

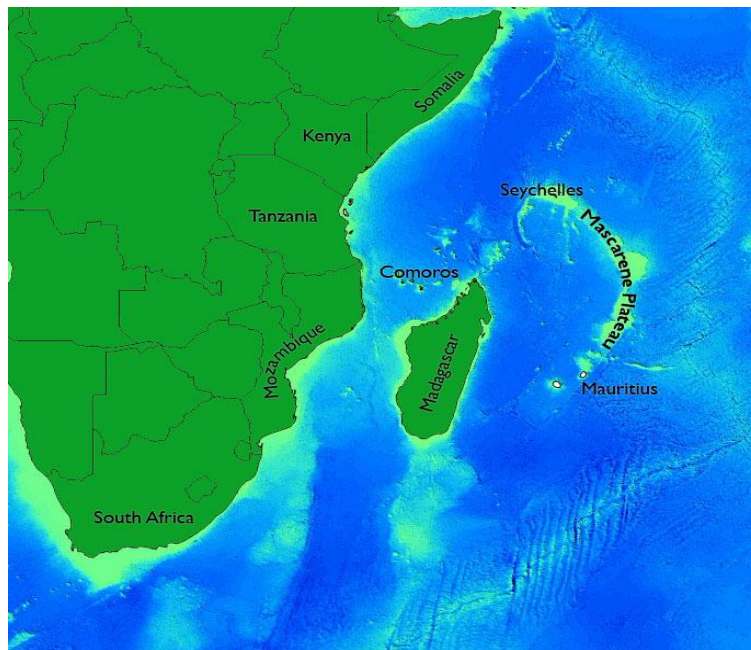
Joint WMO-IOC Technical Commission for
Oceanography and Marine Meteorology (JCOMM)

WORKSHOP GOALS AND PROGRAMME

**Second In-Region Capacity Building Workshop of the
WMO/IOC Data Buoy Cooperation Panel (DBCP) and Partners**

Implementation and Operation of Western Indian Ocean
and Greater Agulhas Current Observing System:
Building Links and Predictive Capacity for East African Participation

Mauritius, 2-6 May 2011
Venue: La Plantation Hotel
Balaclava, Mauritius
Eucalyptus Room



Hosted By the Mauritius Oceanography Institute (MOI)
Quatre Bornes
Mauritius

Dedicated to Robert A. Luke,
*Tireless Contributor to Global Ocean
Observations and Service to Society*

**Joint WMO-IOC Technical Commission for
Oceanography and Marine Meteorology (JCOMM)**

**GOALS OF THIS SECOND WESTERN
INDIAN OCEAN CAPACITY BUILDING WORKSHOP**

- Continue to Build Capacity Within Regional Met/Ocean/Climate Institutes to Apply New Indian Ocean Observing System (IndOOS) Data, such as from the *Research Moored Array for African–Asian–Australian Monsoon Analysis and Prediction* (RAMA) and other Regional Programmes such as ASCLME, for Enhanced Predictive Capability for the Region,
- Provide Training in Deployments and Management of In-situ Ocean Observations,
- Coordinate synergies with African Monitoring of the Environment for Sustainable Development (AMESD) for In-situ Ocean Observations for the Western Indian Ocean,
- Continue to Build In-Region Modelling Development Teams (MDT) and Observation Development Teams (ODT), including for the Implementation of Buoy Programmes, Additionally begin to coordinate Social-Economic Applications Development Team(ADT),
- Develop Linkages between Offshore-Nearshore Long-Term Observations for Greater Involvement by and Benefits to Stakeholders such as for Natural Resource Management (e.g., Fisheries, Tourism), Disaster Risk Characterization and Reduction such as Floods and Droughts and Cyclones, biodiversity conservation, and others,
- Facilitate collaboration between existing and planned studies of the region and to contribute to capacity building in East African countries which border the Greater Agulhas System (SCOR WG 136 Terms Of Reference),
- Identify key components of the region for further study and/or sustained observations (SCOR WG 136 Terms Of Reference).

