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# Sesión tres: Cómo acceder a datos de “Soil Moisture Active Passive” (SMAP)

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September 15, 2016

\*Centro nacional de datos de la nieve y del hielo

# SMAP- Opciones de acceso a datos

Busqueda de datos, documentación y acceso: NSIDC

NSIDC National Snow & Ice Data Center

Scientific Data Search

spl3smp

From yyyy-mm-dd to yyyy-mm-dd

Showing 1-25 of 41 Data Sets

Sort by: Relevance (highest to lowest) Per page: 25

Parameter

- Active Layer (1)
- Antenna Temper... (1)
- Bathymetry (1)
- Biosphere (1)
- Brightness Tem... (12)
- Elevation (2)
- Freeze/Thaw (1)
- Ice Depth/Thick... (3)
- Ice Topography (1)
- Infrared Imagery... (4)

SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture

Temporal Coverage 2015-03-31 to continuous

Parameter Brightness Temperature | Soil Moisture

Data Format HDF5

Summary This Level-3 (L3) soil moisture product provides a composite of daily estimates of global land surface conditions retrieved by the Soil Moisture Active Passive (SMAP) passive ...More Detail

SMAP L2 Radiometer Half-Orbit 36 km EASE-Grid Soil Moisture

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

Visualización y descarga de datos: Worldview

NASA WORLDVIEW

Layers Events Data

OVERLAYS

- Soil Moisture (L3, Passive) SMAP / Radiometer
- Place Labels
- Coastlines / Borders / Roads
- Coastlines

BASE LAYERS

Corrected Reflectance (True Color)

<https://worldview.earthdata.nasa.gov>

Acceso a datos y personalización de productos: Earthdata Search

EARTHDATA

Search spl3smp

Temporal Spatial Clear Filters

Back to Collections

SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003

Retrieve Collection Data

Showing 20 of 497 matching granules

Sort by: Start Date, Newest first

SMAP\_L3\_SM\_P\_20160815\_R13080\_001.h5

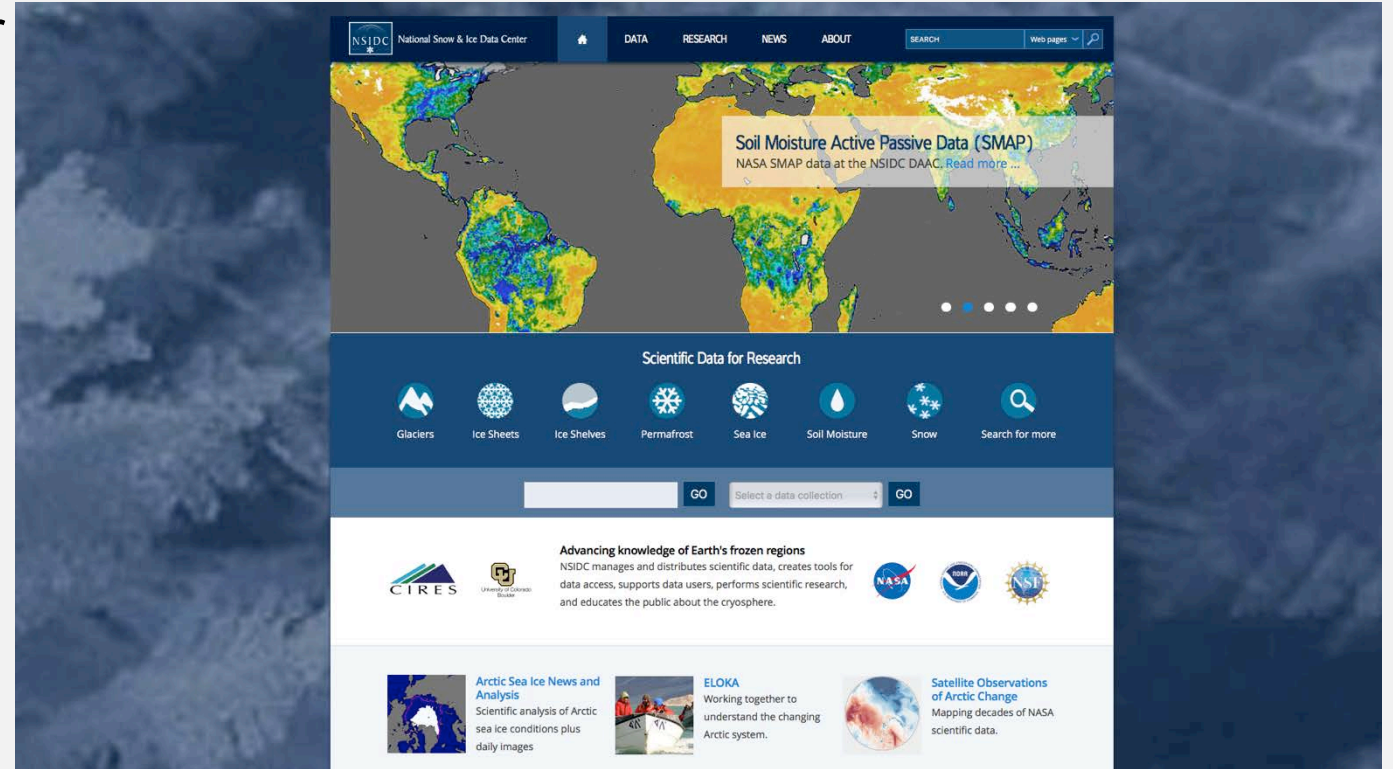
2016-08-15T00:00:00Z to 2016-08-15T23:59:59Z

<https://search.earthdata.nasa.gov>

# Descubriendo datos de SMAP en el NSIDC

<http://nsidc.org/>

- NASA National Snow & Ice Data Center (NSIDC)\* es un Distributed Active Archive Center (DAAC)\*\*
- 1 de 12 DAACs del “Earth Observing System Data and Information System” (EOSDIS) de la NASA
- Distribuye casi 500 conjuntos de datos de la NASA
  - principalmente enfocados en la criósfera
- Después de la introducción, haremos un recorrido de la búsqueda de datos científicos “Scientific Data Search” del NSIDC



\*Centro nacional de datos de la nieve y del hielo

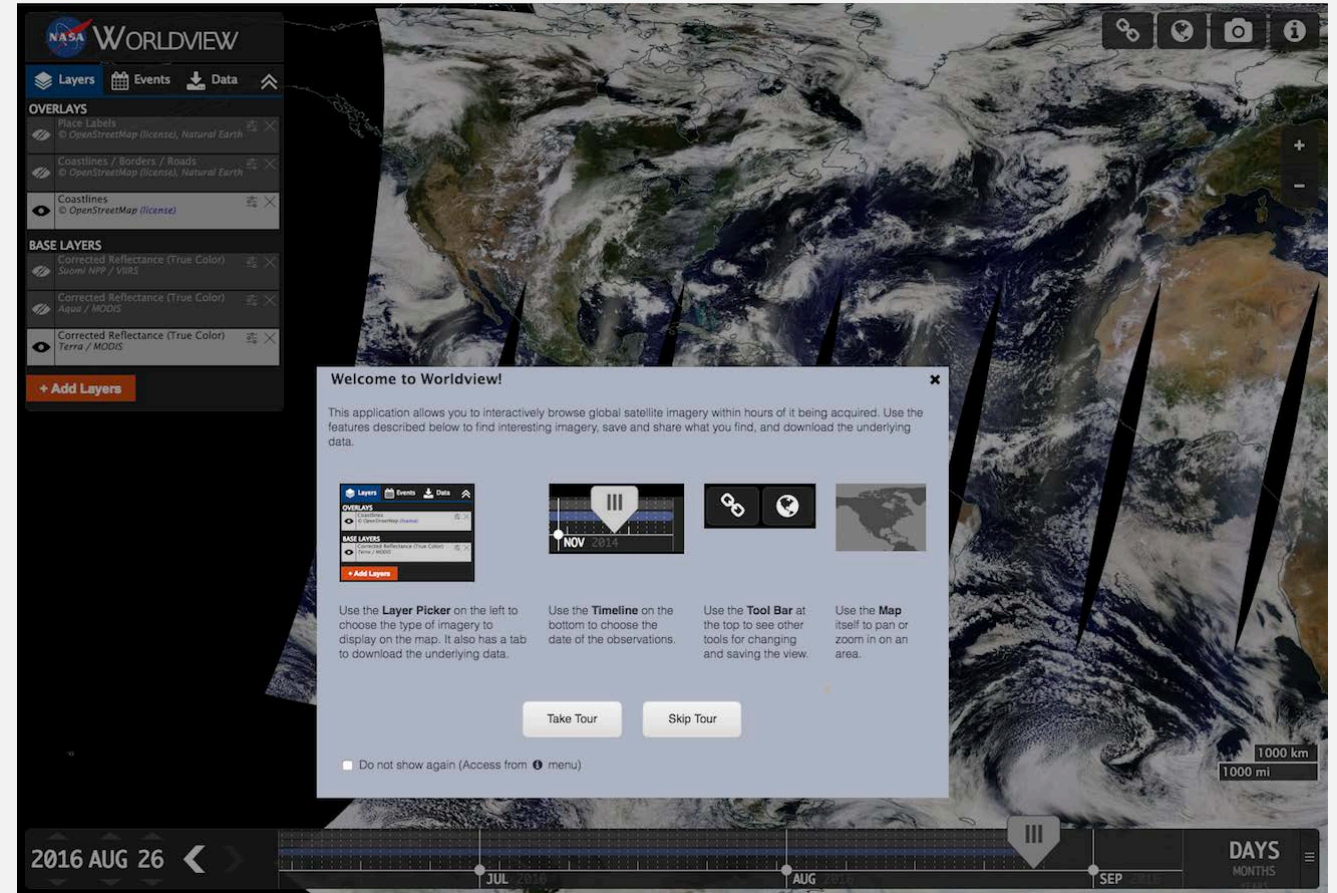
\*\*Centro activo de archivos distribuidos



# Explorando datos de SMAP en Worldview de la NASA

<http://worldview.earthdata.nasa.gov/>

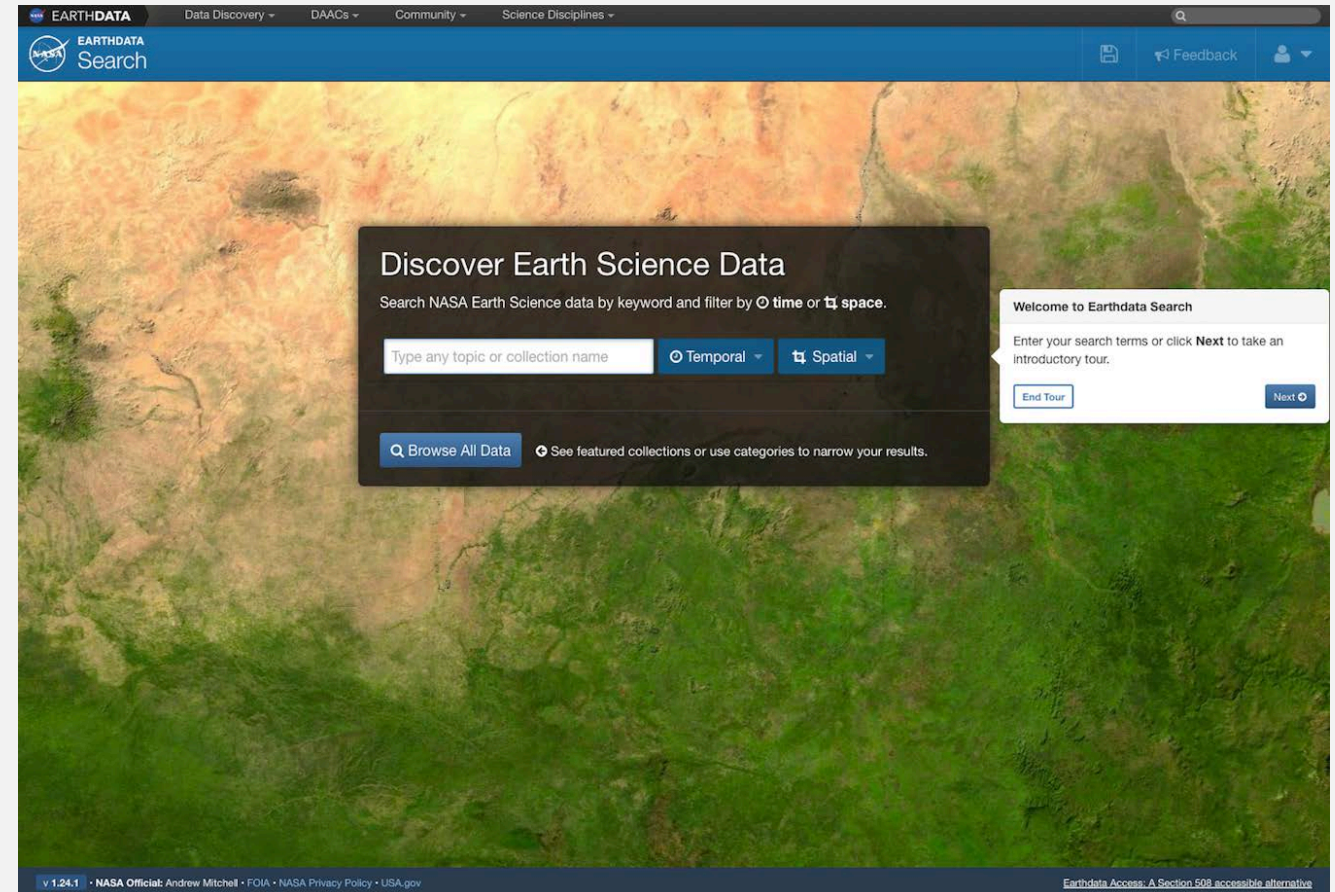
- Worldview ofrece la capacidad de revisar imágenes satelitales globales de resolución completa y de descargar los archivos de datos subyacentes e imágenes
- Usa “Global Imagery Browse Services” (GIBS)
- La mayoría de los 100+ productos disponibles están actualizados dentro de 3 horas de observación
- Después de la demostración de descubrimiento de y acceso a los datos de SMAP y el NSIDC, haremos un recorrido de Worldview



