





## **UN-SPIDER Bonn International Conference**

## Space-based Solutions for Disaster Management in Africa: Challenges, Applications, Partnerships

6 – 8 November 2019 UN Campus, Bonn, Germany

Wednesday, 6 November 2019	
08:30 - 09:00	Registration (AAH building)
09:00 - 09:30	Opening and Welcome Remarks
AAH Lower Conference Room	<ul> <li>Welcome Remarks         Reinhard Limbach, Deputy Mayor, City of Bonn</li> <li>Welcome Remarks         Juan Carlos Villagran, United Nations Office for Outer Space Affairs (UNOOSA)</li> <li>Welcome Remarks         Karin Holm-Müller, Vice Rector, University of Bonn</li> <li>Welcome Remarks         Gerd Kraft, German Aerospace Center (DLR)</li> </ul>
09:30 - 10:00 AAH Lower Conference Room 10:00 - 10:30	Enhancing the Use of Space-Based Information in Disaster Management in Africa     Juan Carlos Villagran de Leon, UNOOSA/UN-SPIDER     Klaus Greve, Center for Remote Sensing of Land Surfaces, University of Bonn Keynote     Space Technologies for Sustainable Development in Africa     Tidiane Ouattara, GMES & AFRICA
10:30 – 11:00	Coffee break (in front of the AAH lower-level conference room)
11:00 – 12:30  AAH Lower Conference Room	<ul> <li>Africa from Space and Space Technologies for Africa         <ul> <li>Vanessa Keuck, DLR</li> </ul> </li> <li>Panel 1 – Space Technologies for Disaster Management in Africa</li> </ul>
	Moderator: Joachim Post, DLR  • Tidiane Ouattara  GMES & AFRICA Programme







Solomon Tessema

Ethiopian Space Science and Technology Institute (ESSTI)

Halilu Ahmad Shaba or Godstime James, tbc
 National Space Research and Development Agency (NASRDA), Nigeria

Morwapula Mashalane
 South African Space Agency (SANSA)

Wafa Talhaoui

National Centre for Mapping and Remote Sensing (CNCT), Tunisia

## **12:30 – 14:00** Light lunch provided in area in front of the AAH lower-level conference room

14:00 - 15:30

Parallel sessions 1 and 2

Session 1 – Solutions – Recent Initiatives in Africa

AAH Lower Conference Room • The GREAT Team in Ghana

Victor Addabor, National Disaster Management Organization (NADMO), Ghana

- Confronting Droughts in Ethiopia with Space-Based Technologies
   Berhan Gessese, Ethiopian Space Science and Technology Institute (ESSTI)
- Forecast-based Financing (FbF): Modelling Drought in Madagascar for Early Action

Michael Kühn, Deutsche Welthungerhilfe

• UNCCD Drought Toolbox

Daniel Tsegai and Jeroen Van Dalen, United Nations Convention to Combat Desertification (UNCCD)

The Tunisian Experience in Management of Floods Risk
 Wafa Talhaoui, National Center of Cartography and Remote Sensing (CNCT),
 Tunisia

Q & A

14:00 - 15:30

Session 2 – Solutions – Capacity-building in Innovative Solutions for Disaster Management

Room LEU 2105  Capacity Building in Geomatics Applied to Agriculture and Environment. An ERASMUS+ project in Tunisia

Alexandru Badea, Romanian Space Agency (ROSA)

- FANFAR Operational Flood Forecasting and Alerts in West Africa Aytor Naranjo, isardSAT
- EO College An Online Learning Platform for all Topics Related to Earth Observation, Remote Sensing and Image Processing Robert Eckardt, EO College, University of Jena
- African Regional Centres for Space Science and Technology Education Bolarinwa Balogun, African Regional Centre for Space Science and Technology Education in English (ARCSSTE-E)







 From Hazard Assessment to Understanding of Disaster Risk
 Yvonne Walz, United Nations University Institute for Environment and Human Security (UNU-EHS)

Q & A

**15:30 – 16:00** Coffee break (in front of the AAH lower-level conference room)

16:00 - 17:30

Parallel sessions 3 and 4

Session 3 – Partnerships and Initiatives Supporting Disaster Management in Africa

AAH Lower Conference Room

Room LEU

2105

• Satellite-based Emergency Mapping: Cooperation in the Era of Clouds and Big Data

Stefan Voigt, German Aerospace Center (DLR)

- International Charter Space and Major Disasters
  - Jens Danzeglocke (DLR), International Charter Space and Major Disasters
- Copernicus Emergency Management Service
   Francoise Villette, European Commission (EC)
- Applications in Disaster Management: A Point of View from the Space Industry

Ciro Farinelli, Airbus

 Flood Protection Programme in Viet Nam: Benefits and Challenges of Earth Observation for Disaster Risk Management in Development Cooperation Olaf Neussner. GIZ

Q & A

Session 4 – Advances in Space Technology Applications

- Tsunami Confirmation Using Space Technologies
   Mario Castro Lera, Deep Blue Globe
- SWEET CubeSat Constellation

