

AGENDA

UN-SPIDER Bonn International Conference

Space-based Solutions for Disaster Management: Early Warnings for All

Organized by

**United Nations Office for Outer Space Affairs (UNOOSA) /
UN-SPIDER**

**Center for Remote Sensing of Land Surfaces (ZFL), University
of Bonn**

In cooperation with the
German Aerospace Center (DLR)

UN Campus
Bonn, Germany
12 – 14 March 2024

Cyclone Freddy impacting Madagascar and Mozambique in February 2023.
Satellite image courtesy of NASA Earth Observatory

Day 1 – 12 March 2024

08:00 – 09:00	Registration	
Opening Segment		
09:00 – 09:30	Opening Ceremony <ul style="list-style-type: none"> - Welcome remarks by UNOOSA / UN-SPIDER - Welcome remarks by DLR - Welcome remarks by ZFL - Group photo 	Aarti Holla-Maini, UNOOSA Peter Gräf, DLR Klaus Greve, ZFL
SESSION 1: Introduction and Setting the Scene		
<i>This session will be used to set the scene regarding early warning systems</i>		
09:30 – 10:00	Keynote presentation by DLR Space Agency	Godela Rossner, DLR
10:00 – 10:30	Keynote presentation by ZFL	Michael Schmidt, ZFL
10:30 – 11:00	Keynote presentation by UN-SPIDER on space technologies for early warning systems	Juan Carlos Villagran UN-SPIDER
11:00 – 11:30	Coffee Break	
11:30 – 11:50	WMO Space Programme's Overview and the Role of Space-based Earth Observations to Support WMO Major Strategic Priorities, Including EW4All	Natalia Donoho, WMO
11:50 – 12:10	Iridium Satellite Data Delivery for Emergency Warning Systems	Harvey Hipperson, Iridium Sat. Comms.
12:10 – 12:30	Use of Space-based Products in Early Warning Systems (Digital Elevation Models, Land-use/Land-cover Layers, Urban Footprints)	Alexander Kaptein, AIRBUS Defence & Space
12:30 – 12:45	Questions & Answers	UN-SPIDER/ZFL
12:45 – 14:00	Lunch	
SESSION 2: Hydrometeorological Hazards		
<i>This session will focus on space technologies for hydrometeorological hazards</i>		
14:00 – 14:20	Space Technologies to Monitor Severe Weather	Vincent H Peuch, ECMWF
14:20 – 14:40	The Copernicus Emergency Service Operational Global Flood Awareness System and Global Flood Monitoring Product	Stefania Grimaldi, GloFAS
14:40 – 15:00	Modular Flood Early Warning Systems for Small Communities in Africa	Frank Ohene Annor, TAHMO
15:00 – 15:20	Automatic Monitoring of Warnings and Early Triggering of Satellites During Flood Events	Johanna Roll, DLR
15:20 – 16:00	Coffee Break	
16:00 – 16:20	FAO's Agricultural Stress Index System (ASIS) for Agricultural Drought Monitoring and Early Warning	Oscar Rojas, FAO
16:20 – 16:40	Global Drought Observatory (GDO)	Alfred de Jager, GDO
16:40 – 17:00	South Asia Drought Monitoring System (SADMS)	Giriraj Amarnath, IWMI
17:00 – 17:30	Questions & Answers	UN-SPIDER/ZFL
17:30	End of the first day	

Day 2 – 13 March 2024

SESSION 3: Geological Hazards		
<i>This session will focus on space technologies for geological hazards</i>		
09:00 – 09:20	Spaceborne and Airborne DInSAR Products Generation and Analysis to Support Civil Protection Activities in Volcanic and Seismic Regions	Fernando Monterroso, CNR IREA
09:20 – 09:40	Multimodal Earth Vision for Natural Hazard Multi-Risk Assessment and Early Warning	Christian Geiss, DLR/ZFL
09:40 – 10:00	Landslide Risk Assessment and Mitigation in Cities	Hannes Taubenboeck, DLR
10:00 – 10:20	Spaceborne InSAR for Landslides and Geohazard Monitoring	Ciro Farinelli, Airbus Defence & Space
10:20 – 10:40	Questions & Answers	UN-SPIDER/ZFL
10:40 – 11:00	Coffee Break	
SESSION 4: Environmental Hazards		
<i>This session will focus on space technologies for environmental hazards</i>		
11:00 – 11:20	Experience from Greece / FireHUB	Haris Kontoes, BEYOND Centre of Excellence, NOA
11:20 – 11:40	Susceptibility of Vegetation to Forest Fires	Alexander Ariza, IGAC
11:40 – 12:00	Innovation in European Wildfire Risk Management Research: an overview over research and development activities / Firelogue	Claudia Berchtold, Fraunhofer Institute
12:00 – 12:30	Questions & Answers	UN-SPIDER/ZFL
12:40 – 14:00	Lunch	
SESSION 5: Extraterrestrial Hazards		
<i>This session will focus on space technologies for extraterrestrial hazards</i>		
14:00 – 14:20	International Asteroid Warning Network and Space Mission Planning Advisory Group	Richard Moissl, ESA
14:20 – 14:40	Space Weather Early Warning	Dedong Wang, GFZ Potsdam
14:40 – 15:00	Disaster Management in the District of Berlin Lichtenberg for Events from Outer Space	Philipp Cachée, Berlin Disaster Management Agency
15:00 – 15:15	Questions & Answers	UN-SPIDER/ZFL

