



## FEBRUARY 2015 UPDATES

### UN-SPIDER at a glance

#### **UNOOSA presents WCDRR efforts to COPUOS STSC**

UNOOSA presented its efforts related to the upcoming World Conference on Disaster Risk Reduction (WCDRR) during the fifty-second session of the Scientific and Technical Subcommittee (STSC) of COPUOS. The office presented its relevant activities during a symposium organised by Japan on the sidelines of STSC as well as in front of the plenary. UNOOSA and its UN-SPIDER programme aim to raise awareness on the importance of Space-based information in disaster risk reduction efforts and therefore liaise with Member States and partners to include corresponding paragraphs in the text of the agreement and in the indicator system. For the post-2015 phase of disaster risk reduction, the programme plans to establish a global partnership involving international, regional and national organizations from the disaster-risk reduction and space communities as a way to facilitate the use of space-based applications, including Earth observation. Similarly, UN-SPIDER aims to strengthen a global partnership to improve Early Warning systems worldwide through the use of satellite-based applications.

Read more: [Knowledge Portal](#)

#### **Call for expressions of interest: UN-SPIDER capacity building programme in USA**

In partnership with Delta State University and Geospatial Information Technology Association (GITA), UN-SPIDER is planning a capacity building programme for developing countries from 27 July to 7 August 2015 in the United States of America and is calling potential participants for expressions of interest. The programme will include a symposium on the use of space-based technologies for international crisis response giving an overview of disaster response on the local, state and national levels as well as a visit to the Mississippi Emergency Management Agency to learn about infrastructure, systems, coordination mechanism, data resources and operational programmes. These activities will be coupled with technical training sessions on data

discovery techniques, remote sensing, and mapping for crisis and disaster.

Read more: [Knowledge Portal](#)

#### **General Assembly resolution recognizes work of UN-SPIDER**

On 23 December 2014, the United Nations General Assembly adopted its resolution A/RES/69/243 of the sixty-ninth session on “International cooperation on humanitarian assistance in the field of natural disasters, from relief to development”. The resolution was published on 11 February 2015 and makes explicit mention of the UN-SPIDER programme twice recognizing the progress made by the programme in its mission. At the same time, the General Assembly encourages Member States to “provide all support necessary, on a voluntary basis, to UN-SPIDER, including financial support, to enable it to carry out its workplan for 2014–2015, and reiterating the importance of enhancing international coordination and cooperation at the global level in disaster management and emergency response through greater access to and use of space-based services for all countries and by facilitating capacity-building and institutional.”

Read more: [Knowledge Portal](#)

#### **UNOOSA contributes to CEOS/ESA publication on Earth observation for disaster risk reduction**

UNOOSA has contributed to a new publication by the Committee on Earth Observation Satellites (CEOS) and the European Space Agency (ESA) on the use of satellite-based Earth observation (EO) for disaster risk reduction. “Satellite Earth Observations in Support of Disaster Risk Reduction” is a special edition developed for the upcoming Third UN World Conference on Disaster Risk Reduction (WCDRR) in Sendai in March. It includes case studies and examples for EO applications for a variety of hazards around the world to emphasize how the use of EO will be fundamental to reaching the new sustainable development goals and post-



2015 framework for disaster risk reduction. UNOOSA, jointly with UNOSAT and ESCAP, elaborated a chapter on “UN use of EO for Disaster Prevention and Response” presenting the different programmes and activities in place to support countries in making the best use of Space-based tools for disaster risk reduction.

Read more: [Knowledge Portal](#)

### **UNOOSA and DigitalGlobe sign agreement to collaborate on satellite imagery**

UNOOSA and DigitalGlobe, a leading global provider of high-resolution satellite imagery and geospatial solutions, have signed a memorandum of understanding to take stock of their combined expertise in the use of earth observation technologies for economic, social, and scientific development and improved decision-making, particularly in developing countries. UNOOSA and DigitalGlobe will work to develop an online platform to provide easy access to imagery catalogues as well as data and analytical services specifically tailored for the needs of the United Nations. Under the agreement, DigitalGlobe will provide advisory

services on remote sensing imagery and geospatial analytics, working with UNOOSA to advance and accelerate adoption of geospatial and satellite imagery-based analytics across the entire United Nations System.

