



# NOAA'S OFFICE OF WEATHER AND AIR QUALITY



# NEWSLETTER

Vol. 1

*OWAQ: Supporting world-class research to advance timely and accurate weather information*



# About OWAQ

**The Office of Weather and Air Quality (OWAQ)** supports world-class weather and air quality research to save lives, reduce property damage, and enhance the national economy. We are located at 1315 East-West Highway, 10th floor, Silver Spring, MD 20910 in NOAA's Office of Atmospheric Research.

**VISION:** A Weather-Ready Nation informed by world-class weather research.

**MISSION:** Finding, funding, and fostering collaborative weather and air quality research to discover, develop, and transition products, tools, and services for timely and accurate weather and air quality forecasts.



Ominous wall cloud portending possible violent weather.  
Credit: Jerry Penry, Registered Land Surveyor (2010).



# OFFICE OF WEATHER AND AIR QUALITY

National Oceanic and Atmospheric Administration

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*OWAQ: Supporting world-class research to advance timely and accurate weather information*







*Dr. Kandis Boyd*  
*OWAQ Acting Director*

## Letter from the Acting Director

I am pleased to introduce the inaugural edition of the Office of Weather and Air Quality (OWAQ) Newsletter. This information resource highlights OWAQ's Research to Operations (R2O) efforts in the atmospheric sciences. Our goal is to highlight the extraordinary efforts of our team, which includes stellar project managers, project coordinators, as well as technical and administrative staff to transition research for tropical cyclones, hazardous weather, flooding, and air quality.

OWAQ advances research for our nation's leading scientists, engineers, and research organizations. In our inaugural edition we highlight our FY19 Accomplishments Report, where we document our trajectory of success. As always, extraordinary teamwork and dedication made all of this possible. In particular, I acknowledge the OWAQ team and partners for:

- ✓ Increasing the number of active projects from 84 to 184, a 119% increase over the prior fiscal year.
- ✓ Increasing the number of multi-institutional collaborative projects from 34 to 73, a 114% increase over the prior fiscal year.
- ✓ Shepherding a budget increase from \$37.1 million to \$40.9 million, a 10% increase over the prior fiscal year.

The pages that follow report on our progress towards our goals, our accomplishments, and the priority research that OWAQ was directed to fund. With our team and partners, our accomplishments in FY2019 are now our momentum for FY2020. **We are strong. We are resilient. We are OWAQ.**

Sincerely,  
Dr. Kandis Boyd  
Acting OWAQ Director

1315 East-West Highway, 10th floor  
Silver Spring, MD 20910  
<https://owaq.noaa.gov>





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## OWAQ BY THE NUMBERS

In Fiscal Year (FY) 2019, NOAA's Office of Weather and Air Quality (OWAQ) found, funded, fostered, and transitioned research that transformed forecasts for tropical cyclones, hazardous weather, flooding, and air quality. OWAQ supported our nation's leading scientists, engineers, and research organizations as they answered questions about what to expect from our weather, our water, and our climate. Some of the key achievements included:

- Increased the number of active projects from 84 to 184, a 119% increase over the prior fiscal year.
- Increased the number of multi-institutional collaborative projects from 34 to 73, a 114% increase over the prior fiscal year.
- A budget increase from \$37.1 million to \$40.9 million, a 10% increase over the prior fiscal year.

- 54** Percentage of projects improving operational models
- 31** Number of peer-reviewed publications
- 55** Percentage of projects increasing readiness level
- 31** Percentage of transition projects with signed transition plans
- 5** Research and development results transferred into operations
- 19** Percentage of projects that include social, behavioral, and/or economic science research

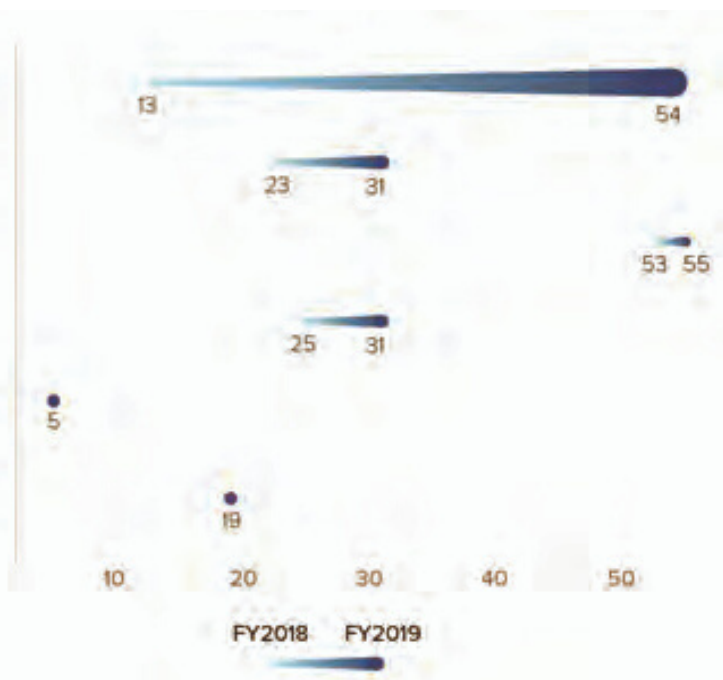


FIGURE. The Office of Weather and Air Quality by the Numbers for FY2019 with a Visualization of FY2019 Compared to FY2018. Image credit: Office of Weather and Air Quality Annual Operating Plan FY2019 (2019).

