## **Integrated CLIVAR Panel Schedules**



Day 1 Monday - 14<sup>th</sup> July

Atlantic		Pacific		Indian		Southern		GSOP		OMDP	
	Room: Mississippi		Room: Kilimanjaro 1		Room: Kilimanjaro 1		Room: Amazon		Room: Everest 1		Room: Everest 1
09:00	Welcome Theme 1: Atlantic Observing System (Brandt)	08:30	Welcome  Joint PP/IOP	08:30	Welcome  Joint PP/IOP	08:30	Welcome, Introduction, and charge to meetings. (co-chairs) SOP and CLIVAR/WCRP research foci and grand challenges, CLiC and	08:30	Welcome, new member (Kamachi) introductions, and overview of agenda (adjust if necessary) (Lee)	08:30	Welcome, new member (Kamachi) introductions, and overview of agenda (adjust if necessary) (Lee)
09:30 10:00	AMOC Observing System OSNAP (Kanzow) RAPID-WATCH (Baringer)	09:00 09:30 10:00	ENSO-IOD relations in CMIP 5 (Vialard) Climate model assessment (Cai) Indo-Pacific decadal climate	09:00 09:30 10:00	ENSO-IOD relations in CMIP 5 (Vialard) Climate model assessment (Cai) Indo-Pacific decadal climate	09:00	SCAR, SOP terms of reference (co- chairs) SOOS update (Naveira-Garabato)	08:45	Overview of activities since the last GSOP meeting (Haines)  Joint GSOP-OMDP	08:45	Overview of activities since the last GSOP meeting (Haines)  Joint GSOP-OMDP
			variability (Han)		variability (Han)	09:30 10:00	CLIVAR Achievements report (SOP discussion) Achievements: content discussion (Talley) Achievements: modelling (England)	09:00	Review of ongoing effort of ocean reanalysis intercomparison ORA-IP (Balmaseda, Palmer, Haines)  Report of recent meetings on this subject (ECMWF meeting, GODAE symposium)  Summary/highlights of Intercomparison  Updates on related publications  New ESF COST program on ocean reanalysis comparisons (Haines with contribution from Azcarate)  Identify the way forward; discuss coordination for publications; future meetings  Near real-time ocean /climate monitoring using ensemble operational ocean analysis products (Xue)	09:00	Review of ongoing effort of ocean reanalysis intercomparison ORA-IP (Balmaseda, Palmer, Haines)  Report of recent meetings on this subject (ECMWF meeting, GODAE symposium)  Summary/highlights of Intercomparison  Updates on related publications  New ESF COST program on ocean reanalysis comparisons (Haines with contribution from Azcarate)  Identify the way forward; discuss coordination for publications; future meetings  Near real-time ocean /climate monitoring using ensemble operational ocean analysis products (Xue)
Coffee b	reak/discussion										
	Room: Mississippi		Room: Kilimanjaro 1		Room: Kilimanjaro 1		Room: Amazon		Room: Everest 1		Room: Everest 1
11:00 11:30	SAMOC (Baringer) Discussion	11:00 11:30 12:00	Update on ITF Task Team activities (Sprintall) YMC (Yoneyama) Discussion on joint activities	11:00 11:30 12:00	Update on ITF Task Team activities (Sprintall) YMC (Yoneyama) Discussion on joint activities	11:00 11:30 12:00	Achievements: observing systems (Chereskin) Achievements: process experiments (Naveira-Garabato) Achievements: identifying gaps (England)	11:00	Coordination of forward model – ocean reanalysis intercomaprison  • A preliminary Intercomparison for AMOC and MLD (Danabasoglu)  • How to move forward with forward model-ocean reanalysis Intercomparison? (All)	11:00	Coordination of forward model – ocean reanalysis intercomaprison  • A preliminary Intercomparison for AMOC and MLD (Danabasoglu)  • How to move forward with forward model-ocean reanalysis Intercomparison? (All)
Lunch								12:00	Discussion/recap of topics in the morning	12:00	Discussion/recap of topics in the morning
Lunch											

