

**Conference Program**  
(Version 1.5, 16 Nov 2020)  
Conducted virtually via Zoom  
Times are Central European Time (CET) UTC +1 hour

Day 1: 16 November 2020		
Time (CET)	Item	Speaker/Presenter
<b>Opening of the Meeting</b>		
13:00–13:05	Logistics and Introduction of the program	Dr Anthony Rea, Director Infrastructure WMO
13:05–13:15	Welcome, Opening of the WMO Data Conference	Prof. Gerhard Adrian, President of WMO
13:15–13:30	WMO Priorities for 2020–2023: Data Policy and Moving Toward Earth System Modeling and Prediction.	Prof. Petteri Taalas, Secretary General, WMO
13:30–13:45	Keynote address: Origin of WMO Data Exchange and Resolution 40	Dr. John Zillman, former President of WMO
13:45–13:55	Progress toward a new overarching WMO Data Policy resolution in 2021	Lars Peter Riishojgaard, Deputy Director, WMO
<b>Session 1: The changing landscape of weather, water and climate data</b>		<b>Chair: Michel Jean, President, WMO Infrastructure Commission</b>
14:00–14:15	Introduction to Session 1; Report from Preparatory Workshop on Theme 1 and relevant Stakeholder Consultations	Dr. Sue Barrell, Australia
14:15–14:30	The Evolving Meteorological Data Landscape	Prof. Penny Endersby, Chief Executive, UK MetOffice
14:30–14:45	Open Data Policy in the Age of Big Data	Dr. Gilberto Camara, Executive Director, GEO Secretariat
14:45–15:00	Data Policy and Practice – the Case of Hungary	Dr. Kornelia Radics, President, Hungarian Met Service
15:00–15:15	Next generation of seaborne meteorological and oceanographic data collection from vessels	Peer Fietzek, Kongsberg Maritime, Germany
15:15–15:50	Panel discussion, Q&A with virtual audience	Moderated by Session Chair
15:50–16:00	Summary of key statements	Session Chair
<b>16:00</b>	<b>Adjourn, day 1</b>	

Day 2: 17 November 2020		
Time (CET)	Item	Speaker/Presenter
<b>Session 2: Business models and data policy issues</b>		<b>Session Chair: Kevin Petty, IBM</b>
13:00–13:15	Introduction to Session 2; Report from Preparatory Workshop on Theme 2 and relevant Stakeholder Consultations	Session Chair and Dr. Michael Staudinger, CEO of Austrian Met Service
13:15–13:30	A Caribbean Perspective on Data and Partnerships for National Hydro-Meteorological Services and Key Stakeholders	Dr. Arlene Laing, Coordinating Director of the Caribbean Meteorological Organization

13:30–13:45	One Observation Policy to bridge data exchange between public and private sector	Urip Haryoko, BMKG Indonesia
13:45–14:00	A Private Sector View of WMO Data Policy as an Enabler for Improved Service Delivery (TBC)	Daisuke Abe, Executive Officer, Service Operation and Development Weathernews Inc.
14:00–14:15	Open Data Policy for Digital Economy Innovation	Zeng Qin, China Meteorological Administration
14:15–14:30	Data Sharing for Research and Operations	Dr. Rick Anthes, United States of America
14:30–15:00	Panel discussion, Q&A with virtual audience	Moderated by Session Chair
15:00–15:15	Summary of key statements	Session Chair
15:15–16:00	<b>Virtual Poster Session (Themes 1 &amp; 2; see poster program below)</b>	
16:00	<b>Adjourn, day 2</b>	

Day 3: 18 November 2020		
Time (CET)	Item	Speaker/Presenter
<b>Session 3: Filling the gaps in global data coverage</b>		<b>Chair: Dr. Michael Staudinger, President RA-VI</b>
13:00–13:15	Introduction to Session 3; Report from Preparatory Workshop on Theme 3 and relevant Stakeholder Consultations	Dr. Erik Andersson, European Commission and Daouda Konaté, President, WMO RA-I
13:15–13:30	The value of regional observations to global NWP and the value of global NWP to regions	Dr. Stephen English, ECMWF
13:30–13:45	GBON and SOFF: Addressing Gaps in Global Data Coverage	Prof. Gerhard Adrian, PR Germany and WMO president
13:45–14:00	Public-Private Partnerships and Data Exchange: Experience from the Trans-African Hydro-Meteorological Observatory (TAHMO)	Nick van de Giesen, TAHMO
14:00–14:15	Changing Landscape of Weather and Climate Data: Perspectives of NMHSs in RA-1	Dr. Agnes Kijazi, Director General of Tanzania Meteorological Agency
14:15–14:30	The Satellite Data Landscape: Outcomes of Stakeholder Consultation on Satellite Data and WMO Data Policy	Dr. Anthony Rea, Director Infrastructure WMO
14:30–15:00	Panel discussion, Q&A with virtual audience	Moderated by Session Chair
15:00–15:15	Summary of key statements	Session Chair
15:15–16:00	<b>Virtual Poster Session (Themes 3 &amp; 4, see poster program below)</b>	
16:00	<b>Adjourn, day 3</b>	

