



Agenda
NASA Sounder Science Team Meeting
October 13-16, 2015
Marriott Greenbelt

Tuesday, October 13, 2015

(Light Morning Refreshments: 7:30 - 8:00)

Session 1: Introduction (Chair: Tom Pagano)

Joao Teixeira	NASA JPL	AIRS Science	8:00 AM
Tom Pagano	NASA JPL	AIRS Project Status	8:20 AM
Claire Parkinson	NASA GSFC	Aqua Update	8:40 AM
Ramesh Kakar	NASA HQ	NASA Headquarters Perspective	9:00 AM
Tsengdar Lee	NASA HQ	NASA Weather Workshop	9:20 AM
Mitch Goldberg	NOAA	JPSS Proving Ground Projects for CrIS and ATMS Applications	9:40 AM

BREAK

10:00 AM

Session 2: Atmospheric Physics and Climate (Chair: Joao Teixeira)

Xianglei Huang	Univ of Michigan	Linear trends and closures of 10-year observations of AIRS stratospheric channels	10:20 AM
Lazaros Oreopoulos	NASA GSFC	Longwave AIRS Cloud Radiative Effect decomposed by MODIS Cloud Regime	10:40 AM
Larrabee Strow	UMBC	12-Year Trends Derived from Radiances: Intercomparisons to AIRS L3 and ERA Reanalysis	11:00 AM
Linette Boisvert	ESSIC/NASA GSFC	Using AIRS data to estimate sublimation/deposition on the Greenland ice sheet: Comparisons and climatology	11:20 AM
Dong Wu	NASA GSFC	Variations of Greenland transparent and opaque clouds and their correlations with AIRS water vapor mass mixing ratio (MMR) and relative humidity (RH)	11:40 AM

LUNCH

12:00 PM

Hui Su	NASA JPL	Iris Effect, Negative Feedback and Climate Sensitivity	1:30 PM
Jae N. Lee	JCET/UMBC/ GSFC	Comparison of OLR data sets from AIRS, CERES and MERRA2	1:50 PM
Brian Kahn	NASA JPL	Sub-pixel characterization of HIRS spectral radiances using cloud properties from AVHRR	2:10 PM
George Aumann	NASA JPL	Trends in AIRS and AMSU L1b, Artifact, Weather or Climate	2:30 PM
Alexander Ruzmaikin	NASA JPL	Evaluation of the AIRS skin and air surface temperatures	2:50 PM

BREAK

(Light Afternoon Refreshments)

3:10 PM

Session 3: Applications (Chair: Sharon Ray)

Sharon Ray	NASA JPL	Status of AIRS Applications Effort	3:30 PM
Joshua K. Roundy	University of Kansas	Satellite remote sensing observations of land-atmosphere interactions for monitoring and understanding mechanisms of drought	3:50 PM
Stephanie Granger	NASA JPL	A global AIRS drought data set for drought monitoring and development of heat-index maps	4:10 PM
Colby Francoeur	STC-Affiliate	Visualization of 10 years of AIRS data: a search for new product applications	4:30 PM
Darren Drewry	NASA JPL	AIRS, Climate and Vector-Borne Disease	4:50 PM
Discussion Period	ALL		5:10 PM

ADJOURN

5:30 PM



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Wednesday, October 14, 2015

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Session 4: Algorithm Development (Chair: George Aumann)

Mathias Schreier	NASA JPL	Status of Cloudy Radiative Transfer Algorithms at AIRS TLSCF and Sounder SIPS	8:00 AM
Larrabee Strow	UMBC	AIRS RTA Update Status	8:20 AM
Robert C. Wilson	NASA JPL	Comparisons of Cloudy Radiative Transfer Using LBLRTM, PCRTM, and SARTA	8:40 AM
George Aumann	NASA JPL	Evaluation of cloudy AIRS Radiative Transfer calculations	9:00 AM
Sergio DeSouza-Machado	UMBC	Single Footprint Retrievals with SARTA-Cloudy	9:20 AM
Bill Irion	NASA JPL	Update on single-footprint cloudy retrieval from AIRS	9:40 AM
BREAK			10:00 AM
Joel Susskind	NASA GSFC	Status and plans for AIRS Version-7 at SRT	10:20 AM
Antonia Gambacorta	STC	Status of CHIMERA - Phase 3: algorithm improvements, validation and applications	10:40 AM
Adam Milstein	MIT	Recent Improvements to Neural Network	11:00 AM
Nicholas Nalli	NOAA	On the angular effect of undetected clouds in infrared window radiance observations: Aircraft experimental analyses	11:20 AM

Session 5: Weather (Chair: Chris Barnet)

Chris Barnet	STC	The use of temperature and water vapor profiles for weather applications: recent activities in the NOAA/JPSS Proving Ground	11:40 AM
LUNCH			12:00 PM
Daniel Niefeld	NOAA	National Weather Service's use of Hyperspectral Profiles in Operational Forecast and Warning Services	1:30 PM
Bjorn Lambrigtsen	NASA JPL	The SHOUT hurricane field campaign	1:50 PM
Joel Susskind	NASA GSFC	Improving forecast skill by assimilation of Quality Controlled AIRS clear column radiances	2:10 PM
Oreste Reale	USRA/NASA	Adaptive AIRS radiance thinning to improve global forecast skill and tropical cyclone representation in the NASA GEOS-5	2:30 PM
BREAK			2:50 PM
Erica McGrath-Spangler	USRA/GESTAR/ GSFC	Sensitivity of a North Indian tropical cyclone analysis to AIRS data assimilation strategy	3:10 PM
Oreste Reale	USRA/NASA	Assimilation of AIRS cloud-cleared radiances to improve tropical cyclone intensity forecast in the NASA GEOS-5	3:30 PM

