



JULY 2013 UPDATES

UN-SPIDER AT A GLANCE

Astronauts, DLR and the UN discuss Space and Sustainable Development

On 4 July, 2013, UNOOSA/UN-SPIDER, the German Aerospace Center (DLR) and the Association of Space Explorers (ASE) alongside other UN agencies located in Bonn discussed with 80 astronauts about how space technologies can contribute to sustainable development and the environment. Two key note presentations and a panel comprised of astronauts and UN experts emphasized that Space-based information allow for detailed insights into the development on our planet for example regarding climate change, land degradation, biodiversity or natural hazards. The experts pointed out how we can track and monitor sea level rise, glacier melting, land use and land cover changes, urban development, disaster impacts or deforestation with space-based information. The event was taking place under the umbrella of the 26th Planetary Congress of the Association of Space Explorers. The Planetary Congress is a biennial event, that brought together 80 of the 400 members of the Association this year in Germany, themed "Citizen of Space - Stewart of Earth".

Read more: [Knowledge Portal](#)

UN-SPIDER co-organizes training on space technologies for floods

From 22 to 26 July 2013, UN-SPIDER jointly with CSSTEAP (Centre for Space Science Technology Education for Asia and the Pacific), IWMI (International Water Management Institute) and UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific) organized an international training programme on flood risk mapping, modeling, and assessment using space technology. The training took place on the CSSTEAP premises in Dehradun, India. The programme included theory lectures and experience sharing by the experts. The theory lectures covered climate change and disaster risk reduction, adaptation to enhanced floods, concepts of flood inundation mapping, operational flood alert system of the Indian Space Research Organisation, monitoring and damage assessment using space technology, global flood detection system and flood inundation modeling.

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NEWS FROM OUR REGIONAL SUPPORT OFFICES

Pakistan: SUPARCO hosts COSPAS-SARSAT Search and Rescue Exercises

Two Search and Rescue (SAR) exercises and a basic SAR training course were hosted by the Pakistan Rescue Coordinate Centre (PARCC). PARCC is a part of the satellite ground segment of the COSPAS-SARSAT programme of SUPARCO (UN-SPIDER's Regional Support Office in Pakistan) and installed at Pakistan Civil Aviation Authority (PCAA), which is responsible for all matters of aircraft in Pakistan. COSPAS-SARSAT is an international humanitarian satellite-based search and rescue program. The programme provides accurate, timely and reliable global distress alerts and location data free of charge and on a non-discriminatory

basis to help Search and Rescue (SAR) authorities assist persons in distress. It utilizes satellites and ground facilities to detect and locate ships, aircrafts and land mobiles in distress, all of which have a direct impact on the probability of survival.

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EMERCOM joins forces with US Federal Emergency Management Agency

The Russian Emergency Situations Ministry (EMERCOM) - UN-SPIDER's most recently gained Regional Support Office - and the USA Federal Emergency Management Agency (FEMA) are going to exchange experts during joint rescue





operations in major disasters. This is provided by a protocol of the fourth meeting of the U.S.-Russia Bilateral Presidential Commission Working Group on Emergency Situations and seventeenth meeting of Joint U.S.-Russia Cooperation Committee on Emergency Situations, which took place in Washington on 25 June 2013.

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IGAC: Applying the Land Cover Classification System in Colombia

The internal network of the Remote Sensing Group and Geographic Applications of CIAF- IGAC is working on a project for the adaptation of the FAO methodology LCCS “Land Cover Classification System” as an alternative classification system for natural resources management in Colombia. IGAC is UN-SPIDER’s Regional Support Office in Colombia; CIAF is IGAC’s Center of Research and Development in Geographic Information. To facilitate an alternative and flexible system, the CIAF is evaluating the use of the LCCS as a comprehensive, standardized a priori classification system, to meet specific user requirements,

for mapping land cover in the country, independent of the scale or means used to map.

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SUPARCO contributes to 2013 National Monsoon Contingency Planning

UN-SPIDER’s Regional Support Office in Pakistan - the Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) - participated in the annual national conference on monsoon preparedness and contingency plan for the year 2013 organized by the National Disaster Management Authority (NDMA) on 26th and 27th June 2013. The focus of the conference was to provide an opportunity to Government Departments, UN agencies and various stakeholders to share their level of preparedness and respective contingency plans for the upcoming monsoon season 2013. SUPARCO gave a presentation on the situation likely to be created due to melting of glaciers and heavy snowfall received during winters earlier.

