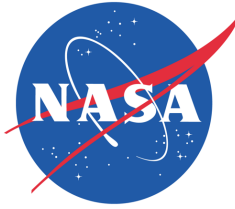




HAQAST5
January 3 – 4, 2019
Thursday, January 3, 9:00-7:00
Friday, January 4, 9:00-3:00



Hosted by Arizona State University
111 E. Taylor St.
Room 554
Phoenix, Arizona

HAQAST5 is hosted by Arizona State University with coordinating assistance from the Maricopa County Air Quality Department. Coffee breaks on Day 1 are generously sponsored by Ramboll and cosponsored by the Office of the Vice Chancellor for Research and Graduate Education at the University of Wisconsin-Madison with funding from the Wisconsin Alumni Research Foundation. Reception refreshments and Day 2 coffee break are supported to by the Office of the Vice Chancellor for Research and Graduate Education at the University of Wisconsin-Madison with funding from the Wisconsin Alumni Research Foundation to help advance HAQAST research.



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

ASU
Arizona State
University



Day 1 – January 3, 2019

Intro

- 8:30 – 9:00 Pick up nametags outside room 554.
- 9:00 5 minutes: Phillip McNeely, Director, Maricopa County Air Quality Department
Welcome
- 9:05 15 minutes: John Haynes, Program Manager, *Update from NASA HQ*
- 9:20 15 minutes: Tracey Holloway, UW-Madison, *HAQAST Team Overview*
- 9:35 10 minute Meeting Overview + Q&A

I. Strategies for Linking NASA Data and User Applications

Chair: Daven Henze, HAQAST

9:45 15 minutes: Tom Moore, WESTAR and WRAP, *Perspectives on Linking NASA Data and User Applications*

10:00 5 minutes: Bryan Duncan, NASA, *Efficacy of Air Pollution Controls in the Eastern U.S.*

10:05 5 minutes: Megs Seeley, NASA DEVELOP, *NASA DEVELOP Feasibility Projects: Applications of Earth Observations for Addressing Health and Air Quality Concerns*

10:10 5 minutes: Sara Strachan, Idaho Department of Environmental Quality, *Perspectives on Linking NASA Data and User Applications*

10:15 15 minute Q&A with speakers

10:30-11:00 Coffee Break & Networking

II. Satellite Data for Health Exposure

Chair: Jeremy Hess, HAQAST

11:00 15 minutes: Minghui Diao, San Jose State University, *Applications of satellite data in analyses of surface PM_{2.5}*

11:15 5 minutes: Yang Liu, Emory University, *Perspectives on Satellite Data for Health Exposure*

11:20 5 minutes: Meredith Franklin, University of Southern California, *New Applications of MISR and VIIRS for Assessing Health Exposures*

11:25 5 minutes: Xiaomeng Jin, Columbia University, *Quantifying health benefits of emission reduction over New York State using multi-source PM_{2.5} exposure estimates*

11:30 15 minute Q&A with speakers

11:45-1:30 Break for Lunch and Informal Discussion

III. Regional Haze Planning

Chair: Minghui Diao, HAQAST

- 1:30 15 minutes: Arlene Fiore, Columbia University, Lamont-Doherty Earth Observatory, *Perspectives on Regional Haze Planning*
- 1:45 5 minutes: Rui Wang, Princeton, *Identifying the spatiotemporal variability of NH₃ across the contiguous U.S.*
- 1:50 5 minutes: Michael Geigert, Connecticut Department of Energy and Environmental Protection, *Perspectives on Regional Haze Planning*
- 1:55 5 minutes: Paul Miller, NESCAUM, *NO_x and the City*
- 2:00 15 minutes Q&A with speakers

IV. Global Indicators for Climate and Health

Chair: Arlene Fiore, HAQAST

- 2:15 15 minutes: Katy Walker, Health Effects Institute, *Use of Satellite Data for Public Health Assessment and Communication*
- 2:30 5 minutes: Susan Anenberg, George Washington University, *The HAQAST Indicators Tiger Team: Using satellite remote sensing to track air quality and climate change effects*
- 2:35 5 minutes: Juan J. Castillo-Lugo, Clean Air Institute, *Earth Observations to Support Air Quality Management in Developing Countries, Opportunities for Latin American Countries and Researchers*
- 2:40 5 minutes: Aaron Naeger, University of Alabama in Huntsville, *Application of Synthetic TEMPO Products to Investigate Air Quality Impacts on Community-Level Public Health*
- 2:45 15 minute Q&A with speakers

