



FEBRUARY 2014 UPDATES

UN-SPIDER at a glance

UN-SPIDER newsletter: Space Technologies in the United Nations

UN-SPIDER has published its latest newsletter focusing on the topic “Space Technologies in the United Nations”. Disasters triggered by natural hazards such as floods, droughts, storms or fires affect millions of people every year and result in billions of dollars in economic losses. The United Nations therefore works to improve its Member States’ capacities to reduce disaster risks, to foster resilience and to respond effectively to such disasters by using space technologies. In its role as a gateway to space-based information, UN-SPIDER compiled this newsletter to highlight some examples of how and why space technologies are used by the United Nations in the context of disasters. These case studies are examples of the extremely valuable work carried out throughout the entire UN system.

Read more: [Knowledge Portal](#)

UN-SPIDER participates in 13th ASEAN Regional Forum Inter-Sessional Meeting on Disaster Relief

UN-SPIDER, represented through Mr. Shirish Ravan of the UN-SPIDER Beijing Office, participated in the 13th ASEAN Regional Forum Inter-Sessional Meeting on Disaster Relief and presented the topic “Role of space based information in Disaster Risk Reduction: UN-SPIDER Interventions”. In his presentation, Mr Ravan underscored the importance of relaying early warning messages of impending disasters to residents. The meeting took place from 27 to 28 February 2014 in Chengu, China. Participants discussed early warning and assessment of risks, military-civil coordination, humanitarian assistance stockpiles management, damage assessment, recovery and reconstruction, and the future direction of regional disaster relief cooperation including preparations for the ASEAN Regional Forum Disaster Relief Exercises in 2015.

Read more: [Knowledge Portal](#)

Call for Experts: UN-SPIDER Technical Advisory Mission to Bhutan

At the invitation of the Royal Government of Bhutan, UN-SPIDER will conduct a Technical Advisory Mission (TAM) to Bhutan from 2 to 6 June 2014. The TAM aims to evaluate the current and potential use of space-based information in all the aspects of disaster management in Bhutan and to strengthen disaster risk management in the country by providing better access to space-based information for disaster risk reduction as well as for emergency response. UN-SPIDER is currently seeking international experts from relevant institutions, organisations, companies or universities working with space technology and disaster management and who are already collaborating or are willing to collaborate with the authorities or respective institutions in Bhutan. UN-SPIDER invites representatives of relevant institutions, organizations, companies or universities interested in joining the expert team to send a short background, résumé or CV and a short indication of the current, planned or possible type of collaboration with Bhutan to Ms Juanjuan Han (juanjuan.han@unoosa.org) with copy to Shirish Ravan (shirish.ravan@unoosa.org) before 5 April 2014. Due to limited funds, preference will be given to self-sponsored experts. Experts should indicate if they are able to support their travel to Bhutan.

Read more: [Knowledge Portal](#)

Knowledge Portal is now available in Spanish

The UN-SPIDER team is happy to announce that on 18 February 2014, UN-SPIDER officially launched the Spanish-language version of its Knowledge Portal: www.un-spider.org/es. By making relevant content of the Portal, such as selected Regional Support Office profiles, mission profiles and emergency mechanisms, available in the Spanish language, the UN-SPIDER team aims to allow more users from Latin America and the Caribbean, where UN-SPIDER has already conducted numerous activities, to benefit from



the resources made available on the website. Users can easily switch between the Spanish and the English version by clicking the corresponding language buttons at the upper right corner of the page. A French language version will follow later this year.

Read more: [Knowledge Portal](#)

UN-SPIDER presents Knowledge Portal at COPUOS STSC

On 18 February 2014, UN-SPIDER presented its Knowledge Portal (www.un-spider.org) to the delegates of the 51st session of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space (COPUOS STSC). UN-SPIDER colleagues gave a short overview of the

programme as well as a live presentation of the Knowledge Portal including its most important features and services. After an evaluation in 2012, the team implemented numerous structural and content-related improvements to the website, which were showcased during the presentation. These improvements include new databases on available satellite data sets and GIS/Remote Sensing software, as well as new profile pages for UN-SPIDER's Regional Support Offices and Technical Advisory Missions. The presentation was also the occasion to officially launch the Spanish-language version of the UN-SPIDER Knowledge Portal in order to allow more users from Latin America and the Caribbean to benefit from the resources made available on the Portal.

