

POS Summary

Annapolis
July 25, 2007

Drought

- DRICOMP/Working Group workshop next fall.
 - Subcommittee working on agenda
- Issues:
 - How to better serve the need of NIDIS (National Integrated Drought information system)
 - Inform river basin pilot projects
 - Linking with drought portal/drought index
 - Help to coordinate/communicate drought research (especially prediction) across the community
 - How to provide drought information at river basin and catchment scale?
- Ideas after Drought WG/DRICOMP
 - Land memory
 - Use of high resolution models
 - Role of aerosols
 - Vegetation Dynamics (IGBP)
 - desertification
 - Track moisture sources in obs/model
 - Soil moisture recharge
 - Especially mountainous regions
- Organize/Coordinate quality control of soil moisture data for use in model validation (Randy Koster, Kelly with PPAI)

High Frequency / Drought

- Extreme events
 - Contact modeling centers to obtain high frequency (daily) data from IPCC runs (Legler)
 - Fields to be saved requires interaction with modeling center
 - Then can examine many climatic envelope of phenomena
 - Floods, high wind events, heat waves, rogue waves, etc.
 - Research
 - Extreme event statistics (large deviation theory)
 - Rerun AGCM with SSTs from coupled run over a subset of years
 - Save high frequency
 - Input to next IPCC
 - Explore funding mechanism

High Latitude Working Group

- Focus prospectus
 - Expand on annular mode focus now
 - Inclusion of seasons other than winter
 - Processes especially in summer
 - clouds/radiation
 - Heat budget
 - Role of oceans in influencing ice
- Coordination with IPY, CLIC
- Provide Sarah Gille with comments (Gudrun)
- Suggest WG members

Indian Ocean

- Interact with International CLIVAR
 - Impact of IO variability
 - especially multi-decadal warming on US
- Encourage ocean process study to take advantage of new in situ observations

Salinity

- Important to continue after Salinity WG
 - Argo to test ideas
 - AQUARIUS coming-on line
- POS endorses WG report for improvements in observations over next few years
 - e.g. salinity measured on drifters
 - Scientific questions in anticipation of Aquarius
 - (knowledge gap)
 - Impact on boundary layers,
 - Mixed layer dynamics
 - Budgets
 - Interannual/decadal variability in regions where possible
 - Role in AMOC variability
 - Assess salinity variability in IPCC class models
- Action items
 - Form advisor science team (Jim, Tony)
 - Inform funding agency AOs
 - Help Plan Workshop on Marine Hydrologic cycle (2009)
 - Develop Metrics

Request formation of 'Salinity Interim Group'

(POS – Carton & Lee)

Charge:

- 1) Develop 'Implementation Plan' with a 10-year vision in 2008 based on the SWG whitepaper. The Implementation Plan will help the Agencies, particularly NASA to articulate the research agenda being targeted in an expected Agency BAA and Agency Announcement.
- 2) Facilitate and promote salinity process studies to be carried out in the Aquarius era.
- 3) Provide forum for coordination of observational, diagnostic, and modeling/assimilation activities related to salinity.

Timeline:

- 2007 Issue whitepaper
- 2007 USCLIVAR Salinity Working Group disbands
- 2007 Salinity Interim Group created
- 2008 Issue 'Implementation Plan'
- 2009 Promote salinity process studies and historical diagnostic research
- 2010 Facilitate formation of Salinity SWG
- 2010 Disband

Satellite Data

- Need Climate requirements in addition to operational requirements
 - e.g discontinuity in altimetry and scatterometer data
 - Sometimes reported as decadal variability in literature
 - Consistent climate records with error estimates
 - Overlap periods for calibration
 - Considerations for future observing systems
 - Provide feedback for NPOESS
 - Research question information provided needs to be vetted
 - Examine WCRP working group documents
 - Mechanisms, model initialization, discovery
 - » Design model experiment tests (e.g. ENSO prediction)
 - Briefing from agencies on operational requirements at next summit
 - Climate Observing requirements for “OceanObs’09” (conference)

Historical Data

- Alexey - overview of current data recovery efforts
 - Time sensitive Dataset issue
 - German marine database not completely incorporated into ICOADS
 - Draft letter on behalf of US CLIVAR to request data release (Alexey)
 - Letter also to be sent by International CLIVAR
 - NOAA Climate Data Base Modernization Program
 - e.g. 19th century data from forts
 - Clarification of process
 - » Guidance from the climate community
 - How to inform community about these efforts, data sets, where archived, potential problems
 - CLIVAR Exchanges article (Alexey +)
 - wiki
 - Place to Archive data from scientific expeditions
 - Very useful for 20th century historical reanalysis

Integrated Earth System Analyses (IESA)

Joint PSMIP/POS session

- CCSP priority
- Establish working group
 - Prospectus (Tony, Sieg, Jim, Hua-lu Pan, land person)
- Ocean State Estimation within IESA
 - Currently US Ocean Assimilation groups compare results on an ad hoc basis
 - Focused intercomparison of reanalysis fields
 - Facilitate interaction with International Community
 - Observing system design
 - Data Impact (OSSE)
Forum for linking to process studies
 - \$ support for computing standard diagnostics for ongoing intercomparison
- Atmospheric/Land reanalysis counterpart
 - e.g. aerosols, stratosphere