



## NASA Sounder Science Team Meeting Final Agenda

October 24-26, 2017 at Greenbelt, Maryland

Tuesday, October 24, 2017

<b>LIGHT MORNING REFRESHMENTS 7:30 - 8:00</b>			
Name	Presentation	Affiliation	Time
<b>Session 1: Opening Session (Chair: Joao Teixeira)</b>			
Joao Teixeira	NASA Sounder Science	NASA JPL	8:00 AM
Lazaros Oreopoulos	Aqua Update	NASA GSFC	8:20 AM
Hank Revercomb	The Cross-track Infrared Sounder (CrIS): Its high accuracy and special properties for establishing a climate record	University of Wisconsin	8:40 AM
Sid Boukabara	MIIDAPS: A Consistent Variational Approach for the Inversion & Assimilation Preprocessing of Microwave and Infrared Satellite Data	NOAA	9:00 AM
Tom Pagano	Technology Advancements since AIRS and Future Applications	NASA JPL	9:20 AM
Will McCarty	An OSSE Investigating a Constellation of 4-5 $\mu\text{m}$ Infrared Sounders	NASA GSFC	9:40 AM
Ramesh Kakar	NASA Headquarters Perspective	NASA HQ	10:00 AM
<b>BREAK (10 Minutes)</b>			<b>10:10 AM</b>
Dennis Hartmann	The Change in Low Cloud Cover in a Warmed Climate Inferred from AIRS, MODIS, and ERA-Interim	University of Washington	10:20 AM
<b>Session 2: Weather &amp; Climate (Chair: Eric Fetzer)</b>			
Stephen Leroy	Trends in Upper Air Temperature in the Era of Aqua	Climate Monitoring and Change Science	10:40 AM
Brian Kahn	An A-train and MERRA view of cloud, thermodynamic, and dynamic variability within the subtropical marine boundary layer	NASA JPL	11:00 AM
Dave Santek	Feature-tracked 3D winds from Sounders: Status and Outlook	University of Wisconsin	11:20 AM
Linette Boisvert	Using remotely sensed data from AIRS to estimate the vapor flux on the Greenland ice sheet: Comparisons with observations and a regional climate model	NASA GSFC/UMBC	11:40 AM
<b>LUNCH</b>			<b>12:00 PM</b>

<b>Session 2: Weather &amp; Climate (Chair: Eric Fetzer) - Continued</b>			
Joel Susskind	Recent Global Warming as Observed by AIRS and Depicted in GISSTEMP and MERRA-2	NASA GSFC	1:00 PM
Liming Zhou	Understanding Desert Amplification Using Observations from AIRS and Other Satellites	University at Albany	1:20 PM
Marian Klein	Microwave CubeSat Sounder - MCS	Boulder Environmental Sciences and Technology	1:40 PM
Larrabee Strow	Perspectives on Building a Climate Record of AIRS+CrIS (and IASI)	UMBC	2:00 PM
Panagiotis Vergados	Synergistic studies between AIRS and GPS radio occultations: Broad relevance to the science advancement of the Earth's atmosphere	NASA JPL	2:20 PM
Ana Nunes	Satellite-enhanced regional downscaling for applied studies: The Catarina event	Department of Meteorology, Federal University of Rio de Janeiro, Brazil	2:40 PM
<b><i>BREAK (20 Minutes)</i></b>			<b><i>3:00 PM</i></b>
<b><i>LIGHT AFTERNON REFRESHMENTS</i></b>			
Linette Boisvert	The Impact of the Extreme Winter 2015/16 Arctic Cyclone on the Barents-Kara Seas	NASA GSFC/UMBC	3:20 PM
Jae N. Lee	Changes in OLR over Arctic as Depicted by AIRS, CERES, and MERRA-2	UMBC	3:40 PM
Sergio DeSouza-Machado	Stochastic and time series analysis of AIRS data	UMBC	4:00 PM
Oreste Reale	Exploring the Role of Correlated Errors in the Assimilation of Adaptively Thinned Cloud-Cleared Radiances: Impact on Tropical Cyclone Analysis and Forecast in the NASA GEOS-5	NASA GSFC	4:20 PM
Erica McGrath-Spangler	Continuing the Assessment of the Combined Impacts of AIRS, CrIS and IASI on Global Skill and Tropical Cyclone Representation in the NASA GEOS-5	NASA GSFC	4:40 PM
<b><i>ADJOURN</i></b>			<b><i>5:00 PM</i></b>



