

EARTH OBSERVATION SYMPOSIUM (B1)
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DESIGN AND IN-ORBIT PERFORMANCE OF HIGH RESOLUTION PAYLOAD FOR VRSS-1
SATELLITE

Abstract

The Venezuelan Remote Sensing Satellite(VRSS-1),manufactured by China Academy of Space Technology(CAST) for Venezuela, was launched successfully in 2012 and consigned to Venezuela in 2013, which carried four payloads, including two identical high-resolution instruments called PanchromaticMultispectral cameras(PMC) and two wide-swath Multispectral cameras(WMC). PMC is designed to acquire high resolution remote sensing images. Its resolution is superior to 2.5m(P)/10m(XS) and the swath is 57km for nadir viewing conditions. PMS used three-mirror aspheric optical system and five spectrum of TDICCD. Images can be simultaneously acquired in PA and XS mode at the same point. In order to ensure high performance,it adopted some advanced design and accepted careful test before launch. During in-orbit testing phase, its performance had been tested and the image quality had been accessed systematically.Now the PMC images has been widely used in many remote sensing areas. This paper presents the disign of PMS as well as its performance before launch. And its in-orbit performance and image quality are provided. The application of PMS images in different areas is also introduced.