Ahmed Nasr Farid, Telespazio-VEGA

- Towards Open Geospatial Information and Services
  - Athina Trakas, Open Geospatial Consortium (OGC)
- Radar Interferometry to Map Landslides and Mass Movements
   Norma Davila, UNOOSA/UN-SPIDER Visiting Scientist, Autonomous University of the State of Mexico (UAEM)
- Belarusian Earth Observation System and its Capabilities in Supporting Disaster Management

Nadzeya Zalataya, UE Geoinformation Systems

Q & A







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09:00 - 09:30 AAH Lower Conference Room	Short plenary session with llightning presentations (3 min) to introduce the activities of the day. During this second day of the conference, participants will be introduced to GIS solutions for mapping natural hazards with space-based information, which they will be given the opportunity to try.
	A laptop will be required to participate in these hands-on sessions.
<b>09:30 – 10:30</b> Rooms: LEU 2112	Applications I – Hands-on sessions on:  • Sentinel Hub EO Browser
LEU 2705	<ul> <li>(QGIS 3.4. or newer is recommended but not required to follow this session)</li> <li>Grega Milcinski, Sinergise</li> <li>UNEP-DHI Flood and Drought Portal for Drought Assessments</li> </ul>
LEU 2516	<ul> <li>Bertrand Richaud, DHI</li> <li>ESA Hydrology TEP for Flood Forecasting</li> </ul>

**Thursday 7 November 2019** 

	Aytor Naranjo and Melissande Machefer, isardSAT
AAH Lower- level	<ul> <li>Use of Digital Elevation Data for Storm Surge Coastal Flood Modelling (QGIS 3.4 or newer is required to follow this session)</li> </ul>

conference room	Nora Meyer zu Erpen, Airbus
10:30 – 11:00	Coffee break (in front of the AAH lower-level conference room)
11:00 – 12:30	Applications I - Sessions continue

12:30 – 14:00	Light lunch provided in area in front of the AAH lower-level conference room	
<b>14:00 – 15:30</b> AAH Lower- level	Applications II - Hands-on sessions on:  • Using the Free Radar Software Suite SARbian for Flood Mapping  John Truckenbrodt, EO College, University of Jena	
conference room	Analyzing Drought with the Copernicus Global Drought Observatory (GDO), and UN-SPIDER Recommended Practices on Drought Monitoring (R-Studio is required to be able to follow this session)	
LEU 2112	Carmelo Cammalleri, European Commission, and Adrian Strauch and Jonas Schreier, ZFL, University of Bonn	
	UN-SPIDER Recommended Practices on Flood Mapping	
	(QGIS 3.4 or newer and SNAP is required to be able to follow this session)	
LEU 2705	Norma Davila and Ronja Lappe, UNOOSA/UN-SPIDER	
	<ul> <li>Automated Burned Area Monitoring, and UN-SPIDER Recommended Practices on Burn Severity Mapping</li> </ul>	
LEU 2516	(QGIS 3.4 or newer and/or a Google Earth Engine account is required to be able	

	on Burn Severity Mapping (QGIS 3.4 or newer and/or a Google Earth Engine account is required to be able to follow this session)
	Jonas Franke, Remote Sensing Solutions GmbH, and Valerie Graw, ZFL, University of Bonn
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16:00 – 17:30	Applications II - Sessions continue	
Morning or afternoon	Parallel activities for decision-makers from Africa	
Friday, 8 November 2019		
09:00 - 09:30	Summary of hands-on sessions	
09:30 - 10:00	Innovative Solutions for Disaster Management in Africa	
AAH Lower-level Conference Room	<ul> <li>UN-SPIDER Technical Advisory Support         Coen Bussink, UNOOSA/UN-SPIDER</li> <li>Earth Observation for Disaster Management in Africa: RCMRD         Denis Macharia, Regional Centre for Mapping of Resources for Development(RCMRD)</li> </ul>	
10:00 – 10:30	Coffee break (in front of the AAH lower-level conference room)	
10:30 – 12:00	Summary and the Way Forward	
AAH Lower-level Conference Room	Panel 2 – Challenges in the Use of Space-Based Information for Disaster Management in Africa  Moderator: UN-SPIDER and ZFL  • African Union Commission Aboubakar Diane  • Cameroon Sylvain Mayo, Civil Protection Department, Ministry of Territorial Administration  • Ghana Eric Nana Agyemang-Prempeh, National Disaster Management Agency  • South Africa Dechlan Pillay, National Disaster Management Centre  • Sudan Nora Khojali, Ministry of Agriculture and Forests  • Tunisia Sarhan Khalifa, National Office of Civil Protection	
12:00 – 12:30	Discussion - Conclusions Clasing Remarks: Summers and the Way Ferward	
12:30 – 13:00	Closing Remarks: Summary and the Way Forward	
13:00	Conference ends	
Afternoon	Bilateral meetings between UNOOSA/UN-SPIDER and participants from Africa	

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Further information & concept note: www.un-spider.org/news-and-events/events/bonn-conference-2019