

NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION

OneStop Project Update and User Interface Demo

NOAA Ocean Observing and Monitoring Division 10th Workshop

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OneStop: Child of Open Data



- Agencies directed to provide open access to their data and information:
 - *US Open Data Policy, Executive Order and OMB Memorandum M-13-13 (2013)*
 - *OSTP Memo, Increasing Access to the Results of Federally Funded Scientific Research, OSTP Memo (2013)*
- NOAA responded with new initiatives to expand data access:
 - NOAA funding for Big Earth Data Initiative (BEDI)
 - Big Data Project -- Cooperative R&D Agreements (CRADA)
 - NOAA Public Access to Research Results (PARR) Plan, 2/13/15
- NESDIS initiated the *OneStop* pathfinder effort through NCEI to improve discovery, access, and usability of its data



Key Aspects of *OneStop*



In response to the *Open Government Initiative* and related policies, NOAA has committed to providing improved public access to all of its environmental information, to enable research and commercial innovation through ease of data discovery and use

- ***OneStop*** supports NOAA's efforts by leveraging existing access technologies and infusing specific innovations to provide improved discovery, access, and visualization services for NOAA's data.
- ***OneStop*** adheres to NESDIS Ground Enterprise (NGE) design principles and is viewed by a NESDIS as a pathfinder effort with an initial focus on selected high-priority datasets from NESDIS and other program data meeting *OneStop* standards, but eventually scalable across NOAA's data
- ***OneStop*** is implementing the USGEO Common Framework for Earth Observation Data and will leverage, when possible, datasets improved by the Big Earth Data Initiative (BEDI) and both leverage and support data cloud-enabled by the NOAA Big Data Project (BDP)