# Acceso a datos de SMAP con el Earthdata Search de NASA

<http://search.earthdata.nasa.gov/search>

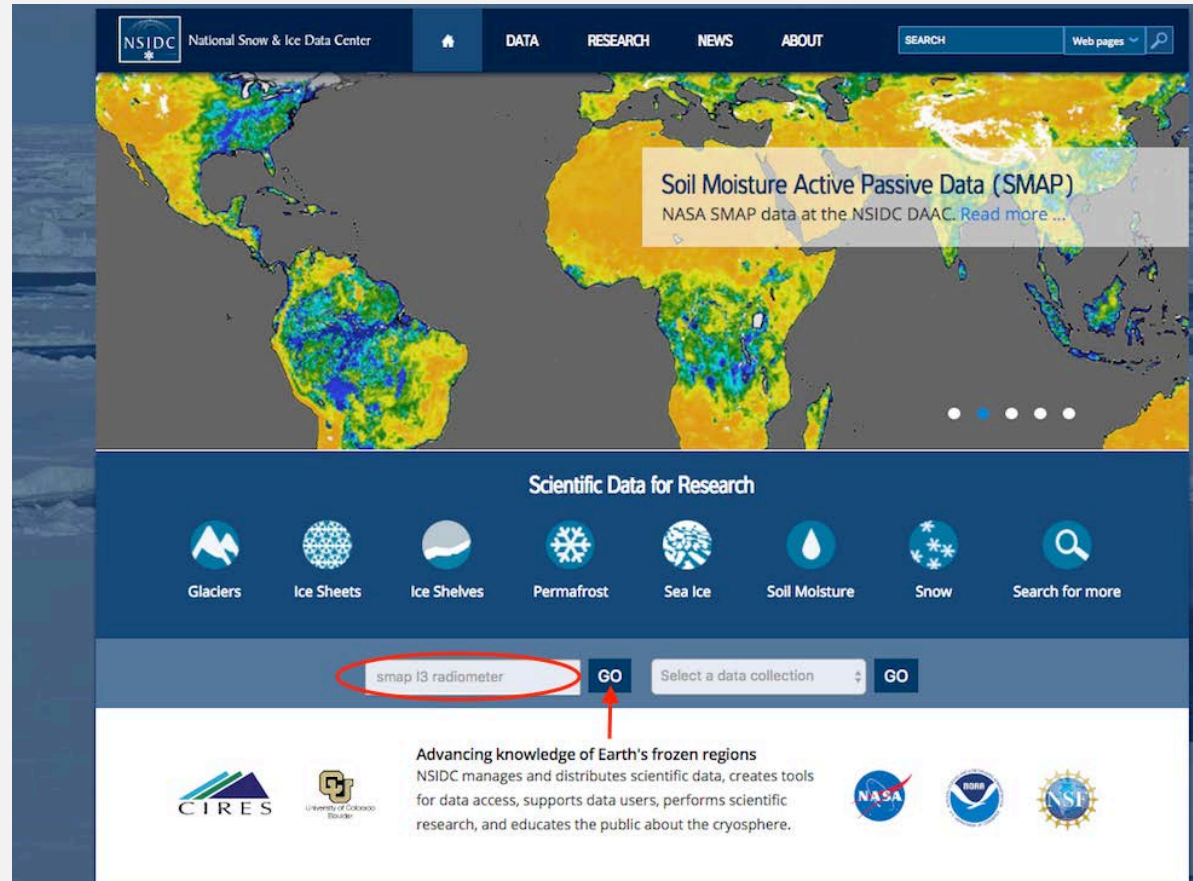
- Conecta a usuarios con sus datos al hacer disponible la búsqueda y descubrimiento de datos y el acceso a ellos en una sola aplicación
- Ofrece la habilidad de buscar entre varias disciplinas y diferentes DAACs
- Para la última demostración en vivo, repasaremos
  - las opciones de filtración de la interfaz para optimizar una búsqueda del “SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture” (SPL3SMP)
  - opciones para ordenar y formar subconjuntos de datos disponibles





# Descubriendo los datos de SMAP en el NSIDC

<http://nsidc.org>



The screenshot shows the NSIDC (National Snow & Ice Data Center) website. At the top, there is a navigation bar with links for DATA, RESEARCH, NEWS, and ABOUT, along with a search bar. Below the navigation bar is a large map of the world displaying soil moisture data. A text box over the map reads "Soil Moisture Active Passive Data (SMAP) NASA SMAP data at the NSIDC DAAC. Read more ...". Below the map is a section titled "Scientific Data for Research" with icons for Glaciers, Ice Sheets, Ice Shelves, Permafrost, Sea Ice, Soil Moisture, and Snow, plus a "Search for more" button. At the bottom of this section is a search bar containing the text "smap l3 radiometer" (circled in red) and a "GO" button. Below the search bar is a footer with logos for CIRES, University of Colorado Boulder, NASA, NOAA, and NSIDC, and a paragraph of text: "Advancing knowledge of Earth's frozen regions NSIDC manages and distributes scientific data, creates tools for data access, supports data users, performs scientific research, and educates the public about the cryosphere."

# Descubriendo los datos de SMAP en el NSIDC

<http://nsidc.org>

El pulsar en el nombre del conjunto de datos en los resultados de búsqueda le llevará a la página del catálogo de esa colección.

The screenshot shows the NSIDC website search results for the query "smap l3 radiometer". The page features a navigation bar with "DATA", "RESEARCH", "NEWS", and "ABOUT" tabs. A search bar at the top contains the query "smap l3 radiometer" and a "Search" button. Below the search bar, there are filters for "Spatial Coverage" (Show Global Only), "Temporal Duration" (< 1 year, 1+ years, 5+ years), "Format" (HDF/HDF-EOS), "Sensor" (AMSR-E, AQUARIUS\_RA..., SMAP L-Band R..., SMAP L-Band R...), and "Program" (NASA NSIDC D...). The search results are displayed in a list of 8 data sets, sorted by relevance. The first two results are highlighted with red arrows pointing to their "Get Data" buttons. The first result is "SMAP L3 Radar/Radiometer Global Daily 9 km EASE-Grid Soil Moisture" with a "Get Data" button. The second result is "SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture" with a "Get Data" button. A tooltip is visible over the second "Get Data" button, showing options: FTP, Reverb, Worldview, Subscription, HTTPS, and Earthdata Search. The third result is "AMSR-E/Aqua Daily L3 Surface Soil Moisture, Interpretive Parameters, & QC EASE-Grids" with a "Get Data" button. The fourth result is "Aquarius L3 Gridded 1-Degree Weekly Soil Moisture" with a "Get Data" button.

# Descubriendo los datos de SMAP Data en el NSIDC

<http://nsidc.org>

Desde la página del catálogo, Ud. puede usar la opción de conseguir datos (Get Data) para descargar, visualizar y personalizar su orden de datos

También notará que hay un panorama de los datos en la colección. El pulsar en las diferentes pestañas resaltará cómo citar estos datos, le proporcionará una guía para usuarios e informará cómo comunicarse con el NSIDC para ayuda

**NSIDC** National Snow & Ice Data Center

Data Set ID: SPL3SMP  
**SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture, Version 3**

This Level-3 (L3) soil moisture product provides a composite of daily estimates of global land surface conditions retrieved by the Soil Moisture Active Passive (SMAP) passive microwave radiometer. SMAP L-band soil moisture data are resampled to a global, cylindrical 36 km Equal-Area Scalable Earth Grid, Version 2.0 (EASE-Grid 2.0).

Version Summary: [See more](#)

Print version

**Get Data**  
Download  
Visualize  
Package

**Geographic Coverage**

Overview | Citing These Data | User Guide | Support

Spatial Coverage:	N: 85.044, S: -85.044, E: 180, W: -180
Spatial Resolution:	36 km x 36 km
Temporal Coverage:	31 March 2015 to present
Temporal Resolution:	1 day
Parameter(s):	Microwave > Brightness Temperature Soils > Soil Moisture/Water Content > Soil Moisture
Platform(s):	SMAP Observatory
Sensor(s):	SMAP L-Band Radiometer
Data Format(s):	HDF5
Version:	V3
Data Contributor(s):	O'Neill, P. E., S. Chan, E. G. Njoku, T. Jackson, and R. Bindlish.
Metadata XML:	<a href="#">View Metadata Record</a>

### How to download data

#### DOWNLOADING DATA VIA FTP

Data can be downloaded through a Web browser or command line via FTP. When using a Web browser, the FTP link first directs you to an Optional Registration Form that if filled out, will allow you to receive notifications about updates or processing changes related to that specific data set. After completing the Optional Registration Form, the FTP directory becomes available. For additional help downloading data through an FTP client, go to User Services Online Support: [FTP Client Data Access Web page](#).

FTP

#### DOWNLOADING DATA VIA HTTPS

Downloading data via HTTPS requires registration with NASA Earthdata Login. Once you have registered and logged in, data can be downloaded via a Web browser, command line, or client. Your NASA Earthdata Login will work at other NASA Earth Observing System Data and Information System (EOSIS) Web sites, such as NASA Earthdata and NASA Reverb.

HTTPS

#### Get Data: Visualize

**Worldview:** This application allows you to interactively browse global satellite imagery within hours of it being acquired. You can also save it, share it, and download the underlying data.

#### Get Data: Package

**Reverb:** NASA search and order tool for subsetting, reprojecting, and reformatting data.

**NOTE:** Reverb will be decommissioned in the coming months and replaced with Earthdata Search. All links to Reverb will be removed at that time.

**Subscription Service:** Subscribe to have new data automatically sent when the data become available.

**Earthdata Search:** NASA's newest search and order tool for subsetting, reprojecting, and reformatting data.



# Descubriendo los datos de SMAP en el NSIDC

<http://nsidc.org>

National Snow & Ice Data Center

DATA RESEARCH NEWS ABOUT

SEARCH Web pages

Data Set ID: SPL3SMP

## SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture, Version 3

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Version Summary: [See more](#)

Print version

Overview **Citing These Data** User Guide Support

### Data Citation

As a condition of using these data, you must cite the use of this data set using the following citation. For more information, see our [Use and Copyright](#) Web page.

O'Neill, P. E., S. Chan, E. G. Njoku, T. Jackson, and R. Bindlish. 2016. *SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture, Version 3*. [Indicate subset used]. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. doi: <http://dx.doi.org/10.5067/7MINGFDCZTES>. [Date Accessed].

Find Data Stay Current Learn About Snow and Ice Get Help

Search NSIDC Data	Arctic Sea Ice News and Analysis	Icelights: Answers to Your Questions	Knowledge Base
Reverb (NASA)	Sea Ice Index (Passive microwave satellite data)	Cryosphere Quick Facts	Ask Us
IceBridge Portal	MASIE (Daily sea ice extent, multi-source)	All About Glaciers	Etc.
Data Pool (Direct FTP for select data)	Greenland Today	All About Snow	Use & Copyright
Data Collections List	Newsroom	All About Sea Ice	Web Policy
		Arctic Climatology - A Primer	Jobs

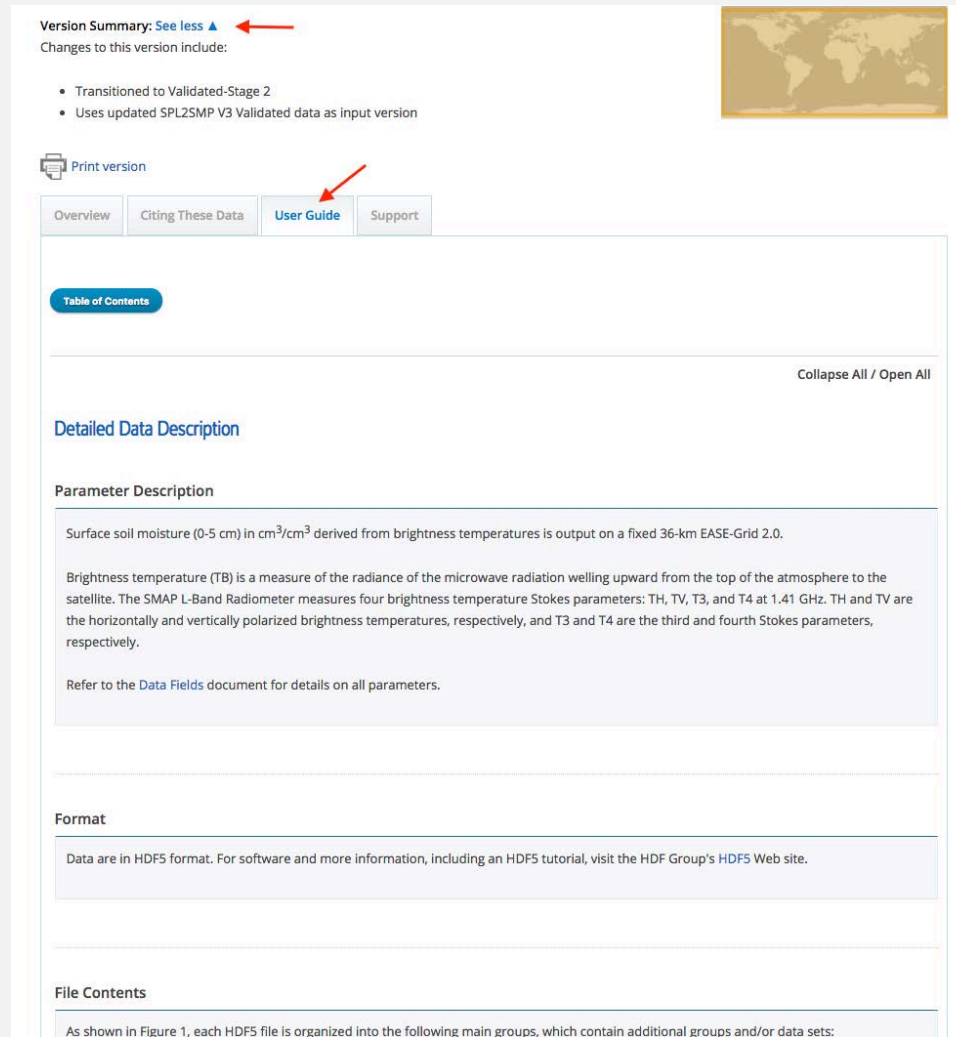
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WORLD DATA CENTER CRES UNIVERSITY OF COLORADO BOULDER

# Descubriendo los datos de SMAP en el NSIDC


<http://nsidc.org>




Version Summary: [See less ▲](#)

Changes to this version include:

- Transitioned to Validated-Stage 2
- Uses updated SPL2SMP V3 Validated data as input version



 Print version

Overview Citing These Data **User Guide** Support

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[Collapse All / Open All](#)

### Detailed Data Description

#### Parameter Description

Surface soil moisture (0-5 cm) in  $\text{cm}^3/\text{cm}^3$  derived from brightness temperatures is output on a fixed 36-km EASE-Grid 2.0.

Brightness temperature (TB) is a measure of the radiance of the microwave radiation welling upward from the top of the atmosphere to the satellite. The SMAP L-Band Radiometer measures four brightness temperature Stokes parameters: TH, TV, T3, and T4 at 1.41 GHz. TH and TV are the horizontally and vertically polarized brightness temperatures, respectively, and T3 and T4 are the third and fourth Stokes parameters, respectively.

