



Final Agenda
NASA Sounder Science Team Meeting
Nov. 8 - 11, 2011
MARRIOTT GREENBELT

Tuesday, Nov. 8, 2011

A.M. Light Refreshments: 7:30 - 8:00

Session 1: Introduction (Chair: Tom Pagano)

Tom Pagano	JPL	Welcome and AIRS Project Status	8:00 AM
Claire Parkinson	GSFC	Mous Chahine: A Remembrance	8:15 AM
Joao Teixeira	JPL	Science Plans	8:30 AM
Eric Fetzer	JPL	Introduction to V6 and V7	8:50 AM

Session 2: Climate Processes I (Chair: Eric Fetzer)

Joan Alexander	CORA	Convective gravity waves during the North American thunderstorm season	9:10 AM
Abhay Devasthale	SMHI	An overview of current and future research/development activities at the Swedish Meteorological and Hydrological Institute (SMHI) based on NASA Sounder Data	9:30 AM
George Aumann	JPL	On the surface temperature sensitivity of the reflected shortwave, outgoing longwave and net incident radiation under clear and all-sky conditions	9:50 AM

BREAK **10:10 AM**

Joel Susskind	GSFC	The relationship between surface temperature anomaly time series and those of OLR, water vapor, and cloud cover as observed using nine years of AIRS Version-5 level-3 products	10:30 AM
Bin Guan	JPL	Extreme snowfall events linked to atmospheric rivers via satellite measurements	10:50 AM
William Smith	Hampton University	Climate variable trends derived from dual regression AIRS retrievals	11:10 AM
Larrabee Strow	UMBC	All Sky AIRS Trends using PDF's	11:30 AM
Xianglei Huang	University of Michigan	Band by band cloud radiative forcing in cloud feedbacks study and GCM Evaluations	11:50 AM

LUNCH **12:10 - 1:30**

Session 3: Climate Model Evaluation & Invited Climate Modeling Presentations (Chair: Joao Teixeira)

Joao Teixeira	JPL	Satellite Observations for CMIP5/IPCC	1:30 PM
Jerry Potter	GSFC	A perspective on CMIP5: from the simple beginning of model intercomparison to an international effort	1:50 PM
Brian Medeiros	NCAR	Evaluating CAM's clouds with satellite simulators	2:20 PM
Claire Radley	GFDL	Comparison of GFDL's atmospheric models with observations during El Nino events	2:50 PM
Hui Su	JPL	Process oriented quantitative assessment of IPCC AR5 model simulations of clouds and water vapor using A-Train observations	3:20 PM

BREAK (Afternoon Light Refreshments) **3:40 PM**

Baijun Tian	JPL	Evaluating CMIP5 models using AIRS temperature and water vapor profiles	4:00 PM
Amy Braverman	JPL	Likelihood-based evaluation of CMIP5 decadal experiment runs and AIRS water vapor data	4:20 PM

Session 4: Climate Processes II (Chair: George Aumann)

Sun Wong	JPL	Local balance of water and energy budgets in remote sensing and reanalysis data	4:40 PM
Calvin Liang	NGAS	The Interannual variability of water vapor and temperature	5:00 PM
Phuong Nguyen	UMBC	Decadal AIRS global surface brightness temperature trends	5:20 PM
Thomas Hearty	GSFC	A Comparison of Climate Variability Observed by AIRS and MERRA	5:40 PM

ADJOURN **6:00 PM**



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Wednesday, Nov. 9, 2011 *A.M. Light Refreshments: 7:30 - 8:00 a.m.*

Session 4: Cont'd: Climate Processes II (Chair: George Aumann)

