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Oral

Global Navigation Satellite System (GNSS) Occultation Sounder (GNOS) instruments were designed for the FengYun-3 (FY-3) series of meteorological satellites for sounding the Earth's atmosphere and ionosphere by radio occultation.

Meanwhile, another GNSS remote sensing technique named GNSS reflectometry (GNSS-R) has been developed rapidly as well. To integrate these two GNSS remote sensing techniques in one payload, to help save the satellite's space, power and mass, a new instrument named GNOS II has been designed for the FY-3E satellite. The FY-3E satellite is anticipated to monitor the ionosphere, neutral atmosphere, sea wave and wind field by using GNSS signals in the future. So far, these two functional modules have been validated by ground-based, airborne or space-based campaigns. The GNOS II configuration and main performances characteristics are presented in this paper. According to its demonstrated performance, one can draw the conclusion that GNOS II will provide more and higher quality radio occultation data and new reflected GNSS signal delay Doppler maps (DDMs) for sea wave and wind field detection.

OSTS session

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