Refer to the [Data Fields](#) document for details on all parameters.

#### Format

Data are in HDF5 format. For software and more information, including an HDF5 tutorial, visit the HDF Group's [HDF5 Web site](#).

#### File Contents

As shown in Figure 1, each HDF5 file is organized into the following main groups, which contain additional groups and/or data sets:

# Descubriendo los datos de SMAP en el NSIDC

<http://nsidc.org>

Overview Citing These Data **User Guide** Support

[Table of Contents](#)

- Detailed Data Description
  - Parameter Description
  - Format
  - File Contents
    - Soil Moisture Retrieval Data
    - Data Fields
    - Metadata Fields
  - File Naming Convention
  - File Size
  - Volume
  - Spatial Coverage
  - Spatial Resolution
  - Projection and Grid Description
    - EASE-Grid 2.0
  - Temporal Coverage
    - Temporal Coverage Gaps
      - Satellite and Processing Events
      - Forward Processing and Reprocessing
    - Latencies
  - Temporal Resolution
- Software and Tools
- Data Acquisition and Processing
  - Sensor or Instrument Description
  - Data Source
  - Theory of Measurements
  - Derivation Techniques and Algorithms
  - Processing Steps
  - Error Sources
  - Quality Assessment
    - Quality Overview
    - Data Flags
- References and Related Publications
- Contacts and Acknowledgments
- Document Information

[Collapse All / Open All](#)

[Detailed Data Description](#)



# Descubriendo los datos de SMAP en el NSIDC

<http://nsidc.org>

The screenshot shows the NSIDC website interface for the SMAP L3 Radiometer data. The page title is "SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture, Version 3". The main content area includes a description of the data, a "Get Data" section with "Download", "Visualize", and "Package" buttons, and a "Geographic Coverage" map. A navigation menu at the bottom of the main content area has tabs for "Overview", "Citing These Data", "User Guide", and "Support", with a red arrow pointing to the "Support" tab. Below the navigation menu, there is a "Questions? Please contact:" section with contact information for NSIDC User Services.

NSIDC National Snow & Ice Data Center

DATA RESEARCH NEWS ABOUT

SEARCH Web pages

Data Set ID: SPL3SMP

**SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture, Version 3**

This Level-3 (L3) soil moisture product provides a composite of daily estimates of global land surface conditions retrieved by the Soil Moisture Active Passive (SMAP) passive microwave radiometer. SMAP L-band soil moisture data are resampled to a global, cylindrical 36 km Equal-Area Scalable Earth Grid, Version 2.0 (EASE-Grid 2.0).

Version Summary: [See more](#)

Print version

Overview Citing These Data User Guide **Support**

Questions? Please contact:  
NSIDC User Services  
Phone: 1 303 492-6199  
Email: [nsidc@nsidc.org](mailto:nsidc@nsidc.org)

**Find Data**  
Search NSIDC Data  
Reverb (NASA)  
IceBridge Portal  
Data Pool (Direct FTP for select data)  
Data Collections List

**Stay Current**  
Arctic Sea Ice News and Analysis  
Sea Ice Index (Passive microwave satellite data)  
MASIE (Daily sea ice extent, multi-source)  
Greenland Today  
Newsroom

**Learn About Snow and Ice**  
Icelights: Answers to Your Questions  
Cryosphere Quick Facts  
All About Glaciers  
All About Snow  
All About Sea Ice  
Arctic Climatology - A Primer

**Get Help**  
Knowledge Base  
Ask Us  
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Jobs

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NSIDC  
WORLD DATA CENTER  
CIRES  
University of Colorado Boulder

# Herramientas que trabajan con datos de SMAP de formato HDF5

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

El formato nativo de los archivos de datos de SMAP es el HDF5. El NSIDC ofrece una página de herramientas con un par de herramientas para la fácil visualización de los archivos HDF5: HDFView y Panoply.

Para la colección SPL3SMP, las opciones de Earthdata Search permiten el reformateo de los archivos como:

GeoTIFF, ASCII, NetCDF-3, NetCDF4-CF, KML y HDF-EOS5

Para una tabla detallada de los servicios de formación de subconjuntos, reformateo y reproyección disponibles para colecciones de MAP, por favor vea::

<https://support.nsidc.org/entries/97456598-What-data-subsetting-reformatting-and-reprojection-services-are-available-for-SMAP-data->

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  
FAQs  
How Tos  
Data Announcements  
Published Research  
SMAP Data  
Validation Data  
Technical References

Tools

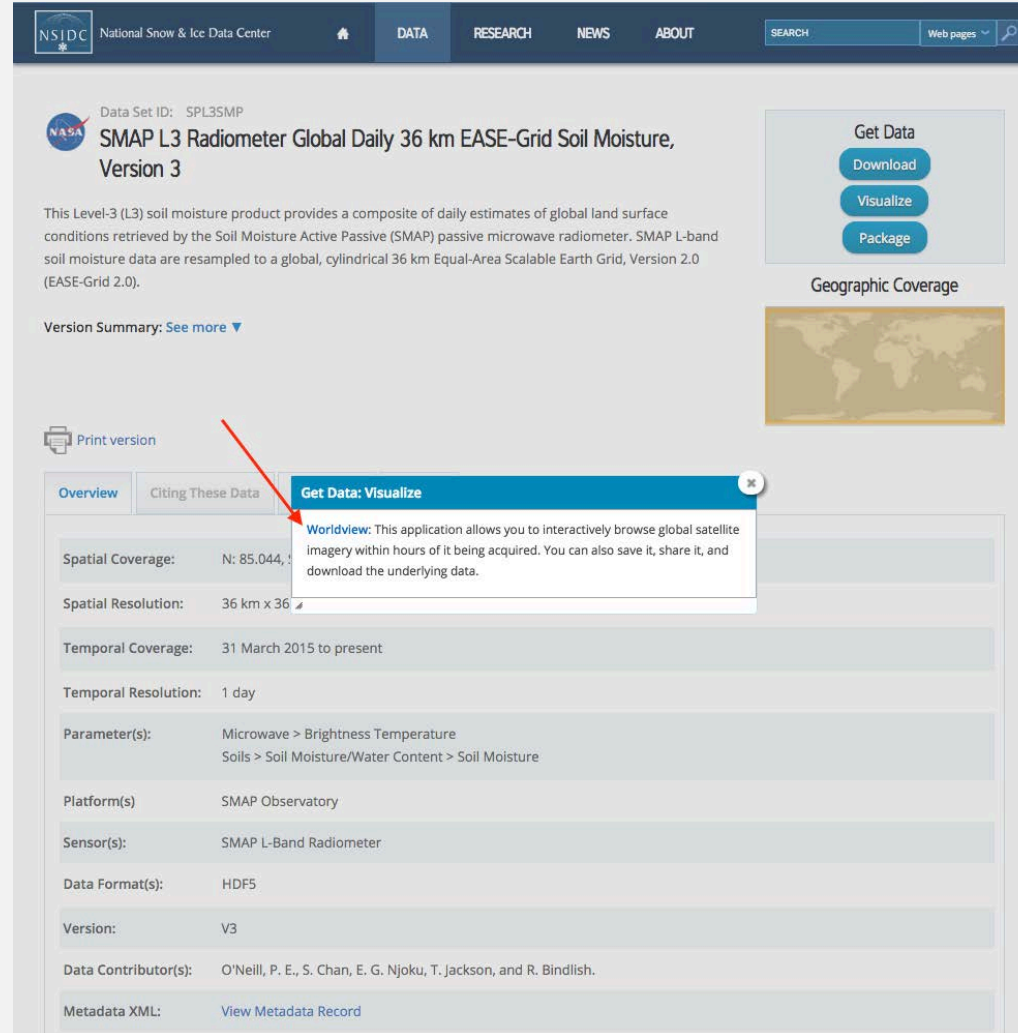
The following table lists the tools that work with SMAP HDF5-formatted data.

Tool	Description
HDFView	Visual tool for browsing and editing HDF4 and HDF5 files.
HDF-EOS Tools and Information Center	Provides example code for accessing and visualizing SMAP data in MATLAB, Python, IDL, and NCL.
Worldview	NASA visualization tool for browsing full-resolution imagery and downloading the underlying data.
Earthdata Search	NASA's newest search and order tool for subsetting, reprojecting, and reformatting data.
Reverb   ECHO	NASA search and order tool for subsetting, reprojecting, and reformatting data. Note that Reverb has been replaced by a newer tool—Earthdata Search—and will soon be decommissioned.
EASE-Grid Data Web Site	Provides tools and documentation for working with EASE-Grid data.
Panoply netCDF, HDF, and GRIB Data Viewer	Cross-platform application that plots geo-gridded arrays from netCDF, HDF, and GRIB data sets.
NASA LARC Satellite Overpass Predictor	An interactive tool that allows users to estimate when the SMAP satellite has passed, or will pass, over an area of the Earth. Users specify latitude and longitude or select a location on the map for which to calculate a 5-day sequence of satellite overpasses. All overpasses are returned for which the specified location falls within the 1000 km SMAP swath centered on the nadir track. Note: Predictions beyond 15 days should not be used as they become increasingly less accurate as a function of time. In general, predictions of up to five days provide a safe margin.  ABOUT THE ORBIT OVERPASS PREDICTOR ALGORITHM The prediction algorithm models the orbit based on the known position information from the latest two-line orbital elements (TLE) records obtained from the North American Aerospace Defense Command (NORAD). The TLE records contain the position sensed during the radar scan. Normally two records are created per day, but sometimes up to three are created. The model is factoring the earth's bulge and also the weight of the continents as there are more above the equator than below. The model does not factor for the positions of continents relative to the satellite nor air resistance due to the rotational motion of the satellite in the atmosphere.
SMAP Overflights Tool	Tool that allows users to compute a <i>simulated</i> 8-day sequence of satellite overpasses at a user's point location (latitude and longitude). All overpasses are listed for which the point location falls within the 1000 km SMAP swath centered on the nadir track. For orbit characteristics, visit the <a href="#">JPL SMAP Specifications</a> Web page.

# Descubriendo los datos de SMAP en el NSIDC

<http://nsidc.org>

Revisitemos el botón “Visualize”,  
pulsemos en  
Worldview y  
exploremos lo que  
esta aplicación tiene  
que ofrecer.



The screenshot shows the NSIDC website interface for the SMAP L3 Radiometer data. The page title is "SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture, Version 3". The "Get Data" section contains three buttons: "Download", "Visualize", and "Package". A red arrow points to the "Visualize" button, which has opened a tooltip titled "Get Data: Visualize". The tooltip text reads: "Worldview: This application allows you to interactively browse global satellite imagery within hours of it being acquired. You can also save it, share it, and download the underlying data." Below the tooltip is a table of metadata for the data set.

Field	Value
Spatial Coverage:	N: 85,044, ...
Spatial Resolution:	36 km x 36 km
Temporal Coverage:	31 March 2015 to present
Temporal Resolution:	1 day
Parameter(s):	Microwave > Brightness Temperature Soils > Soil Moisture/Water Content > Soil Moisture
Platform(s):	SMAP Observatory
Sensor(s):	SMAP L-Band Radiometer
Data Format(s):	HDF5
Version:	V3
Data Contributor(s):	O'Neill, P. E., S. Chan, E. G. Njoku, T. Jackson, and R. Bindlish.
Metadata XML:	<a href="#">View Metadata Record</a>

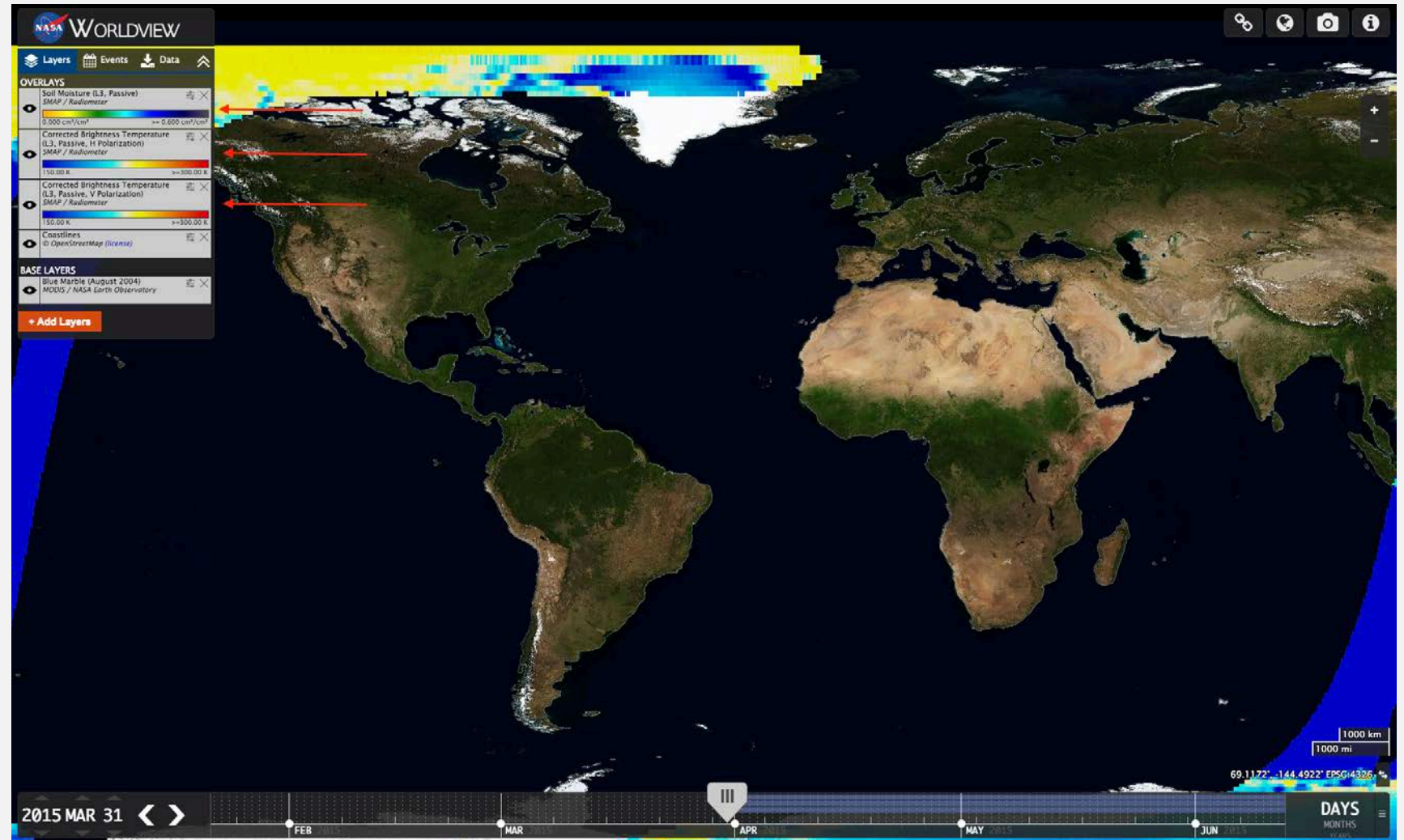


# Para visualizar y acceder a datos de SMAP desde Worldview

Al iniciar Worldview desde del producto SPL3SMP en el NSIDC, notará que algunos de los parámetros del conjunto de datos están incluidos en la sección “Overlays” automáticamente.