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NEWS FROM OUR COMMUNITY

India: First navigation satellite launched

India’s first dedicated navigation satellite, the IRNSS-1A, developed by the Indian Space Research Organisation, was successfully put in orbit on 1 July 2013. Apart from India, its benefits will extend to a range of 1,500 km in the region. With a mission life of 10 years, it will deliver applications ranging across terrestrial, aerial and marine navigation, disaster management, tracking of vehicles, guiding hikers and travelers, and visual-voice navigation for drivers.

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International Charter activated four times in July

The International Charter: Space and Major Disasters was activated four times in July 2013 to provide satellite-derived maps. The mechanism was triggered for floods in Thailand and Japan, earthquakes in China and the Petroleum oil fire caused by the train crash in Lac Mégantic, Canada.

Read more: [International Charter](#)

NASA/CNES Ocean satellite retired after successful mission

The Jason-1 ocean altimetry satellite has been retired after

achieving scientific, technical and international success in its long lifetime of eleven years. The satellite was launched in 2001 as a joint project of NASA and the Centre National d’Etudes Spatiales (CNES). During this time, the satellite has successfully mapped sea levels, wind speed and wave height for more than 95 percent of Earth’s ice-free ocean every 10 days. This information contributed to create a revolutionary 20-plus-year climate data record of global ocean surface topography that began in 1992 with the launch of the NASA/CNES TOPEX/Poseidon satellite. Since its launch, the satellite has shown that the global sea levels have risen by nearly 1.6 inches (4 centimeters) as a result of global warming.

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Astrium and CNES improve Pléiades image quality

Astrium, Europe’s leading space technology company, and CNES, have achieved a major improvement in Pléiades image quality, including sharper products and enhanced geometry. Astrium Services will use a new algorithm developed by the French Space Agency (CNES) to automatically sharpen Pléiades’ satellite imagery. These improvements greatly facilitate the analysis of the image





(photo-interpretation) and also improve the accuracy of 3D models resulting from stereo taken images.

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India: GIS used in the Flood Mapping Project to prevent damages

The Indian State is strengthening efforts towards flood mapping using GIS to assess the vulnerability of selected areas and therefore, be able to prepare the necessary disaster mitigation activities to prevent negative impacts of future floods. To this purpose the State Government of Gujarat will launch a pilot trial of its flood mapping project at the Mahi river basin.

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UPCOMING EVENTS

2-4 September 2013: United Nations/Indonesia International Conference on Integrated Space Technology Applications to Climate Change

The Conference will take place in Jakarta, Indonesia, from 2 to 4 September 2013, coordinated by UN-SPIDER and the National Institute of Aeronautics and Space (LAPAN). This International Conference will bring together experts from the space and the climate change community as well as decision makers to discuss methods to use space-based applications to support the identification and implementation of adaptation measures. It also serves to share experiences and lessons learned on the use of such applications in the context of climate change mitigation.

Read more: [Knowledge Portal](#)

23-25 October 2013: United Nations International Conference on Disaster Risk Identification, Assessment and Monitoring - Apply now

The UN-SPIDER Beijing Office is pleased to announce the "United Nations International Conference on Space-based Technologies for Disaster Management - Disaster risk identification and response" from 23 to 25 October 2013. Additionally, an international training programme "Flood Risk Mapping, Modelling and Assessment using Space technology" will be organised for 25 participants of the conference. The conference is an opportunity to share information on latest methods, approaches and models used for identifying, assessing and reducing disaster risks. The conference will also focus on how to

GPS helps to measure and map hurricane wind speeds

By analyzing the distorted GPS signals during storms, researchers have discovered a new way of measuring and mapping the wind speeds of hurricanes. This new measuring technique is the result of years of combined efforts from NASA and NOAA (National Oceanic and Atmospheric Administration) scientists in order to come up with a method that can add a much broader view of storm's wind speeds than currently possible. Test flights on storm-hunting airplanes demonstrate that the system provides valuable information at little additional cost.

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operationalize technological developments to address challenges at the national level by the national disaster management authorities. The purpose of this conference is to bring together the technologists and end-users on a single platform to ensure that space-based information is effectively employed in decision making that saves lives and prevents economic losses.

Application is possible only online until 10 August 2013.

Read more: [Knowledge Portal](#)

18-29 November 2013: International Training Course on Small Satellite Mission

In small satellites, payloads with a mass of just a few kilogrammes, are able to perform measurements that were done with tens of kilogrammes a few years ago. The fast and cheap development of microsatellites also makes them a suitable platform for technology evaluation and provides opportunities to test new systems in space with low cost, less risk and short time. Over the last few years, with ISRO's support and guidance, some of the Indian Universities have made their own satellites which were launched by ISRO. To share this expertise in the area of small satellite missions of 100 kg class or below, CSSTEAP is organizing a two-week course from 18-29 November 2013 on IIRS Campus, Dehradun, India for professionals, technologists and researchers of Asia Pacific countries.

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