

GODAE OceanView
International Coordination Workshop (ICW4)
of the Coastal and Shelf Seas Task Team (COSS-TT)
ARCOM Pilot Workshop
31 August – 4 September 2015

Venue and host: MARETEC (Marine Environment and Technology Center); <http://www.maretec.org/>

AGENDA

Monday, 31 August (Day 1)

	<i>Topics and presentations</i>	<i>Presenter</i>
12:00 – 13:00	Registration (Payment, badges, poster hang-up, etc.)	Local hosts
	ICW4 Introductory Session	Session chairs: Masafumi Kamachi and Pierre-Yves Le Traon
13:00 – 13:20	Welcome Announcements, practical information, venue, local hosts, posters, meals, social event, etc.	Local hosts + Co-chairs
13:20 – 13:40	Objectives of this workshop	Pierre De Mey and Villy Kourafalou
	Session 1: Progress of ongoing coastal ocean forecasting science and projects in the world coastal oceans	Session chair: Yi Chao
13:40 – 14:00	Coupling of watersheds, estuaries and regional seas through numerical modelling for Western Iberia	Campuzano, Francisco (Maretec - Instituto Superior Tecnico, Portugal)
14:00 – 14:20	Spatial evolution of tidal spectra: From shelf seas to estuaries	Emil Stanev (HZG, Germany)
14:20 – 14:40	Multi-Scale Three-Dimensional Variational Data Assimilation for Coastal Oceans	Li, Zhijin (JPL, USA)
14:40 – 15:00	High-resolution unstructured-grid coastal modeling and forecasting in Southern Adriatic Northern Ionian seas	Federico, Ivan (CMCC, Italy)
15:00 – 15:20	The IEO coastal observatory: understanding variability of coastal circulation and ecosystem response off North and North West Iberia	Ruiz Villareal, Manuel (Instituto Espanol de Oceanografia, Spain)

15:20 – 15:50	Coffee break	
	<i>Session 1 (continued)</i>	<i>Session chair: Guimei Liu</i>
15:50 – 16:10	A Wave, Surge and Inundation Modeling Testbed for Puerto Rico and the US Virgin Islands	Van der Westhuysen, Andre (IMSG at NOAA/NWS/NCEP, USA)
16:10 – 16:30	A Coupled Ocean Circulation, Wave, Atmosphere and Marine Ecosystem Prediction System for the Northwest Atlantic Ocean	He, Ruoying (North Carolina State University, USA)
16:30 – 16:50	The US West Coast Ocean Forecast System	Kurapov, Alexander (Oregon State University, USA)
16:50 – 17:10	Exchange processes between the Baia de Todos os Santos and the Eastern Brazilian Shelf: the impact of downscaling from a 1/12 Ocean Forecasting System to a bay/coastal regional system	Cirano, Mauro (REMO, Brazil)
17:10 – 17:30	The effect of salinity data assimilation on ocean circulation estimation in the Brazilian Continental Shelf	Toste, Raquel (UFRJ, Brazil)
17:30	<i>End of day 1</i>	

	<i>Topics and presentations</i>	<i>Presenter</i>
	<i>ARCOM PILOT WORKSHOP: Using altimetry products in regional/coastal ocean models for assimilation and validation</i>	
	<i>ARCOM Workshop Introductory Session</i>	<i>Session chair: John Wilkin</i>
09:00 – 09:20	Satellite Altimetry [tutorial]	Claire Dufau (CLS, France)
09:20 – 09:40	Recovering more and better Data from Satellite Altimetry in the Coastal Zone: A Community Effort	Paolo Cipollini (NOC, UK) - representing Coastal Altimetry Workshop)
09:40 – 10:00	From Conventional Altimetry Missions to the CryoSat Mission: Perspectives for Regional Operational Oceanography	Jérôme Bouffard (ESA, Italy)
10:00 – 10:20	Prospects for the Use of Satellite Altimetry in Coastal Regions with Sentinel missions	Remko Scharroo (EUMETSAT, Germany)
10:20 – 10:30	Use of Altimetry in Ocean models	Claire Dufau (CLS, France)
10:30 – 11:00	Coffee break	
11:00 – 11:15	1-slide presentation of posters	Poster presenters
	<i>Altimetry in COSS models: examples of use</i>	<i>Session chair: Claire Dufau</i>
11:15 – 11:35	Impact of SARAL/ALTIKA data 3D-Var assimilation in the sub-mesoscale permitting operational model of the Central Mediterranean sea	Antonio Olita (CNR-IAMC, Italy)
11:35 – 11:55	Impact of the assimilation of high-frequency data in a regional model	Mounir Benkiran (CLS/MERCATOR, France)
11:55 – 12:15	Validation of oceanic numerical model solutions using different satellite altimetry products	Isabel Iglesias (Univ. Porto, Portugal)
12:15 – 13:30	Lunch break	
	<i>Session 1 (continued)</i>	<i>Session chair: Jianping Gan</i>
13:30 – 13:50	SOCIB Western Mediterranean ocean forecasting system: recent progress and data assimilation experiments	Mourre, Baptiste (SOCIB, Spain)
13:50 – 14:10	4DVAR Data Assimilation Within The Santos Basin Ocean Observing System: Implementation and Results	Fragoso, Mauricio (PROOCEANO, Brazil)
14:10 – 14:30	California Coastal Ocean and its Interactions with San Francisco Bay/Estuary: From Tides to Seasonal-to-Interannual Times Scales	Chao, Yi (RSS and University of California Los Angeles, USA)
14:30 – 14:50	Development of a coastal monitoring and forecasting system in MR	Kamachi, Masafumi (MRI-JMA, Japan)
14:50 – 15:10	Development and Application of the China Sea Operational Oceanography Forecasting System	Liu, Guimei (NMEFC, China)
15:10 – 15:30	Storm Surge Prediction in Vietnam	Nguyen Ba, Thuy (National Hydro-Meteorological Service of Vietnam, NHMS,

