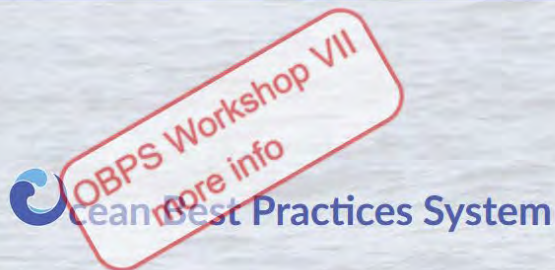# OPOS-WG and ocean best practices

Outline

- **Relevance of best practices**

- **Interaction with Ocean Best Practices System (OBPS)**

- **Next steps**

Need for best practices in ocean forecasting

- Share expertise and benefit from it

- Help those setting up new forecasting systems and teams

- User confidence and information

- Become better integrated component of operational value chain

- And …. many other reasons…

Areas for best practices in ocean forecasting

- Use of observations
    - Which repositories to use? How to handle quality control? Do some data need handling differently (e.g. daytime v night-time SST/chlorophyll)? Are observed quantities directly equivalent to modelled quantities? What scales are represented by observations? Etc.

- System monitoring
    - Internal quality checks, community intercomparisons, metrics for users, etc

- Research to operations
    - Pull-through of model/assimilation developments, pre-operational trials, update/tech-transfer procedures, etc

- Operational resilience
    - Backup systems, contingencies, user notifications, 24/7 support, etc

- Outputs
    - Delivery methods, product types, formats, postprocessing, documentation, etc

    - Compatibility for DITTO (Digital Twin of the Ocean)

Ocean Best Practices System (OBPS)

https://www.oceanbestpractices.org/

Interactions between OBPS and OPOS-WG

- Fraser and David presented to OBPS steering group (Jun 2022)

- Jay Pearlman and Johannes Karstensen (OBPS co-chairs) attended OPOS-WG meeting discussing best practices

- Ongoing conversations with Jay and others

- Sessions at OBPS Workshop (Oct 2022 and Oct 2023)

OBPS VI October 2022 – Session 1

- **Fraser Davidson** (Environment and Climate Change Canada)
  - State of ocean prediction, proposed system reporting improvements, and potential for capacity development
- **Enrique Alvarez** (Mercator Ocean)
  - Ocean Prediction Decade Collaborative Center: Connecting the world around Ocean Prediction
- **Regina Folorunsho** (Nigerian Institute for Oceanography and Marine Research)
  - Operational Oceanography: Implications for Ocean Best Practices in Developing Countries
- **Ken Mylne** (Met Office)
  - The WMO Cascading Forecasting System for Capacity Development
- **Olaide Sholademi** (Nigerian Meteorological Agency)
  - Impact-based weather forecasting to enable better decision-making and risk reduction in the marine ecosystems
- **Olusegun Adeaga** (University of Lagos)
  - Operational coastal hazard management in Lagos Coastal Area and environs: Challenges and prospects
- **Jennifer Veitch** (SAEON)
  - Operational Forecast Systems: a South African Perspective on Best Practices

OBPS VI October 2022 – Session 2

- **Marie Drevillon** (Mercator Ocean)
  - Monitoring the scientific quality of Copernicus Marine Service products
- **Jean Bidlot** (ECMWF)
  - From informal inter-comparisons to the Lead Centre for Wave Forecast Verification
- **Bennet Foli** (University of Ghana)
  - GMES and Africa Marine Weather Early-warning Services in West Africa in Support of Africa's Blue Economy Agenda
- **Arne Melsom** (METNO)
  - Forecasting from the Copernicus Marine Arctic Center to the Norwegian fjords
- **Gyuk Nehemiah** (Nigerian Institute for Oceanography and Marine Research)
  - Subsurface Ocean Temperature Variability and Trends over the Gulf of Guinea
- **Michael Agbo Tettey Soli** (University of Ghana)
  - Operationalizing Global Earth Observation data for Developing Coastal Communities

OBPS VII October 2023

- **Jennifer Veitch** (South African Environmental Observation Network)
  - An update on South Africa's Operational Forecast System
- **Anitha Gera** (National Centre for Coastal Research, India)
  - Regional & local scale modelling, Indian coast
- **Dmitry Aleynik** (Scottish Association for Marine Science)
  - West Scotland Coastal Modelling System - WeStCOMS: weather, ocean circulation, and wave operational forecasts
- **Regina Folorunsho** (Nigerian Institute for Oceanography and Marine Research)
  - Met-ocean forecasting in the Gulf of Guinea: status and challenges
- **Nadia Pinardi** (University of Bologna, Italy)
  - Best practices for coastal, limited area predictions
- **Enrique Alvarez** (Mercator Océan International, France)
  - Towards improved and easier to implement regional and coastal ocean forecasting services: OceanPrediction DCC

https://www.youtube.com/watch?v=ZlfmkPY0c7Q

Next steps

- OPOS-WG members populate DCC Atlas

- Use that information to develop first draft of best practices on relevant topics – probably starting with system monitoring

- Refine

- Publish on OBPS

- All done in coordination with DCC and others

Thank you!