**Joint WMO-IOC Technical Commission for
Oceanography and Marine Meteorology (JCOMM)**

Day 1: Monday 2 May 2011

Opening Day Remarks, Regional Ocean Science and Technology Symposium

TIME	SUBJECT	LEAD
8:30-9:00	Registration: Coffee	MOI
9:00-9:30 Plenary Room	Welcome Greeting and Opening Remarks TBD (American Embassy, Mauritius) Nick D'Adamo (IOC-Perth Regional Programme Office, IOGOOS) Al Wallace (Chair, DBCP) Boram Lee (IOC, Paris)	Sidney Thurston (DBCP Capacity Building Task Team)
9:30-10:00	Host Keynote Address: Regional Perspective: <i>MOI's Activities and Incoming Operational Services Using Earth Observations for Marine Applications</i>	Rezah Badal (Officer in Charge MOI)
10:00-10:15	Special Address: NOAA's Engagement in the Indian Ocean Region	Dr. Larry Robinson, Assistant Secretary for Conservation & Management
10:15-10:30	Building RAMA of the Indian Ocean Observing System (IndOOS), through PANGEA Resource Sharing Partnerships, Data Access	Sidney Thurston (NOAA/OCO)
10:30-11:00	Morning Tea Break and Group Photograph	All Participants
11:00-1:00 Plenary Room	Symposium: The State of Western Indian Ocean Environmental Science and Technology	Nick D'Adamo Chair
11:00-11:30	1. Research: The Agulhas System and its Role in Ocean Circulation and Climate	Lisa Beal (RSMAS), Wil de Ruijter (Netherlands NIOZ)
11:30-12:00	2. Modeling: An Overview of Ocean and Coupled Models	Tomoki Tozuka (University of Tokyo), Arne Biastoch (IFM – GEOMAR), Pierrick Penven (IRD)
12:00-12:20	3. Observations: Overview of Regional Marine Observing Systems; including Indian Ocean Observing System, RAMA, XBT, ARGO, Drifters	M. Ravichandran (India INCOIS)
12:20-12:40	4. Social & Economic Relevance of Regional Ocean S&T: GEF/UNDP Agulhas Somali Current Large Marine Ecosystem Program ASCLME	David Vousden (ASCLME)
12:40-2:10	Lunch Break	
2:10-3:30	Symposium (continued)	Nick D'Adamo
2:10-2:30	5. Ocean Forecasting: From Ocean Observation to Applications: Update on IOGOOS Pilot Project – Modelling for Ocean Forecasting and Process Studies	Nick D'Adamo (IOC)
2:30-2:50	6. Strategic Approach: Benefits of Integrating Offshore and Nearshore Long-Term Ocean Observations For Sustainable National Fisheries	Rebecca Shuford (NOAA NMFS)
2:50-3:10	7. Capacity Building: WMO Integrated Global Observing System WIGOS: Highlights of WIGOS, Connection to DBCP and How This Workshop Contributes	Etienne Charpentier (WMO- teleconference)
3:10-3:30	8. Next Generation: Developing Global Citizens and Connecting the Next Generation of International Scientists	Mark Brettenny, Teresa Kennedy (GLOBE)
3:30-4:00	Afternoon Tea Break	
3:30- 5:20	Discussion: Nearshore-Offshore Ocean Observing and Community Level Applications (Applications Development Team (ADT))	David Vousden, Chair
3:30-3:50	Socio-Econ Relevance: Managing The Western Indian Ocean's Fisheries Resources for Sustainable Use and Benefits	Rondolph Payet (SWIOFP. TBC)

**Joint WMO-IOC Technical Commission for
Oceanography and Marine Meteorology (JCOMM)**

3:50-4:10	Socio-Econ Relevance: Benefits of Coastal (Nearshore) and Ocean (Offshore) Ocean Observing and Monitoring	Several (e.g. NMFS, EAF-Nansen; ACEP)
4:10-4:30	ASCLME Observing and Monitoring Efforts: - Offshore, - Nearshore Building the nearshore-offshore connection)	Tommy Bornman; Regional Cruise Coordinators
4:30-5:00	ASCLME Community Livelihoods Needs	Tim Andrew; Country Focal Points and/or Resource/ Fisheries/ Environment Managers (ASCLME)
5:00-5:20	Signing Ceremony for the ASCLME-NOAA Memorandum Of Agreement	David Vousden (ASCLME), Larry Robinson (NOAA)
5:20-5:30	Daily Wrap-up & Tomorrow's Plans	Sidney Thurston (DBCP)