3:00-3:30 Coffee Break & Networking

V. Impact of California Wildfires

Chair: Ted Russell, HAQAST

- 3:30 15 minutes: Susan O'Neill, US Forest Service, *Perspectives on Satellite Data for Wildfires*
- 3:45 5 minutes: Joseph L. Wilkins, US EPA, *Improving the Vertical Distribution of Fire Emissions in CMAQ*

- 3:45 5 minutes: Soe Myint, Arizona State University, *Spatio-temporal analysis of aerosol optical depth in the two most polluted metropolitan areas*
- 3:50 5 minutes: Leticia Nogueira, American Cancer Society, *Impact of Wildfire Smoke on Lung Cancer Patients*
- 3:55 15 minute Q&A with speakers

VI. Estimating Background Ozone

Chair: Daniel Tong, HAQAST

- 4:10 15 minutes: Jessica Neu, NASA JPL/California Institute of Technology, *Using Satellite Data to Aid Quantification and Attribution of Background Ozone Changes in the Western US*
- 4:25 5 minutes: Zhen Qu, University of Colorado Boulder, *International and interstate transport of O₃ in Yuma and impact from NO_x emissions*
- 4:30 5 minutes: Mary Uhl, WESTAR, *Perspectives on Estimating Background O₃*
- 4:35 10 minutes: Mike Sonenberg, Arizona Department of Environmental Quality, *Perspectives on Estimating Background O₃*
- 4:45 15 minute Q&A with speakers

5:00 – 7:00 Poster Session, Reception & Networking

Day 2 – January 4th, 2019

VII. Building Capacity for Satellite Data in Air Quality and Health

Chair: Susan O’Neill, HAQAST

- 9:00 15 minutes: Mark Zondlo, Princeton University, *Perspectives on Building Capacity*
- 9:15 5 minutes: Jeremiah Johnson, Ramboll, *Multiple satellite products helpful for evaluating the Mexico Emissions Inventory*
- 9:20 5 minutes: Mike He, Columbia University, *Short-Term PM_{2.5} and Cardiovascular Admissions in NY State: Assessing Sensitivity of Exposure Model Choice*
- 9:25 5 minutes: Daven Henze, University of Colorado-Boulder, *Use of satellite-informed PM_{2.5} concentrations in an international integrated assessment tool (LEAP-IBC)*
- 9:30 15 minute Q&A with speakers

VIII. Connecting Satellite Data with Ground Monitors

Chair: Bryan Duncan, HAQAST

- 9:45 15 minutes: Jeremy Hess, University of Washington, *Barriers and Opportunities to Link Satellites with Weather, Pollen, and Health.*
- 10:00 5 minutes: Rebecca E. Skinner, Manylabs AQ Sensor Project, *An Interim Report on a Hyperlocal PM sensor Project*
- 10:05 5 minutes: Will Wallace, Washington State Department of Ecology, *Perspectives on Connecting Satellite Data with Ground Monitors*
- 10:10 5 minutes: Huanxin (Jessie) Zhang and Jun Wang, University of Iowa, *Improving surface PM_{2.5} forecast using an ensemble of satellite data, chemistry transport model outputs, and surface observations*
- 10:15 15 minute Q&A with speakers
- 10:30 - 11:00 Coffee Break & Networking**

IX. Reaching New Communities with NASA Data

Chair: Yang Liu, HAQAST

- 11:00 15 minutes: Jason West, University of North Carolina, *UNC team progress for HAQAST*
- 11:15 5 minutes: Mike Newchurch, University of Alabama in Huntsville, *Applying TEMPO and TOLNet: to Explore Air-Quality Processes*
- 11:20 5 minutes: Magdalene McCarty Sanders, Nisqually Indian Tribe, *The Status of Air in Indian Country*
- 11:25 5 minutes: 5 minutes: Bryan Duncan, NASA, *Health & AQ Applications as Part of the Aerosols & Cloud-Convection Precipitation (A-CCP) Study*
- 11:30 15 minute Q&A with speakers

