

**ONBOARD CALIBRATION PLAN OF THE DUAL-FREQUENCY
PRECIPITATION RADAR (DPR) INSTALLED ON THE GLOBAL
PRECIPITATION MEASUREMENT (GPM) PRIMARY SATELLITE**

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ABSTRACT:

The Global Precipitation Measurement (GPM) mission is a comprehensive program to measure precipitation from space, similar to but much expanded beyond the Tropical Rainfall Measuring Mission (TRMM)[1]. Its scope is not limited to scientific research, but includes practical and operational applications such as weather forecasting and water resource management. To meet the requirements of operational use, the GPM uses multiple low-orbiting satellites to increase the sampling frequency and to create three-hourly global rain maps that will be delivered to the world in quasi-real time.

A Dual-frequency Precipitation Radar (DPR) will be installed on the primary satellite that plays an important role in the whole mission. The DPR will realize measurement of precipitation with high sensitivity, high precision and high resolutions. This paper describes an outline of the GPM/DPR onboard calibration method, and development of Radar Calibrators (RC).