Read more: [Knowledge Portal](#)

News from our Regional Support Offices

UN-SPIDER Regional Support Offices: Fifth annual meeting in Vienna

UN-SPIDER successfully concluded the fifth annual meeting of its Regional Support Offices on the premises of the United Nations Office at Vienna. The meeting took place on 13 and 14 February 2014 and was conducted as a side-event to the 51st session of the Scientific and Technical Sub-Committee (STSC) of the Committee on Peaceful Uses of Outer Space (COPUOS). Representatives from thirteen of the sixteen Regional Support Offices, staff from the UN-SPIDER programme and from the German Aerospace Center (DLR) discussed lessons learnt regarding the activities carried out by these offices, technical advisory support, knowledge management and outreach activities. The agenda of the meeting included a revision of activities conducted by these offices in 2013, the UN-SPIDER plan of activities for 2014, the current status regarding the elaboration of recommended practices on the use of archived and up-to date imagery for a variety of purposes, the incorporation of geo-visualization tools, the UN-SPIDER Knowledge Portal and ways to improve the

synergies among these offices worldwide.

Read more: [Knowledge Portal](#)

USAID Administrator visits ICIMOD

Dr. Rajiv Shah, Administrator of the US Agency for International Development (USAID), visited UN-SPIDER's Regional Support Office in Nepal – the International Centre for Integrated Mountain Development (ICIMOD) – to discuss the role of science and technology in monitoring the environment and in supporting the development of the region. At the meeting, ICIMOD presented tools that have been developed as part of the joint venture initiative SERVIR (The Regional Visualization and Monitoring System) of NASA and USAID. Dr Shah highlighted: "ICIMOD has shown how vital satellite information is to monitoring agricultural production, forest fires and responding to droughts and floods. Through partnerships like SERVIR, scientists will be able to use cutting-edge technologies to monitor complex challenges as they happen—helping to save lives and build more resilient communities."

Read more: [Knowledge Portal](#)

News from our Community

International Charter: Space and Major Disasters activated seven times in February

The International Charter: Space and Major Disasters, a global mechanism to provide space-based information for

emergency situations, was activated seven times in February 2014. The activations covered forest fires in India, floods in England, Zimbabwe, Burundi and Bolivia, heavy snowfall in South Korea, and the volcanic eruption of Mount Kelud in Indonesia. The International Charter makes the produced





maps available on their website.

Read more: [International Charter](#)

Israel: Own satellite to monitor crops from outer space

Israel has years of experience in satellite communication and navigation. The country is now preparing to launch its first Earth Observation satellite to monitor crops. The project Vegetation and Environment Monitoring on a New Micro-Satellite (Venus) is carried out in cooperation with France and will include an on-board super spectral sensor. The French space agency CNES will provide the camera, while the Israeli Space Agency will be responsible for the launch, spacecraft, technology and control. The satellite will be used for scientific purposes dealing with monitoring, analysis and modeling of agricultural land surface. The launch of Venus is scheduled for 2015.

Read more: [Knowledge Portal](#)

Satellite technology to help fight Deforestation

The World Resources Institute, a global research organization, together with Google and 40 other global partners launched a website in mid-February that helps monitor forests: [Global Forest Watch](#). Previous reports on deforestation had impacts in several countries like Canada, Brazil and Indonesia, but the reports were always based on printed data, which is of course not frequently updated. The website offers an easy way to track deforestation through near real time satellite images, through crowd sourcing and human networks in over 200 countries.

