

CHINESE EO DATA FOR DRAGON 5 (ANNEX6 OF THE MAINTEXT)

Access to archived Chinese EO data can be made following user registration on-line at:

<http://www.chinageoss.org/en/index.html>. The data can be downloaded after approval to data request on line.

MISSION	DESCRIPTION	AVAILABILITY
HY-1 & 2	<p>There are three satellites in the HY-1 Series, 1A, 1B and 1C. HY-1A was launched in 2002, HY-1B in 2007 and HY-1C in 2018. They carry sensors designed to monitor and measure Ocean Colour and SST. The two main sensors are: COCTS - Chinese Ocean Colour and Temperature Scanner (developed by SITP) & CZI - Coastal Zone Imager (CCD Camera) (developed by CAST).</p> <p>The HY-2 satellite is a marine remote sensing satellite developed by China and launched in 2011. Two HY-2 satellites, HY-2A and Hy-2B, have been successfully launched in 2011 and 2018. The objective of HY-2 is monitoring the dynamic ocean environment and includes following payloads:</p> <ul style="list-style-type: none"> •The radar altimeter is used to detect the height of the sea surface, significant wave heights, the wind speed and marine basic parameters; •The microwave scatterometer is used to global sea surface wind field monitoring; •The scanning microwave radiometer is used to obtain the global sea surface temperature, sea surface wind field, the water vapour content, cloud water content, sea ice, rainfall etc.; •The calibration microwave radiometer is used to provide water vapour content calibration service to the altimeter. 	<p>More information about the HY missions is available at: http://www1.nsoas.org.cn/NSOAS/En/Satellites/index.html</p> <p>The HY-1 & HY-2 data can be acquired by user registration at https://osdds.nsoas.org.cn/#/</p>
CBERS-04	<p>The China-Brazil Earth Resources Satellite (CBERS) was jointly developed by China and Brazil since 1988. CBERS-04 was launched successfully on 7 December 2014. The payloads of CBERS-04 are as follows:</p> <ul style="list-style-type: none"> • Panchromatic & CCD Camera (PAN). The PAN Camera has three spectral bands in the visible and near infrared range and one panchromatic band. It has a nadir spatial resolution of 5 meters for panchromatic bands and spatial resolution of 10 meters for multispectral bands; • Multispectral Camera (MUX). The MUX Camera has a nadir spatial resolution of 20 meters and a swath width of 120 km. It has four spectral bands in the visible and near infrared range; • Infrared Multispectral Scanner (IRS). The IRS instrument has a spatial resolution of 40 meters (for three visible to short-wave infrared spectral bands) and 80 meters (for one thermal infrared band). Its swath width is 120 km; • Wide Field Imager (WFI). The WFI camera has a nadir spatial resolution of 73 meters in four visible to near-infrared spectral bands. It has a swath width of 866 km. 	<p>Access to CBERS-04 data can be made following user registration by Chinese PI on-line at: http://218.247.138.119:7777/DSSPlatform/index.html (only Chinese version)</p>
GF-1	<p>The GF-1 satellite was launched on 26 April 2013, as part of High-resolution Earth observing system of China. It has three payloads including a high-res. pan sensor, a high-resolution multispectral CCD camera (PMS) and a mid-res. multispectral camera with 800 km swath (WFV). The GF-1 WFV data (16 m res.) will be available for Dragon 5 use. More info at: http://www.cnsageo.com/#/detailIndex?secondIndex=0&id=2&code=5</p>	<p>Access to GF-1 WFV data can be made by user registration online at: http://www.cnsageo.com</p>
GF-6	<p>The GF-6 satellite was launched on 2 June 2018, is an optical remote sensing satellite with red-edge band. It is on 645 km sun synchronous orbit, and its local time of descending is 10:30 a.m. GF-6 is configured with one 2/8m Panchromatic & Multispectral Scanners (PMS) and one 16m WFV Multispectral Cameras, which have the ability of high resolution and wide swath imaging on the same satellite. The GF-6 WFV data (16 m resolution) will be available for Dragon 5 use. More information about the GF-6 missions is available at: http://www.cnsageo.com/#/detailIndex?secondIndex=1&id=7&code=5</p>	<p>Access to GF-6 WFV data can be made by user registration online at: http://www.cnsageo.com</p>
Zhangheng-1	<p>The Zhangheng-1 (Seismo-Electromagnetic Satellite, CSES) is the first platform of China's earthquake observation system in space and was launched successfully in 2018. The Zhangheng-1 satellite carries 8 instruments, including search-coil magnetometer (SCM), electric field detector (EFD), high precision magnetometer (HPM), GNSS occultation receiver (GOR), plasma analyzer package (PAP), langmuir probe (LAP), high energetic particle package (HEPP) and detector (HEPD), and tri-band beacon (TBB). It is flying in a sunsynchronous orbit with an altitude of 507 km and descending node time of 14:00 LT., which will have a lot of application prospects in the study of seismology, geophysics, space sciences, and so on.</p>	<p>The Zhangheng -1 data can be acquired by user registration at: http://www.chinageoss.org/en/index.html</p>



