



## FEBRUARY 2018 UPDATES

### UN-SPIDER at a glance

#### **UN-SPIDER participates in MOBILISE events in Colombo**

UN-SPIDER participated in a workshop and conference organized by the MOBILISE project in Colombo, Sri Lanka. The project, implemented in Sri Lanka, Pakistan and Malaysia, brings together academic institutions from the United Kingdom, Sri Lanka, Pakistan and Malaysia, as well as government agencies involved in disaster risk reduction and emergency response efforts. More than fifty participants from a variety of institutions convened in Colombo for the events, which took place from 27 February to 1 March.

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

#### **UNOOSA activation privileges for International Charter augmented to include national disaster risk management agencies**

The International Charter "Space and Major Disasters" has augmented the activation privileges of the United Nations Office for Outer Space Affairs (UNOOSA). Under the new arrangement, UNOOSA, through its UN-SPIDER programme, can request the activation of the Charter on behalf of national disaster risk management (DRM) organizations in the framework of the Universal Access Trial Initiative.

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

### New resources

#### **UN-SPIDER Recommended Practices on drought monitoring available in Python**

The UN-SPIDER Recommended Practices on drought monitoring using the Standard Vegetation Index (SVI) and the Vegetation Condition Index (VCI) have been published in Python and can be downloaded as so-called Jupyter notebooks. They are also available in the programming language R. These easy-to-follow, step-by-step procedures provide practical insights on how to use space-based information for various hazards in different stages of the disaster management cycle.

[Access the UN-SPIDER Recommended Practices on the Knowledge Portal.](#)

#### **New operating system bundles free and open SAR processing programs for easy installation**

A new "plug'n play" operating system bundles freely available Synthetic Aperture Radar (SAR) processing software for easy installation to help users start processing data. SARbian has been developed by the SAR-EDU Remote Sensing Education Initiative team at the Friedrich-Schiller University Jena and from the EO College online platform. The free software suite is a Linux live system based on Debian and includes free and open SAR processing software.

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

### News from the community

#### **New tool combines lightning and satellite data to improve forecasts of tropical cyclones**

A group coordinated by the University of Washington in Seattle has developed a tool to facilitate continuous monitoring of tropical cyclones through the combination of lightning and

microwave satellite data. The World Wide Lightning Location Network's (WWLLN) tropical cyclone (WWLLN-TC) platform is publicly accessible and visualizations of the global data are updated every three hours.

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



### **ISRO to support Indian state of Uttarakhand with satellite-based forecasting and monitoring**

The Indian state of Uttarakhand signed a memorandum of understanding (MoU) with the Indian Space Research Organisation (ISRO) in Ahmedabad on 15 February. This MOU gives the Uttarakhand Disaster Mitigation & Management Centre (DMMC) access to satellite imagery data produced by ISRO to put to use in forecasting potential issues for better disaster management and monitoring weather conditions.

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

### **Satellites aid in rescue of 275 lives in the United States of America in 2017**

275 people were rescued within the United States of America and its surrounding waters in 2017 with the help of satellites operated by the US National Oceanic and Atmospheric Administration (NOAA). Of the 275 rescues, 186 were in water, 15 were from aviation incidents and 74 were on land using personal locator beacons (PLBs).

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

### **International Charter activated for Cyclone Gita in Tonga**

The International Charter "Space and Major Disasters" has been activated for Cyclone Gita in Tonga. Cyclone Gita, a Category 4 storm, hit Tonga on the evening of 12 February. Acting Prime Minister Hon. Semisi Sika declared a state of emergency for the whole region, while 108 evacuation centres housing nearly 4,000 people were set up on Tonga's main island of Tongatapu. A further 12 centres were set up among the nations Ha'apai group of islands.

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

### **International Charter activations**

The International Charter "Space and Major Disasters" was activated four times in February. It was activated on 18 February for an aircraft crash in the Islamic Republic of Iran at the request of EMERCOM of the Russian Federation; on 12 February for Cyclone Gita in Tonga at the request of UNITAR-UNOSAT on behalf of UNOCHA; on 8 February for floods in Bolivia at the request of UOB/SINAGER/VIDECI; and on 3 February for floods in Argentina at the request of the National Secretariat for Civil Protection and the Federal Emergency System of Argentina.

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

### **Earthquake early warning focus for new Chinese-Italian satellite**

A satellite to study seismic activity including earthquake precursors was successfully put into orbit on 2 February as part of a joint Chinese-Italian project. The China Seismo-Electromagnetic Satellite (CSES) - also known as Zhangheng 1 - was launched via a Long March 2D rocket, which lifted off from Jiuquan Satellite Launch Center in China. CSES is the first Chinese space-based platform for earthquake monitoring.

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

### **International Charter activated for floods in Argentina and Bolivia**

The International Charter "Space and Major Disasters" was activated for floods in Argentina and Bolivia. Heavy rains in the region caused the Pilcomayo river to overflow, leading to displacement of the local population and widespread damages. The river rises in the Andes in Bolivia and flows along the border between Argentina and Paraguay before joining the Paraguay river opposite Asunción.

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

### **Satellites to monitor emergency situations launched by Russian Federation**

Satellites that will be used for the real-time monitoring of emergency situations were successfully put into orbit by the Russian Federation on 1 February. The remote-sensing Kanopus-Vulkan (or Kanopus-V) satellites No.3 and No. 4 were launched via a Russian Soyuz-2.1a rocket, which lifted off from Vostochny Cosmodrome. They are designed to assist in the detection and management of natural disasters as well as human-made emergency situations, including floods, oil spills and forest fires.

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

### **International satellite data aids France flooding analysis**

Data from the Global Precipitation Measurement mission (GPM), a joint undertaking of NASA and the Japan Aerospace Exploration Agency (JAXA), has helped determine where the largest rainfall leading to the recent floods in France occurred. The data was examined using NASA's Integrated Multi-satellite Retrievals for GPM (IMERG) algorithm, and an IMERG-derived map for the Seine River flooding is available online.

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



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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.