UNITED NATIONS
Office for Outer Space Affairs
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DECEMBER 2012 UPDATES

UN-SPIDER AT A GLANCE

UN-SPIDER supports APSCO Training course on Earthquake Monitoring

In cooperation with the Asia-Pacific Space Cooperation Organization (APSCO) and the National Disaster Reduction Centre of China (NDRCC), UN-SPIDER jointly organized a training course on Remote Sensing Data Usage for Earthquake Monitoring and Evaluation. The training took place at Beijing Normal University, China, from 3 to 13 December 2012. The broad aim of the training was to offer more practical hands-on instructions for the 'usage of remote sensing data for earthquake monitoring and evaluation' for the participants from APSCO Member States. The training also included a technical tour at the "National Earthquake Response Support Service".

Read more: Knowledge Portal

International Meeting of Crowdsource Mapping successfully concluded

From 3 to 5 December 2012, UN-SPIDER carried out a three-day international expert meeting on the topic of Crowdsource Mapping for Disaster Risk Management and Emergency Response. The event was generously supported by the Austrian Government and Secure World Foundation. 81 participants from a variety of backgrounds attended the meeting. They represented Crowdsource Mapping networks such as Ushahidi or the Humanitarian OpenStreetMap Team, universities, entities involved in humanitarian aid, space agencies and UN organisations. During the three-day event, more than 25 presentations on topics ranging from Crowdsource Mapping simulation exercises, crowdsource mapping responses to the role of Crowdsourcing in events such as Hurricane Sandy or the Great East Japan Earthquake, cellular infrastructure or citizen seismology. Additionally, related projects and programmes such as GMES-GIO, the ArcGIS Platform or NOMAD were presented, among others. The results of the meeting will be elaborated into a report to be presented to the Scientific and Technical Subcommittee of COPUOS in February 2013. OOSA director Mazlan Othman stressed in her closing remarks the importance of getting all stakeholders at the same table. All relevant documents as well as the meeting's presentations are available on the Knowledge Portal.

Read more: Knowledge Portal

Typhoon Bopha: UN-SPIDER facilitates activation of Charter

Based on a communication with the Office for Humanitarian Affairs (OCHA) Pacific Office, UN-SPIDER on 3 December 2012 requested the activation of the International Charter "Space and Major Disasters" to assess the damage caused by Super Typhoon Bopha that hit the island nation Palau on the early morning of 3 Dec 2012. The activation aims at assessing damage associated with the wind, the storm surge and heavy rains. Additionally, UN-SPIDER coordinated for the activation the Charter for Bopha's impacts in the Philippines as well.

Read more: Knowledge Portal and International Charter

NEWS FROM OUR REGIONAL SUPPORT OFFICES

SUPARCO/FAO issue study on rapid crop damage assessment in Pakistan in 2012

Pakistan faced floods and tormenting rains during the last three consecutive monsoons from 2010 to 2012. SUPARCO, host of a UN-SPIDER Regional Support Office, in collaboration with the Food and Agricultural Organisation (FAO) started generating data on a daily basis on flood extent, damage to households, infrastructure crops and undertaking detailed Damage Need Assessment (DNA). In the aftermath of floods, monitoring of flood recession and ponding of water in the affected areas were carried out on decadal basis and were published by SUPARCO- FAO jointly in three reports (Reports 1 to 3) covering the years 2010 and 2011. A fourth report covering 2012 was now released.

Read more: Knowledge Portal

International Workshop on flood risk mapping using spatial technologies

Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) - host of one of UN-SPIDER's Regional Support Offices - conducted a five-day training/ workshop on "Flood Risk Mapping Using Spatial Technologies" from 5 to 10 December 2012. The training focused on flood modeling and risk mapping techniques using spatial technologies and was attended by government officials, researchers and academics. The three-day training, followed by a two-day international workshop and one-day international training led by foreign experts, provided disasters managers an insight in using Satellite Remote Sensing data integrated with Geographical Information System tools to model and simulate the real time flood scenarios in various rivers of the country.

Read more: Knowledge Portal

Károly Róbert University College establishes new Remote Sensing Laboratory

A scientific workshop about finishing the project "Establishment of an environmental monitoring and remote sensing laboratory at Károly Róbert University College" was held at the College at the end of 2012. This new laboratory provides an excellent opportunity for students to get information about the most recent Remote Sensing technologies and methods. The laboratory is the only one in Hungary which has active and passive sensors and both software and hardware capacities for processing hundreds of gigabytes of data produced by these sensors. From 1st of January 2013, the laboratory operates at full capacity. The project is funded by the EU and the Hungarian Government.

Read more: Knowledge Portal

Hyperspectral data plays important role in environmental monitoring

In cooperation with Galileo Group, UN-SPIDER's Regional Support Office in Hungary, the Károly Róbert University College, participated in an Unmanned Aerial Vehicle (UAV) flight operations and hyperspectral data collections for a NASA sponsored project to map sea grass beds and coral reefs in the Florida Keys. Hyperspectral data collections can play a crucial role in environmental mapping and monitoring. The information contained in the hyperspectral data sets can play a key role in monitoring changes over time relating to environmental conditions. Over 320 gigabytes of mission data was collected over the deployment. Working together, Galileo and the RSO's fellows operate as a consolidated team and perform a good service, which can serve as a reference for future work worldwide.