AGENDA

Day 2: Tuesday 3 May 2011

Remote & In-Situ Ocean Observation Resources Currently Available For The Region

TIME	SUBJECT	LEAD
9:00-9:10 Room A	Daily Planning	Sidney Thurston (DBCP)
9:10-9:30	Overview of the African Monitoring of the Environment for Sustainable Development Program AMESD	Francois Carnus (AMESD)
9:30-10:15	AMESD Activities, Products & Services In the South West Indian Ocean	Rezah Badal (AMESD)
10:15-10:30	AMESD Q&A	David Meldrum (UK SAMS)
10:30-11:00	Morning Tea Break	
11:00-11:30	EumetCast & AMESD Data and Tools	Eric Martial (MOI)
11:30-12:00	First Step Towards Operational Forecasting on the EEZ of Mauritius Using ROMS Model	H. Runghen (MOI)
12:00-12:20	Oceanographic Atlas of the South West Indian Ocean Using Model Reanalysis	Arshad Rawat (MOI)
12:20-12:40	AMESD Pilot Project in Mozambique: The Use Of Potential Fishing Zone Maps for Fisheries Management	Emidio Andre (Mozambique, INIP)
12:40-1:00	Potential Synergies Between AMESD & In-Situ Regional Ocean Observations, e.g., in-situ cal/val	David Meldrum (UK SAMS)
1:00-2:30	Lunch Break	
2:30 – 2:50	Data Requirements for the Development of Coastal and Marine Atlas	Muhamudally Beebeejaun (Mauritius Met Service)
2:50-3:10	The Agulhas Return Current Ocean Climate Station: Using Drifting and Moored Buoy Data from the Agulhas System	Meghan Cronin (NOAA PMEL)
3:10-3:30	Recent Developments of China's Indian Ocean Research Project	Dake Chen (SOA SIO)
4:00 – 4:20	Regional Institute Operational Data Stream Requirements for Meteorological, Ocean and Climate Models	Ali Mafimbo (Kenya KMD)

**Joint WMO-IOC Technical Commission for
Oceanography and Marine Meteorology (JCOMM)**

4:20 – 4:40	Predictions & Monitoring For the Indian Ocean Basin Using the NOAA NCEP Climate Forecast System (CFS)	Wassila Thiaw (NOAA CPC)
4:40 – 5:00	The Variability of the African Climate System (VACS) Panel of CLIVAR	Bob Molinari (CLIVAR)
5:00-5:10	Daily Wrap-up & Tomorrow's Plans	Sidney Thurston (DBCP)

AGENDA

Day 3: Wednesday 4 May 2011

Regional Stakeholder Requirements,

Begin Observation Development Team/Modelling Development Team Breakout Sessions

TIME	SUBJECT	LEAD
9:00-9:10	Daily Planning	Sidney Thurston (DBCP)
9:10-11:00	Science and Resource Planning Meeting: Science	Lisa Beal (SCOR)
11:00-11:30	Morning Tea Break	
11:30-1:00	Science and Resource Planning Meeting: Resources	David Vousden (ASCLME)
1:00-2:30	Lunch and Move to Observation Development Team (ODT) and Modelling Development Team (MDT) Breakout Rooms	
2:30-5:30 Room C	SCOR Working Group Meeting	Arne Biastoch (IFM – GEOMAR), Lisa Beal (RSMAS)
2:30-5:30 Room A	MDT Capacity Building: Operational Data Analysis	Juliet Hermes (SAEON) Wassila Thiaw (NOAA) Gary Brassington (BoM)
2:30-5:30 Room B	ODT Capacity Building: Regional Data Networks and Accessibility	Mike Roberts (SA/DEA), Johan Stander (SAWS)
3:30-4:00	Afternoon Tea Break	
5:30-5:40 Room A	Joint Daily Wrap-up & Tomorrow's Plans	Sidney Thurston (DBCP)
6:00-8:00 Location TBA	Social Evening and Deploy "Adopt-A-Drifter" www.adp.noaa.gov	GLOBE and NOAA

**Joint WMO-IOC Technical Commission for
Oceanography and Marine Meteorology (JCOMM)**

AGENDA

Day 4: Thursday 5 May 2011

Observation Development Team/Modelling Development Team Breakout Sessions

TIME	SUBJECT	LEAD
8:45-9:00 Room A	Daily Planning	Sidney Thurston (DBCP)
9:00-1:00 Room A	MDT Capacity Building: Ocean Modeling	Arne Biastoch (IFM – GEOMAR), Pierrick Penven (IRD)
9:00-1:00 Room B	ODT Capacity Building: Remote Sensing	Graham Quartly (NOCS)
10:30-11:00	Morning Tea Break	
11:00-1:00	ODT and MDT Breakout Sessions Continue	
1:00-2:30	Lunch	
2:30-5:30 Room A	MDT Capacity Building: Climate and Ocean Modeling	Wassila Thiaw (NOAA CPC) , Juliet Hermes (SAEON), Gary Brassington (BoM)
2:30-5:30 Room B	ODT Capacity Building: ODT Capacity Building: Observing network implementation and data Assembly: RAMA, XBT, Drifters, Voluntary Observing Ship (VOS) Project	Bill Burnett (NOAA/NDBC), Regional Port Meteorological Officers
5:30-5:40 Room A	Joint Daily Wrap-up & Tomorrow's Plans	Sidney Thurston (DBCP)