# WMO Data Conference

Virtual Conference, 16 – 19 November 2020

Day 4: 19 November		
Time	Item	Speaker/Presenter
<b>Session 4: Data exchange for Earth System Monitoring and Prediction</b>		<b>Chair: Dr. Gilbert Brunet, Chair, WMO Scientific Advisory Panel</b>
13:00–13:15	Introduction to Session 4; Report from Preparatory Workshop on Theme 4 and relevant Stakeholder Consultations	Session Chair and Dr. David Legler, NOAA
13:15–13:30	Making Data Accessible	Dr. Florence Rabier, ECMWF
13:30–13:45	Difficulties facing data exchange	Dr. Zeinab Salah Mahmoud, Egypt
13:45–14:00	New Data Policy in South-East Europe	Dr. Klemen Bergant, Director of Slovenian Meteorological and Hydrological Office
14:00–14:15	Key challenges and opportunities towards improving ocean data delivery for WMO services	Dr. Emma Heslop, Intergovernmental Oceanographic Commission
14:15–14:50	Panel discussion, Q&A with virtual audience	Moderated by Session Chair
14:50–15:00	Summary of key statements	Session Chair
<b>Integrating the Outcomes of the Themes in a Conference Statement and Closure</b>		<b>Chair: Michel Jean, President, WMO Infrastructure Commission</b>
15:00–15:35	Panel discussion with Session Chairs; virtual audience	Moderator
15:35–15:50	Presentation of draft Conference Statement	Session Chair
15:50–16:00	Closing Remarks	WMO President, Secretary General
<b>16:00</b>	<b>Data Conference Adjourn</b>	

**Poster Session Theme 1 & Theme 2  
Time: Nov.17 15:15 – 16:00**

**Theme 1: The changing landscape of weather, water and climate data (17, Nov, 15:15 – 16:00)**

No.	Title	Author
1.01	Identification of Building-Climatic Guidelines for Georgia considering Regional Climate Change	Iana Kartvelishvili, National Environmental Agency of Georgia
1.02	Global Surface Observation Bulletin Integrity Analyze and Format Fault-tolerant Mechanism in CMA	Prof. LIU Yiming, CMA-NMIC
1.03	The Antarctic Meteorological Research and Data Center	Dr. Matthew A. Lazzara Madison Area Technical College
1.04	Sharing and reusing meteorological data	Ionut Iosifescu Enescu, WSL
1.05	FengYun Meteorological Satellite Data Resources and Service	Zhe XU, National Satellite Meteorological Center, CMA
1.06	Open data distributed on Amazon's cloud service	Roope Tervo, Finnish Meteorological Institute
1.07	Access and harmonization of in-situ data records for the Copernicus Climate Change Service	Fabio Madonna et al., Consiglio Nazionale delle Ricerche, Istituto di Metodologie per l'Analisi Ambientale, Italy
1.08	Experiments with recent sources of GNSSRO profiles for NWP: What we learned at ECCO	Josep M. Aparicio, Environment and Climate Change Canada
1.09	Observations of the Global Terrestrial Water Resources	Dr. Stephan Dietrich, International Centre for Water Resources and Global Change (ICWRGC), Federal Institute of Hydrology (BfG), Koblenz, Germany
1.10	Requirements and approaches for data collection and exchange of atmospheric composition data in WMO	Dr. Jörg Klausen, MeteoSwiss, WMO Expert Team on Atmospheric Composition Data Management
1.11	Climate Data Management in India Meteorological Department; Advances and Future Perspectives	Sudeep Kumar, India Meteorological Department, Ministry of Earth Sciences
1.12	Meteorological and Floating Ice Observations from Ships in the Southwestern Atlantic Ocean and Western Antarctica: Development of Products and Services for Safety at Sea	Alvaro Scardilli, Naval Hydrographic Service in Argentina

