Improving User Access to the Integrated Multi-Satellite Retrievals for GPM (IMERG) Products

George Huffman (1), David Bolvin (1,2), Eric Nelkin (1,2), Christopher Kidd (1,3)

(1) NASA/GSFC, Greenbelt, Maryland, United States, (2) SSAI, Lanham, Maryland, United States, (3) Univ. of Maryland College Park/ESSIC, College Park, Maryland, United States

The U.S. Global Precipitation Measurement mission (GPM) team has developed the Integrated Multi-satellitE Retrievals for GPM (IMERG) algorithm to take advantage of the international constellation of precipitation-relevant satellites and the Global Precipitation Climatology Centre surface precipitation gauge analysis. The goal is to provide a long record of homogeneous, high-resolution quasi-global estimates of precipitation. While expert scientific researchers are major users of the IMERG products, it is clear that many other user communities and disciplines also desire access to the data for wide-ranging applications. Lessons learned during the Tropical Rainfall Measuring Mission, the predecessor to GPM, led to some basic design choices that provided the framework for supporting multiple user bases. For example, two near-real-time "runs" are computed, the Early and Late (currently 5 and 15 hours after observation time, respectively), then the Final Run about 3 months later. The datasets contain multiple fields that provide insight into the computation of the complete precipitation data field, as well as diagnostic (currently) estimates of the precipitation's phase. In parallel with this, the archive sites are working to provide the IMERG data in a variety of formats, and with subsetting and simple interactive analysis to make the data more easily available to non-expert users. The various options for accessing the data are summarized under the pmm.nasa.gov data access page. The talk will end by considering the feasibility of major user requests, including polar coverage, a simplified Data Quality Index, and reduced data latency for the Early Run. In brief, the first two are challenging, but under the team's control. The last requires significant action by some of the satellite data providers.