



UNITED NATIONS | UNOOSA | UN-SPIDER

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

UN-SPIDER

Space-based Information for Disaster Management and Emergency Response

What information exists?

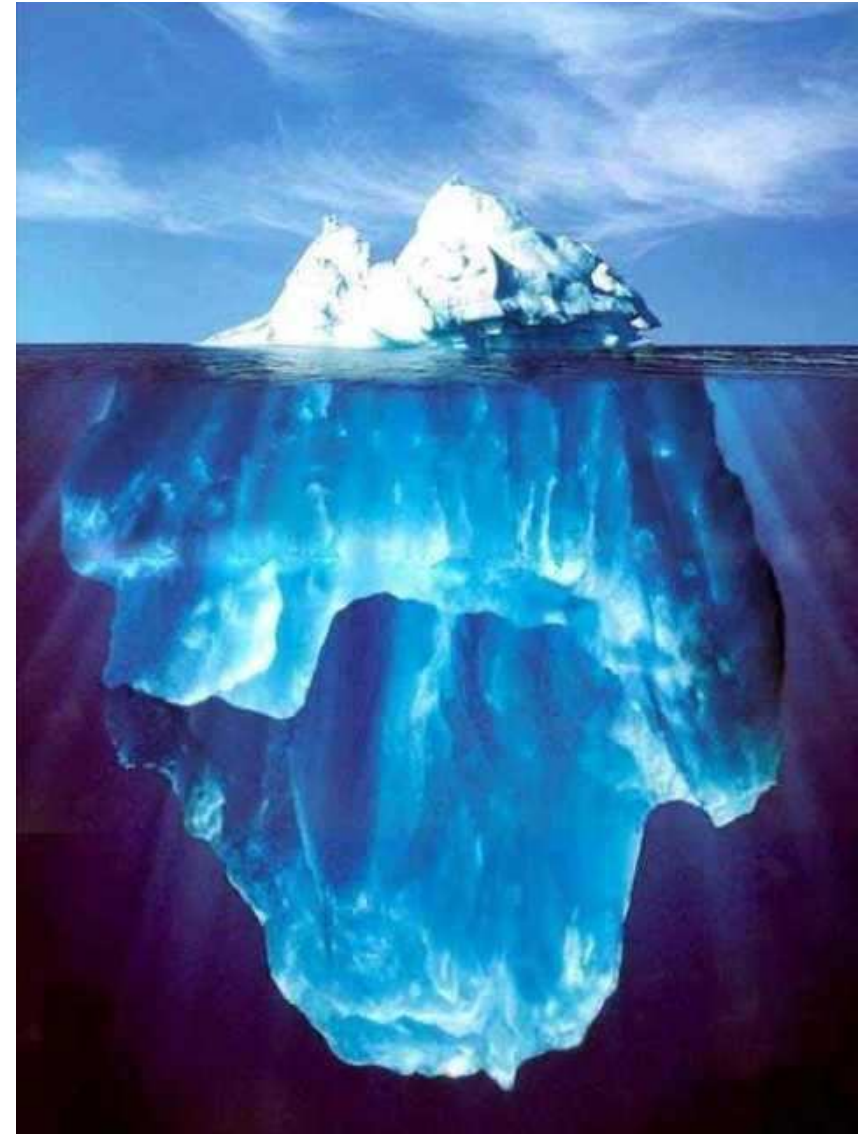
Where can it be found?

How can it be accessed?

How is the quality?

What are the costs?

What is the timeliness?





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



Need for an information gateway
to space-based information for Disaster Management support:
the UN-SPIDER Knowledge Portal



UN-SPIDER Objectives and Tasks (A/AC.105/894)

A **Gateway** to Space-based Information for Disaster Management Support

1. Compilation of Information
2. Access to Information
3. Awareness Raising
4. Outreach Activities
5. Regional and Country Profiles

A **Bridge** to Connect the Disaster Management and Space Communities

6. Support to Communities of Practice
7. Knowledge Management and Transfer
8. Platform for Fostering Alliances

A **Facilitator** of Capacity Building and Institutional Strengthening

9. Support to National Activities
10. Support to Establishing National Planning and Policies
11. Support to Capacity Building



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

The UN-SPIDER Knowledge Portal...

