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TWO YEARS OF COMS NORMAL OPERATION FOR EARTH OBSERVATION MISSION

Abstract

Communication Ocean Meteorological Satellite (COMS) for the hybrid mission of meteorological observation, ocean monitoring, and telecommunication service was launched onto Geostationary Earth Orbit on June 27, 2010 and it is currently under normal operation service since April 2011. The COMS is located on 128.2 East of the geostationary orbit. In order to perform the three missions, the COMS has 3 separate payloads, the meteorological imager (MI), the Geostationary Ocean Color Imager (GOCI), and the Ka-band antenna. Each payload is dedicated to one of the three missions, respectively. The MI and GOCI perform the Earth observation mission of meteorological observation and ocean monitoring, respectively. For this Earth observation mission the COMS requires daily mission commands from the satellite control ground station and daily mission is affected by the satellite control activities. For this reason daily mission planning is required. The Earth observation mission operation of COMS is described in aspects of mission operation characteristics and mission planning for the normal operation services of meteorological observation and ocean monitoring. And the results of two years normal operation after the In-Orbit-Test (IOT) are investigated through statistical approach to provide the achieved COMS normal operation status for the Earth observation mission.