GES DISC Datalist Enables Easy Data Selection For Natural Phenomena Studies

NASA/Goddard EARTH SCIENCES DATA and INFORMATION SERVICES CENTER (GES DISC)

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Abstract

In order to investigate and assess natural hazards such as tropical storms, winter storms, volcanic eruptions, floods, and drought in a timely manner, the NASA Goddard Earth Sciences Data and Information Services Center (GES DISC) has been developing an efficient data search and access service. Called "Datalist," this service enables users to acquire their data of interest "all at once," with minimum effort. A Datalist is a virtual collection of predefined or user-defined data variables from one or more archived data sets. Datalists are more than just data. Datalists effectively provide users with a sophisticated integrated data and services package, including metadata, citation, documentation, visualization, and data-specific services (e.g., subset and OPeNDAP), all available from one-stop shopping. The predefined Datalists, created by the experienced GES DISC science support team, should save a significant amount of time that users would otherwise have to spend. The Datalist service is an extension of the new GES DISC website, which is completely data-driven. A Datalist, also known as "data bundle," is treated just as any other data set. Being a virtual collection, a Datalist requires no extra storage space.

Challenges

- Natural phenomena study requires multiple datasets and multiple variables
- Newcomers to Earth science don't know where to start
- Current GES DISC available services
  - Only allow user to select variables from a single dataset at a time
  - Too many variables from a dataset are displayed, choice is hard

Solution

- GES DISC's new Datalist service
- A Datalist is a collection of predefined or user-defined data variables from one or more archived datasets
- Value-add service
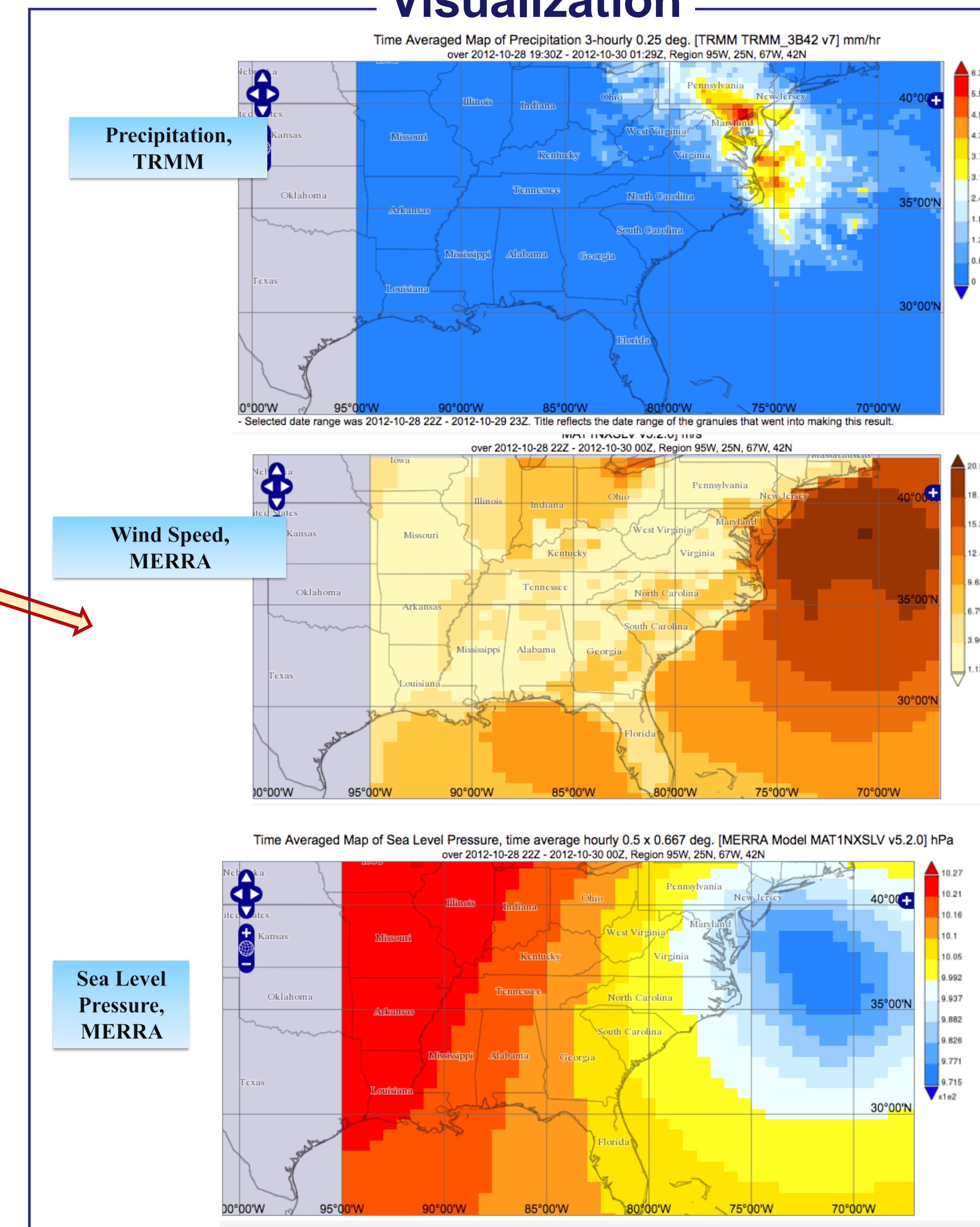 - Subject Area Experts are the Curators of the datalist

https://disc-bata.gsfc.nasa.gov/uui

Search, Access and Download

GES DISC Homepage
Key in "hurricane" here!
Hurricane Datalist Hyperlink
Datalist Landing Page
Visualization
Subsetting
Data Citation
Documentation
Temporal Subset
Spatial Subset
Selecting Data Variables
Selecting Data Dimensions
precipitation selected
wind speed selected
One Stop Data Download !

GES DISC Downloads
Selected Options
Results (found data in range from 2012-10-27 to 2012-10-29):
Download links list (instructions for downloading)
Readme document
MERRA2_400.tavg1_2d_flx_Nx.20121027.nc4.nc
MERRA2_400.tavg1_2d_flx_Nx.20121029.nc4.nc
Readme document
3B42_Daily.20121027.7.nc4.dap.nc4
3B42_Daily.20121028.7.nc4.dap.nc4
3B42_Daily.20121029.7.nc4.dap.nc4
Selected Data Variables
MERRA2 wind speed
TRMM precipitation

Visualization

Precipitation, TRMM
Wind Speed, MERRA
Sea Level Pressure, MERRA

Coming 2017

Datalist Curator's tool	Spring
A-Train Datalist	Early Spring
User-defined datalist	Summer
Sharable datalist	Summer
Datalist for event	Fall
Smart datalist	TBD

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