sensing Our Planet, 2011, Baja's Fault, <http://earthdata.nasa.gov/featured-stories/featured-research/bajas-fault>
- Sensing Our Planet, 2009, Drying in Denali, <http://earthdata.nasa.gov/featured-stories/featured-research/drying-denali>
- Sensing Our Planet, 2008, Sensing the swamp beneath the trees, <http://earthdata.nasa.gov/featured-stories/featured-research/sensing-swamp-beneath-trees>



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EODIS DAACs
ASF SAR DAAC is one of twelve NASA Earth Observing System Data and Information System (EODIS) Distributed Active Archive Centers (DAACs).

To learn more about data and tools available from EODIS, go to earthdata.nasa.gov.