Hai-Tien Lee	University of Maryland	HIRS OLR Climate Data Record - production and future plans	8:00 AM
Fengying Sun	NOAA	Estimation of outgoing longwave radiation from AIRS radiance observations	8:20 AM
Xun Jiang	University of Houston	Recycling rate of atmospheric moisture over the past two decades	8:40 AM
Xun Jiang	University of Houston	CO2 variations seen from eight years of AIRS Data	9:00 AM
Benjamin Lintner	Rutgers	Morphology and genesis of long-tailed tropospheric tracer anomaly probability distribution functions	9:20 AM
Hui Su	JPL	Relationship of environmental relative humidity with tropical cyclone intensity and intensification rate	9:40 AM

BREAK **10:00 AM**

Session 5: Clouds and Aerosols (Chair: Brian Kahn)

Christoforos Tsamalis	LMD, France	Optical depth and altitude of dust aerosols from AIRS and IASI	10:20 AM
Daniel Lubin	Scripps	Antarctic cloud microphysical and radiative properties from satellite Mid-IR radiance data	10:40 AM
Hongchun Jin	Texas A&M University	Cloud thermodynamic phase determination with Atmospheric Infrared Sounder for version 6 release	11:00 AM
Brian Kahn	JPL	New AIRS Version 6 cloud products	11:20 AM
Zhibo Zhang	UMBC	An assessment of differences between cloud effective particle radius retrievals for marine water clouds from three MODIS spectral bands:	11:40 AM

LUNCH **12:00 - 1:15**

Lazaros Oreopoulos	GSFC	Employing recent satellite datasets for improved understanding of the cloud radiative effect and its representation in climate models	1:15 PM
Mathias Schreier	JPL	AIRS and MODIS synergy: towards an improved understanding of cloud properties and processes	1:35 PM
Chenxi Wang	Texas A & M	Retrieving ice cloud properties by using the AIRS and MODIS instruments	1:55 PM
Jie Gong	JPL	Upper level cloud structures inferred from AIRS angle dependant radiances	2:15 PM

Session 6: Atmospheric Composition (Chair: Edward Olsen)

Hai Nguyen	JPL	Spatial interpolation of carbon dioxide using fixed rank kriging	2:35 PM
Noel Cressie	Ohio State University	Spatio-temporal smoothing of CO2 retrievals	2:55 PM

BREAK (Afternoon Light Refreshments) **3:15 PM**

Alexander Ruzmaikin	JPL	The CO2 trends from AIRS L1 and L2 data	3:35 PM
Jungie Liu	JPL	Simultaneous assimilation of AIRS xCO2 and meteorology observations in a carbon climate model with EnKF	3:55 PM
Larrabee Strow	UMBC	Clear sky AIRS Trends	4:15 PM
Edward Olsen	JPL	Initial v6 mid-trop CO2 testing	4:35 PM
Juying Warner	UMBC	Impact of clouds on tropospheric CO variability	4:55 PM
Jacquelyn Witte	SSAI	Satellite monitoring of the 2010 Russian Wildfires: Capitalizing on NASA's EOS platform and A-Train constellation	5:15 PM
Leonid Yurganov	JCET, UMBC	First validation of AIRS, MOPITT and IASI CO total column over severe wildfires: implications for top-down emission estimates	5:35 PM
Shawn (Xiaozen) Xiong	NOAA	Recent improvements on AIRS CH4 retrieval, validation and data analysis	5:55 PM

ADJOURN **6:15 PM**



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Thurs. Nov. 10, 2011

A.M. Light Refreshments: 7:30 - 8:00 a.m.

Session 7: Weather Forecasting (Chair: Chris Barnet)

Nick Nalli	NOAA	2011 AEROSE Ocean Validation Campaign Summary	8:00 AM
Oreste Reale	GSFC	AIRS impact on analysis and forecast of extreme precipitation events in the tropics with a global data assimilation and forecast system	8:20 AM
Eugenia Kalnay	University of Maryland	AIRS forecast sensitivity impact and potential use to estimate surface fluxes	8:40 AM
Lars Peter Riishojgaard	JCSDA	Assimilation of water vapor radiances from hyperspectral IR sounders in the Joint Center for Satellite Data Assimilation	9:00 AM
Ron Gelaro	GSFC	Observation impact monitoring in the GEOS-5 atmospheric data assimilation system	9:20 AM
Sid-Ahmed Boukabara	NOAA	MIRS Algorithm: a comprehensive variational approach to remote sensing in all-weather, all-surfaces conditions	9:40 AM