SESSION 6: Space Community Perspective

How do space agencies and other representatives of the space community push the use of space technologies in their country or region

15:15 – 16:30	<p>Panel: Space Community Perspective – How do space agencies support national disaster management activities?</p> <p>AEM (Mexico) ASAL (Algeria) BRIN (Indonesia) EgSA (Egypt) ISA (Iran) NASRDA (Nigeria) SANSa (South Africa) SUPARCO (Pakistan)</p>	<p>Moderated by Aarti Holla-Maini (UNOOSA)</p> <p>Julio Cesar Castillo Kamel Tichouti Yenni Vetrta Hassan Abou Seada Abdolreza Ansari Amoli Ademuyiwa Oyewumi Morwapula Mashalane Mateeul Haq</p>
16:30 – 17:30	Extended Coffee Break and Poster Session	
17:30	End of the second day	

Day 3 – 14 March 2024

SESSION 7: Health and Biologic Hazards		
<i>This session will focus on space technologies for health and biologic hazards</i>		
09:00 – 09:20	Early Warning System for Mosquito Borne Diseases (EYWA)	Haris Kontoes, BEYOND Centre of Excellence, NOA
09:20 – 09:40	Earth observation for desert locust outbreaks	Jonas Schreier, ZFL
Session 8: Academic and Capacity-Building Perspective		
<i>Academic institutions and capacity-building initiatives will discuss how to bridge the gap between technology provider and user.</i>		
09:40 – 10:40	<p>Panel: Academic and Capacity-Building Perspective – How can academic institutions and capacity-building initiatives and networks bridge the gap between technology provider and user?</p> <p style="margin-left: 40px;"> UNU-EHS EOTEC DevNet University of Namibia University of Botswana Ben Gurion University, Israel Federal University of Santa Maria, Brazil Asian Institute of Technology, Thailand </p>	<p>Moderated by Aarti Holla -Maini (UNOOSA) and Klaus Greve (ZFL)</p> <p style="margin-left: 40px;"> Joerg Szarzynski Erin Martin Frank Persendt Kelebogile Mfundisi Shimrit Maman Manoel de Araujo Sousa Manzul K Hazarika </p>
10:40 – 11:00	Coffee Break	
SESSION 9: Novel Technologies, Future Outlook		
<i>This session will focus on novel technologies</i>		
11:00 – 11:20	Multi-hazard Early Warning: Mayday.ai (Guardian Space)	Kian Mirshahi, Mayday.ai, Guardian Space
11:20 – 11:40	The EU Space Programme as an Enabler for Multi-Hazard Analysis	Giovanni Vecchione, EUSPA
11:40 – 12:00	EdgeAI for Earth: Pioneering Disaster Detection and Response using On-board Machine Learning with Insight4EO	Rohaan Ahmed, Deimos Space
12:00 – 12:20	Google’s Flood Forecasting Product	Stephanie Rees, Google
12:20 – 12:30	Moderated Discussion	UN-SPIDER
12:30 – 14:00	Lunch	

Session 10: Disaster Management Perspective		
<i>Disaster management community representatives to discuss how the presented tools can be used and what are the needs of disaster management agencies</i>		
14:00 – 15:00	<p>Panel: Disaster Management Community Perspective – How can disaster management agencies utilize the presented tools and what are their needs?</p> <p style="text-align: center;"> BNGRC (Madagascar) MHLUP (Mauritius) NADMO (Ghana) NCCRM (Gambia) NDMC (South Africa) NRC (Mozambique) Civil Protection (Tunisia) </p>	<p>Moderated by Aarti Holla-Maini (UNOOSA)</p> <p style="text-align: center;"> Olivier Elack Naim Shaik Joomun Agyemang Prempeh Momodou J. A. Senghore Dechlan Pillay Nelson Tivane Sarhan Khalifa </p>
15:00 – 15:30	Coffee Break	
15:30 – 16:00	Closing remarks	UN-SPIDER ZFL DLR
16:00	End of the conference	