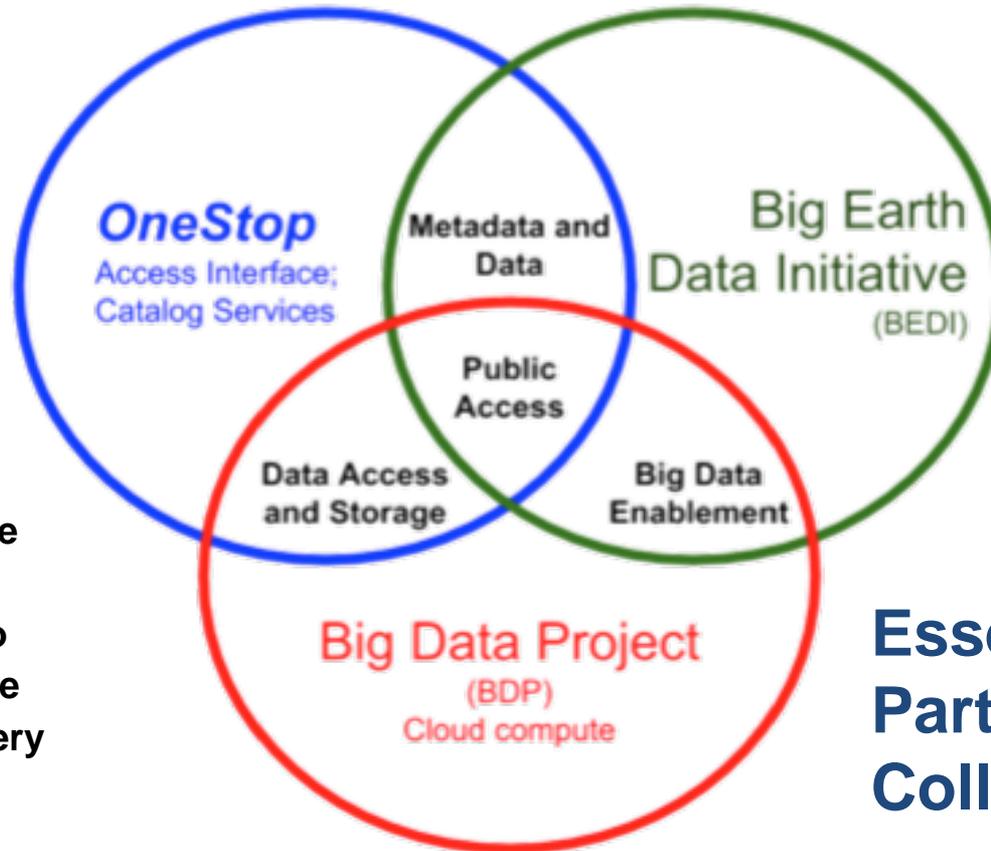


NOAA Open Data Initiatives



Goal: To enable public access to NOAA data

OneStop will leverage and support BDP by simplifying access to data currently on tape and enabling discovery of cloud-hosted data



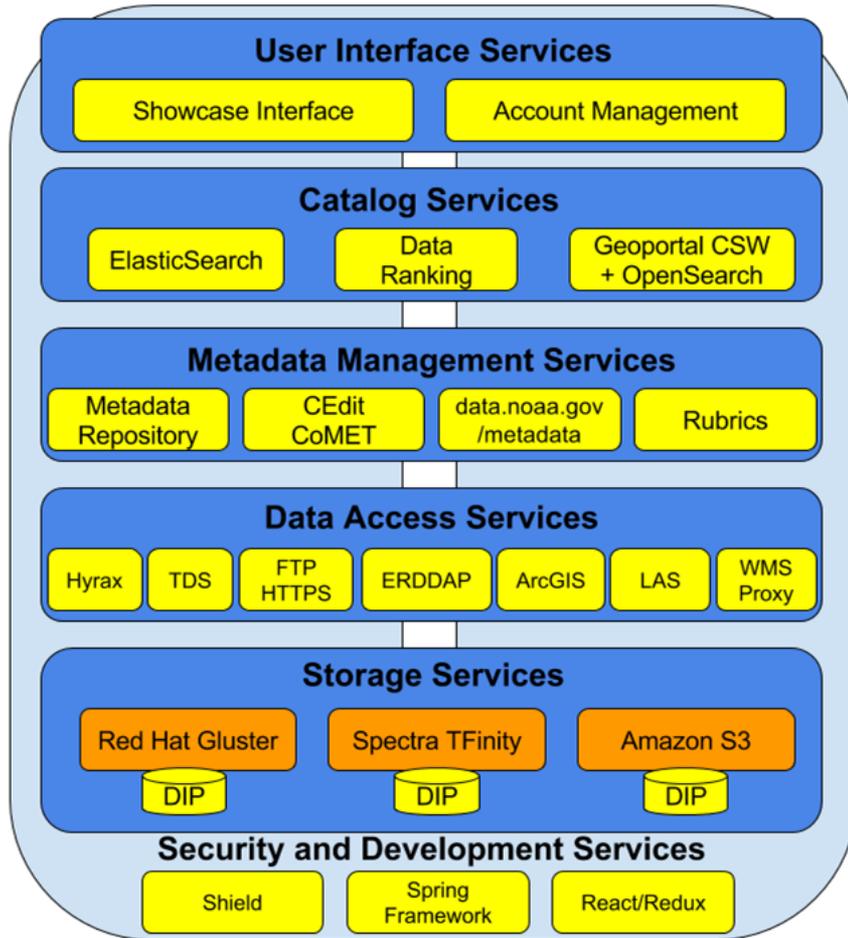
OneStop will leverage datasets improved under BEDI



Essential: Partnerships and Collaborations



Yet Another Portal??



