



UN-SPIDER

April 2011 Updates

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<http://www.ungiwg.org/cgi-bin/mailman/listinfo/unspider>

UN-SPIDER News

1. SpaceAid resource page improves information and data-flow related to floods in Namibia

Record-level floods hit central and northern regions of Namibia during the month of March and continued into April, damaging infrastructure and displacing thousands of people. The International Charter Space and Major Disasters (International Charter) accepted the activation request sent in for this event by UNOOSA on behalf of UNDP on 1 April 2011. The Project Manager was the Pacific Disaster Center (PDC). The Namibia SensorWeb project team also delivered flood maps derived from MODIS and EO-1 data. UN-SPIDER was updating a dedicated webpage with information about the available space-based resources.

For further information >> [UN-SPIDER Namibia](#), [International Charter Space and Major Disasters](#)

2. First Announcement: UN-SPIDER International Expert Meeting on Crowdsourcing Mapping for Preparedness and Emergency Response

In recent years, advancements in technologies have made it possible for virtual communities or projects such as OpenStreetMap, Ushahidi, Sahana, CrisisMappers, Virtual Disaster Viewer, Google MapMaker and INSTEDD to provide increasing support to disaster preparedness and emergency response efforts. Important cornerstones of this virtual effort are the possibility to access and take advantage of post-disaster satellite imagery as well as the use of other space-based technologies such as telecommunications satellites and global navigation satellite systems. Taking note of the need to better connect these pioneering communities with the space industry as well as the disaster management community, the UN-SPIDER Programme is carrying out a one-year project (“Space-based information for Crowdsourcing Mapping”) aiming at identifying specific actions that could ensure a closer cooperation among these communities. The first activity of this project will be an Expert Meeting to be held in Vienna to discuss strategies that will contribute to supporting civil protection and emergency management agencies to make use of products generated by such groups and provide a better understanding to these groups on the specific needs of the disaster management community.

For further information >> [UN-SPIDER Events](#)

3. Double anniversary in 2011: 50 years from the first human space flight and 50th anniversary of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS)

On 12 April 1961 Russian cosmonaut Yuri Gagarin became the first human to travel into outer space when he orbited the Earth on Vostok-1 in a flight lasting 108 minutes. His spaceflight heralded a new era of human endeavor in what has become known as the "final frontier". Recognizing the importance of the first envoy of humanity to the outer space, the United Nations General Assembly on 7 April 2011 declared 12 April the International Day of Human Spaceflight.

The Committee on the Peaceful Uses of Outer Space was set up by the General Assembly in 1959 (Resolution 1472 (XIV)) to review the scope of international cooperation in peaceful uses of outer space, to devise programmes in this field to be undertaken under United Nations auspices, to encourage continued research and the dissemination of information on outer space matters, and to study legal problems arising from the exploration of outer space.

The Vienna-based United Nations Office for Outer Space Affairs (UNOOSA), which works to promote international cooperation in the use of outer space to achieve development goals for the benefit of humankind, will commemorate these two important anniversaries in 2011, by organizing a month-long international exhibition in June on the 50 years of human space flight at the Vienna International Centre, together with several side-events.

On 4 June, visitors will have a chance to meet representatives of the leading space agencies during an Open Day, and an Astronaut/Cosmonaut Panel Discussion on the "The Future of Humanity in Space" will be held at the Vienna Rathaus on 2 June, in cooperation with the City of Vienna.

For further information >> [UNOOSA Events](#)

Community News

4. Sentinel Asia supports disaster response to floods in Kazakhstan

Sentinel Asia is a voluntary-basis initiative led by the Asia-Pacific Regional Space Agency Forum (APRSAF) to support disaster management activities in the Asia-Pacific region by providing Earth Observation satellite data, also through web technologies. In response to the floods that recently affected western parts of Kazakhstan, Sentinel Asia contributed its resources by providing imagery through its Web GIS service.

For further information >> [Sentinel Asia](#)

5. International Charter activated for floods in Namibia and fires in Mexico

In April, the International Charter Space and Disasters accepted activation in support of the response to the floods in Namibia and to wild fires in Mexico. The activation for the Namibia floods was requested by UNOOSA on behalf of the UN Development Programme (UNDP) while project management was in the hands of the Pacific Disaster Center (PDC). For the fires in Mexico, the United States Geological Service (USGS) together with the Mexican National Disaster Prevention Center (Centro Nacional de Prevención de Desastres, CENAPRED) requested the activation. The National Forest Commission (Comisión Nacional Forestal) was the designated Project Manager. Image products are published on the Charter website once they become available.

