



unesco

Intergovernmental
Oceanographic
Commission



Ocean Best Practices System
Endorsement:
Guidance for the Ocean
Community

Version 2024-03-20

Ocean Best Practices System Endorsement: Guidance for the Ocean Community

Version : 2024-03-20



Except where otherwise noted, this item's license is described Attribution-ShareAlike 3.0 IGO

Suggested citation:

Bushnell, Mark and Pearlman, Jay (eds) (2024) *Ocean Best Practices System Endorsement: Guidance for the Ocean Community, Version 2024-03-20*. Ocean Best Practices System, 8pp.
DOI: <https://doi.org/10.25607/OBP-1983>

Table of Contents

Overview	3
Objectives	3
Introduction	3
Why should organizations endorse practices in the OBPS?	3
What will OBPS provide for endorsed practices?	4
Who can endorse a practice?	4
What is the endorsement process?	4
How long does the OBPS endorsed label remain?	5
References	5
Appendix A - Template for Endorsing Records in the OBPS	7
Appendix B - Example of endorsement recommendation support	9

Endorse - to approve openly, to express support or approval of publicly and definitely, to recommend.

Overview

This document provides guidelines and a template for the endorsement of ocean practices to be recognised by the Ocean Best Practices System (OBPS), an international IOC programme supported by the Global Ocean Observing System (GOOS) and International Oceanographic Data and Information Exchange (IODE).

Recommendations for endorsed practices will be submitted to the OBPS as described in this document. The recommendation will include the processes used for assessment, including participating multi-institutional organizations, and OBPS will validate the conformance to the process.

Objectives

This document describes:

- the rationale and benefits for endorsing practices through the OBPS;
- how an organization may express that it endorses a practice;
- what minimal criteria must be met to instantiate such an endorsement.

Introduction

In 2020, Juliet Hermes [Hermes, 2020] described the need for the Global Ocean Observing System (GOOS) to express: 1) that it endorses practices available in Ocean Best Practice System (OBPS)¹, and 2) the process(es) employed by GOOS to grant these endorsements. Such endorsement processes are a key step in the development of a best practice (Przeslawski, et al, 2023): through them, an organization makes a definitive claim that it believes the practice is “worthy of endorsement”, providing evidence and justification for that claim. Here, we provide guidance on how an organization can provide an endorsement that can be accepted by an international group, the OBPS. We hope that this will encourage more multi-institutional organizations to provide the ocean community with clarity on which practices they recommend in pursuit of greater regional and global alignment.

Why should organizations endorse practices in the OBPS?

Many organizations expend immense resources to create and/or identify the practices they consider best. Communicating these efforts and their outcomes across the global ocean community is a considerable challenge, and searching for definitive collections of endorsed practices is still inefficient. Moreover, thematic regional or even global groups operate on well-defined common objectives that require well-defined procedures to ensure interoperable data and data products are being generated. Users will also benefit from a transparent and unbiased endorsement process to identify best practices suited to their particular needs.

The OBPS - as a component of GOOS and IODE portfolios, facilitating global observations, data and information exchange - provides a process and platform to register and express endorsements of practices by recognized organizations and/or commissioned expert groups.

¹ www.oceanbestpractices.org

These endorsements, and the evidence which supports them, are then passed on through a number of ocean data and information organizations for far-reaching visibility.

What will OBPS provide for endorsed practices?

The endorsed material will be labeled as endorsed and by whom, in a metadata field in the OBPS repository. The record will include an uploaded endorsed version and its endorsement certificate. Endorsed document records will be findable using endorsed as a search parameter in the OBPS repository. Access statistics will be generated for the endorsed material.

Who can endorse a practice?

Any organization or expert group can recommend endorsement of a practice in the OBPS, and they will be identified as the practice endorser. Organizations must follow the processes described in this document for a practice to be labeled as endorsed in the OBPS repository. Any group wishing to develop an endorsement is encouraged to contact the OBPS to discuss their ideas further, at <https://www.oceanbestpractices.org/contact/>. Please refer to Appendix A for the process required to endorse a practice.

What is the endorsement process?

In order to ensure that the endorsement is consistent, reliable and efficient, a number of steps are identified. The process and qualifications below shall be documented as part of the endorsement recommendation package to OBPS.