Session 6: Discussion (Chair: Joao Teixeira)

Discussion Period	ALL	3:50 PM
ADJOURN		5:30 PM



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Thursday, October 15, 2015

(Light Morning Refreshments: 7:30 - 8:00)

Session 5: Weather - Continued (Chair: Chris Barnet)

Dave Santek	University of Wisconsin	The use of satellite-derived 3D Winds from hyperspectral sounders in NWP global models	8:00 AM
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Session 7: Validation (Chair: Eric Fetzer)

Eric Fetzer	NASA JPL	Overview of v6 Validation Results and Plans	8:20 AM
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Bomin Sun	NOAA	Characteristics of radiosonde observations and their impact in satellite sounding product validation	8:40 AM
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Seiji Kato	NASA LARC	MERRA2/AIRS/MODIS Temperature/Humidity Comparisons	9:00 AM
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Nicholas Nalli	NOAA	Validation of the NOAA Unique CrIS/ATMS Processing System (NUCAPS)	9:20 AM
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Tony Reale	NOAA	NOAA Products Validation System (NPROVS) Utility in Variety of Meteorological Scenarios	9:40 AM
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Van Dang	NASA JPL	A Comprehensive Analysis of AIRS Near Surface Air Temperature and Water Vapor Over Land and Tropical Ocean	10:00 AM
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BREAK **10:20 AM**

Sun Wong	NASA JPL	Validation of Temperature and Specific Humidity Inversions in AIRS V6 and V6.2, Neural Network, and ECMWF against Dedicated Radiosondes	10:40 AM
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Peter Kalmus	NASA JPL	Validation of AIRS V6.2 temperature and moisture	11:00 AM
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Nicholas Nalli	NOAA	Analysis of NUCAPS and Dedicated Radiosonde Profile Observations During CalWater/ACAPEX 2015	11:20 AM
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Session 8: Atmospheric Composition and Aerosols (Chair: Juying Warner)

Juying Warner	University of Maryland	AIRS NH3 Trends and Distributions	11:40 AM
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LUNCH **12:00 PM**

JPSS BREAKOUT SESSION: CHEASEPAKE ROOM (B) Noon - 2:00

Session 8: Atmospheric Composition and Aerosols - Continued (Chair: Juying Warner)

Sergio DeSouza-Machado	UMBC	SO2 and Aerosol Retrievals with AIRS	1:30 PM
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Dejan Fu	NASA JPL	Improved Ozone and Carbon Monoxide Profile Retrievals Using Multispectral Measurements from NASA "A-Train", NPP, and S5P Satellites	1:50 PM
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Edward Olsen	NASA JPL	AIRS V6 CO2 Tropospheric Retrieval and Product Validation	2:10 PM
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Stephen Nicholls	NASA GSFC	Evaluation of infrared and microwave sounding data for characterizing the dynamics and evolution of the Saharan Air Layer in West Africa	2:30 PM
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Karen Cady-Pereira	AER	Ammonia from CrIS: What it tells us and how it compares to in situ measurements	2:50 PM
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BREAK *(Light Afternoon Refreshments)* **3:10 PM**

Session 9: Data Systems and Services (Chair: Steve Friedman)

Steve Friedman	NASA JPL	Unified Sounder Product Specifications for AIRS and SNPP	3:30 PM
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Ding Feng	NASA GSFC	AIRS and SIPS Support at the GES DISC	3:50 PM
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Thomas Hearty	NASA GSFC	AIRS Subsetting Capabilities at the GES DISC	4:10 PM
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Baijun Tian	NASA JPL	AIRS Climatology Products ATBD	4:30 PM
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Discussion Period	All		4:50 PM
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ADJOURN **5:30 PM**



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Friday, October 16, 2015

(Light Morning Refreshments: 7:30 - 8:00)

Session 10: Instrument Calibration and L1B Products (Chair: Larrabee Strow)
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Chris Hepplewhite	UMBC	Three Years of CrIS Operation: Stability and Intercomparisons to AIRS	8:00 AM
Evan Manning	NASA JPL	AIRS and CrIS calibration comparisons in cloudy scenes	8:20 AM
George Aumann	NASA JPL	AIRS and CrIS Principle component reconstruction residuals with overlapping granules	8:40 AM
Larrabee Strow	UMBC	Calibration of SNPP-CrIS for the NASA L1b Product	9:00 AM
Graeme Martin	University of Wisconsin	CrIS Level 1B Software Project Status	9:20 AM
<i>BREAK</i>			<i>9:40 AM</i>
Denis Elliott	NASA JPL	AIRS Hardware Health and Calibration Activities	10:10 AM
Thomas Pagano	NASA JPL	Evaluation of the AIRS spatial and radiometric calibration in non-homogeneous scenes using MODIS and PCAs	10:30 AM
Brian Kahn	NASA JPL	Impacts of corrected AIRS Level-1 radiances on cloud thermodynamic phase and ice cloud properties	10:50 AM
Isaac Moradi	University of Maryland	Inter-calibration and validation of observations from modern satellite microwave humidity and temperature sounders	11:10 AM
ALL			11:30 AM
<i>ADJOURN</i>			<i>12:00 PM</i>