



UN-SPIDER

July 2012 Updates

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UN-SPIDER at a glance

Building partnerships with UN-SPIDER

UN-SPIDER's goal is to ensure that countries as well as international and regional organization can fully benefit from the opportunities that space-based information offers for disaster-risk management and emergency response. The successful implementation of UN-SPIDER's mandate benefits from the support and voluntary contributions in cash and in kind of our partners: Member States as well as national, international, governmental or non-governmental institutions. Four projects to build partnerships have been identified on the Use of Archived Satellite Imagery to enhance the Resilience of Nations, Space-based Information for Crowdsourcing Mapping, Institutional Strengthening for Disaster Management and Emergency Response and Enhancing Resilience to Drought through the Use of Satellite Imagery.

The United Nations Office of Outer Space Affairs (UNOOSA) has furthermore announced partnership projects in the areas of Space Applications for the Management of Natural Resources, Space Applications for Health, the Basic Space Technology Initiative, the Human Space Technology Initiative, Navigation Satellite Systems and Space Law.

Learn more: [UN-SPIDER Portal](#)

Guatemala follows up on UN-SPIDER recommendation to set up inter-institutional Remote Sensing Group

In recent years Guatemala has been affected by a variety of natural hazards including tropical storms, landslides, droughts and volcanic eruptions. In order to generate and make better use of geospatial information to support disaster-risk management and emergency response, several government agencies are setting up the Inter-institutional Remote Sensing and Geographical Information Group for Risk Management and Disaster Response. This was a key recommendation made by UN-SPIDER during its 2010 Technical Advisory Mission to Guatemala.

The main goals established by the group include: strengthening the capacity of the State of Guatemala to generate information to be used in the decision-making process through a multi-sectorial and inter-institutional approach; and increasing the use of information generated by government agencies through its adaptation into a geo-spatial format.

Learn more: [UN-SPIDER Portal](#)

Knowledge Portal: Visit our new Advisory Missions section

Advisory Missions are at the heart of UN-SPIDER's efforts on the national level to ensure that all countries and international or regional organizations have the capacity to use all types of space-based information to support disaster-risk management and emergency response. These efforts are now presented to Knowledge Portal users in the recently re-launched Advisory Missions section of the Portal.

Interested users can browse through the missions by geographic location, by keyword search or by mission type on the UN-SPIDER World Map. The scope and the relevance of UN-SPIDER's Advisory Missions are highlighted by a comprehensive presentation of background facts, mission observations and recommendations.

Learn more: [UN-SPIDER Portal](#)

UN-SPIDER sets dates for two Technical Advisory Missions

In September and October 2012 UN-SPIDER will carry out Technical Advisory Missions to Solomon Islands and to Mozambique.

With the continuous support of the Government of Austria the UN-SPIDER Programme has been supporting Pacific Island countries (PICs) since 2008. After the recent Technical Advisory Mission to the Kingdom of Tonga, a Technical Advisory Mission will be carried out to Solomon Islands on 24 – 28 September 2012. A UN-SPIDER team of experts will meet with key disaster management authorities in the Government, UN agencies, regional and international organizations and private entrepreneurs to discuss the topic of space based information in disaster-risk management and subsequently make recommendations. UN-SPIDER will further participate in the Pacific Platform for Disaster Risk Management in Noumea, New Caledonia, and the annual Pacific Humanitarian Team meeting Fiji, underlining its commitment to support PICs.

Building upon the work UN-SPIDER is carrying out in Africa and more specifically the work already being carried out in support of Mozambique, the programme is coordinating with the Instituto Nacional de Gestão de Calamidades (INGC) and the United Nations Development Programme in Mozambique to carry out a Technical Advisory Mission on 8 – 12 October 2012.

Learn more: markus.woltran@unoosa.org (Solomon Islands)
shirish.ravan@unoosa.org (Mozambique)



UN-SPIDER participates in Central American Communicators' Forum

UN-SPIDER was invited to participate in the Central American Communicators' Forum "The role of Institutional Communications in the Culture of Risk Prevention" organised by the Coordination Center for Natural Disaster Prevention of Central America (CEPREDENAC) on 10 July 2012. The forum took place in Guatemala City and was attended by forty public relations and media officers

from various ministries, civil protection agencies, and by representatives from mass media including newspapers and television networks from the six Central American countries. The forum offered a space for reflection and discussion regarding opportunities and roles of institutional communications in the context of integral risk management. UN-SPIDER made the opening presentation on the conceptual framework related to integral risk management.

