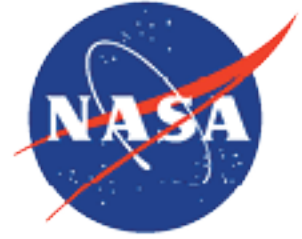




**HAQAST6**  
**July 10 - 12, 2019**  
Wednesday, July 10, 9:00-5:00  
Thursday, July 11, 9:00 – 5:00  
Friday, July 12, 9:00-3:00



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## Day 1 – July 10, 2019

### Meeting Kick-Off

- 8:30 – 9:00 Pick up nametags outside conference room at hotel
- 9:00 10 minutes: Duane Waliser, JPL Chief Scientist, *Welcome Remarks*
- 9:05 15 minutes: John Haynes, NASA Health and Air Quality Program Manager, *Update from NASA HQ*
- 9:20 15 minutes: Tracey Holloway, UW-Madison, *HAQAST Team Update and Meeting Goals*
- 9:35 10 minutes: Meeting Overview + Q&A

### I. Linking NASA Data and User Applications

Chair: Minghui Diao

- 9:45 15 minutes: Dan Goldberg, Argonne National Laboratory & George Washington University, *Policy-relevant applications of satellite data: Estimating air pollution emissions, exposures, and public health impacts in cities worldwide*
- 10:00 5 minutes: Reed Van Beveren, GAO *U.S. Government Accountability Office Interest in Satellites and Air Quality.*

10:05 5 minutes: Kyunghwa Lee, National Institute of Environmental Research, Republic of Korea, *Overview and Status of Geostationary Environment Monitoring Spectrometer (GEMS)*

10:10 5 minutes: Meenakshi Rao, Oregon Department of Environmental Quality, *Data to decisions: Opportunities & challenges in incorporating satellite data at OR DEQ*

10:15 15 minutes: Q&A with speakers

**10:30-11:00 Coffee Break & Networking**

## **II. Satellite Data for Air Quality Management**

Chair: Bryan Duncan

11:00 15 minutes: Dan Welsh, Colorado Department of Public Health and Environment, *Current and Future Air Quality Issues/Considerations in the Colorado Front Range Region*

11:15 5 minutes: Aaron Naeger, University of Alabama in Huntsville, *Development of TEMPO Data at NASA SPoRT for Air Quality and Public Health Applications*

11:20 5 minutes: Michael Geigert, CT DEEP, *Exceptional events analysis at the state management level*

11:25 5 minutes: Tsengel Nergui, LADCO, *Exceptional Event Analysis and WRF Modeling for Regulatory Applications in the Midwest*

11:30 15 minutes: Q&A with speakers

**11:45-1:30 Break for Lunch and Informal Discussion (on your own)**

## **III. Background Ozone for the Western US**

Chair: Arlene Fiore

1:30 15 minutes: Jessica Neu, JPL, *Updates on Background Ozone in the Western US*

1:45 5 minutes: Ted Russell, Georgia Tech, *Estimating Background Ozone Using Model-Observation Blending*

- 1:50 5 minutes: Tom Moore, WESTAR-WRAP, *Natural and anthropogenic emissions inputs for GEOS-Chem sensitivity simulations of boundary conditions for U.S. regional modeling studies*
- 1:55 5 minutes: Sang-Mi Lee, SCAQMD, *Background Ozone Issues for Southern California*
- 2:00 15 minutes: Q&A with speakers

## **IV. Impact of California Wildfires**

Chair: Daven Henze

- 2:15 15 minutes: Susan O'Neill, USDA Forest Service, *Health Impacts from the 2017 Northern California Wildfires: Tiger Team Update*
- 2:30 5 minutes: Minghui Diao, San Jose State University, *Applications of satellite-derived PM<sub>2.5</sub> in health studies for California wildfires*
- 2:35 5 minutes: Sean Raffuse, UC Davis, *Improving Smoke Modeling for Exposure Assessment Using New Satellite Products*
- 2:40 5 minutes: Keita Ebisu, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, *health effects by wildfire events in California during October 2017*
- 2:45 15 minute Q&A with speakers

**3:00-3:30 Coffee Break & Networking**

## **V. Satellite Data as a Global Air Quality Indicator**

Chair: Ceclia Bitz

- 3:30 15 minutes: Kevin Cromar and Bryan Duncan, New York University/NASA, *Enabling global cities to benefit from air pollution forecasting and risk communication*
- 3:45 5 minutes: Ashlinn Quinn, NIH/Fogarty International Center, *Contribution of household biomass burning to ambient air pollution in low- and middle-income countries: knowns and unknowns*
- 3:50 5 minutes: Yuqiang Zhang, Duke University, *Recent China Air Clean Actions on Global air quality and health*

