

**Welcome to the  
JCSDA 8<sup>th</sup> Science Workshop!**

**Halethorpe, MD (UMBC), May 4-5, 2010**

# Objectives of the Workshop

- The JCSDA supports scientific development work in satellite data assimilation with internally directed funds as well as with external grants awarded via a competitive Federally Funding Opportunity (FFO) open to the broader scientific community.
- **The JCSDA science workshop aims at facilitating the coordination between these multiple efforts.**
- **It is also an opportunity for scientists to give feedback(s) and influence future directions of the JCSDA (through the breakout discussions)**

# Overall Program

- **Session 1:** consists of presentations from JCSDA management, partners and Working Groups
- **Session 2:** consists of oral presentations
- **Session 3:** consists of poster presentations
- **Session 4:** contains break-out group discussions of plans and progress.
- **Session 5:** is a final plenary session in which reports from the break-out groups will be provided and discussed.

# Agenda

- Tuesday, May 4<sup>th</sup> 2010 (Morning)

- **Session 1: 10:00 – 12:00 Plenary Session**

## JCSDA Management, Partner Presentations and Working Group Reports

- **10:00–10:10:** Welcome from JCSDA Management Oversight Board, Col Mark.Zettlemyer, JCSDA MOB Chair
- **10:10–10:40:** JCSDA program update and overview , Dr. Lars Peter Riishojgaard, JCSDA Director
- **10:40–11:00:** NESDIS/STAR data assimilation activities, Dr Sid Ahmed Boukabara, JCSDA Deputy Director
- **11:00–11:20:** NCEP satellite data assimilation overview, Dr. Steve Lord, EMC Director
- **11:20–11:40:** Satellite assimilation activities at NRL, Ms. Patricia Phoebus, NRL Associate Superintendent
- **11:40–12:00:** USAF data assimilation activities, Dr. John Zapotocny, AFWA Chief Scientist

**12:00 Picture Taking + Lunch**

# Agenda

- Tuesday, May 4<sup>th</sup> 2010 (Afternoon- 1<sup>st</sup> Part)
- **Session 1: 01:10 – 02:45 Plenary Session**

## JCSDA Management, Partner presentations and Working Group Reports (Continued)

- **01:10–01:25** CRTM Working Group Report, Dr. Paul van Delst, EMC and Dr. Yong Han, STAR
- **01:25–01:40** Microwave Sensors Working Group Report, Dr. Fuzhong Weng and Dr. Steve Swadley
- **01:40–01:55** Land Data Assimilation Working Group Report/Plan, Mike Ek (NCEP), Christa Peters-Lidard (NASA/GSFC), John Eylander (AFWA)
- **01:55–02:10** Air Composition Working Group Report, Dr. Shobha Kondragunta, STAR and Co-Chair Doug Westphal (NRL)
- **02:10-02:25 and** Ocean Report Assimilation Working Group Plan, Dr. Hendrik Tolman, EMC Jim Cummings, NRL
- **02:25–02:45** GMAO data assimilation overview, Dr. Michele Rienecker, Head, GMAO
- **02:45 – 3:15 Break**

# Agenda

- Tuesday, May 4<sup>th</sup> 2010 (Afternoon -2<sup>nd</sup> Part)

- **Session 2: 3:15 PM– 5:15 PM Oral presentations**

## Selected oral presentations (contributed topics)

- 3:15 – 3:30 Utilizing Simulated Observations in Preparation for the Assimilation of ADM-Aeolus Measurements, W. McCarty, NASA/GSFC/GMAO
- 3:30 – 3:45 CMAQ PM2.5 forecasts adjusted to errors in model wind fields, E-S. Yang, University of Alabama in Huntsville
- 3:45 – 4:00 Real-time Air Quality Modeling System aerosol and ozone assimilation and forecasting experiments during the NOAA ARCPAC field mission, R. B. Pierce, NESDIS/STAR
- 4:00 – 4:15 Profiling the boundary layer and free tropospheric water vapor with GPS RO, Rob Kursinski,
- 4:15 – 4:30 DTC GSI Testing and Evaluation, K. Crosby, NCAR
- 4:30 – 4:45 Near-Surface Sea Temperature (NSST) and Satellite Data Assimilation, X. Li, NWS/EMC
- 4:45 – 5:00 UTLS Ozone Assimilation in GEOS-5: EOS-MLS Results and NPP-OMPS Planning , S. Pawson, NASA/GMAO, P. Xu, V. Yudin
- 5:00 – 5:15 Update on LBLRTM and MonoRTM development, Eli Mlawer, AER Inc.
- 5:15 *Adjourn*

# Agenda

- Wednesday, May 5<sup>th</sup> 2010 (Morning -1<sup>st</sup> part)
- **Session 2: 9:00 - 10:30 Oral presentations**
- 9:00–9:15 NCEP Support for JCSDA Development, S. Lord, EMC; J. Derber, K. Mitchell, C. Long
- 9:15–9:30 STAR Support for JCSDA Development, F. Weng, STAR, Y. Han, B. Yan, M.Liu, Y. Chen, R. Vogel, M. Kim, T. Zhu, G. Krasowski, S. Boukabara
- 9:30–9:45 Status of the RO assimilation at NOAA, L. Cucurull, NOAA/IPA
- 9:45–10:00 The development of hyperspectral infrared water vapor radiance assimilation techniques in the NCEP Global Forecast System, J. Jung, CIMSS; J. Le Marshall, L.P. Riishojgaard
- 10:00–10:15 Assimilation of Satellite Microwave Water Vapor Sounding Channel Data in NCEP Global Forecast System (GFS), Banghua Yan, F. Weng, J Derber
- 10:15–10:30 GSI Data Assimilation system Community Support and Test, H. Shao, NCEP, EMC
- *10:30 – 11:00 Break*

# Agenda

## Wednesday, May 5<sup>th</sup> 2010

- **Session 2: 11:00 - 12:30 Oral presentations**
- 11:00–11:15 Impact of satellite observed land surface data on NCEP short term forecasting, **V. Wong**, NCEP/EMC –SAIC, Michael Ek, co-author, NCEP
- 11:15–11:30 Observation Error Characterization for Radiance Assimilation of Clouds & Precipitation, **T. Greenwald**, CIMMS
- 11:30–11:45 Modeling Altimetry Data Error for Ocean Data Assimilation, **A. Kaplan**, LDEO
- 11:45–12:00 Estimating the representation error of satellite and situ data for data assimilation into Ocean climate models, **R. Miller**, Oregon State University
- 12:00–12:15 Radiance Data Assimilation with Ensemble Kalman Filter, **C. Schwartz**, Z. Liu, Y. Chen, X. Huang, National Center for Atmospheric Research
- 12:15–12:30 Satellite data diagnostics for hurricane models, **L. Sparling**, UMBC
  
- **Session 3: 12:30 – 2:00 Lunch Break/Poster Presentations (catered)**
  
- **Session 4: 2:00 – 3:30 Breakout group discussion of JCSDA plans and priorities**
- - CRTM Working Group
- - Microwave Working Group
- - Land Data Assimilation Working Group
- - Air Composition Working Group
- - Ocean Data Assimilation Working Group
- -Advanced sensors working group (TBC)
  
- 3:30 – 3:45 Break
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- **Session 5: 3:45 – 5:00 Final Plenary**
- 3:45 – 4:35 Summary report from group discussions (5 – 10 minutes each, same order)
- 4:35 – 5:00 Final Remarks, JCSDA Director and Management Oversight Board
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- 5:00 Adjourn