Read more: [Knowledge Portal](#)

### **UNOOSA module in e-tutorial for WCDRR**

The United Nations Institute for Training and Research (UNITAR) has developed a free e-tutorial on the Post-2015 Framework for Disaster Risk Reduction (DRR). It was designed with the intention of supporting the process leading to the World Conference in Sendai and facilitating the adoption of the new DRR framework for action. On 5 March, an additional 20-minute video module on Earth Observation for DRR will be added to provide an overview on how technologies can support DRR, with a special focus on Earth Observation technologies. It is composed of four short videos by OOSA, GEOS, UNOSAT and CEOS, and will provide an overview of the global space policy frameworks delivered by UNOOSA's director Simonetta Di Pippo.

Read more: [Knowledge Portal](#)

## Data application of the month

**In this section, the UN-SPIDER team presents every month a specific example of a satellite data application for disaster risk reduction or emergency response.**

Access the full list [here](#).

### Drought Monitoring

Droughts develop gradually, they are referred to as slow-onset natural hazards. Droughts often do not get any global attention until they trigger a famine or cause wildfires. Several drought parameters are used to monitor drought: precipitation, temperature, evapotranspiration, soil moisture, and vegetation. These parameters can be observed from space. Several institutions worldwide are

processing satellite data to provide useful information for drought monitoring to support drought early warning. They provide interactive webmaps, static maps in near-real-time, or monthly drought bulletins to be used by decision makers.

Read more: [Knowledge Portal](#)

## News from our Regional Support Offices

### **6th meeting of UN-SPIDER Regional Support Offices concluded**

UN-SPIDER's network of Regional Support Offices (RSOs) met in Vienna on 5 and 6 February 2015 for the 6th annual meeting of the network. Twelve of the sixteen members of

the network participated in the meeting, among them the RSOs of Romania, Colombia, Hungary, Islamic Republic of Iran, Pakistan, Nigeria, Russian Federation, Kenya (RCMRD), Japan (ADRC), Indonesia, Jamaica (UWI), and Algeria. The aim of the meeting was to review actions of





2014 and develop a joint programme of activities for 2015 and beyond. The participants also considered collaboration with the Group on Earth Observations, the Universal Access initiative of the International Charter: Space and Major Disasters, and with regards to the further development of the UN-SPIDER Knowledge Portal, as well as opportunities for closer and stronger collaboration, joint fund-raising and project development.

Read more: [Knowledge Portal](#)

### **UN-SPIDER welcomes new Regional Support Office in Sri Lanka**

On 5 February 2015, on the occasion of the 6th annual meeting of UN-SPIDER's Regional Support Offices (RSOs) in Vienna, UNOOSA/UN-SPIDER and the International Water Management Institute (IWMI) based in Colombo, Sri Lanka, signed a memorandum of understanding, making IWMI the 17th member of UN-SPIDER's network of RSOs. IWMI is a non-profit, scientific research organization focusing on the sustainable use of water and land resources in developing countries. It is headquartered in Colombo, Sri Lanka, with regional offices across Asia and Africa.

Read more: [Knowledge Portal](#)

### **International Charter: Project Manager Training in Vienna**

On the sidelines of the 52nd session of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space (COPUOS), UN-SPIDER hosted a Project Manager training for the International Charter: Space and Major Disasters specifically for UN-SPIDER's Regional Support Offices in Vienna on 4 February 2015. The training course was led by three experts of the German Aerospace Center (DLR) and one expert of the French Space Agency CNES. Seven of UN-SPIDER's Regional Support Offices (RSO) participated in the training course, which focused on the different roles and responsibilities attached to being a

Project Manager including the delivery of accurate data to the user.

Read more: [Knowledge Portal](#)

### **EMERCOM strengthens ties with International Civil Defence Organisation**

The Russian Emergencies Ministry EMERCOM, host of UN-SPIDER's Regional Support Office in the Russian Federation, is strengthening its collaboration with the International Civil Defence Organisation ICDO. Russian Minister of Emergency Situations, Vladimir Puchkov, met with Secretary-General of the International Civil Defense Organization (ICDO), Vladimir Kuvshinov, on 16 February in Geneva to sign a memorandum of understanding agreeing on wider cooperation. The memorandum stresses "joint aspiration for helping improve mechanisms of coordination of humanitarian operations (projects) in disaster and post-crisis recovery areas for sustainable development".

Read more: [Knowledge Portal](#)

### **IWMI: Low-cost weather stations to help Sri Lanka prepare for floods**

New Mobile Weather Stations, designed by scientists at the Sri Lanka-based International Water Management Institute, capture and transmit near real-time data on rainfall, helping to raise the alarm when rain levels reach a certain level of intensity. The new Mobile Weather Stations are equipped with an atomic clock to give precise time and date readings, and a GPS sensor, which updates automatically if they are moved. A system is also being developed for connecting them to Sri Lanka's mobile phone network to transfer the data. With the new Mobile Weather Stations this improvement could be achieved in a very cost-efficient way. Those stations concentrate on measuring only the most crucial data to avoid natural hazards - the amount of rainfall - and are made primarily from locally sourced materials.

