11. Wave Measurement Evaluation and Testing

Authors: Robert Jensen *(US Army Corps of Engineers)* Val Swail *(Environment Canada)* and Boram Lee *(World Meteorological Organization)*

Abstract: The JCOMM Expert Team on Wind Waves and Storm Surges (ETWS) is presently carrying out a Pilot Project (www.jcomm.info/WET) for the Data Buoy Cooperation Panel to address potential biases in in-situ wave measurements from buoys. Previous comparisons with satellite altimeter data suggest that there may be significant biases between operational buoy networks operated by different national agencies, even with the same platforms. Biases are a serious concern in climatology, especially in computation of trends, but are also relevant for example in wave forecast verification, comparisons of wave model performance and regional statistics.

This presentation will describe the preliminary results from various components of the wave measurement testing and evaluation program being carried out in various regions by the project partners, based on the “First-5” intercomparison methodology adopted by the project. In particular, the presentation will describe results from the first two Pilot Project co-deployments, on the east and west coasts of Canada, where a Datawell Directional Waverider was located beside an operational Canadian 3m discus buoy and an operational 6m NOMAD; TriAxys wave sensors were also located on both operational buoys. Preliminary results from other partners will also be included.