To qualify as endorsed, at a minimum, a practice is expected to:

1. have completed a rigorous and transparent community review process whereby comments are publicly invited, adjudicated and actioned by the author(s) and where these actions have been independently assessed or are available on request;
2. has been successfully used by multiple institutions;
3. be approved by the leadership of the relevant network, expert team or institution;
4. be shown as fit for the purposes it aims to fulfill;
5. be available and identifiable within the OBPS repository;
6. be updated at relevant timeframes or have a maintenance plan for future updates;
7. include description of estimating uncertainty or heterogeneity of a quantity (if applicable); and,
8. follow recommendations for metadata standards and file formats for archiving in international data and information repositories.

A template link is provided in Appendix A to guide in the preparation of endorsement documentation. An example of endorsement recommendation support is provided in Appendix B.

The endorsement recommendation will be reviewed by a subcommittee of the OBPS Steering Group for conformity to the process identified here. The subcommittee members will state that they do not have a conflict of interest. Following the process review and acceptance, the repository metadata will reflect endorsement as described in Hermes, 2020.

How long does the OBPS endorsed label remain?

One attribute of best practices is the regular review of content to ensure that it is up to date, considers further development of methods and processes, and the consideration of requests for modifications by the user communities are addressed. How frequently a review is required may depend on the material under discussion, but the time period shall be communicated to OBPS. If an endorsing entity fails to provide information about updates within the time period (as defined in a dialogue between OBPS and the endorsing entity), the label “endorsed” may be removed from the material in the OBPS repository.

References

Hermes, J. (ed.) (2020) *GOOS Best Practices Endorsement Process. Version 1*. Paris, France, Global Ocean Observing System, 7pp. DOI: <http://dx.doi.org/10.25607/OBP-926>

Hörstmann, C.; Buttigieg, P.L.; Simpson, P.; Pearlman, J. ; Karstensen, J. and Waite, A.M. (2020) *Towards a Best Practice for Developing Best Practices in Ocean Observation (BP4BP): Supporting Methodological Evolution through Actionable Documentation*. Paris, France, UNESCO, 33pp. (Intergovernmental Oceanographic Commission Manuals and Guides No. 84). (IOC/2020/MG/84). DOI: <http://dx.doi.org/10.25607/OBP-781>

Pearlman, Jay; Bushnell, Mark; Coppola, Laurent; Karstensen, Johannes; Buttigieg, Pier Luigi; Pearlman, Françoise; Simpson, Pauline; Barbier, Michele; Muller-Karger, Frank E., et al (2019) *Evolving and Sustaining Ocean Best Practices and Standards for the Next Decade. Frontiers in Marine Science*, 6:277, 19pp. DOI: <https://doi.org/10.3389/fmars.2019.00277>

Przeslawski, R., Barrett, N., Carroll, A., Foster, S., Gibbons, B., Jordan, A., Monk, J., Langlois, T., Lara-Lopez, A., Pearlman, J., Picard, K., Pini-Fitzsimmons, J., van Ruth, P. and Williams, J. (2023) *Developing an ocean best practice: a case study of marine sampling practices from Australia. Frontiers in Marine Science*, 10:1173075., 6pp. DOI: <https://doi.org/10.3389/fmars.2023.1173075>

Simpson, P., Pearlman, F. and Pearlman J. (eds) (2019) *Evolving and Sustaining Ocean Best Practices Workshop II, 04– 06 December 2018, Intergovernmental Oceanographic Commission, Paris, France: Proceedings*. Oostende, Belgium, UNESCO/IOC/IODE for the AtlantOS/ODIP/OORCN Ocean Best Practices Working Group, 35pp. DOI: <http://dx.doi.org/10.25607/OBP-436>

Appendix A - Template for Endorsing Records in the OBPS

Word Template available from <https://doi.org/10.25607/OBP-1983>

Entities wishing to provide endorsement to the Ocean Best Practices System (OBPS) are asked to provide:

- 1) their qualifications to endorse a practice,
- 2) justification for the endorsement of the practice, and
- 3) the process used to develop the practice
- 4) the review process that was used to prepare the endorsement recommendation

This application document for endorsement, provided to the OBPS, should only be 1-3 pages with embedded links to supporting documents, if needed. The existing DOI of the document for endorsement will be included in the endorsement proposal. A DOI will be issued by OBPS if needed.