Read more: [Knowledge Portal](#)

The Caribbean: EU support for Disaster Preparedness Action Plan

The European Commission re-affirmed its commitment to disaster risk reduction in the Caribbean by launching the Disaster Preparedness (DIPECHO) action plan 2013-2014. 8.5 million Euro will be invested in disaster preparedness and reducing vulnerabilities related to natural hazards in the Caribbean. The action plan has the goal to enable millions of people in the region to be better prepared for natural hazards, such as hurricanes, floods, earthquakes and tsunamis. All actions figuring in the plan will be coordinated with the Caribbean Disaster Emergency Response Agency (CDEMA).

Read more: [Knowledge Portal](#)

India: First data and images from INSAT 3D available

The Indian meteorological spacecraft INSAT 3D - launched

on 26 July 2013 - was declared operational on 15 January 2014. The satellite carries a multi-spectral Imager, 19 channel sounder, data Relay Transponder and Search and Rescue Transponder. The instruments are mainly used for meteorological purposes as well as for search and rescue. Now, the Indian Meteorological Department made available first sets of data and derived products and maps from the satellite on its website. The data includes temperature profiles, sea surface temperature maps, humidity profiles and rainfall maps.

Read more: [Knowledge Portal](#)

Singapore: Developing first Earth Observation satellite

Singapore is getting ready to launch its TeLEOS-1 Earth Observation satellite. TeLEOS-1 will be the first Singapore-made commercial satellite. The launch is planned for the end of 2014 on board of the Indian Space Research Organization's Polar satellite launch vehicle. The satellite will carry an electro-optical camera with 1m ground resolution. This project is expected to be the first of many as the Singapore government is currently supporting eleven space projects with a budget of around US\$12 million.

Read more: [Knowledge Portal](#)

ESA: Phase-B of satcom platform Neosat signed

ESA is moving ahead with the development of their next-generation satellite communication platform - Neosat. The Phase-B contract was signed on 20 February in Paris, France. ESA contracted the European firms Airbus Defense and Space and Thales Alenia Space to build the new generation Neosat spacecrafts. ESA elaborates on their website on the further development of the project: "The contract for Phase-B is expected to last around 13 months. The subsequent Phase-C/D will start in 2015 for the development and manufacture of the first two prototype flight platforms, launch in 2018-19 and in-orbit demonstration under a public-private partnership to be established with satellite operators."

Read more: [Knowledge Portal](#)

Drought: Detecting Vegetation Health through Fluorescence

A potential new ESA satellite could use the fluorescence in plants to track health and productivity of vegetation worldwide. A likely candidate for the eighth ESA Earth Explorer, the Fluorescence Explorer (FLEX) would thus provide data for global maps of vegetation. Fluorescence gives an indication of a plant's health as it is emitted during





the photosynthetic process. Measuring fluorescence is however challenging. Germany's Jülich Research Centre and Finland's Specim company have now successfully developed the sensor Hyplant, which is capable of detecting fluorescence over large areas. It has already been tested in Europe and part of the United States.

Read more: [Knowledge Portal](#)

Call for proposals: Free FORMOSAT-2 Satellite Imagery

The International Society for Photogrammetry and Remote Sensing (ISPRS) calls for proposals for free FORMOSAT-2 satellite data. This research announcement provides an opportunity for researchers to carry out advanced researches and applications in their fields of interest using archived and/or newly acquired FORMOSAT-2 satellite images. The FORMOSAT-2 satellite offers daily images at a nominal ground resolution of 2 meters for panchromatic images or 8 meters for multispectral. The images can be used in many areas of research – land-cover and environmental monitoring, agriculture and natural resources studies, oceanography and coastal zone research, disaster investigation and mitigation support. Research projects in areas close to the Societal Beneficial Areas of GEO/ GEOSS are particularly welcome. Up to ten proposals will be

selected by a reviewing committee. Each selected proposal will be granted 10 archived images and/or data acquisition requests free of charge. The deadline for submission is 31 March 2014.

Read more: [Knowledge Portal](#)

Mongolia: Space Technologies for drought and dzud monitoring and early warning

In Mongolia, a large number of people is affected by drought, because many depend on land as a source of their livelihood. Mongolia requested additional support for disaster preparedness from the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). ESCAP has initiated the Regional Cooperative Mechanism for Drought Monitoring and Early Warning, under its Regional Space Applications Programme. Mongolia is one of five pilot countries in which the mechanism is operational to provide space-base data, products and services to address gaps in monitoring and early warning for drought. A first series of expert meetings was held in 2013 to discuss the implementation and applicability of remote sensing and Geographic Information Systems in the case of Mongolia.

