



# OCTOBER/NOVEMBER 2017 UPDATES

## UN-SPIDER at a glance

### **United Nations/Germany International Conference on International Cooperation Towards Low-Emission and Resilient Societies held in Bonn**

More than 110 experts and participants from over 25 countries in Africa, Asia, Europe, and Latin America, among them high-level representatives of the United Nations, convened in Bonn from 22 to 24 November to consider how space technology can help make societies more environmentally-friendly and more resilient to challenges such as disasters and climate change. The United Nations/Germany International Conference on International Cooperation Towards Low-Emission and Resilient Societies was organized by the United Nations Office for Outer Space Affairs (UNOOSA) in cooperation with the German Aerospace Center (DLR) and the German Federal Ministry for Economic Affairs and Energy (BMW).

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **UNOOSA co-publishes guidelines for disaster emergency response in ASEAN countries**

The handbook "Sharing Space-based Information: Procedural Guidelines for Disaster Emergency Response in ASEAN Countries" provides procedural guidelines for sharing information during emergency response, and aims to support disaster managers to become familiar with the systematic approach necessary for using satellite-derived and geospatial information applications.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **UNOOSA co-organized a workshop on human capacity-building in space science and technology for sustainable social and economic development**

The United Nations/Russian Federation Workshop on

"Human Capacity-Building in Space Science and Technology for Sustainable Social and Economic Development", which took place in Samara, Russian Federation, from 30 October to 2 November, addressed the role of human capacity-building for using space science, technology and applications in support of sustainable development, with a particular focus on developing and emerging countries. The workshop was co-organized by the United Nations Office for Outer Space Affairs (UNOOSA) and the Samara National Research University, and co-sponsored by the European Space Agency (ESA).

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **International Training Course on Integration of Multisource Earth Observation Data for Disaster Damage Assessment**

The International Training Course on Integration of Multisource Earth Observation Data for Disaster Damage Assessment was successfully organized from 25 to 31 October in Beijing, China. The training programme was conducted back to back with the United Nations International Conference on Space-based Technologies for Disaster Risk Reduction - "Building Resilience through Integrated Applications", organized by the United Nations Office for Outer Space Affairs (UNOOSA), under the framework of UN-SPIDER, and the Ministry of Civil Affairs of the People's Republic of China in Beijing, China from 23 to 25 October 2017.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **7th Annual UN-SPIDER Conference opens in Beijing**

The United Nations International Conference on Space-based Technologies for Disaster, Risk Reduction - "Building Resilience through Integrated Applications" took place from 21 to 25 October 2017 in Beijing. About one hundred





participants from 34 countries and eight regions participated in the conference, which was co-organized by the United Nations Office for Outer Space Affairs (UNOOSA) under the framework of UN-SPIDER, and the Ministry of Civil Affairs of

the People's Republic of China. Presentations delivered at the event are available on the website.

[Read more on the UN-SPIDER Knowledge Portal.](#)

## News from our community

### ESA investigates the potential of High Altitude Pseudo Satellites (HAPS)

The European Space Agency is currently conducting a more in-depth examination into the concept of High Altitude Pseudo Satellites (HAPS) and their potential for emergency response. HAPS are aircraft which are flying or floating at around 20 km altitude for very long duration flights up to several months or even years. Flying at a similar altitude as conventional aircraft but operating more like satellites, they are able to offer continuous coverage of the territory below and are considered as the 'missing link' between drones and satellites.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### InAWARE technology provides assistance for Mount Agung eruption

Indonesia's advanced hazard early warning and monitoring system, InAWARE, has helped officials anticipate impacts to populated areas and develop evacuation and response plans for the Mount Agung eruption. However, for the most part, clear predictions for volcanic eruptions remain a difficult task.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### Study: Integration of in situ and space-based data key for monitoring coastal zone changes

A new study highlights the need to complement existing in situ observing systems for monitoring coastal zone changes with observations from space. The authors argue that this will lead to an improved understanding of the coastal systems that remain poorly known and mostly unsurveyed on a global scale, as well as to a better provision of useful information to decision-makers in the case of natural hazards like flooding.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### International Charter Space and Major Disasters publishes annual report

The International Charter "Space and Major Disasters" has

published its annual report. The document describes the Charter's manifold activities in 2016. It focuses primarily on the 36 activations of the Charter throughout the reporting period for disasters such as the Ecuador earthquake on April 16 and Hurricane Matthew in the Caribbean and the USA in October.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### Charter activations in October and November 2017

The International Charter "Space and Major Disasters" has been activated five times in October and November 2017: on 6 November for Typhoon Damrey in Vietnam at the request of UNITAR/UNOSAT on behalf of UN OCHA; on 12 November for the earthquake in Iraq at the request of UNITAR/UNOSAT on behalf of UN OCHA; on 13 November for the earthquake in the Islamic Republic of Iran at the request of UNITAR/UNOSAT on behalf of UN OCHA; on 15 November for the earthquake in the Republic of Korea at the request of the National Disaster Management Institute (NDMI); and on 17 November for the search and rescue of a submarine in Argentina at the request of Secretaría Nacional de Protección Civil de Argentina (SIFEM).

