



OCTOBER 2014 UPDATES

UN-SPIDER at a glance

UN-SPIDER works with partners on Earth observation for disaster risk reduction

UNOOSA/UN-SPIDER and many partners from the Space, the Earth observations and the Civil Protection communities, as well as from regional and international organisations have been working together since June 2014 to raise awareness on the importance of Earth Observations and Space-based applications for the post-2015 framework for disaster reduction. The framework will be launched during the Third World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan, next year. One of the key aims of the group is to ensure that the existing text on the use of Earth observations and Space-based information in the current Hyogo Framework for Action (HFA) is introduced in the new framework. Another objective is to encourage the incorporation of Earth Observation data and products in several of the indicators that have already been proposed in the monitoring approach of the framework. All of these efforts are geared to make the disaster risk reduction community aware that the quality of satellite sensors and access to and use of satellite imagery and services has greatly improved in recent years.

Read more: [Knowledge Portal](#)

UN-SPIDER participates in 3rd High Level Forum of UN Committee of Experts on Geospatial Information

UN-SPIDER participated in the 3rd High Level Forum of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). The forum took place in Beijing, China, from 22 to 24 October 2014 and focused on "Sustainable Development with Geospatial Information". The event was held in collaboration with the Government of China through its National Administration of Surveying, Mapping and Geoinformation (NASG). Mr. Shirish Ravan, Head of UN-SPIDER Beijing Office, was a panellist in a session on tools and methods for climate change and disaster mitigation. He presented on the topic "Challenges in using Space based Information - Climate Change and Disaster Risk

Reduction Perspective". Bringing all stakeholders together, the Third High Level Forum addressed the role of geospatial information in the post-2015 development agenda, and current critical sustainable development matters.

Read more: [Knowledge Portal](#)

UN-SPIDER strengthens Universal Access to the International Charter: Space and Major Disasters

On 16 October, Luc St-Pierre, Coordinator of UN-SPIDER, presented via teleconference the 2014 report of activities of UNOOSA in support to the International Charter: Space and Major Disasters during the Charter Board Meeting in Incheon, Republic of Korea. The report highlighted the actions taken by UNOOSA and UN-SPIDER in promoting the International Charter's Universal Access initiative, started in September 2012. Additionally to leveraging UN-SPIDER's Technical Advisory Missions as vehicles of promotion, Mr. St-Pierre also proposed to raise awareness of the Universal Access in developing countries through collaborations with UN-SPIDER's global network of Regional Support Offices and National Focal Points.

Read more: [Knowledge Portal](#)

Bhutan: Project for stronger disaster response and recovery preparedness

In an effort to enhance Disaster Preparedness and Recovery in Bhutan, the United Nations Development Programme (UNDP) Bhutan Country Office, in close collaboration with the Department of Disaster Management, Ministry of Home and Cultural Affairs and UN-SPIDER developed the project "Disaster Response and Recovery Preparedness (2014 – 2016)." UN-SPIDER is a formal partner in the project. During the recent Technical Advisory Mission to Bhutan in June 2014, UN-SPIDER's expert contributed to the elaboration of project report draft, which was finalized on the last day of the Mission.

Read more: [Knowledge Portal](#)



UNGA Fourth Committee discusses UN-SPIDER programme

The United Nations Fourth Committee of the UN General Assembly (Special Political and Decolonization) met on 15 October 2014 for a panel discussion on international cooperation on the peaceful uses of outer space and to begin its annual debate on the agenda item. Among the topics discussed was the UNOOSA/UN-SPIDER programme. UNOOSA's director, Simonetta Di Pippo, described what had

been done to improve UN-SPIDER's activities. She stated that UN-SPIDER had been well-developed and funded from available resources, but it still needed to expand its activities by reaching out to more countries and being "more present" overall. She also stated that one of the goals for next year was to establish further follow up with the countries they were working with, and improve the monitoring and measurement of the conducted activities.

Read more: [Knowledge Portal](#)

Featured: Application of the month

In this section, the UN-SPIDER team presents to you every month one example of satellite data application.

Access the full list [here](#).

Our October data application: Measuring soil moisture

Assessing and monitoring soil moisture provides important input for both drought and flood risk reduction. Soil moisture is measured by active microwave scatterometers, such as ERS1&2/AMI and MetOp/ASCAT, as well as by passive microwave radiometers, such as Aqua/AMSR-E, Coriolis/WindSat, DMSP 5D-2,-3/SSM I, GCOM-W1/AMSR2, Nimbus-7/SMMR, TRMM/TMI, and SMOS/MIRAS. All these active and passive microwave sensors are weather-independent, i.e. they can look through clouds, and they can take images at day

and night. Satellite imagery for soil moisture estimation is partly available free of charge, for example data of Sentinel-1 (published in October 2014) and Landsat-8. Others have to be purchased. The good news is: You do not have to start from scratch and process raw data to derive soil moisture information. Many soil moisture datasets elaborated by different institutions are listed and linked to in the UN-SPIDER database on data sources.

