SPACE SYSTEMS SYMPOSIUM (D1)
Training, Achievements, and Lessons Learned in Space Systems (5)

Author: Dr. Kyungin Kang
Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea

Mr. cheolwoo LIM
Satellite Technology Research Center, KAIST, Republic of Korea

STSAT-2C MISSION ACHIEVEMENTS WITH ON ORBIT VERIFICATIONS

Abstract

The STSAT-2C is a small satellite with 100kg mass and was launched on 30 January 2013, on the third flight of the KSLV-1, Korean rocket. Liftoff occurred from the Naro Space Centre in Korea, and the rocket successfully deployed the satellite into at 297km by 1,512km Low Earth Orbit inclined at 80.3 degrees. The objectives of STSAT-2C consist of three missions. The first is to verify the orbit injection capability of KSLV-1 Launch Vehicle. The Second is observation of space environment. And the third is to perform new space technology demonstration in orbit. The STSAT-2C was developed very shortly in a year for the KSLV-1, which had previously failed to launch STSAT-2A in 2009 and STSAT-2B in 2010. The STSAT-2C is operated by Satellite Technology Research Center of KAIST and was achieved mission requirement successfully in orbit. It has new developed space technology include IR Sensor, Femto-Second Laser, Reaction Wheel and Li-Ion battery system using COTS devices and etc.