

Data Paper

Yukawo Ikeuchi. Hydrographic Data of the 61st Japanese Antarctic Research Expedition from January 2019 to February 2020. *Polar Data Journal*. 2023, 7, p. 1–12. <https://doi.org/10.20575/00000044>.

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1st submission

Editor Start Date: 9/13/2022

Editor Stop Date: 10/16/2022

Reviewer #1 (9/20/2022–9/26/2022)

Reviewer #2 (9/26/2022–10/13/2022)

Editor comments to the Author: Masaki Kanao

Regarding the following comment from Reviewer 2, the authors may choose both the selections of separating into two papers as recommended by the reviewer, otherwise still keep the same contents including both the topics on (1) and (2). In the latter case, two (multiple) DOIs may be permitted into the one article. However, I recognize that the J-DOSS database server does not equip such the DOI giving system.

> This manuscript deals with (1) bathymetric data and (2) tidal data acquired during the Japanese Antarctic Research Expedition. The locations where (1) and (2) were acquired are different, and the nature of the data differ in terms of spatial information and time series. Therefore, for the convenience of readers and secondary users of this data paper, I think it would be better to publish on each of the topics (1) and (2) so that they are given separate DOIs. However, in making this decision, we should take into account the wishes of not only the authors but also the editors.

About the Data citations, it is surely recommended to use the English website as possible as the authors can.

Reviewer #1: Shigeru Aoki

The data contained in this report had been formerly and routinely published as JARE Data Reports until 2017 for JARE56, as far as I know. I am pleased to see the continuation of this effort, given the accumulation of the invaluable data in the past and into the future. I have no objections for the items reported. I believe this report should be published as a series of this data journal.

Having said that, I have a bit of concern in English usage throughout, although I am not a native English speaker. The top of the list is the use of "Nishi-no-ura" throughout. This expression can actually be seen for some previous reports as well. The correct expression, however, is (or was) "Nisi-no-ura" ("si", not "shi"), until some decades ago. If

the JCG officially changed the expression at some stage, this might be no longer the case, but please check (I am personally keen to know the result). The title should be "61 st", not "61 th". There are numerous typos of this sort, and I cannot list all of them. The author is advised to double check the text, and a proof read at some stage is helpful to avoid these technical errors.

1. P1 L1 61 th -> 61 st
2. P1 L25 "Shirase". But using "SHIRARE" at L30, P1. It is better to be consistent, if it is not necessary.
3. P1 L31 "Nishi" is used throughout (even on the figure 2). Please check.
4. P2 L2 "The tide data". I would prefer "The tide gauge data".
5. P2 L29 Insert period after "Co.)"
6. P3 L9 "by Caris". Is this a name of the manufacturer? I think it is better to be more specific. For example, "by the data processor" , "by the Caris data processor", or something similar.
7. P3 L26 "phenomena. (Maine ... Manual)" This phrase seems to be incomplete. Should be something like "phenomena (Marine Research Technical Manual, 20XX)."
8. P3 L31 "Masanao Sumiyoshi" can simply be "Sumiyoshi".
9. P7 L24 "Reduction ration". Should be "Reduction ratio"?
10. P9 L9 "Error: 0" I am not sure what this means and whether this is useful for end users (zero, anyway).

Reviewer #2: Anonymous

General comment:

This manuscript deals with (1) bathymetric data and (2) tidal data acquired during the Japanese Antarctic Research Expedition. The locations where (1) and (2) were acquired are different, and the nature of the data differ in terms of spatial information and time series. Therefore, for the convenience of readers and secondary users of this data paper, I think it would be better to publish on each of the topics (1) and (2) so that they are given separate DOIs. However, in making this decision, we should take into account the wishes of not only the authors but also the editors.

Specific comment:

Even if the current structure of manuscript is used for publication, at least the following points need to be revised.

(1) Bathymetric data

Technical validation L.30-34

The essence of the validation method should be described in detail for each term of the references (Japanese paper). Quantitative description of the error factors would also be necessary. In addition, for this data paper, it is recommended to provide profiles for each survey line (that are closer to the raw data), rather than interpolated and edited bathymetric charts (models) such as Figures 3 and 4.

Data citations L. 7

Since this is an English journal, it is recommended to indicate the English website.

I actually tried to download the XCTD data part according to the instructions, but could not find the data. Please show us the procedure to download the data.

The following is a guess.

It seems to be a problem with the input order of Northernmost top and Southernmost top (L. 17). SIRASE (JNSJ) (L. 22) could not be found in the menu; the correct code for SIRASE seems to be JSNJ.

(2) Tidal data

Methods L.4-5

Odamaki paper describes the details of the method, but it would be better to clarify which part is directly related to this paper.

Data records L.26-27

Is the literature information incomplete? The list of references does not correspond to the list of references.

Data citations L. 30

Since this is an English journal, it is recommended to indicate the English website.

Authors Response (in red):

Response to the editor;

Regarding the following comment from Reviewer 2, the authors may choose both the selections of separating into two papers as recommended by the reviewer, otherwise still keep the same contents including both the topics on (1) and (2). In the latter case, two (multiple) DOIs may be permitted into the one article. However, I recognize that the J-DOSS database server does not equip such the DOI giving system.

