



JULY 2015 UPDATES

UN-SPIDER at a glance

UN-SPIDER Technical Advisory Mission to Lao PDR

UN-SPIDER carried out a Technical Advisory Mission to Lao PDR from 6-10 July 2015. The mission was conducted upon invitation from the Ministry of Science and Technology. The mission staff also worked closely with the Ministry of Natural Resources and Environment (MONRE), in particular with the Department of Disaster Management and Climate Change (DDMCC), which is a secretariat of the National Disaster Prevention and Control Committee (NDPCC). The mission team was comprised of 9 experts from UN-SPIDER and other organisations, namely the Pacific Disaster Center (PDC), University of Georgia, Delta State University, UN Office for Coordination of Humanitarian Affairs (OCHA), Asian Disaster Preparedness Centre, National Disaster Reduction Centre of China and International Water Management Institute.

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UN-SPIDER conducts an Expert Mission to El Salvador

On 9 and 10 July 2015, UN-SPIDER conducted an Expert Mission to El Salvador under the coordination of the Ministry of Foreign Affairs of El Salvador as a follow-up to the Technical Advisory Mission (TAM) which was conducted in April 2014. The Expert Mission included several meetings with representatives of the Ministries of Foreign Affairs,

Environment and Natural Resources, Public Works, Public Health, and Interior. The mission was used to discuss the recommendations proposed by UN-SPIDER during its TAM in 2014; including the establishment of a national geospatial information system and an inter-institutional team of professionals which would focus its efforts in the generation of space-based information in disaster risk reduction and emergency response.

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UN-SPIDER conducts Technical Advisory Mission to Honduras

UN-SPIDER conducted a Technical Advisory Mission to Honduras from 13 to 18 July 2015. The mission was conducted at the request of the Permanent Commission for Contingencies of Honduras (COPECO), and was carried out with a team of experts from the Mexican Space Agency (AEM), the Regional Center for Space Science and Technology Education for Latin America and the Caribbean (RECTEALC), the Federal University of Santa Maria in Brazil, and with experts from two UN-SPIDER Regional Support Offices: the Agustin Codazzi Geographic Institute of Colombia (IGAC) and the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC).

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News from our Regional Support Offices

CONAE and UN-SPIDER join forces to promote the Charter in Latin America

Nearly fifteen years ago, space agencies established the International Charter Space and Major Disasters as a way to contribute to disaster response efforts in countries affected by large disasters. In 2012, the Charter introduced

its Universal Access principle, allowing national disaster management authorities around the world to submit requests to the Charter for its activation in case of disasters. The Argentinean National Space Commission (CONAE) and UN-SPIDER have joined forces in recent months to reach out to National Emergency Operation Centres operated by



national disaster management authorities in Latin American countries to make them aware of the Charter of to engage them to register as authorized users.

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LAPAN to contribute to the mitigation efforts of the eruption of Mt. Raung and Mt. Sinabung, Indonesia

Mt. Sinabung, in North Sumatera, has been erupting since the middle-end of 2013 and Mt. Raung, in East Java, has been erupting since the end of June 2015. LAPAN contributed to the mitigation efforts which were coordinated by the Indonesian Board of Disaster Management (BNPB). LAPAN tried to analyse the conditions around the volcano from several images such as SPOT-6, SPOT-7, and SRTM images. Moreover, LAPAN team also supervised the field rescue officer and the local government on the usage and gathering of the information from the images during the disaster mitigation efforts.

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RCMRD: Stakeholder Workshop on the Use of MODIS Data for Early Warning

On Thursday June 4th a one-day workshop on the “Use of Modis Data for Early Warning, Disaster Risk Reduction (DRR) and Environmental Monitoring” was held in Kasarani (Nairobi) by the Regional Centre for Mapping of Resources for Development (RCMRD), UN-SPIDER’s Regional Support Office in Kenya. This workshop is the result of a project between RCMRD and Google Foundation, SERVIR Africa, NASA and USAID in order to procure, install, and build capacity for MODIS direct readout antenna. Google Foundation awarded a grant to RCMRD while CSIR and NASA provided capacity building and technology transfer, as well as the installation of the pre-processing tools for Earth Observation data.

