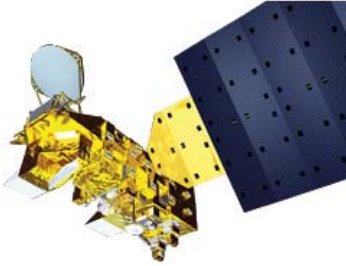


News in This Quarter

NASA Funds JCSDA for Evaluation of Aqua Data



The Aqua Satellite

NASA Headquarters has transferred \$500K to the JCSDA to support three data assimilation studies: 1) Atmospheric Infrared Sounder (AIRS) targeted observation study, 2) Assessments of Advanced Microwave Scanning Radiometer-E (AMSR-E) products in an operational environment, and 3) Operational use of Aqua Advanced Microwave Sounding Unit (AMSU) and Humidity Sounder Brazil (HSB). The studies will be conducted by NCEP and DAO with the participation of ORA in assessment of AMSR-E. Aqua is part of NASA's Earth Observing System (EOS) and its instruments are collecting information about the Earth's water cycle.

JCSDA Approves 13 Announcement of Opportunity Proposals for Funding

Out of a total of 38 proposals submitted in response to its announcement of opportunity, the JCSDA has selected 13 for support. All proposals were reviewed by experts from government labs, research institutes and universities, and letters will soon be sent out to notify PIs of funding decisions. The Announcement of Opportunity is part of JCSDA's program to engage the extramural research community in support of JCSDA goals.

JCSDA Completes Office Renovation

The JCSDA has completed renovation of part of the 7th floor of the NOAA Science Center to house JCSDA scientists. Most of the NCEP and ORA staffs assigned to work at the joint center have moved into their new offices. All communication facilities are now functioning well. Still to be completed are additional JCSDA offices on the 8th floor.

JCSDA Course on Radiative Transfer, Tangent Linear and Adjoint Coding

Under the leadership of ORA's Tom Kleespies, a one-week training course on radiative transfer forward models and their

adjoint coding has been successfully conducted by senior JCSDA staff members. Thirteen ORA and UCAR researchers and programmers actively participated in the training.

JCSDA Scientists Lecture at 83rd Annual Meeting of the American Meteorological Society (AMS)

JCSDA researchers presented results of their data assimilation studies at the 83th AMS annual meeting, Long Beach, California, during the week of 9 – 14 February, 2003. NCEP's John Derber gave an overview of satellite data assimilation at NCEP at the 12th Conference on Satellite Meteorology and Oceanography, one of a number of conferences at the meeting.

JCSDA Science Steering Committee Holds First Meeting

On the tail of the February Blizzard that swept over the metropolitan Washington D.C. area, the JCSDA's Science Steering Committee (SSC) conducted its first meeting at the NOAA Science Center, on 19 – 20 February 2003. We are very grateful to the SSC members, all of whom made special efforts to arrive at the meeting on time: Paul Menzel (Chair, NESDIS), John Eyre (UK Met Office), Clement Chouinard (Canadian Meteorological Center), Jeff Anderson (NCAR), Craig Bishop (NRL), Tom Schlatter (OAR/FSL), and Ralph Peterson (NCEP) and Tony Bussalacchi (U. Md. Earth System Science Interdisciplinary Center (ESSIC)).

Stephen Lord, JCSDA Acting Director, presented to the SSC on the JCSDA organizational developments, science priorities, operating plans, budget and FY02 achievements. The JCSDA participating agencies reported their progress, plans and commitments to the JCSDA.

The SSC recognized that good progress has been made in major activity areas: establishment of physical location, recruiting management director, reconciling of FY03 resources, AO proposals review and funding selection, and establishing a core scientific team from participating agencies. They also concurred with the five JCSDA science priorities: 1) improving radiative transfer models including surface emissivity models, 2) preparing for advanced instruments, 3) advancing techniques for assimilating cloud and precipitation information, 4) improving surface products and assimilation of land surface data, and 5) improving use of satellite data in ocean data assimilation.