NO!! *OneStop* is improving not just discovery of, but also access to and usability of NOAA data

- Builds on foundation of existing, mature data standards and web services
- Emphasizes not just interface, but the supporting data infrastructure
- Supports users in connecting at whichever level they prefer



OneStop Approach



- Modernize high-priority data and metadata
 - Update data and metadata to meet standards and best practices
 - Copy data from tape to disk or cloud to support access
- Improve data infrastructure in a secure, user-centered way
 - Improve rankings so most relevant data listed first (think Google)
 - Improve “facets” to allow filtering of results (think Amazon)
 - Support data visualization to enhance search experience (think Netflix)
 - Improve performance and stability of interface to meet user expectations
 - Enable user registration to support ratings, save searches, etc.
- Release software incrementally for internal stakeholder review and external testing



OneStop Recent Highlights



- *OneStop* [user interface](#) and supporting API now operational and in “soft launch” period (not this URL will change)
- Professional usability testing to commence this summer
- *OneStop* data and metadata “readiness” criteria improved iteratively and now well established
- Seven data groupings consisting of hundreds of data collections now improved, progress continues on others
- *OneStop* central storage system operational and supporting movement of data from tape to disk for better access
- Release 1 of Metadata Tools successfully demonstrated with initial import, export, and validate functions, and configurable human editing interface



OneStop “Readiness”



Readiness Metric	Requirement
ISO Compliant Collection-level Metadata	Every collection level record in the data group has an ISO compliant metadata record.
ISO Completeness Collection-level Rubric V2	Every collection level record in the data group shall have a completeness score of at least 90%.
OneStop Collection-level Readiness Rubric	Browse graphic, GCMD science keywords, ...
Standardized metadata exists for each granule or is embedded within each granule	ACDD and CF conventions for embedded metadata
Granule metadata contains <i>OneStop</i> -required content	Follows ISOLite granule template (granule metadata spec)
Machine Independent Data File Format	Each granule is formatted in a machine readable format, such as netCDF
Each granule is accessible via a URL	Minimally, direct download https/ftps but prefer interoperable services (USGEO Common Framework)
Data Stewardship Maturity Matrix (DSMM)	Assessment is complete and documented in collection-level metadata record
Product Maturity Matrix (PMM)	Optional. If PMM exists, then document results in collection level metadata



OneStop Key Milestones



Milestones	Estimated Completion Date
Project Initiation	Completed, Q4 FY15
Project Charter	Completed, 10/1/2015
Architecture Design Review	Completed, 1/4/2016
2 Data Groups Made OneStop-ready	Completed, 6/30/2016
5 Data Groups Made OneStop-ready	Completed, 9/30/2016
Software Release -- Beta Version	Completed, 12/6/2016
Software Release -- Version 1.0	Completed, 4/18/2017
10 Data Groups Made OneStop-ready	3/31/2017
Independent Evaluation Report	8/15/2017
Software Release -- Version 1.1	6/28/2017
15 Data Groups Made OneStop-ready	9/29/2017
Software Release -- Version 1.2	9/29/2017

Completion imminent

Updated due to vendor availability

Complete

In Progress



“OneStop Ready” Data Group Status



Data Group	Percent Ready	Collection Metadata	Granule Metadata	Data Formats	Data Access	DSMM	PMM (optional)
Digital Elevation Models	96%	90%	100%	100%	100%	89%	
CO-OPS NWLON PORTS	96%	89%	100%	100%	100%	90%	
World Ocean Atlas 2013	96%	90%	100%	100%	100%	90%	
Group for High Resolution SST	95%	95%	90%	100%	100%	90%	
NDBC C-MAN	96%	90%	100%	100%	100%	90%	
NOAA Climate Data Records	93%	100%	68%	100%	100%	95%	Y
OCS Hydro	97%	100%	95%	100%	100%	90%	
COAPS SAMOS	97%	94%	100%	100%	100%	90%	
NEXRAD Level 2 and 3	68%	90%	0%	100%	50%	98%	
Reformatted Legacy GOES GVAR data	82%	100%	40%	100%	20%	90%	
S-NPP/JPSS	65%	80%	40%	100%	10%	95%	
Water Column Sonar Data	39%	64%	50%	0%	0%	80%	
ESSA images	11%	15%	0%	0%	0%	40%	