## **Integrated CLIVAR Panel Schedules**



	Room: Mississippi		Room: Kilimanjaro 1		Room: Kilimanjaro 2		Room: Amazon		Room: Kilimanjaro 1		Room: Everest
13:00 13:30 14:00 14:30 15:00	Subtropical/tropical Observing System PIRATA and western tropical Atlantic (Brandt) SPURS and air-sea fluxes (Farrar) South African initiatives and capacity building (Rouault) Discussion  End of day	13:30 14:00 14.30	Joint PP/GSOP  CLIVAR ENSO Research Focus (Guilyardi) The Universality of Combination Modes (Timmermann) ENSO and GW: coordinated experiment for CMIP6 on ENSO teleconnections (Collins)	13:30 14:10 14:40	RAMA array progress and status (McPhaden, Phillips, Murty, Liu, Tozuka) Argo array, Drifting buoys and Tide gauges (Ravichandran) XBT (Feng)	13.30 14.00 14.30	Short talks by new members, with emphasis on their prospective for SOP research during the next 5 years:  Katsumata Shi  Overview of planning materials: national plans (England, Talley)  End of day	13:30 14:00 14:30	Joint PP/GSOP  CLIVAR ENSO Research Focus (Guilyardi) The Universality of Combination Modes (Timmermann) ENSO and GW: coordinated experiment for CMIP6 on ENSO teleconnections (Collins)ons (Collins)	13:30	Report back from WMAC Preparing for Process Study- Model Development break out session  OMPD Terms of Reference Discussion of future activities basin/GSOP panel joint activities contributions to Research Foci
Coffee I	Break										
Gorreo			Room: Kilimanjaro 1		Room: Kilimanjaro 2				Room: Kilimanjaro 1		Room: TBC
		15:30 16:00 16:30 17:00	TPOS (Kessler, Ando, Lee, Balmaseda, Kamachi) Current status of the Pacific and ENSO forecasts; Rapid international response strategies to climate events (McPhaden, Timmermann) - GODAE OceanView (intercomparison and observing system assessment and design) (Haines, Balmaseda, Lee) The role of the Pacific in the hiatus: open discussion (Cai, Collins, Balmaseda)	15.30 16.00 16.30 17.00 17:30	Short talks by new members, with emphasis on their prospective for IO research during the next 5 years: Beal Liu Philips Tozuka  End of day			15:30 16:00 16:30 17:00	TPOS (Kessler, Ando, Lee, Balmaseda, Kamachi) Current status of the Pacific and ENSO forecasts; Rapid international response strategies to climate events (McPhaden, Timmermann) - GODAE OceanView (intercomparison and observing system assessment and design) (Haines, Balmaseda, Lee) The role of the Pacific in the hiatus: open discussion (Cai, Collins, Balmaseda)	15:30	OMDP recommendations for CMIP output (fields, protocol for grid interpolation) CORE discussions (any updates since Kiel, BGC, future experiments) End of day
		17:30	End of day					17:00	End of day		