Los niveles pueden ser reacomodados arrastrándolos para cambiar el orden de presentación

- El nivel en el primer lugar de la lista se dibuja encima de los niveles inferiores

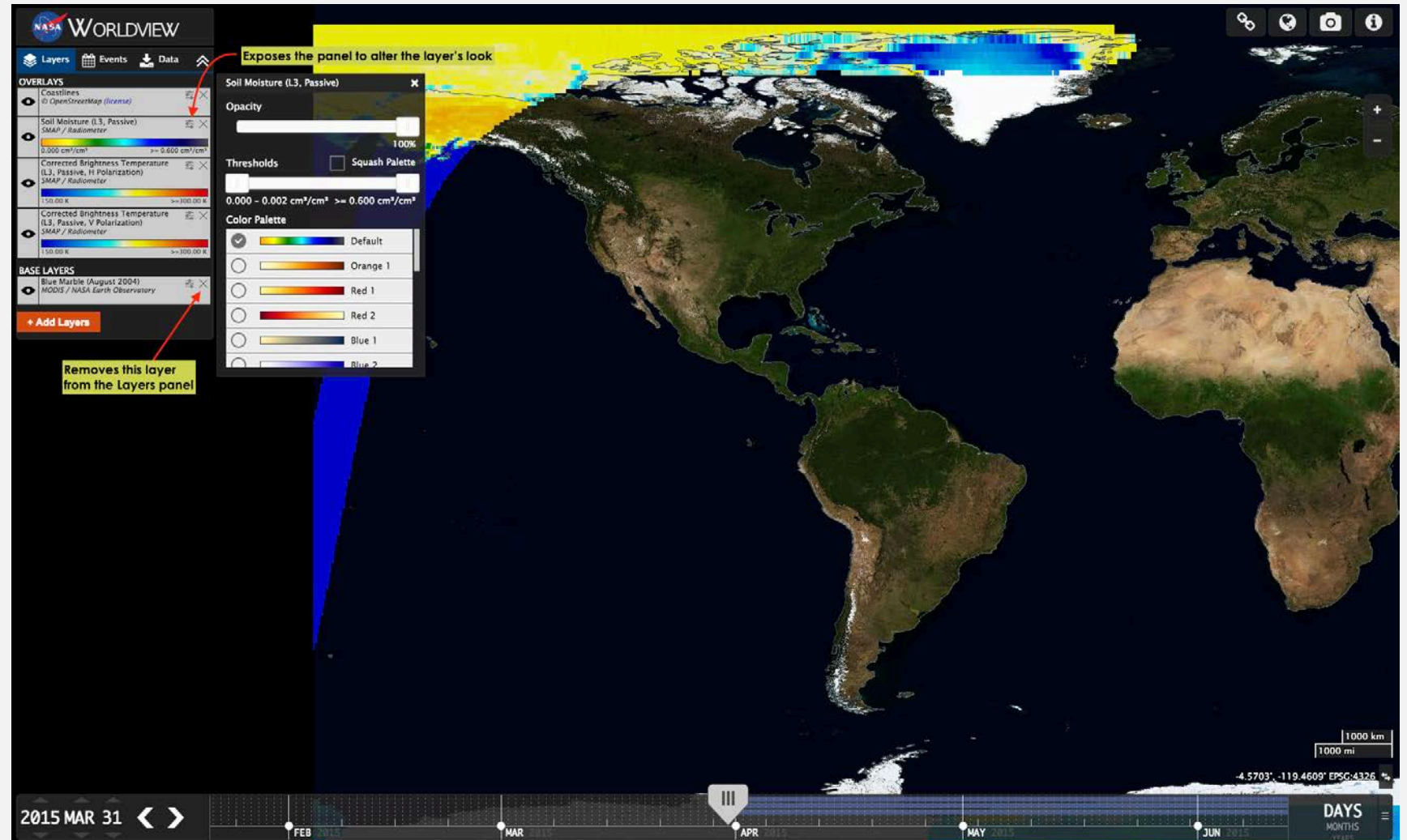


# Para visualizar y acceder a datos de SMAP desde Worldview

Aquí he reacomodado el nivel de perfiles costeros (Coastlines) encima del de humedad del suelo (Soil Moisture) – note los perfiles visibles en el ártico sobre los datos de la humedad del suelo.

También, el pulsar en el símbolo de barra deslizante abrirá un diálogo para cambiar la opacidad, el umbral y la paleta de colores del nivel.

El pulsar el símbolo de “X” para un nivel lo remueve del panel de niveles (Layers).



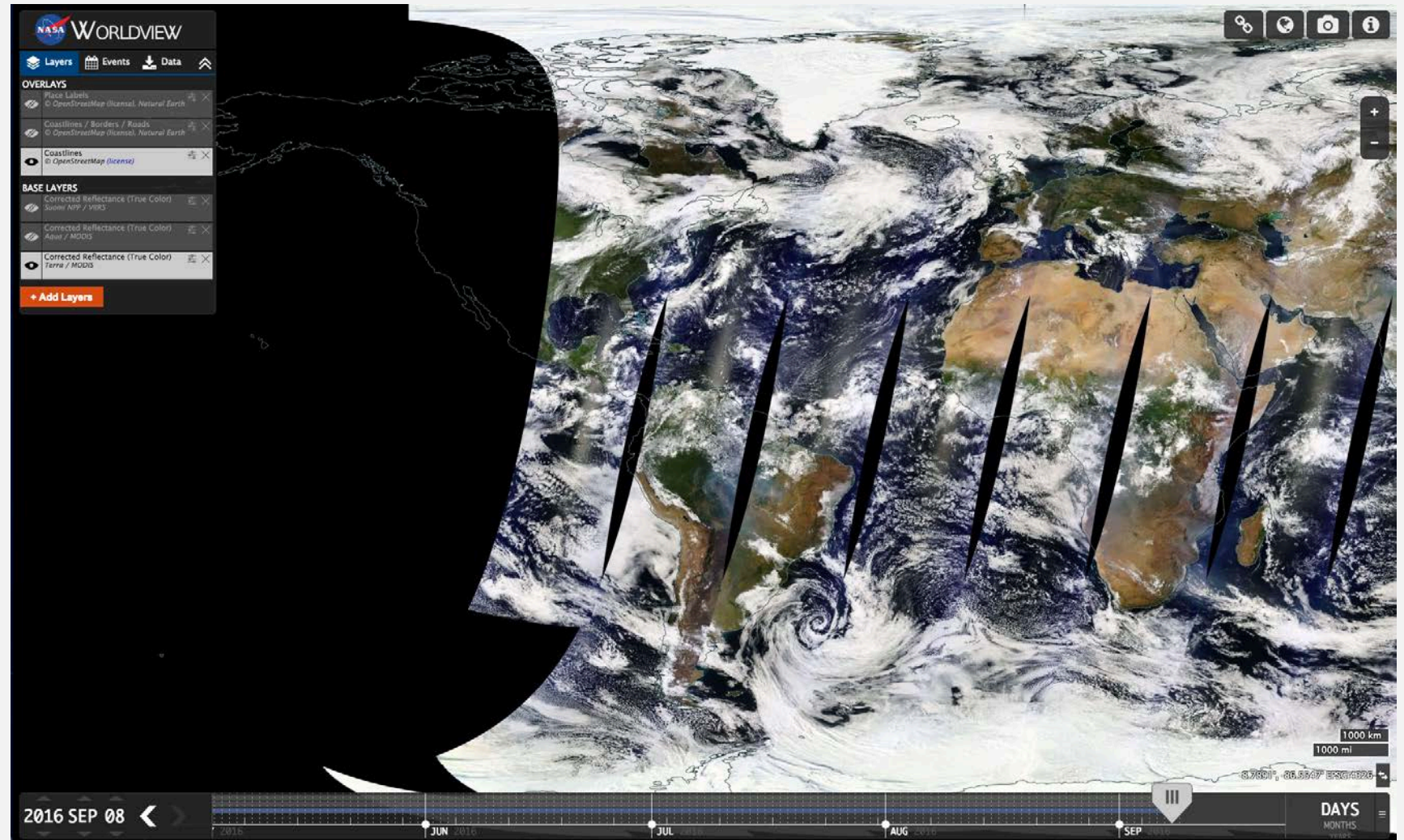


# Para visualizar y acceder a datos de SMAP desde Worldview

<http://worldview.earthdata.nasa.gov>

Si Ud. ingresara al enlace que aparece aquí en su navegador, vería que las superposiciones (Overlays) y niveles de base (Base Layers) predeterminados son diferentes de lo que se abre en el enlace del NSIDC a Worldview de la página de productos de SMAP.

Volveremos a Worldview con SPL3SMP pre-cargado de la página de NSIDC y haremos un recorrido de la interfaz.





# Explorando más allá con la interfaz de Worldview:

The image shows the NASA Worldview web application interface. The main display is a global map with a color-coded overlay representing soil moisture data. The interface includes a left-hand sidebar with 'OVERLAYS' and 'BASE LAYERS' sections, a top navigation bar with 'Layers', 'Events', and 'Data' tabs, and a bottom timeline for date selection. Numerous callout boxes with red arrows point to specific UI features, providing instructions on how to interact with the application.

Annotations and their corresponding UI elements:

- Layers**: Tabs for displaying current layers, current world events or downloading underlying data.
- Layers Panel**: Collapse the layer pane; Turn overlay on or off.
- Share**: Copy a URL of this map to share.
- Projection**: Change the projection of the display.
- Snapshot**: Take a snapshot of the interface.
- Info**: Information about Worldview.
- Zoom**: Zoom in or out - can also use your mouse's scroll wheel, double-click on the map, or shift+drag to zoom to an area.
- Timeline**: Collapse the timeline; Change the timeline's finest increment shown; Slider control to change the date of the layer displayed.
- Timeline Labels**: Blue line indicates the layer is on and available during this time range; Gray lines indicate the layers are off, but available during this time range.
- Date Selection**: Change the month, day and year of the data displayed; Advance forward or back a day at a time.
- Map Controls**: Click to browse through other layers to add.

# Explorando opciones de niveles:

Search ← Click and type here for a keyword search

Hazards And Disasters Science Disciplines

**All**

- Aerosol Optical Depth
- Areas of No Data (mask)
- Blue Marble
- Brightness Temperature
- Carbon Monoxide
- Chlorophyll a
- ...

**Atmosphere**

- Aerosol Optical Depth
- Carbon Monoxide
- Cloud Effective Radius
- Cloud Fraction
- Cloud Multi Layer Flag
- Cloud Optical Thickness
- ...

**Biosphere**

- Fires and Thermal Anomalies
- Soil Moisture
- Forests, Mangrove

**Cryosphere**

- Freeze / Thaw
- Sea Ice
- Sea Surface Temperature
- Snow Cover
- Snow Depth Over Ice
- Snow Mass
- ...

**Human Dimensions**

- Cyclone Hazard
- Dams
- Drought Hazard
- Earth at Night 2012
- Population Density
- Power Plants, Nuclear
- ...

**Land Surface**

- Blue Marble
- Corrected Reflectance
- Global Digital Elevation Map
- Land Surface Reflectance
- Land Surface Temperature
- Fires and Thermal Anomalies

**Oceans**

- Chlorophyll a
- Sea Ice
- Sea Surface Temperature
- Snow Depth Over Ice
- Wind Speed

**Spectral/Engineering**

- Brightness Temperature
- Sigma0
- Faraday Rotation Angle

**Terrestrial Hydrosphere**

- Flood Hazard
- Freeze / Thaw
- Sea Ice
- Snow Cover
- Snow Mass
- Snow Water Equivalent
- ...

**Other**

- Areas of No Data (mask)
- Global 250m Water Map
- Global Digital Elevation Map
- Latitude-Longitude Lines
- Orbital Track
- Reference Map

Click this category to expand and reveal SMAP data

Clicking the Add Layers button opens this dialogue where you can search by topic on the "Hazards And Disasters" tab or under the "Science Disciplines" tab where we are now. SMAP can be found under the Terrestrial Hydrosphere category.

You may also search by keywords at the top of this dialogue by clicking on the "Search" text.

2016 JUN 20

APR MAY JUN JUL AUG

DAYS MONTHS



# Opciones de niveles de SMAP:

The screenshot displays the NASA WorldView interface. On the left, the 'LAYERS' panel shows 'OVERLAYS' including 'Soil Moisture (L3, Passive) SMAP / Radiometer' and 'BASE LAYERS' including 'Blue Marble (August 2004) MODIS / NASA Earth Observatory'. A search window is open, showing 'Categories / Terrestrial Hydrosphere' with a list of layers. The 'Soil Moisture' section is expanded, showing options for 'SMAP / Radar', 'SMAP / Radiometer', and 'SMAP / Model Value-Added'. The 'Soil Moisture (L3, Passive)' option is selected. A red arrow points to the 'Soil Moisture (L3, Passive)' option in the search results. Another red arrow points to a 'Click to reveal more details about the SMAP Radiometer collections' button at the bottom of the search window. The background shows a satellite map of Africa with a color-coded soil moisture overlay. The bottom of the interface shows a timeline for '2016 JUN 20' and a 'DAYS MONTHS' selector.

