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CNSA takes over chairmanship of the International Charter 'Space and Major Disasters'

On the 17th of April, China National Space Administration (CNSA) took over the rotating chair of the International Charter 'Space and Major Disasters', succeeding the Argentinian Space Agency (CONAE) which was the lead from October 2013 to April 2014.

In the same week, more than 35 representatives of the Charter member agencies came together in Beijing for the 31st meeting of the Charter, to discuss operational matters, progress with the Charter's Universal Access initiative, and other items. This meeting was organized by CNSA.

CNSA will be leading the Charter for six months until mid-October 2014.



Charter Board & Executive Secretariat members in Beijing, China on 16 April 2014. ©CNSA

"DAICHI-2" (ALOS-2), the Successor of the "DAICHI" launched

On 24 May 2014, JAXA's earth observation satellite "DAICHI-2" (ALOS-2) was launched aboard H-IIA launch vehicle Flight 24 from Tanegashima Space Center. The satellite deployed its solar panels and SAR antenna after the insertion to the orbit.

The satellite "DAICHI-2" is equipped with L-band SAR. Its predecessor, "DAICHI" (ALOS) was launched in January 2006 and equipped with optical sensors in addition to L-band SAR. DAICHI's mission was terminated in April 2011.

Recent Activations

- [Typhoon Rammasun in China](#)
- [Flood in Vietnam](#)
- [Flood in Brazil](#)
- [Flood and Landslide in Brazil](#)
- [Flood in Argentina](#)
- [Flood in Serbia](#)

Charter Members

- [European Space Agency \(ESA\)](#)
- [Centre National d'Etudes Spatiales \(CNES\)](#)
- [Canadian Space Agency \(CSA\)](#)
- [Indian Space Research Organisation \(ISRO\)](#)
- [National Oceanic and Atmospheric Administration \(NOAA\)](#)
- [Argentina's Comision Nacional de Actividades Espaciales \(CONAE\)](#)
- [Japan Aerospace Exploration Agency \(JAXA\)](#)
- [US Geological Survey \(USGS\)](#)
- [DMC International Imaging \(DMC\)](#)
- [China National Space Administration \(CNSA\)](#)
- [German Aerospace Center \(DLR\)](#)
- [Korea Aerospace Research Institute \(KARI\)](#)
- [National Institute for Space Research \(INPE\)](#)
- [European Organisation for the Exploitation of Meteorological Satellites \(EUMETSAT\)](#)
- [The Russian Federal Space Agency \(ROSCOSMOS\)](#)

Bringing together new and efficient space technologies to support disaster management

DAICHI-2's missions are to monitor disasters, land and infrastructure information, cultivated areas, tropical rain forests and more. Its new SAR radar (PALSAR-2) is an active microwave radar using the 1.2GHz frequency range and has enhanced performance compared to DAICHI/PALSAR. JAXA will continue to contribute to the Charter with this brand-new satellite.

DAICHI-2 Specifications

<i>Resolution and Swath</i>	Spotlight mode: 1~3m, 25km
	Strip map mode: 3m~10m, 50km or 70km
	Scan SAR mode: 100m, 350km or 490km
<i>Mass</i>	Approx. 2t
<i>Altitude</i>	628km
<i>Revisit time</i>	14 days



Left: Advanced Land Observing Satellite-2 (ALOS-2) Right: H-IIA Launch Vehicle No. 24 (H-IIA F24) with the Advanced Land Observing Satellite-2 (ALOS-2) ©JAXA

CNSA Contributes GF-1 Satellite to the Charter

The GF-1 satellite is the first high-resolution earth observation satellite in China. It was launched in April 2013 by the CZ-2D launch vehicle. At the 31st Board meeting in Beijing, CNSA formally announced that it would contribute the GF-1 satellite to the Charter.

The satellite carries two kinds of payload, including 2m panchromatic & 8m multispectral camera and 16m multispectral camera. The satellite is providing high precision earth observation data, which will be widely used in the dynamic remote sensing monitoring of land use,



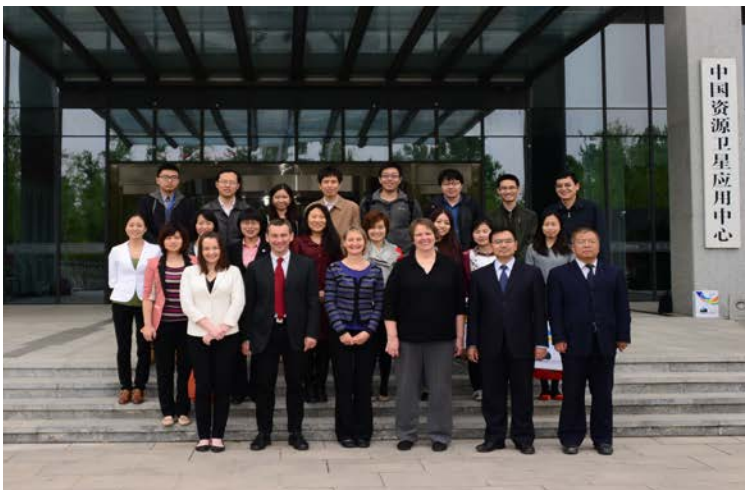
China's first high-resolution earth observation satellite, GF-1. ©CNSA

mineral resources investigation, environmental monitoring and investigation, dynamic remote sensing monitoring of disaster prevention and reduction, forest protection and more.