[Read more on the website of the Charter.](#)

### Space-based and in-situ information supports Zambian farmers in climate monitoring

For a long time, Zambia has been affected by extreme weather conditions that have adversely affected the livelihood of smallholder farmers, especially women, who constitute 78% of the agricultural labour force. To strengthen the capacity of national and sub-national entities in monitoring the climate, the United Nations Development Programme (UNDP), in collaboration with the Zambian government through the Zambian Meteorological Department (ZMD), is implementing the project "Strengthening Climate Information and Early Warning Systems" in Zambia to support climate resilient development.

[Read more on the UN-SPIDER Knowledge Portal.](#)



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### **New projects in Malaysia, Ethiopia and Kenya focus on use of satellite data to respond to environmental disasters**

Through the use of satellite data, two projects in Malaysia, Ethiopia and Kenya aim to generate new information for key decision makers. The objective of the projects is to intervene as early as possible to protect people and the environment.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **UNISDR publishes new National Disaster Risk Assessment guidelines**

The United Nations Office for Disaster Risk Reduction (UNISDR) has published guidelines on national disaster risk assessments to support the implementation of the Sendai Framework at the national level. National Disaster Risk Assessment (NDRA) is part of the organization's series of thematic guidelines "Words into Action", which aims to offer practical guides to implement the Sendai Framework.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **SE-CONRED, SENACYT, AMSA and IAA-USAC of Guatemala conduct training course on flood mapping**

The Executive Secretariat of Guatemala's National Coordinating Agency for Disaster Risk Reduction (SE-CONRED), the National Secretariat of Science and Technology (SENACYT), the National Authority for the Sustainable Management of Amatitlan Lake (AMSA) and the Institute of Environmental Studies of the Faculty of Agriculture of the San Carlos University of Guatemala (IAA-USAC) have joined forces to conduct a training course on the use of radar imagery to map the extent of floods. The training course was conducted in the GIS Laboratory of IAA-USAC from 16 to 19 October 2017 by instructors from the Federal University of Santa Maria in Rio Grande do Sul, Brazil (UFMS) and the Agustin Codazzi Geographic Institute of Colombia (IGAC).

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **Sentinel-5P satellite launched to monitor the atmosphere**

The first Copernicus mission dedicated to monitoring the atmosphere was launched successfully on 13 October.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **New online resources for Copernicus Marine Environment Monitoring Service**

The Copernicus Marine Environment Monitoring Service (CMEMS) has published a number of new free online tutorials on how to use the information services it provides.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **Remote sensing-based method complements in situ applications to improve river flow monitoring**

Tracking flux or discharge of water is not easy as it breezes through rivers globally. For a long time, hydrologists have been tracking river flows using gauging stations. Complementing such in situ data, a group of space agencies have developed the Surface Water and Ocean Topography (SWOT) satellite mission to explore, among others, a novel approach to estimating river fluxes by using remote sensing.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **Latest addition to Japan's Quasi-Zenith Satellite System to support communication in disaster management**

The Japan Aerospace Exploration Agency (JAXA) and Mitsubishi Heavy Industries have launched the Michibiki-4 communications satellite. The new satellite is part of a terrestrial positioning network system that will allow better communication in case traditional communication networks are unavailable due to a natural disaster.

[Read more on the UN-SPIDER Knowledge Portal.](#)



The United Nations Office for Outer Space Affairs (UNOOSA) implements the decisions of the General Assembly and of the Committee on the Peaceful Uses of Outer Space and its two Subcommittees, the Scientific and Technical Subcommittee and the Legal Subcommittee. The Office is responsible for promoting international cooperation in the peaceful uses of outer space, and assisting developing countries in using space science and technology. In its resolution 61/110 of 14 December 2006 the United Nations General Assembly agreed to establish the "United Nations Platform for Space-based Information for Disaster Management and Emergency Response - UN-SPIDER" as a programme within UNOOSA. UN-SPIDER focuses on the need to ensure access to and use of spacebased solutions during all phases of the disaster management cycle.