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ASAL’s satellite ALSAT-2A turned 5 years in orbit

ALSAT-2A, the optical Earth observation satellite of the Algerian Space Agency (ASAL), Regional Support Office of UN-SPIDER, reached five years in orbit on July 12. After these successful five years, it will continue developing observation activities, providing panchromatic images

with 2,5m resolution and multispectral images with 10m resolution. Since the launch of ALSAT-2A in 2010 on a PSLV launcher (PSLV-C15) from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota, India, the satellite has provided more than 120,000 Earth observation images, covering a total of more than 8 493 millions km².

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ICIMOD to collaborate in a new platform for disaster relief coordination

A new platform for earthquake relief and reconstruction operations has been developed for Nepal by the Nepalese Ministry of Home Affairs in conjunction with the International Center for Integrated Mountain Development (ICIMOD), and the Environmental System Research Institute (Esri). The platform, called ‘Nepal Earthquake 2015: Disaster Recovery and Reconstruction Information Platform (DRRIP)’, aims to rationalize the information gathered by several actors and sources, for a better allocation of the available resources and avoiding the duplication of functions.

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LAPAN to monitor drought in Southeast Asian region

ENSO events are bringing an impact on the occurrence of drought in some of Southeast Asia regions. Indonesia National Institute of Aeronautics and Space (LAPAN), as Regional Support Office of UN-SPIDER in Southeast Asia, has been monitoring the drought condition over the regions since June 2015. Both meteorological and vegetation droughts have been monitored using several sources of data. SPI as an indicator of atmospheric drought was analysed using TRMM. VCI and VHI as indicators of vegetation drought were analysed using NOAA (from NOAA STAR). Vegetation drought was also analysed by using MODIS data in generating the Vegetation Greenness conditions.

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News from our Community

China and the European Union to collaborate on remote sensing activities

China has signed an agreement with the European Union to enhance collaborative research in the field of remote sensing. During the 17th bilateral summit between the European Union and the People's Republic of China that took place on Monday 29 June in Brussels, officials representing Europe's Joint Research Centre (JRC) and the Chinese Academy of Sciences' Institute of Remote Sensing arranged a deal to closely cooperate in the area of remote sensing.

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INCOIS to come out with 3D GIS maps to mitigate tsunami effects

The Indian National Centre for Ocean Information Services (INCOIS) is working on the creation of 3D Geographic Information System (GIS) maps to ease the evacuation of people from vulnerable areas at risk of tsunami or other natural disaster. The INCOIS team has been focusing on a multi-hazard vulnerability mapping of the coastal as well as the inland areas of Puducherry town which will bring as result 3D GIS maps of the vulnerable areas. These maps will support the local and disaster management agencies to better plan the evacuation process when a natural disaster warning is issued.

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ISRO has successfully launched three new Earth observation satellites

The Indian Space Research Organisation (ISRO) launched on Friday, July 10, three 1 meter resolution optical Earth observation satellites as part of the PSLV-C28 / DMC3 Mission from Satish Dhawan Space Centre, Sriharikota (SDSC-SHAR), the spaceport of India. The three identical DMC3 satellites were built by the British company Surrey Satellite Technology Limited (SSTL), and have been launched from the Polar Satellite Launch Vehicle (PSLV), in its thirtieth flight (PSLV-C28). These three Earth observation satellites will form the DMC3/TripleSat Constellation.

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Increasing parameter accuracy for monsoon forecasting

The Indian Ministry of Earth Sciences in collaboration with the Department of Space of the National Remote Sensing Centre, and the Center for Ocean and Atmospheric Prediction

Studies (Florida State University), has found a more precise parameter for predicting rainfalls during monsoons. It is called Ocean Mean Temperature (OMT) and is a better indicator than the currently used Sea Surface Temperature (SST). Scientists state that the SST does not represent the heat energy available to the atmosphere on many occasions as it only takes into account the sea-surface skin, while OMT focuses on the whole upper layer of the ocean.

