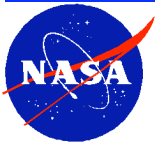


State of U.S. CCSP, IPCC, NASA Earth Science, CERES, NPP/NPOESS

**2nd CERES-II Science Team Meeting
Nov 2-4, 2004
Williamsburg, VA**



U. S. Climate Change Science Plan (CCSP)

- CCSP has formed an Observations Working Group with a Data Management sub-working group.
 - Chapters 12 and 13 of the CCSP Strategic Plan July, 2003 (V2)
 - Early work in observing system gaps (including radiation budget from Aqua to NPOESS, Landsat, ...)
 - Early work on drafts of international integrated Earth Observation System planning (IWGEO. Input section on climate observations
 - Multi-agency
 - Next step to examine observation requirements
- Multi-agency report of workshop on satellite calibration requirements for climate data records published: NISTIR 7047 in March 2004
- So far, not much “new money” in CCSP. No real teeth in ability to fill gaps in the observing system



IPCC Assessment Report 4

- April, 2004 Meeting on Climate Sensitivity, Exeter, UKMO
 - Working Group Report on a new way to use Perturbed Physics Ensemble (PPEs) to attempt to infer more rigorous uncertainty in climate predictions
 - Not likely to directly impact AR4 (only published or accepted for publication results are allowed): requires publication in 2004/2005.
 - AR4 Chapter development underway
 - Wielicki a contributing author on Chapter 3 for changes in TOA fluxes
 - First inclusion of radiation budget data in observations of climate change
 - New ocean heat storage/ERBS/CERES net radiation likely to be included
 - GEWEX radiative flux assessment partially impacted by AR4.
 - Sections on both TOA fluxes as well as surface fluxes



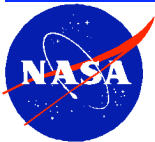
NASA Earth Science

- NASA Reorganization as a result of Bush administration's Lunar and Mars exploration initiative
 - Not yet any major funding changes
 - Congress not yet convinced (FY05 budget will tell)
 - May change dramatically if Kerry elected president
 - Space Science and Earth Science now merged as in 80s early 90s
 - Diaz is AA for Science, Asrar is his deputy
 - Don Anderson is Modeling lead, Hal Maring is Radiation Sciences
- FY05 Budget in continuing resolution
 - Senate asked for more than presidents NASA request
 - House cut presidents request
 - Difference is order 6% of the budget
 - Unlikely to be resolved until Jan/Feb
 - Shuttle fixes and Hubble repair mission running over budget
 - Big budget problems if House cuts are enacted
- Currently planning next ESSP competition in FY05
- Water/Energy Cycle and Modeling NRAs underway now.
- CALIPSO/Cloudsat launch planned for May, 2005



CERES Program

- 20% budget cuts taken in FY04: primarily staff reduction
- FY05 and FY06 plan is 5% further reduction for each year
- Full Cost Accounting changes are causing budget headaches
 - have not yet affected CERES program funding
 - main headaches are in fighting battles on how indirect costs are done (on-site contractors, off-site contractors, etc)
 - to date, full-cost does not equal true cost for overhead charges
 - even corporations have the same issue: new business always starts off losing money: if you only started businesses that profit from day one: you wouldn't start new business
 - bad fit to high risk research, but NASA has been mandated as the full-cost guinea pig.
 - some benefit to force resolution of staffing skill mix issues.
- NASA Langley has also recently re-organized
 - Radiation Sciences Branch => Climate Science Branch (D. Young acting)
 - Atmospheric Sciences Competency => Science Directorate (L. Vann acting)
 - Eliminates old program offices
 - Overall, not a lot of change in how atmospheric sciences is done at LaRC



NPP and NPOESS

- CERES FM-5 is NOT on NPP gap filling mission (budget problems knocked us off for the second time)
- CERES has been working with NPOESS to estimate costs of transitioning CERES data product codes to NPOESS system
 - process at NPOESS data centers for near real time use
 - process at LaRC for near real time use
 - in either case, process at LaRC later for Climate Data Records
- NPOESS cost and schedule over-runs have been a problem (all three major instruments: ir spectrometer, vis/ir imager, microwave imager).
 - NPOESS has formally requested NASA HQ to provide the stored CERES FM-5 instrument for use on first NPOESS 1:30 LT satellite (~ 2011 launch)
 - Requested processing be done at LaRC for data products
 - CERES has re-examined the radiation budget data gap risk
 - Gap risk moderately exceeds climate goals (NISTIR 7047)
 - Given climate observing system budget issues: likely to happen
 - No formal decision on this as yet by NASA HQ
 - CERES has sent the gap analysis and suggested minimum improvements to FM-5 MAM, calibration, and characterization if used on NPOESS



Radiation Budget Gap Risk: Satellite Scenarios