3:55 5 minutes: Emma Knowland, USRA/GESTAR NASA/GMAO, *Air Pollution Forecasts using the NASA GEOS Model: A Unified Tool from Local to Global Scales*

4:00 15 minute Q&A with speakers

## **VI. Accessing Satellite Data for Health Management**

Chair: Yang Liu

4:15 5 minutes: Mike He, Columbia University, *Fine particulate matter and respiratory admissions: an assessment of short-term exposure model choice sensitivity for health studies*

4:20 5 minutes: David Diner, Jet Propulsion Laboratory, *MAIA status update*

4:25 5 minutes: Abbey Nastan, Jet Propulsion Laboratory, *The MAIA Early Adopters Program*

4:30 5 minutes: Youfei Zou, University of Washington, *Machine Learning-Based Integration of High-Resolution Wildfire Smoke Simulations and Observations for Regional Health Impact Assessment*

4:35 15 minute Q&A with speakers

**4:50 – 7:00 Poster Session, Reception & Networking**

**Day 2 – July 11, 2019**

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

Chair: Jessica Neu

9:00 15 minutes: Jason West, University of North Carolina, *HAQAST Research to Connect Satellite Data with Air Quality and Health*

9:15 5 minutes: Jeff Wagner, California Department of Public Health, *Community scale monitoring for varying PM size distributions and sources*

9:20 5 minutes: Gary Kleiman, Orbis Air, *Perspectives and Opportunities to Improve Remote Sensing Services for Global Air Quality*

9:25 5 minutes: Emán Williams, Louisiana Department of Health, *Asthma, Air Quality and Environmental Public Health Tracking*

9:30 15 minute Q&A with speakers

## **VIII. Regional Haze**

Chair: Tom Moore

9:45 15 minutes: Joseph L. Wilkins, US EPA, *Exploring the Vertical Distribution of Wildland Fire Smoke in CMAQ*

10:00 15 minutes: Arlene Fiore, Lamont-Doherty, *Updates on Regional Haze Tiger Team*

10:15 15 minute Q&A with speakers

**10:30 – 11:00 Coffee Break & Networking**

## **IX. Connecting Satellite Data with Ground Monitors**

Chair: Susan O'Neill

11:00 15 minutes: Talat Odman, Georgia Tech, *Application of Low-cost PM Sensors to Prescribed Fire, Air Quality and Health Management*

11:15 5 minutes: Carl Malings, OSU-Efluve, U-PEC, CNRS, *Integrating Multi-source (satellite retrieval, model simulation, ground based monitoring) and Low-cost Sensor Particulate Mass Data to Improve Spatio-temporal Air Quality Mapping*

11:20 5 minutes: Priyanka deSouza, Massachusetts Institute of Technology, *Integration of data from low-cost air quality monitors with MAIAC and MISR satellite data: A case study in Nairobi*

11:25 5 minutes: Ira Leifer, Bubbleology Research Intl, *Fusion of in-situ and remote sensing trace gas observations to estimate potential exposure*

11:30 15 minute Q&A with speakers

**11:45-1:30 Break for Lunch and Informal Discussion (on your own)**

## **X. Monitors and Satellites**

Chair: Ted Russell

- 1:30 15 minutes: Frank Freedman, San Jose State University, *Downscaling Satellite-Derived PM<sub>2.5</sub> Fields for Fine Scale Exposure Assessment*
- 1:45 5 minutes: Varsha Gopalakrishnan, Ramboll, *Data needs for dispersion modelling*
- 1:50 5 minutes: Karin Ardon-Dryer, Texas Tech University, *Spatial and temporal distribution of the low-cost sensor PurpleAir for particulate matter.*
- 1:55 5 minutes: Vlad Isakov, U.S. EPA, *Using Big Data to Characterize Urban-scale Air Quality*
- 2:00 15 minute Q&A with speakers

## **XI. Reaching New Communities with NASA Data**

Chair: Jason West

- 2:15 15 minutes: Daven Henze, University of Colorado-Boulder, *Satellite-based constraints on NO<sub>2</sub>, SO<sub>2</sub>, and NH<sub>3</sub> emissions*
- 2:30 5 minutes: Cherise Udell, Utah Moms for Clean Air, *How Scientific Data Has Our Backs on Grassroots Frontlines: A Case Study from Utah*
- 2:35 5 minutes: Cynthia Hall, Earth Science Data Systems Comm/SSAI, *Where in the world is the data? Exploring data pathfinders in Earthdata*
- 2:40 5 minutes: Magdalene McCarty Sanders, Nisqually Indian Tribe, *Tribes and Air Quality*
- 2:45 15 minute Q&A with speakers
- 3:00-3:15 Coffee Break & Networking**