AGENDA

Day 5: Friday 6 May 2011

Building Capacity - Regional Resourcing & Coordination

TIME	SUBJECT	LEAD
8:45-9:00 Room A	Daily Planning	Sidney Thurston (DBCP)
9:00-1:00 Room A	MDT Capacity Building: Ocean and Weather Models	SAWS,JAMSTEC,NOAA With Others
9:00-1:00 Room B	ADT Capacity Building: Integration, access to, and ecosystem/ community application of [ASCLME] ocean observing and monitoring data, information, analysis	David Vousden (ASCLME)
10:30-11:00	Morning Tea Break	
11:00-1:00	ODT and MDT Breakout Sessions Continue	
1:00-2:30	Lunch	
2:30-3:30 Room A	Joint Symposium Panel: Interactions Between In-Situ And Satellite Observations & Modelling For Economic Applications	Augustus Vogel (SCOR)
3:30-4:30 Room A	Joint Symposium Panel-Future Plans : Coordinating Plans For The Resourcing And Development Of Regional And National Initiatives And Their Use For Policy And Decision Making	Sidney Thurston (DBCP)
4:30-5:30 Room A	Joint Workshop Wrap-Up- Logistics Debrief, Lessons Learned And Recommendations For Future Regional Workshop	Sidney Thurston (DBCP)

**Joint WMO-IOC Technical Commission for
Oceanography and Marine Meteorology (JCOMM)**

AGENDA

Day 6: Saturday 7 May 2011

SCOR-136 Working Group

TIME	SUBJECT	LEAD
9:00-11:00 Room A	SCOR Wrap Up Meeting	Lisa Beal and SCOR Members

Models Development Team (MDT):

- Wassila Thiaw (NOAA CPC)
- Juliet Hermes (SAEON)
- Arne Biastoch (IFM-GEOMAR)
- Pierrick Penven (IRD)
- Tomoki Tozuka (U Tokyo)
- Wataru Sasaki (JAMSTEC)
- Representatives (SAWS)
- et al

Observations Development Team (ODT):

- Graham Quartly (NOCS)
- M. Ravichandran (MoES)
- Mike Roberts (SA/DEA)
- Francois Carnus (AMESD)
- Rezah Badai (MOI)
- Johan Stander (SAWS)
- Bill Burnett (NOAA)
- Jeff Book (NRL)
- Tommy Bornman (ASCLME)
- et al

Models Development Team Themes:

- Climate Forecasting System
- Operational Data Analysis
- Tools for Analysis
- Ocean and Atmospheric Modeling

Observation Development Team Themes:

- Remote Sensing
- Data Assembly, Assimilation, and Analysis
- Regional Observations
- ASCLME Observation Data
- Extreme Events

Participating Organizations

- WMO/IOC Data Buoy Cooperation Panel (DBCP)
- Mauritius Oceanography Institute (MOI, Host Institute)
- Mauritius Meteorological Services
- Agulhas-Somali Current Large Marine Ecosystem (ASCLME)
- African Monitoring of the Environment for Sustainable Environment (AMESD)
- China
 - State Oceanic Administration: First (TBC) & Second Institute of Oceanography
- CLIVAR - The Variability of the African Climate System (VACS) Panel
- France
 - Institute of Research & Development (IRD)
- Germany
 - Leibniz Institute of Marine Sciences at Kiel University (IFM-GEOMAR)

Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM)

- Global Learning and Observations to Benefit the Environment (GLOBE-Africa)
- India
 - Ministry of Earth Sciences (MoES)
- Japan
 - Japan Marine-Earth Science and Technology Center (JAMSTEC)
 - Frontier Research Center for Global Change (FRCGC)
 - University of Tokyo
- Kenya
 - Kenya Meteorological Department (KMD)
- Mozambique National Institute for Fish Inspection (INIP, TBC)
- Netherlands
 - Royal Institute for Sea Research (NIOZ)
- South Africa
 - South Africa Weather Service (SAWS)
 - Department of Environmental Affairs
 - University of Capetown
 - South African Environmental Observation Network (SAEON)
- SCOR (Scientific Committee for Oceanic Research)/IAPSO (International Association for the Physical Sciences of the Ocean/WCRP (World Climate Research Program) Working Group 136, On the Climatic Importance of the Greater Agulhas System)
- South West Indian Ocean Fisheries Project (SWIOFP, TBC)
- United Kingdom
 - Scottish Association of Marine Sciences (SAMS)
 - National Oceanography Centre, Southampton (NOCS)
- USA
 - National Oceanic and Atmospheric Administration (NOAA):
 - Climate Program Office - Office of Climate Observation (OCO)
 - National Weather Service (NWS)
 - National Center for Environmental Prediction/Climate Prediction Center (NCEP/CPC)
 - National Data Buoy Center (NDBC)
 - National Marine Fisheries Service (NMFS)
 - Office of Oceanic and Atmospheric Research-
 - Pacific Marine Environmental Laboratory (OAR/PMEL)

Office of Naval Research

University of Miami/Rosenstiel School of Marine and Atmospheric Sciences (RSMAS).