## **Integrated CLIVAR Panel Schedules**



Day 2 Tuesday - 15<sup>th</sup> July

	Room: Kilimanjaro 2		Room: Europe 1		Room: Europe 2		Room: Killimanjaro 1		Room: Everest 1		Room: Kilimanjaro 2
09:00 09:30 10:00	Joint AIP/OMDP  Eastern Tropical Atlantic, PREFACE (Brandt)  Theme 2: Atlantic Modeling System (Chang)  • Tropical Problems  Tropical Atlantic Bias and ETOS (Zuidema (invited))  Tropical Cyclone Effect on Ocean Circulations (Griffies)	08:30 09:00 09:20 09:50 10:10	Panel Strategy (Cai, Ganachaud) Review of the Tropical Pacific observing system (Kessler) East Pacific plans (Morales/ Schneider) NPOCE and WBCs (Lin) SPICE (Ganachaud)	08:30 09:00 09:20 09:30 10:00	Updates on regional observing systems and process studies: ASCA, ARC and LOCO (Beal),; overview of other regional projects (MOMSEI, ASEA/BOB, ASCLME, IMOS, EIOURI: Ravichandran) Update on the status of SIBER & IIOE-2 (Hood) Concept and implementation of IOP-SIBER Summer School (Vialard) 09:30hr - Discussions about IOP inputs to IRF-2, including issues of IndOOS implementation Discussions about IOP inputs to IRF-2, including issues of IndOOS implementation Links to other Panels (e.g. Monsoon panel, climate dynamics panel, GSOP, OMDP), including coordinated modeling experiments or analysis of existing experiments for the Indian Ocean (strengthen the modeling implication of the IOP)	08:30	CliC overview (Krinner)  Towards a science and implementation strategy  Frontier research: fundamental science, new opportunities, factors limiting progress. SCAR workshop information and science questions. (England; SOP discussion)	08:30 09:00 09:30	CLIVAR Planetary Heat Budget and Ocean Heat Content Task Team and ESA funded International Research Institute working group on the subject (Mathieu and von Schuckmann)  Update on surface fluxes activities (including issues related to TPOS) (Gulev)  GSOP coordination of international effort on QC of global subsurface ocean data (IQuOD project) (Domingues, Palmer)  Updates on the interaction with OOPC/GCOS defining requirements for Ocean Essential Climate Variables (ECVs) (Lee, Domingues, others?)	9:00 09:30 10:00	Joint AIP/OMDP  Eastern Tropical Atlantic, PREFACE (Brandt)  Theme 2: Atlantic Modeling System (Chang)  • Tropical Problems Tropical Atlantic Bias and ETOS (Zuidema (invited)) Tropical Cyclone Effect on Ocean Circulations (Griffies)
Coffee Br	reak/Discussion				the modeling implication of the for j						
11:00 11:30	Room: Kilimanjaro 2  • Mid-and High-Latitude Problems US-AMOC (Danabasoglu) Collaboration and Interaction with WGOMD (Treguier)	11:00 11:20 12:00	Room: Europe 1  POSEIDON/GAIA/TIPEX (Yeh) SPCZ (Lengaigne)  Discussion/ Pan CLIVAR preparation: Pacific observing system requirements (Ganachaud and Kessler to lead)	11:00	Room: Europe 2  CLIVAR Research Foci: introduction and discussion on how IOP can contribute during the next 5 years (Vialard, Ravichandran)	11:00 11:30 12:00	Room: Killimanjaro 1  SOOS under-ice workshop (Rintoul slides, presented by Naveira-Garabato) Future implementation activities: observations and process experiments Organization (including CLiC, SCAR) and outreach	11:00 11:30	Room: Everest 1  Observing system updates: satellites (recent and upcoming missions for various ocean parameters) (Lee, Mathieu)  Observing system updates: in-situ (tropical mooring arrays, Argo, OceanSites, etc.) (Ando, Roemmich, Send)	11:00 11:30	Mid-and High-Latitude     Problems     US-AMOC (Danabasoglu)     Collaboration and Interaction     with WGOMD (Treguier)
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13:00 13:30 14:00 14:30	CLIMODE related model-data comparison (Kwon) Modeling Storm Tracks (Robinson) High-resolution modelling of Frontal Air-Sea Interactions (Chang)  Theme 3: Panel Strategy (Brandt and Chang) AIP relevant CLIVAR research foci 1. Dynamics and prediction of regional sea level variability 2. Gulf Stream and North Atlantic Current variability and impact on storms (particularly winter extratropical storms) 3. Climate impact of an ice-free Arctic 4. Atlantic tropical storms in a future climate 5. ENSO impact on Atlantic	13:30 13:50 14:10 14:30 14:50 15:00	Room: Europe 1  How the SP waters get into the NPAC and gets into the ITF? (Sprintall, Kessler) ENSO in GW: the system would be more sensitive to temperature changes (Guilyardi, Collins) ENSO teleconnections and how it might change with GW (Yeh) WBCs changes with global warming and climate (Cai, Ganachaud) Panel strategy: recommendations to SSG / Pan CLIVAR meeting  End of meeting	13:30 14:45 15:00	Review IOP terms of reference and plans for the next 5 years from the report to SSG  Action items and wrap-up discussion  End of meeting	13:30 14:00 14:30	Room: Killimanjaro 1  Joint SOP-OMDP meeting  CORE and the ongoing comparison projects (Danabasoglu) Ice shelf - basal melting (water hosing) (Timmermann) Wind perturbation protocol / experiments (England)	13:30 13:45 14:45 15:00	Room: Everest 1  Ocean Climate Indicators Task Team (Lee)  Discussion of future GSOP activities/priorities  • Future priorities: e.g., TPOS2020, deep ocean observations, ocean climate indicators & near real-time monitoring, coupled synthesis.  • GSOP participations in future meetings.  Action items and membership  End of meeting	13:30 14:00 14:30	Room: Killimanjaro 1  Joint SOP-OMDP meeting  CORE and the ongoing comparison projects (Danabasoglu) Ice shelf - basal melting (water hosing) (Timmermann) Wind perturbation protocol / experiments (England)





	Room: Kilimanjaro 2			Room: Killimanjaro 1		Room: Killimanjaro 1
15:30	Membership and Expertise Gaps 1. Paleoclimate 2. Tropical storms 3. Others?			Towards science and implementation strategy, including OMDP		Towards science and implementation strategy, including OMDP
16:00	International Collaborations & Collaborations with Other Panels 1. Capacity building/development 2. Impact of tropical cyclones on ocean – 2nd phase of hurricane working group 3. Oxygen minimum zone research initiative		15:30 16:00 16:15	Southern Ocean metrics (Russell, new panel member) Model metrics/observational comparisons (AABW, water masses) (Talley) Model validations (CDrake) (Chereskin) Future implementation activities:	15:30 16:00 16:15	Southern Ocean metrics (Russell, new panel member) Model metrics/observational comparisons (AABW, water masses) (Talley) Model validations (CDrake) (Chereskin) Future implementation
16:30 17:00	4. Others ? Summary and Concluding Remarks End of meeting			modelling and intercomparisons  Future implementation activities: coordinated analysis/synthesis (Russell and Marsland)  SOP wrapup		activities: modelling and intercomparisons  Future implementation activities: coordinated analysis/synthesis (Russell and Marsland)
			17:00 17:30	Strategic and implementation plan wrap-up: tasks and deadlines; Revisit terms of reference, plan for pan-CLIVAR meeting (co-chairs)  End of meeting		End of meeting