

Oral Summary – Six Talks

On the validation of the high resolution wave model with altimeters data under hurricanes and storm conditions for the West Indies (Dalphiné)

MFWAM compared to hi-res WW3. Hurricanes and storm conditions have been studied. **Assimilation of altimetry data improves scatter index.**

Wave height variations at scales under 100 km: a dominant effect of currents? (Ardhuin)

Small scale currents have effects on ocean wave height. New version of WW3 released this week. There is a problem with wave dissipation. Wave model is validated using buoys and HF radars. In the future: SKIM proposal to measure wave and currents (Ka-band, 6-km footprint, rotating).

Improved Representation of Submesoscale Flows Using Multiscale Data Assimilation of Satellite Altimetry (Li)

Performance of SPURS 2 data assimilation and forecasting system. With assimilation of multi-altimetry data, the mesoscale eddy trajectories were predicted. Assimilation of altimetry data constrains model biases. **Submesoscale flows are a major contribution to near-surface salinity balance.**

SWIM NRT products with a focus on the nadir beam processing (Tourain)

CFOSAT : mission dedicated to wind and waves measurements. Launch foreseen mid-2018. SWIM NRT products were presented. **For nadir beam processing, an adaptive retracker has been developed** (numerical retracking, adaptive model, Nelder-Mead optimization algorithm). This has been prototyped at CNES and gives promising results. It has also been tested on Jason-3 data and compared to MLE4.

Performance and quality assessment of the Copernicus Marine Service global ocean monitoring and forecasting real-time system (Lellouche)

Ocean Numerical model + observation + data assimilation. New updates of the system (since 2 weeks) after years of R&D. **Correction of precipitation and adaptive tuning of observations errors are important to improve modelling results.**

Duacs sea level products: now 6 missions in the system (Faugere)

6 missions soon in DUACS. Jason-3 is now the reference mission, S3 is arriving soon (waiting for STC products). It is important to use a good Mean Sea Surface. New processing are under study (mapping method such as dynamic interpolation, use of high resolution data, etc.) **A new eddy tracking products will be released soon on Aviso+.**

Poster Summary – 7 Posters

Value added Sentinel-3A sea level products by the Marine Altimetry L2P-L3 Service ([Philipps](#))

Sentinel-3A Impact on Numerical Ocean Prediction ([Jacobs](#))

On the update of the assimilation in the operational wave model MFWAM with Jason-3, Sentinel-3A and Sentinel-1A and 1B satellite missions ([Aouf](#))

Four-dimensional variation ocean reanalysis for the western North Pacific over 30 years (FORA-WNP30) ([Kuragano](#))

Developments and new challenges for altimetric data assimilation into high-resolution ocean circulation models ([Brasseur](#))

Missing flight MH370: re-assembling the plane by back-tracking found parts to 8 March 2014 ([Griffin](#))

Calibration, validation and advanced applications of ocean drift models, forced with ocean satellite data, using marine debris reports from natural disasters ([Maximenko](#))

Round Table Summary (1/2)

1 - Assess the Jason-3 data quality: GDR notably - this *is* the Final Verification Workshop.

Universal concurrence for Jason-3 GDR public release. Jason-3 GDR is of equal quality to Jason-2 GDR. What is the timing for the next evolution of Jason-3 GDR (to GDR-E)? Processing groups would like to be ready.

2 - Jason-2 EoL orbit: discussion between -27 and +35 km orbit.

Concur with recommendation of -27 km. Keep final orbit (graveyard) in mind after EoL orbit for future Jason-3 use of same orbit.

3 - Jason-2 EoL time: trade-off between “soon” vs. waiting for Sentinel-3B.

Consensus recommendation: minimum of 2 years of Jason-2 interleaved. Regardless of orbit, all operational requirements continue to apply. Given: any problem implies immediate graveyard. Continue present operations (exact repeat orbit). Alternative strategy: after S-3B acceptance (~1.5 year J2 interleaved).

4 - Cold sky calibration for Jason-2 as well as Jason-3 (frequency).

Universal concurrence to calibrate both Jason-2 and Jason-3. Frequency is dictated by orbit and solar geometry. Jason-2 reprocessing may consider methods to extrapolate backwards to correct prior AMR data.

Round Table Summary (2/2)

5 - Extend the 60-day requirement to 90 days for GDR latency (Jason-3 & Jason-2) to improve the AMR stability via the cold sky calibration.

Universal concurrence. The criteria must be relaxed in system requirement to accommodate this change. GDR processing need not be tied to a particular time, but processing may be triggered on readiness of all necessary available inputs.

6 - AMR on Jason-CS: there is a small probability that the external calibrator can fail. Do we accept the risk?

Universal concurrence: Accept risk and maintain drift requirement. Very small risk of AMR being unusable for the remainder of the mission. Loss of radiometer degrades but does not end mission for NRT applications (but strong effect on climate observations). **ECMWF model improvements should be investigated** including higher frequency (presently 6-hourly; switch to 3-hour or even 1-hourly). Would benefit present data sets as well.

7 - Full-time open-loop (DIODE/DEM) tracking mode for Jason-2 (already done for J-3).

Evaluate for 1-2 cycles prior to full time operation. Evaluate hydrological, coastal and sea ice application impacts. Would benefit coastal applications.