Task Team on Wave Measurement

(TT-WM)

Chair: Robert Jensen

Co-Chair: Val Swail

DBCP-38, 1-4 November 2022

1. Statistics

1. How many meetings did you have this year 2- **work handled largely by correspondence**
2. How many actions do you have 1
3. How many actions have been completed 1
4. How many will be completed next year 0
5. How many actions have not progressed 0
6. How many new actions have been added 1

2. Alignment to DBCP strategy*

1. Which are the top three key Strategic Pillars for your TT?

   1, 2, 3

2. Which are the top three key Strategic Actions for your TT?

   1.3, 1.4, 2.2, 2.3, 3.1

3. What are the success measures of these strategic actions?

1. The number of scientific publications and presentations promoting the need for ensuring that DBCP wave data is of high and consistent quality, i.e., the need for wave measurement evaluations - # publications/presentations

2. Benchmarking against peer-reviewed international/best practice standards – # of evaluations done, uploaded to CDIP

3. Adoption and/or assessments of emerging technologies – # publications/presentations assessing legacy and emerging WM technologies, contributions to guidance materials

3. 2-3 Key highlights this year*

1. "*Workshop on Operational Wave Measurements*" virtual 11-12 October 2022**: drifters; evaluation, consolidated waves data base, metadata**

2. 2 papers published on wave measurement evaluations, 1 on wave measurement database

   - USACE Coastal and Hydraulics Laboratory Quality Controlled, Consistent Measurement Archive. Hall, C. & R.E. Jensen. 2022. Scientific Data 9:248

3. Independent evaluations of wave drifters (Collins)

4. Documented wave measurement activities at https://community.wmo.int/activity-areas/Marine/WME

4. 2-3 Key focus areas for next year

1. **Wave Measurement Workshop 2023 (A9.3/1)**
2. Continued evaluation efforts, upgrade WaveEvalTool
3. Moored buoy metadata – *see next slide*
4. Continue to Recommend, from DBCP-37 and WM workshop:
    1. **R9.3/1 — Encourage other Members to develop QCCMA wave data base**
    2. **R9.3/2 — Establish QC Flag for Wave Frequency Spectra (simple Checksum factor)**
    3. **R9.3/3 – Observations of Raw Displacement or Acceleration Time Series**

5. Key take-home messages*

1. "Workshop on Operational Wave Measurements" – was a success; strong endorsement to follow up in 6-12 months
2. Evaluation continues to be a critical element of wave observing programs especially for emerging systems – the evaluation by Tripp Collins on the mini buoys was particularly well received.
3. QCCMA developed by USACE provides a huge step to measured wave databases, which should be explored by Europe, Australia in particular

4. **DBCP and OceanOps have completely failed the waves community, and worse, have now abandoned them.** The minimal metadata contained in the proposed integrated metadata repository does not serve the needs of the users – including WMO members. So who does it serve?