



UNITED NATIONS
Office for Outer Space Affairs



Disaster Risk Management and Emergency Response - Reaching The End Users

GEO User Interface Committee

13th UIC Meeting • Washington, DC

15 – 16 November 2009





United Nations Office for Outer Space Affairs - UNOOSA

The Office is responsible for promoting international cooperation in the peaceful uses of outer space, to support the achievement of development goals for the benefit of humankind

The Office implements the decisions of the United Nations 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.



Office for Outer Space Affairs
United Nations Office at Vienna



UN-SPIDER

United Nations Platform for Space-based Information for Disaster Management and Emergency Response

United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

UN-SPIDER TEAM



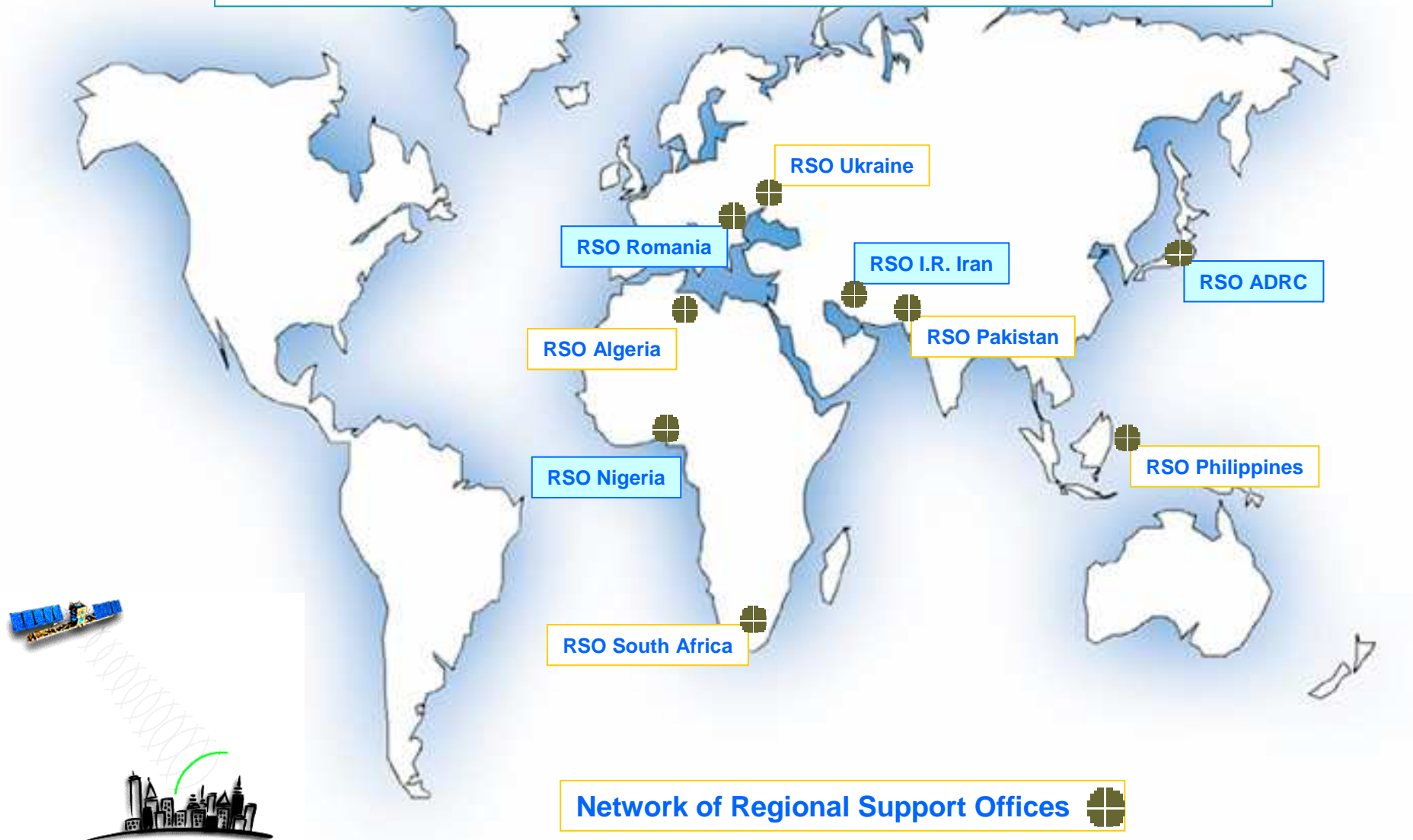
OOSA/Staff in Vienna

UN-SPIDER Bonn Office



UN-SPIDER Beijing Office

UN-SPIDER Regional Support Offices



United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

