

66th International Astronautical Congress 2015

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

Author: Dr. Wei Sun
Twenty First Century Aerospace Technology Co.,Ltd, China, yin.hu@outlook.com

BEIJING SERIES SMALL EARTH OBSERVATION SATELLITES AND SERVICE

Abstract

Beijing series Earth Observation satellites are operated by a Beijing based high-tech enterprise, Twenty First Century Aerospace Technology Co. Ltd (21AT). The company is the first and only commercial EO satellite operator in China. Its first generation satellite, Beijing-1 small satellite developed in cooperation with SSTL, was launched in 2005 and had successfully provided data and service for wide range of EO applications in China, which includes land resources management, disaster response, forestry and agriculture monitoring, water monitoring for safety and protection, urban planning and development. Especially, it provided operational comprehensive intelligent management service for Beijing municipal government based on key element and its consequent change detection, which derived from guaranteed quarterly Beijing-1 satellite images. Also, Beijing-1 has provided disaster responses through International Charter and data to international customers through the international Disaster Monitoring Constellation (DMC). 21AT through the success of Beijing-1 satellite demonstrates that guaranteed timely data is the enabler for operational services that made the commercialization of EO satellites possible.

Following the success of Beijing-1, a new high resolution 1m Triple Satellites Constellation will be launched in the first half of 2015 to provide sustainable data source for Beijing Intelligent Management System and bring the unique optical satellite data source to the world. The constellation consists of three identical satellites, will be able to provide daily targeting capability anywhere on the Earth and provide guaranteed timely data and associated operational services for worldwide customers.