		Vietnam)
15:30 – 16:00	Coffee break	
	Session 1 (continued)	Session chair: Mauro Cirano
16:00 – 16:20	Response of a thermohaline front and small scale eddies to wind variations in the Korea Strait	Choi, Byoung-Ju (Kunsan National University, South Korea)
16:20 – 16:40	On open boundary condition for tidally and sub-tidally forced circulation in a limited-area coastal model	Gan, Jianping (Hong Kong University of Science and Technology, China)
16:40 – 17:00	Impact of internal Tides on Boundary Conditions for Regional Models	Richman, James (Naval Research Laboratory, USA)
17:00 – 17:20	Impact of wave-current interaction in coastal ocean forecasting systems	Staneva, Joanna (HZG, Institute for Coastal Research, Germany)
17:20 – 17:40	The HBM-PDAF assimilation system for forecasts of physics and biogeochemistry in the North and Baltic Seas	Nerger, Lars (Alfred Wegener Institute, Germany)
17:40	End of day 2	

	<i>Topics and presentations</i>	<i>Presenter</i>
	<i>ARCOM PILOT WORKSHOP: Using altimetry products in regional/coastal ocean models for assimilation and validation (continued)</i>	
	<i>Altimetry in COSS models: examples of use (continued)</i>	<i>Session chair: Claire Dufau</i>
09:00 – 09:20	An analysis of the impact of the California Current observing system on 4D-Var circulation estimates spanning three decades	Moore, Andrew (U. California Santa Cruz, USA)
	<i>Science discussion about COSS model needs: (1) Reference Surface</i>	<i>Session chair: Jérôme Bouffard</i>
09:20 – 09:40	First things first: Mean sea surface and dynamic topography	John Wilkin (Rutgers University, USA)
09:40 – 09:50	Zoom on reference surfaces (MSS, MDT)	Claire Dufau (CLS, France)
09:50 – 10:10	Discussion: How to calculate an MDT? How to match the model SLA to the altimetric SLA?	Leads: TBD
10:10 – 10:40	Coffee break	
	<i>Science discussion about COSS model needs: (2) Physical contents</i>	<i>Session chair: Andrew Moore</i>
10:40 – 11:00	High-frequency wrt. Low-Frequency SSH dynamics over COSS	TBD
11:00 – 11:10	Zoom on High-Frequency Corrections in altimetry	Claire Dufau (CLS, France)
11:10 – 11:30	Discussion: Which HF corrections are needed? How to compute the model background computation depending on model configuration & altimetry dataset?	Leads: TBD
	<i>Next steps for ARCOM</i>	<i>Session chair: Paolo Cipollini</i>
11:30 – 12:30	Discussion: <ul style="list-style-type: none"> • Feedback from this Pilot Workshop • Workshop report • Should we make this a regular event? • Format? Contents? Frequency? • Linkages with other groups : CAW, TAPAS, SWOTST, COSS-TT, others • Practical organization / Next meeting 	Leads: ARCOM Workshop organizers
	<i>End of ARCOM Pilot Workshop</i>	
12:30 – 14:00	Lunch break	
14:00- 15:30	ICW4 and ARCOM poster session (poster presenters to stand by)	<i>Session chairs: Mike Herzfeld, Andre van der Westhuysen and Claire Dufau</i>

