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A Comparison of "at-launch" V03 GPM Data Products and V04 Reprocessed Products

Erich Franz Stocker (1), John Kwiatkowksi (2), Yimin Ji (3), Owen Kelley (2), John Stout (2), and Lawrence Woltz (3)

(1) NASA/GSFC, Code 610.2, Greenbelt, United States (erich.f.stocker@nasa.gov), (2) George Mason University, Fairfax Va,(3) Wyle Corporation

The first major reprocessing of GPM mission data is scheduled for 1 March 2016. This is an important first-step in the creation of a consistent mission data suite. It will be the first set of data in which the GPM constellation radiometers are intercalibrated using GPM GMI. In addition, the GPROF profile database will be substantially observational and based on the GPM combined data product.

The GPM V03 "at-launch" 1C algorithms intercalibrated the constellation radiometers using TRMM TMI as the satellite reference standard. The GPROF profile database used for retrievals was based on TRMM, AMSRE, RadarSat and NMQ quality-controlled ground radar data in addition to model input. The V04 GPROF reprocessing will depend upon a profile database that is constructed using V04 GPM combined (DPR/GMI) observational data. This paper will provide comparison analysis of at launch V03 vs reprocessed V04. It will present global means comparing the V03 and V04 retrievals for both GPROF and the DPR radar. It will also look at the difference of the means separately for Land and Ocean. In addition it will look at specific instances of differences using the GPM gridded text products. In conclusion it will present the plans for a V05 reprocessing which is scheduled to take place in March of 2017.