...a web portal for information, communication, and process support

The screenshot shows the UN-SPIDER Knowledge Portal website. At the top, there is a navigation menu with tabs for HOME, SPACE AID, ADVISORY SUPPORT, KNOWLEDGE BASE, NETWORK, and ABOUT US. A search bar is located on the right side of the header.

The main content area is divided into several sections:

- WHAT IS UN-SPIDER:** A text block explaining the portal's mission to provide universal access to space-based information for disaster management.
- DISASTER INFORMATION:** A table listing recent disasters with columns for Disaster, Region, and Date.
- SPACE APPLICATION MATRIX (preview):** A section for a matrix of space applications.
- UN-SPIDER KNOWLEDGE PORTAL:** A section featuring a five-star rating and a circular graphic with disaster types like FIRE, TSUNAMI, and VOLCANO.
- VISUAL GLOBE:** A section with a globe image and a button to 'Enter Visual Globe'.
- EVENTS CALENDAR:** A calendar for November 2009 with highlighted dates.

At the bottom left, there is a video player for a 'UN-SPIDER Promotional Video' showing a satellite view of Earth with the text 'DISASTER RISKS' and a play button.



*How can Space Technology help in a current or recent disaster?
How does it support the disaster management community?*

Current disaster information, SpaceAid Updates, access to imagery and other Space-based information

Organisational mechanisms:
Processes' description, workflow charts (Charter, SpaceAid Framework, ...)

Each cell of Matrix:

- general comment (principle of application, technical workflow charts, benefits, restrictions, maps if applicable)
- case studies, best practices
- providers' links

SpaceAid

Latest Disasters

Organisational Mechanisms Guides

Space Application Guides (Search Matrix)



...access to information: SpaceAid

HOME | SPACE AID | ADVISORY SUPPORT | KNOWLEDGE BASE | NETWORK | ABOUT US

Latest
Disasters
Organisational
Mechanisms
Guides
Space
Application
Guides

ARTICLE
SPACEAID
NOV 2009
Author: mi
Tagging:
Date: 14/11/2009

SPACE-BASED INFORMATION FOR: EL SALVADOR - FLOODS AND LANDSLIDES - 09

UN-SPIDER

**SpaceAid - Available Space-based Information for:
El Salvador - Floods and Landslides - 09 Nov 2009**

Status Updated 15/11/2009

UNOOSA/UN-SPIDER:
Focal Point: Michael Leitgab (spaceaid (at) unoosa.org)

Link: ▶ <http://www.un-spider.org/>

ReliefWeb:
Available maps for Hurricane Ida
Link: ▶ <http://www.reliefweb.int/rw/rwb.nsf/db900sid/HHVU-7XUCS7?OpenDocument&rc=2>

El Salvador - Sector Overview
Link: ▶ <http://www.reliefweb.int/rw/dbc.nsf/doc117?OpenForm&rc=2&cc=slv>

International Charter:
Activated 10/11/2009
Project Manager: CATHALAC
Charter Requestor : UNOCHA and Centro de Gobierno, El Salvador

DISASTER INFORMATION		
Disaster	Region	Date
▶ Volcano	Vanuatu	26/11/2009
▶ Floods	Panama	26/11/2009
▶ Floods	Saudi Arabia	25/11/2009
▶ Drought	Ecuador	25/11/2009
▶ Epidemic	Mexico	25/11/2009
▶ Floods	Uruguay	23/11/2009

1 of 4 >>



***What can be done with Space Technology?
And how?***

- CB Framework
- E-Learning Modules
- Training opportunities

- TAM Guidelines
- TAM Reports (approved)

**Advisory
Support**

Capacity Building

Technical Advisory
Missions



...outreach and support to national activities: Technical Advisory Missions

Technical Advisory Missions

- ▼ Burkina Faso
 - Executive Summary
 - ▶ Introduction
 - ▶ Disaster management in Burkina Faso
- Ecuador
- Namibia
- Togo

HOME | SPACE AID | ADVISORY SUPPORT | KNOWLEDGE BASE | NETWORK | ABOUT US

Capacity Building
Technical Advisory
Missions

▶ Advanced Search ▶ Visual Globe

TECHNICAL ADVISORY MISSION

BURKINA FASO

Author: joerg.szarzynski
Tagging: 2008 Burkina Faso tam
Date: 04/06/2009

UN-SPIDER Provides Advisory Support to Burkina Faso Ministries

Conducts Technical Advisory Mission to help nation integrate space-based information capacities and services



