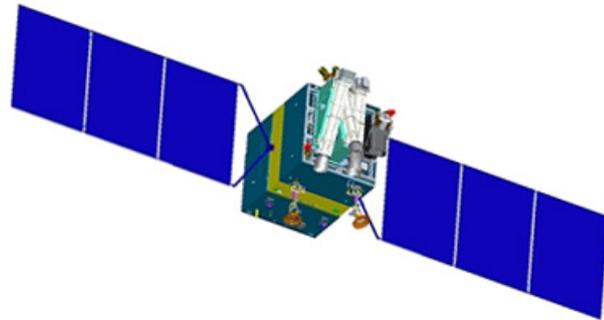


China's First Civil High-resolution Stereo Mapping Satellite ZY-3 Operates Stably in Orbit

China launched a new high-resolution remote sensing satellite, ZiYuan(ZY-3), on Jan 9, 2012, using the Long March 4B (Chang Zheng-4B -Y26) launch vehicle from the Taiyuan Satellite Launch Center. The ZY-3 satellite fills the gaps in China's civilian mapping satellites and serves as a milestone in enhancing China's independent access to high-resolution geospatial information and resolving the strategic shortage of fundamental geographic information resources.



ZY-3 satellite launch site



ZY-3 satellite configuration

The satellite, weighing 2650 kg, entered an orbit of 500 km above the Earth about 12 minutes after it was launched. The satellite carries three high-resolution panchromatic cameras and an infrared multispectral scanner (IRMSS). The cameras are positioned at the front-facing, ground-facing and rear-facing positions. Two cameras (front-facing and rear-facing) have a spectral resolution of 3.5m and 52.3km ground swath while the ground-facing camera has a spectral resolution of 2.1m and 51.1km ground swath. The IRMSS has a spectral resolution of 6.0m and 51.0km ground swath. The satellite is equipped with two 3 meters solar arrays for power generation and will orbit a 505.984 km sun-synchronous solar orbit with 97.421 degree inclination. It has a designed life expectancy of five years. This orbit will have a re-visit cycle of 5 days.

The ZiYuan-3 (ZY-3) is the first of a new series of high-resolution civilian remote sensing satellites, which was initiated in March 2008. It will conduct surveys on land resources, help with natural disaster-reduction and prevention, lend assistance to farming, water conservation, urban planning and other sectors, by surveying the area between 84 degrees north and 84 degrees south latitude. Satellite is vested in National Administration of Surveying mapping and Geo-information (NASG), China.

资源三号测绘卫星融合影像（真彩色）



成像时间：2012年1月11日 大连地区 国家测绘地理信息局

2.1-m-resolution merged image of ZY-3(true color)

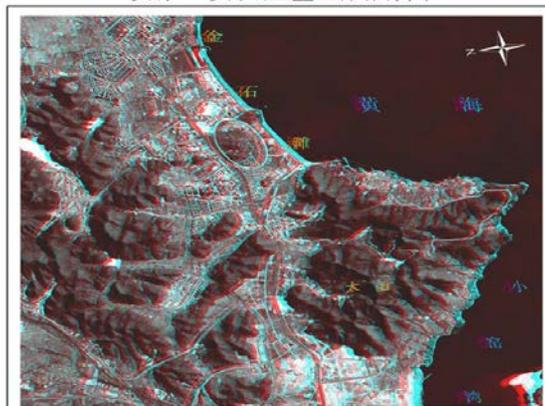
资源三号测绘卫星融合影像（彩红外）



成像时间：2012年1月11日 大连地区 国家测绘地理信息局

2.1-m-resolution merged image of ZY-3(color infrared)

资源三号测绘卫星立体影像图



成像时间：2012年1月11日 大连地区 国家测绘地理信息局

(Stereo image of ZY-3)

In the afternoon of January 11, the satellite had returned the first batch of data. NASG handled with the first piece of orthophoto and three-dimensional map, and also completed the first high-precision digital surface model (DSM) and digital orthophoto production. The Accuracy analysis of the graphic was carried out in the precision 3 m, height accuracy of 2.1 m.

In the next five years, ZY-3 will provide stable data source to satisfy the widespread requirements in areas of national geospatial database construction and update, geo-information service to the public, national geographical state monitoring, disaster prevention and mitigation, urban construction and planning, etc. Apart from these, it can also provide high-quality and up-to-date image products abroad to foreign countries or international organizations, and meet the global data requirement on issues of climate change monitoring, resource exploration and regional changes analysis, etc.