



## Changes to GPM Core Data Products as a Result of the V05 Reprocessing

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Ongoing reprocessing is key to the improvement of GPM mission data products and is part of the mission requirements. The Global Precipitation Measurement (GPM) mission will be undertaking its second major reprocessing of mission data in Spring of 2017. The initial processing (V03) started in February 2014 with the launch of the GPM core satellite. This first processing required the use of pre-launch measurement and databases constructed from non-GPM measurements. In Spring of 2016, the first major reprocessed (V04) mission data suite was released. The calibrations, changes and improvements during this reprocessing cycle were based on on-orbit measurements and databases built using actual GPM measurements. The past year has provided the opportunity to study the impact of these V04 changes and determine what calibration changes were still necessary and how the retrievals were to be improved based on analysis of the new reprocessed datasets.

The second major reprocessing (V05) is the result of additional analysis of the V04 calibrations and retrievals. The V04 step was vital as it ensured that data products analyzed for improvements were those that were actually based on GPM observations. This paper will present an early assessment of anticipated V05 changes. The paper will provide a summary of the following categories of V05 data products:

- 1) GPM Microwave Imager (GMI) level 1 calibration
- 2) Ku/Ka radar level 1 calibration
- 3) GPROF GMI and GPROF constellation [??] precipitation retrievals and format changes
- 4) High level radar Level 2 precipitation retrieval changes
- 5) Combined GMI+Radar product modifications
- 6) Level 3 gridded product changes

The paper will also provide comparisons between V04 and V05 products. Additionally it will provide a high level discussion of the plans for the V05 reprocessing of the merged radiometer gridded products (IMERG)

The presentation an effective summary for potential users of what they can expect from the GPM V05 products especially in comparison to the previous version.