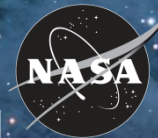


National Aeronautics and Space Administration



Soil Moisture
Active Passive
Mission

SMAP

Science Cal/Val

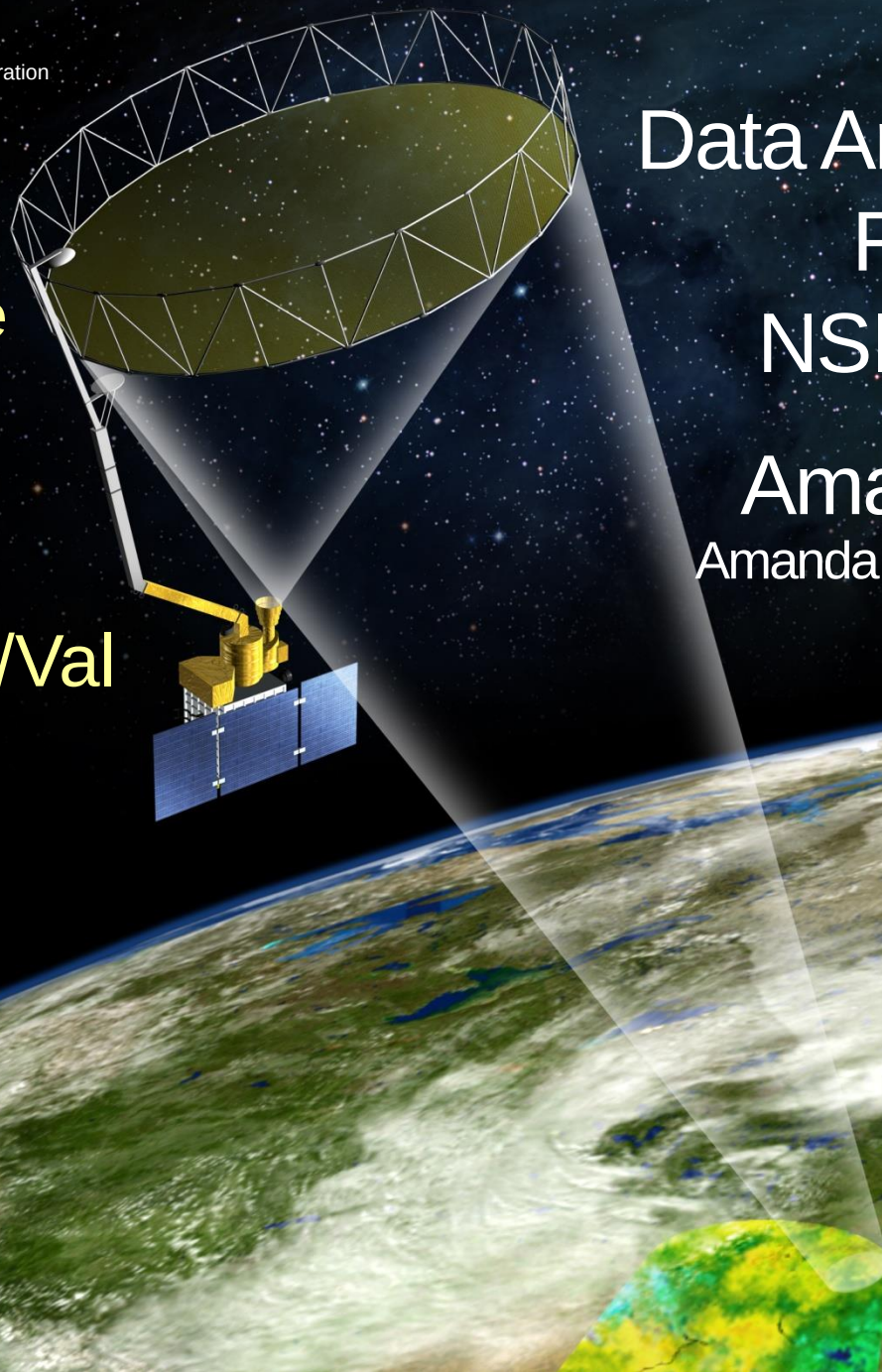
Sept 1-3, 2015

Columbia, MD

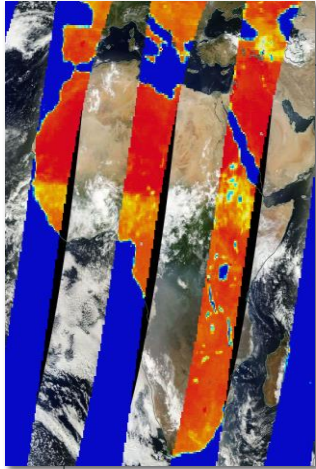
Data Archival and
Resources:
NSIDC DAAC

Amanda Leon

Amanda.Leon@nsidc.org
NSIDC DAAC

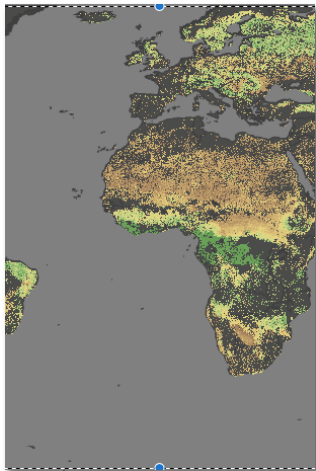


SMAP Data at NSIDC DAAC



Publicly Distributed Data

- Beta L1 radiometer products
- SMAP validation campaigns



Restricted Distribution Data

- Pre-beta L2/L3/L4 products
 - SDS Ops
 - OASIS
- Cal/Val Core site data

Public: Beta Releases

- Beta release of L1 radiometer products occurred on July 31
- Reprocessing of Beta L1 radiometer data back to March 31 has completed and will be announced to users this week
- Working with ADT and SDS for mid-September release of Beta L2 and L3 Soil Moisture Passive products
- Targeting Beta remaining L2, L3, and L4 products on October 31
 - Including the available Active and Active/Passive products

Public: NSIDC SMAP Web site

<http://nsidc.org/data/smap>



National Snow & Ice Data Center



DATA

RESEARCH

NEWS

ABOUT

SEARCH

Web pages



NASA Distributed Active Archive Center (DAAC) at NSIDC