GF-1 Specifications

<i>Spatial resolution</i>	Panchromatic: $\leq 2\text{m}$, Multispectral: $\leq 8\text{m}/16\text{m}$
<i>Swath width</i>	$\geq 60\text{km}$ (2m/8m) $\geq 800\text{km}$ (16m)
<i>Revisit time</i>	$\leq 4\text{days}$
<i>Covering range</i>	N 800~ S 800

Project Manager Training Course Organized in Beijing



The International Charter Project Manager Training was hosted at CRESDA, in Beijing, China from 10 to 11 April 2014. ©CNSA

China National Space Administration (CNSA) hosted a Project Manager (PM) training course on the International Charter 'Space and Major Disasters' at the China Centre for Resources Satellite Data and Application (CRESDA) from 10 to 11 April 2014.

A total of 21 trainees from National Reduction Center of China (NDRCC), China Meteorological Administration (CMA), Asia Pacific Space Cooperation Organization (APSCO), UN-SPIDER Beijing Office, and CRESDA participated in the training course.

The course began with an overview of the Charter, followed by an introduction from ESA, CNES, USGS and DMCii to the Charter functional units and interfaces, the partner agencies and their assets, and the knowledge and skills required by a PM to complete their tasks. Also, three experienced PMs from China shared with the participants their knowledge gained from previous activations. Finally, the trainees were divided into 2 sub-groups, each of which completed a mock activation exercise using the knowledge they had acquired during these two days. In the end, PM qualification certificates were awarded to all the 21 trainees by the Board member of CNSA, Mr. Guoping Li.

The training introduced the Charter to all Chinese participants and increased the PM resources that can support Chinese and other neighbouring countries' Charter activations.

Benefitting from Universal Access

In a country as vast as Australia satellites provide an essential 'eye' on pre and post disaster situations. Satellite information is vital for the coordination of emergency response services that save lives and livelihoods when disasters strike. On 17 October 2013, one such disaster, a bushfire in New South Wales broke out with intense fire activity in the urban fringe of Sydney. Housing losses had already occurred and fire conditions were worsening rapidly over several areas.

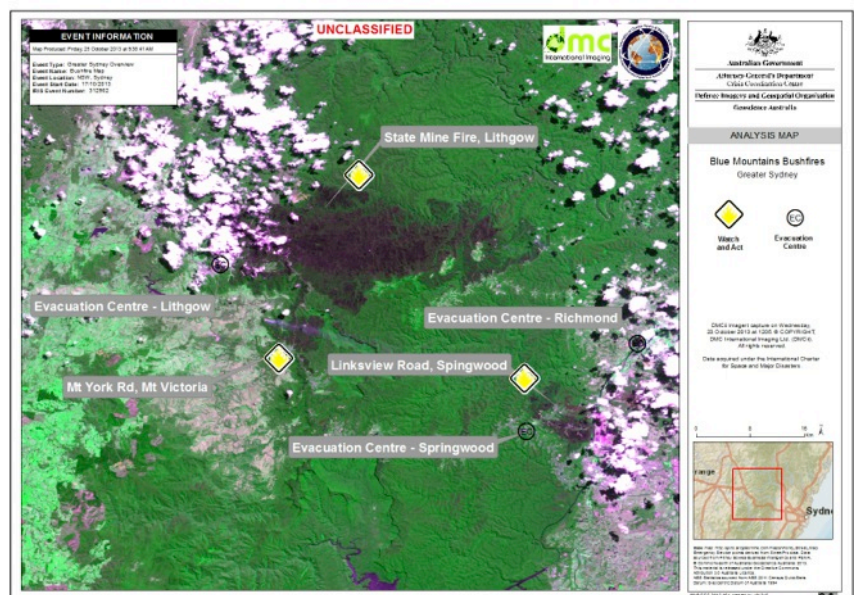
Geoscience Australia, working on behalf of Emergency Management Australia, used their new connections with the Charter to request support. A single fax to the Charter on-call officer was all it took to mobilise satellite resources to support disaster relief activities. Using the data received from the Charter (DMCii, RapidEye, SPOT-5 and Worldview-2 imagery), Geoscience Australia were able to produce maps showing the burnt area as a backdrop to infrastructure information. Such maps are also useful for post-disaster situation briefings to emergency managers and Government Ministers to inform on how best to allocate disaster assistance resources in future.

Geoscience Australia is the first agency to benefit from Charter data through Universal Access. In 2012, the Charter extended its offer of service to national disaster management agencies world-wide through the Universal Access scheme. After a simple registration and training process, any such agency can submit a request for free access to satellite data during an ongoing disaster event.

"As a first-time user of the Charter under the new Universal Access arrangements, Geoscience Australia accessed several sources of satellite imagery and provided derived information to Australian emergency managers. The data provided broad-scale coverage of the fires that was useful for overall situational awareness. The requirements and procedures were well-documented by the Charter and the assistance we received was very much appreciated", said Norman Mueller, Geoscience Australia's Project Manager for the event.

CNSA as the current lead said, "it is a great opportunity that working with new users to have their new feedback on how the Charter can enhance its services to meet the growing need for these data. We are pleased that we can now extend our services to meet new users' needs."

Since Australia became an authorised user of Charter data, several more disaster management agencies have also contacted the Charter and will soon be added to the Charter's list of authorised users.



The product of the fire in Australia from the Charter website. ©DMCii