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Author: Dr. Kazuya Konoue
Japan Aerospace Exploration Agency (JAXA), Japan, konoue.kazuya@jaxa.jp

OPERATIONAL STATUS OF SUPER LOW ALTITUDE TEST SATELLITE "TSUBAME/SLATS"

Abstract

Super Low Altitude Test Satellite "TSUBAME(SLATS)" was launched in December 2017 and continues descending toward super low altitudes. We are challenging to expand our fields of space activities toward these altitudes almost never been used for long-life remote sensing so far. Super low Earth orbits provide new viewpoints for Earth observation, such as higher resolution imaging and less powerful SAR than before. SLATS is the first demonstrator of JAXA's Earth observation satellite to operate at super low altitudes using electric propulsion and to show the effects of altitude change by imagers. SHIROP onboard SLATS is a small and high resolution panchromatic optical sensor in order to achieve under 1 m resolution from super low altitudes. We are going to demonstrate the ability of higher GSD(Ground Sampling Distance) imaging from super low Earth orbits than that of other remote sensing satellites. This paper introduces the current on-orbit operational status of SLATS and future plan about super low altitude satellite.