2 | Latest presentations by AQAST members

From Wisconsin to Raleigh to Rome, AQAST researchers are spreading the word about the role of satellite data in serving air quality management needs.

3 | The latest in AQAST research

AQAST researchers publish peer-reviewed scientific papers focused on the use of Earth science for air quality applications, and address the pressing needs of air quality management.

4 | AQtivities: More news and highlights

Milestone projects, conferences, public outreach, pushing new satellite concepts, and building a lasting legacy: all part of AQAST’s work to serve the air quality management community with the latest Earth science data and tools.

Welcome.

In this newsletter, you will find details of recent and ongoing activities from NASA’s Air Quality Applied Sciences Team (AQAST). Started in 2011, AQAST has remained dedicated to employing the best science to meet the needs of air quality managers. As the year winds down, AQAST members keep up their activity -- speaking at local, national, and international events; collaborating across disciplines to produce high-quality research results; and developing resources to foster new ideas about satellites, air quality, and more. The team looks forward to a new year with new possibilities, kicking off with the 10th AQAST meeting (AQAST10) in January at the EPA’s Research Triangle Park. Thank you for reading, and for your continued support. (Photo: Research Triangle Park, EPA)
Tracey Holloway chaired the 2015 Energy Summit at the University of Wisconsin-Madison, which featured a number of AQAST members and collaborators. The theme of the summit, held on Oct. 13, was “Air & Energy: The Path Ahead for U.S. States.”

Experts spanned industry, academia, and regulatory agencies, discussing major topics facing states – including the new ozone standard, the Clean Power Plan, and the growing importance of satellite data.

The Energy Summit Keynote, on the Clean Power Plan, was given by EPA Region 5 Director Susan Hedman, and was followed by expert presentations on the Clean Power Plan from environmental and industry perspectives.

AQAST followers may be particularly interested in talks by AQAST members Arlene Fiore and Bryan Duncan, and collaborators Rob Kaleel from LADCO, Paul Miller from NESCAUM, Pat Reddy from Colorado, and Terry Keating from EPA. In planning the Energy Summit, Holloway based all session topics on discussions with the air quality management community from our AQAST team meetings over the past few years.

Video recordings of all talks and question-and-answer periods are available online, provided through funding from AQAST. [http://bit.ly/1NMWpL8]

Recently published >>


AQAST pushes its vision for future observation of U.S. air quality and climate from space

In November 2015, AQAST responded to a Request For Information (RFI) from the Earth Science Applications from Space (ESAS) Decadal Survey of the National Research Council.

The Decadal Survey, to be released in 2017, provides strategic recommendations to NASA and other U.S. agencies on priority satellite missions for the 2020s. [http://sites.nationalacademies.org/DEPS/ESAS2017/index.htm]

The White Paper lead-authored by Daniel Jacob and submitted by AQAST in response to the RFI makes the case for continuing geostationary observations of air quality over North America initiated through TEMPO and augmenting them with observations of greenhouse gases (methane, CO2). [http://bit.ly/1RcDQXv]

More AQtivities >>


- AQAST members Meiyun Lin and Arlene Fiore received media attention for their Nature Communications article on how La Niña conditions increase background surface ozone in the western U.S. through increased frequency of stratospheric intrusions. See write-ups in AAAS’ EurekAlert [http://bit.ly/1K4QYKH] and EE News [http://bit.ly/1IXIyR8].

- AQAST member Bryan Duncan has developed a NASA website, “Air Quality from Space,” with NO₂ satellite data and imagery curated for easy access by air quality managers. See NO₂ satellite maps over individual U.S. cities in just a few clicks! [http://go.nasa.gov/1U8xx63]

- Bryan Duncan’s tutorial on using air quality data from space, co-authored with nine other AQAST PIs, has been THE most downloaded Energy & Earth Science article published since January 2014! Access it at “Satellite data of atmospheric pollution for U.S. air quality applications: Examples of applications, summary of data end-user resources, answers to FAQs, and common mistakes to avoid.” [http://bit.ly/1IHxUDb]


- Anne Thompson was awarded the Roger Revelle Medal at AGU, in honor of her groundbreaking research of ozone and other trace gases in the troposphere and stratosphere. Congrats, Anne, on the well-deserved award! [http://bit.ly/1UFmnG1]
As part of its Research Opportunities in Space and Earth Sciences (ROSES) program, NASA has announced that it will be accepting solicitations for a new opportunity -- the Health and Air Quality Applied Sciences Team (H-AQAST). This will continue the legacy of the current AQAST, the appointment of which ends in 2016. [http://go.nasa.gov/1Jh5N8H]

Health and Air Quality applications involve the use of Earth observations for air quality management and public health, particularly regarding infectious disease and environmental health issues. They address issues of toxic and pathogenic exposure and health-related hazards and their effects for risk characterization and mitigation. They promote the use of Earth observing data and models regarding implementation of air quality standards, policy, and regulations for economic and human welfare. Health and Air Quality applications also address the effects of climate change on public health and air quality to support managers and policy makers in their planning and preparations.

The objective of this solicitation is to select a Health and Air Quality Applied Sciences Team (H-AQAST). The Health and Air Quality area supports the formation of this team to execute projects on specific applied topics and demonstrations required to advance the health and air quality management communities’ sustained use and application of Earth science observations and models in decision making.

This solicitation is a partial follow-on to the NASA Air Quality Applied Sciences Team (AQAST) competed in ROSES 2009. The vast majority of AQAST grants expire in summer 2016 and will not be recompeted. H-AQAST will build on the lessons and successes of AQAST. While many elements of H-AQAST will be similar to AQAST, specific topics will differ. H-AQAST will address topics at the intersection of the health and air quality communities, but will also address issues unique to each community.

NOIs are requested by January 14, 2016, and proposals are due March 11, 2016. Questions concerning this program and submitting solicitations may be directed to John Haynes at jhaynes@nasa.gov. For more information, visit the NASA ROSES website. [http://go.nasa.gov/1Jh1nyQ]
Gear up for the next AQAST meeting!

A group photo taken at the ninth annual AQAST meeting (AQAST9) earlier this year in St. Louis, MO.

The 10th AQAST meeting (AQAST10) will be hosted by Pat Dolwick (EPA/0AQPS) Jan. 5-7, 2016, at EPA Research Triangle Park. AQAST meetings bring together atmospheric scientists and air quality managers to discuss how Earth science products can be used effectively for air quality applications. AQAST10 will feature overviews of AQAST projects, discussions of air quality management issues, and talks on air quality science and applications. [http://bit.ly/1HWV0We]

Stay in touch throughout the year! Follow “NASA AQAST: Air Quality Applied Sciences Team” on YouTube and @NASA_AQAST on Twitter.