SMAP Data

Soil Moisture Active Passive Data



Overview

Data Sets

[SMAP Data](#)

[Validation Data](#)

Data Versions

Tools

FAQ

Data Announcements

Published Research

Overview

The NASA National Snow and Ice Data Center Distributed Active Archive Center (NSIDC DAAC) and the NASA Alaska Satellite Facility Distributed Active Archive Center (ASF DAAC) jointly manage

SMAP science data on behalf of the [NASA ESDIS Project](#). Currently, the NSIDC DAAC distributes validation campaign data and Level-1 science data for the SMAP mission. In the coming



T Minus Zero

The SMAP observatory was launched into space on 31 January 2015 from California's Vandenberg Air Force Base, marking the beginning of its three-year mission.

[Read more ...](#)

RELATED RESOURCES

[SMAP Handbook](#)

Essential information on the programmatic, technological, and scientific aspects of SMAP data and the mission.

[SMAP Radar Data at the ASF DAAC](#)

[SMAP Information at NASA](#)

[SMAP Information at IPI](#)

Public: Beta L1 Radiometer

Product	CRID	Time Period	Overview
SPL1A	R11850	3/31/15 – present	http://nsidc.org/data/spl1ap/
SPL1BTB	R11850	3/31/15 – present	http://nsidc.org/data/spl1btb/
SPL1CTB	R11850	3/31/15 – present	http://nsidc.org/data/spl1ctb/

