

United Nations Regional Workshop on the Use of Space Technology for Disaster Management for Africa

Addis Ababa 1-5 July 2002

Final Workshop Programme

Monday 1 July 2002

Registration 8:00 – 9:00

Opening Session 9:00 – 10:40

Welcome Address ECA – **Orlando Nino**

OOSA Address – **Sergio Camacho**

ESA Address – **Micheline Tabache**

Keynote Presentation – **Levin Lauritson** – NOAA, USA - '*Space Technology and Disaster Management – The CEOS/DMSG Perspective*'

Session 1 – Space Technology and Disasters I - 11:00 – 12:30

Moderator: **Wolfgang-Albert Flügel**, International Water Management Institute, Sri Lanka
Rapporteur: **Samuel Senkunda**, Department of Meteorology, Uganda

Johann Goldammer – Global Fire Monitoring Center and ISDR Inter-Agency Working Group on Wildland Fire, Germany – '*The Ethiopia Wildland Fire Emergency 2000: Lessons learnt and consequences for improved cooperation in Sub-Saharan Africa.*'

Pauline Dube – Southern Africa Fire Network (SAFNet), University of Botswana, Botswana – '*Developing Capacity for Operational Fire Monitoring and Management Systems in Southern Africa.*'

Jaime Cumbi – GIS Center – Universidade Católica de Moçambique – Beira, Mozambique – '*Combining Local Traditional Knowledge with Modern Remote Sensing Techniques: A Pilot Study from Buzi and Save River Basin in Central Mozambique.*'

Souléye Wade – Université Cheikh Anta Diop de Dakar, Senegal – '*Earth Observation and GIS-based Flood Monitoring in the Senegal River Estuary and Valley.*'

Session 2 – Disaster Management in Africa - 14:00 – 15:40

Moderator: **Paul Stephens**, Surrey Satellite Technology Ltd, UK
Rapporteur: **Tumisang Sebitloane**, Institute for Satellite and Software Applications, South Africa

Ruger Kahwa – Disaster Management Department, Prime Minister's Office, Tanzania – '*The Main Disaster Concerns in Tanzania.*'

Alassane Sogho – Direction de la Protection Civile, Mauritania – '*National Approach to Catastrophic Situations in Mauritania.*'

Kayode Fagbemi – National Emergency Management Agency, Nigeria – '*Disaster Management and Data Needs in Nigeria.*'

Richard Weinmann - National Disaster Management Centre, South Africa – *‘Current Status and Use of Remote Sensing in Disaster Management in South Africa.’*

Session 3A – Space Technology and Disasters II – 16:00 – 17:00

Moderator: **Pauline Dube**, University of Botswana, Botswana
Rapporteur: **Sospeter Muiruri**, Drought Monitoring Centre, Kenya

Bancy M. Mati – Jomo Kenyatta University of Agriculture and Technology, Kenya – *‘Potential of Space Technology for Improving Food Security in the Horn of Africa.’*

Christophe Sannier – Cranfield University, United Kingdom – *‘Development of Advanced Satellite-based Products for Droughts Monitoring.’*

Alex Fortescue – Satellite Applications Section, CSIR, South Africa - *‘Remote Sensing Solutions for Disaster Management – CSIR’s Experience in Africa.’*

Session 3B – Open Session I – 17:00 – 17:30

Moderator: **David Stevens**, OOSA
Rapporteur: **John Ayoade Shamonda**, Federal Ministry of Water Resources, Nigeria

Samuel Senkunda – Department of Meteorology, Uganda – *‘RANET Uganda Program.’*

Abdel Wahab Ahmed – Humanitarian Aid Commission, Sudan – *‘Disaster Profiles in Sudan.’*

Mamadou Fofana – African Center for Environmental Information, Ivory Coast – *‘West African Database.’*

Tuesday 2 July 2002

Session 4 – Earth Observation Satellites – 9:00 – 10:40

Moderator: **Souléye Wade**, Université Cheikh Anta Diop, Senegal
Rapporteur: **Tsholofelo Mooketsi**, Institute for Satellite and Software Applications, South Africa

Micheline Tabache – European Space Agency – *‘ESA’s ENVISAT Mission – Status and Applications.’*

Levin Lauritson – NOAA, USA – *‘NOAA’s Operational Use of Earth Observing Satellites for Hazard Support – Emphasis on African Applications.’*

Jordi Inglada – CNES, France – *‘SPOT 5.’*

Simon Chesworth – Radarsat International, UK – *‘Radarsat Mission – Status and Applications.’*

Session 5 – Other Satellite-based Solutions – 11:00 – 12:30

Moderator: **Christophe Sannier**, Cranfield University, UK
Rapporteur: **Wolfgang Wagner**, Vienna University of Technology, Austria

Sospeter Muiruri – Drought Monitoring Centre, Kenya – *‘Potential Use of Space Technology for Disaster Management in the Greater Horn of Africa.’*

