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Keynote

After FORMOSAT-3/COSMIC was launched in 2006, the mission system has been recognized as “the most accurate thermometer in space”. Eleven years after, one of the satellites is still capable of collecting data.

FORMOSAT-7/COSMIC-2 is the follow-up program of FORMOSAT-3/COSMIC carrying the GNSS receiver to measure the radio occultation data from GPS and GLONASS signals. The users can retrieve temperature, pressure, humidity, and electron density profiles from the bending angle measured by the on-board instrument. This paper is to document how the joint team of National Space Organization (NSPO) as the representative of Taiwan team and NOAA (National Oceanic and Atmospheric Administration) as the representative of the U.S. team to apply the lessons learned from FORMOSAT-3/COSMIC to FORMOSAT-7/COSMIC-2 and what kind of evolvments have been involved. In addition to the increased number of occultation profiles, FORMOSAT-7/COSMIC-2 has better data latency and more reliable mission system. The first set of satellite has completed the test program and sits at NSPO’s I&T highbay. These six satellites will be sent to a low-inclination-angle orbit by a rideshare Falcon-Heavy launch to collect data at low and middle latitudes. The launch is expected to be in the next year and the mission data would become available to users seven months after launch.

OSTS session

Regional and Global CAL/VAL for Assembling a Climate Data Record

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