

NASA Health and Air Quality

remote sensing for public health

volume 5, october 2016



Photos by Shobhana Gupta

2016 NASA Health and Air Quality Applications Program Review held in Asheville, NC Researchers currently funded by the **NASA HAQ Applied Sciences Program**, partners of interagency agreements and contracts, contributors to HAQ capacity building, and members of the HAQ leadership participated in the annual gathering during September 20-21, 2016. Researchers reviewed their latest results and milestones, and discussed their plans for the coming year. Elliot Tardif from the North Carolina Department of Environment and Natural Resources provided the State's Perspective address, and Fuyuen Yip and Rish Vaidyanathan from the Centers for Disease Control and Prevention presented the Partner Address on their National Environmental Public Health Tracking Network Portal.

upcoming:

Meetings:

**American Society of Tropical
Medicine & Hygiene**
November 13-17, 2016
Atlanta, GA

American Geophysical Union
December 12-16, 2016
San Francisco, CA

American Meteorological Society
January 22-26, 2017
Seattle, WA

**National Conference & Global
Forum on Science, Policy, & the
Environment**
January 24-26, 2017
Washington, DC

Our Research in the News

- 2016 had the hottest summer ever recorded, following the trend setting this year to be the warmest year on record. **USA Today**.
- Suomi NPP captures large wildfires in northwest and central Siberia, with resulting smoke covering vast areas in central Russia. **Gizmodo**.

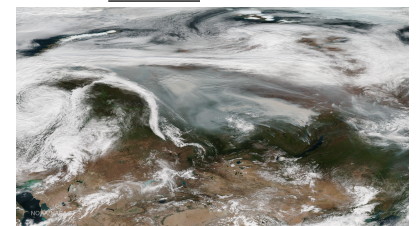


Photo courtesy of NOAA EVL

- Luxury liner Crystal Serenity's smooth sailing through the open waters of the Northwest Passage highlights the decreasing ice expanse in the Arctic. **The New York Times**.

HEALTH AND AIR QUALITY APPLICATIONS APPLIED SCIENCES PROGRAM

JOHN HAYNES

PROGRAM MANAGER
HEADQUARTERS

SUE ESTES

ASSOCIATE
MARSHALL SPACE
FLIGHT CENTER

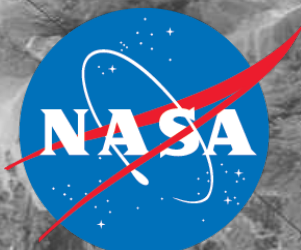
ALI OMAR

ASSOCIATE
NASA-LANGLEY
RESEARCH CENTER

SHOBHANA GUPTA

AAAS S&T POLICY FELLOW
HEADQUARTERS

haQ



SPOTLIGHT

NSF, NIH, USDA INVEST \$16.6 MILLION TO SLOW SPREAD OF INFECTIOUS DISEASES

The joint effort address infectious diseases in humans, agricultural and wildlife animals, and plants by funding studies into how habitat destruction, invasions of non-native species, pollution, and other large-scale environmental events alter the risks for viral, parasitic, and bacterial diseases.

publications

A new approach for monthly updates of anthropogenic sulfur dioxide emissions from space: Application to China and implications for air quality forecasts

Wang Y et al

Geophysical Research Letters

Effects of meteorological conditions on sulfur dioxide air pollution in the North China plain during winters of 2006–2015

Calkins C et al

Atmospheric Environment

resources

for our community

TOXNET

A group of databases covering chemicals and drugs, diseases and the environment, environmental health, occupational safety and health, poisoning, risk assessment and regulations, and toxicology.

WONDER

Wide-ranging Online Data for Epidemiologic Research provides access to CDC's statistical research data, reference materials, reports and guidelines on health-related topics. Access to data sets about topics including mortality (deaths), cancer incidence, etc. are also available with data summaries and analyses.

EXTREME HEAT GUIDEBOOK

EPA and CDC's *Climate Change and Extreme Heat: What You Can Do to Prepare* explains the connection between climate change and extreme heat events, and outlines actions citizens can take to protect their health during extreme heat.

WHAT'S NEW IN THE FIELD?

MEASURING THE HEALTH-RELATED SUSTAINABLE DEVELOPMENT GOALS IN 188 COUNTRIES: A BASELINE ANALYSIS FROM THE GLOBAL BURDEN OF DISEASE STUDY 2015

Lancet

October 8, 2016

33 health-related SDG indicators for 188 countries were analyzed. The SDG index in 2015 was highest in Iceland and lowest in Central African Republic. Indicators such as neonatal mortality and universal health coverage saw improvement over 1990-2015, while the indicator for childhood overweight considerably worsened.

PRACTICES TO ENGAGE CITIZENS AND EFFECTIVELY IMPLEMENT FEDERAL INITIATIVES

United States Government Accountability Office: Report to Congressional Committees October, 2016

The report highlights five open innovation strategies for federal agencies to collaborate with citizens and external stakeholders: Crowdsourcing and Citizen Science, Idea Generation (Ideation), Open Data Collaboration, Open Dialogue, and Prize Competition or Challenge. It describes seven best practices for effective implementation of these strategies, including clearly defining specific goals and performance measures, and collecting and assessing relevant data and reporting results, as evidenced by 15 past and current initiatives at six agencies (DOE, HHS, HUD, DOT, EPA, NASA).

NASA ARSET CONDUCTS HANDS ON TRAINING IN SOUTH KOREA



Group Photo Courtesy of Pawan Gupta

Members of the **NASA Applied Remote Sensing Training Program (ARSET)** visited South Korea and conducted a hands-on training titled, "NASA Earth Observations, Data, and Tools for Air Quality Applications." The two day training spanning August 28-29, 2016, was held as a pre-conference event for the 17th **International Union of Air Pollution Prevention and Environmental Protection Associations (IUAPPA) World Clean Air Congress** and 9th **Clean Air Asia (CAA) Better Air Quality (BAQ) Conference**, at the Department of Atmospheric Science at Pusan National University in Busan, South Korea. The training focused on applications of satellite data for air quality monitoring in Asian countries, and was attended by 22 participants from 15 organizations and nearly 10 countries around Asia. The training was conducted by Pawan Gupta and Brock Blevins, both from NASA Goddard Space Flight Center.