**Theme 2: Business models and data policy issues (17, Nov, 15:15 – 16:00)**

No.	Title	Author
2.01	The WWRP/WCRP S2S Database	Frédéric Vitart, ECMWF
2.02	Commercial microwave link signal level data from the cellular backhaul network: A private datasource for rainfall information, still to be fully unlocked	Christian Chwala, University of Augsburg
2.03	Data Exchange for the Purposes of Earth System Forecasting and Monitoring	Dr Latifou Issaou, National Meteorology (Togo)
2.04	COSPARIN PROJECT Spatial Contribution to Flood Risk Analysis	GUILLAUME LAHACHE, Predict Services
2.05	Historical data exchange – progress and challenges	Peter Thorne, University of Maynooth; GCOS Secretariat
2.06	Public-Private Engagement in enhancing observation – opportunities and challenges	Eizi Toyoda (SHIMPO Akihiko), JMA
2.07	Ocean FAIR Data Services	Toste Tanhua, Helmholtz Centre for Ocean Research Kiel
2.08	WMO-IATA Collaborative AMDAR Programme – WICAP A new paradigm for public-private cooperation on upper-air observations	Curtis H. Marshall, US National Weather Service
2.09	The problems and countermeasures of meteorological data capitalisation in current information economy	Dingzhen ZHU, Public Meteorological Service Center, CMA
2.10	Data policy issues for in-situ observation-based climate	Kate Willett,

	monitoring and services	Met Office
2.11	The Ocean Race Science - 'Racing with Purpose'	Anne-Cécile Turner, The Ocean Race
2.12	Developing a framework to transform and uplift data exchange and management capabilities	Belinda Campbell, Bureau of Meteorology
2.13	Delft-FEWS: Enabling ensemble, probabilistic and impact-based forecasting	Albrecht Weerts, Deltares Netherlands
2.14	WIS 2.0: The next step in data sharing infrastructure for all of WMO	Jeremy Tandy, Met Office

**Poster Session Theme 3 & Theme 4**

Time: Nov.18 15:15 – 16:00

**Theme 3: Filling the gaps in global data coverage (18, Nov, 15:15 – 16:00)**

No.	Title	Author
3.01	Weather Impact Big Data: Opportunities and challenges	Chun-kit Ho, Hongkong Observatory
3.02	High Quality Global Data Management Framework for Climate (HQ-GDMFC) Goal, Components, Structure and Future Projects	Christina Lief, NOAA
3.03	Strengthening Hydromet and Early Warning Services (EWS) in the Caribbean	Curtis Barrett, World Bank
3.04	USAF data archive to understand the most serious European storms of the past 50 years	Anthony Kettle, Maynooth University
3.05	Ameliorating of globally collected climate data to global reference data sets since more than 30 years, the story of the Global Precipitation Climatology Centre (GPCC)	Dr. Markus Ziese et al., DWD, Global Precipitation Climatology Centre
3.06	The Canadian NWP endeavor: Building upon openly shared observation data	Normand Gagnon, Environment and Climate Change Canada
3.07	Benefits to Public Weather Forecasting from Commercial Nanosatellite Observations	Dallas Masters, Ph.D., Earth Observations/GNSS; Spire Global, Inc.; USA
3.08	Closing data gaps in polar regions through collaboration with scientists	Dr. Øystein Godøy, NMI, Norway
3.09	Supporting International Weather Radar Data Exchange Through Data Standards and Guidance	Mark Curtis, BoM
3.10	How Drones Can Fill Meteorological Data gaps and Minimize Financial Co Curtis Barrett sts	Tamer Ali Nada, Egyptian Meteorological Authority
3.11	HYDROWEB-NG: An innovative webSIG for the hydrology community	Dr Flavien GOUILLON, CNES
3.12	The International Climate Assessment & Dataset (ICA&D)	Gé Verver, Royal Netherlands Meteorological Institute (KNMI)
3.13	Quality Assessment on Global Exchange Data from China	Na LIU, National Meteorological Information Center, CMA
3.14	AniBOS: Collecting and Freely Exchanging Oceanographic Observations from the Globe's Most Inaccessible Seas	Bill Woodward, U.S. Animal Telemetry Network (ATN)/AniBOS Community; NOAA
3.15	Increasing Availability of Hydrometeorological Data- A critical issue in establishing End-to-End Early Warning Systems	Curtis Barrett, USAID/BHA
3.16	Monitoring groundwater storage change from space with the Global Gravity-based Groundwater Product (G3P)	Andreas Güntner, GFZ German Research Centre for Geosciences, Potsdam, Germany
3.17	Consistent monitoring of global water cycle and resources variability across scales: Where do we stand?	Prof. Wouter Dorigo, GCOS, CLIMERS-GEO-TU Wien, Austria
3.18	The WMO Arctic Hydrological Cycle Observing System	Jeffrey Karn, Environment and Climate Change Canada
3.19	Opening Access to Marine Meteorological Data Collected	Elena Tel, Spanish Institute of Oceanography (IEO)