15:30 –16:30	COSS Task Team business meeting <ul style="list-style-type: none">• TT membership• Next meeting• Other business	Meeting chairs: Pierre De Mey and Villy Kourafalou Presence of TT members requested. Open to all.
16:30	<i>End of day3</i>	
16:30	Departure for tour (TBD) and workshop dinner	

	<i>Topics and presentations</i>	<i>Presenter</i>
	<i>Session 1 (continued)</i>	<i>Session chair: Alexander Kurapov</i>
09:00 – 09:20	(Sub)mesoscale dynamics at interannual time scales in the Bay of Biscay and the English Channel from a high resolution experiment	Charria, Guillaume (Ifremer, France)
09:20 – 09:40	Adaptive mesh ensemble data assimilation applied to an unstructured ocean model	Fang, Fangxin (Imperial College London, UK)
	<i>Session 2: Applications in coastal oceans, and science in support of those applications</i>	<i>Session chairs: Andrew Moore and Guillaume Charria</i>
09:40 – 10:00	From deep-sea to the beach: a holistic approach to oil and HNS spill risk management	Fernandes , Rodrigo (MARETEC – IST, Portugal)
10:00 – 10:20	Wave energy resource assessment with SARAL/AltiKa satellite altimetry	Goddijn-Murphy, Lonneke (ERI, Scotland)
10:20 – 10:50	Coffee break	
10:50 – 11:10	Transport models applied to coastal oceanography	Herzfeld, Mike (CSIRO, Australia)
11:10 – 11:30	Operational forecasting for the German Coast	Janssen, Frank (BSH, Germany)
11:30 – 11:50	Operational oceanographic platform in Thermaikos Gulf (Greece): forecasting and emergency alert system for public use	Krestinitis, Yannis (Aristotle University of Thessaloniki, Greece)
11:50 – 12:10	Observation-based evaluation of surface wave effects on currents and trajectory forecasts	Wettre, Cecile (Norwegian Meteorological Institute, Norway)
12:10 – 12:30	Anthropogenic discharges in coastal areas: Monitoring and Modeling	de Pablo, Hilda (MARETEC, Portugal)
12:30 – 14:00	Lunch break	
	<i>Session 3: Data and metrics to assess the added value of downscaling (session co-organized by the COSS-TT, the IV-TT, and the EU COST-EOS WG4 project)</i>	<i>Session chairs: Fabrice Hernandez and Pierre De Mey</i>
14:00 – 14:10	Introduction to Session 3	Pierre De Mey and Villy Kourafalou
14:10 – 14:30	Overview of recent progresses of validation and inter comparison GOV activity of global forecasting systems	Fabrice Hernandez (IV-TT, Mercator Ocean, France)
14:30 – 14:50	GODAE OceanView Class 4 intercomparison	Ryan, Andy (Met Office, UK)
14:50 – 15:10	New assessment of MyOcean forecasting systems in European Seas using process oriented metrics	Maksymczuk, Jan (Met Office, UK)
15:10 – 15:30	Evaluation of Ocean Syntheses COST-EOS action : a European network to inform the quality of	Drévilion, Marie (Mercator Ocean, France)

	Ocean Syntheses for applications, downscaling and model nesting	
15:30 – 15:50	IBIRYS: a Regional High Resolution Reanalysis (physical and biogeochemical) over the European North East Shelf	Levier, Bruno (Mercator Ocean, France)
15:50 – 16:00	Presentation of discussion topics and options	Session organizers: De Mey, Kourafalou, Hernandez, Drévilleon
16:00 – 16:30	Coffee break	
16:30 – 17:30	<p>Discussion: Practical steps to be taken jointly by COSS-TT, IV-TT and COST-EOS WG4 for the assessment of the added value of downscaling:</p> <ul style="list-style-type: none"> • Practical objectives of exercise • Homework for next meeting • Cross-TT Working Group • COST-EOS WG4 discussion. 	Leads: De Mey, Kourafalou, Hernandez, Drévilleon
17:30	<i>End of day4</i>	

Friday, 4 September (Day 5)