Read more about how soil moisture data is used: [Knowledge Portal](#)

News from our Regional Support Offices

SUPARCO: Best Practices for flood management in Pakistan

UN-SPIDER's Regional Support Office (RSO) in Pakistan, SUPARCO, has elaborated a booklet on lessons learnt from floods in Pakistan. The booklet is part of a new series of publications on experiences and best practices by UN-SPIDER's RSOs in the application of Space-based information in disaster risk reduction and emergency response. The booklet "Effective use of Space-based information to monitor disasters and its impacts: Lessons Learnt from Floods in Pakistan" describes SUPARCO's experience in utilizing satellite data for floods in Pakistan, such as SPOT data or Aqua/Terra satellite data. This booklet specifically looks at the floods of 2010, 2011, 2012 and

2013, and at the lessons learnt from these experiences.

Read more: [Knowledge Portal](#)

Colombia: IGAC holds workshop on remote sensing for floods and landslides

In order to transfer knowledge between institutions engaged in research, development and application of remote sensing and spatial information systems, the Codazzi-IGAC and Geographic Research Centre Application Professional (CIAF) gave a workshop on the use of remote sensing images in the case of floods and landslides on 3 October 2014. The workshop took place during the XVI International Symposium SELPER 2014. SELPER is the "Society of Latin American Remote Sensing and Geographical Information



Systems Specialist". The workshop focused on the use of remote sensing in the detection and analysis of floods and mass movements.

Read more: [Knowledge Portal](#)

Iran: ISA announces the launch of three remote sensing satellites into space

On occasion of the World Space Week, the Deputy Head

of the Iranian Space Agency (ISA), Hamid Fazeli, issued a statement about the launch of three remote sensing satellites. On 4 October, the Deputy Head of ISA announced that these three new satellites will be sent into space to conduct monitoring, remote sensing and topography enterprises. Also, he communicated that the acquisition of complete knowledge of geosynchronous and remote-sensing technologies remains among ISA's priorities.

Read more: [Knowledge Portal](#)

News from our Community

UN observes International Day for Disaster Reduction

On 13 October 2014, the United Nations observed the International Day for Disaster Reduction (IDDR). The 2014 IDDR theme, "Resilience is for Life", focused on older people and disasters, including their needs and how they contribute to better planning and understanding of disaster risk in their communities. IDDR 2014 intends to switch on and amplify this critical issue now and for the post-2015 framework for disaster risk reduction. Various organisations, groups and institutions around the world celebrated IDDR.

Read more: [Knowledge Portal](#)

International Charter activated four times in October 2014

The International Charter: Space and Major Disasters was activated four times in October 2014 with the request to provide space-based information for emergency response. On 9 October, the mechanism was activated to produce maps in the context of the Ebola epidemic in Western Africa. On 12 October, Cyclone Hudhud caused the activation of the International Charter in India. On 15 October, the mechanism was triggered in response to Hurricane Gonzalo in Bermuda. Finally, on 30 October, the International Charter was activated due to a massive landslide in Sri Lanka. The satellite products are usually published on the International Charter's website as soon as they become available.

Read more: [International Charter](#)

International Charter: Space and Major Disasters - 2013 Report now available

The latest Annual Report of the International Charter: Space and Major Disasters covering 2013 is now available. The International Charter's activities of 2013 include 38 activations for disaster management in 28 countries. Also, the report highlights two new International Charter members, EUMETSAT

and ROSCOSMOS, and their provision of valuable resources that have been deployed in various operations during the past months. The report can be downloaded in PDF format from the International Charter's website.

Read more: [Knowledge Portal](#)

World Disaster Report 2014 launched by Red Cross Red Crescent

The International Federation of Red Cross and Red Crescent Societies launched its yearly World Disasters Report on 28 October 2014, focusing on culture as a major factor for disaster risk reduction. The inauguration ceremony took place in the Vienna International Centre in Vienna, Austria. The report highlights how behaviours and perceptions related to culture can increase the vulnerability to natural hazards and it investigates the reasons that bring individuals to live in hazard-prone locations. For instance, peoples' perceptions of risks are shaped by local traditions, religious beliefs and social practices that can clash with disaster risk reduction efforts, affecting the outcomes of such operations.

Read more: [Knowledge Portal](#)

ESA announces the beginning of Sentinel-1A operational life

The European Copernicus Programme's first satellite Sentinel-1A has officially entered its operational phase on 6 October. Sentinel data are now available to all users. The satellite had been launched on 3 April 2014 and had reached its target orbit on 7 August 2014. It will now deliver radar coverage for operational services in various areas of ice, ocean and changing land. Sentinel-1A provides all-weather, day-and-night imagery, which have been already employed by authorities for flood responses in Namibia and the Balkans.

Read more: [Knowledge Portal](#)



World Risk Report 2014 published

The 2014 World Risk Report, recently published by the United Nations University EHS Institute and the Alliance Development Works, systematically considers a country's vulnerability, and its exposure to natural hazards to determine a ranking of countries around the world based on their disaster risk. The 2014 issue of the report is focusing on the influence of urbanisation on societal vulnerability to natural hazards under the theme "The city as a risk area". The WorldRiskIndex evaluates the risk of exposure to natural hazards faced by 171 countries around the world, using a combined analysis of natural hazards and social conditions.

