

## STSAT-2: A Program on Science and Technologies Demonstration

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The objectives of the Science and Technology Satellite-2 (STSAT-2) project are 1) Domestic development of a low earth orbit 100kg satellite which will be launched on KSLV-1 (Korea Space Launch Vehicle) from a domestic space center, 2) Development of advanced technologies for small spacecrafts, 3) Development and operation of world-class space science payloads. The STSAT-2 is developed from technologies based on the KITSAT-1, 2, 3 and the STSAT-1 which are Korea micro-satellites successfully operated on orbits. This project has been started from October 2002. Korea Aerospace Research Institute (KARI) manages the STSAT-2 program, GIST (Gwangju Institute of Science and Technology) develops a main payload which is DREAM (Dual-channel Radiometers for Earth and Atmosphere Monitoring), and SaTReC (Satellite Research Center) of KAIST (Korea Advanced Institute of Science and Technology) develops a spacecraft, a ground station, and a secondary payload which is Satellite Laser Ranging (SLR) Laser Retro-reflector Array (LRA). The Critical Design Review (CDR) has been performed on January 2006. The Protoflight Model (PFM) of spacecraft bus and payloads have been developed and integrated on December 2005. It is performing system level test at this point. The STSAT-2 Flight Model (FM) will be manufactured by the end of 2006. As planned in the Korea Space Development Mid-Long Plan, the STSAT-2 will be launched at NARO Space Center in Koheung, Korea and into orbit using the KSLV-1 on October 2007.