SECOND CIRCULAR

The 16th JCSDA Technical Review Meeting & Science Workshop on Satellite Data Assimilation

May 30 –June 1, 2018

will be held at the

National Oceanic and Atmospheric Administration (NOAA)
David Skaggs Research Center (DSRC)
325 Broadway
Boulder, CO 80305

For dining and accommodation options in Boulder please visit:
https://www.bouldercoloradousa.com/

Introduction:

The annual Technical Review Meeting and Science Workshop provides a forum to review the recent and planned scientific development sponsored by the NASA-NOAA-DOD Joint Center for Satellite Data Assimilation, (JCSDA.) It enhances coordination of these efforts internally and with the broader research community. In addition to the formal presentations, the agenda will include extensive time for informal discussions among scientists from all the JCSDA partners and with JCSDA managers. JCSDA management greatly values the recommendations and ideas put forth during the meeting, and these serve as one of the inputs when developing technical directions for future activities.

The JCSDA partners (NASA-NOAA-DOD) contribute core personnel and services, in-kind members and services, and supported external researchers to support these efforts. To fulfill the Center's mission of accelerating and improving the use of satellite data in operational analysis and predictions, it is essential that all of these efforts be complementary, well-coordinated, and aligned with both the over-arching priorities and the current projects. The JCSDA technical review meeting and science workshop is intended to facilitate this coordination.

Logistics:

Logistical information is available via the link https://cpaess.ucar.edu/meetings/2018/16th-jcsda-technical-review-meeting. **Registration still is open for US citizens. However it closed for foreign nationals as of April 30, 2018.** There is no registration fee for the Meeting. Arrangements are being made for Continental breakfast, snacks and lunch (Wednesday and Thursday only). Instructions on paying for these will be provided in the third and final circular.

Program:

As of this writing there are ~ 60 registered participants for the Workshop. The program consists of over 30 oral presentations and 12 posters. The Agenda (subject to final adjustments) is attached next. We look forward to seeing you in Boulder!

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Day 1: Wednesday, May 30, 2018

8:00 AM – 9:00 AM	*REGISTRATION AND CONTINENTAL BREAKFAST*
9:00 AM – 9:20 AM	Welcome from the Management Oversight Board – Robert Atlas
9:20 AM – 10:00 AM	Joint Center for Satellite Data Assimilation: Overview – Thomas Auligne
10:00 AM – 10:30 AM	Agency Partner Perspectives – NOAA/NESDIS, NOAA/NWS, NOAA/OAR, USAF 557th, NASA/GMAO, NRL (Timing TBD)
10:30 AM – 11:00 AM	*COFFEE BREAK*
11:00 AM – 12:00 PM	Agency Partner Perspectives – NOAA/NESDIS, NOAA/NWS, NOAA/OAR, USAF 557th, NASA/GMA, NRL (Timing TBD)
12:00 PM – 13:00 PM	*WORKING LUNCH*
	SESSION 1: CLOUDS AND AEROSOLS
13:00 PM – 13:25 PM	The Use of Sky Cameras to Validate and Augment Satellite / Radar based Cloud Assimilation – Steve Albers, CIRA, NOAA/ESRL
13:25 PM – 13:50 PM	Overall Use of Satellite Data in the RAP / HRRR Models, including Cloud Products, Convective Initiation Indicators, Lightning Data – Steve Weygandt, NOAA ESRL/GSD
13:50 PM – 14:15 PM	Using Multi-Sensor Aerosol Optical Depth Retrievals to Improve Infrared Radiance Assimilation / Assimilation – Aaron Naeger, University of Alabama, Huntsville
14:15 PM – 14:45 PM	*COFFEE BREAK*
	SESSION 2: DIAGNOSTICS
14:45 PM – 15:10 PM	Impact of Observing Systems Project Overview – Francois Vandenberghe, JCSDA
15:10 PM – 15:35 PM	Efficient Data Selection Method for NWP Using Ensemble Forecast Sensitivity to Observations – Tse-Chun Chen, University of Maryland
15:35 PM – 16:00 PM	Estimation and Online Correction of Systematic Errors in the GFS Using Analysis Increments – Kriti Bhargava, University of Maryland
16:00 PM – 17:30 PM	**POSTER SESSION**
19:00 PM	*Group Evening Activity (optional) – Details to be Provided*

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Day 2: Thursday, May 31, 2018