11:45-1:00 Break for Lunch and Informal Discussion

X. Satellite Data for Dust Storms

Chair: Jessica Neu, HAQAST

- 1:00 15 minutes: Daniel Tong, George Mason University, *Observing and Forecasting Dust Storms*
- 1:15 5 minutes: Kevin Liu, River Hill High School, Clarksville, Maryland, *The DustWatch App: A Youth Citizen Scientist Project to Protect Public Health from Dust Storm Exposure*
- 1:20 5 minutes: Thomas Gill, University of Texas- El Paso, *Application of NASA MODIS imagery for detection and impact assessment of dust storms in the SW USA*
- 1:25 5 minutes: Amit Raysoni, School of Earth, Environment, and Marine Sciences, University of Texas Rio Grande Valley, *Using NASA data to characterize the role of gas phase and particulate pollutants on human health in the Rio Grande Valley Region of Texas*
- 1:30 15 minutes Q&A with speakers

XI. Next Phase Opportunities for Air Quality, Health & NASA

Chair: Mark Zondlo, HAQAST

- 1:45 15 minutes: Ted Russell, Georgia Tech, *Sensing Opportunities*
- 2:00 5 minutes: Abbey Nastan, NASA, *Applications of the Multi-Angle Imager for Aerosols (MAIA) for Air Quality and Health: Optimization of Epidemiological Study Areas for Societal Benefit*
- 2:05 5 minutes: Ira Domskey, Maricopa County Air Quality Department, *Perspectives on Next Phase Opportunities*
- 2:10 15 minutes: Tracey Holloway, *HAQAST Wrap-up and Look Ahead*
- 2:25 30 minute Q&A with speakers
- 3:00 Public Session Adjourn

[HAQAST Member Meeting Immediately Follows 3:00-5:00]

HAQAST5 Poster Session (Thursday, January 3, 5:00-7:00)

Poster dimensions are 40 inches x 30 inches, either landscape or portrait.

James Nimo, *Spatio-Temporal Variation of Aerosol Distribution Using MODIS: A Case Study in Nigeria*

Robert Levy, *Consistent aerosol retrieval on LEO and GEO satellite sensors*

Talat Odman, *Evaluation of mobile NO_x emissions using modeling and satellite NO₂ retrievals: Application to the Great Lakes Region*

Sepehr Roudini, *A near-real time estimation of wildfire emissions during the night using Suomi NPP VIIRS Data*

Hongliang Zhang, *Health effects of air pollutants in India*

Jacob Lynn, *An Analysis of Model and Observed Aerosol Optical Depth*

Luis Suarez-Salas, *Air pollutants transport related to biomass burning over Andean and Amazon region of Peru for public information*

Panu Teeratakulpisarn, *Association Nitrous Oxide to determine SLEEP WITHOUT CLOSING EYES (DOZE OFF) in road traffic accident in Thailand.*

Chantele Lonsdale, *An Exceptional Event Screening Tool to investigate fire and ozone impacts on local air quality*

Matilyn Bindl, *Vertical Distribution of CMAQ NO₂ Over Los Angeles*

Margaret McCallister, *Data Synthesis of VOC and NO_x Emissions and their Potential for Modeling Ambient Ozone Levels*

Levi Golston, *Synthesizing satellite, in situ, and model output for the 2018 Kilauea Volcano*

Nabin Malakar, *Improving Satellite Data estimation with in-situ and Meteorological data*

Santina Gay, US EPA Alaska Operations, *Local Environmental Observer (LEO) Network*

Yufei Zou, *Integration of High-resolution Wildfire Smoke Simulation and Satellite Observations and Its Application in Health Impact Assessment*

Asri, *Estimation PM_{2.5} and SO₂ using satellite data*

Ho-Chun Huang, *On the impact of wild fire on the PM modeling at the NOAA/NWS NAQFC forecasting system*

David Abel, *Incorporating Energy Decision-making into Air Quality and Public Health Management*

Bryan Duncan, *Air pollution forecasts using the NASA GEOS model: A unified tool from local to global scales*

Abbey Nastan, *Applications of the Multi-Angle Imager for Aerosols (MAIA) for Air Quality and Health: Optimization of Epidemiological Study Areas for Societal Benefit*

Udomlack Peansukwech, *Develop sensor air pollutant in Thailand*

Tarek Kandakji, *Evaluation of Drought Level and Anthropogenic Land Use Impact on Dust Emission in Southwestern United States: Quantitative and Spatio-Temporal Analysis of Dust Point Sources*

Piyadasa Ranjana, *Groundwater quality due to poor sanitation in North west region of Sri Lanka*