

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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Received and published: 11 January 2017

For more than 140 years of oceanographic research in the world held more than 50 thousand expeditions. Only in the World Data Center B "Oceanography" registered 34 thousand expeditions carried out in many countries. Each country has own known RVs, for example, in Russia it is the RV "Vityaz 1", "Vityaz 2", "Persey", "Mikhail Lomonosov", a series of drifting expeditions "North Pole". Some of them are devoted to individual books, for example, expeditions of the RV "Vityaz", stations "North Pole". Based on the results of data collection for 40 years Russian National oceanographic data center published in 2002 the monograph "Russian Marine Expeditionary Investigations of the World Ocean" (NOAA Atlas NESDIS 56). These publications were made, when the Internet was in its infancy. Certainly deserves a publication full story of RV "POLARSTERN" expeditions.

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Discussion paper



In this article are giving a summary of the instruments used, their calibration, research methods, the processing of data in various expeditions of RV "POLARSTERN". Unfortunately, when communicating this information (metadata) does not always accompany the transmitted data sets, and scientists, analyzing them, have some difficulties in the interpretation of the results.

The first thing to note is the novelty of the approach to the publication of data. For the first time in the field of oceanography, it is giving not only the text, and structured descriptions of expeditions and data. Second, all of the data opened for access. The third, metadata and data linked. They has a large number of links, not only on the data sets, but also on other publications, organizations, researchers involved in this cruises. In addition, there are links to descriptions of data sets of separate expeditions in Pangea system.

The following proposals have to do with the implementation of data access. 1. It is desirable to have a download not only of one cruise, but also all the cruises in a packaged file. 2. It would be very helpful if all the profiles were presented in one of the accepted international formats of structured data, for example, Ocean Data View (ODV). Then possible the ODV use, designed by Reiner Schlitzer (AWI). 3. It is equally important to have a spatial distribution of oceanographic stations in the geographic information system, to be able to choose one or several expeditions belonging to the same region.

The accompanying data sets will be used for the replenishment of both global and regional (for individual seas) data sets to obtain estimates of ocean climate change.

It is proposing to support the publication of the article and the accompanying data sets for all the expeditions of the RV "Polarstern".

Interactive comment on Earth Syst. Sci. Data Discuss., doi:10.5194/essd-2016-64, 2016.

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