BREAK

10:00 AM

Session 8: Sounder Workshop Recap and Planning Session (Chair: Tom Pagano)

Roger Heymann	NOAA	Summary of NWP center use of hyperspectral IR data in weather models	10:20 AM
Eric Fetzer	JPL	2010 NASA Sounder Workshop Recap	10:40 AM
Bill Blackwell	MIT	Nanosatellites for Earth Atmospheric Sounding: The MicroMAS Project	11:00 AM
Joe Predina	ITT	ITT Hyperspectral Advanced Baseline Sounder for GEO orbit	11:20 AM
George Aumann	JPL	An infrared hyperspectral shortwave sounder with very high spatial resolution: requirements and potential science return	11:40 AM

LUNCH

12:00 - 1:30

Bjorn Lambrigtsen	JPL	Future microwave sounders	1:30 PM
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NASA Group Achievement Awards: GSFC AIRS Product Generation System Team (Tom Pagano) 1:50 PM

Session 9: AIRS Version 6 (V6) Product Testing & Validation (Chair: Bjorn Lambrigtsen)

Steve Friedman	JPL	V6 Schedule and Status	2:10 PM
Evan Manning	JPL	AIRS V6 Level-2 products	2:30 PM
Joel Susskind	GSFC	SRT evaluation of experiments run at JPL using the V6 and V6 AIRS only retrieval systems	2:50 PM

BREAK (Afternoon Light Refreshments)

3:20 PM

Glynn Hulley	JPL	AIRS V6 land surface temperature and emissivity assessment	3:40 PM
Sun Wong	JPL	Biases and skill scores of V5 and V6 AIRS temperature and water vapor using sonde data	4:00 PM
Juying Warner	UMBC	V6 CO Testing	4:20 PM
Van Dang	JPL	Testing and validation of AIRS V6 cloud top properties	4:40 PM
Antonia Gambacorta	NOAA	Some discussion on the properties of the current AIRS water vapor retrieval channel subset	5:00 PM
Discussion Period	All		5:20 PM

ADJOURN

5:30 PM

SVS Visualization Tour 6:00 PM

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Friday, Nov. 11, 2011

A.M. Light Refreshments: 7:30 - 8:00 a.m.

Session 10: Instrument Calibration (Chair: Denis Elliott)			
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Denis Elliott	JPL	AIRS/Aqua Operations Status / New AIRS Gain Table	8:00 AM
George Aumann	JPL	AIRS Calibration Updates	8:20 AM
David Chapman	UMBC	Noise reduction in gridded AIRS radiance products using the MODIS obscov algorithm	8:40 AM
Likun Wang	NOAA	Consistency assessment of Atmospheric Infrared Sounder and Infrared Atmospheric Sounding Interferometer radiances	9:00 AM
Changyong Cao	NOAA/NESDIS	Intercalibration of infrared sounders to support climate applications	9:20 AM
Fangfang Yu	ERT, Inc.	Monitor and improve the GOES instrument calibration with AIRS and IASI: an application of GSICS	9:40 AM

BREAK

10:00 AM

Session 11: NPP Readiness (Chair: Bjorn Lambrigtsen)			
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Chris Barnet	NOAA	NPP CrIMSS EDR products: plans and validation	10:20 AM
Murty Divakarla	NOAA	Pre-launch to post-launch transition towards CrIMSS EDR Product Evaluation	10:40 AM
Antonia Gambacorta	NOAA	The operational channel selection for the Cross Track InfraRed Sounder: methodology and information content	11:00 AM
Ed Kim	GSFC	Initial activation status of ATMS	11:20 AM
Joe Predina	ITT	Activation plan for CrIS	11:40 AM

ADJOURN

12:00 PM