Facing an ever-increasing number of potential natural disasters and climatic change, the government of Burkina Faso requested a UN-SPIDER Technical Advisory Mission to assess and advise on the use of space-based technology and information for disaster management and emergency response. The mission, conducted in Burkina Faso from 17 to 21 November 2008, aimed at identifying potential areas where space-based technology and information could play a greater role, and at proposing recommendations on how to improve Burkina Faso's access to and use of space-based technology and information.

Preceding the mission, a preparatory meeting was held at the end of August 2008 in Ouagadougou, with the National Council for the Environment and Sustainable Development (SP/CONEDD, the governmental focal point for the mission), and other relevant institutions to discuss the mission objective and programme. For the official Technical Advisory Mission in November, a five-member team of experts was put together: one each from the Algerian Space Agency, the French Space Agency CNES, the UN Office for the Coordination of Humanitarian Affairs, and two from UNOOSA/UN-SPIDER. It is worth noting that a total of 15 institutions were initially interviewed by the mission team, including nine governmental institutions, four UN organizations (UNDP, OCHA, WFP, WHO), and one bilateral institution (FEWSNET).

Technical Advisory Missions

- ▼ Burkina Faso
 - Executive Summary
 - ▶ Introduction
 - ▶ Disaster management in Burkina Faso
- Ecuador
- Namibia
- Togo

User login

Username: *

Password: *

[Create new account](#)
[Request new password](#)



**What are the basics?
In-depth information and guides**

- Satellite mission profiles
- Mapping workflow
- SatCom devices
- SatNav devices

- Disasters Profiles
- DM cycle overview, DM manuals
- Atlas of Early Warning Systems

- Disaster Medicine overview
- Epidemics overview

- Organisations / initiatives profiles

- Definitions, abbreviations

Knowledge Base

Technology Guides

Disaster Management
Guides

Health Support Guides

Institutions

Glossary

Archive



...compilation of information: the Knowledge Base

•Technology Guides

HOME	SPACE AID	ADVISORY SUPPORT	KNOWLEDGE BASE	NETWORK	ABOUT US
			Technology Guides Disaster Management Guides Health Support Guides Institutions		

Information services supporting disaster management comp... navigation, television and telecommunication. They all rely, t... technology. Instruments onboard satellites circling the Earth... ranges of wavelength, for observation and imaging, atmo... navigation. In terms of spatial position they take advantage... Earth above the equator (0° latitude) synchronously to the... than 35,000 km makes it suitable for communication signal transponding, and regional weather observ... but low spatial resolution. Earth observation and weather satellites in Low Earth Orbit at an altitude of... km and near polar inclination provide global coverage with comparatively lower temporal, but medium t... resolution. For reasons of space transport costs, constellations of communication or navigation satellit... Earth Orbit.

- ▶ Satellite Mission Profiles
- ▶ Landsat 7
- ▶ Quickbird
- ▶ Radarsat-2
- ▶ TerraSAR-X
- ▶ Iridium 9555 Satphone
- ▶ IKONOS 2

GUIDE

IKONOS 2

Author: fabian.selg

Tagging: geoeye IKONOS 2 satellite space imaging technology guide Technology Guides

Date: 29/04/2009

Name of Satellite: IKONOS-2

Agency/ Country: GeoEye (USA)

Link: ▶ <http://www.geoeeye.com/CorpSite/products/imagery-sources/Default.aspx>

Name of Sensor: PAN

Spectral Band: 1 PAN

Revisit time: 3 days

Resolution: 1m

Swath width (across track): 11,3 m

Field of Application: Images are used because of their very high resolution to detect disasters such as floods. Offers commercial imagery.