## NASA Sounder Science Team Meeting Final Agenda

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**Wednesday, October 25, 2017**

<b>LIGHT MORNING REFRESHMENTS 7:30 - 8:00</b>			
Name	Presentation	Affiliation	Time
<b>Session 2: Weather &amp; Climate (Chair: Eric Fetzer) - Continued</b>			
Xianglei Huang	A hyperspectral closure study using AIRS radiances and ARM ground observations and its implication for validation effort of sounding missions	University of Michigan	8:00 AM
<b>Session 3: Atmospheric Composition (Chair: Dejan Fu/Vivienne Payne)</b>			
Elliot Sherman	Quantifying atmospheric methane growth rates from AIRS with Giovanni	NASA GSFC	8:20 AM
Leonid Yurganov	IASI/MetOp and TANSO/GOSAT evidence for a growing methane emission in the Arctic after 2014	UMBC	8:40 AM
Xiaozhen (Shawn) Xiong	Recent Improvement in CH <sub>4</sub> Retrieval using S-NPP/CrIS FSR Data	NOAA	9:00 AM
Karen Cady-Pereira	What do TES observation over four megacities tell us	AER	9:20 AM
Vivienne Payne	Towards new constraints on the global tropospheric ozone budget: Satellite observations of peroxyacetyl nitrate (PAN)	NASA JPL	9:40 AM
<b>BREAK (20 Minutes)</b>			<b>10:00 AM</b>
Kelley Wells	Towards isoprene measurements from CrIS: Gaining space-based information on a key biogenic VOC	University of Minnesota	10:20 AM
Juying Warner	Increased atmospheric ammonia over the world's major agricultural areas detected from space	University of Maryland, AOSC, College Park	10:40 AM
Min Huang	Recent use of AIRS data in ozone, aerosol and weather modeling studies	George Mason University	11:00 AM
Zia Ul-Haq	Space-borne AIRS carbon monoxide observations and comparison with anthropogenic emissions in South Asia	University of the Punjab, Lahore	11:20 AM
Dejian Fu	Multi-spectra, multi-species, multi-satellite retrievals of trace gases: updates on validation and science applications	NASA JPL	11:40 AM
<b>LUNCH</b>			<b>12:00 PM</b>

Nadia Smith	Verifying NUCAPS trace gas products across time and space: recent results	Science & Technology Corp. (STC)	1:00 PM
Nicholas Nalli	SNPP NUCAPS Full Spectral Resolution Trace Gas Validation Status	NOAA	1:20 PM
<b>Session 4: Applications and Products (Chair: Sharon Ray)</b>			
Sharon Ray	AIRS Applications Overview: Volcano, Influenza, Drought and More	NASA JPL	1:40 PM
Ali Behrangi	AIRS application for monitoring and prediction of drought and fire	NASA JPL	2:00 PM
Heidar Thrastarson	Health Applications of AIRS Data: Environmental Connection and Prediction of Influenza and Dengue Fever	UCLA JIFRESSE	2:20 PM
Nadia Smith	How NUCAPS made it into the hands of decision-makers - thoughts on achieving relevance with satellite products	Science & Technology Corp. (STC)	2:40 PM
<b><i>BREAK (20 Minutes)</i></b>			<b><i>3:00 PM</i></b>
<b><i>LIGHT AFTERNOON REFRESHMENTS</i></b>			
Ashley Wheeler	Evaluation of NUCAPS products in AWIPS-II: case studies in the pre-convective environment	Science & Technology Corp. (STC)	3:20 PM
Tony Reale	Satellite Sounding Product Characteristic performance and Impact of Satellite Overpass Time	NOAA	3:40 PM
Baijun Tian	AIRS Obs4MIPs V2 Data Set	NASA JPL	4:00 PM
Feng Ding	New Variables and Functions on Giovanni to Enhance Service at GES DISC for NASA Sounder Data Users	NASA GSFC	4:20 PM
<b>Session 5: Retrieval Methods (Chair: Bjorn Lambrigtsen)</b>			
Ruth Monarrez	Sounders SIPS Status and Plans	NASA JPL	4:40 PM
<b><i>ADJOURN</i></b>			<b><i>5:00 PM</i></b>