The SSC also highlighted to the JCSDA management team several areas that need to be improved in next few years: 1) The JCSDA is unable to acquire a significant computing

facility wherein parallel runs of the community based weather forecast model and satellite data assimilation system could be supported. The absence of this resource hampers the ability of the JCSDA community to contribute to the operational weather forecast system (but does not prevent smaller personal computer based coordinated efforts in some areas of JCSDA's activities). 2) JCSDA lacks adequate staffing to liaise with the research community to transfer progress in the five identified scientific priorities into the JCSDA (especially in the land data assimilation and ocean data assimilation areas). 3) The SSC cautioned against spreading resources too widely. It recommended focusing on (and, hence, providing critical mass to) the top three or four science priorities and sustaining that focus until significant progress has been demonstrated. 4) The SSC also noted the importance of maintaining the resource contributions from the partnering agencies so that research scientists are encouraged to adapt their satellite data assimilation work to the community based radiative transfer, data assimilation, and forecast modeling systems (and implicitly eschewing their own).

The SSC will meet again in Spring 2004 to hear of FY03 progress and FY04 plans from the funded participants, review new science initiatives, and advise the JCSDA director on future work.

Science Update

ORA scientists have developed a new microwave snow emissivity model that improves the simulation of the radiances of the AMSU sounding channels that are affected by the Earth's surface (see Fig. 1). The new model will be released to the JCSDA for testing in June 2003. It is anticipated that more AMSU data in high latitudes will pass the quality control checks of the data assimilation system and be incorporated in the analyses

JCSDA Seminars This Quarter

Recent JCSDA seminars were presented by J. Eyre, UK Met Office, on Met Office Satellite Data Assimilation Activities, B. Atlas, NASA/DAO on Satellite Lidar Data Assimilation, F. Weng, L. McMillin, and T. Kleespies on JCSDA Radiative Transfer Modeling Activities, I. Stajner, NASA/DAO, on Ozone Assimilation, C. Koblinksi, GSFC, on the Aquarius Ocean Salinity Mission, and P. Hauser, GSFC, on Land Data Assimilation. Schedules and copies of seminars are posted on the JCSDA web-site <http://jcsda.gsfc.nasa.gov/>, under the events calendar. JCSDA seminars are held the 3rd Wednesday of each month, 11AM - Noon, at the NOAA Science Center.

Outlook for Next Quarter

Oversight Board will Interview JCSDA Director Candidate

JCSDA oversight board members will interview the candidate for the position of JCSDA Director, during the week of April 7 - 12. The director will be appointed through the University of Maryland, College Park, Maryland.

Upcoming Seminars

Karen St. Germain will present a JCSDA seminar on Windsat on April 16, at 11 AM, in WWB 209. The Windsat mission is evaluating the capability of a passive microwave radiometer to measure ocean surface wind speed and direction from space. Windsat is a joint activity of the NPOESS IPO and DoD agencies,

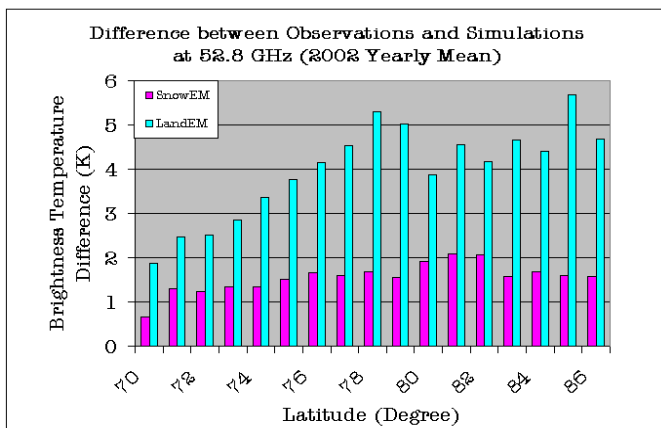


Fig.1. RMS difference of AMSU brightness temperatures (channel 4) between simulations and observations. The new snow emissivity model significantly reduces the errors at all high latitudes