

## ***Interactive comment on “From pole to pole: 33 years of physical oceanography on board of R/V POLARSTERN” by Amelie Driemel et al.***

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The article “From pole to pole: 33 years of physical oceanography on board of R/V POLARSTERN” describes the work of data collation done by the authors for RV Polarsten voyages in the Poles. It succinctly describes the different CTDs used throughout time, known issues, how these issues reflect on data quality, sensor specifications but also the metadata structure, data quality details and methods used in processing and calibrating the said data. The fact that all the data have links to various documentation, e.g. cruise reports, is of added value to the datasets themselves, as it allows users to more easily discover details or related datasets that might of interest to them. The history of Polar expeditions spans over several centuries, with the Arctic circle having been navigated by Vikings, Inuits and the Greeks, namely Pytheas (300 bc) who is thought to have been the first to reach those waters. In the

C1

Antarctic, the Polynesians are thought to have been the first to cast sight of land, but the first documented expeditions date from the XVI century, with the portuguese explorer Fernão de Magalhães discovering the passage that connects the Pacific to the Atlantic Ocean, now called the Maggellans Strait, in 1522. Scientific expeditions where measurements of the water column were taken occurred much later, and although scientific instrumentation has evolved massively in the last few years, these are still areas which are very much undersampled. This is thorough work that is of extreme importance for polar scientific communities due to the known constraints of carrying out research in these regions. As co-chair of the Southern Ocean Observing System Data Management Sub-Committee (SOOS-DMSC) I would like to reinforce the importance of making these data discoverable through dedicated metadata portals (e.g. <http://gcmd.gsfc.nasa.gov/KeywordSearch/Titles.do?Portal=soos-beta&MetadataType=0>) as they will allow for the polar scientific community to more easily become aware and reuse these datasets in future research.

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C2