	<i>Topics and presentations</i>	<i>Presenter</i>
	Session 3 (continued)	Session chair: Byoung-Ju Choi
09:00 – 09:20	Observing System Simulation Experiments in the North Atlantic Ocean hurricane region: system evaluation and regional applications	Villy Kourafalou (U. Miami, USA)
09:20 – 09:40	UK Environmental Prediction – coupled coastal modelling at high resolution	Bricheno, Lucy (NOCL, UK)
09:40 – 10:00	Upgrade of the operational Global Real Time Ocean Forecast System: Global and Regional Metrics	Mehra, Avichal (NOAA, USA)
10:00 – 10:30	Discussion on decisions taken on Thursday and on specific Science Topics to be targeted	Leads: De Mey, Kourafalou, Hernandez, Drévuillon
10:30 – 11:00	Coffee break	
	Session 4: Linkages with other groups	Session chair: Emil Stanev
11:00 – 11:20	GODAE OceanView overview	Kirsten Wilmer-Becker (UK Met Office)
11:20 – 11:40	Overview of the MEAP-TT activities	Chris Edwards (UC Santa Cruz)
11:40 – 12:00	Maritime Innovative Territories International Network (MiTiN)	TBD
12:00 – 12:30	Final discussion	Session chair: Kirsten Wilmer-Becker
12:30	Workshop closes	

POSTERS (PC=COSS-TT, PA=ARCOM)

- **Should preferably stay posted all week**
- **Dedicated poster session on Wed, 14:00-15:30 – Poster presenters to stand by**

	<i>Poster session</i>	<i>Session chairs: Mike Herzfeld, Andre van der Westhuysen and Claire Dufau</i>
PC.1	An operational model for the Portuguese Exclusive Economic Zone: downscaling from the large scale to the regional level	Pinto, Ligia (MARETEC, Portugal)
PC.2	High-resolution operational forecasting of extreme sea levels along the Portuguese coast	Tavares da Costa, Ricardo (LNEC, Portugal)
PC.3	From regional to local scale modelling on the south-eastern Brazilian shelf: Case study of	Stefanelo Franz , Guilherme Augusto (MARETEC, Portugal)

	Paranagua estuarine system	
PC.4	Eddy system representation on an assimilative numerical model for Santos Basin region (Brazil)	Toste, Raquel (UFRJ, Brazil)
PC.5	Regional skill assessment of the SOCIB forecasting system at various timescales in the Western Mediterranean Sea	Juza, Melanie (SOCIB, Spain)
PC.6	On the steady evolution of the IBI-MFC Narval Validation Web Tool: Novelty and Roadmap from MyOcean to Copernicus	Lorente Jimenez, Pablo (Puertos del Estado, Spain)
PC.7	North Sea-Baltic Sea Ocean State Predictions by assimilating of temperature and salinity data	Staneva, Joanna (HZG, Institute for Coastal Research, Germany)
PC.8	A coupled, 4-dimensional variational data assimilation system for regional ocean state estimation of physical and biological variables	Edwards, Christopher (University of California Santa Cruz, USA)
PC.9	Numerical prediction of abrupt appearance of strong current in the Southeastern Japan Sea	Hirose, Naoki (Kyushu University, Japan)
PC.10	Development of the Operational Oceanographic System of Korea	Heo, Ki-Young (Korea Institute of Ocean Science and Technology, South Korea)
PC.11	Analysis of Coastal Upwelling at the north of Gulf of Guinea from operational model and observations.	Kemgang Ghomsi, Franck Eitel (Fisheries and Oceanographic Research Station – IRAD, Cameroon)
PC.12	3D anisotropic-adaptive-mesh barotropic and baroclinic modelling of idealized wind-driven ocean circulation	You, Xiaobao (Imperial College London, UK)
PC.13	Forecasting drifter trajectories and particle dispersion in the Caribbean using a Regional Operational Forecasting system	Solano, Miguel (UTD)
PA.1	Satellite scatterometry and radar altimetry supporting storm surge modelling in the Adriatic Sea	Vignudelli, Stefano (CNR, Italy)
PA.2	A Global Coastal Altimetry Dataset for Coastal Dynamics and Sea Level Research	Cipollini, Paolo (National Oceanography Centre, UK)
PA.3	Evaluation of waves and currents using data obtained by the Altika/Saral satellite, the Wave Glider autonomous vehicle and numerical modelling in the surroundings of the Nazaré Canyon (Portugal)	Francisco Campuzano (MARETEC-IST, Portugal)
PA.4	Impact studies of wide-swath altimetry measurements on the quality of ocean mesoscale features retrieved by variational data assimilation	Wakamatsu, Tsuyoshi (JAMSTEC, Japan)
PA.5	Mesoscale eddies in the Western Mediterranean Sea: characterization from satellite altimetry and regional simulations	Escudier, Romain (SOCIB, Spain)
PA.6	AVISO poster	TBC

PA.7	CTOH poster	TBC
PA.8	RADS poster	TBC