Geophysical Research Abstracts Vol. 16, EGU2014-5462, 2014 EGU General Assembly 2014 © Author(s) 2014. CC Attribution 3.0 License.



Global Precipitation Measurement (GPM) Mission Data and Data Access

Erich Franz Stocker

NASA/GSFC, Code 610.2, Greenbelt, United States (erich.f.stocker@nasa.gov, 301 614 5269)

If all goes as plans, the core satellite of the GPM mission will have launched on February 28, 2014 from the Tanegashima Space Center in Japan. The core satellite is the center of the GPM mission as it carries both an imagining radiometer with high frequency channels and a dual-frequency precipitation radar. In addition, the core satellite is at a 65 degree inclination so that it affords many opportunities of coincident measurements with the polar orbiting radiometers that form the GPM constellation. This allows the science team to intercalibrate the brightness temperature data retrieved from the constellation satellites by using the core satellite data as the reference satellite. This will ensure that GPM produces consistent mission brightness temperatures that should lead to consistent precipitation retrievals. The paper will also present the data production status as of the week before the conference.

The precipitation community will, of course, be very interested in the data generated by the core satellite instruments as well as the intercalibrated brightness temperatures and precipitation retrievals from the partner constellation satellites. This paper will present the various data products, from the instrument count data through the monthly precipitation retrievals, produced as part of the mission. It will present the key parameters available in the products; provide information of the purpose of the various products; and provide some preliminary information about the weaknesses of the new products when compared to Tropical Rainfall Measuring Mission (TRMM) products. If the official public release of the first image has taken place before the conference, then the paper will provide some early examples of the data products.

Near realtime (NRT) products from the core satellite radiometer and radar are available in both near-realtime and research mode. NRT precipitation retrievals will also be made from each of the partner radiometers. All these retrievals whether from imagers and sounders will use the GPROF retrieval algorithm. This paper will provide some differences between NRT and research products. It will also provide information about the NRT production of the merged radiometer product in NRT. This product will be produced as a half-hourly product using a .1 deg x .1 deg global grid. The difference among the different runs of this product will also be presented in the paper.

Lastly, the important issue for users will be how does one obtain access to that data. This paper will present the registration process and the access modes for the data both NRT and research. This information is key to ensure access to the data as soon as it is publicly available. Users will want to register even before data is publicly available. In addition, some users can be picked as early adapters and get access to the data even before public release. This paper will present the conditions for such access.