

WMO-IOC Regional Marine Instrument Centre for Asia-Pacific  
RMIC-RA-II (AP)

**PROVISIONAL AGENDA**

***Sixth Marine Instrumentation Workshop for Asia-Pacific Region***  
***“Ensure high quality procedure we take, deliver the ocean data we need”***  
**13-17 December 2021**

**Dial in**

<https://wmo-int.zoom.us/j/83688579366?pwd=SjNzWGlmVVQ1L0dMS0UzclhxbHM2QT09>

**Day 1: 13 December 2021**

TIME(UTC+0)	SUBJECT	LEAD
<b>Opening Ceremony and Tenth Anniversary of RMICs</b> <b>Chair: Yong Yao</b> <b>Rapporteurs: Long Jiang, Fan Jiang</b>		
08:00-08:05	Opening Remarks	Yong Yao Director General NCOSM
08:05-08:15	Keynote from Ministry of Natural Resources	Zhanhai Zhang Chief Engineer MNR
08:15-08:35	Keynote from IOC IOC and UN Ocean Decade	Vladimir Ryabinin Executive Secretary, IOC
08:35-08:55	Keynote from WMO WMO Reform, Strategy and Ocean Activities	Anthony Rea Director of Infrastructure WMO
08:55-09:00	Group Photo	
09:00-09:20	Ocean Standards: A National Perspective	Haiyan Liu MNR
09:20-09:40	GOOS 2030 Strategy, Implementation and OceanOPS	Emma Heslop, IOC /Mathieu Belbeoch, OceanOPS
09:40-10:00	China's Intensifying Participation in GOOS towards Expanding Ocean Observations for Sustainable Development Needs	Feng Zhou SIO

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**Day 2: 14 December 2021**

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TIME(UTC+0)	SUBJECT	LEAD
<b>Regional Measurement-related Centres: From Concept to Practice</b>		
<b>Chair: Lingling Yuan</b>		
<b>Rapporteurs: Krunoslav Premec, Fangfang Chen</b>		
08:00-08:15	INFCOM/SC-MINT and regional measurement-related centres	Krunoslav Premec WMO
08:15-08:30	WMO Regional Association Reform, Priorities and Related Activities in RA II	Ben Churchill WMO
08:30-08:45	Report from Regional Marine Instrument Centre (RMIC)-RA II	Lingling Yuan NCOSM
08:45-08:55	Metrology Service of (RIC) – Beijing	Xu Zhao CMA
08:55-09:05	Key activities of Regional Instrument Centre (RIC) – Tsukuba	SHIGEOKA Hiroumi JMA
09:05-09:15	Key activities of Regional Radiation Centre (RRC) – Tokyo	SASAKI Shun JMA
09:15-09:25	Key activities of Regional WIGOS Centre (RWC) – Beijing	Xuejiao Lin CMA
09:25-09:35	Key activities of Regional WIGOS Centre (RWC) – Tokyo	MINEMATSU Hiroaki JMA
09:35-09:45	Experience with WMO RIC system and Potential for Improvement	Drago Groselj SC-MINT/ET- QTC
09:45-10:00	Q&As	
10:00-11:00	Round Table Meeting on Coordination of RMICs, RWCs, RICs (By invitation)	RMICs/RWCs/RICs

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**Day 3: 15 December 2021**

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TIME(UTC+0)	SUBJECT	LEAD
<b>Ocean Best Practices — Instrument Calibration</b> <b>Chair: Jianqing Yu</b> <b>Rapporteurs : Xiaoyan Yu, Minghua Mu</b>		
08:00-08:15	From New International System of Units to Environmental Observations: BIPM Activities and Interactions with WMO	Andrea Merlone INRIM
08:15-08:30	Quantum Kelvin and its Application in Ocean	Xiaojuan Feng NIM
08:30-08:45	Calibration Facilities from RMIC/AP	Jianqing Yu NCOSM
08:45-09:00	Calibration of Thermometers for Marine Applications	Carmen Garcia Izquierdo CEM
09:00-09:15	CTD Calibration Facility of NCOSM	Xiaoyan Yu NCOSM
09:15-09:30	In-Situ ADCP Calibration	Shixu Guo China Jiliang University
09:30-09:45	Calibration of Sensors for Moored Buoys	R.Venkatesan NIOT
09:45-10:00	Metrological Test Technology of Marine Instruments in Ecology Monitoring	Chaoying Shi NCOSM