Read more: Knowledge Portal

NEWS FROM OUR COMMUNITY

Hurricane Sandy: Polar-orbiting satellites were key in pinpointing landfall

According to a new study by the European Centre for Medium-Range Weather Forecasts (ECMWF), the NOAA forecasts of Hurricane Sandy's track could have been hundreds of miles off without information from polar-orbiting satellites. Rather than identifying the New Jersey landfall location within 30 miles five days before landfall, the models would have shown Sandy remaining at sea.

Read more: Knowledge Portal

Cyclone Evan: International Charter activated three times

The International Charter "Space and Major Disasters" was activated three times in the context of Cyclone Evan that hit the Pacific region in mid-December 2012. Tropical Cyclone Evan struck Samoa on 13 December 2012, and made landfall as a Category 1 storm before intensifying to Category 3. The Charter was activated to provide satellite products on 15 December. Evan passed over the French territory of Wallis and Futuna between 15 and 16 December 2012 triggering the activation on 16 December. Finally, Evan hit Fiji at Category 4 strength on 17 December leading to an activation on 18 December.

Read more: International Charter

Galileo: First navigation signals transmitted by FM3

Europe's third Galileo satellite has transmitted its first test navigation signals back to Earth in early December 2012. The two Galileo satellites launched last October have reached their final orbital position and are in the midst of testing. The third Galileo Flight Model, known as FM3, transmitted its first test navigation signal in the E1 band on 1 December, the band being used for Galileo's freely available Open Service interoperable with GPS. Then, on the morning of 4 December, the satellite broadcast signals across all three Galileo bands – E1, E5 and E6.

Read more: Knowledge Portal

UNOOSA and Japan establish Fellowship Programme on Nano-Satellite Technologies

The United Nations Office for Outer Space Affairs (UNOOSA) and the Government of Japan in cooperation with the Kyushu Institute of Technology (KIT) have established the United Nations/Japan Long-term Fellowship Programme on Nano-Satellite Technologies for nationals of developing countries or countries with economy in transition. The Programme will provide extensive research opportunities in nano-satellite systems through the use of the nano-satellite development and testing facilities available at KIT. The selected applicants will each receive a grant for the duration of their fellowship study (2 or 3 years) to cover housing, food, local transportation, and other expenses such as tuition and entrance examinations. Applications for the Fellowship Programme will be accepted until 28 February 2013.

Read more: Knowledge Portal

Japan to host World Conference on Disaster Risk Reduction

The UN General Assembly confirmed that Japan will host the Third World Conference on Disaster Risk Reduction in 2015 when it passed its annual resolution on 9 December 2012 on the International Strategy for Disaster Reduction. Previously, Japan successfully hosted the last two such world conferences. The world's first comprehensive framework for disaster risk reduction resulted from the last world conference held in Kobe in January 2005 where there was unanimous support for the "Hyogo Framework for Action 2005-2015: Building Resilience of Nations and Communities to Disasters (HFA)."

Read more: Knowledge Portal

Floods the most frequent disaster in Asia in 2012

UNISDR (United Nations Strategy on Disaster Risk Reduction) analyzed disaster trends in 2012 across Asia, the world's most disaster-prone region, showing that mortality from flood events continues to decline but economic losses remain a major cause of concern. In 2012, floods were the most frequent disaster occurring in Asia and had the highest human and economic impact. They accounted for 54% of the death toll in Asia, 78% of people affected and 56% of all economic damages in the region. Jerry Velasquez, Head of the UNISDR Asia Pacific, said: "Flood risk must be addressed in a more systematic manner and integrated in all urban and development management plans."

Read more: Knowledge Portal

UPCOMING EVENTS

28 January-2 February 2013: Application Mapping Techniques and Geographic Information Systems (GIS) for Landscape Interpretation and Representation

UN-SPIDER's Regional Support Office in Panama, CATHALAC, in collaboration with Florida State University will carry out a course on Application Mapping Techniques and Geographic Information Systems (GIS) for Landscape Interpretation and Representation taking place in Ciudad del Saber, Panama from 28 January to 2 February 2013. The goal of the event is to familiarize the participants with the fundamentals of mapping techniques, Remote Sensing and Geographic Information Systems (GIS). It is possible to register online for this event.

Read more: Knowledge Portal

6-8 February 2013: International Interdisciplinary Conference on Geo- and Environmental Information and Communication

CEGeoIC is an international and interdisciplinary conference organized by CODATA-Germany in Bogota, Colombia dedicated to scientific and technical methods of environmental information and communication. Special regard is given to the central role of Geoinformation. The conference will provide a forum for the presentation of scientific papers illustrating the efforts of the research community, professional papers describing the cutting-edge methods employed by environmental and geoinformation organizations and companies, furthering their national as well as international collaborative efforts to advance knowledge and techniques of environmental information and communication.

Read more: Knowledge Portal

11-15 March 2013: United Nations/Pakistan International Workshop on Integrated Use of Space Technologies for Food and Water Security

The United Nations Office for Outer Space Affairs (OOSA) and the Government of Pakistan are jointly organizing a Workshop to promote the use of space technologies for the benefits of developing countries. The Workshop will be held in Islamabad, Pakistan, from 11 to 15 March 2013, hosted by the Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) on behalf of the Government of Pakistan. The Workshop will explore how present-day space technologies help to identify and monitor the relationships between mountain environment (as a source of water), sustainable water resources and how these affect food security on an international and regional scale. It will therefore also link to the context of the Rio+20 Summit Declaration and to the evolving United Nations Post-2015 Development Agenda.

Read more and apply online: UNOOSA