

Agenda Health and Air Quality Applications Program Review September 19 & 22, 2022 (ET)

Day 1: September 19, 2022

12:00 p.m. – 12:05 p.m.	Instructions to Presenters and Reminders Moderators: Helena Chapman and Laura Judd, Associate Program Managers, NASA Health and Air Quality Applications
12:05 a.m. – 12:30 a.m.	Session 1: Welcome and Overview John Haynes, Program Manager, Health and Air Quality Applications, NASA Applied Sciences Program, NASA Headquarters
12:30 p.m. – 12:50 p.m.	Partner Address Angela Werner, Environmental Health Tracking Section, Centers for Disease Control and Prevention
12:50 p.m. – 1:05 p.m.	Highlights from Communications Aries Keck, Applied Sciences Communications, NASA Headquarters
1:05 p.m. – 1:20 p.m.	Break
1:05 p.m. – 1:20 p.m.	Session 2: GEO EO4HEALTH Projects Moderator: Helena Chapman, Associate Program Manager, NASA Health and Air Quality Applications, NASA Headquarters/Booz Allen Hamilton
1:05 p.m. – 1:20 p.m. 1:20 p.m. – 1:25 p.m.	Session 2: GEO EO4HEALTH Projects Moderator: Helena Chapman, Associate Program Manager, NASA Health and Air Quality Applications, NASA Headquarters/Booz Allen

1:30 p.m. – 1:35 p.m. 1:35 p.m. – 1:40 p.m. 1:40 p.m. – 1:45 p.m.	 C. Predictive Assessment of Transmission Conditions of Cholera in the Environment and Human Population using Earth Observations Antarpreet Jutla, University of Florida C. Environmental Determinants of Enteric Infectious Disease Benjamin Zaitchik, Johns Hopkins University D. Augmentation for COVID-19
	Benjamin Zaitchik, Johns Hopkins University
	Session 3: Air Quality Projects Moderator: Laura Judd, Associate Program Manager, NASA Health and Air Quality Applications, NASA Langley Research Center
1:45 p.m. – 1:50 p.m.	A. Using Remote Sensing and Earth System Models to Improve Air Quality and Public Health in Megacities. Susan Anenberg, George Washington University
1:50 p.m. – 1:55 p.m.	B . Use of Remote Sensing Data to Improve Air Quality Decision Support Systems used to Protect Public Health Arastoo Pour-Biazar, University of Alabama in Huntsville
1:55 p.m. – 2:00 p.m.	C. Preparing Key State and Local Health and Air Quality Agencies for Upcoming Earth Observations Yang Liu, Emory University
2:00 p.m. – 2:10 p.m.	Message from Applied Sciences Program Emily Sylak-Glassman, Program Manager, Applied Sciences Program, NASA Headquarters
2:10 p.m. – 2:15 p.m.	D. A Satellite Constrained Meteorological Modeling Platform for LADCO States SIP Development Jason Otkin, University of Wisconsin, Madison
2:15 p.m. – 2:20 p.m.	E. Using CrIS Ammonia Observations to Improve Decision Making on PM2.5 Control Policies Matthew Alvarado, Atmospheric & Environmental Research
2:20 p.m. – 2:35 p.m.	Break

Moderator: Helena Chapman, Associate Program Manager, NASA Health and Air Quality Applications, NASA Headquarters/Booz Allen Hamilton

2:35 p.m. – 2:40 p.m.	A. The African Cholera Risk Early Warning System (ACREWS) Benjamin Zaitchik, Johns Hopkins University
2:40 p.m. – 2:45 p.m.	B . From Space to Front Porch: Connecting Earth Observations to Health Outcomes with an Environmental Exposure Modeling System Julia Gohlke, Virginia Polytechnic Institute & State University
2:45 p.m. – 2:50 p.m.	C. Source-differentiated Air Quality System to Safeguard the Respiratory Health of US Military Personnel Deployed in Southwest Asia, Djibouti, and Afghanistan Meredith Franklin, University of Southern California
2:55 p.m. – 3:00 p.m.	D. Satellite-aided Regional Dust Forecasting for Valley Fever Surveillance, Highway Accident Prevention, and Air Quality Management in the Southwestern United States Daniel Tong, George Mason University
3:00 p.m. – 3:05 p.m.	E. Improving Malaria Decision Support with Earth Observations John Beck, University of Alabama in Huntsville
3:05 p.m. – 3:10 p.m.	E. Early Warning of Synoptic Air Quality Events to Improve Health and Well Being in the Greater Caribbean Region Pablo Méndez-Lázaro, University of Puerto Rico-Medical Sciences Campus
3:10 p.m. – 3:15 p.m.	F. Rapid Response: Study of Imminent Interactions between SARS-CoV-2 (COVID-19), Air Quality due to Saharan Dust and Urban Aerosols, and Social-Environmental Factors in Puerto Rico in Summer 2020: Proxies of Health Risks in Small Island States in the Caribbean Region Pablo Méndez-Lázaro, University of Puerto Rico-Medical Sciences Campus
3:15 p.m. – 3:20 p.m.	G. Rapid Response to Assess the Risk of Arbovirus Outbreaks Triggered by Climate Events

Michael Wimberly, University of Oklahoma

Break

3:20 p.m. – 3:35 p.m.

