

Outline for First Two NEWS W&E Cycle Climatology Manuscripts

Introduction

- Premise/Motivation: In order to evaluate water cycle consequences of climate change, we must establish the current "state of the global water cycle". This will serve as a baseline for water cycle / climate change studies and model assessments, benchmarks for climate prediction models. Will use modern observation-integrating products and associated error-analyses to develop a climatology of water cycle components for each continental/oceanic to global scale region. Joint energy and water cycle assessment.
- Background: Previous studies (Schlosser leads, everyone contributes relevant papers)

Data

- Subsection for each flux (water paper takes ET)
- Table of available datasets
- Each data contributor provides a description
- Includes uncertainty assessments and caveats

Methods

- How the data were chosen/averaged (if necessary)
- How different estimates were reconciled
- How water/energy balance was achieved
- What are our metrics, e.g.,
 - to determine if final estimates within initial error bounds?
 - does the water/energy budget balance?
 - how do we compare with previous estimates?

Results

- Continental/basin scale fluxes and uncertainty figures
 - best estimate, balanced estimate, uncertainty
- Global fluxes figure (energy version includes energy flux associated w/ each moisture flux)
- Seasonal cycles (monthly) of fluxes for each continent and ocean basin (could be a table)
- Forced water(/energy?) balance

Discussion

- Assessment of quality of results, caveats
- What happened when we forced water balance
 - within our initial errors? Why?
 - same "bias" for all regions for each flux? Why?
- How well did water balance agree with energy balance?
- Future directions

- Value of current suite of sensors in completing and extending this work (advertisement)