

**United Nations Regional Workshop on the Use of Space Technology
for Disaster Management for Asia and the Pacific**

11-15 November 2002
Bangkok, Thailand

WORKSHOP PROGRAMME

11 November 2002, Monday

0800-0900 Registration of Participants

0900-1000 Opening Ceremony

- Opening Statement by Mr. Kim Hak-Su, United Nations Under-Secretary-General and Executive Secretary of UNESCAP
- Statement by Mr. Sergio Camacho, UNOOSA
- Statement by Mr. Jean-Charles Bigot, ESA
- Statement by Ms. Sylvie Callari, CNES
- Opening Address by H.E. Pini Jarusombat, Minister of Science and Technology, Ministry of Science and Technology, Royal Thai Government

Technical Demonstration - The Integrated Capability of Earth Observation and Communication Satellite Technologies in Supporting Disaster Management (GISTDA and Shin Satellite PLC, Thailand).

1000-1020 Coffee Break

1020-1215

Key Presentations

Chairperson: Guoxiang Wu, UNESCAP

Rapporteur: Sharafat Gadimova, Azerbaijan National Aerospace Agency, Azerbaijan

- Space Technology Applications for Disaster Management: Indian Experience (B. Manikiam, ISRO, India)
- Operational Flood Disaster Assessment System in China (Jiren Li, Ministry of Water Resources, China)
- Space Technology and Disaster Management – The CEOS/DMSG Perspective (Mr. Michael Hales, NOAA)
- CNES Activities in Risk Management (Jean-Luc Bessis, CNES, France)
- Space Technology and Disaster Management – A Global Network Perspective (David Stevens, OOSA)

1215 -1330 Lunch Break

1330 -1510

Presentation Session 1 – *Setting the Tone: Space Technology and Disaster Management*

Chairperson: Anthony Milne, University of New South Wales, Australia

Rapporteur: Abdolreza Ansari Amoli, Iranian Remote Sensing Center, Iran

- Meteorological Satellite Applications for Disaster Management (Cheng Liu, National Satellite Meteorological Center of China, China)
- Space Technology Applications in Bangladesh with Special Reference to Disaster Management (Anwar Ali, Bangladesh Space Research and Remote Sensing Organization - SPARRSO, Bangladesh)
- Space-based Observations and Fire Management (Timothy J. Lynham, Natural Resources Canada, Canadian Forest Service, Canada and Charles W. Dull, USDA Forest Service, USA)
- Main Disaster Concerns and Types of Information Needed For Disaster Mitigation and Relief Action in Turkey (H. Huseyin Guler, METU Disaster Management Implementation and Research Center, Turkey)
- ENVISAT's Applications on Environment and Natural Disaster Management (Mr. Philippe Bally, ESA/ESRIN)

1510-1530 Coffee Break

1530-1700 **Discussion Session 1 - *Disasters in the Asia and the Pacific Region***

1830-2030 Dinner hosted by GISTDA

12 November 2002, Tuesday

0830-1010 Presentation Session 2A – Focusing on User Needs

Chairperson: Moutaz Dalati, GORS, Syria

Rapporteur: Nguyen Hanh Quyen, Vietnam National Centre for Natural Sciences and Technology, Vietnam

- Disaster Management in Lao P.D.R. (Bouangeun Oudomchith, Department of Meteorology and Hydrology, Lao P.D.R.)
- Space Data Use for Monitoring, Warning and Relief of Natural Hazards (Alexandre Ioffe, Geological Institute of Russian Academy of Science, Russia)
- Operations of Radarsat-1 Disaster Watch Program (Ahmed Mahmood, CSA, Canada)
- Main Disaster Concerns in Nepal and a Succinct Description of the Types of Information for Disaster Management (Sahas Shrestha, Department of Forest Research and Survey, Nepal)
- PACRIM Science Applications: A Decade of AIRSAR in the Australasian-Pacific Region with Reference to Natural Disasters (Anthony Milne, University of New South Wales, Australia)

0830-1010

Presentation Session 2B – *Perspectives on the Use of Space Technology for Disaster Management*

Chairperson: Jayantha Pathak, Jorhat Engineering College, India

Rapporteur: Uuganbayar Batmunkh, State Board for Civil Defence, Mongolia

- A National Flood Information Network Based on Satellite Remote Sensing (S. Vibulsreth, GISTDA, Thailand)
- Remote Sensing Applications for the Environment and Human Security by the German Remote Sensing Data Center (Harald Mehl, DLR, Germany)
- Application of Geographic Information Systems and Remote Sensing in Schistosomiasis Control in China (Xiaonong Zhou, National Institute of Parasitic Diseases, China)
- Application of Satellite Remote Sensing for Earthquake Damage Detection (Fumio Yamazaki, Asian Institute of Technology, Thailand and Earthquake Disaster Mitigation Research Center of the National Institute of Earth Science and Disaster Prevention, Japan)