at R/V R. Margalef.

## Theme 4: Data exchange for Earth System Monitoring and Prediction (18, Nov, 15:15 – 16:00)

No.	Title	Author
4.01	The Ocean InfoHub Project	Lucy Scott et al., Ocean InfoHub at UNESCO/IOC Project Office for IODE
4.02	Strengthening a Capability to Work with Growing Data Amount Is One Of Key Requirements for Improving Hydrometeorological Products and Services	Dr Mykola Kulbida; Dr Viacheslav Manukalo, Permanent Representative of Ukraine with WMO; Hydrological Advisor of PR of Ukraine with WMO
4.03	Automatic Rain Gauge (ARG) Data Acquisition Network Design Based on LoRaWAN Technology	Tri Istiana et al., Meteorological, Climatological, and Geophysical Agency, BMKG
4.04	Mapping and Sharing Global Water Data	A. Luijendijk, Deltares, Netherlands
4.05	On the creation of the multi-threat warning system	Evgenii Viazilov, RIHMI-WDC, Roshydromet
4.06	WCRP Coupled Model Intercomparison Project (CMIP)	Michel Rixen, WMO Secretariat; WCRP CMIP Panel and the WGCM
4.07	Metrological traceability to improve data comparability	Andrea Merlone et al., Istituto Nazionale di Ricerca Metrologica, Applied Thermodynamics program, Torino
4.08	Data exchange between global and regional centres through the SWFP-West Africa	Sadibou BA, Head of Meteorology operations Department; Chair RSMT (SWFP-West Africa), FP RSMC Dakar
4.09	The case for improved geohazards data exchange in support of multi-hazard early warning systems	Dr Andrew Tupper, Natural Hazards Consulting, Australia
4.10	La Plata Basin: WHOS platform and GEOGloWS streamflow global service	Jim Nelson, Brigham Young University
4.11	Russian segment of the WMO Hydrological Observation System (Prototype)	Artem Shevchenko, RIHMI-WDC, Roshydromet
4.12	The Global Cryosphere Watch data portal	Mathias Bavay, Global Cryosphere Watch, WSL Institute for Snow and Avalanche Research SLF, Davos, Switzerland
4.13	Connecting communities and infrastructures to unlock ocean knowledge for global users. Lessons from the first 10 years	Nathalie Tonné, Project Officer, EMODnet Secretariat
4.14	Sharing Knowledge of National Groundwater Monitoring Programmes	Claudia Ruz Vargas, International Groundwater Resources Assessment Centre (IGRAC), Netherlands
4.15	Increasing Data Exchange of Marine Meteorological and Oceanographic Data through the Open Access to GTS framework	Kevin O'Brien, University of Washington/CICOES, NOAA/PMEL, GOOS Observations Coordination Group
4.16	Tropospheric Ozone Assessment Report (TOAR) Data Infrastructure	Sabine Schröder, Forschungszentrum Jülich GmbH
4.17	A Big Earth Data Platform For Three Poles	Dr Xiaoduo PAN, Institute of Tibetan Plateau, Chinese Academy of Sciences
4.18	Data Needs and Realizable Exchange Strategies on Global Scales for High-Resolution Operational Land-Surface Forecasts	Konstantine P. Georgakakos, Sc.D., HRC, USA
4.19	GLOBAL Exchange of Meteorological and Environmental data	Nare Saraswathi, IMD
4.20	The GAW World Data Centres for Aerosol and Reactive Gases: on the Way to Real-Time and FAIR Data Handling by Network Involvement	Markus Fiebig, Norwegian Institute for Air Research (NILU)
4.21	Challenges of Hydrometeorological Data in Drought Depiction in a Shared River Basin, West Africa	Juddy Okpara, Nigerian Meteorological Agency