Section 1 – Endorsing entity description

- Entity name
- Mission & background
- Administration / funding source
- Other partnering / supporting entities

Section 2 – Endorsement documentation

- Date submitted for endorsement acceptance
- Endorsed Practice document citation (creators, year, title, publication details, number of pages, and persistent identifier - eg. DOI, URI)

Section 3 – Endorsement process and justification

Potential endorsers are encouraged to see *Towards a Best Practice for Developing Best Practices in Ocean Observation* (Hörstmann, et al, 2020). To justify an endorsement, a practice will :

1. have completed a rigorous and transparent community review process whereby comments are publicly invited, adjudicated and actioned by the author(s) and where these actions have been independently assessed or are available on request;
2. has been successfully used by multiple institutions;
3. be approved by the leadership of the relevant network, expert team or institution;
4. be shown as fit for the purposes it aims to fulfill;
5. be available and identifiable within the OBPS repository;
6. be updated at relevant timeframes or have a maintenance plan for future updates;

7. include description of estimating uncertainty or heterogeneity of a quantity (if applicable);
8. follow recommendations for metadata standards and file formats for archiving in international data centers;

Section 4 – Closing matter

- Authorizing signature, title, date
- Additional references

Appendix B - Example of endorsement recommendation support



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
US Integrated Ocean Observing System (IOOS®)
1315 East West Highway, 2nd Floor
Silver Spring, Maryland 20910

Date: December 6, 2023
Subject: U.S. IOOS Endorsement of the QARTOD Manual for Real-Time Quality Control of Water Level Data
To: Oceans Best Practices System (OBPS) Steering Committee

The U.S. [Integrated Ocean Observing System](#) (IOOS®) is a partnership of [17 Federal entities](#) and [11 Regional Associations](#) (RA). The IOOS mission is to produce, integrate, and communicate high quality ocean, coastal and Great Lakes information that meets the safety, economic, and stewardship needs of the Nation. It is administered by the National Ocean Service (NOS) office within the National Oceanic and Atmospheric Administration (NOAA). In 2023, IOOS received \$50M to support RA activities, fund grants, and maintain a wide variety projects in support of the mission.

The IOOS Quality Assurance / Quality Control of Real-Time Oceanographic Data ([QARTOD](#)) project has developed a series of manuals which identify QC methods to be applied to real-time data streams. The process used to develop the manuals is described in the [QARTOD Project Plan](#). It requires a series of reviews by an increasingly larger community, culminating in an international review. Reviewers are acknowledged and identified individually in each manual, and all comments are logged and addressed in an adjudication matrix. Use of these QC practices by the RAs is mandated by IOOS. The manuals have been adopted internationally, by both governmental and private-sector users, and are used in graduate-level classrooms. They are updated periodically to maintain relevance and accuracy.

IOOS is aware of the Ocean Best Practices System (OBPS) desire for endorsement of best practices by authoritative entities (Hermes, 2020). Endorsement of a practice provides users of the OBPS with yet another valuable evaluation metric. We therefore offer our endorsement of the QARTOD manual:

U.S. Integrated Ocean Observing System, 2021. Manual for Real-Time Quality Control of Water Level Data Version 2.1: A Guide to Quality Control and Quality Assurance of Water Level Observations. 47 pp. <https://doi.org/10.25923/vpsx-dc82>

The manual was first published in 2014, updated in 2016, and again in 2021. Given the importance of these measurements in an age of accelerating sea level rise, standardized real-time QC of these data is a very highly desired goal. IOOS endorsement of this manual furthers the effort to improve and consolidate the QC of these real-time data.

Signed:  Digitally signed by
GOULDMAN.CARL.CLEMENTS.1365845871
65046371
Date: 2023.12.06 17:12:51 -05'00'
Date: _____
Carl Gouldman, U.S. IOOS Office Director

References

Hermes, J. (ed.) (2020) GOOS Best Practices Endorsement Process. Version 1. Paris, France, Global Ocean Observing System, 7pp. DOI: <http://dx.doi.org/10.25607/OBP-926>