1010-1030

Coffee Break

1030-1215

Discussion Session 2 – *Data Needs, Data Availability, Data Access*

1215-1330

Lunch Break

1330-1510

Presentation Session 3 - *Relevant International and Regional Initiatives*

Chairperson: Paul Stephens, Surrey Satellite Technology Ltd, United Kingdom

Rapporteur: Hilja Vavae, Tuvalu Meteorological Service, Tuvalu

- International Charter Space and Major Disasters: A Status Report (Ahmed Mahmood, Charter Executive Secretariat)
- Case Studies of Charter Activation (Jean-Luc Bessis, Charter Executive Secretariat)
- The International Strategy for Disaster Reduction (ISDR) and the Role of United Nations in Disaster Reduction (Francesco Pisano, ISDR)
- China's Environment and Disaster Monitoring Satellite Constellation (EDMC) (Li Chuanrong, China Remote Sensing Ground Station, China)
- Tropical Cyclone Warning Systems (Katsuhiko Abe, WMO)

1510-1530

Coffee Break

1530-1700

Discussion Session 3 – *Building upon existing initiatives*

13 November 2002, Wednesday

- 0830-1010 **Presentation Session 4 – Extending the Use of Space-based Technologies**
Chairperson: Jimat Bolhassan, Malaysian Centre for Remote Sensing, Malaysia
Rapporteur: Christophe Sannier, Cranfield University, UK
- Training Issues and Initiatives in Satellite Imagery and GIS Applied to Disaster Management (Pierre-Yves Revillion, GDTA, France)
 - Capacity Building in Space Science and Technology for Management and Mitigation of Natural Disasters in Asia and the Pacific (Karl Harmsen, CSSTE-AP, India)
 - NASDA i-Space Project and Pilot Experiments for Disaster Management (T. Shigeta, NASDA, Japan)
 - Activities of the UN (UNISPACE III) Action Team for a Global Disaster Management System (Ahmed Mahmood, CSA, Canada)
 - UNISPACE III Action Team 7 – User Needs for Disaster Management/Mitigation (Li Chuanrong, China Remote Sensing Ground Station, China)
 - Satellite Based Broadband Transmission in Support of Disaster Management (Y. Rojsrivichaikul, Shin Satellite PLC, Thailand)
- 1010-1030 Coffee Break
- 1030-1215 **Parallel Open Session - Presentation by Workshop Participants**
- Parallel Open Session I
 - Parallel Open Session II
- 1215-1330 Lunch Break
- 1330-1510 **Presentation Session 5A – The “Last Mile Connectivity” – Getting the Info to the End User**
Chairperson: Alexandre Ioffe, Russian Academy of Sciences, Russia
Rapporteur: Bouangeun Oudomchith, Department of Meteorology and Hydrology, Lao P.D.R.
- Satellite and Network Access Solutions for Rapid Responses to Disaster Management (Jan K. Wendt, Intelsat)
 - Communications to Mitigate Disasters: An Overview of Simon Fraser University’s Advanced Emergency Satellite Networking Activities (Peter S. Anderson, Simon Fraser University, Canada)
 - Communications, Broadcasting and Meteorological Satellite (CBMS) Program (Zeen-Chul Kim, Korea Aerospace Research Institute, Republic of Korea)
- 1330-1510 **Presentation Session 5B - Innovative Developments and Initiatives Using Space-based Technologies in Disaster Management**
Chairperson: Siva Subramanian, RMSI, India
Rapporteur: Tamaz Chogovadze, Department of Emergency Situations and Civil Defence, Georgia
- A Novel International Partnership: The Disaster Monitoring Constellation of Small Low Cost Satellites (Paul Stephens, Surrey Satellite Technology Ltd., UK)
 - Glacier Hazards and Risk Response Strategies in Himalayan Countries (Bhutan, India, Nepal) (Diethard Leber, University of Vienna, Austria)
 - A Regional Flood Disaster Information Network for the Countries of the Lower Mekong (Craig Johnson, Radarsat International, Canada)
 - Development of Advanced Satellite-based Products for Drought Monitoring (Christophe Sannier, Cranfield University, UK)
 - Complementary Wide Area and Zoom-in Observation and Reporting System for Disaster Prevention and Mitigation (Sias Mostert, Stellenbosch University, South Africa)
- 1510-1530 Coffee Break
- 1530-1700 **Discussion Session 4 – Structure, Institutional Strengthening and Capacity Building**

