

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Data Management Systems (4)

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COMS INR; PROSPECT AND RETROSPECT

Abstract

Communication, Ocean, and Meteorological Satellite (COMS) has been designed and developed by the joint effort of EADS Astrium and Korea Aerospace Research Institute (KARI) under the contract of COMS, to provide the three services from geostationary orbit; a meteo mission, an ocean color imaging mission and an experimental Ka band telecommunication mission. With its launch scheduled on late April 2010 at the current time, the meteo mission, provided by the Meteo Imager (MI), will allow continuous monitoring of imagery and extracting of meteorological products with high resolution (1kmx1km) and multi-spectral imager (1 visible and 4 IR). It will be used for early detection of special weather such as storm, flood, yellow sand, etc. Extraction of data on long-term will enable to monitor change of sea surface temperature and cloud. The ocean color imaging mission which relies on the Geostationary Ocean Color Imager (GOCI) will provide the classical ocean color information: chlorophyll, alga blooming, etc. for monitoring of long-term and short-term change of marine ecosystem. To drive and ascertain the accomplishment of the missions from these two imagers, the image navigation and registration (INR) system should be in place, and COMS INR has been designed and developed in accordance with the COMS INR requirement specifications. This paper provides an overview of COMS INR system in terms of its design, implementation and tests, and reports the 1st hand INR in-orbit performances as available from the in-orbit test data. It also provides the comparison of COMS INR to other currently in-flight INR systems, with the aim to have one objective retrospect and one reference for way forward.