Real-Time monitoring/intercomparison

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Exploiting existing resources

- Robust monitoring of climate indices (mean and error)
- It can help to identify areas of large activities

- **What next?**
  1. So far mainly for ENSO monitoring at NCEP
  2. Should we extend to other variables and climate indices?
     1. Salinity
     2. More on tropical atlantic
     3. PDO phase,
     4. AMOC to suport RAPID array
     5. ….

  3. Suggestion: Focus study on July-August 2014 El Nino:
     1. Engage with other communities (CLIVAR/GWEX)
     2. Engage the high resolution GOV systems

Recommendations

Recommendations on the observing system. Not the scope of the workshop

- Existing requirements are taken as default.
- …

Recommendations for the Evaluation of the Ocean Observing System.

1. The Evaluation of the Ocean Observing System should be done taking into account the different operational applications (from short range ocean forecasting to climate, biochemistry).
2. Evaluation of the Observing System should be a routine activity on operational centres to provide readily available feedback to the observing agencies.
3. Coordinated evaluation activities are needed to quantify and reduce the error in the evaluation.
4. Participation in concerted activities such multi-system OSEs, and real-time monitoring are encouraged.
5. The design and outcome of the concerted activities should link to ongoing international programs such as TPOS2020 and ATLANTOS.
6. The evaluation metrics should contain a mix of objective skill scores, impact on index of physical/ societal relevance, and specific case studies.
7. The different systems should invest on implementation of software infrastructure for automatic evaluation of the observing system
8. Data assimilation systems and fData assimilation tools should be used to help to diagnose and correct model systematic errors.
9. Data assimilation and forward models need to be improved. There should be a strong link between research-development and operational implementation, as to guarantee that the operational systems are state of the art.

Actions

1. Protocol for “operational-annual” OSES
    1. Guidance test for single obs (DA TT)
    2. Definition of scenarios to be tested (TPOS,Atlantos,...)_
    3. Definition of evaluating metrics (including case studies) (Evaluation task team, CLIVAR indices…)
    4. Consider OSSEs and

2. Real-Time monitoring

Output of the Workshop

Report

Table of content

-1- Introduction

-2- Summary of session

synthesis of session (session chairs)

-3- Workplan - Community OSEs

Summary of discussion (TPOS, SSS, Altimetry,…)

-4- Recommendations

-5- List of Actions

-6- Next meeting

Next workshop

Frequency ?

one meeting every 1-3 years max

Attendance ?

GOV-TT (OSEval, GOV-IV, DA, COSS, MEAP), CLIVAR GSOP

Proposal:

A meeting every 2 years with participation of

GOV-OSEval, IV,DA TTs, Clivar GSOP