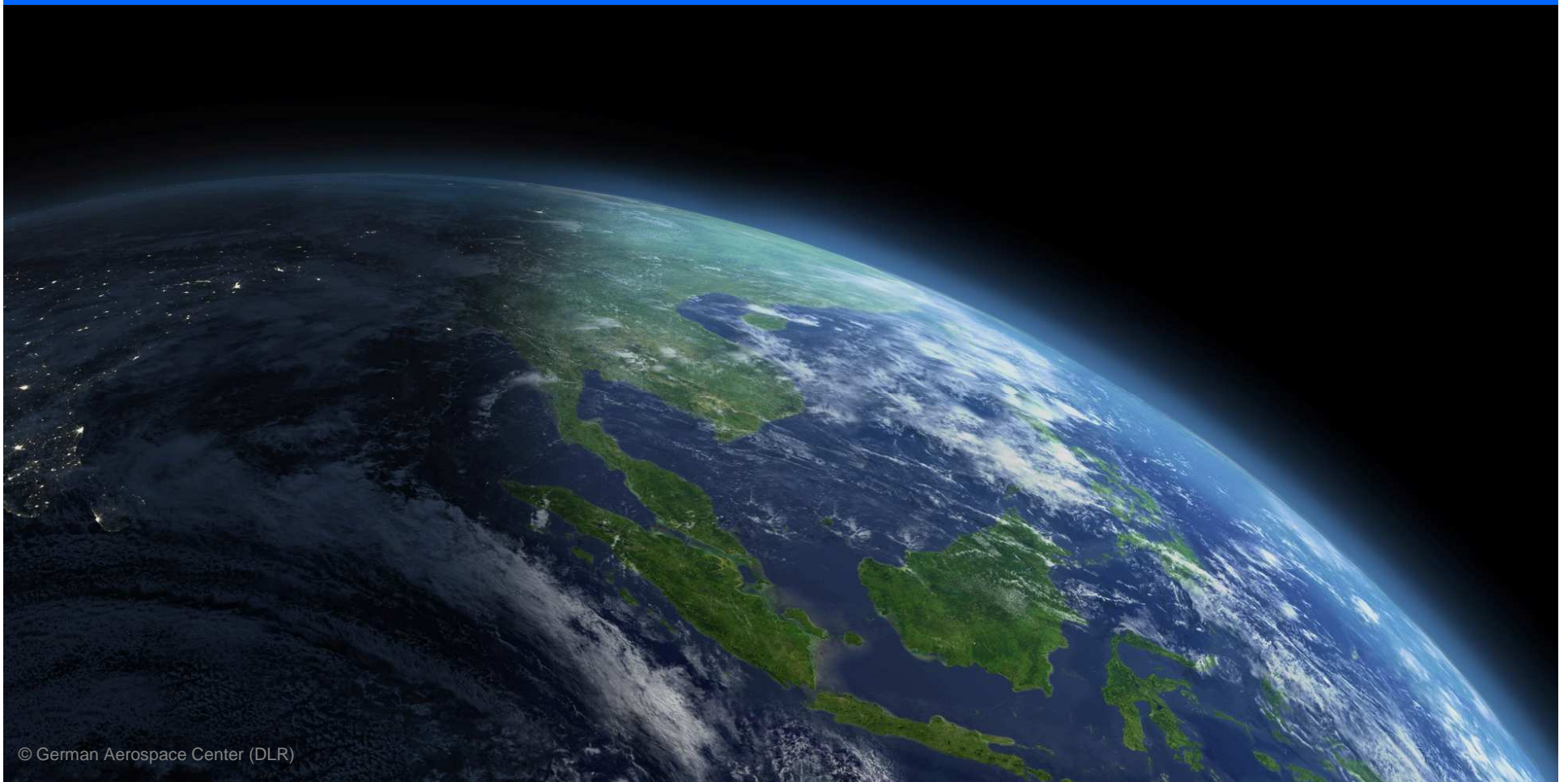


UN-SPIDER



National Focal Points

- **UN-SPIDER networks with all countries through the National Focal Points (NFP). A NFP is a national institution, nominated by the Government of the respective country, representing the disaster management and space application communities**
- **Role: to work with UN-SPIDER staff to strengthen national disaster management planning and policies and implement specific national activities that incorporate space-based technology solutions in support of disaster management.**
- **Nominations received from: Austria, Belarus, Belize, Bolivia, Bosnia & Herzegovina, Burundi, China, Egypt, El Salvador, Ethiopia, India, Iraq, Jordan, Kenya, Malawi, Malta, Mauritania, Mauritius, Morocco, Myanmar, New Zealand, Philippines, Qatar, Republic of Korea, Senegal, Singapore, Spain, Syria, Tanzania, Thailand, Trinidad and Tobago, Turkey, UAE, and Ukraine.**



© German Aerospace Center (DLR)

The Space-Community perspective...