Version 1.0 readiness status, as of 04 May 2017



OneStop Metadata Tools



Home / Form List / Edit: CoMET

Description* Edit Status: DRAFT [Save and Quit](#) [Delete](#)

CoMET ISO XML

Metadata ID:

Metadata Date:

Metadata Standard Name:

Metadata Standard Version:

Resource Title:

Abstract:

Metadata Contact:

Individual Name:

Organisation:

[Add](#) [Delete](#)

Like the *OneStop* discovery user interface, metadata tools built on APIs as well



OneStop User Interface Demo



NOAA OneStop Demo

National Centers for Environmental Information [US] | https://www.ncdc.noaa.gov/onestop/#/

Apps | Discovery Cluster - Fe | CU Mail | Kelly Schurger - conte | ncei.test.ncdc.noaa.gov | UC Summary Report

National Centers for Environmental Information
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OneStop

Geophysical, oceans, coastal, weather and climate data discovery all in one place.

Enter any term here to search NCEI data

Search by Topic:

- Weather
- Climate
- Satellites
- Fisheries
- Coasts
- Oceans

Featured Data Sets:

- GHRSSST
- Digital Elevation Models
- NWLON and PORTS
- World Ocean Atlas 2013

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Please provide feedback at: <http://tinyurl.com/onestop-v1-0>



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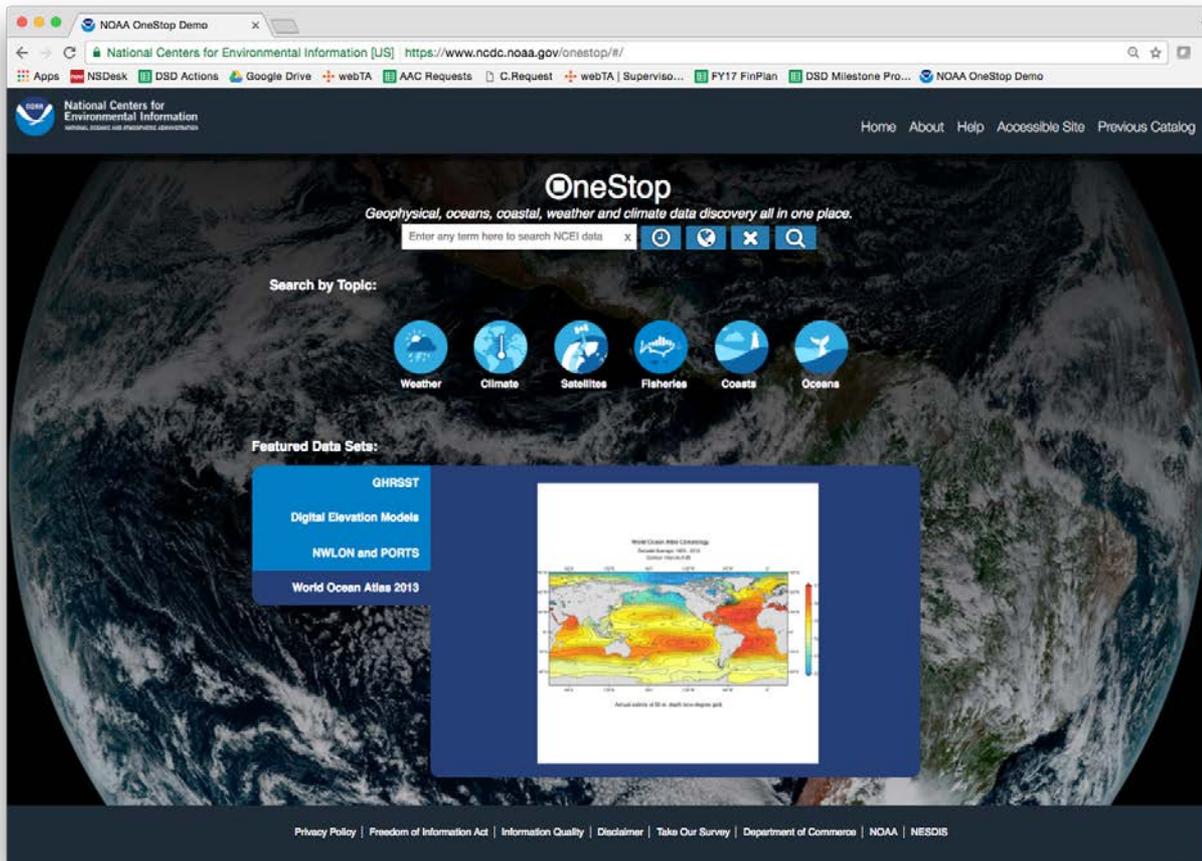
301-713-4849 (Office)