For further information >> [International Charter Space and Major Disasters](#)

6. SAFER supporting response to fires in Bulgaria and in Belgium

Europe's Services and Applications for Emergency Response (SAFER) was activated in request for map products for the response to forest fires in south-western Bulgaria and in Belgium. For Bulgaria, the Global Monitoring for Environment and Security (GMES) SAFER mechanism was activated through the National Focal Point for Bulgaria. High resolution and very high resolution new collect and archived optical satellite imagery were

ordered. The first map by the Center for Satellite Based Crisis Information of the German Aerospace Center (DLR/ZKI) showing the burnt area extent on 11 April 2011 was produced on the same day.

For further information >> [SAFER](#)

7. Satellites could aid long-term disaster recovery

Satellite images could be used to track and quantify long-term recovery efforts in regions stricken by natural disasters. But longer term recovery — including the rebuilding of infrastructure and amenities such as schools and hospitals — can take decades, depending on the extent and the location of the disaster. Now, a group based at the University of Cambridge, United Kingdom, working with industrial partners Cambridge Architectural Research Ltd. and ImageCat Inc., says it has developed the first systematic approach to monitoring and evaluating this process. The method, which has been also submitted to Disasters journal, involves tracking a region using high-resolution satellite images, which have become more abundant and affordable in recent years.

For further information >> [AlertNet](#)

8. Earth Observation in Malaria vector control and management

Malareo is focusing on developing technology and implementing Earth Observation (EO) data usage that contributes to the fight against malaria in southern Africa. Malareo comprises a mixed European-African consortium that combines years of experience in malaria control with the Global Monitoring for Environment and Security (GMES) EO capacity. The project aims to build the fundamentals of a malaria EO monitoring cell that will support a more efficient, effective and wider malaria vector control programme in South-Africa, Swaziland and Mozambique and at the same time contribute to research on malaria and EO. The consortium is well-equipped and highly skilled to achieve the Malareo project objectives. It is a good mixture of Small and Medium Enterprises, universities and administrations uniting remote sensing experts with epidemiology experts and public health specialists from three European partners and three southern African partners. Project partners are the Medical Research Council and the University of KwaZulu-Natal from South Africa, the National Malaria Control Program of Swaziland, Remote Sensing Solutions from Germany and the Swiss Tropics- and Public Health Institute. The consortium will work in very close collaboration with the local end-users which are the Lubombo Spatial Development Initiative and the Malaria Control Programme of Mozambique.

For further information >> [EARSC](#)

9. SERVIR supports fire management system in Guatemala

In Guatemala, a geospatial information support system for fire management at the national level does not currently exist. With support from the U.S. Agency for International Development (USAID), the National Aeronautics and Space Administration (NASA) and the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC) in the context of SERVIR-Mesoamerica, a pilot project for the Geospatial Information System for Fire Management (SIGMA-I) in Guatemala was developed. The project is to generate products that highlight the importance of systematic and informed planning for prevention and control of wildfires. It is expected that the data and information generated will increase the visibility of the problem of fires in the country. The program will facilitate the management of more resources for fire management and reinforce permanent monitoring mechanisms at the national level.

For further information >> [NASA](#)

10. Chinese satellite seeks to predict earthquakes

China will start building a test satellite this April to detect electromagnetic anomalies in the atmosphere, as part of the country's proposed earthquake monitoring network, and hopes to launch it in 2014. The China Seismo-Electromagnetic Satellite (CSES) has been in development since 2003 and is the first space-based component of the network. Its data will be correlated with data from ground-based monitoring systems. The network is eventually intended to provide advance warning of earthquakes, such as the one off the coast of

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Japan on 11 March. Strong seismic activity often causes electromagnetic anomalies in the Earth's atmosphere and magnetic field, aiding the monitoring and prediction of earthquakes, studies suggest. Shen Xuhui, a senior researcher at the Institute of Earthquake Science, China Earthquake Administration (CEA), and leader of the CSES working group, said the satellite will eventually be connected to a larger observation system. China hopes to launch another two satellites by 2017 and begin predicting earthquakes from 2020.