Source: <http://www.3mfuture.com/investment/tsunami-alarm-system.htm>

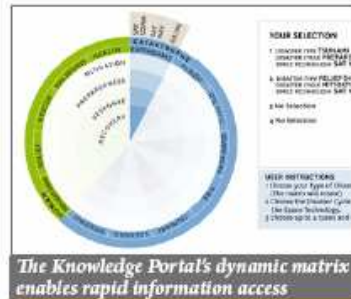
...the Disaster Management-Community perspective...



HORIZONTAL COOPERATION

Knowledge Portal

The **UN-SPIDER Knowledge Portal** is a web-based tool for information, communication and process support. Users can find and share case studies, guides and products through the portal.



Fostering Cooperation

UN-SPIDER bridges the gap between the space and disaster management communities. **UN-SPIDER fosters alliances and creates forums where both communities can meet.**



TECHNICAL ADVISORY SUPPORT

UN-SPIDER Activities

OUTREACH AND CAPACITY BUILDING

Technical Advisory Support

UN-SPIDER provides support to countries in assessing national capacity and in evaluating disaster and risk reduction activities, policies and plans with regard to the use of space-based technologies.

Capacity Building

UN-SPIDER facilitates capacity building and institutional strengthening, including the development of curricula and an e-learning platform (e-SPIDER).





Ensuring Access to Existing Opportunities

§ **SpaceAID** – A framework that ensures all countries and international and regional organisations are able to access and use space-based information for humanitarian and emergency response

- 24/7 Hotline for NFPs and UN Agencies

§ **SPIDER Global Thematic Partnership** – established at the 2nd GPDRR. Working together to ensure access and use for disaster risk reduction.

Response

Risk
Reduction



UN-SPIDER SpaceAid Framework

- Facilitate fast access to space-based information for affected countries, international and regional organizations in the event of a disaster
- All types of space-based technology (navigation, communication, imagery, radar etc)
- Framework operational 24 hours a day/ 7 days a week
- Service request through a hotline (telephone, email or fax)
- Work through Regional Support Offices, National Focal Points and local UN Agencies
- In disaster medicine working closely with the World Association for Disaster and Emergency Medicine (WADEM).



ARTICLE

UN-SPIDER UPDATE: PHILIPPINES - TYPHOON KETSANA - SPACE-BASED INFORMATION STATUS UPDATE

Author: [tony.lyu](#)

Tagging: [floods](#) [Philippines](#) [Typhoon](#)

Date: 28/09/2009

UN-SPIDER

SpaceAid - Available Space-based Information for: Philippines - Typhoon Ketsana - 26 Sep 2009

Status Updated 16/10/2009

UNOOSA/UN-SPIDER:

Focal Point: Tony Young Lyu ([spaceaid \(at\) unoosa.org](mailto:spaceaid@unoosa.org))

Link: <http://www.un-spider.org/>

ReliefWeb:

Available maps: <http://www.reliefweb.int/rw/rwb.nsf/doc404?OpenForm&emid=TC-2009-000205-PHL&rc=3>

UPCOMING EVENTS

Global Monitoring for Environment and Security GMES –
exploring opportunities for cooperation
with the
United Nations
November 12th, 2009
*Organised by bridge 2GEO –
European Geoinformation Network
with support from (more...)*

User login

Username: *

Password: *

[Create new account](#)

[Request new password](#)



SpaceAid Disaster Webpage

- Updated information on the disaster
- Updated information on available products
- Information on available pre- and post disaster images
- UN-SPIDER contact points
- Information on Satellite and Sensor Tasking
- Geographic Information Support Team (GIST) data sets
- Vector files of harmed areas
- Other Space-based information
- Situation Reports and additional relevant links



Namibia Seeks to Enhance Floods Management

By Petronella Sibene

WINDHOEK – Namibia has appealed to the International Charter "Space and Major Disasters" for support so that the country can receive satellite images to help respond timeously to floods, especially in the northern parts of the country.

A year after floods devastated regions in the northern parts, namely Oshana, Oshikoto, Ondangwa and Ohangwena, Namibia still lacks modern equipment crucial in providing data that can be used to avert floods and the devastating consequences.