14 November 2002, Thursday

- 0830-1010 **Presentation Session 6 - Developing Partnerships and Regional Initiatives**
Chairperson: B. Manikiam, ISRO, India
Rapporteur: Raith Dewanti Dimiyati, National Institute of Aeronautics and Space, Indonesia
- FAO in Drought Management (T.C. Ti, FAO)
 - Processes and Prospects for Further Disaster Management Applications (G. Dolcemascolo, ADPC, Thailand)
 - Distributed Information Networks Supporting Natural Hazard Application in Asia-Pacific (Chris Chiesa, PDC, USA)
 - Space Technology Applications for Disaster Management (Masaru Arakida, ADRC, Japan)
 - UNESCAP's Approach for a Regional Cooperative Mechanism (Wu Guoxiang, UNESCAP)
- 1010-1030 Coffee Break
- 1030-1215 **Presentation Session 7A – Video Conference Maui-Bangkok – Collaboration between JUSTSAP and United Nations**
Chairperson: David Stevens, OOSA
Rapporteur: Cihat Basocak, UNESCAP
- General Introductions
 - Summary from Bangkok Meeting
 - Introduction to JUSTSAP and the DM3 interests/efforts
 - Joint Discussion on Proposed DM3 demonstration
- 1030-1215 **Presentation Session 7B - Using Space Technology Across the Board for Solving Disaster Problems**
Chairperson: Sahas Shrestha, Department of Forest Research and Survey, Nepal
Rapporteur: Quyen Nguyen Hanh, NCST, Vietnam
- Water Management Information Networks in Support of Flood Disasters – Project Example: Environmental Monitoring Information Network (EMIN) (Gordon Rigby, Radarsat International, Canada)
 - Flood Risk Hazard Mapping in the Lower Mekong Basin (Manithaphone Mahazay, MRC, Cambodia)
 - Use of Space Technologies for Detection and Observation Over Pollution of a Coastal Zone (Sharafat Gadimova, Azerbaijan National Aerospace Agency, Azerbaijan)
 - HI-STAR Report: A Malaria Information Systems for Management and Control of Malaria Epidemics (Ed Anderson, ISU, France)
 - Potential Uses of Space-based Flood Mapping for Disaster Management in Asia and the Pacific (Sebastien Caquard, Dartmouth College, USA)
- 1215 -1330 Lunch Break
- 1330 -1510 **Discussion Session 5 – *Implementing the Regional Cooperative Mechanisms and Definition of a Plan-of-Action which includes suggestions for possible pilot projects***
- 1510 -1530 Coffee Break
- 1530 -1700 **Wrap-up Session (Plenary)**
- Synthesis of Presentation and Open Sessions
 - Synthesis of Discussion Sessions
 - Presentation of the proposals and recommendations for the implementation of a Regional Cooperative Mechanism and Plan-of-Action.
- Closing Remarks**
- UNOOSA
 - UNESCAP

15 November 2002, Friday

- 0800-1200 **Technical Tour** organized by GISTDA and Shin Satellite Plc Corp.

Open Session Presentations

Application of Space Technology Integrated with GIS in Suggesting Artificial Sites for Groundwater in Drought-prone Areas (Biswajit Sarma, Senior Lecturer, Department of Civil Engineering, Jorhat Engineering College, Assam, India)

Applications of Remote Sensing in Monitoring Disasters; Case Study: Detection of Oil Spills in the Mediterranean (Moutaz Dalati, GORS, Syria)

Earthquake Risk Assessment Using Remote Sensing and Geospatial Techniques (Siva Subramanian, RMSI, India)

Earthquake Strong Motion Data-Mining for Hazard Mapping, Jayanta Pathak, Jorhat Engineering College, India

GIS on Internet for Flood Monitoring (Pipat Ruangngam and Rasana Patimaprakorn, Royal Irrigation Department, Thailand).

Integrating Satellite Data and Geographical Information System for Forest Fire Monitoring in the Southern of Vietnam, Nguyen Hanh Quyen, Institute of Geography – Vietnam National Centre for Natural Sciences and Technology. Viet Nam.

Monitoring Typhoon Using Satellite Data (Absornsuda Siripong, Thailand)

Potential for the Use of Space Technology and Remote Sensing in Afghanistan (Sayed Hassan, UNODC, Afghanistan)

Real-Time Disaster Monitor System with Mobile Observation Platforms (Michiro Kusanagi, STAR/AIT, Thailand)

Remote Sensing Applications for Flood Disaster Management (V. Bhanumurthy, NRSA, Hyderabad, India)

Satellite Thermal Infrared Technology – Temperature Increase Anomaly – Precursors of Earthquake, Volcanic Eruption and Forest Fire in Short-term and Imminent (Qiang Zuji, Shanghai Fudao Natural Disaster Prediction Technology Developing Co, China)

Strengthening Local Authorities in Risk Management (SLARIM) – an ITC Research Project (Norman Kerle, ITC, The Netherlands)