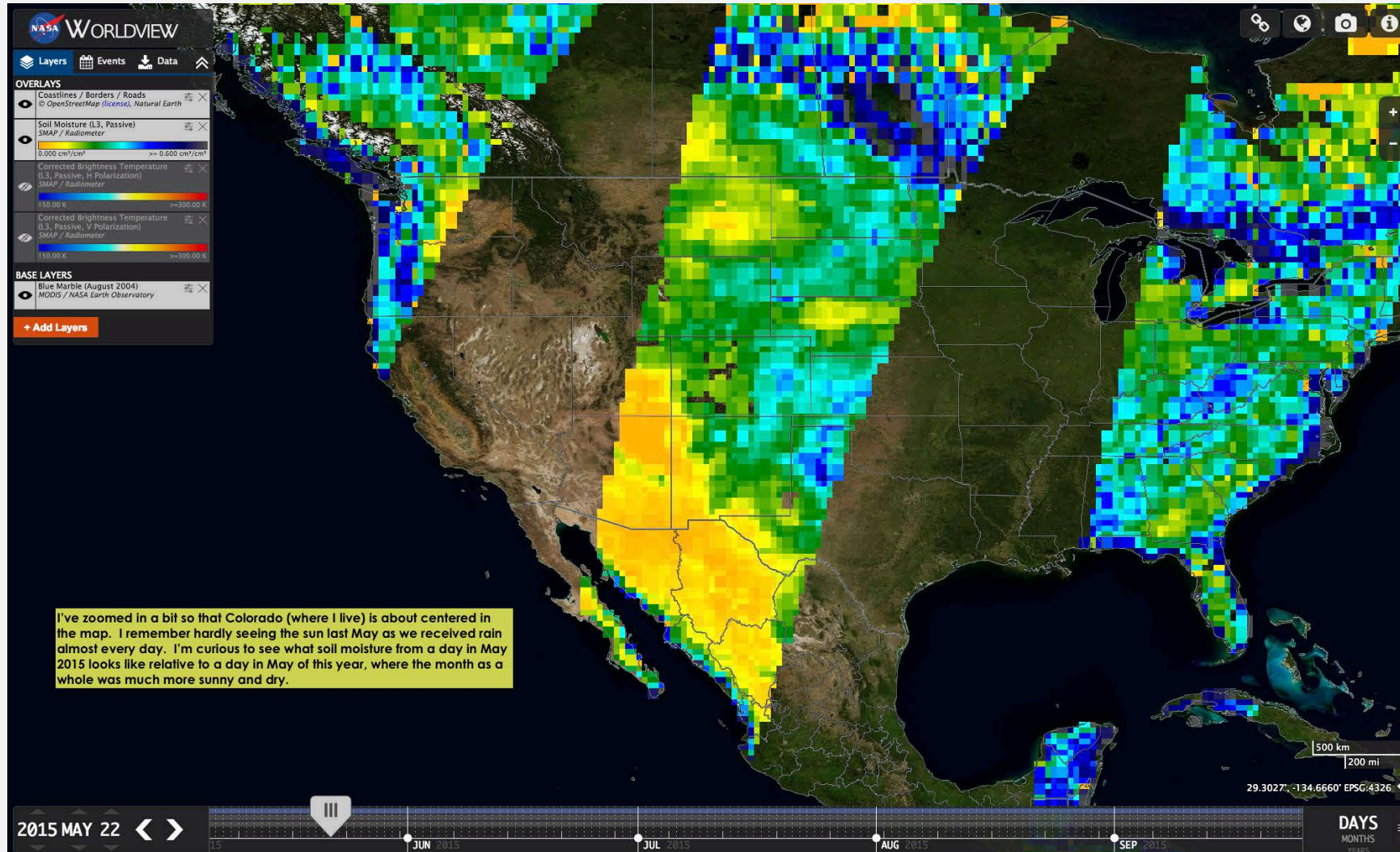
# Agredando una superposición: Perfiles costeros/ fronteras/ caminos

The screenshot shows the NASA WorldView interface. On the left, there are panels for 'OVERLAYS' and 'BASE LAYERS'. The 'OVERLAYS' panel lists several data layers, including 'Coastlines / Borders / Roads', 'Soil Moisture (L3, Passive)', and 'Corrected Brightness-Temperature'. The 'BASE LAYERS' panel shows 'Blue Marble (August 2004)' and 'MODIS / NASA Earth Observatory'. A search panel is open in the center, displaying a list of layers with 'Coastlines / Borders / Roads' selected. A red arrow points to this selection. Below the search panel, a text box explains the selection process.

Here, I've clicked on the "Other" category from the "Science Disciplines" tab and changed the default "Coastlines" layer to be "Coastlines/Borders/Roads" to add more detail to the map.

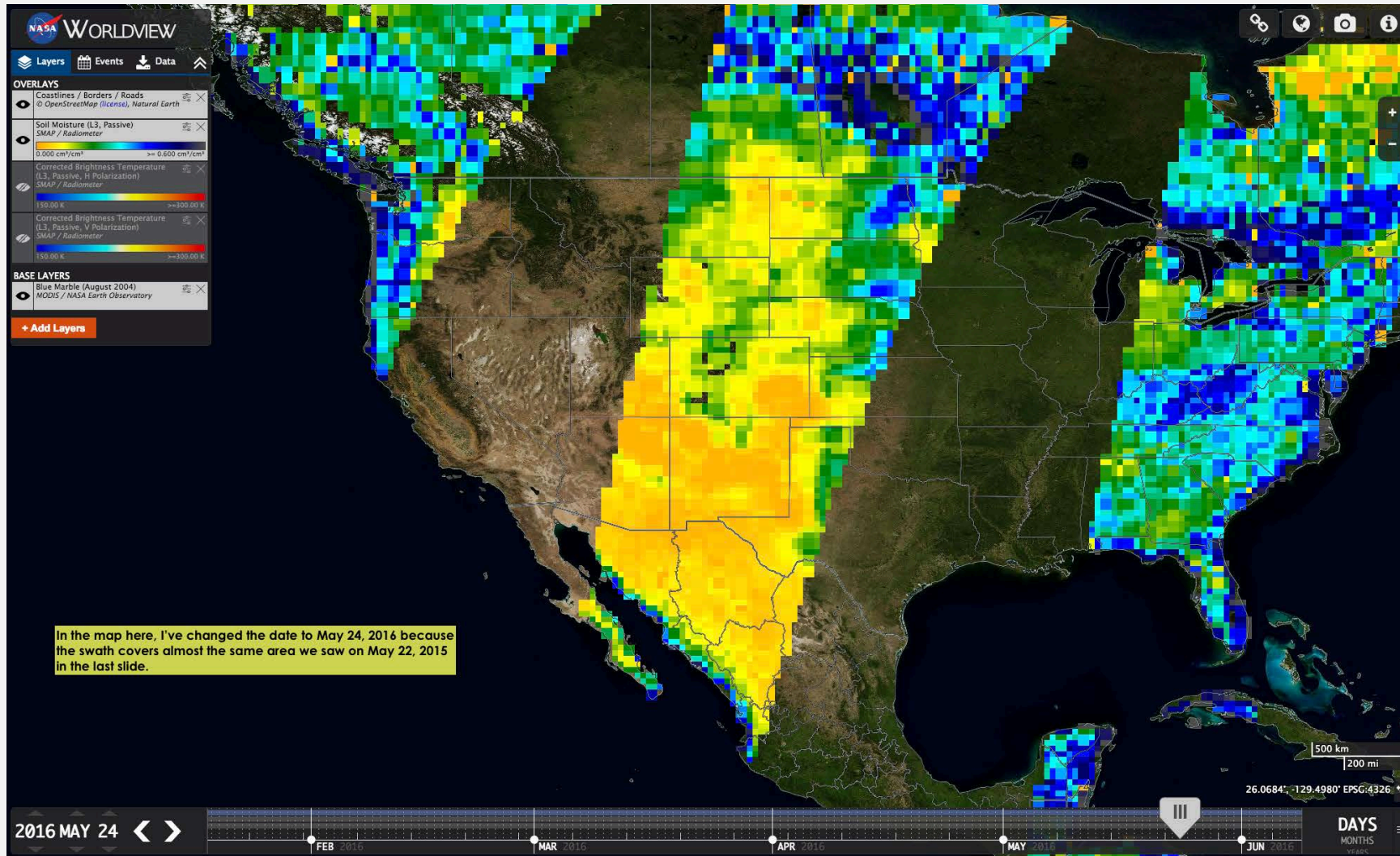


# Una comparación rápida de la humedad del suelo a través del tiempo...





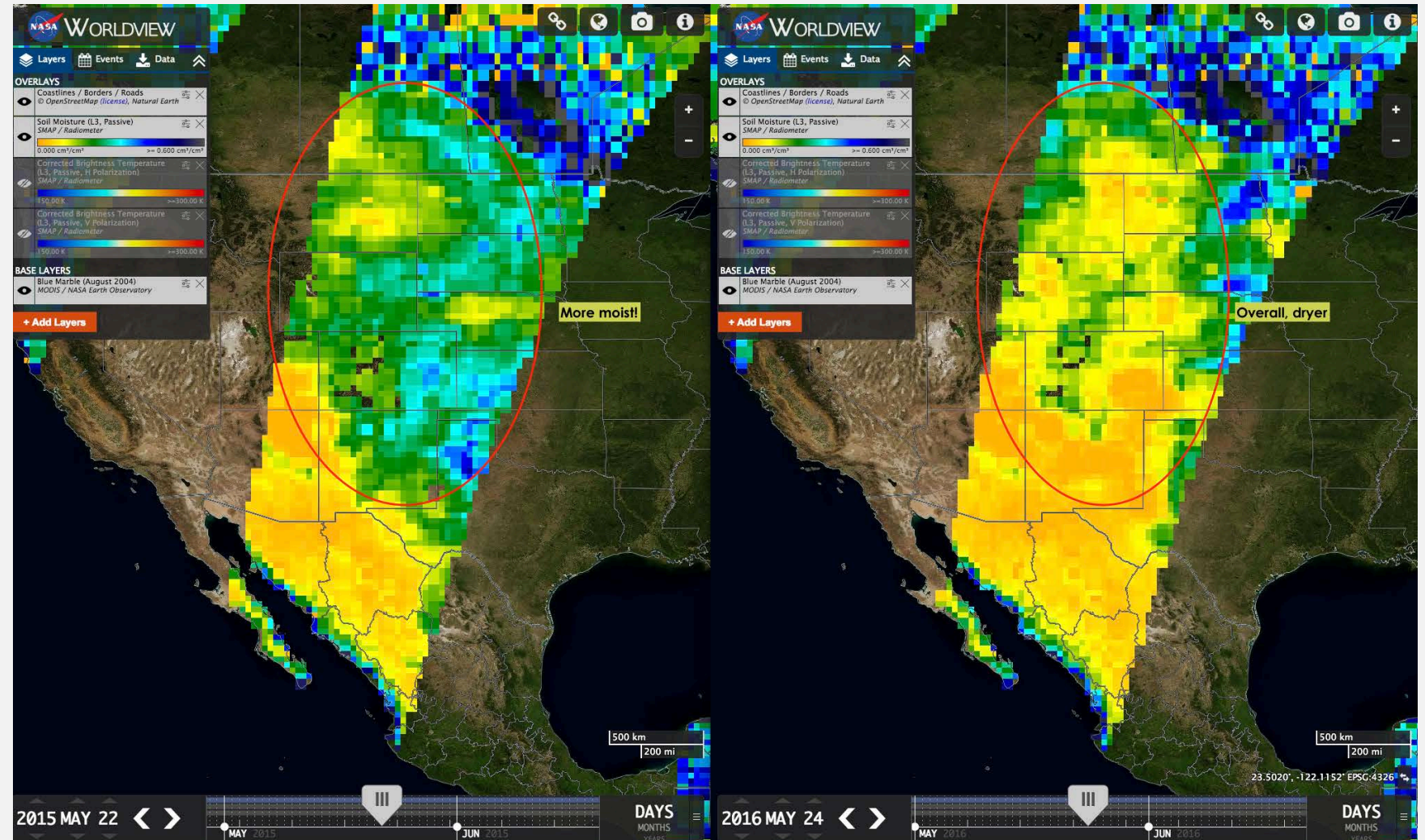
# Una comparación rápida de la humedad del suelo a través del tiempo...





# Una comparación rápida de la humedad del suelo a través del tiempo...

Puedo usar la opción “Share this Map” (compartir este mapa) para copiar enlaces para los dos días que me gustaría comparar y visualizarlos en ventanillas de navegadores una al lado de otra para una visualización rápida de las diferencias de la humedad del suelo entre esas dos fechas.





# Descargando de Worldview:

The screenshot displays the NASA Worldview web application interface. On the left, a sidebar contains the following elements:

- Layers:** SMAP L3 RADIOMETER GLOBAL DAILY 36 KM EASE-GRID SOIL MOISTURE (1 SELECTED)
- Events:** Soil Moisture (L3, Passive) SMAP / Radiometer
- Data:** NOT AVAILABLE FOR DOWNLOAD (?)
- Other layers:** Blue Marble (August 2004) MODIS / NASA Earth Observatory, Coastlines / Borders / Roads, © OpenStreetMap (license), Natural Earth
- Download Selected Data** button

A red arrow points from the 'Data' tab in the sidebar to a yellow callout box that says "Switch to the Data tab".

In the center of the map, a "Select data" dialog box is open, showing a date selection interface:

- Select data**
- 2015-05-22: 00:00-23:59 UTC
- A yellow callout box with an arrow pointing to the date selection says: "Tick this box to select this day's data"

The map shows a color-coded overlay of soil moisture data over North America, with a color scale ranging from blue (low moisture) to yellow and red (high moisture). The map includes a scale bar (500 km / 200 mi) and coordinates (43.3652°, -132.1348° EPSG:4326).

At the bottom, a timeline shows the current date as 2015 MAY 22, with navigation arrows and a dropdown menu for selecting the time scale (DAYS, MONTHS, YEAR).

# Descargando de Worldview:

The screenshot displays the NASA WorldView interface. The main map shows soil moisture data over North America, with a color scale from blue (low) to red (high). The left sidebar contains a 'Layers' panel with the following items:

- SMAP L3 RADIOMETER GLOBAL DAILY 36 KM EASE-GRID SOIL MOISTURE (2 SELECTED)
- Soil Moisture (L3, Passive) SMAP / Radiometer
- NOT AVAILABLE FOR DOWNLOAD (?)
- Blue Marble (August 2004) MODIS / NASA, Earth Observatory
- Coastlines / Borders / Roads © OpenStreetMap (license), Natural Earth

A 'Download Selected Data' button is visible at the bottom of the sidebar. A 'Select data' dialog box is open in the center, showing a date selection of 2016-05-24: 00:00:23:59 UTC. A text box with a yellow background and red arrows points to the 'Data' panel and the 'Select data' dialog, containing the text: "Advance to the next day of Soil Moisture data and tick the box - notice that the Data panel indicates '2 SELECTED'".

At the bottom of the interface, there is a timeline for the year 2016, with the current date set to MAY 24. The timeline includes markers for FEB, MAR, APR, MAY, and JUN. A 'DAYS' button is visible on the right side of the timeline.