For further information >> [SciDevNet](#)

11.Astrium GEO-Information looks back on the Chernobyl disaster 25 years later with Earth Observation technologies

The first satellite image of the Ukrainian site was acquired by SPOT1 only ten days after the explosion in 1986, demonstrating the value of Earth-imaging satellites in responding to natural and man-made disasters. Technology has evolved in the 25 years since the Chernobyl explosion and Astrium GEO-Information's satellites continue to keep a watchful eye on that area too. Astrium GEO-Information Services (formerly Spot Image) has released satellite imagery of the Chernobyl nuclear site covering the 25 years since the disaster. From the first satellite image acquired by SPOT1 on 26 April 1986 to the high resolution radar imagery taken only recently of the affected area, Astrium GEO-Information Services has effectively monitored Chernobyl for a quarter of a century using a vast data archive containing more than 100 billion square kilometres of imagery. Since 1986, satellite imagery has played a crucial role in managing the disaster areas by providing teams on the ground with comprehensive information for decontamination efforts as well as mapping the resulting reforestation of the area.

For further information >> [ASTRIUM](#)

12.Space Systems/Loral announces early delivery of Telstar 14R

Space Systems/Loral (SS/L) has announced that Telstar 14R/Estrela do Sul 2 was delivered ahead of schedule for the start of its launch campaign. The satellite, designed and built for Telesat, one of the world's leading satellite operators, arrived earlier at the Baikonur Space Center in Kazakhstan, where it will be launched in late May. "When our newest satellite goes into service this summer, it will provide significant benefits to our current and prospective customers, including roughly double the capacity of the satellite it replaces as well as significantly improved geographic coverage and higher power," said Dan Goldberg, Telesat's President and CEO. Telstar 14R/Estrela do Sul 2 is a Ku-band satellite that will deliver services to growing markets that include Brazil, the Continental United States, the North Atlantic Ocean Region, as well as the Andean and Southern Cone region of South America. The satellite has 46 Ku-band transponders and five antenna beams with on-orbit switching capability that will allow its capacity to be reconfigured depending on market demand. "For Telesat's customers, the satellite will bring valuable communications capability to some relatively remote parts of the world. It is heartening to know that the satellites that we design and build at SS/L can improve people's lives by contributing to better healthcare delivery and education, and much needed infrastructure when emergency services are required," said John Celli, president of SS/L.

For further information >> [Space Daily](#)

Upcoming UN-SPIDER Outreach Activities

Information on upcoming UN-SPIDER outreach activities can be obtained from the events section of the UN-SPIDER Knowledge Portal:

www.un-spider.org/events

Upcoming events supported by UN-SPIDER

Gi4DM 2011 – GeoInformation for Disaster Management, Antalya, 3-8 May 2011

Geomatics technologies are able to support management and recovery in the aftermath of manmade and natural disasters. However, disaster management also poses big challenges in all aspects of the geo-information cycle, from data acquisition, processing, management to delivery. For the seventh time, the International Symposium on Geo-information for Disaster Management (Gi4DM) brings together researchers, developers, data providers and users from all over the world to discuss these challenges. The Gi4DM is coordinated by the ISPRS Ad hoc Committee on Risk and Disaster Management, Working Group 1 (Disaster) of the ISPRS Commission VIII (Remote Sensing and Policies) and Working Group 8 (3D Spatial Data Integration for Disaster Management and Environmental Monitoring) of the ISPRS Commission IV (Geodatabases and Digital Mapping). The indicative topics of interest will at least cover the fields of enterprise crisis management, public security and crisis management in city development, geo-information systems for disaster management, industrial crisis management, incident management systems, etc. The following themes are for reference:

- User requirements
- Monitoring and processing
- Early warning systems
- Early impact systems
- Spatial Data Infrastructures

For more information and registration: [Gi4DM](#)

Space for Civil Protection Workshop, Vienna, 5-6 May 2011

This workshop will reflect preliminary activities as well as the results of the European Space Agency (ESA) short term action plan for the European Civil Protection. It offers a great possibility for operational experts from the Civil Protection community to present key examples of lessons learnt from past disasters. Furthermore, it will highlight the strategies and perspectives of several countries and Civil Protection agencies. The workshop aims at identifying the way forward and setting up a roadmap for further activities, together with the Civil Protection community, and it is held under the auspices of the Austrian Ministry of the Interior. It will have a special focus on the needs of Central and Eastern European countries. Expected outcomes include:

- Preliminary identification of key focal areas as follow-on to previous ESA Integrated Applications Promotion (IAP) activities, in improving the overall operational capabilities of European civil protection agencies through the use of satellite communication based services.
- Preparation of the elements to set up a roadmap for generating space-based user driven activities of direct benefit for the European Civil Protection.
- An ESPI Report which contains an inventory of the current situation and users' needs. The report will analyze problems with currently-used services and the demand for new innovative services for civil protection as well as the need to provide an adequate regulatory framework in this field.