Read more: [Knowledge Portal](#)

Upcoming events

1-4 April 2014, Rabat, Morocco: Third International Conference on the Use of Space Technology for Water Management

The United Nations Office for Outer Space Affairs (UNOOSA), the Government of Morocco, European Space Agency (ESA) and the Prince Sultan bin Abdulaziz International Prize for Water (PSIPW) are jointly co-organizing the 3rd International Conference on the Use of Space Technology for Water Management to promote the application of space technology for the benefits of the developing countries. The Conference will be held in Rabat, Morocco, from 1 to 4 April 2014, and it will be hosted by the Royal Center for Remote Sensing (CRTS) on behalf of the Government of Morocco. The participants will discuss how space technology can contribute in better management of water resources, including combating desertification, ensuring access to safe drinking water and managing water-related emergencies in developing countries.

Read more: [UNOOSA](#)

15-16 April 2014, Yogyakarta, Indonesia: ASEAN Workshop on Development of Standard Operating Procedure (SOP) for utilisation of Space-based information during emergency response

This workshop is jointly organized by AHA Centre, LAPAN, UN-SPIDER and ESCAP and supported by UNOSAT for senior officials of the disaster management agencies, national mapping agencies, organisations involved in providing space-based and geospatial information including government agencies and international agencies. It aims at preparing standard operating procedure (SOP) for use of space based information during emergency response. The key objectives for the workshop are to prepare to respond to major disasters by taking effective advantage of international mechanisms that provide space-based information during emergencies; to leverage on UN and other initiatives for disasters that cannot be covered by international mechanisms (especially disasters at sub-national scale); to strengthen preparedness for effective emergency response by identifying gaps, capacity building needs, database needs, financial needs,





mapping procedures, and institutional coordination; and to prepare rapid mapping products and its dissemination to the end user.

Read more: [Knowledge Portal](#)

26-30 May 2014, Kiev, Ukraine, Fourth International Conference on Earth Observations for sustainable Development and Security

The goal of the Conference is to discuss the prospects of aero- and space-born data utilization for agriculture, natural resources management, sustainable development and security in the context of GEOSS, GMES/Copernicus, INSPIRE activities and implementation of the Ukrainian segment of GEOSS (GEO-UA system). A particular focus of the GEO-UA 2014 Conference will be on Earth observation applications in agriculture: international initiatives and projects (GEO-GLAM, JECAM, SIGMA), crop mapping and identification, crop yield forecasting, crop area estimation, biophysical parameters retrieval, calibration and validation.

Read more: [Knowledge Portal](#)

1 August 2014 – 30 April 2015, Ahmedabad, India: CSSTEAP training course Ninth Post Graduate Diploma Course in Space and Atmospheric Science (SAS 9)

The Ninth Post Graduate Diploma Course in Space and Atmospheric Science (SAS 9) is one of four disciplines covered by the Post Graduate Programmes offered by CSSTEAP. Core Modules (Semester I and II) emphasize on the development and enrichment of the basic knowledge and skills of the participants in the field of space science and technology. This is followed by pilot project, which provides an opportunity to fine-tune the skills for carrying out research in space science. The United Nations-affiliated Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) imparts education and training, helping participants in developing research skills through its Master degree and Post Graduate courses.

Read more: [Knowledge Portal](#)

6-10 October 2014, Potsdam, Germany: Symposium on Service-Oriented Mapping 2014 “Geospatial Processing and Visualization”

The Symposium on Service-Oriented Mapping 2014 (SOMAP2014) brings together experts from research, government, non-governmental organisations, standardization bodies and industry to present, document and discuss trends in service-based mapping, which covers delivery,

processing, integration, analysis, collaboration as well as visualization of geospatial data and services.

Read more: [SOMAP2014](#)

