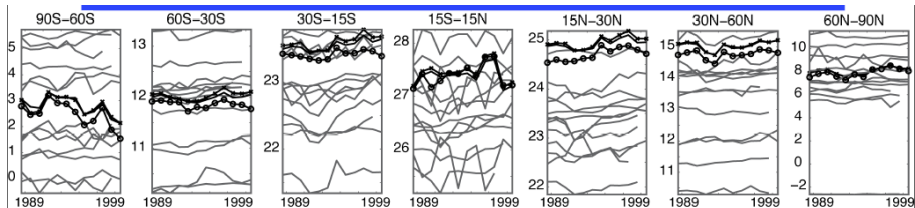
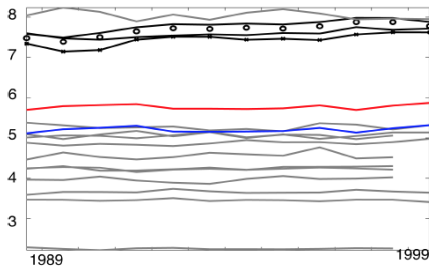


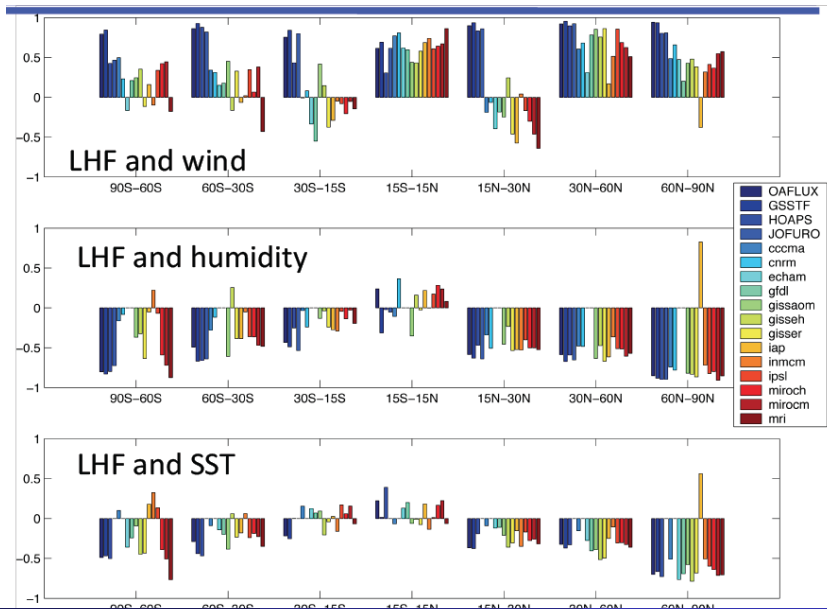
# SST: satellite model comparison



## Winds



# Correlation of Trends: satellites, CMIP4



NEWSLETTER OF CLIVAR  
AIR-SEA FLUX COMMUNITY



# FLUX NEWS

Issue 7 February 2015



*Interview with **Professor G. Brasseur**, the new WCRP JSC Chair*

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**Flux News:** For many years the WCRP Joint Scientific Committee has been very supportive of air-sea flux science. For example, there were two WCRP working groups: WG for Surface Fluxes (co-sponsored by SCOR) and WG on Air-Sea Fluxes. How do you see this strategy in the future? What could be the means of integrating air-flux science into the work of the WCRP? Which issues of climate science are most closely related to air-sea fluxes?

**G. Brasseur:** WCRP is promoting a systemic approach for climate studies. In addition to investigating physical and chemical processes in individual components of the Earth, we are focusing also on global cycles of energy, water and carbon. In this respect, a deeper understanding of physical and biogeochemical air-sea interactions is crucial. WCRP

will work groups that will include these processes in their research activities. And some of our newly-defined Grand Challenges will include some aspects of atmosphere-ocean interactions.

*Guy Brasseur: We would very much welcome a new and exciting research initiative integrating knowledge on air-sea exchanges produced by CLIVAR, SPARC, SOLAS and IMBER*

**Flux News:** There was a long debate at the JSC on how to ensure synergy between physical fluxes and biogeochemical fluxes. SOLAS Project (co-sponsored by WCRP and IGBP) has always been a relevant platform for this. However, SOLAS cannot take on board all the problems of physical air-sea interactions, particularly those related to NWP and the validation of global satellite products. There were,

however, a number of very successful cooperative activities between SOLAS and e.g. WGSF. Would the JSC consider a renewal of a close interaction between SOLAS and JSC flux groups?

- At WDAC3 it was decided to establish a Surface Flux Task Team:
- Action item:
  - Development of ToR and membership of a Flux Task Team to address
    - flux - ECV cross walk
    - gaps in observing systems
    - web page
    - tracking of activities in the community
    - Clayson - lead, Mathieu, Ward, Joerg, Gleckler)

# Surface Flux Task Team: ToR

- 1 Provide a single point-of-contact for surface flux observations and analysis in the WCRP.
- 2 Establish and encourage the use of data, metadata, and documentation standards for global surface flux data (ocean-atmosphere-land) data sets that are consistent with standards used in major climate model intercomparison efforts (e.g., CMIP), thereby facilitating intercomparison of the data sets and their use in evaluation of Earth System models and their components. Recommendations and improvements to CMIP and reanalysis standard model output and documentation for improved capability for comparison with observed flux datasets.
- 3 Establish conventions for intercomparisons of global datasets, and for assessment of the global datasets with available in situ data.

- ④ Encourage continued acquisition of eddy covariance flux measurements, particularly in extreme locations and conditions as well as the expansion of flux observations to include all of the heat (turbulent and radiative), momentum, gas, aerosols, and freshwater fluxes. Support continued acquisition of key input parameters for bulk flux estimation and radiative fluxes at existing and planned long-term sites.
- ⑤ Oversee a website containing available direct and indirect flux estimates in a common format, along the lines of the GEWEX SeaFlux site. In addition, provide hosting for global flux data sets in agreed standards, a repository of results of comparisons, and an inventory of the literature published using these data sets for the benefit of the larger community.

## Surface Flux Task Team: ToR

- 6 Support activities from other non-air-sea-flux communities, such as the ocean heat content and the atmospheric radiation communities, to work with constraining and understanding uncertainties in the air-sea fluxes.
- 7 Encourage support for groups attempting to evaluate bulk flux parameters from non-research sources, such as ships of opportunity.
- 8 Encourage research into and support for satellite missions that provide enhanced air-surface flux capabilities.
- 9 Provide support for having surface fluxes named as Essential Climate Variables.
- 10 Report to the WDAC and brief other relevant WCRP committees and panels (e.g., GEWEX/GDAP and CLIVAR) on progress, status, and plans for activities overseen by the Task Team.



# Surface Flux Task Team: Proposed Membership

- Carol Anne Clayson, Woods Hole Oceanographic Institution, USA
- Brian Ward, National University of Ireland, Galway, Ireland
- Peter Gleckler, Lawrence Livermore National Laboratory, USA
- Joerg Schulz, EUMETSAT, Germany
- Pierre Phillippe Mathieu, European Space Agency, Italy
- Anton Beljaars, ECMWF, UK
- Carlos Jimenez, LERMA, Observatoire de Paris, France
- James Edson, University of Connecticut, USA
- Paul Stackhouse, NASA, USA
- Hape Schmid, Karlsruhe Institute of technology, Germany
- Saigusa Nobuko, National Institute for Environmental Studies, Japan