

**Objectives/Outcomes:**

- Review the progress over the past 10+ years regarding:
  - Intercomparisons of legacy and emerging wave measurement systems, including development of methodologies and evaluation of operational measurements, e.g. through the WET Pilot Project;
  - development of high quality spectral wave measurements from drifters, their evaluation and deployments in the global ocean, availability through the GTS;
- Assess user requirements for operational high quality wave measurements and accompanying metadata for:
  - NWP centres and national wave forecast agencies, for wave model calibration and validation, wave forecast verification and wave data assimilation;
  - satellite agencies for wave calibration and validation, and as complementary in situ data for satellite products and climate programs such as the ESA Wave Climate Change Initiative (CCI);
  - wave climate trend and variability initiatives, such as COWCLIP and national climate change research
- Discuss priorities, future plans, way forward, next steps to:
  - Increase the utility of spectral wave measurements from operational systems, including broader geographical coverage, adequate metadata, availability on the GTS, consolidated wave data archive (i.e. Global Data Assembly Centre (GDAC));
  - Increase the understanding of and confidence in wave measurements, through continued and expanded wave measurement evaluation of legacy and emerging platforms;
  - Interface with complementary wave measurement systems such as satellite (altimeter, SAR, and newer sensors).
- Report on outcomes and recommendations to the Data Buoy Cooperation Panel 36<sup>th</sup> Session, October 2020.

**Topics:**

- Continued evaluation of legacy and emerging wave measurement systems to enable a common understanding of the comparability (interoperability?) of the data.
- Discussion of requirements for accuracy and precision, spatial coverage and density, parameters – integral and spectra (e.g. First-5), metadata.
- Need for a consolidated data centre for measured wave data and metadata
- Discussion on how to get more data, especially drifter data onto the GTS.
- Specifically for wave drifters, what do the NWP centres need, and what would they do with up to 1000 global wave drifters reporting First-5 spectra for example.

**Tentative Program Overview**

**Day 1** – Near equal split between actual presentations and discussion.

- Introduction from 2008 Workshop outcomes
- Invited presentations on wave measurement evaluation
- Invited presentations on development and testing of wave measurements from drifters

**Day 2** – Near equal split between actual presentations and discussion.

- Invited user requirements presentations – wave model calibration, wave forecast evaluation, data assimilation
- Invited user requirements satellite agencies for cal/val, climate
- Invited user requirements wave climate users, e.g. COWCLIP
- invited presentations from climate data centres and metadata centres

**Day 3** –

- Discussion to develop recommendations, actions if appropriate, path forward, priorities. Develop content for presentation to the following DBCP meeting, including in particular outcomes and recommendations.