Status of EOS and NPOESS

Brussels    January 21, 2002

Bruce A. Wielicki
EOS Status

- EOS program escaped the threatened 20% FY02 budget cuts
- Still may see 2 to 5% cuts from budget earmarks. TBD.
- New NASA administrator: focusing on space station and uncertain how it will impact Earth Science.
- Still struggles between NASA HQ and NASA Langley management over program support rates: Langley has subsidized them through the aeronautics program in the past, and now wants Earth Sciences to pay full share: potential impact on CERES budgets about 10%.
- EOS Team Recompetitions: May/June, for FY03 + Funding
  - Science and Data Analysis Announcement: wide open
  - Algorithm/Data Product Announcement: instrument teams
  - Everyone welcome to instrument team meetings.
  - CERES team will still consider selected science investigations as its user and peer review.
NPOESS Status

• Recall a CERES-Like instrument will fly on the 1:30pm NPOESS missions: nominal 7-yr lifetime instruments.
• Consider CERES as its heritage instrument
  – maintain design, including rotating azimuth scan to allow intercalibration of instruments with other orbits.
  – new thermopile detector technologies. 3 competing efforts over last 4 years: JPL detectors look optimal: factor of 10 more sensitive and can be “manufactured” instead of hand crafted as bolometers were.
  – electronics components no longer available so electronics will be redesigned and made smaller.
  – TRW calibration chamber used to characterize/calibrate as for CERES.
  – Improve MAM design and more complete tests of detector sensitivity changes in vacuum with time.
NPOESS Status

- Proposals by both Lockheed and TRW major contractors due to NPOESS by April 2002.
- Suddenly accelerated schedule by 2 months in late Nov.
- CERES input to Lockheed and TRW due in February.
- Kory Priestley leading LaRC proposal effort (why he’s not here!)
- TRW instrument build.
- NPOESS data system to produce radiation data products (TOA and surface) in 150min of data acquisition
- Still only specifying instantaneous accuracies (i.e. weather). Working with NOAA to clearly specify diurnal avg and monthly avg regional accuracies: looks unlikely. Input as option.
- NPOESS data system not EOSDIS or any current system
  - Likely some distributed unix architecture but unclear
  - White paper given to NPOESS on cost savings to run their products on existing Langley DAAC (now Atmospheric Sciences Data Center (ASDC). Propose both options: run on NPOESS, at Langley
  - MODIS => VIIRS, CERES => ERB