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Moderator: Laura Judd, Associate Program Manager, NASA Health and Air Quality Applications, NASA Langley Research Center

3:35 p.m. – 3:45 p.m. Health and Air Quality Applied Sciences Team (HAQAST) Update

Tracey Holloway and Jenny Bratburd, University of Wisconsin-Madison

3:45 p.m. – 3:50 p.m. Tropospheric Emissions: Monitoring Pollution (TEMPO) Mission

Aaron Naeger, University of Alabama in Huntsville

3:50 p.m. – 3:55 p.m. Multi-Angle Imager for Aerosols (MAIA) Mission

Abigail Nastan, Jet Propulsion Laboratory

3:55 p.m. – 4:30 p.m. Town Hall

Discussion of Future Goals, Partnerships, and Opportunities John Haynes, Program Manager, Health and Air Quality

Applications, NASA Applied Sciences Program, NASA Headquarters

4:30 p.m. Adjourn

Day 2: September 22, 2022 (Required for A.37 ROSES 2021, Optional for A.37 ROSES 2016 and 2017)

12:00 p.m. – 12:10 p.m. Welcome and Overview

John Haynes, Program Manager, Health and Air Quality

Applications, NASA Applied Sciences Program, NASA Headquarters

12:10 p.m. – 12:30 p.m. Overview of Reporting Requirements

Helena Chapman and Laura Judd, Associate Program Managers, NASA

Health and Air Quality Applications

Session 1: Health Projects

Moderator: Helena Chapman, Associate Program Manager, NASA

Health and Air Quality Applications, NASA Headquarters/Booz Allen

Hamilton

12:30 p.m. – 12:35 p.m. A. Assimilation of Earth Observations to Improve and Enhance Global

Predictive Ability of Forecasting Risk of Cholera Outbreaks

Antar Jutla, University of Florida

12:35 p.m. – **12:40 p.m. B.** Quantifying Distributional Health Damages of Extreme Weather

Events

Julia Gohlke, Virginia Polytechnic Institute & State University

C. Neighborhood-scale Extreme Humid Heat Health Impacts 12:40 p.m. – 12:45 p.m. Peter Kalmus, Jet Propulsion Laboratory 12:45 p.m. – 12:50 p.m. **D.** MEDINA: Machine Learning, Climate Variability and Disease **Dynamics** Assaf Anyamba, Oak Ridge National Laboratory 12:50 p.m. – 12:55 p.m. **E.** Getting to Zero: Satellite Informed System to Support Elimination of Malaria in the Americas (SISTEMA) William Pan, Duke University 12:55 p.m. – 1:10 p.m. **Break Session 2: Air Quality Projects** Moderator: Laura Judd, Associate Program Manager, NASA Health and Air Quality Applications, NASA Langley Research Center 1:10 p.m. – 1:15 p.m. **A.** Enhancing Air Quality Decision-making Activity in Indian Megacities through Assimilation of NASA Earth Observations and Development of a Decision Support System Rajesh Kumar, University Corporation for Atmospheric Research **B.** Supporting Local Government Public Health and Air Quality 1:15 p.m. – 1:20 p.m. Decision-making with a Sub-city Scale Air Quality Forecasting System from Data Fusion of Models, Satellite, In situ Measurements, and Lowcost Sensors K. Emma Knowland, Morgan State University/NASA GSFC C. Enrich and Enhance the Application of TEMPO and GEOS Data 1:20 p.m. – 1:25 p.m. Products for Regional Air Quality and Public Health Management under **Smoke Conditions** Jun Wang, University of Iowa 1:25 p.m. – 1:30 p.m. **D.** Improving Air Quality State Implementation Plans using Land **Surface Remote Sensing** Kenneth Davis, Pennsylvania State University E. Identifying Public Health Applications of Satellite-derived Drought 1:30 p.m. – 1:35 p.m. Indicators: Improved Monitoring for Respiratory Health Jesse Bell, University of Nebraska Medical Center 1:35 p.m. - 2:00 p.m.**Open Discussion** John Haynes, Program Manager, Health and Air Quality Applications, NASA Applied Sciences Program, NASA Headquarters

Adjourn

2:00 p.m.