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**Day 4: 16 December 2021**

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<b>TIME(UTC+0)</b>	<b>SUBJECT</b>	<b>LEAD</b>
<b>Quality Control and Quality Assurance (QC&amp;QA) of Networks</b> <b>Chair: Qiu Jiang</b> <b>Rapporteurs : Fangfang Chen, Fan Jiang</b>		
08:00-08:15	Argo and BGC-Argo Real Time Quality Control	Thierry Carval IFREMER
08:15-08:30	Quality Control & Quality Assurance of Ocean Gliders	Thierry Carval IFREMER
08:30-08:45	The Control Strategy and Low Power Consumption of Deep FuXing	Jia-yi Xu Tianjin University
08:45-09:00	Quality Assurance and Quality Control of HRSST Drifters	Marc le Menn SHOM
09:00-09:15	Advances in In-Situ Quality Assurance and Quality Control	Mark Bushnell NOAA (Record)
09:15-09:30	CMOC/China & its Data Processing and Sharing Service	Fangfang Wan NMDIS
09:30-09:45	System Design of Hybrid Driven Hadal Glider Serving in Full Ocean Depth	Peng Wang Tianjin University
09:45-10:00	Marine phytoplankton carbon calculation and its carbon sink	Jun Sun Tianjin Univ. Science&Tech

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**Day 5: 17 December 2021**

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<b>TIME(UTC+0)</b>	<b>SUBJECT</b>	<b>LEAD</b>
<b>Ocean Best Practices — Interdisciplinary Contributions to OBP</b>		
<b>Chair: Hairong Tang</b>		
<b>Rapporteurs : Hua Chen, Wen’na Zhang</b>		
08:00-08:15	The Ocean Best Practices System and the Endorsement of Best Practices	Johannes Karstensen GOOS OBS co-chair
08:15-08:30	Introduction of ISO TC-8/ SC-13	Xuwen Feng SIO
08:30-08:45	The IEEE Perspective on the Value of Standards for Ocean Science and Technology	Christoph Waldmann University of Bremen
08:45-09:00	Development and Technology of International Standards for Marine Survey in Seabed Area: A Case Study of ISO/23040	Yanli Lei Institute of Oceanology CAS
09:00-09:15	Microplastic Research in the South China Sea and Importance of Protocol Standardization	Chengjun Sun FIO (Record)
09:15-09:30	Estimation Method of Maricultural Seaweed and Bivalve Carbon Sink – Carbon Stock Variation Method	Jihong Zhang YSFRI
09:30-09:45	Technical Code of Practice for Investigation and Assessment of Carbon Stock in the Blue Carbon Ecosystems—Seagrass Bed	Peng Zhao Hainan University
09:45-10:15	Wrap up and Closing	WMO/IOC/NCOSM

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**Appendix**

**Acronyms**

ADCP	Acoustic Doppler Current Profiler
BGC	BioGeoChemical/BioGeoChemistry
BIPM	International Bureau of Weights and Measures
CTD	Conductivity, Temperature, and Depth
CEM	Spanish National Institute of Metrology
CMA	China Meteorological Administration
CAS	Chinese Academy of Sciences, China
FIO	First Institute of Oceanography, China
HRSST	Global High Resolution Sea Surface Temperature
IEEE	Institute of Electrical and Electronic Engineers
IFREMER	Institut Français de Recherche pour l'Exploitation de la Mer, France
INRIM	Istituto Nazionale di Ricerca Metrologica, Italy
IOC	Intergovernmental Oceanographic Commission of UNESCO, France
IUCN	International Union for Conservation of Nature, Switzerland
MOC	Meteorological Observation Center of CMA, China
MNR	Ministry of Natural Resources, China
NCOSM	National Center of Ocean Standards and Metrology, China
NIM	National Institute of Metrology, China
NIOT	National Institute of Ocean Technology, India
NOAA	National Oceanic and Atmospheric Administration, USA
NMDIS	National Marine Data and Information Service, China
OES	Oceanic Engineering Society, IEEE
RIC	Regional Instrument Centre
RMIC	Regional Marine Instrument Centre
RRC	Regional Radiation Centre
RWC	Regional WIGOS Centre
QA	Quality Assurance
QC	Quality Control
SI	International Standards of Units
SIO	Second Institute of Oceanography, China
TJU	Tianjin University, China
TUST	Tianjin University of Science and Technology
WIGOS	WMO Integrated Global Observing System
WMO	World Meteorological Organization, Switzerland
YSFRI	Yellow Sea Fisheries Research Institute, China