Contact details:

	Commercial Client Services:	Commercial Client Services:
Name:	GeoEye General Inquiries	GeoEye Customer Support
Street:	21700 Atlantic Boulevard	21700 Atlantic Boulevard
City, Post code:	Dulles, VA 20166	Dulles, VA 20166
Country:	USA	USA
Phone:	+1.703.480.7500	1.800.232.9037 (Within the United States) +1.703. international)
Fax:	703.450.9570	-
E-Mail:	▶ info@geoeeye.com	▶ info@geoeeye.com

Further information:

▶ http://www.space-risks.com/SpaceData/index.php?id_page=8&Satellite_Name=IKONOS+2



...compilation of information: the Knowledge Base

- Disaster Management Guides

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GUIDE

WILDFIRE

Author: fabian.selg

Tagging: bushfire crown fire disaster guide disaster management guides disaster profile fire ground fire guide human induced surface fire wildfire wildland fire

Date: 29/04/2009

What is a wildfire?

A wildfire is an unplanned, unwanted wildland fire including unauthorized human-caused fires¹. Vegetation fires are caused by slash and burn land clearing, clearing of plantations following logging operations, and by natural events such as lightning or extreme drought. During dry seasons fires usually reach a peak and can present a transboundary problem when prevailing winds disperse the smoke across borders to other countries².

Characteristics/Measurements:

There are three different classes of wildland fires. A surface fire is the most common, moving slowly and killing or damaging trees. A ground fire is usually found in peat bogs and is usually signaled by dense smoke that fills the area for miles around³.

Impacts/Causes of injury and damage:

Destruction of vegetated and eventually inhabited areas and construction sites can result in significant ecological and economical losses. A major wildland fire can leave a large amount of scorched and barren land conditions for decades. If the wildland destroyed the ground cover, then erosion and sedimentation problems⁴. Smoke and other emissions contain pollutants that can cause significant health problems. The short-term effects contain destruction of timber, forage, wildlife habitats and the long-term effects contain reduced access to recreational areas; destruction of cultural and economic resources⁵.

Emergency action:

Control Techniques: Bushfires are usually fought by numerous trained volunteers and a core of professional firefighters with vehicle-mounted equipment (in accessible terrain). Observation is often provided by light aircraft and helicopters.

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To ensure successful technical application to disaster management, space-based information has to be seamlessly integrated into established policies, plans, operational procedures and infrastructure. Overview information on these organizational issues is helpful to support this process.

- ▶ Wildfire
- ▶ Tsunami
- ▶ Earthquake
- ▶ Cold Wave



- *The UN-SPIDER network*
- *Community interaction: comments, questions, chat, input*

Supporting regional networks

Providing contact to national stakeholders

Platform for Communities of Practice:

- Content / document sharing
- Discussion
- Comments

Facilitating exchange of expertise

Network & Communication

Regional Support Offices

National Focal Points

Communities of Practice

Discussion Board



...platform for fostering alliances: Communities of Practice

COMMUNITY OF PRACTICE View Edit Outline Track Translate

SPIDER GLOBAL THEMATIC PARTNERSHIP

Author: juan-carlos.vil...
Date: 16/10/2009

In recent years the International Strategy for Disaster Reduction (ISDR) reiterated the fact that the number of disasters and corresponding economic losses expressed by ISDR, hard-won gains related to development are being wiped out in many countries. Taking into consideration this fact, the General Assembly of the United Nations adopted the **United Nations Platform for Space-Based Information for Disaster Management and Emergency Response** programme through its resolution 61/110 of 14 December 2006 to provide a framework for international and regional organizations to all types of space-based information for disaster management and emergency response cycle.

The Hyogo Framework for Action 2005-2015 (HFA), endorsed by 168 member States, national, regional, and international agencies to tackle disaster-risk reduction and build the resilience of communities to disasters. To facilitate the achievement of the proposed objectives, the United Nations Office for Outer Space Affairs (UNOOSA) and UN-SPIDER launched the **UN-SPIDER Global Thematic Partnership** during the Full Disaster Management Cycle during the Second Session of the Global Platform for Disaster Reduction, which took place in Geneva, Switzerland, on 16-19 June, 2009. The SPIDER Global Thematic Partnership will be a vehicle to conduct tasks such as:

- Increasing awareness on the use of space-based information for disaster risk reduction and emergency response.
- Facilitating the exchange of experiences, lessons learned, and best practices concerning access to and use of space-based information for disaster risk reduction and emergency response across continents.
- Promoting horizontal cooperation in the conduction of activities targeting access to and use of space-based information for disaster risk reduction and emergency response.
- Providing a forum for members to reach consensus regarding how to approach certain issues, to harmonize efforts, and to standardize procedures globally.

