

Interactive comment on “MARES Project: Hydrographic data of the San Jorge Gulf from R/V Coriolis II cruise in 2014” by Juan Cruz Carbajal et al.

Anonymous Referee #2

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Dear Authors, please here my review of a manuscript entitled "MARES Project: Hydrographic data of the San Jorge Gulf from R/V Coriolis II cruise in 2014". This manuscript presents data from a 7-day hydrographic leg in the Gulf of San Jorge, Argentina, during 2014. The manuscript is organized as if 2 types of "independent" data are presented: 1) a fixed hydrographic station in the center of the Gulf and 2) data from an undulating CTD data across a frontal area. These data are complemented by data from an underway CTD and vessel-mounted ADCP. Mid-way in the reading, we however discover that a third data set corresponding to CTD cast in the southern frontal is also provided. Data from water samples (Niskin bottles), Simrad echosounder (3 frequencies), sediment traps, VPR, plankton nets, etc. are also discussed/mentioned but not presented.

While there is no doubt that the cleaning and processing of these data represent a lot of work in term of methodology, including the cross-calibration of instruments, I am afraid that the nature of the data is of little significance for a journal such as ESSD. Therefore I cannot recommend the publication. Explanations are provided in the following.

GENERAL COMMENTS

1. My main concern is the very little originality, significance usefulness of these data, which are important criteria for ESSD. The data are from a rather short study (a week) in a localized area of the globe. Just think for example of the 14 CTD casts at the fixed station and 9 CTD casts at the Southern front area... these are little numbers that have a very limited usage... Overall, I find that the authors were not successful in promoting their dataset as a useful one for future users around the globe. This manuscript is closer to a mission report or a methodology section of a paper rather than an original piece of work. For example, I would imagine that the submitted paper referred to in the study (Carbajal et al, submitted to The Oceanography Society), would be a natural place to find most of the information provided here.

2. My second concern is the lack of integration of the data. The abstract mentions that these data are from a leg that aimed to study frontal dynamics, but this aspect (e.g., data useful to study fronts) is not promoted in the manuscript. There is also an evident disconnection between the data from the fixed station and those from the undulating CTD that targets the frontal area. This disconnection is not appealing for future users.

3. The lack of integration of the data is also clear in the way the data are presented as if they were just archived as they go out of the instrument (i.e., low hierarchical level). For example, the CTD casts are not binned on a regular vertical grid and the upcasts of the CTD not even removed (even though it is said that they are less reliable than the downcast!, see p.4 L5). The data have also been archived for each instrument separated without any attempt to merge them in higher hierarchical level files (for example in a netCDF file). This is below my expectations for a journal such as ESSD.

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4. I also find the paper not well organized (this point is minor compared the previous ones). The Section 2 aims to introduce the field measurements and equipment. However, all kind of new instruments or data are also introduced in the following Sections 3 to 7. I also think Section 8 is of little use. It is also quite annoying that most of the data discussed are not even provided. For example, the largest section of the manuscript is "3.2 - Water samples.". But these data are not provided... More of these problems are provided as specific comments below.

SPECIFIC COMMENTS

- p.3 L.30: "it was possible to link both signals to get the missing data in a post-processing." How this is done?
- p.3 L.23: "The seabed map and the distribution of biological species in the water column were achieved using a hull-mounted scientific echo-sounder SIMRAD model EK60 working in multiple frequencies (38 kHz, 120 kHz and 200 kHz)." Why mentioning this if the data are not provided??
- p.3 L.28: "An additional cross-frontal transect was occupied across the STF (on Feb. 5 at night and Feb. 8 at late afternoon) to study the biological and chemical characteristics of the water column." This comes out of nowhere and was not introduced in the the section that aimed to present the field measurements.
- p.5 L.21: are the offset values provided smaller than the resolution of the instrument?
- Figures 2 and 3: All kind of data calibration are discussed in the manuscript. Why this choice of only presenting SBE43 and underway CTD? We don't learn much here.

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