No modification. The results of the tidal observation are used to determine the minimum water surface, which is used as a standard for water depth. Since the tidal observation and bathymetric survey cannot be separated, they are reported as one paper. Since the J-DOSS database server does not have a function to assign DOIs, it is not possible to assign DOIs separately to the bathymetric survey and the tidal observation. The J-DOSS database server does not have a function to assign DOIs to bathymetric surveys and tidal observations separately.

Response to reviewer #1;

1. P1 L1 61 th -> 61 st

61 th → 61 st. Spelling mistake.

2. P1 L25 "Shirase". But using "SHIRARE" at L30, P1. It is better to be consistent, if it is not necessary.

Shirase→SHIRASE. In accordance with the JMSDF website.

3. P1 L31 "Nishi" is used throughout (even on the figure 2). Please check.

In 2000, the romanization of nautical charts was changed from the Kunrei-shiki to the Hepburn system. At that time, si was changed to shi.

4. P2 L2 "The tide data". I would prefer "The tide gauge data".

Corrected as noted.

5. P2 L29 Insert period after "Co.)"

Corrected as noted.

6. P3 L9 "by Caris". Is this a name of the manufacturer? I think it is better to be more specific. For example, "by the data processor", "by the Caris data processor", or something similar.

Corrected as noted.

7. P3 L26 "phenomena. (Maine ... Manual)" This phrase seems to be incomplete. Should be something like "phenomena (Marine Research Technical Manual, 20XX)."

Corrected as noted.

8. P3 L31 "Masanao Sumiyoshi" can simply be "Sumiyoshi".

Corrected as noted.

9. P7 L24 "Reduction ration". Should be "Reduction ratio"?

Corrected to Reduction ratio. Spelling mistake.

10. P9 L9 "Error: 0" I am not sure what this means and whether this is useful for end users (zero, anyway).

Deleted "Error: 0". Deleted because the information is not useful for users.

Response to reviewer #2;

General comment:

This manuscript deals with (1) bathymetric data and (2) tidal data acquired during the Japanese Antarctic Research Expedition. The locations where (1) and (2) were acquired are different, and the nature of the data differ in terms of spatial information and time series. Therefore, for the convenience of readers and secondary users of this data paper, I think it would be better to publish on each of the topics (1) and (2) so that they are given separate DOIs. However, in making this decision, we should take into account the wishes of not only the authors but also the editors.

No modification. The results of the tidal observation are used to determine the minimum water surface, which is used as a standard for water depth. Since the tidal observation and bathymetric survey cannot be separated, they are reported as one paper. Since the J-DOSS database server does not have a function to assign DOIs, it is not possible to assign DOIs separately to the bathymetric survey and the tidal observation. The J-DOSS database server does not have a function to assign DOIs to bathymetric surveys and tidal observations separately.

Specific comment:

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Corrected the text as noted. The unmeasured 0 m, each of which is implemented with an overlap ratio of at least 35%, provides full coverage of the area. No interpolation has been performed and the figure will not be replaced.

Data citations L. 7

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I actually tried to download the XCTD data part according to the instructions, but could not find the data. Please show us the procedure to download the data.

The following is a guess.

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Changed the description to operate from the top of the site. Removed description regarding vessel refinement because there were too many vessels and it was difficult to understand. We were able to search the 61st data by date, institution, and area. The data for area did not appear unless you selected it on the map. As you pointed out, the vessel code of Shirase was wrong. The correct code was JSNJ.

(2) Tidal data

Methods L.4-5

Odamaki paper describes the details of the method, but it would be better to clarify which part is directly related to this paper.

in Odamaki et al (1991) , which is described in detail in " 2.Tidal Observation System". Corrected as noted.

Data records L.26-27

Is the literature information incomplete? The list of references does not correspond to the list of references.

P.3

(Marine Survey Technical Manual -Oceanographic and Meteorological Surveys- 4th Edition,2005)

P.10

5, Marine Survey Technical Manual -Oceanographic and Meteorological Surveys- 4th Edition (Japan Marine Surveys Association of Japan, 2005).

Corrected as noted.

Data citations L. 30

Since this is an English journal, it is recommended to indicate the English website.

Corrected URL to indicate the English website.

2nd submission

Editor Start Date: 11/15/2022

Editor Stop Date: 11/21/2022

Reviewer #1 (11/17/2022–11/20/2022)

Reviewer #2 (11/16/2022–11/21/2022)

Editor Comments to the Author: Masaki Kanao

After making minor revision as recommended by Reviewer #2 (replace the word "tide data" to "tide gauge data"), this paper can be acceptable.

Reviewer #1: Shigeru Aoki

The author responded to all of my points. I think it is now suitable to publish with Polar Data Journal.

Reviewer #2: Anonymous

I understand that the tidal and bathymetry data are inseparable and, agree to publish then as one data paper. The author has responded to all the reviewers' comments, including the additions and corrections regarding technical validation of bathymetry. Therefore, the manuscript has been improved. However, the description of 'tide data' remains in the revised text (e.g., P. 2 L. 31) and needs to be revised to 'tide gauge data'.

Corrected according to above comments.