## NASA Sounder Science Team Meeting Final Agenda

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Thursday, October 26, 2017

<b>LIGHT MORNING REFRESHMENTS 7:30 - 8:00</b>			
Name	Presentation	Affiliation	Time
<b>Session 5: Retrieval Methods (Chair: Bjorn Lambrigtsen) - Continued</b>			
Christopher Barnet	Status of the Community Long-term Infrared Microwave Combined Atmospheric Processing System (CLIMCAPS): status and preliminary results	Science and Technology Corp. (STC)	8:00 AM
Joel Susskind	Status and Plans for Finalization of SRT's Contribution to AIRS Version-7 and Version-7 AIRS Only	NASA GSFC	8:20 AM
Bill Irion	Update on AIRS Single-Footprint Retrievals and New Applications	NASA JPL	8:40 AM
Sergio DeSouza-Machado	Single Footprint Allsky Retrievals : Further Progress	UMBC	9:00 AM
Antonia Gambacorta	Status of the NOAA Unique Combined Atmospheric Processing System (NUCAPS): CrIS full spectral resolution updates and future plans	NOAA	9:20 AM
Adam Milstein	Neural network for Version 7	MIT	9:40 AM
<b>BREAK (20 Minutes)</b>			<b>10:00 AM</b>
Alan Lipton	Developments with a Modular Algorithm for Atmospheric Profiling Earth System Data Records	AER	10:20 AM
Juyne Chen	JPSS-1 ATMS implementation and surface emissivity improvement in NOAA Microwave Integrated Retrieval System (MIRS)	NOAA	10:40 AM
Christopher Grassotti	NOAA's Microwave Integrated Retrieval System (MiRS): Recent Activity and Science Improvements	NOAA	11:00 AM
Flavio Iturbide-Sanchez	Status of the Status of the NUCAPS MW-only system	NOAA	11:20 AM
Bjorn Lambrigtsen	ATMS work at JPL	NASA JPL	11:40 AM
<b>LUNCH</b>			<b>12:00 PM</b>

<b>Session 6: Validation (Chair: Bill Irion)</b>			
Bjorn Lambrigtsen	Assessing Sounder Performance – Comprehensive Capabilities at JPL	NASA JPL	1:00 PM
Nicholas Nalli	SNPP NUCAPS Validation Status	NOAA	1:20 PM
Thomas Hearty(Jae N. Lee)	Intercomparison of Surface Temperatures from AIRS, MERRA, and MERRA-2 with Greenland Weather Stations	NASA GSFC/SGT	1:40 PM
Tony Reale	Integrating GRUAN Uncertainty In Atmospheric Sounding Profile Assessment	NOAA	2:00 PM
Bonin Sun	Vaisala Radiosonde RS92 to RS41 Transition: Implications for Satellite Data Cal/Val	NOAA	2:20 PM
Eric Fetzer	Update on merging AIRS, CrIS and IASI level 2 temperature and water vapor	NASA JPL	2:40 PM
<b><i>BREAK (20 Minutes) LIGHT AFTERNOON REFRESHMENTS</i></b>			<b><i>3:00 PM</i></b>
<b>Session 7: Calibration (Chair: Tom Pagano)</b>			
Howard Motteler	AIRS deconvolution and the translation of AIRS to CrIS radiances	UMBC (JCET)	3:20 PM
Evan Manning	Hyperspectral Sounder Performance for Cold Scenes	NASA JPL	3:40 PM
Larrabee Strow	Intercalibration of AIRS and CrIS via SNOs, PDFs, and Large Random Samplings	UMBC	4:00 PM
Evan Manning	Comparing AIRS and CrIS Under Mean and Extreme Conditions	NASA JPL	4:20 PM
<b>OPEN DISCUSSION PERIOD</b>			<b>4:40 PM</b>
<b><i>ADJOURN</i></b>			<b><i>5:00 PM</i></b>