Learn more: [UN-SPIDER Portal](#)

News from our Regional Support Offices

IGAC researches desertification using MODIS data

The Colombian Agustin Codazzi Geographic Institute - IGAC and their Center of Research and Development of Geographic Information - CIAF, recently carried out a series of projects targeting risk management. One of those was focused on identifying zones in the process of desertification using optical remote sensing in the Andean dry region of Villa de Leyva (Boyacá), Colombia. For this project, the experts analyzed the values of the NDVI (Normalized Difference Vegetation Index) from 60 rasters per month (from January 2006 to December 2010) obtained from a MODIS sensor (Moderate Resolution Imaging Spectroradiometer). Based on the results of this analysis, zones in process of desertification were identified through linear and nonlinear regressions between the years 2000 and 2010 based on the values of the index in a certain season of the year. Finally, the IGAC experts estimated change between 2000 and 2010 for three categories that are usually employed to calculate the spatial change in desertification: desertified areas, areas with high risk of desertification and areas with low risk of desertification.

Learn more: [UN-SPIDER Portal](#)

CATHALAC: Regional Landslide Risk Prediction Tool developed for Mesoamerica

The Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC), which also hosts a UN-SPIDER Regional Support Office, has recently developed an automated online tool for predicting landslide hazards in

Mesoamerica, a first of its kind effort at the regional level. The hazard prediction tool uses the Mora-Vahrson methodology to determine landslide hazards at the level of detail of 1 square km. "The tool will provide early warning for landslide events in Mesoamerica, potentially minimizing the loss of life and property," commented Emilio Sempris, CATHALAC's Director. Mesoamerica is highly vulnerable to extreme meteorological events like flooding and landslides that such events trigger. Decision-makers in Mesoamerica can now count on this first of its kind tool for predicting landslide hazards.

Learn more: [CATHALAC](#)

CATHALAC and Panama sign Host Country Agreement

UN-SPIDER's Regional Support Office CATHALAC (Water Center for the Humid Tropics of Latin America and the Caribbean), and the Ministry of Foreign Affairs of the Republic of Panama signed the Center's host country agreement on 11 July 2012. The instrument was duly signed by His Excellency Roberto C. Henríquez, Minister of Foreign Affairs of the Republic of Panama and CATHALAC's Director General, Emilio Sempris, in the presence of Francisco Álvarez De Soto, Vice Minister of Foreign Affairs, at the Republic of Panama's Bolívar Palace. "The signing of this instrument is an important step towards cementing CATHALAC's intergovernmental endeavors across the humid tropics of Latin America and the Caribbean as well as highlighting Panama's leadership in integrated water resources management in the Hemisphere", Sempris stated.

Learn more: [CATHALAC](#)

News from our Community

ESA Call for Study Proposals: Improving Disaster Response Capacity

ESA's Integrated and Telecommunications related Applications Department (IAP) launched an open competitive Invitation to Tender (ITT) for Improving Disaster Response Capacity. It calls for feasibility study proposals aiming to satisfy the needs and constraints of the relevant users and other stakeholders and increase the efficiency and effectiveness of their operations through the use of integrated space-based applications and associated services. The specification of such integrated applications and associated services shall employ at least two different types of space assets such as Telecommunications, Earth Observation, and Navigation with existing terrestrial assets.

The study shall also devise suitable mechanisms to enable rapid and guaranteed access to both leased and on-demand satellite communication capabilities. The proposed procedures must incorporate an improved procurement scheme for SatCom capacity and a viable and sustainable governance mechanism to support it. Furthermore, this effort aims at enhancing international collaboration preferably in cooperation with an international organisation dedicated to the use of space-based assets and applications for disaster management. The study

is intended, if successful, to be followed up by a Demonstration Project, in order to eventually establish a sustainable service solution to improve Disaster Response Capacity on a global scale. The competition closes on 3 October 2012.

Learn more: [ESA/IAP](#)

Australia makes Landsat Imagery freely available

Geoscience Australia (GA) will soon publish free satellite images in near real time. The images will be captured by the satellite Landsat 8, expected to launch in early 2013 and to be fully operational by May or June of that year. They will be published online under the Creative Commons Attribution 3.0 Australia licence. "We want to make as much data freely available as possible," says Jeff Kingwell, the Section Leader of GA's National Earth Observation Group. "We will move towards a system where we are taking Landsat data in, in near real time." Data will be corrected to make it functional and then published, all in as close to real time as possible.

Learn more: [The Register](#)



50 Years of Satellite Communications

10th July 1962 marked the birth of satellite communications. Exactly 50 years ago, the Telstar satellite commenced its journey into space from Cape Canaveral and became the first ever active communications satellite. It carried the first live trans-Atlantic TV broadcasts. Telstar was built by a team at Bell Telephone Laboratories and incorporated many innovations such as the transistor and the 3,600 solar panels that powered the satellite and which had been invented by Bell Labs. Telestar produced 14 watts and relayed its first, and non-public, television pictures — a flag outside Andover Earth Station — on July 11, 1962. The satellite could carry 600 voice calls and one black-and-white TV channel from an elliptical orbit. The orbit allowed a maximum transmission time between Europe and the United States of 20 minutes per pass. Today, communication satellites in polar orbits, MEO orbits, Molniya orbits, Tundra orbits and the geostationary orbit are numerous and play a vital role in disaster risk management and relief.