## **XII. Biogenic Sources and Impacts**

Chair: Dan Goldberg

- 3:15 15 minutes: Mark Zondlo, Princeton, *Updates on Satellites for Air Quality Management*
- 3:30 5 minutes: Cecilia Bitz, University of Washington, *Weather, climate, pollen, and health: Updated findings, new directions, and next steps*
- 3:35 5 minutes: Yaoxian Huang, Wayne State University, *Impacts of Global Solid Fuel Cookstove Emissions on Air Quality and Human Health*

3:40 5 minutes: Jennifer Stowell, Emory University, *High Performance PM2.5 Exposure Models in Southern California*

3:45 15 minutes Q&A with speakers

### **XIII. Next Phase Opportunities for Air Quality, Health & NASA**

Chair: Mark Zondlo

4:00 15 minutes: Yang Liu, Emory University, *Contribution of Low-Cost Sensor Measurements to the Prediction of PM<sub>2.5</sub> Levels*

4:15 5 minutes: Seth Contreras, World Resources Institute, *Building science-society bridges in data-scarce regions.*

4:20 5 minutes: Laura Harmacek, National Jewish Health, *Ambient air pollution exposures are correlated with DNA modifications in exacerbation prone pediatric asthma*

4:25 5 minutes: Tracey Holloway, Univ. of Wisconsin—Madison, *Engaging the Community to Identify Next-Phase Opportunities*

4:30 15 minute Q&A with speakers

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

**Poster Session** July 10, 5:00 – 7:00PM

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

Arash Mohegh, *Long term trends of global burden of NO<sub>2</sub> on pediatric asthma incidents*

Carl Malings, *Integrating Multi-source (satellite retrieval, model simulation, ground based monitoring) and Low-cost Sensor Particulate Mass Data to Improve Spatio-temporal Air Quality Mapping*

Christopher Beale, *Satellite observations of ammonia over India for improved emission source estimates*

Cynthia Hall, *Where in the world is the data? Exploring data pathfinders in Earthdata*

Ira Leifer, *Fusion of In situ and remote sensing trace gas observations to estimate potential exposure*

Javier Martinez, *Diurnal Cycle of NO<sub>2</sub> in the United States*

Kristy Weber and Bart Curbich, *Ozone Issues In Urban And Rural Areas Of Utah*

Laura Harmacek, *Ambient air pollution exposures are correlated with DNA modifications in exacerbation prone pediatric asthma*

Marissa DeLang & Jacob Becker, *Mapping Ozone for Global Burden of Disease*

Piyush Dahal, *Does trans-border pollution impacts air quality in Nepal?- learning from high resolution remote sensing data.*

Priyanka deSouza, *Integration of data from low-cost air quality monitors with MAIAC and MISR satellite data: A case study in Nairobi*

Rui Wang, *Identifying the spatiotemporal variability of NH<sub>3</sub> across the contiguous U.S.*

Ryan Stauffer, *Trace Gas Measurements during the May 2019 SCOAPE Gulf of Mexico Cruise*

Sean Raffuse, *Modeling Wildfire Emissions and Plume Injection Height at High Time Resolution*

Seung-Yeon Kim, *Spatio-Temporal distribution and long-term trend of ozone sensitivity over South Korea inferred from OMI data*

Soledad Represa, *Application of satellite images for the long-term study of air quality in the metropolitan area of the city of Buenos Aires, Argentina.*



Stephanie Cleland, *Estimating the Temporal & Spatial Extent of Air Quality & Acute Health Impact Attributable to the October 2017 Northern California Wildfires*

Sunni Ivey, *Satellite-Enhanced Personal Exposure Assessment in the Inland Empire*

Susan Meabh Kelly, *Global Challenge, Global Collaboration: International Secondary Students Collaboratively Explore Air Quality Issues in Historical Context*

Xiaomeng Jin, *Long-term changes of ground-level ozone chemistry over the U.S. urban areas: the view from space*

Yufei Zou, *Fire Smoke Exposure and Health Impact Assessment of the 2018 Large Wildfires in California*

Helena Chapman, *Using Satellite Data for Applications in Public Health Practice*

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