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VRSS-1 SATELLITE SUMMARY

Abstract

The first Venezuelan Remote Sensing Satellite (VRSS-1), launched at 12:12PM, 29th Sep, 2012, in Jiuquan Satellite Launch Center, China, will be used in several domains, such as investigation, evaluation, dynamic detection and management of Venezuelan territory, resource utilization, detection of environment and disaster, and city construction as well. Considering the requirements of Venezuelan users and the requirements of rapid development, VRSS-1 shall be running in a sun-synchronous orbit, the LTDN of which is 10:30AM. Two(2) Panchromatic/Multi-Spectrum Cameras(PMC) are equipped to achieve Ground Sampling Distance(GSD) better than 2.5m(PAN)/10(MS) in the altitude of 639km, the combinational swath of which is 57km; Two(2) Wide-swath Multi-spectrum Cameras(WMC) are equipped to achieve GSD better than 16m and the combinational swath is 369km. The spacecraft is designed basing on the experienced and commonly-used CAST2000 platform. The max roll maneuver capability of the spacecraft is -35deg 35deg. The mass is about 860kg and the designed lifetime shall be 5 years. Till Jan 2013, the In-orbit Test mission of VRSS-1 has already been finished completely under hard working and successful cooperation of both parties from China and Venezuela. the performance of the satellite meets the technical requirement. It will be used for former service operation soon after delivery. The remote sensing image has already been used in many domains in Venezuela.