Read more: [Knowledge Portal](#)

Access to satellite imagery: Launch of Skybox for Good programme

On the occasion of the annual Google Geo for Good User Summit, held on 23 October 2014 (where UN-SPIDER was also present), the satellite imagery company Skybox Imaging declared the launch of the Skybox for Good programme. Under the programme, Skybox, which is one of the latest acquisitions of the search engine giant Google, will deliver high-quality imagery gathered by the company's satellite SkySat-1 to non-profit organisations. The programme is currently in its beta phase and only a group of selected NGOs are receiving the satellite data needed for their projects. The images will however soon be released under a Creative Commons license for use by the general public.

Read more: [Knowledge Portal](#)

JAXA: End of mission for PR rainfall observation radar on TRMM

The operation of the Precipitation Radar (PR) on board the Tropical Rainfall Measuring Mission (TRMM) was completed on 7 October 2014, as the Japan Aerospace Exploration Agency JAXA announced. Rainfall observation by PR will be succeeded by the Dual-frequency Precipitation Radar on board the Global Precipitation Measurement Core Observatory, which was launched on 28 February 2014. TRMM is a joint enterprise between NASA and JAXA and is aimed at measuring rainfall for extreme weather monitoring and climate research. Due to sudden pressure decreases on July 2014 and lack of fuel, NASA and JAXA agreed on starting the descent of the TRMM spacecraft. JAXA decided to conduct further operations during the six months of TRMM's descent and to distribute publicly the data gathered.

Read more: [Knowledge Portal](#)

Weather forecasting: Second generation MetOp satellites to be developed

On 16 October 2014, at ESA's headquarters in Paris, a contract was signed by ESA and Airbus Defence and Space for creating the second series of MetOp weather forecasting satellites. These satellites used for climate monitoring and global weather forecasting are a part of MetOp-SG - a cooperative enterprise between ESA and Eumetsat - and will offer continuity to the current main source of global weather data. MetOp's second generation mission will include six satellites, which will provide diverse but complementary meteorological information.

Read more: [Knowledge Portal](#)

China plans to build comprehensive earth observation system

China has plans to build a comprehensive earth observation system integrating the use of air-borne, space-based as well as ground-based technologies in the next ten years, the website Economic Times stated, referring to a Chinese top official. This new system would include drones, satellites and GPS systems.

Read more: [Knowledge Portal](#)

New NASA instrument for rapid hurricane response and marine forecasting

The International Space Station-Rapid Scatterometer (ISS-RapidScatt) was installed on 1 October 2014 on the ISS as a means to improve the global monitoring of ocean winds. NASA's latest Earth observing enterprise was activated to provide rapid response to weather and marine hazards. ISS-RapidScatt produces high-quality data that can be utilized to monitor wind speeds and directions. Within its very first days of operation, ISS-RapidScatt already gathered valuable data to effectively detect the development of the tropical cyclone Simon, which has been affecting the west coast of Mexico.

Read more: [Knowledge Portal](#)



Upcoming events

8-9 January 2015, Uttar Pradesh, India: Second International Space Conference 2015

Along with providing a common platform for academics, industry, researchers and government, to share knowledge and ideas for development in the space sector (science & technology, space law & policy and life science issues), the International Space Conference ISC 2015 in Uttar Pradesh will focus on promoting Space Applications in Climate Change. This international event will gather experts from across the globe to discuss and explore opportunities for new co-operation, research projects or joint ventures.

Read more: [Aryavartaspace](#)

14-18 March 2015, Sendai, Japan: UN World Conference on Disaster Risk Reduction

The Third UN World Conference on Disaster Risk Reduction will be held from 14 to 18 March 2015 in Sendai City, Miyagi Prefecture, Japan. Several thousand participants are expected, including at related events linked to the World Conference under the umbrella of building the resilience of nations and communities to disasters. Among the most important objectives of the conferences are the completion of the assessment and review of the implementation of the Hyogo Framework for Action and the adoption of a post-2015 framework for disaster risk reduction. UN-SPIDER and its partners will be involved in the form of a side event to highlight the potential of space-based information for disaster risk reduction.

Read more: [WCDRR](#)

12-16 October 2015, Pyeongchang, Republic of Korea: 6th International Wildland Fire Conference

The Korea Forest Service jointly with Gangwon province will hold the 6th International Wildland Fire Conference in October 2015, in Pyeongchang, Korea. The conference will bring together policy makers, researchers and practitioners as well as international organisations and NGOs from 80 countries to discuss about the global efforts to prevent fire related damages and forge a concerted response to them. The conference will provide a platform for the nation to share its know-how for wildland fire prevention and cutting edge technologies including a real time wildland fire control system using ICT that has been recently constructed with the international society.

Read more: [IWFC 2015](#)

