

# AGENDA AIRS Project Science Team Meeting April 21-23, 2015 Caltech Pasadena, Ca

## Tuesday, April 21, 2015

Light Refreshments: 7:30 a.m.

Session 1: Project	Status (Chair: To	m Pagano)	
Joao Teixeira	NASA JPL	Introduction	8:00 AM
Ramesh Kakar	NASA HQ	Headquarters Perspective	8:15 AM
Session 2: Compo	osition (Chair: Bil	l Irion)	
Mike Gunson	NASA JPL	Invited Talk: The Orbiting Carbon Observatory (OCO-2)	8:30 AM
Kevin Bowman	NASA JPL	Invited Talk: Observational constraints on climate forcing: perspectives from satellites, models, and assimilation	9:15 AM
BREAK			10:00 AM
Meiyun Lin	Princeton	Invited Talk: Challenges in understanding daily to inter-annual variability of tropospheric ozone: perspectives from satellites and models	10:35 AM
Dejian Fu	NASA JPL	Improved Ozone Profile Retrievals Using JPL (MS)^3 Retrieval Algorithm	11:20 AM
Joel Susskind	NASA GSFC	Major upgrades to the Version-6 ozone profile methodology	11:40 AM
LUNCH			12:00 PM
Vince Realmuto	NASA JPL	Towards a Standard AIRS SO2 Product: a Multi-Sensor Comparison Exercise	1:30 PM
Olga Kalashnikova	NASA JPL	Mineral dust characterization approaches through MISR multiangular and AIRS spectral signatures	1:50 PM
Ming Luo	NASA JPL	TES NH3 and CO observations and model simulations: their correlations and implications	2:10 PM
Chris Wilson	NASA JPL	Using AIRS CO to Improve Ground Based CO measurements in the Boundary Layer	2:30 PM
BREAK			2:50 PM
Session 3: CO2 (C	Chair: Ed Olsen)		
Ed Olsen	NASA JPL	AIRS V6 CO2 product development	3:10 PM
Amy Braverman	NASA JPL	Fusion of AIRS and OCO-2 carbon dioxide data for mapping lower-atmospheric CO2	3:30 PM
Le(Elva) Kuai	UCLA JIFRESSE	Profiling Tropospheric CO2 using the Aura TES and TCCON instruments	3:50 PM
Xun Jiang	Univ of Houston	Comparison of AIRS CO2 with Other CO2 Products	4:10 PM
Tomohiro Oda	NASA GSFC	Characterizing errors in AIRS Level 2 CO2 retrievals using forward transport model simulation	4:30 PM
Tom Pagano	NASA JPL	AIRS Mid-Tropospheric CO2 Climatology Product	4:50 PM
Discussion Period	All		5:10 PM
ADJOURN			5:30 PM
		4/20/15	



# AGENDA AIRS Project Science Team Meeting April 21-23, 2015 Caltech Pasadena, Ca

Wednesday, April 22, 2015

Light Refreshments: 7:30 a.m.

