

COSMIC-2/FORMOSAT-7 PROGRAM STATUS

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We present program status and recent highlights for the FORMOSAT-7/COSMIC-2 (COSMIC-2) mission. The COSMIC-2 mission is jointly managed by NOAA and Taiwan's National Space Organization (NSPO), consisting of six satellites in a 24-degree inclination orbit at ~550km altitude. The primary payload is the JPL developed Tri-GNSS Radio-occultation System (TGRS). Tracking data from two upward looking choke-ring antennas are used for orbit and clock determination as well as ionospheric total electron content retrieval. The US and Taiwan data processing centers receive level-0 data from a set of downlink stations and process them into higher level weather and space weather products for use by operational weather and space weather centers worldwide. Across all satellites, COSMIC-2 is providing typically more than 5000 neutral atmosphere profiles and nearly 12,000 ionospheric total electron content arcs and occultations per day with median latencies under 30 min. In this presentation we summarize spacecraft, instrument, and ground segment status, mission operations, available data products, product latency, recent program milestones, and future development plans.