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Backups

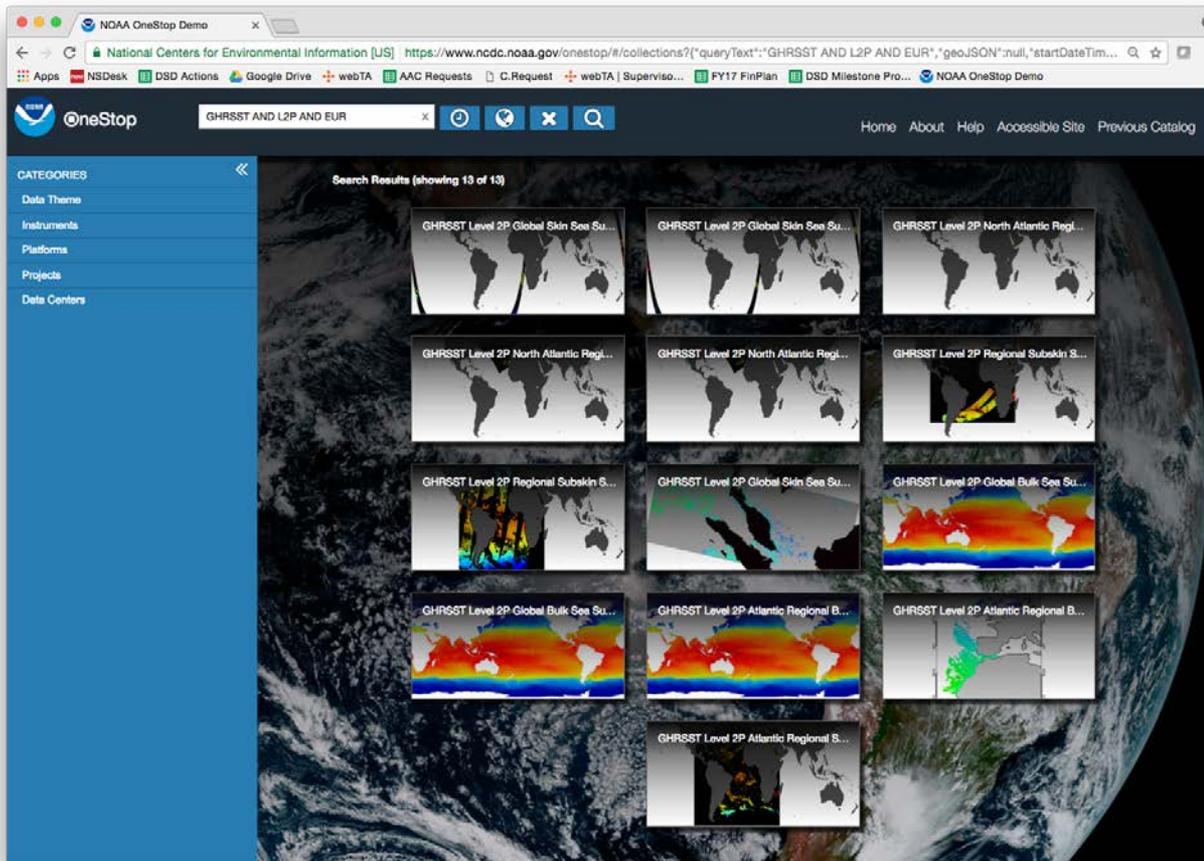




OneStop UI...

