

EARTH OBSERVATION SYMPOSIUM (B1)
International Cooperation in Earth Observation Missions (1)

Author: Mr. Degremont Joel
Airbus China, France, joel.degremont@airbus.com

Dr. Handol KIM
Korea Aerospace Research Institute (KARI), Korea, Republic of, hkim@kari.re.kr

Dr. Charles Koeck
EADS Astrium, France, charles.koeck@airbus.com

Mr. Ivan Laine
Airbus Defence and Space SAS, France, ivan.laine@airbus.com

ONE YEAR INTO THE SUCCESS OF THE COMS MISSION

Abstract

Considered as a “Swiss knife” satellite, COMS satellite has been designed by Astrium for the Korea Aerospace Research Institute (KARI), with KARI support. The satellite carries 3 different payloads having somewhat antagonistic requirements : i) a meteorology imager requesting a single solar array configuration, ii) a 8-band medium resolution “ocean colour” imager requiring very low jitter during long integration time, and iii) a Ka-band telecommunications payload with strong pointing stability requirement during manoeuvres. The need for very accurate image geo-localization has also requested a very innovative and successful Image Navigation Registration (INR) system based on automatic extraction of landmarks from images. Launched on June 26, 2010 from Kourou, French Guyana, COMS is the first South Korea multi-mission geostationary satellite, and the first of its type ever built in Europe. The In Orbit Testing was completed early this year, and since then the satellite is successfully operated by KARI for the benefits of all 3 end users : The Korean Meteorological Administration, the Korea Ocean Satellite Center, and the Electronics Telecommunications Research Institute. This paper proposes a short description of the system and presents the successful in orbit performances of whole system, including the optical payloads and the INR.