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China-Brazil Earth observation satellite is now operating

The China-Brazil Earth Resource Satellite-04 (CBERS-04), an Earth observation satellite jointly developed by both countries, was put into operation on Tuesday, July 13, after its launch on December 7. Developed by China's Academy of Space Technology and Brazil's National Institution of Space Research, the CBERS-04 can cover areas as big as China in 26 days and will be used to monitor geological disasters and estimate crops, among others. Its predecessor, the CBERS-03 was already launched from Taiyuan Satellite Launch Center on December 9, 2013, but did not reach the proper orbit.

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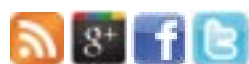
Japan funds radar replacement in Pakistan

The Japanese Government will support the replacement of the Karachi meteorological radar with 1.95 billion Yen (approximately 14.2 million Euros). This assistance belongs to a wider aid plan called National Multi Hazard Early Warning System Plan which was a part of the National Disaster Management Plan (NDMP) formulated through Japan's assistance in 2012. This included the replacement of another weather radar in Islamabad and the installation of a Flood Forecasting System in conjunction with UNESCO. The Karachi radar was established in 1991 under the grant of Japan together with other three radars that are part of the meteorological radar system of Pakistan that currently counts on seven radars.

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ESA's MSG-4 satellite successfully launched and in orbit

European Space Agency's (ESA) latest weather satellite has been successfully launched and put into orbit from Ariane 5 launcher at the Kourou Space Station (French





Guiana) on July 15. The space artifact, called MSG-4, is part of the Meteosat Second Generation series that offers meteorological information over Europe and Africa every 15 minutes and a 'rapid scan' imagery over Europe every five minutes. Forty minutes after the launch, the satellite separated from the launcher and was set into orbit, but it would take 10 days until it will be raised into a geostationary orbit some 36 000 km above the equator, where its speed matches Earth's rotation.

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Africa, first movement to implement Sendai Framework

The 7th Africa Working Group Meeting on Disaster Risk Reduction that was celebrated from 21 to 22 July, followed by the 4th High Level Meeting on Disaster Risk Reduction on 23 July, has been the starting point for the implementation the Sendai Framework for Disaster Risk Reduction in Africa. Representatives from the majority of African countries, the African Union, Africa's Regional Economic Communities and a host of other international organizations have sat together for three days of talks in Yaoundé, Cameroon.

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NASA funds new satellite-based tool to detect wildfires

NASA has funded a new satellite-based fire detection tool in operation now at the U.S. Department of Agriculture (USDA) Forest Service (USFS). The new tool uses high-resolution data from the Suomi National Polar-orbiting Partnership (NPP) satellite with a cutting-edge computer model to predict how a fire will change direction based on weather and land conditions. It will allow detecting smaller fires with precise detail and will help firefighters developing their tasks.

Read more: [Knowledge Portal](#)

Hootenanny, new software to enhance crowdsourced mapping

The US National Geospatial-Intelligence Agency (NGA) and DigitalGlobe have jointly released Hootenanny, a new open source project to enhance the way crowdsourced mapping influence geospatial big data analytics. Through GitHub, a web-based Git repository hosting service, Hootenanny provides a scalable processing engine and interactive editing interface to help users rapidly conflate, or reconcile, map features generated from satellite imagery, unmanned aerial vehicles and mobile devices, as NGA explained.

Read more: [Knowledge Portal](#)

UK and South Africa sign space based scientific agreement

Last 16 of July the UK Space Agency (UKSA) and the South African Space Agency (SANSA) signed a Memorandum of Understanding (MoU) to increase collaboration in scientific projects related to space. Both institutions will share infrastructure and knowledge in fields including applications for weather monitoring, climate change and satellite information. Areas covered in this document include making UKSA satellite data accessible to SADC users and SANSA being access point for NovaSar data in South Africa.

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EEA and ESA strengths cooperation on Earth Observation and environmental monitoring

A Memorandum of Understanding was signed on July 15 between the European Space Agency (ESA) and the European Environmental Agency (EEA) in order to share scientific expertise and technical data in the fields of Earth Observation and environmental monitoring through satellite imagery. One of the novelties is the agreement on the employment of the brand-new Sentinel-2A satellite, developed and launched by ESA, for the Copernicus Land Monitoring Service, which is coordinated by EEA.