Carlo Olivieri and Marco Castronuovo – Università di Roma ‘La Sapienza’, Italy – ‘*A Coordinated Proposal by the European Space Agency, the Italian Space Agency and the University of Roma to Support the Development of Remote Sensing Applications Over the African Continent.*’

Paul Stephens – Surrey Satellite Technology Ltd, United Kingdom – ‘*A Novel International Partnership: The Disaster Monitoring Constellation of Small Low Cost Satellites.*’

Mohammed Arezki Si Mohammed – Centre National de Techniques Spatiales, Algeria – ‘*AlgeriaSat.*’

Session 6 – Relevant Regional Initiatives – 14:00 – 15:40

Moderator: **Emmanuel Amamoo-Otchere**, CERSGIS, Ghana

Rapporteur: **Derek Thompson**, University of Maryland at College Park, USA

Mohamed Abchir – UN-ISDR, Switzerland – ‘*The International Strategy for Disaster Reduction (ISDR) and the role of United Nations in Disaster Reduction.*’

Lishan Adam – ECA, Ethiopia – ‘*Africa and the Digital Divide.*’

Dozie Ezigbalike – ECA, Ethiopia – ‘*Spatial Data Infrastructure for Africa.*’

Francisco Jose Igualada and Mohammad Al-Enizat - DPKO/UNMEE, Eritrea – ‘*A New Challenge to Exploit Image-derived Information and GIS for Contingency Planning and Disaster Management: UN DPKO Perspective.*’

Discussion Session 1 – Data Availability and Data Needs – 16:00 – 17:30

Data Availability

Coordinator: **Jean-Luc Bessis** CNES, France

Rapporteur: **Levin Lauritson**, NOAA, USA.

Data Needs

Coordinator **Souléye Wade**, Université Cheikh Anta Diop, Senegal

Rapporteur: **Pauline Dube**, University of Botswana, Botswana

Wednesday 3 July 2002

Session 7A – International Charter Space and Major Disasters – 9:00 – 9:50

Moderator: **Sergio Camacho**, OOSA

Rapporteur: **Maina Muniafu**, United States International University, Kenya

Jean-Luc Bessis – CNES, France – ‘*The International Charter “Space and Major Disasters”.*’

Jordi Inglada – CNES, France – ‘*Activating the Charter for the Nyiragongo Volcanic Eruption, DR Congo.*’

Session 7B – High Resolution Imagery and Disaster Management – 9:50 – 10:40

Moderator: **Mamadou Fofana**, African Center for Environmental Information, Ivory Coast

Rapporteur: **Maina Muniafu**, United States International University, Kenya

Adrian Zevenbergen – Jeff Young – Space Imaging, USA – ‘*High Resolution Satellite Imagery Applications in Disaster Management.*’

Unal Turgut – Space Imaging Euroasia, Turkey – *‘High Resolution Imagery: Availability and Use.’*

Session 8 – Open Session II – 11:00 – 12:30

Conference Room 2

Moderator: **Orlando Nino**, ECA

Rapporteur: **Massaër Mbaye**, RECTAS, Nigeria

Galcano Mulaku – Department of Surveying, University of Nairobi, Kenya – *‘Potential Applications of Space Technology to Landslide Study and Management in Kenya.’*

André Nonguierma – AGRHYMET, Niger – *‘Early Warning System on Disaster Management.’*

Brilliant Petja – ARC-ISCW, South Africa – *‘The South African Approach for Early Warning Decision Support System Based on Satellite and Rainfall Data.’*

Willem Simons – Oakar Services Ltd., Kenya - *‘Software Solutions for Disaster Management.’*

Patrice Sanou – Centre SIG et Télédétection Adjaratou, Burkina Faso – *‘Responsabilités du Secteur Privé dans l’Intégration des Technologies Spatiales en Approche de Gestion des Catastrophes en Afrique.’*

Takeste Berhan Habtu and Assefa Dagne – Cybersoft, Ethiopia – *‘Solutions/Approaches to Early Warning Systems.’*

Massaer Mbaye – RECTAS, Nigeria – *‘Application of Geographic Information Systems for the Sustainable Environment Development in Africa.’*

Wilson M. Ngecu – University of Nairobi – *‘The Major Natural Hazards in Kenya and their Socio-Economic Significance.’*

Gilbert Ouma - Scot Conseil, Kenya – *‘Strengthening Remote Sensing for Early Warning, Food Security, and Environmental Monitoring in the IGAD Countries.’*

Caucus Room 11

Moderator: **Alex Fortescue**, CSIR, South Africa

Rapporteur: **Seyi Fabiyi**, University of Ibadan, Nigeria and **Dejan Flasker**, Avanti Communications, UK

Mahmoud Ahmed – NARSS, Egypt – *‘Coastal Hazards and Remote Sensing.’*

Seyi Fabeyi – Department of Geography, University of Ibadan, Nigeria – *‘Real-Time Space Remote Sensing Data and GIS for Oil Spill Disaster Management in Nigerian Niger Delta – A Call for Paradigm Change.’*

