Review of GODAE OceanView Symposium 2013 and Real-time Ocean Reanalyses Intercomparison to Quantify Uncertainties in Ocean Reanalyses

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The GODAE OceanView (GOV) Symposium 2013 provided an opportunity for a broad community to review the key scientific achievements of GOV in the past 5 years, and to discuss challenges and opportunities for the future of operational ocean analysis and forecasting and its international coordination. One of the challenges is to improve ocean reanalyses for monitoring climate variability and climate change. To quantify uncertainties in the current generation of ocean reanalysis products, the GOV and CLIVAR Global Synthesis and Observations Panel (GSOP) jointly initiated Ocean Reanalysis (ORA) Intercomparison Project. The intercomparison includes both ocean reanalyses for seasonal forecast systems and ocean reanalyses derived from short-range ocean forecasting systems. The preliminary results can be found in CLIVAR Exchange (http://www.clivar.org/sites/default/files/Exchanges/Exchanges_64.pdf).

For those ocean reanalyses produced by operational centers for the initialization of coupled forecasts, there is an opportunity to conduct ORA intercomparison in near real-time, and to use the ensemble approach to quantify the signal (ensemble mean) and noise (ensemble spread) in our estimation of ocean climate variability. An ensemble of six operational ORAs has been collected and used to monitor consistency and discrepancy in temperature analysis of the tropical Pacific in support of ENSO monitoring and prediction. We have also explored the connections between gaps in ocean observations and spread among ensemble ORAs, and the preliminary results will be presented.