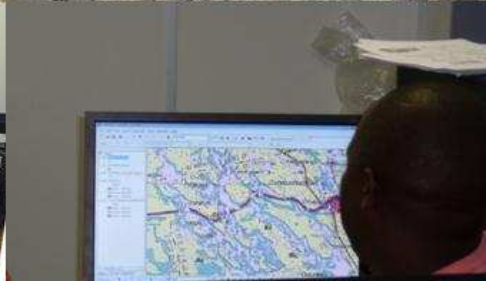
Satellite images will enable relevant authorities to quickly gauge the magnitude of such disasters in future.

The satellite images will not only provide authorities a synthetic view of the flood over a wide part of the prone areas, but will also help in assessing prevention and response plans.

On Friday, officials from relevant government ministries, the United Nations Office for Outer Space Affairs and the German Aerospace Centre met in the capital for a national stakeholders workshop and hands-on training on Remote Sensing Data Interpretation Technology for Flood Mapping in northern Namibia.

Martin Neumann of the German Technical Cooperation to Namibia (GTZ) told *New Era* that the satellite imagery, provided free of charge

FLOODS Page 2



Technical Advisory Mission to Namibia, Feb 2009



The Namibian Flood/Disease SensorWeb Pilot Project

Working directly with the Government of Namibia UN-SPIDER initiated a follow-up activity together with the National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA) and the German Space Agency (DLR) with the goal to implement a pilot project that also supports the government of Namibia in the aftermath of floods.

The main project idea is to combine high resolution satellite imagery with hydrologic ground data and modelling in order to derive useful flood forecasting tools for the next flood season in the sense of a transboundary flood management system for local decision makers.

The two key components of the pilot project are:

Flood early warning & management
Vector- and water-borne disease early warning

Key set of initial participants

Namibian Department of Water Affairs, Ministry of Agriculture Water and Forestry, Namibian Ministry of Health and Social Services, UN-SPIDER, UN-ISDR, UN-Water, NASA/GSFC & NOAA, German Space Agency (DLR), Dartmouth Flood Observatory, Ukraine Space Research Institute (SRI), Taiwan National Space Program Office and National Cheng-Kung Univ., Canadian Space Agency (CSA), Committee on Earth Observing Satellites (CEOS) Working Group on Information Systems and Services(WGISS)

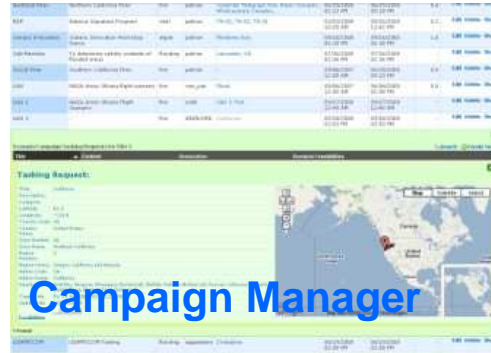
United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

Typical User Scenario

UN-SPIDER Portal

Namibian in-country data center

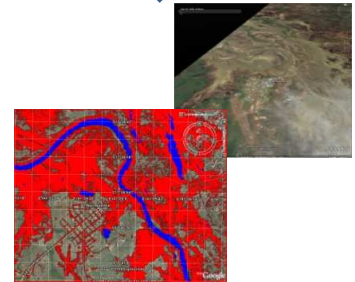
Area of interest & type of satellite data



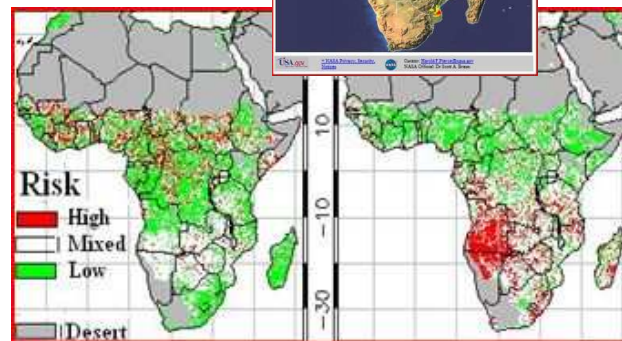
Customized plan of needed satellite images

Satellite Sensor Planning Services

Needed satellite data



Flood & disease models



Flood and disease risk maps





Collaborative Network Development

- Supply demand and use information
- participate in multi-agency working groups
- strengthen existing communities of practice ... enhance and keep them networked
- Joint assessment missions - Implement and coordinate pilot projects
- Link webportals, strengthen data exchange, cross-sharing information regarding new initiatives
- Joint network development
- Wider availability of information from scientific networks



UNITED NATIONS
Office for Outer Space Affairs



United Nations Office for Outer Space Affairs

UN-SPIDER

www.unspider.org

E-mail: un-spider@unoosa.org

THANK-YOU