FY Series	<p>There are two types of Chinese Meteorological Satellites (FY Series): Polar System (FY 1, FY-3) and Geostationary System (FY-2, FY-4). Polar-orbit satellites operational system can provide both local and global environment data; geostationary satellites system can provide observation of East-Asia hemisphere hourly. Products derived from FY-1D, FY-2E/F/G/H, FY-3A/B/C/D and FY-4A can be made available to this opportunity.</p> <p>FY-1 series are China's first generation sun-synchronous orbiting meteorological satellites. Observing instruments aboard FY-1D are as follows:</p> <ul style="list-style-type: none"> • Multi-channel Visible and Infrared Scan Radiometer (MVISR); • Space Environment Monitor (SEM) for observing energetic particles in solar winds. China's first geostationary meteorological satellites were named FY-2 satellites. Observing instruments aboard FY-2 includes following: • Stretched Visible and Infrared Spin Scan Radiometer (S-VISSR); • Space Environment Monitor (SEM). <p>FY-3 satellites are China's second generation polar-orbiting meteorological satellites, with substantively enhanced functionalities and technical capabilities. FY-3 Products derived from the following instruments can be made available under this call:</p> <ul style="list-style-type: none"> • Visible and Infrared Radiometer (VIRR); • Medium Resolution Spectral Imager (MERSI); • Infrared Atmospheric Sounder (IRAS); • Micro-Wave Temperature Sounder (MWTS); • Micro-Wave Humidity Sounder (MWHS); • Micro-Wave Radiation Imager (MWRI); • Backscatter Ultraviolet Sounder (SBUS); • Total Ozone Unit (TOU); • Earth Radiation Measurement (ERM); • Solar Irradiance Monitor (SIM); • Space Environment Monitoring (SEM); • Space Environment Suite (SES). <p>FY-4 is China's second generation geostationary meteorological satellite. FY-4 Products derived from the following instruments can be made available under this call:</p> <ul style="list-style-type: none"> • Advanced Geostationary Radiation Imager (AGRI); • Geostationary Interferometric Infrared Sounder (GIIRS); • Lightning Mapping Imager (LMI); • Space Environment Package (SEP). 	<p>More information and access to FY data can be made by user registration at following website:</p> <p>http://www.nsmc.org.cn/en/NSMC/Channels/outline.html (Chinese and English versions)</p> <p>Data will be delivered free of charge by</p> <p>http://satellite.nsmc.org.cn/portalsite/default.aspx?currentculture=en-US</p>
Jilin-1	<p>The Jilin-1 satellite, the China's self-developed remote sensing satellite for commercial use, was launched in October 2015. Jilin-1 consists of four satellites, one for high-resolution images (<1 m), one for testing new space technology and another two for video. It is operated by Chang Guang Satellite Technology Co., Ltd under the Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences. The satellites will focus on providing photographs to commercial clients, while helping with harvest assessment, geological disaster prevention and resource surveys.</p>	<p>Jilin-1 data will be available for use of Dragon 5 projects. User registration at:</p> <p>http://www.chinageoss.org/en/index.html</p>
CFOSAT	<p>A Sino-French collaboration mission CFOSAT was launched in 2018, the satellite has two wave and wind measuring instruments, surface wave investigation and monitoring (SWIM) and wind scatterometer (SCAT). CFOSAT is designed to study ocean surface wind and wave conditions to improve forecasts for marine meteorology and knowledge of climate variations.</p>	<p>CFOSAT data will be available for use of Dragon 5 projects. Access to data by user registration online at:</p> <p>https://osdds.nsoas.org.cn/#/</p>
TanSat	<p>The TanSat is a satellite to measure methane and carbon dioxide levels in the atmosphere, and was launched in 2016. It is sponsored by MOST China.</p>	<p>Access to TanSat following user registration on-line at:</p> <p>http://satellite.nsmc.org.cn/portalsite/default.aspx?currentculture=en-US</p>
Luojia-1	<p>Luojia-1 satellite is the first dedicated night-time light remote sensing satellite in the world and was successfully launched in 2018. Its spatial resolution is 130 m. As its range spans 250 × 250 km, global night-time light image acquisition can be completed within 15 days under ideal conditions, representing a significant technological advance in Chinese remote sensing capabilities from surface monitoring to social and economic development monitoring. Luojia-1 provides thematic products, such as the GDP index, carbon emission index, urban housing vacancy rate index, and so on. It dynamically monitors macroeconomic operation in the world and provides an objective basis for government decision-making</p>	<p>Access to Luojia-1 data can be made by user registration online at:</p> <p>http://59.175.109.173:8888/ap/login_en.html</p>