

Status Of A Formosat GNSS-R Mission

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In recent years, significant achievements have been made by using the omnipresence Global Navigation Satellite System (GNSS) signals for environmental research. In particular, the FORMOSAT-3 (COSMIC) and the upcoming FORMOSAT-7 (COSMIC II) missions have been pivotal in providing global radio occultation observations for atmosphere, ionosphere, and climate research. Based on the existing achievements, a FORMOSAT GNSS-R (reflectometry) experiment is in progress with an aim of further exploiting the scientific value of GNSS-based remote sensing and to assimilate reflection data with radio occultation observations to enhanced modeling capability and the consequent weather forecasting potential. The paper will describe the status of the program including the scientific objective, payload design, ground/airborne tests, and some preliminary retrieval results.