Ocean Best Practices System

Johannes Karstensen
for the “Ocean Best Practices Working Group”

Mark Bushnell, Pier Luigi Buttigieg, Cyndy Chandler, Katja Fennel,
Juliet Hermes, Emma Heslop, Frank Muller-Karger, Arno Lambert,
Cristian Muñoz, Francoise Pearlman, Jay Pearlman, Peter
Pissierssens, Rachel Przeslawski, Nick Roden, Pauline Simpson

EarthCube Time Series Data Workshop, Sept. 13-15 2019
What is a Best Practice?

**Best Practice Definition:**

A Best Practice is a methodology that has repeatedly produced superior results relative to other methodologies with the same objective.

To be fully elevated to a Best Practice, a promising method must be adopted, used, and tested by multiple organizations and/or communities.

(From 1st Ocean Best Practices Workshop, IOC, Paris, France, Nov 2017)

Best practices can be standard operating procedures (SOPs), manuals, handbooks, guides, cookbooks, published papers, training and educational material.
Why an Ocean Best Practices System?

**Best practices ensures:**
- Known Quality and consistency of observations
- Interoperability of data
- Efficiency (don’t re-invent the wheel)
- Transparency - Data traceability and reproducibility
- Connections between data, models and applications
- Resource for training and capacity development

**BUT:**
- Not all best practice knowledge is documented
- They are scattered and can be hard to find
- Can be lost when a project ends
- Promising methods may not be shared
- Work to create a best practice is often not acknowledged

*The Ocean Best Practice System (OBPS) helps to jointly develop solutions*
OBPS Vision and Mission

Vision
To have agreed and broadly adopted methods across ocean research, operations and applications

Mission
To provide a trusted system to support the collaborative development, sharing and adoption of Best Practices across the Ocean Community

We are building a long term, sustained capability
The Structure of the OBPS

Best Practice Providers

Peer Review

Repository

Advanced Technology

Training

Users
**Heart of OBPS: The Repository**

**OceanBestPractices (OBP)** is a secure, permanent document (and other objects) repository. It aims to provide a discovery point for research groups to search and find community accepted existing ocean best practices. This service also invites the ocean research, observation and data/information management communities to submit their own best practice documents to share globally with their colleagues. More...

**User Guides**

- Guidelines for Depositors
- Guidelines for Editors

**Document Templates** *(further templates will be available soon)*

- Sensors
- Ocean Applications
- Data Management

**Communities in OceanBestPractices**
Heart of OBPS: The Repository

**FAIR: Findable, Accessible, Interoperable, Reusable**

- Global, permanent, open access repository, hosted by IOC/UNESCO
- DOIs issued, version control, standard metadata, active links
- Templates supporting uniform submission and processing
- Notification services to keep track of updates

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https://www.oceanbestpractices.net/
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Over 780 Best Practices submitted
Search interface powered by natural language (ontology)

https://www.oceanbestpractices.net/
The OBPS Repository “Google”

Natural language search technology

https://www.oceanbestpractices.org/
The OBPS Repository “Google”

Natural language search technology

Easily discoverable and comparable content, powered by ocean-focused search and indexing technology

https://www.oceanbestpractices.org/
Frontiers Research Topic

www.frontiersin.org/research-topics/7173
Frontiers Research Topic

- Recognizes Best Practice creators (peer review publication)
- Helps to expand the adoption of best practices
- Provides a forum for community and external expert discussion
- Currently: 12 accepted, 4 in different review stages

www.frontiersin.org/research-topics/7173
Ocean Best Practices Training

- Capacity development and training in use and creation of OBP
- Currently as a series of in-person courses
- Provided in multiple languages, making use of the OTGA RTC network
- Provision of train-the-trainer courses
- Training video linked to the OBPS record
- Long-term goal: Create a library of virtual OBP training resources to be used in personal and virtual environment
- Provide access to “OBPS Repository on a disk” where internet access is limited.
Further developments OBPS

2019 – 2021 +

The OBPS is operational and will expand its service to users

- Engage broad community in OBPS decade vision through OceanObs 19 sessions
- GOOS endorsement process – community identification of recommended practices
- Community Review Platform within OBPS-Repository
- Improving access through natural language use (Google-like flexibility)
- Methods for improving transparency and access across ocean observing
- Support for BP creation – e.g. funding for workshops and community engagement
- Support for BP training – IODE Ocean Teacher, videos, courses (also online)
- Coordination for developing country engagement
- Community expansion – broadly engaging modeling, data management and applications
- Cooperate with Industry and other sectors (e.g. policy) in opening best practices more widely.
Ocean Best Practices Team

Best Practices Working Group:

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I hope to see many of you submitting your existing Time series data BP documentation to our repository – and new/synthesized BP to the Journal!