



ESA Sea level CCI

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1. Overall progress of project

The project is on schedule. The altimeter standards that will be used for the production of the reprocessed SL_cci ECV have been selected during the Algorithm Selection Meeting (Nov. 2015) and the output of this meeting is available on the project website. The altimeter database has been prepared so that all these new standards are now included. This has made possible the very first estimation of the v2.0 sea level. These elements have been presented on Feb. 18th-19th 2016 at the 2nd phase II annual review in Toulouse, where the final evolutions of the technical developments have been evaluated and agreed, as well as the progress of options and the ECV quality assessment performed by the CRG. A round-table discussion has focused on gathering what could be done in the future to improve the quality of the ECV. The minutes of the meeting and the output of this discussion can be downloaded from the project website.

The preliminary steps of the production of the ECV reprocessing are being performed, namely the calculation of the global and regional inter missions biases. The better characterization of the sea level uncertainties is also in progress.

2. Outreach & impact: how the dataset have been promoted?

The SL_cci ECV was promoted through the project website and numerous international conferences where the newsletters of the project have been distributed. The 8th newsletter has been published at the end of 2015 and the 9th one will be distributed at the 2016 EGU and the ESA LPS16.

The scientific cooperation has been enhanced by the Climate Research Group who is comparing the SL_cci ECV with other sea level datasets produced by international teams. A strong cross-CCI collaboration (SL, SST, Sea Ice, Ice Sheets, Glaciers and Ocean Colour ECVs) has been initiated during the ISSI workshop on “Integrative study of the Sea Level budget” (ISSI, Bern, 2-6 Feb. 2015), whose output will soon be published in a Special Issue of Review of Geophysics and in a Springer/ISSI book. An exercise of cross comparison of the marine ECVs has also been initiated within the Climate Modeling User Group (CMUG).

Furthermore, the sea level community (SL_cci and the Ocean Surface Topography Science Team) has made some communication during the COP21 regarding the high importance of satellite altimetry for monitoring the sea level rise.

The paper describing the SL_cci project and the ECV (Ablain and SL_cci team; 2015, doi: 10.5194/os-11-67-2015, 2015) has been viewed and downloaded up to 8 000 times for two years.

3. Additional data applications

As the sea level is an integrated indicator of climate change and variability, the ECV is of interest regarding climate change and in particular the global water cycle and the interactions between ocean, land, cryosphere and atmosphere. So the use of the SL_cci ECV is not restricted to the sea level science community.

4. Technical info

The following peer-reviewed papers from the SL_cci team have been published within the last months:

Fenoglio-Marc, L., R. Scharroo, A. Annunziato, L. Mendoza, M. Becker, and J. Lillibridge (2015), Cyclone Xaver seen by geodetic observations, *Geophys. Res. Lett.*, 42, doi:10.1002/2015GL065989.



Rudenko, S., Dettmering, D., Esselborn, S. Fagiolini, E., Schöne, T. (2016) Impact of Atmospheric and Oceanic De-Aliasing Level-1B (AOD1B) products on precise orbits of altimetry satellites and altimetry results, Geophysical Journal International, 204, 1695-1702.

Cumulated number of users and downloads of the SL_cci ECV and FCDR *since Jan. 2014*