FORUM

▶ Discussion Board

Attachment	Size
▶ SPIDER GLOBAL THEMATIC PARTNERSHIP Rationale.doc	1.68 MB
▶ SPIDER GLOBAL THEMATIC PARTNERSHIP Registration.doc	187 KB

» 75 reads

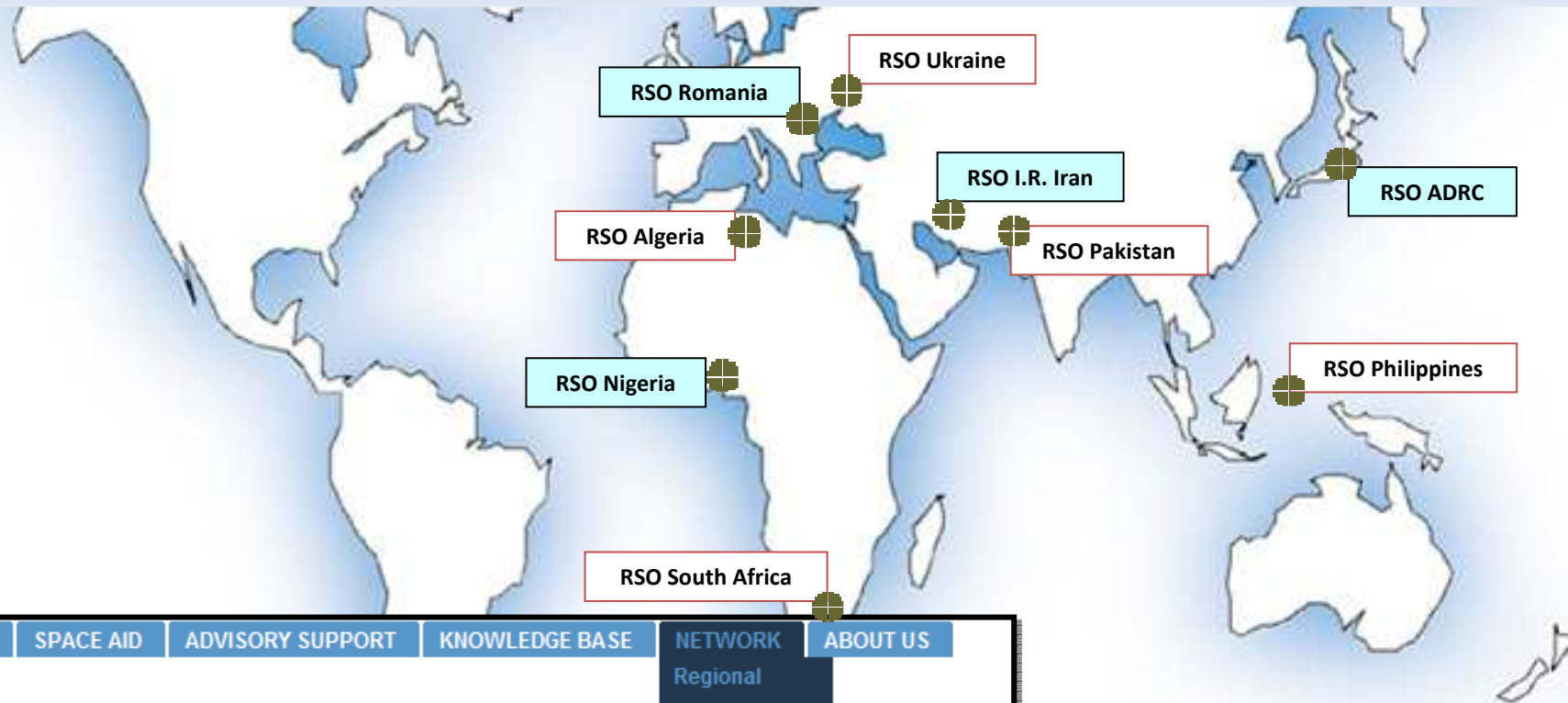
HOME SPACE AID ADVISORY SUPPORT KNOWLEDGE BASE NETWORK ABOUT US

Regional Support Offices
National Focal Points
Communities of Practice
Discussion Board

Name	Description
▶ Expert Group on Capacity Building	Capacity-building arrangements at national level to increase the ability of organizations to effectively access and use space-based information for disaster management and emergency response.
▶ SPIDER Global Thematic Partnership	In recent years the number of disasters and corresponding economic losses expressed by ISDR, hard-won gains related to development are being wiped out in many countries. Taking into consideration this fact, the General Assembly of the United Nations adopted the United Nations Platform for Space-Based Information for Disaster Management and Emergency Response programme through its resolution 61/110 of 14 December 2006 to provide a framework for international and regional organizations to all types of space-based information for disaster management and emergency response cycle.