- User-centric
- Proactive
- ...

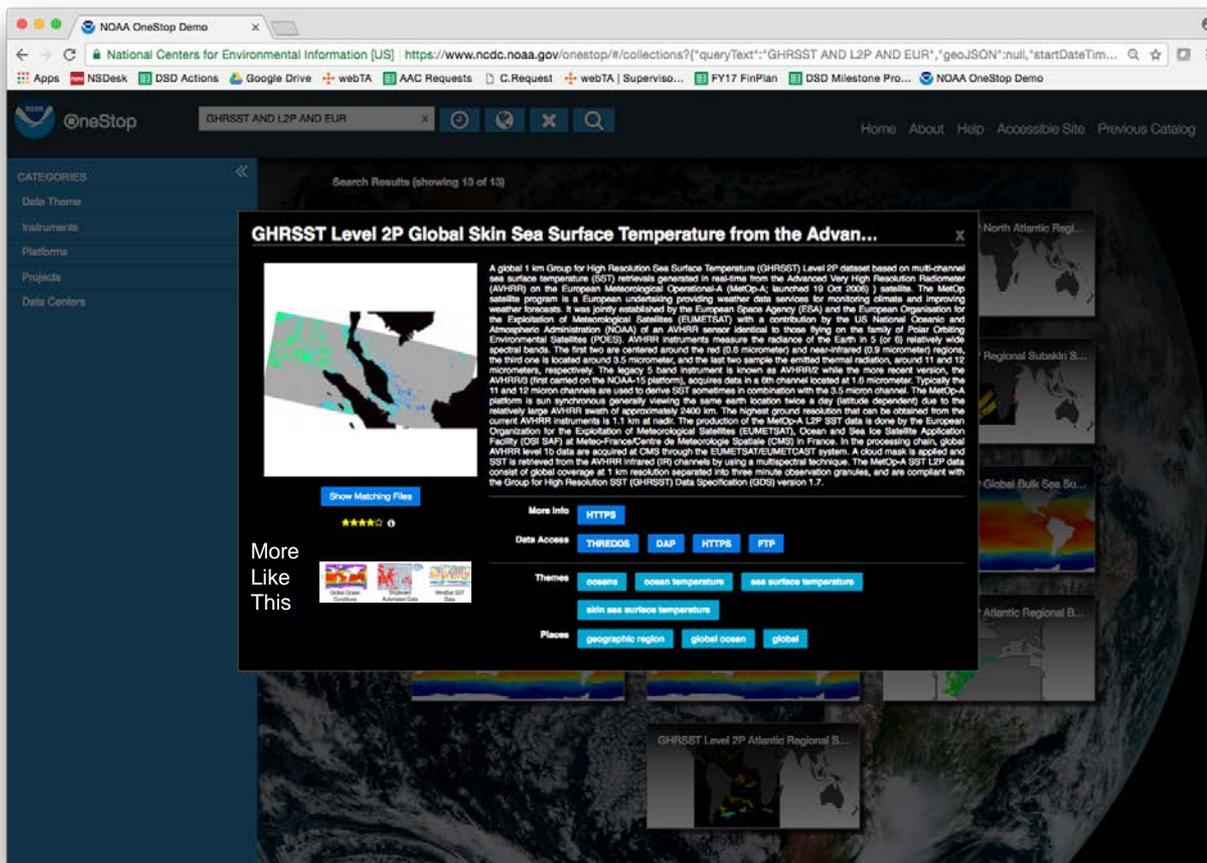
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OneStop UI...