Access Method	Description
FTP ftp://n5eil01u.ecs.nsidc.org/SAN/SMAP	• Direct download of HDF5 data files (Will be phased out for HTTPS)
Reverb http://reverb.echo.nasa.gov/reverb	• Spatial & Temporal searches • Spatial or Parameter subsetting
WorldView https://earthdata.nasa.gov/labs/worldview	• Full-resolution imagery - Uncorrected TBs, Faraday Rotation Angle
Subscription http://nsidc.org/daac/subscriptions.html	• Automated delivery of data to after receipt at NSIDC
OPeNDAP Not yet publicized; contact NSIDC if this would be useful for Cal/Val activities	• API access and DAP responses • Webification response

Public: Beta L1 Radiometer

Data distributed since July 31, 2015

Product	Files	Distinct User IPs
SPL1AP	357	15
SPL1BTB	21436	35
SPL1CTB	23529	50
	45,322	100

Public: Validation Campaign

Product	Time Period	Overview
CLASIC 2007	Jun - Jul 2007	http://nsidc.org/data/smap/validation/val-data.html
SMAPVEX08	Sept – Oct 2008	
SMAPVEX12	Jun – Jul 2012	

Access Method	Description
FTP ftp://n5eil01u.ecs.nsidc.org/SAN/SMAP_VAL/	• Direct download of HDF5 data files
Reverb http://reverb.echo.nasa.gov/reverb	• Spatial & Temporal searches
OPeNDAP Not yet publicized; contact NSIDC if this would be useful for Cal/Val activities	• API access and DAP responses • Webification response

Restricted: Data Policies

Data	Approved for access
Pre-beta (Series Version 1)	• Science Team • Cal/Val Partners • Authorized Users • Pre-beta approved Early Adopters
OASIS (Series Version 199)	• Science Team • Cal/Val Partners • Authorized Users
Cal/Val Core site data	• Cal/Val Partners
Standard mission data	• Public *Per data release schedule
GloSim simulated data	• Early Adopters * Until mission data is public

Requesting data access:

Science Team

- Simon Yueh and Barry Weiss

Cal/Val Partners

- Andreas Colliander

Early Adopters

- Susan Moran
- Vanessa Escobar

Restricted: NSIDC SMAP Web site

<https://nsidc.org/data/smap/restricted-data>

[Data Discovery](#) ▾
 [DAACs](#) ▾
 [Community](#) ▾
 [Science Disciplines](#) ▾


[National Snow & Ice Data Center](#)

[DATA](#)
[RESEARCH](#)
[NEWS](#)
[ABOUT](#)
[SEARCH](#)
[Web pages](#) ▾

NASA Distributed Active Archive Center (DAAC) at NSIDC
SMAP Restricted Data
 Soil Moisture Active Passive Data for SMAP-Approved Data Users

Overview

Instrument Data

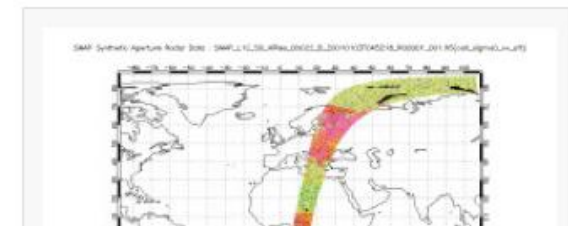
Simulation Data

Validation Data

Tools

Overview

The NASA National Snow and Ice Data Center Distributed Active Archive Center (NSIDC DAAC) archives and distributes a variety of Soil Moisture Active Passive (SMAP) simulation and validation data for SMAP-approved data users.