Read more: [Knowledge Portal](#)

## News from our Community

### **COPUOS Scientific and Technical Subcommittee meets for its 52nd session**

From 2 to 13 February 2015 the 52nd session of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space (COPUOS) took place at the Vienna International Centre. One of its key topics

was the long-term sustainability of outer space activities, which generally play an important role in contributing to the post-2015 agenda process. Other key items for discussion included mitigation of space debris, use of space tools for disaster management and space weather research. Recent developments in the use of remote sensing of the Earth



by satellites for development goals as well as the safe use of nuclear power sources in outer space, the use of the geostationary orbit and global navigation satellite systems were discussed as well.

Read more: [Knowledge Portal](#)

### **Systematic observation for Climate Change Adaptation: Joint GCOS-IPCC-UNFCCC workshop**

From 10 to 12 February 2015, international experts and representatives of Member States gathered in Bonn, Germany, for a workshop on systematic observations for climate change adaptation. The workshop was organised jointly by the United Nations Framework Convention on Climate Change (UNFCCC), the Global Climate Observing System (GCOS) and the Intergovernmental Panel on Climate Change (IPCC). UNOOSA/UN-SPIDER participated as an observer in the workshop. The workshop aimed at assessing the key findings and recommendations of the IPCC in the context of data availability to inform implementation of adaptation planning and strategies.

Read more: [Knowledge Portal](#)

### **ALOS-2/CIRC data is now open to the public**

After the calibration and validation of ALOS-2/CIRC, the Japanese Space Agency JAXA confirmed that the data quality of ALOS-2/CIRC is adequate. All ALOS-2/CIRC data is therefore now available to the public. The data can be obtained via the CIRC observation data search. The only requirement is that the user follows the CIRC data policy.

Read more: [Knowledge Portal](#)

### **Esri launches open data website**

The Geographic Information Systems (GIS) provider Esri announced the launch of their new website ArcGIS Open Data providing access to open datasets around the world including direct access to thousands of open government datasets. Esri stated in a press release: "Citizens can search, download, filter, and visualize this data through their web browser or mobile device. Any organization can make its data available through ArcGIS Open Data."

Read more: [Knowledge Portal](#)

### **Online database for storm surge preparedness**

A new, freely-accessible online database of storm surge data will help coastguards, meteorological organisations and scientific communities predict future storm surge patterns. It has been created by the eSurge project, of which the Danish Meteorological Institute, the Coastal and Marine Research Centre, the Royal Dutch Meteorological

Institute, the CGI and the National Oceanography Centre are members. Coastal altimetry obtained from satellite data, which provides detailed wave and sea level data in the coastal zone captured by specialist instruments called radar altimeters on board of satellites, is at the heart of the project.

Read more: [Knowledge Portal](#)

### **Survey: Possible EU actions in relation to global coordination of Earth observations**

The European Commission has launched a survey as a way to consult the public on possible actions of the European Union in relation to global coordination of Earth observations via the Group on Earth Observations (GEO). The survey has been developed to provide the state of play regarding the implementation of the Global Earth Observation System of Systems (GEOSS) by GEO during the last ten years. The consultation aims to estimate the general awareness of the European public on Earth observations and identify ways how to maximize the benefits of the work of GEO. Finally, it will also serve to obtain opinions regarding a set of several possible actions of GEO at EU level.

Read more: [Knowledge Portal](#)

### **Russia and China to cooperate regarding satellite navigation**

Representatives of China and Russia met in Beijing to discuss their cooperation regarding satellite navigation. Representatives of the two countries met in Beijing for the first meeting of the interstate Committee on Russian and Chinese satellite navigation. They signed Committee regulations and the Protocol of the first working meeting and discussed a wide range of issues on Russian and Chinese cooperation in the field of rocket and space industry and rocket engines production.

Read more: [Knowledge Portal](#)

### **Rwandan senate votes on first ever disaster management bill**

The upper legislative chamber of the Rwandan parliament passed a new bill on disaster management. It is the first bill ever in Rwanda that will address the management, prevention, and mitigation of causes of natural and human-generated disasters in the East African nation. Besides disaster prevention, it deals with rescue efforts during a disaster, the conduction of community awareness programmes and training personnel to be prepared to cope with a disaster.

