NASA Health and Air Quality

remote sensing for public health

volume 2, july 2016

Photos by Shobhana Gupta

John Haynes and Ali Omar share NASA's measurements and models with participants at the Air and Waste Management Association Annual Conference and Exhibition in New Orleans, LA. NASA HAQ also hosted a Technical Panel, with speakers John Haynes, Luca Delle Monache (NCAR), and Ali Omar, discussing NASA's satellite and sub-orbital measurements and models that are used to address air quality and health applications. These resources can be accessed at **NASA's Data Portal**.

upcoming:

Our Research in the News

- MODIS aerosol optical depth data shows substantial PM2.5 particles in the Indian Subcontinent. **Bloomberg News**.
- Landsat 8 captures toxic algal blooms in Florida's Lake Okeechobee. **ABC News**.

Photo from NASA Earth Observatory

- Airborne mission ATom aims to map atmospheric pollutants, including methane and ozone, over oceans. **Phys Org**.

HEALTH AND AIR QUALITY TEAM
APPLIED SCIENCES PROGRAM

JOHN HAYNES
PROGRAM MANAGER
HEADQUARTERS

SUE ESTES
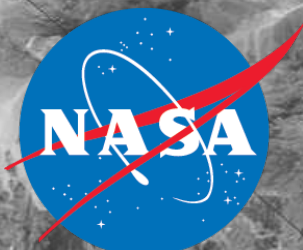ASSOCIATE
MARSHALL SPACE
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haQ

NASA Health and Air Quality
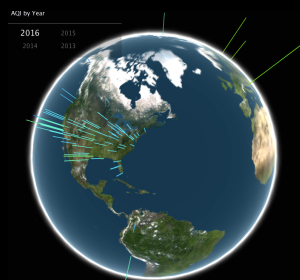
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INNOVATION SPACE

A catalog of innovations from the community featuring the use of Open Data through NASA Challenges. Examples include SPACETREK, an open source virtual reality educational game that allows viewers to explore the Earth, and beyond!, and Prism (pictured), to visualize correlations between atmospheric particle pollution and human health.

publication

[Smoke in the City: How Often and Where Does Smoke Impact Summertime Ozone in the United States?](#)

Trey SJ, Fischer EV
Environmental Science and Technology

resources
for our community

ARSET WEBINAR SERIES
NASA ARSET offers online webinars to help beginners and advanced professionals use NASA Earth science data and modeling.

OMiCC
A community-based, biologist-friendly web platform for creating and (meta-) analyzing annotated gene-expression data compendia across studies and technology platforms for 24,000+ human and mouse studies from [Gene Expression Omnibus (GEO)](#).

CLIMATE CHANGE HEALTH FACTSHEETS
EPA's informative brochures highlighting he health impacts of climate change at different stages of life and for certain populations of concern.

ENVIRONMENTAL HEALTH ECONOMIC ANALYSIS
NIEHS's resources to assist with economic analyses, including an annotated bibliography tool to study key attributes of example cases.

NASA EARTH SCIENCE APPLIED SCIENCES PROGRAM
2015 ANNUAL REPORT IS HERE!

National Aeronautics
and Space Administration

2015

ANNUAL REPORT

NASA Earth Science
Applied Sciences Program

WHAT'S NEW IN THE FIELD?

RAPID ASSESSMENT OF DISASTER DAMAGE USING SOCIAL MEDIA ACTIVITY
Science
March 11, 2016
Analysis by Kryvasheyeu et. al. demonstrates a strong relationship between proximity to Hurricane Sandy's path and hurricane-related social media activity, and a strong correlation between per-capita Twitter activity with per-capita damage inflicted by the hurricane.

ASSOCIATION BETWEEN AIR POLLUTION AND CORONARY ARTERY CALCIFICATION WITHIN SIX METROPOLITAN AREAS IN THE USA (THE MULTI-ETHNIC STUDY OF ATHEROSCLEROSIS AND AIR POLLUTION) A LONGITUDINAL COHORT STUDY
Lancet
May 24, 2016
Kaufman et al. describe the relationship between long-term exposure to increased PM2.5 and traffic-related air pollution within metropolitan areas to progression of coronary artery calcium and common carotid artery intima-media thickness, consistent with acceleration of atherosclerosis.

EFFECTS OF LANDSCAPE ANTHROPIZATION ON MOSQUITO COMMUNITY COMPOSITION AND ABUNDANCE
Scientific Reports
July 4, 2016
Ferraguti et. al. identify anthropogenic habitats with high human population density to be closely associated with decreased mosquito abundance and species richness.