Improving Global Precipitation Product Access at the GES DISC

The NASA Goddard Earth Sciences Data and Information Services Center (GES DISC) has been actively and continually engaged in improving the access to and use of Global Precipitation Measurement (GPM), Tropical Precipitation Measuring Mission (TRMM), and other precipitation data, including the following new services and ongoing development activities:

- Updates on GPM products and data services
- New features in Giovanni
- Ongoing development activities
- Precipitation product and service outreach activities

**Data Set and Service Updates:**
- New GES DISC Web portal (see below)
- Web content migration (making things searchable and easier to find)
- GrADS Data Server (GDS) available for both IMERG and TMPA products
- THREDDS Data Server (Access: OPeNDAP, WCS, WMS, NetcdfSubset, NCM, UDCC, ISO)
- Viewer: Giovanni
- GPM V05 (available now); NOAA NCEP merged IR product (online now);
- GPCP-3 monthly product (coming soon); TRMM V8 (coming soon)
- Level-2 product subsetting (coming soon; OPeNDAP is available now)
- Datalist capability (coming soon)
- TMPA and IMERG in YouTube (coming soon)

**Giovanni:**
- Seasonal (Interannual) Time Series with shapefile support. With this release, users can specify a shape as their selected region of interest. In addition, a combination of bounding box and shape is supported, provided that the intersection of the shape and bounding box is valid for the data type.
- Seasonal (Interannual) Time Series with Comma-Separated-Variable (CSV) download. This release supports CSV text download for the values shown in any interannual time-series plot.

**GPM and TRMM Data Service Outreach Activities:**
- GES DISC news, Twitter, user forum, GPM product and service training webinars, Giovanni workshops
- EOS article on Giovanni with IMERG and TMPA as examples. GPM products and services at the GES DISC in the BAMS (March 2017 is
- Posters and talks at AGU Fall Meetings, AMS Annual Meetings, and other conferences

**New Features and Highlights:**
- A variety of data access methods are available for users at different levels and needs
- Level-2 GPM and TRMM product subsetting (spatial: areal and point). Subsetting through OPeNDAP is available now.
- Making a whole data set collection (e.g., IMERG, TMPA 3B42) available on YouTube videos. Users can access animations of product collections without downloading data and software. Links will be included for accessing original data.

**Ongoing Development Activities:**
- The data set landing page provides a one-stop shop for data services and information. Data set-related services are accessible at the top right. The three tabs provide information on product summary, data citation, and documentation.

**Suggestions or subscription to our mailing list:**
- GES DISC: disc@lists.nasa.gov
- CSISS, George Mason University: disc@lists.nasa.gov
- ADMET Systems, Inc.: disc@lists.nasa.gov
- Telephype Corp: disc@lists.nasa.gov
- Univ. of Maryland at Baltimore County: disc@lists.nasa.gov

**Precipitation products:**
- https://disc.gsfc.nasa.gov/datasets?keywords=precipitation
- Giovanni: https://giovanni.gsfc.nasa.gov/
- GES DISC: https://disc.gsfc.nasa.gov/

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