Learn more: [SatelliteSpy](#)

“Digital Humanitarian Network” established

MapAction, CrisisMappers and GISCorps are teaming up with the United Nations to provide a better linkage between formal humanitarian organisations and the online technology communities in disaster situations. The resulting Digital Humanitarian Network aims at reducing “data noise” and providing better access to priority information for aid agencies. At the heart of the new structure is a coordinators group. This group initially comprises four individuals who will quickly review requests for assistance and work with the network to find the right member entities to respond as a solution team. Jonny Douch of MapAction said: “We are hoping this new system will help to unlock the potential of technology expertise world-wide to contribute to positive humanitarian outcomes in disasters. MapAction’s own teams, who work in the field, will play a vital role in the network by being a bridge between the innovative communities in the ‘cloud and crowd’, and the emergency responders on the front line.”

Learn more: [MapAction](#)

Upcoming events

UN-SPIDER co-organizes Capacity Building event

As a follow-up to the UN-SPIDER Technical Advisory Mission (TAM) to Sri Lanka in October 2011, UN-SPIDER and the Disaster Management Centre of Sri Lanka are organizing a Capacity Building event on 14-17 August 2012. Supported by the Uwa-Wellassa University, the United Nations Development Programme and the National Disaster Reduction Centre of China, the event will focus on space technology and its applications to hazard mapping. 30 middle level managers and technical staff of various agencies involved in disaster risk management and hazard mapping in Sri Lanka will participate. The broad objective of the training is to implement recommendations made by UN-SPIDER in order to strengthen the capacity of the national agencies to use Geo-Spatial Technologies for Hazard Mapping, Hazard Monitoring and Risk Assessments. The training programme will cover Flood Hazard Mapping, Coastal Hazard Mapping, Digital Elevation Model, LiDAR Analysis, and National Spatial Data Infrastructure Initiatives.

Learn more: [UN-SPIDER Portal](#)

International Charter activated for Floods in India

The International Charter: Space and Major Disasters was activated by the Indian Space Research Organisation (ISRO) on 29 June 2012. Floods, caused by heavy rains over the last two weeks, have taken a toll of 27 human lives in Assam State, India and affected almost one million. The inhabitants of 2084 villages in 22 districts have been affected by floods this year.

Learn more: [International Charter](#)

International Charter activated for Floods in Russia

The International Charter: Space and Major Disasters was activated on 10 July 2012 by the US Geological Survey (USGS) on behalf of ROSCOSMOS/EMERCOM for the torrential flooding of Krasnodar region, Russia. On Saturday, 7 July 2012, heavy rains swept the Southern Russian Krasnodar region, killing 144 people, officials confirmed. A foot of rain dropped in the Black Sea region forcing several residents to scramble out of their beds seeking refuge on trees and rooftops. The worst-hit town of Krymsk is of prime concern. This is one of the worst flooding events that Russia has ever experienced.

Learn more: [International Charter](#)

Eumetsat joins the International Charter

The European Organisation for the Exploitation of Meteorological Satellites – Eumetsat – formally became the newest member of the International Charter: Space and Major Disasters on 5 July 2012. Eumetsat operates a constellation of meteorological satellites, monitoring the atmosphere, oceans and land surfaces to deliver weather and climate-related satellite data, images and products. As the Charter’s newest member, Eumetsat will act as a coordinator for securing access to Eumetsat data for the members and beneficiaries of the Charter and the redistribution of products via GEONETCast.

Learn more: [International Charter](#)

First Announcement: Conference on “Risk Assessment in the Context of Global Climate Change”

UN-SPIDER is co-organising the international conference “Risk Assessment in the Context of Global Climate Change” jointly with the Ministry of Civil Affairs of the People’s Republic of China. The conference will take place on 7-9 November 2012 at Zhongmin Plaza, Beijing. Topics will cover the role of space technology for implementing the outcomes of the recent Rio+20 conference as well as space-based information for early warning, monitoring and assessing vulnerabilities to climate-change-related hazards. Furthermore, the conference will offer best practices and opportunities for bilateral and multilateral cooperation through specific meetings and breakout sessions. Details on the agenda of the conference and the application process are available on the Knowledge Portal.

Learn more: [UN-SPIDER Portal](#)

About UNOOSA/UN-SPIDER

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. Headquartered in Vienna, Austria, UNOOSA maintains a website at <http://www.unoosa.org>.

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 space-based solutions during all phases of the disaster management cycle.