Restricted: EarthData Account (URS)

- You must log in with an EarthData user access restricted data through HTTPS or Reverb
- You can create or confirm your EarthData user name here: <https://urs.earthdata.nasa.gov/users/new>
- If creating a new user name, please email it to nsidc@nsidc.org in order to establish access to the data for your account

Restricted: Pre-Beta L2/L3/L4

Produced in SDS Ops environment. Series/Major Version = 1

Product	Most recent CRID	Time Period*	Overview
SPL2SMA	R11850	3/31/15 – 7/31/15	https://nsidc.org/smap/restricted-data/instrument-data
SPL2SMAP	R11850	3/31/15 – 7/30/15	
SPL2SMP	R11850	3/31/15 – 9/1/15	
SPL3SMA	R11850	3/31/15 – 9/1/15	
SPL3SMAP	R11850	3/31/15 – 9/1/15	
SPL3SMP	R11850	3/31/15 – 9/1/15	
SPL3FT	R11650	3/31/15 – 7/27/15	
SPL4MAU	V10002	3/31/15 – 8/29/15	
SPL4SMGP	V10002	3/31/15 – 8/29/15	
SPL4SMLM	V10002	3/31/15, 6/16/15	
SPL4CMDL	V10002	4/13/15 – 7/30/15	

Access Method	Description
HTTPS https://n5eil01u.ecs.nsidc.org/SMAP_PREBETA/	• Direct download of HDF5 data file • EarthData (URS) log in required
Reverb http://reverb.echo.nasa.gov/reverb	• Spatial & Temporal searches • EarthData (URS) log in required

Restricted: OASIS L2/L3/L4

Produced in SDS OASIS environment. Series/Major Version = 199

Product	Most recent CRID	Time Period	Overview
SPL2SMA	T11630	4/13/15 – 5/31/15	https://nsidc.org/smap/restricted-data/instrument-data
SPL2SMAP	T11630	4/13/15 – 5/31/15	
SPL2SMP	T11880	3/31/15 – 8/18/15	
SPL3SMA	T11630	4/13/15 – 5/31/15	
SPL3SMAP	T11630	4/13/15 – 5/31/15	
SPL3SMP	T11880	3/31/15 – 8/18/15	
SPL3FT	T11630	4/13/15 – 5/31/15	

Access Method	Description
HTTPS https://n5eil01u.ecs.nsidc.org/SMAP_PREBETA/	• Direct download of HDF5 data file • EarthData (URS) log in required
Reverb http://reverb.echo.nasa.gov/reverb	• Spatial & Temporal searches • EarthData (URS) log in required

Restricted: Cal/Val Core Site Data

- Core site data managed by Andreas on NSIDC FTP site
- Data may be accessed via a web browser at the following URL to approved users:
- ftp://smap_calval@sidads.colorado.edu/Core_Site/