8:30 AM – 9:00 AM	*CONTINENTAL BREAKFAST*
	SESSION 3: ADVANCES IN DATA ASSIMILATION METHODOLOGIES
9:00 AM – 9:25 AM	JEDI Project Overview – Yannick Tremolet, JCSDA
9:25 AM – 9:50 AM	FV3-JEDI: Progress Report and Future Plans – Daniel Holdaway, JCSDA
9:50 AM – 10:15 AM	SOCA-JEDI: Progress Report and Future Plan – Guillaume Vernieres, JCSDA
10:15 AM – 10:40 AM	Covariance Localization in Strongly Coupled Data Assimilation – Takuma Yoshida, University of Maryland
10:40 AM – 11:10 AM	*COFFEE BREAK*
	SESSION 4: NEW AND IMPROVED OBSERVATIONS
11:10 AM – 11:25 AM	New and Improved Observations (NIO) Project Overview – Hui Shao, JCSDA
11:25 AM – 11:50 AM	Assimilation of Himawari-8 AHI into NCEP GSI – Ling Liu, NESDIS/STAR/JCSDA
11:50 AM – 12:15 PM	Observation Capabilities - Vertically Resolved Wind Profiles from Space-Based Doppler Wind Lidar: Plans and Current Capabilities – Sara Tucker, Ball Aerospace
12:15 PM – 13:15 PM	*WORKING LUNCH*
	SESSION 4: (CONTINUED)
13:15 PM – 13:40 PM	Assimilation of CYGNSS and GPM Satellite Data in Improving Hurricane Forecasting – Zhaoxia Pu, University of Utah
13:40 PM – 14:05 PM	Assimilation of Clear -/ All-Sky Himawari-AHI Radiances for Convective-Scale Forecasting – Zhiquan Liu, NCAR
	SESSION 5: ALL-SKY AND ALL-SURFACE RADIANCE ASSIMILATION
14:05 PM – 14:30 PM	Assimilation of Clear-Sky Water Vapor Radiances into a Warn-on-Forecast System – Thomas Jones, CIMMS/NSSL
14:30 PM – 15:25 PM	Satellite Radiance Assimilation in the Rapid Refresh Model System, Overall Impacts and Use of Direct Broadcast and ABI Data – Haidao Lin, CIRA/CSU, NOAA/ESRL/GSD

15:25 PM – 15:40 PM	*COFFEE BREAK*
	SESSION 5: (CONTINUED)
15:40 PM – 16:05 PM	Assimilation and Evaluation of the AFWA SNODEP Product in NCEP Operational FV3GFS Systems – Jiarui Dong, IMSG at NOAA/NCEP/EMC
16:05 PM – 16:30 PM	Assimilation of Radiance Data Over Land with Addition of Emissivity as Analysis Variable into GSI – Biljana Orescanin, NOAA/NESDIS/STAR/JCSDA
16:30 PM – 17:30 PM	**PANEL DISCUSSION**
19:00 PM	*Group Evening Activity (optional) – Details to be Provided*

Day 3: Friday, June 1, 2018

8:30 AM – 9:00 AM	*CONTINENTAL BREAKFAST*
	SESSION 6: GNSS RADIO OCCULTATION
9:00 AM – 9:25 AM	Assimilation of KOMPSAT-5 GPSRO in GSI 4D-EnVar Assimilation System – Suryakanti Dutta, JCSDA/UCAR
9:25 AM – 9:50 AM	Radio Occultation Observation Operators for Data Assimilation using Spire Bending Angle Data – Razvan Stefanescu, Spire Global
9:50 AM – 10:15 AM	Error Characteristics of KOMPSAT-5 GPS RO Bending Angle Data / NIO – Hailing Zhang, UCAR/COSMIC
10:15 AM – 10:45 AM	*COFFEE BREAK*
	SESSION 7: COMMUNITY RADIATIVER TRANSFER MODELING
10:45 AM – 11:10 AM	The JCSDA Community Radiative Transfer Model, Benjamin Johnson, JCSDA
11:10 AM – 11:35 AM	CRTM Support to GMAO, Validation and Coefficient Generation, Isaac Moradi, NASA GMAO
11:35 AM – 12:00 PM	Optimizing the CRTM for Improved Performance of All-Sky Radiance Data Assimilation – Thomas Greenwald, University of Wisconsin-Madison
12:00 PM – 12:30 PM	Open Discussion and Wrap-up
12:30 PM	Adjourn