- User-centric
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- Highly visual
- Facets/Filters
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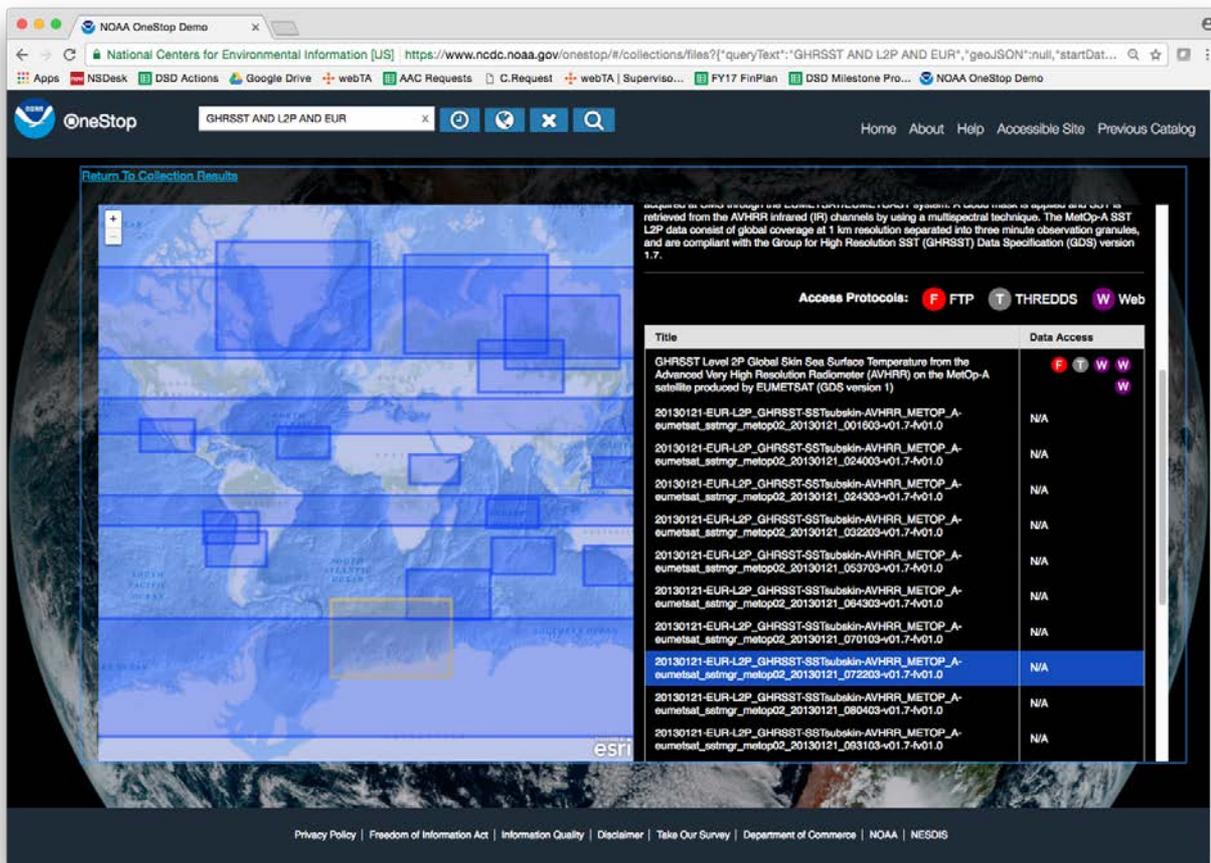
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OneStop UI...

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- Facets/Filters
- Summary descriptions
- Ratings
- Related items (soon)
- ...

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OneStop UI...

- User-centric
- Proactive
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- Facets/Filters
- Summary descriptions
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- Related items (soon)
- Integrated granule search
- Standards.usa.gov

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