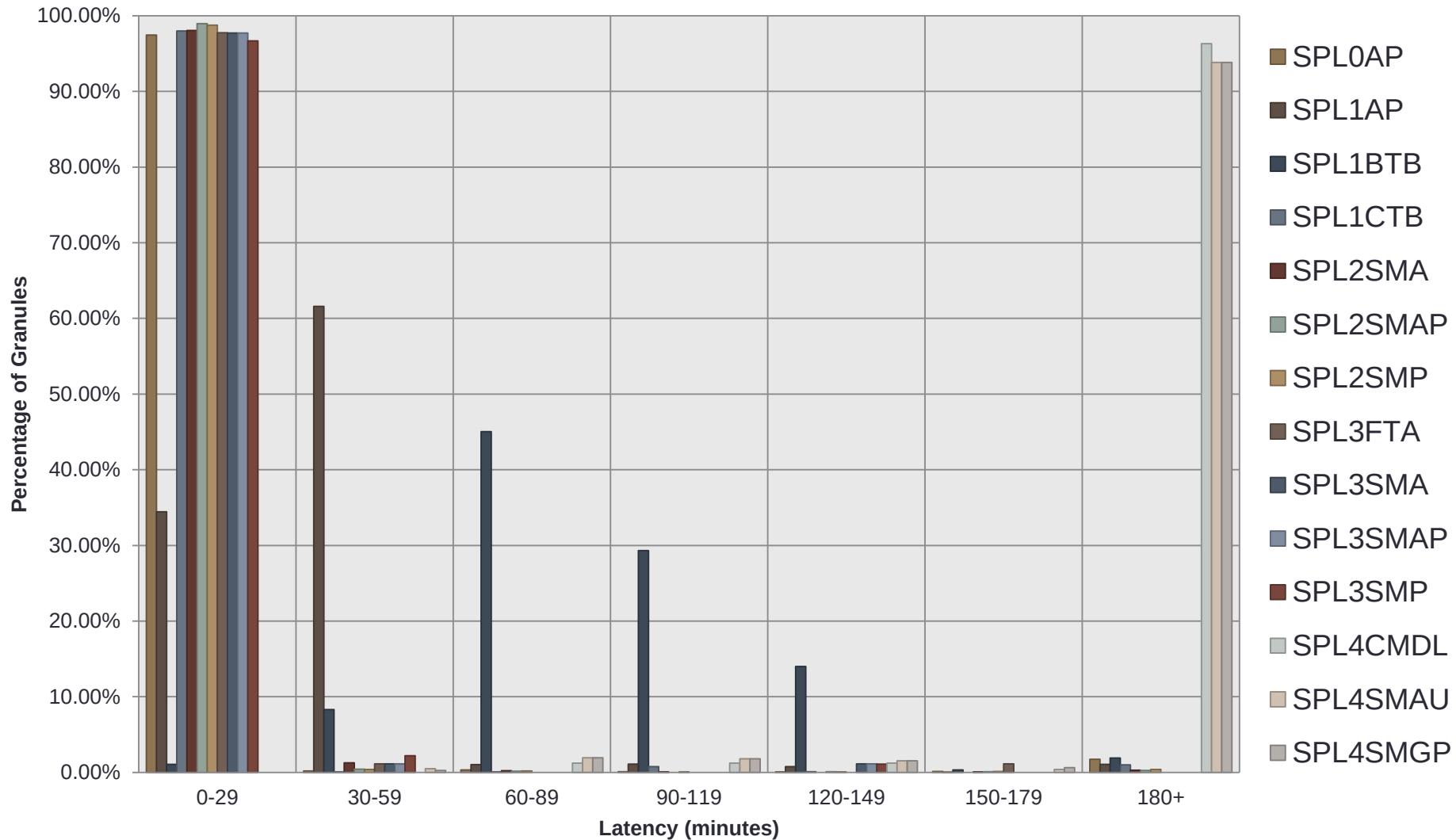
Data Latency

- Analyzed ingest from 2/12/15 to 7/9/15
 - 16K+ files ingested
- Time from SDS file production to user availability on NSIDC server
- L4 latency result of verification step prior to staging data for NSIDC

Product	Average Latency (minutes)
SPL0AP	46.42
SPL1AP	39.38
SPL1BTB	95.88
SPL1CTB	8.21
SPL2SMA	8.37
SPL2SMAP	4.25
SPL2SMP	4.52
SPL3FTA	9.13
SPL3SMA	9.24
SPL3SMAP	4.00
SPL3SMP	3.85
SPL4CMDL	18,280.60
SPL4SMAU	22,182.61
SPL4SMGP	22,185.57

Data Latency

Latency Histogram by Product



NSIDC DAAC's SMAP Team

Role	Function
Data Management Lead <i>Amanda Leon</i>	• Oversees mission activities at NSIDC • Coordinates with external groups
Science Liaison <i>Siri Jodha Singh Khalsa</i>	• Provides scientific and data product expertise
User Services Representative <i>Shannon Leslie</i> <i>nsidc@nsidc.org</i>	• Supports users with data usage, tools, and general support • nsidc@nsidc.org
Data Operations Technician <i>Daniel Crumly</i>	• Maintains ingest, archival and distribution data systems • Ensures data integrity
Technical Writer <i>Karla LeFevre</i>	• Creates product user guides, metadata, and Web pages
Software Developers	• Develop tools and services for data access and usage