John Ayoade Shamonda – Federal Ministry of Water Resources, Department of Hydrology and Hydrogeology, Nigeria – *‘Hydro-Niger Project – A WMO Assisted Project.’*

Nicola Morton - Sun Space and Information Systems – *‘African Satellite Constellation for Transnational Resource Management: Towards Disaster Prevention.’*

Tinashe Mandaza and Blessing Siwela – South African Development Community – *‘Monitoring Weather and Climate for Disaster Management in the SADC Region.’*

Emmanuel Amamoo-Otchere - CERSGIS, Ghana – *‘Ghana’s Spaced-based Land-cover/Land-use Mapping, its First Up-date and Strategies for Customizing them for the Poverty-reduction Programmes.’*

Benjamin Akuetteh – CERSGIS, Ghana – *‘UNICEFF-supported Initiative for Developing a GIS-driven Community-based Development Monitoring and Evaluation System (CBDMES) as a type of Anticipatory Disaster Management Information System (ADMIS) in Ghana’*

Dejan Flasker – Avanti Communications – *‘Global Reach.’*

Chris Boehm – Hugin GmbH, Germany – *‘Application of GIS Technology for Disaster Management and Planning.’*

Session 9A – Innovative Approaches to Incorporating Space Technology – 14:00 – 15:00

Moderator: **Pauline Dube**, University of Botswana, Botswana

Rapporteur: **Benjamin Akuetteh**, CERSGIS, Ghana

Steve Drury – Margaret Andrews Deller – The Open University, UK – *‘Remote Sensing and Locating New Water Resources.’*

Wofgang-Albert Flügel – International Water Management Institute, Sri Lanka – *‘Integrating Remote Sensing and GIS to Classify “Modelling Response Units (MRU)” for Regional Hydrological Catchment Management and Hazard Simulation in Southern Africa’.*

Degelo Sendabo – Ethiopian Mapping Authority – *‘Application of Remote Sensing Technology on the Refugee Impacts on the Physical Environment in Ethiopia.’*

Session 9B – Early Warning Systems – 15:00 – 15:40

Moderator: **Kayode Fagbemi**, National Emergency Management Agency, Nigeria

Rapporteur: **Jordi Inglada**, CNES, France

Wolfgang Wagner – Vienna University of Technology, Austria – *‘Monitoring Rainfall and Drought in Africa with Spaceborne Scatterometers.’*

Amare G. Egziabher and Andrew Alspach – UNHCR – *‘Use of Space Technologies for Refugee Operations in Africa.’*

Discussion Session 2 – 16:00 – 17:30

The workshop was divided into 4 sub-regional groups: Eastern Africa, Western Africa, Northern Africa and Southern Africa. The discussion centred on defining common hazards in Africa to be tackled jointly by interested institutions.

Thursday 4 July 2002

Session 10 – Implementing Space Technology-based Solutions – 9:00 – 10:40

Moderator: **Wilber Ottichilo**, Regional Centre for Mapping of Resources for Development, Kenya

Rapporteur: **Tinashe Mandaza**, Southern Africa Development Community, Zimbabwe

Harald Mehl – German Remote Sensing Data Center (DFD) / German Aerospace Center (DLR), Germany – *‘Remote Sensing Applications for the Environment and Human Security by the German Remote Sensing Data Center (DFD).’*

Helena Bosman – Satellite Applications Centre, CSIR, South Africa – *‘The Wide Area Satellite Monitoring Information System.’*

Derek Thompson – University of Maryland at College Park, USA – ‘*Building Capacity Through Training about GIS Software Functionality*’.

Ekundayo E. Balogun – African Regional Centre for Space Science and Technology Education, Nigeria – ‘*Capacity Building in Space Science and Technology for Management and Mitigation of Natural Disasters in Africa*.’

[Discussion Session 3 – 11:00 – 12:30](#)

Plenary discussion on the feedback of the discussions held during Discussion Session 2.

[Discussion Session 4 – Developing a Plan-of-Action – 14:00 – 15:40](#)

The 4 sub-regional groups refined the common hazards list, indicated which issues the group would be interested in tackling and then further discussed the *modus operandi* of the group.

[Plenary Discussion I - 16:00 – 17:30](#)

Plenary discussion on the feedback of the discussions held during Discussion Session 4

Friday 5 July 2002

[Plenary Discussion II - 9:00 – 10:40](#)

The 4 sub-regional groups met to further discuss the ‘soft’ commitments of the networking table. Additional discussions were held by each group to define how each group would work as a whole and also to already identify potential activities to be carried out.

[Wrap-Up Session – 11:00 – 12:30](#)

OOSA Final Presentation: **David Stevens**, OOSA
ECA Final Presentation: **Orlando Nino**, ECA