UN-SPIDER was invited to participate in the discussions and will hold a presentation.

For more information: [UN-SPIDER Calendar](#)

Global Platform for Disaster Risk Reduction, Geneva, 8-13 May 2011

The Global Platform for Disaster Reduction was established with the goal to improve implementation of disaster risk reduction through better communication and coordination amongst stakeholders. The Global Platform is managed by the U.N. International Strategy for Disaster Reduction (UN ISDR). The Global Platform for Disaster Risk Reduction is now the world's foremost gathering of stakeholders committed to reducing disaster risk and building the resilience of communities and nations. The Third Session of the Global Platform convening 8 to 13 May 2011 will bring together disaster risk reduction, recovery and reconstruction experts. Over 2,000 policy makers and practitioners from government, international organizations, NGOs, academia, and the private sector from both developing and developed countries will gather to assess and share information as well as set new directions for the disaster risk reduction imperative, with emphasis on local initiatives and activities. A core function of the Global Platform is to support the implementation of the Hyogo Framework of Action. The proposed overall theme for the Global Platform will be: Invest Today for a Safer Tomorrow – Increased Investment in Local Action. A key feature of the Third Session will be the inclusion of the World Reconstruction Conference.

UN-SPIDER is co-organizing a side event that will take place on 12 May at 13:30. This session by UN-SPIDER, the German Aerospace Center (DLR), the Asian Disaster Reduction Center (ADRC), ESRI and the International Society for Photogrammetry and Remote Sensing (ISPRS) will showcase examples of space applications in the context of disaster-risk reduction, adaptation to climate change, and recovery. The session aims to demonstrate that investing today *in the use of space-based information* will lead to a safer tomorrow.

For more information: [PreventionWeb](#), [UN-SPIDER Calendar](#)

Global Space and Satellite Forum, Abu Dhabi, 9-11 May 2011

The Global Space and Satellite Forum (GSSF) conference is a platform for exploring the commercial space and satellite technology we use every day. It will address the many ways in which space systems improve our lives, ranging from life-saving developments in the field of disaster management to the delivery of entertainment media via handheld consumer devices.

UN-SPIDER organized a "Workshop for the Use of Space Science and Technology for Disaster Management and Emergency Response" that will be held on 11 May, 10 am to 1 pm. This workshop will discuss ways to establish a reliable communication network to support emergency communications and information networks during natural and manmade disasters. Since public cellular lines get overloaded during the critical hours of disasters, satellite communications seems to be the only secure way to support emergency telecommunications.

For more information and registration: [gssforum](#)

GISCA 2011. Geoinformatics: Managing Environment, Resources and Risk, Almaty, 19-20 May 2011

The Austria – Central Asia Centre for GIScience, together with the Kazakh National University and the Centre for Geoinformatics (Z_GIS), University of Salzburg, Austria are proud to announce the 5th GIS-in-Central-Asia Conference - GISCA 2011.

Geographic Information Science and Technologies have evolved into a key instrument for managing our societies, environments and infrastructures, as well as individuals' daily lives. Continued success of this development depends on cooperation across disciplines, open information policies and a highly educated workforce. The GISCA series of conferences aims at building a Central Asian network of GIS professionals supporting the sustained development of this region into an environmentally friendly, secure and prosperous society. The main objectives of this English language conference are to bring together GIS academics, researchers and practitioners in the Central Asian countries and encourage international cooperation and knowledge exchange in GIS education.

In 2011, GISCA is focused on the theme of managing environment, resources and risk. GIScience as a conceptual foundation, Geoinformatics as a methodology, and GIS as a software are powerful instruments for linking information from different sources by location. This is exactly what is needed to manage our environments and natural resources, and to assess risks arising from natural, technical and social factors. Additional key themes of the conference are: GIS for Environmental Management, GIS for Disaster and

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Emergency Management in Central Asia, Health GIS, Educational programmes in Geoinformatics, Development of Spatial Data Infrastructures, New trends and technologies in GIS&T, International networking in teaching and use of GIS technologies for Environment and Emergencies.

For more information and registration: [GISCA 2011](#)

Conferences and Workshops

We maintain a Calendar of Events with upcoming Conferences, Meetings and Events relevant to the area of space-based solutions for disaster management and emergency response. The Calendar can be viewed at:

www.un-spider.org/events

*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.*