

## **Soil Moisture Active Passive (SMAP) Data and Services at the NASA NSIDC DAAC**

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The NASA Soil Moisture Active Passive (SMAP) mission, launched on 31 January 2015, provides a capability for global mapping of soil moisture and freeze/thaw state with unprecedented accuracy, resolution, and coverage. The SMAP instrument includes both a radiometer and a synthetic aperture radar (SAR) operating at the L-band (1.20-1.41 GHz) and provides global coverage at the equator every 3 days. The SMAP mission will play a critical role in understanding the Earth's water and energy cycles, improving weather and climate forecasting, and developing disaster prediction and monitoring services.

The NASA Distributed Active Archive Centers (DAACs) at the National Snow and Ice Data Center (NSIDC) and the Alaska Satellite Facility (ASF) are jointly distributing and supporting SMAP data products. The DAACs draw upon their unique expertise – NSIDC with cryospheric and remotely-sensed soil moisture data and ASF with SAR data – as well as their shared technologies to provide synergistic data access and support for SMAP products.

NSIDC DAAC provides distribution and support of the SMAP Level-1 radiometer products, the Level-2 through Level-4 soil moisture products, the Level-3 freeze/thaw product, and the Level-4 carbon net ecosystem exchange product. By leveraging NASA Earth Science Data and Information System (ESDIS) data systems, NSIDC DAAC provide data discovery, access, and visualization services for SMAP that are common across all NASA Earth science data archived at the DAACs. NSIDC DAAC also provides custom services aimed at meeting the unique needs of their SMAP user communities. This presentation strives to educate and expand the SMAP user community as well as engage with current and potential users for areas of opportunity in the support and services that NSIDC DAAC provides.