# Descargando de Worldview:

The screenshot shows the NASA WorldView interface. The main map displays soil moisture data over North America, with a color scale from blue (low) to red (high). A 'Download Links' dialog box is open, showing a table of selected data. The table has columns for 'Selected Data' and file names. Two rows of data are visible, each with a file name in blue. A red arrow points to the blue file name in the first row. Below the table, there are options for 'Bulk Download', including 'List of Links' and 'List of cURL Commands'. A yellow text box on the left provides instructions on how to use the 'Download Selected Data' button and the dialog box options. The bottom of the interface shows a timeline for the month of May 2016, with the date '2016 MAY 24' selected.

Click the "Download Selected Data" button and this dialogue pops up. Here you can remove files from your order and explore your download options.

Clicking on individual file names (in blue) in the top part of the box will download just that file to your machine. Depending on your browser, you may need to hover and right-click on the .qa and .xml files and choose the "Save link as" option to save them to your machine rather than have them just open in a separate window or tab.

Clicking in the bottom of the box on either "List of Links" or "List of cURL Commands" will open a new tab or window in your browser with instructions on how to use these options (see next slide).

**Download Links**

**SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture**

Selected Data

2015-05-22: 00:00-23:59 UTC	<a href="#">SMAP_L3_SM_P_20150522_R13080_001_h5</a> <a href="#">SMAP_L3_SM_P_20150522_R13080_001_qa</a> <a href="#">SMAP_L3_SM_P_20150522_R13080_001_h5.iso.xml</a>
2016-05-24: 00:00-23:59 UTC	<a href="#">SMAP_L3_SM_P_20160524_R13080_001_h5</a> <a href="#">SMAP_L3_SM_P_20160524_R13080_001_qa</a> <a href="#">SMAP_L3_SM_P_20160524_R13080_001_h5.iso.xml</a>

**Bulk Download**

- List of Links: for wget or download managers that accept a list of URLs
- List of cURL Commands: can be copied and pasted to a terminal window to download using cURL.

2016 MAY 24 < >

APR 2016 MAY 2016 JUN 2016 JUL 2016 AUG 2016

DAYS MONTHS YEARS



# Descargando de Worldview:

## Download Links

```
ftp://n5eil01u.ecs.nsidc.org/DP4/SMAP/SPL3SMP.003/2015.05.22/SMAP_L3_SM_P_20150522_R13080_001.h5  
ftp://n5eil01u.ecs.nsidc.org/DP4/SMAP/SPL3SMP.003/2016.05.24/SMAP_L3_SM_P_20160524_R13080_001.h5
```

## Using [wget](#) to Bulk Download Your Data

- 1) Copy the links above and paste into a text document. Save it as "links.txt"
- 2) Execute the following command to download all of your requested files:

```
wget --input-file=links.txt
```

## Using [Free Download Manager](#) for Windows to Bulk Download Your Data

- 1) Copy the Download Links above to your clipboard
- 2) In Free Download Manager, go to File | Import | Import list of URLs from clipboard

## Download Commands

```
curl --remote-name ftp://n5eil01u.ecs.nsidc.org/DP4/SMAP/SPL3SMP.003/2015.05.22/SMAP_L3_SM_P_20150522_R13080_001.h5  
curl --remote-name ftp://n5eil01u.ecs.nsidc.org/DP4/SMAP/SPL3SMP.003/2016.05.24/SMAP_L3_SM_P_20160524_R13080_001.h5
```

## Using [curl](#) to Bulk Download Your Data

### Mac OS X / Linux

- 1) Copy the Download Commands above and paste into a text document. Save it as "download.sh"
- 2) Execute the following command to download all of your requested files:

```
sh ./download.sh
```

### Windows

- 1) Copy the Download Commands above and paste into a text document. Save it as "download.bat"
- 2) Execute the following command to download all of your requested files:

```
download.bat
```

# Búsqueda de y acceso a datos de SMAP desde Earthdata Search

Al iniciar la búsqueda Earthdata Search de la página de productos de SPL3SMP en el NSIDC, Ud. verá que la interfaz está pre-poblada con el nombre corto del conjunto de datos y que la colección aparece en la ventanilla Collection.

The screenshot displays the Earthdata Search interface. At the top, the search bar contains 'SPL3SMP'. Below the search bar, there are filters for 'Temporal' and 'Spatial', and a 'Clear Filters' button. On the left side, there is a 'Browse Collections' sidebar with various categories like 'Features', 'Map Imagery', 'Near Real Time', etc. The main content area shows '1 Matching Collections' with a card for 'SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003'. The card includes details like 'SPL3SMP v003 - NSIDC' and '2015-03-31 ongoing | 520 Granules'. On the right, there is a large map of the globe showing the distribution of the data. At the bottom left, there is a 'Get Data: Package' sidebar with a red arrow pointing to the 'Earthdata Search' link.

Get Data: Package

Reverb: NASA search and order tool for subsetting, reprojecting, and reformatting data.

**NOTE: Reverb will be decommissioned in the coming months and replaced with Earthdata Search. All links to Reverb will be removed at that time.**

Subscription Service: Subscribe to have new data automatically sent when the data become available.

**Earthdata Search:** NASA's newest search and order tool for subsetting, reprojecting, and reformatting data.

v 1.26.3 • NASA Official: Andrew Mitchell • FOIA • NASA Privacy Policy • USA.gov

Earthdata Access: A Section 508 accessible alternative



# Explorando la interfaz de Earthdata Search:

The screenshot displays the Earthdata Search web application interface. The top navigation bar includes the NASA logo, the search term 'SPL3SMP', and filters for 'Temporal' and 'Spatial'. A 'Clear Filters' button is also present. The main content area is divided into three sections: a left sidebar for 'Browse Collections', a central '1 Matching Collections' pane, and a large map on the right. The sidebar contains a 'Faceted filter pane' with categories like Features, Map Imagery, and Keywords. The central pane shows a collection titled 'SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003' with a '+ Add this collection to a project' button. The map on the right has several callout boxes: 'Keyword search and filter options' pointing to the top bar; 'Click to submit help request or feedback' pointing to the feedback icon; 'Click to login to Earthdata' pointing to the login button; 'Display temporal and spatial filters once set' pointing to the filter icons; 'Display the map's base layer options' pointing to the layer selector; 'Zoom in, out or to a "home" extents (spatial search area if present, original extents if no spatial search defined). You can also zoom using your mouse: scroll wheel will zoom in and out, double click will zoom in on a point, shift+click+cursor drag will zoom to an area.' pointing to the map navigation controls; 'Change projection to North Polar Stereographic, WGS84, or South Polar Stereographic' pointing to the projection selector; 'Spatial filter buttons - search by point, rectangle or polygon' pointing to the spatial filter icons; and 'Edit or delete spatial filter bounds' pointing to the edit/delete icons. The bottom of the page contains version information and a NASA Official notice.



# Explorando la interfaz de Earthdata Search– después de ingresar:

Si aún no tiene un nombre de usuario de an Earthdata, deberá registrarse para obtener uno antes de poder ordenar datos.

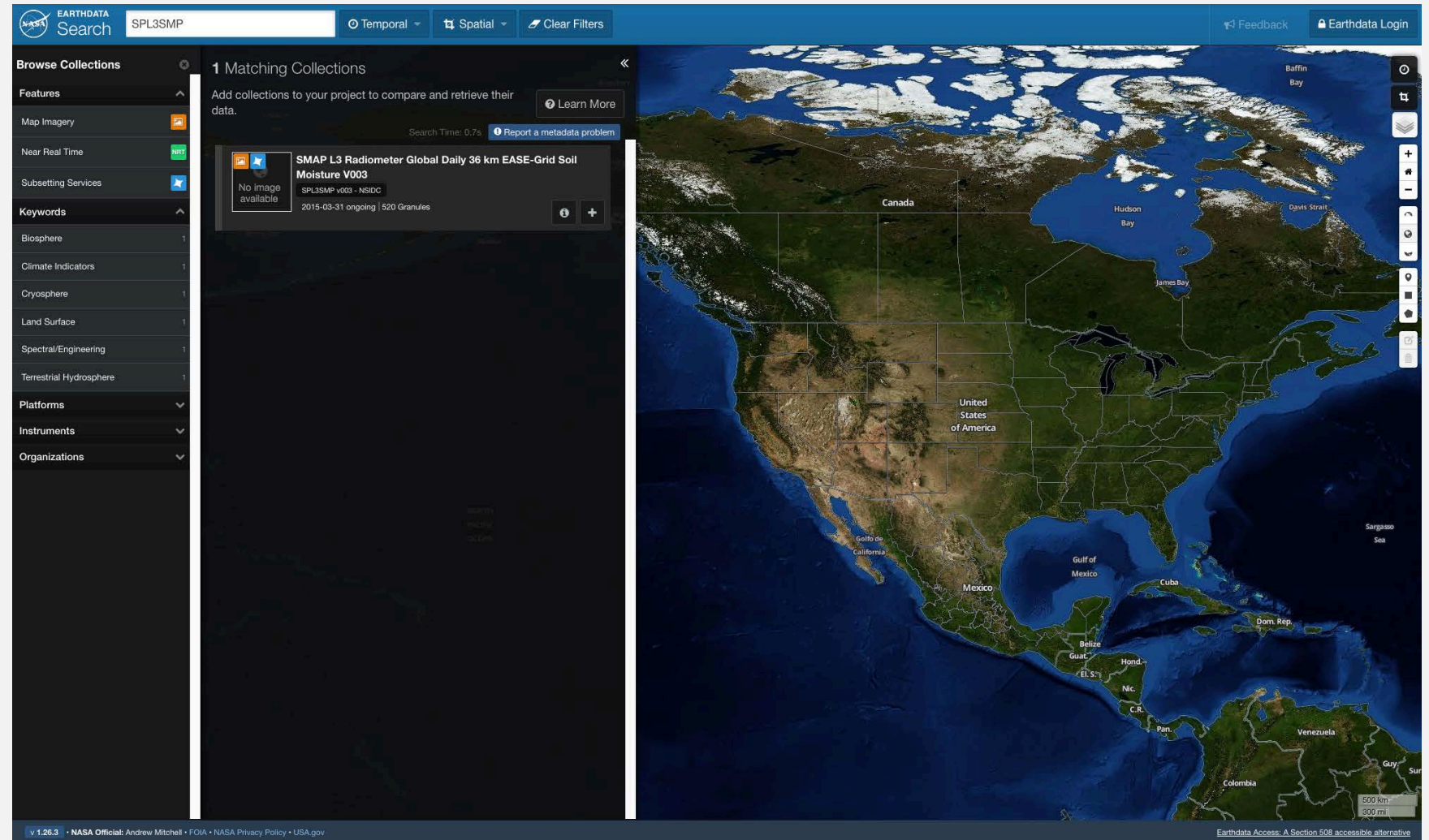
Una vez que haya ingresado, verá que la interfaz se ve un poco diferente. Ahora Ud. puede guardar proyectos, visualizar otros proyectos guardados anteriormente y revisar su historial de órdenes.

The screenshot displays the Earthdata Search interface. At the top, the search bar contains 'SPL3SMP'. Below the search bar, there are filters for 'Temporal' and 'Spatial', and a 'Clear Filters' button. A yellow callout box points to a 'Click to save this setup as a project' button. On the right side, there is a user profile menu with options: 'Contact Information', 'Recent Retrievals', 'Saved Projects', and 'Logout'. A yellow callout box points to this menu with the text: 'Review contact information, recent orders, saved projects or Logout of your account'. The main content area shows '1 Matching Collections' and 'You have 1 collection in your project.' Below this, there is a 'Recent and Featured' section with a card for 'SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003'. A yellow callout box points to a minus sign icon on the card with the text: 'Clicking the - symbol will remove this collection from your project.' The background features a satellite map of the world with a scale bar at the bottom right showing 1000 km and 500 mi. The footer contains version information 'v1.26.3' and links to 'NASA Official: Andrew Mitchell', 'FOIA', 'NASA Privacy Policy', and 'USA.gov'. A small note at the bottom right reads 'Earthdata Access: A Section 508 accessible alternative'.

# Búsqueda y descarga de datos de SMAP:

Ahora se les va a mostrar cómo pueden usar Earthdata Search para encontrar, personalizar y descargar los archivos que visualizamos y descargamos en Worldview.

Voy a fijar filtros temporales y espaciales y agregar el SPL3SMP a un proyecto. De ahí, veremos cómo personalizar los datos antes de descargar.



The screenshot displays the Earthdata Search web application. At the top, the search bar contains 'SPL3SMP' with filters for 'Temporal' and 'Spatial'. The left sidebar shows a 'Browse Collections' menu with categories like Features, Map Imagery, and Keywords. The main content area shows '1 Matching Collections' with a search time of 0.7s. A collection card for 'SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003' is visible, with details including 'SPL3SMP v003 - NSIDC' and '2015-03-31 ongoing | 520 Granules'. The right side of the interface features a satellite map of North America with various geographical labels like Canada, United States of America, Mexico, and the Gulf of Mexico. The bottom of the page includes version information (v 1.26.3) and links to NASA Official, FOIA, and Privacy Policy pages.