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INSAT-3D, second birthday in orbit

The Indian advanced weather satellite INSAT-3D has already completed two years of successful activity after its launch on July 26, 2013. The INSAT-3D mission's main aim is to provide meteorological observations through the monitoring process of land and ocean surfaces and the generation of vertical profile of the atmosphere in terms of temperature and humidity for weather forecasting and disaster warning, among others. As the Indian Space Research Organisation (ISRO) explains in its website, "INSAT-3D is an exclusive mission designed for enhanced meteorological observations and monitoring of land and ocean surfaces for weather forecasting and disaster warning.

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International Charter activated twice in July 2015

The International Charter: Space and Major Disasters was activated on Friday, 24 July, due to the eruption of the Kick 'em Jenny underwater volcano and its impact on Grenada, in the Caribbean Sea. The mechanism was activated by





the USGS on behalf of Montserrat Volcano Observatory and Government of Grenada. On 30 July it was activated for floods in northern Vietnam caused by torrential rain that strongly affected the province of Quang Ninh on Vietnam's

north coast. The charter requestor was UNITAR/UNOSAT on behalf of UN ESCAP.

Read more: [International Charter](#)

Upcoming events

Apply now! 14-16 September 2015, Beijing, China: United Nations International Conference on Space-based Technologies for Disaster Management - "A consolidating role in the implementation of the Sendai Framework on Disaster Risk Reduction: 2015-2030"

The conference focuses on the consolidating role of Earth observation technologies in the implementation of the "Sendai Framework on Disaster Risk Reduction: 2015-2030". Efforts need to be taken to promote use of space-based information to help assess potential risks and hazards before disaster occur and contribute to risk-based developmental planning. The conference will synthesize experiences and lessons learnt by the experts and end users involved in using Earth observation in all stages of disaster management. The aim of the conference is to produce an outcome document with guidelines to Member States to integrate Earth observation and geospatial technologies in implementing the Sendai Framework for Disaster Risk Reduction. The Conference is now open for applications. The final deadline for registration is 19 July 2015. Online registration is mandatory for all participants.

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17-22 September 2015, Beijing, China: International Training programme "Earth observation technologies for earthquake damage and loss assessment"

Back to back with the upcoming United Nations International Conference on Space-based Technologies for Disaster Management - "A consolidating role in the implementation of the Sendai Framework for Disaster Risk Reduction: 2015-2030" organised by the UNOOSA/UN-SPIDER Beijing office, an International Training Programme will be organised for 25 participants of the conference with the support of the Asia Pacific Space Cooperation Organisation (APSCO) and the National Disaster Reduction Centre of China (NDRCC). The programme will focus on Earth observation technologies for earthquake damage and loss assessment.

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12-16 October, Pyeongchang, Korea: 6th International Wildland Fire Conference (IWFC-2015)

The Korea Forest Service will join forces with Gangwon province to hold the 6th International Wildland Fire Conference in Oct, 2015, in Pyeongchang, Korea, in an effort to exchange views on wildland fire related international issues. The Conference will bring together not only policy makers, researchers and practitioners but also the international organizations and NGOs from 80 countries to discuss about the global efforts to prevent their damage and forge a concerted response to them. Korea has made its utmost effort to undertake greening works and prevent wildland fire damage for the last four decades. The Conference will provide a platform for the nation to share its know-how for wildland fire prevention and cutting edge technologies including real time wildland fire control system using ICT that has been recently constructed with the international society.

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23 November - 04 December 2015, Sanya, China: 3rd International Training Workshop on Space Technology for Disaster Mitigation

In response to the needs of developing countries in disaster mitigation to tackle the natural and human-induced environmental disaster, SDIM will organize the 3rd International Training Workshop on Space Technology for Disaster Mitigation with the theme of "Earth observations for Disaster Risk Management in Developing Countries: Technical Practice and Scientific Application". With the objective of providing a scientific and practical guide to the participants from developing countries, the workshop will collect and integrate information on international best practices with the applicants to a number of hazards events, especially for floods, droughts, earthquakes and so on. Experts from various national and international organizations, such as TWAS, UN agencies, ICSU, GEO, etc., will share their experiences with working on disaster mitigation and Earth observation.

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