...fostering alliances: links to Regional Support Offices



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				Regional Support Offices	
				National Focal Points	Agency. Its website
				Communities of Practice	Development
				Discussion Board	

- [Islamic Republic of Iran Regional Support Office](#)
A Regional Support Office has been set up in the Islamic Republic of Iran, hosted by the National Space Agency. Its website includes discussion forums on Capacity Building, data sharing, definitions...
- [Nigeria Regional Support Office](#)
The UN-SPIDER Regional Support Office (RSO) in Nigeria is domicile in the National Space Agency (NASRDA). The RSO in Nigeria was established in 2008 with the mandate...

Blue: On-board
White: In process of joining



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

...fostering alliances: Contact Data Base

[← Back to Search Results](#)

CYCLONE EXPERTS

WEN-CHAU LEE + [list icon]



Wen-Chau Lee
NCAR Scientist
P.O. Box 3000
Boulder, CO
80307-3000
USA

Phone: (+)303 / 497 8814
Fax: –
E-Mail: [lee\[at\]ucar.edu](mailto:lee[at]ucar.edu)
Web: <http://www.ucar.edu/news/releases/2008/hurricanetips.html>

Lee is a specialist in hurricane winds and intensity. This year the National Hurricane Center has adopted a technique called VORTRAC, developed by Lee and colleagues, that uses Doppler radar to detect rapid changes in the intensity of landfalling hurricanes. Lee is also the chief scientist for NCAR's ELDORA, an airborne Doppler radar, which captures detailed images of precipitation and winds from hurricanes and severe thunderstorms.



...information dissemination: Newsletters...

HOME	SPACE AID	ADVISORY SUPPORT	KNOWLEDGE BASE	NETWORK	ABOUT US
					Jobs Newsletter Updates Events Calendar Acknowledgements
Title					
▶ UN-SPIDER NEWSLETTER OCTOBER 2009					
▶ UN-SPIDER NEWSLETTER JANUARY 2009					
▶ UN-SPIDER NEWSLETTER OCTOBER 2008					31/10/2008
▶ UN-SPIDER NEWSLETTER JUNE 2008					24/06/2008
▶ UN-SPIDER NEWSLETTER JULY 2007					31/07/2007
▶ UN-SPIDER NEWSLETTER APRIL 2007					30/04/2007

Events Calendar...

HOME	SPACE AID	ADVISORY SUPPORT	KNOWLEDGE BASE	NETWORK	ABOUT US	<input type="text"/>
					Jobs Newsletter Updates Events Calendar Acknowledgements	<input type="text"/> ▶ ▶ Advanced Search ▶ Visual Globe
EVENTS						EVENTS CALENDAR
SHOW ALL EVENTS						
<u>Date</u>	<u>Title</u>					
▶ 01/12/2009	PI GIS&RS Conference 2009					< November 2009 >
▶ 01/12/2009	2009 Pacific GIS&RS User Conference					S M T W T F S
▶ 07/12/2009	African Leadership Conference on Space Science and Technology for Sustainable Development					1 2 3 4 5 6 7
▶ 17/01/2010	Asian Conference on Disaster Reduction 2010 - Kobe (Hyogo) Japan					8 9 10 11 12 13 14
▶ 26/01/2010	The 16th Session of the Asia-Pacific Regional Space Agency Forum (APRSAP-16) 26-29 January 2010, Phuket, Thailand					15 16 17 18 19 20 21
▶ 02/02/2010	GI4DM (Geographic information for Disaster Management) Congress					22 23 24 25 26 27 28
▶ 02/02/2010	GI4DM 2010 Conference, February 2-4, 2010, Torino, Italy					29 30 1 2 3 4 5
						next events... past events...