Summary of proposed CLIVAR-Global Synthesis and Observations Panel (GSOP)
Workshop on "Ocean Synthesis and Air-Sea flux evaluation"
Nov. 27-30, 2012, WHOI

Sponsored by NASA, NOAA, US CLIVAR, and WCRP

Presented by Tony Lee, JPL

1. Motivation and Objectives

- WCRP encourages cross-cutting theme activities.
- Surface fluxes were identified as an important cross-cutting theme.
- WCRP Observation and Assimilation Panel (WOAP) recommended the evaluation of model-based surface fluxes in the context of observation-based estimates.
- There is an increasing need to bring together the observational, assimilation/synthesis, and modeling communities, ocean and atmosphere communities to tackle surface fluxes issues.

Given the above motivation, the CLIVAR GSOP is working closely with the surface fluxes community and the synthesis communities to organize a workshop to address on surface fluxes and synthesis (focusing on ocean synthesis). This workshop aims to bring together scientists from the ocean synthesis and air-sea fluxes communities to (1) review the current state of surface fluxes (heat, freshwater, & momentum) obtained from ocean syntheses, atmospheric reanalyses, other observation based products, and coupled models (2) discuss the gaps and current limitations in these products with particular reference to balancing ocean heat and freshwater budgets, and (3) develop recommendations and requirements for future global/regional synthesis activities. These areas of activity are relevant to the interests of the WOAP, WGSF and new WCRP Data Council.

2. Anticipated workshop outcome:

The workshop will produce a report that a) summarises the current state of surface flux estimation from ocean synthesis and atmospheric reanalysis, and other observation based products, b) identifies community challenges and needs for improving estimates of ocean heat and freshwater storage and transport from ocean syntheses and flux products, and c) recommends a path towards obtaining globally consistent surface flux products through close collaboration and coordination between air-sea flux and ocean synthesis researchers. The report will reference the framework of Essential Ocean Variables (EOVs) as set out in the Integrated Framework for Sustained Ocean Observations (IFSOO) document following OceanObs09.

3. Workshop themes:

- The state of surface flux estimation
- Heat and freshwater budgets over global/regional oceans
- Ocean synthesis evaluation and comparisons
- The way forward

4. Organizing committees

Lisan Yu (USA, co-chair), Keith Haines (UK, co-chair), Tony Lee (USA),
Magdalena Balmaseda (UK), Bernard Barnier (France), Mark Bourassa (USA),
Sergei Gulev (Russia), Simon Josey (UK)