

News in This Quarter

Additional Agencies Join JCSDA
Two Department of Defense agencies, the US Air Force (Air Force Weather Agency) and the US Navy (Office of Navy Research and Oceanographer of the Navy) recently joined the JCSDA. Dr. Michael Farrar, Air Force Weather Agency, and Mr. Richard Hillyer, Deputy Director of the Navy Warfare Requirements Office, will be the new representatives to the Oversight Board. Drs. Simon Chang and Nancy Baker, Naval Research Laboratory, are new members of the Science Steering Committee and the Technical Liaisons group, respectively. This will bring the JCSDA to a total of seven partners as shown in the following figure:

New Resources from NASA for Studying Impacts of AIRS and AMSR on NWP
NASA Headquarters (Dr. James Dodge, Program Manager)) has requested the JCSDA to prepare a proposal for a one-year study of the use of AIRS and AMSR-E data in the operational NCEP Global Forecasting System. The $500K research program would focus on the potential of AIRS and AMSR data to reduce initialization uncertainties over the Pacific Ocean and thus improve forecasts of high impact weather events over the US. The JCSDA is finalizing its plan for submission to NASA Headquarters.

NSF Funds Visiting Scientist to Work at the JCSDA
The National Science Foundation is providing three years of funding for a visiting post-doctoral scientist at the JCSDA. The post-doc will develop an end-to-end capability to receive and ingest Global Positioning System/Radio Occultation (GPS/RO) data into operational NWP models. Two candidate scientists presented their research on the assimilation of observations into numerical weather prediction models at Goddard Space Flight Center on December 3 and 4, 2002. Representatives of the NASA Data Assimilation Office, NCEP, NESDIS and University Corporation for Atmospheric Research (UCAR) interviewed each candidate. UCAR, which is participating in the Constellation of Satellites for Meteorology, Ionosphere, and Climate (COSMIC) mission to provide GPS/RO observations, will administer the position.

Approval of JCSDA Science Development and Implementation (JSDI) Projects
The JCSDA management team has reviewed 13 JCSDA Science Development and Implementation (JSDI) task proposals submitted by scientists of ORA, NCEP and ORA Cooperative Research Institutes. The selected proposals will be supported by FY03 ORA directed research funding for tasks in technology transition. Focus is on the five priority areas of the JCSDA program plan and operational implementation in the NCEP forecasting systems. Due to an anticipated ORA funding shortfall, only eight of the proposals have been selected for funding.

JCSDA Program Plan Released
The JCSDA program plan has been completed and delivered to the Directors of the Oversight Board. This document defines the missions and goals of the Joint Center and highlights the Center’s science priorities, infrastructure, outreach and education activities over the next five years. The plan will be updated later to further reflect the JCSDA Technical Operating Plan (JTOP) for each fiscal year as well as the needs of the participating agencies. In the last few months, we were very pleased to receive positive feedback from all participating agencies. We are especially grateful to the diligent efforts of the JCSDA Technical Liaisons. Support from the Mitretek team facilitated timely delivery of this important document.

JCSDA Working Group Meeting on Cloudy Radiance Assimilation
A JCSDA working group meeting on cloudy radiance assimilation was held on November 15, 2002. Fuzhong Weng (Executive Director of JCSDA), John Derber, Russ Treadon,
Fred Ferrier, Shrinwas Moorthi (EMC), and Mark Liu and Xiaofan Li (ORA) participated. The working group concluded that the first step toward the direct cloudy radiance assimilation is to check the consistency of cloud products from NCEP forecast models with satellite observations. A system must be developed for collecting and archiving the relevant data. Also, JCSDA should build up its infrastructure for assessing and evaluating the advanced forward radiative transfer models that can be directly applied to cloudy radiance assimilation. While these models are being developed and assessed, the adjoint radiative transfer codes must be also developed.

**Outlook for Next Quarter**

**JCSDA AO Proposal Review and Award**

Proposals in response to the JCSDA Announcement of Opportunity (AO) will be reviewed by a select group of experts in satellite data assimilation. A total of thirty-four proposals have been received from universities, research institutes, private companies and government laboratories. Plans call for merit reviews to be completed by January 28, 2003 and the final selections to be announced in early March 2003.

**New Offices for the JCSDA**

Work will start in the middle of January to completely renovate the seventh floor and part of the eighth floor of the NOAA Science Center for the JCSDA. When completed in June 2003, the new space will have 25 offices to accommodate the civilian employees, contractors, and visiting scientists of the JCSDA participating agencies.

**Progress Reviews of the JCSDA Science Development and Implementation Projects**

The JCSDA management team will review mid-term progress on the eight JSDI tasks funded through the ORA directed research program.

**JCSDA Training Course on Adjoint Coding**

A one-week training course on radiative transfer forward models and their adjoint coding is planned for the spring of 2003. Details, schedule, and syllabus will be announced in January.

**JCSDA Seminar Series**

Recent JCSDA seminars were presented by M. Chahine, JPL, on Early Results from AIRS; A. Voronovich, OAR, on Microwave Radiative Transfer Modeling; A. Harris, U. Md., on Satellite SST Observations; and I. Stajner, DAO, on Ozone Assimilation. Upcoming seminars include C. Koblinski, 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](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.

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**JCSDA Organizational Structure**

**Directors of Oversight Board**

NOAA/NWS/NCEP: L. Uccellini (Chair)

NASA/Goddard/ESD: F. Einaudi

NOAA/NESDIS/ORA: M. Colton

NOAA/OAR/OWAQR: D. Rogers

NAVY/ Warfare Requirement: R. Hillyer

AIR FORCE/XOWR: M. Farrar

**Staff**

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Executive Directors: Fuzhong Weng (ORA)

Lars Peter Rislohaard (DAO)

**EMC**

J. Derber

R. Treadon

T. Kleespies

Y. Han

GPS Visitor

**ORA**

D. Parrish

W. Wu

R. Kuligowski

X. Li

Employees

**DAO**

P. Van Delst

M. Pondeca

C. Zhou

J. Jung

**Technical Liaisons**

D. Turpley (ORA)  D. Dee (DAO)  J. Derber (EMC)

M. Rienecker (NSIPP)  A. Gasiewski (ETL)  N. Baker (NRL)

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**JCSDA External Members**

**Advisory Panel**

T. Hollingsworth  A. Lorence

P. Courtier  E. Kalnay

R. Anthes  J. Purdon

T.N. Krishnamurti  T. Vander Haar

M. Bermond

**Science Steering Committee**

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J. Fyfe  A. McNally

R. Peterson  T. Schlatter

R. Atlas  C. Bishop

A. Busalacchi  S. Chang

C. Chouinard