Read more: [Knowledge Portal](#)





### Germany to launch microsatellite to detect forest fires

In October 2015, Germany will launch the Berlin Infrared Optical System (BIROS), a microsatellite capable of monitoring forest fires from Space. The microsatellite was partly developed by the Institute of Optical Sensor Systems in Berlin of the German Aerospace Agency (DLR). BIROS will be launched from the Satish Dhawan Space Centre in India. As part of the FIREBIRD mission, with its on-board infrared camera on board, BIROS will link up with TET-1 for accurate, timely detection of forest fires. TET-1 is previous German microsatellite, which was sent into space in 2012.

Read more: [Knowledge Portal](#)

### DigitalGlobe: End of QuickBird mission

On 27 January, the QuickBird Earth Observation satellite re-entered Earth's atmosphere after 13 years in orbit. It was a satellite of the imagery provider DigitalGlobe and the company's oldest satellite. DigitalGlobe stated in a press release: "QuickBird made more than 70,000 trips around the planet, capturing some 636 million square kilometers of high-resolution earth imagery that contributed to humanity's understanding of our changing planet."

Read more: [Knowledge Portal](#)

### United Nations University and German Aerospace Center strengthen collaboration

The German Aerospace Center (DLR) and the United Nations University (UNU) have agreed to continue to strengthen their cooperation. Johann-Dietrich Wörner, Chairman of the DLR Executive Board, and Jakob Rhyner, Vice Rector of UNU in Europe and Director of UNU Institute for Environment and Human Security (UNU-EHS) in Bonn, signed an agreement to this effect on 23 February 2015. DLR and UNU expect that their agreement will result in even closer ties between science and practice, additional joint projects in the field of Earth observation and climate change as well as sustainable

resource protection.

Read more: [Knowledge Portal](#)

### European Data Relay System services for Copernicus

The European Union Copernicus programme will be supported by services of the European Data Relay System (EDRS) according to a recent press release. ESA and Airbus DS have signed a service level agreement on 20 February 2015 to provide high-speed communications to the Copernicus Sentinel-1 and -2 dedicated missions, starting in 2015 until 2021, with an option for extension until 2028.

Read more: [Knowledge Portal](#)

### International Charter activated four times for floods in February

The International Charter: Space and Major Disasters was activated four times in the month of February to provide satellite-based maps and products. It was triggered on 20 February for floods in Australia following Cyclone Lam and Cyclone Marcia. On 25 February, the mechanism was activated for floods in northern Bolivia after heavy rain caused the River Acre to overflow. On 27 February, the International Charter was again triggered for floods in Brazil.

Read more: [International Charter](#)

### WMO ranks 2014 the hottest year on record

The World Meteorological Organization (WMO) in Geneva has ranked 2014 the hottest year on record, as part of a continuing trend. Average global air temperatures over land and sea surface in 2014 were 0.57 °C (1.03°F) above the long-term average of 14.00°C (57.2 °F) for the 1961-1990 reference period. By comparison, temperatures were 0.55 °C (1.00°F) above average in 2010 and 0.54°C (0.98°F) above average in 2005, according to WMO calculations.

Read more: [Knowledge Portal](#)

## Upcoming events

### 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.





During WCDRR, UNOOSA/UN-SPIDER is co-organising the following sessions:

14 March 2015, 17:00 - 18:30:

**Working Session: Early Warning**

15 March 2015, 12:00 - 13:30:

**Working Session: Earth Observation and High Technology to Reduce Risks**

15 March 2015, 09:30-17:00:

**Public Forum: Enhancing Disaster Resilience by Fusion of Simulation, Sensing and Geospatial Information**

Read more: [WCDRR](#)

**Apply now! United Nations/Germany International Conference on Earth Observation on 26-28 May 2015, Bonn, Germany**

2015 will be a decisive year for the international community paving the way for sustainable development worldwide. Three important processes led by the United Nations are underway resulting in three agreements expected for 2015: the Post 2015 Framework on Disaster Risk Reduction (HFA2, March 2015), the Sustainable Development Goals (September 2015), and the new climate change Agreement (December 2015). The United Nations/Germany International Conference on Earth Observation – Global solutions for the challenges of sustainable development in societies at risk aims at bridging the gap between Earth Observation experts and decision makers to find Earth observation solutions that match the challenges of governments in societies at risk. The event is now open for applications. The deadline for applications for those requesting financial assistance is 13 March 2015.

Read more and apply online: [Knowledge Portal](#)

