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EARTH OBSERVATION SYMPOSIUM (B1)
Future Earth Observation Systems (2)

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AN OVERVIEW OF SATELLITE PROJECT OF THE NATIONAL HIGH RESOLUTION EARTH OBSERVATION SYSTEM (NHREOS)

Abstract

The National High Resolution Earth Observation System (NHREOS) is one of the 16 important projects proposed in "National long-term Science and Technology Development Plan (2006-2010)". Since its approval in 2010, it has accelerated the development of space information and application technology in China. In addition, it is of great significance to meet the needs of national economic construction and social development. NHREOS consists of space-based observing system, ground system, and application system, etc..

GF-1 satellite was the first project of NHREOS (resolution 2m PAN/8m MUX, width 60km), launched in April 2013. GF-2 satellite is currently the highest resolution optical remote sensing satellite (resolution 0.81m PAN/3.24m MUX, width 45km). It was launched in August 2014. GF-3 satellite is designed to be multi-polarity high resolution C-band SAR satellite of China (resolution 1m), and will be launched in 2016. GF-4 satellite, launched in December 2015, is the first optical remote sensing satellite in geosynchronous orbit in China and the resolution is highest among GEO remote sensing satellites(resolution 50m, width 400km). GF-5 is specially deveoloped for Hyperspectral observation. GF-6 satellite is similar to GF-1, with resolution of 2m PAN/8m MUX. GF-7 satellite is the first high precision surveying and mapping satellite for 1:10000 scale stereo mapping. 6 satellites are all developed by the China Academy of Space Technology (CAST), exept for GF-5. The launch and application of these satellites means that China has entered into a new era in space-based earth observation system and application capability.