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Recap and Disussion	All		8:00 AM
Continuation: Session	on 1: Project Stat	tus & Session 2: Composition	
Tom Pagano	NASA JPL	AIRS Project Status	8:30 AM
lennifer Wei	NASA GSFC	AIRS data distribution and support from the Goddard Earth Sciences Data and Information Services Center (GES-DISC)	8:50 AM
uying Warner	UMBC	Preliminary Results for AIRS N2O Using Optimal Estimation	9:10 AM
a Leifer	BRI	Validation of Arctic AIRS and IASI boundary layer methane observations	9:30 AM
Session 4: Weather	and Climate (Ch	air: Joao Teixeira)	
Sergio DeSouza-Machado	UMBC	Looking at stochastic forcing in the AIRS obs vs clear sky calcs using ERA/MERRA	9:50 AM
REAK			10:10 AM
ï-Hui Wang	NASA JPL	Observational evidence of frontal-scale atmospheric response to Kuroshio Extension variability.	10:40 AM
ui-Lin (Frank) Li	NASA JPL	Characterizing Tropical Pacific Water Vapor and Radiative Biases in CMIP3 and CMIP5 GCMs: Observation-Based Analyses and a Snow and Radiation Interaction Sensitivity Experiment	11:00 AM
van Fishbein	NASA JPL	Simulations Studies of Infrared Sounding of the Trade-Capped Boundary Layer	11:20 AM
Session 5: Cloud Pr	oducts and Scie	nce (Chair: Brian Kahn)	
Brian Kahn	NASA JPL	Pixel-scale assessment and uncertainty analysis of AIRS and MODIS ice cloud optical thickness and effective radius	11:40 AM
UNCH			12:00 PM
ing Yue	NASA JPL	Observation-based Longwave Cloud Radiative Kernels Derived from the A-Train	1:30 PM
′ouri Plokhenko	Univ Wisconsin/Madison	Experimental processing of the AIRS hyperspectral measurements to estimate the cloud absorption vertical profiles for Hurricane loke on August 28, 2008	1:50 PM
Session 6: Retrieval	s and Products	(Chair: Bjorn Lambrigtsen)	
oel Susskind	NASA GSFC	Major upgrades to Version-6 water vapor retrieval methodology	2:10 PM
oel Susskind	NASA GSFC	CrIS/ATMS retrievals using the latest AIRS/AMSU retrieval methodology	2:30 PM
ill Irion	NASA JPL	Update on single-footprint retrievals from cloudy AIRS spectra	2:50 PM
REAK			3:10 PM
arabee Strow	UMBC	AIRS Forward Model Maintenance	3:30 PM
Bill Blackwell	MIT Lincoln Laboratory	Neural Network Updates and Future Plans	3:50 PM
en Ho	UCAR	A New Reprocessing Scheme to Improve the Aqua Global Temperature and Water Vapor Retrievals using GPS Radio Occultation Measurements	4:10 PM
Chris Wilson	NASA JPL	Comparing Different Uses of MODIS Data in AIRS Retrievals	4:30 PM
aijun Tian	NASA JPL	AIRS Climatology Products	4:50 PM
Discussion Period	ALL		5:10 PM
ADJOURN		4/20/15	5:30 PM

Italics = Remote Presentation



# AGENDA AIRS Project Science Team Meeting April 21-23, 2015 Caltech Pasadena, Ca

## Thursday, April 23, 2015

Light Refreshments: 7:30 a.m.

Recap and Disussion	All		8:00 AM		
Session 7: Applicati	ons (Chair: Sha	aron Ray)			
Sharon Ray	NASA JPL	AIRS Applications Status	8:30 AM		
Ami AghaKouchak/ Alireza Farahmand	UC Irvine	Early Drought Detection Using AIRS Relative Humidity Observations	8:50 AM		
Ali Behrangi	NASA JPL	Atmospheric temperature and humidity observations to advance monitoring and prediction of drought	9:10 AM		
Session 9: Instrumer	nt Calibration a	nd Status (Chair: Evan Manning)			
Aumann, George	NASA JPL	Using synthetic EV the analysis of AIRS radiance spectra for radiometric and spectral quality	9:30 AM		
Session 8: Product	Validation (Cha	ir: Eric Fetzer)			
Eric Fetzer	NASA JPL	AIRS Version 6 Validation Plans and Results	9:50 AM		
BREAK			10:10 AM		
Qing Yue	NASA JPL	Validation of AIRS Total Precipitable Water Vapor (TPW) Over Land	10:40 AM		
Van Dang	NASA JPL	An Initial Assessment of AIRS V6 Near Surface Air Temperature Over Land with MESONET	11:00 AM		
Sun Wong	NASA JPL	The Capability of AIRS to Capture Near-Surface Temperature Profiles Over Land	11:20 AM		
Peter Kalmus	NASA JPL	The Pacific Subtropical Cloud Transition: A MAGIC Assessment of AIRS and ECMWF Thermodynamic Structure	11:40 AM		
LUNCH			12:00 PM		
Continued - Session 9: Instrument Calibration and Status (Chair: Evan Manning)					
Manning, Evan	NASA JPL	AIRS Level-1C product and implications for L2	1:30 PM		
Ruzmaikin, Alexander	NASA JPL	On L2 Retrievals from L1B and L1C	1:50 PM		
Hepplewhite, Chris	UMBC	AIRS-CrIS SNO Observations: AIRS L1C Conversions to CrIS	2:10 PM		
Pagano, Thomas	NASA JPL	Matching AIRS and MODIS radiances in cloudy scenes	2:30 PM		
BREAK			2:50 PM		
Manning, Evan	NASA JPL	Tropical SNOs for comparison of AIRS and CrIS	3:20 PM		
Discussion Period	All		3:40 PM		
ADJOURN			5:30 PM		