# Fijando el filtro de búsqueda temporal:

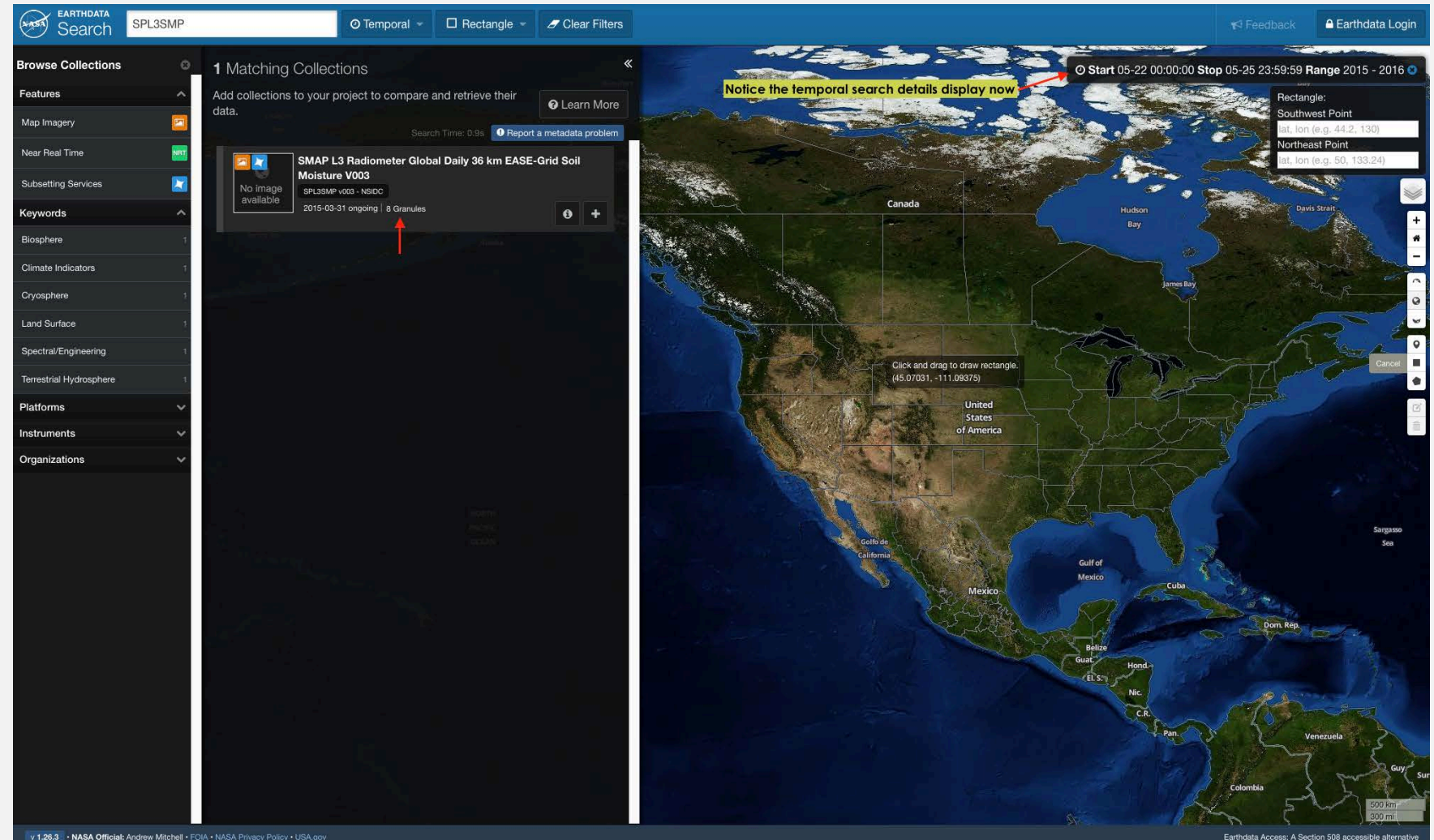
Estoy usando la opción de “Recurring?” para limitar los granulos (archivos) retornados a las fechas entre el 22 y el 25 de mayo de 2015 y 2016..

The screenshot displays the Earthdata Search interface. At the top, the search term 'SPL3SMP' is entered. A temporal filter is active, showing a start date of '05-22 00:00:00' and an end date of '05-25 23:59:59'. The 'Recurring?' checkbox is checked, and the 'Year Range' is set to '2015 - 2016'. A red arrow points to the 'Apply Filter' button. Below the filter, a search result for 'SMAP L4 Moisture' is shown with a status of 'No image available' and '2015-03-31 ongoing | 520 Granules'. The main map area shows a satellite-style view of North America and the surrounding oceans, with a dark blue area indicating the search results. The interface includes a left sidebar with navigation options like 'Browse Collections', 'Features', and 'Keywords', and a top right corner with 'Feedback' and 'Earthdata Login' links.

# Fijando el filtro de búsqueda espacial:

Note que el conteo de gránulos ha bajado de 520 a 8 gránulos.

Ahora fijaré mi filtro de búsqueda especial sobre Colorado usando la opción rectángulo





# Para agregar una colección a un proyecto:

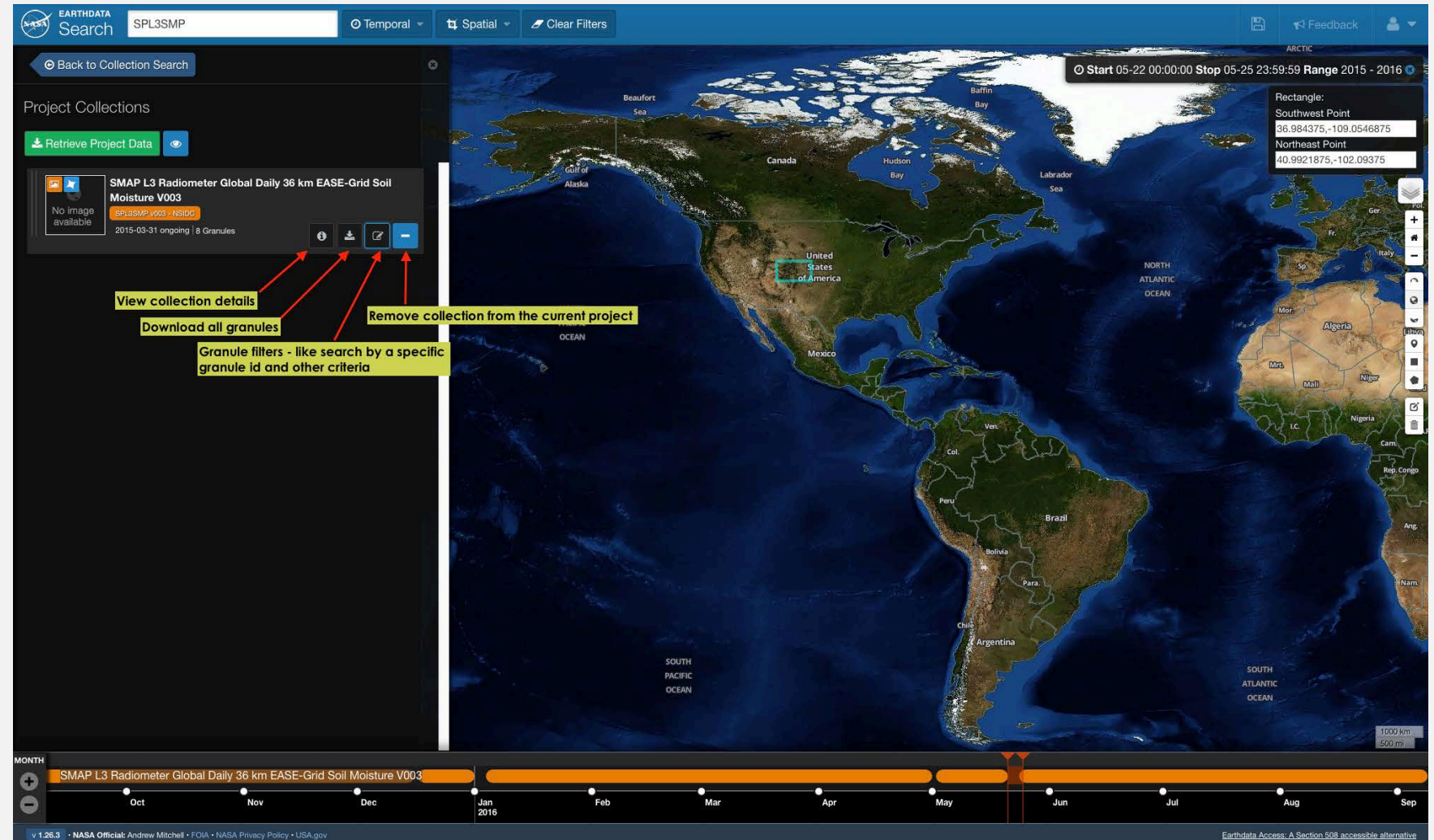
Con la búsqueda espacial configurada, las coordenadas aparecen junto con los detalles de los criterios de la búsqueda temporal.

Vamos a agregar mi colección al proyecto actual y visualizarla. Esto es opcional – Ud. no necesita usar la opción de proyectos para ordenar datos.

The screenshot displays the NASA Earthdata Search interface. At the top, the search bar contains 'SPL3SMP' and filters for 'Temporal' and 'Spatial' are active. The left sidebar shows 'Browse Collections' with various categories like 'Features', 'Map Imagery', and 'Keywords'. The main panel shows '1 Matching Collections' for 'SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003'. A red arrow points to a '+' icon next to the collection name. On the right, a map of North America shows a search rectangle over the United States. A yellow callout box says 'Now my spatial search coordinates are displayed as well' with an arrow pointing to the rectangle. A sidebar on the right shows the coordinates: Southwest Point (36.984375, -109.0546875) and Northeast Point (40.9921875, -102.08375). The bottom of the interface includes version information and NASA contact details.

# Expandir para revelar la lista de gránulos:

Cuando pulso en el texto que dice “8 Granules” la ventanilla cambia a una nueva visualización que muestra los 8 gránulos todos.





# Gránulos listados:

Aquí puedo pulsar el ícono de descargar para descargar archivos individuales o el símbolo X para borrar un archivo de la lista. Voy a hacer esto último para dejar sólo los dos archivos que me interesan.

Note que pulsar el nombre de un gránulo visualiza la extensión del archivo en el mapa.

The screenshot displays the EarthData Search interface. At the top, there is a search bar with 'SPL3SMP' and filters for Temporal and Spatial. Below the search bar, the collection name 'SMAP\_L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003' is shown. A list of 8 granules is displayed, each with a file name and a date range. The first granule is highlighted. To the right of the list, a map shows the United States of America with a red rectangle indicating the selected granule's spatial extent. Two red arrows point to the 'Remove from list' and 'Download individual file' buttons. The bottom of the interface shows a timeline for the month of May 2016.

# Gránulos suprimidos y listos para personalizar y ordenar:

The screenshot displays the Earthdata Search interface for the collection "SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003". The search results show two granules, with a yellow callout box pointing to a "Retrieve Collection Data" button and the text "Click to download all listed granules". The interface also features a world map with a selected region, a timeline for the year 2016, and various navigation and filter options.

Search Results:

- SMAP\_L3\_SM\_P\_20160524\_R13080\_001.h5  
2016-05-24T00:00:00Z to 2016-05-24T23:59:59Z
- SMAP\_L3\_SM\_P\_20150522\_R13080\_001.h5  
2015-05-22T00:00:00Z to 2015-05-22T23:59:59Z

Map Coordinates:

- Southwest Point: 36.984375, -109.0546875
- Northeast Point: 40.9921875, -102.09375

Timeline: MONTH (Oct, Nov, Dec, Jan 2016, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep)



# Opciones de descarga:

**Data Access**  
Review and select service options for your data prior to download

1 SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003

Review & Select Service Options

Review

2 Granules

Granule List

Expand List

Service Options

Select Data Access Method:  Download  FTP order w/QA  SPL3SMP3 ESI Service

Add access method Access these granules again with different options

Submit

**Success!**  
Your request has been processed. See below for information on accessing your data.

The following collections are available for immediate download

Click the "View Download Links" button to view a page containing links to your data. You may bookmark this page for later access. A browser download manager plugin such as Firefox's [DownThemAll!](#) can assist you in managing a large number of download links.

- SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003
  - [View Download Links](#)
  - [Download Access Script](#)

Next Steps

- [Back to Earthdata Search Results](#)
- [Start a New Earthdata Search Session](#)

**Data Access**  
Review and select service options for your data prior to download

1 SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003

Review & Select Service Options

Review

2 Granules

Granule List

Expand List

Service Options

Select Data Access Method:  Download  FTP order w/QA  SPL3SMP3 ESI Service

Media Options

Media Type:

Media Format:

Check here for Ancillary data options

Include associated Quality Assurance file in order?

Add access method Access these granules again with different options

Continue

**Success!**  
Your request has been processed. See below for information on accessing your data.

The following collections are being processed

When the data becomes available, an email containing download links will be sent to the address you provided.

- SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003 [Creating](#)

Next Steps

- [Back to Earthdata Search Results](#)
- [Start a New Earthdata Search Session](#)

**Data Access**  
Review and select service options for your data prior to download

1 SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003

Review & Select Service Options

Review

2 Granules

Granule List

Expand List

Service Options

Select Data Access Method:  Download  FTP order w/QA  SPL3SMP3 ESI Service

Email Address:

A valid email address is required.

Include Metadata and Processing History

Reformat Output (Optional)

Output File Format:

Spatial Subsetting (Optional)

Enter bounding box

Projection Options

Re-projection Options:

Band Subsetting (Optional)

# Personalización de mi descarga:

**Service Options**

Select Data Access Method:  Download  FTP order w/QA  SPL3SMP.3 ESI Service

Email Address:

Include Metadata and Processing History

---

**Reformat Output (Optional)**

Output File Format:  ←

---

**Spatial Subsetting (Optional)**

→  Enter bounding box

North:

West:  **Spatial bounds populate with the coordinates used in your spatial search criteria**

East:

South:

---

**Projection Options**

Re-projection Options:  ←

---

**Band Subsetting (Optional)**

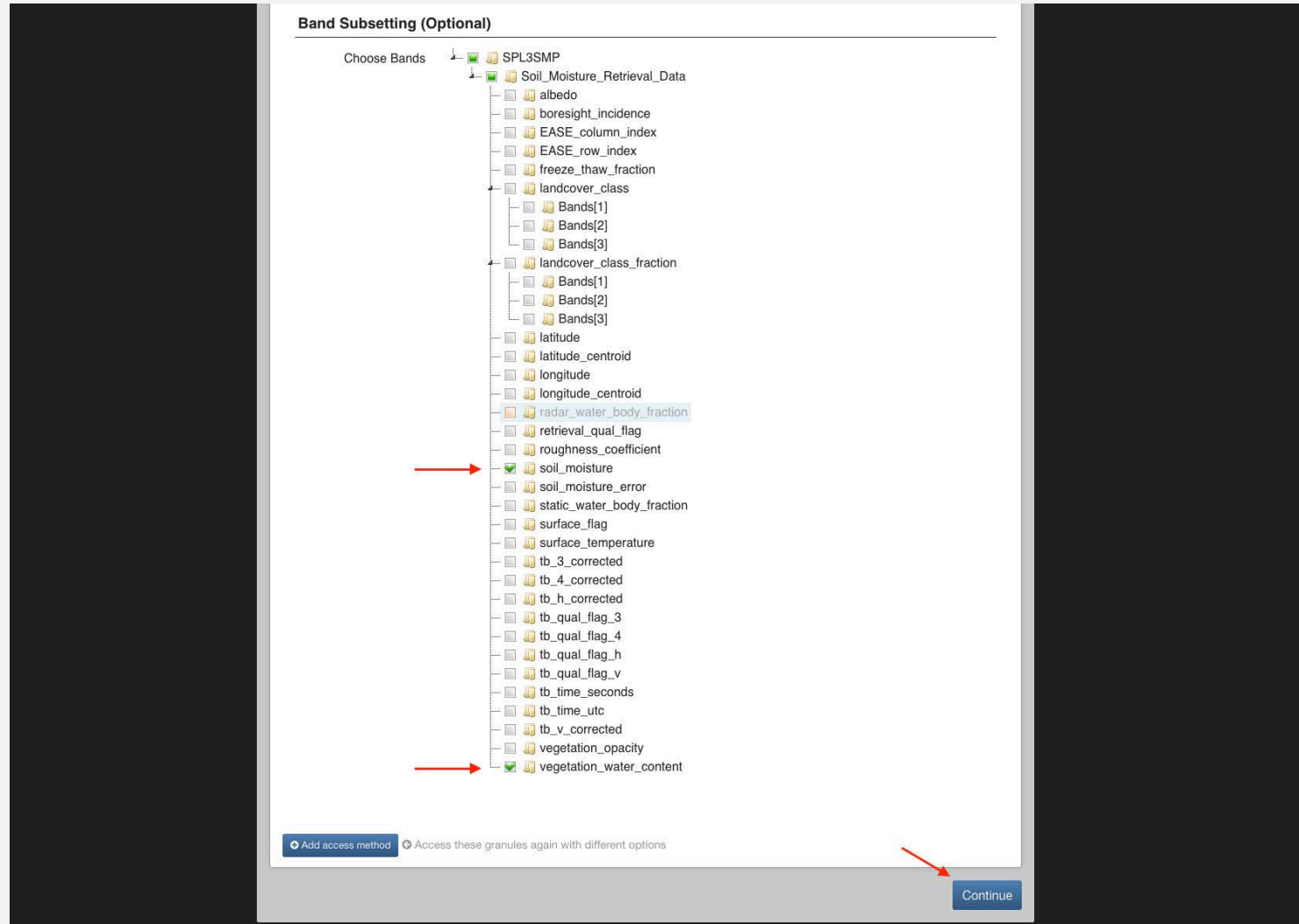
Choose Bands

- ✓ SPL3SMP
  - ✓ Soil\_Moisture\_Retrieval\_Data
    - ✓ albedo
    - ✓ boresight\_incidence
    - ✓ EASE\_column\_index
    - ✓ EASE\_row\_index
    - ✓ freeze\_thaw\_fraction
  - ✓ landcover\_class
    - ✓ Bands[1]
    - ✓ Bands[2]
    - ✓ Bands[3]
  - ✓ landcover\_class\_fraction
    - ✓ Bands[1]
    - ✓ Bands[2]

**Click here to deselect all options. Next, I'll choose just the parameters I want** →



# Personalización de mi descarga:



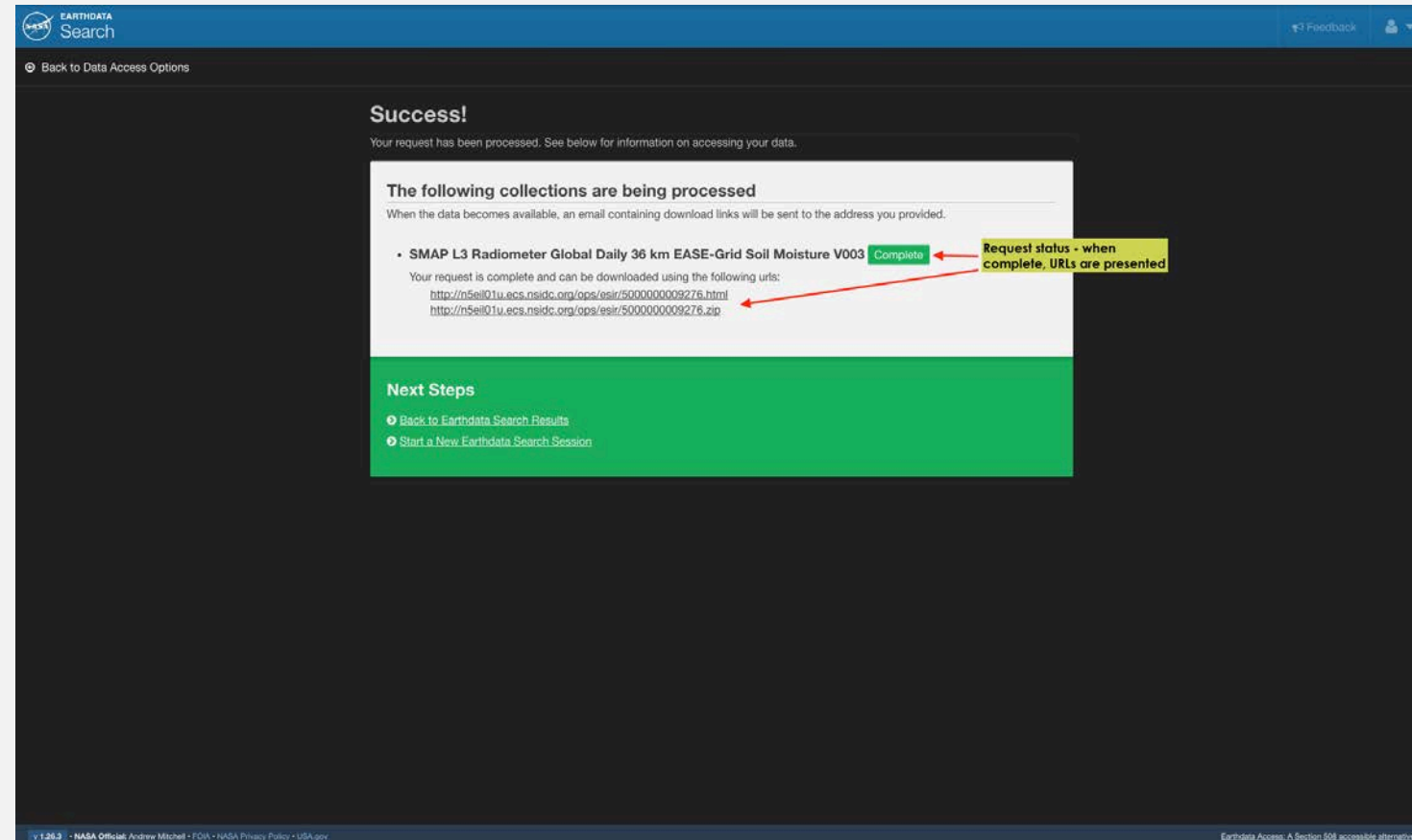
# Sometiendo mi pedido de SMAP:

The screenshot shows the Earthdata Search interface. At the top left is the NASA Earthdata Search logo. A navigation bar contains a 'Back to Search Session' link, a 'Feedback' link, and a user profile icon. The main content area is titled 'Data Access' with the subtitle 'Review and select service options for your data prior to download'. It features two numbered steps: '1 SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003' and '2 Contact Information & Submit'. The contact information is pre-filled with the following details: Amy FitzGerrell, Organization: NSIDC, Country: United States, Affiliation: EDUCATION, Study Area: Cryospheric Studies, and User Type: Data Provider Internal User. There is an 'Edit Profile in Earthdata Login' button. At the bottom right of the contact form are 'Back' and 'Submit' buttons, with a red arrow pointing to the 'Submit' button. The footer contains version information (v 1.26.3), NASA contact details, and an accessibility statement.



# Recuperando mi producto de SMAP:

Puedo pulsar el enlace html para visualizar los detalles del pedido (lo cual repasaré en seguida) o puedo pulsar el archivo zip para descargar todo a mi máquina de uno solo.



The screenshot shows the Earthdata Search interface with a 'Success!' message. The page indicates that the request for 'SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003' is complete. A yellow callout box points to the 'Complete' status, stating 'Request status - when complete, URLs are presented'. Below this, two download URLs are provided: an HTML file and a ZIP file. A green 'Next Steps' section at the bottom offers links to 'Back to Earthdata Search Results' and 'Start a New Earthdata Search Session'.

**Success!**  
Your request has been processed. See below for information on accessing your data.

**The following collections are being processed**  
When the data becomes available, an email containing download links will be sent to the address you provided.

- SMAP L3 Radiometer Global Daily 36 km EASE-Grid Soil Moisture V003 **Complete**

Your request is complete and can be downloaded using the following urls:  
<http://n5e1l01u.ecs.nsidc.org/ops/eslr/5000000009276.html>  
<http://n5e1l01u.ecs.nsidc.org/ops/eslr/5000000009276.zip>

**Next Steps**

- [Back to Earthdata Search Results](#)
- [Start a New Earthdata Search Session](#)

# Recuperando mi producto de SMAP:

Note que cuando elija reformatear el producto como GeoTIFF, Ud. recibirá un tif por banda seleccionado por cada gránulo en su pedido. Descargaré las imágenes tif de la humedad del suelo.

**Output files for request id: 5000000009276**

**Click on the following link for a Request Summary:**

[requestSummary.txt](#)

**Retrieve list of files as a text listing (no html):**

[5000000009276.txt](#)

**Download all files in a single Zip file:**

[5000000009276.zip](#)

**Click on the following links for generated output files:**

**For Input Granule: 79189537**

[SMAP\\_L3\\_SM\\_P\\_20150522\\_R13080\\_001\\_soil\\_moisture\\_3a69a061.tif](#) (<1 MB, SCIENCE, image/tiff)

[SMAP\\_L3\\_SM\\_P\\_20150522\\_R13080\\_001\\_vegetation\\_water\\_content\\_3a69a061.tif](#) (<1 MB, SCIENCE, image/tiff)

**For Input Granule: 80748296**

[SMAP\\_L3\\_SM\\_P\\_20160524\\_R13080\\_001\\_soil\\_moisture\\_d036ee4.tif](#) (<1 MB, SCIENCE, image/tiff)

[SMAP\\_L3\\_SM\\_P\\_20160524\\_R13080\\_001\\_vegetation\\_water\\_content\\_d036ee4.tif](#) (<1 MB, SCIENCE, image/tiff)

Note: Data transfer tools like wget or cURL can be used to retrieve all the data with one command using the above text listing as input. Or, simply paste any of the above output file URLs into your browser's location bar to download a file.

In a UNIX-like environment, use the following commands to download data to the current working directory:

Using wget

```
> wget -i <curl text file>
```

Using cURL

```
> for i in `cat <curl text file>`; do curl $i -OL -s; done
```

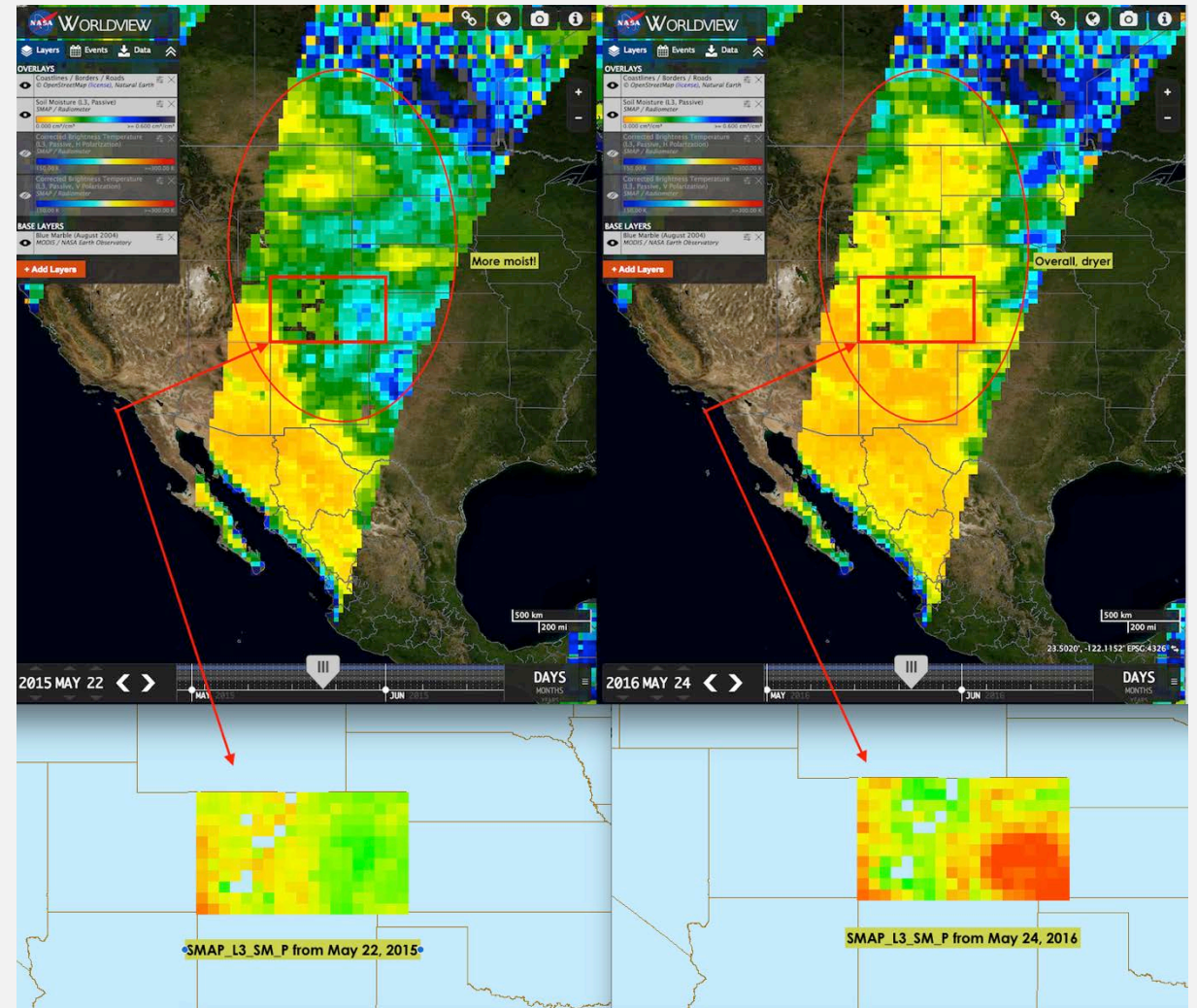


# El producto final de SMAP – Comparado con Worldview:

Con los servicios de formación de subconjuntos que elegí, mis productos GeoTIFF de la humedad del suelo incluyen datos sólo para el estado de Colorado.

He modificado mis GeoTIFFs descargados de Earthdata Search en ArcMap un poco para aplicar una paleta de colores similar (pero no exacta) y los estoy mostrando aquí al lado de la visualización inicial de Worldview que armé.

Espero que esto haya sido útil y que disfruten de su exploración de las páginas en línea de NSIDC, Worldview y Earthdata Search!



Esto concluye la sesión de hoy – ¿Hay alguna pregunta?

En caso de tener preguntas en el futuro o si necesita ayuda, ¡nos complacemos en ayudarlo!  
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