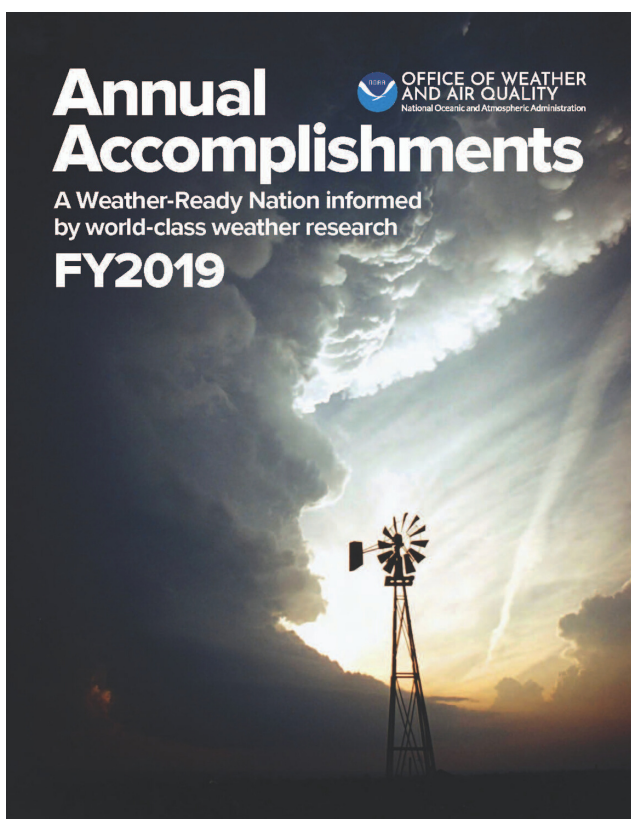




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## OWAQ RELEASES FY19 ANNUAL ACCOMPLISHMENTS REPORT



### **In just one year, OWAQ more than**

doubled the number of active projects from 84 (Fiscal Year (FY) 2018) to 184 projects (FY2019). Each project was funded with a single intention: to transition research that will transform weather forecasts.

In this, OWAQ was guided by the office's vision, mission, and goals and supported by the weather enterprise that includes NOAA, other Federal agencies and entities; state, tribal, and local governments; academia; other not-for-profits; and the private sector.

Learn more on how OWAQ is "Transitioning the Research that Informs World-Class Forecasts." Visit

<https://owaq.noaa.gov/Annual-Scientific-Accomplishments-FY19> for the full report.





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## Review of the Subseasonal Experiment (SubX) Makes Recommendations for a Successful New Phase

The Subseasonal Experiment (SubX) began as an experimental multi-model ensemble composed of five grants proposed to and funded by the NOAA/OAR's Climate Program Office in 2016 as part of a competitive call to the Climate Testbed. Long in the works, a review of SubX was initiated to transition it from operating as a proof-of-concept and research vehicle into a more stable and reliable pseudo-operational multi-model ensemble.

The Principle Investigators of SubX, operational stakeholders, and academic researchers came together on the 19th of August, 2019, at the National Center for Weather and Climate Prediction in College Park, MD, to review the status of SubX, its successes, challenges, and future. As the current co-sponsor of the Climate Testbed, NOAA/OAR/OAQ's Subseasonal to Seasonal (S2S) program manager Dr. Jessie Carman convened this review in partnership with the Director of the Climate Testbed, NOAA/NWS/CPC's Matthew Rosencrans. Representatives from the Climate Prediction Center (CPC) showed that over 18 months of real-time subseasonal (32 day) forecasts, SubX has become a valuable pseudo-operational tool that adds skill to available operational models and ensembles.

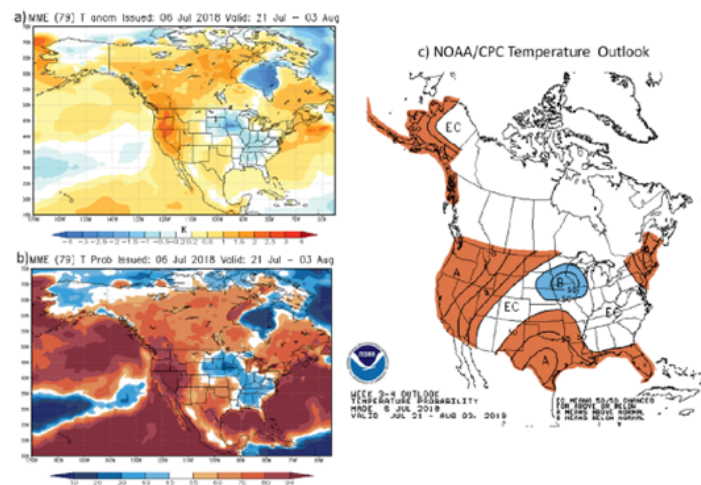
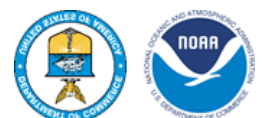


Photo: NOAA/ National Weather Service; NOAA Center for Weather and Climate Prediction  
Climate Prediction Center

Article: Drs. Jessie Carman, Bonnie Brown and Mark Olsen  
OWAQ S2S Program







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## EPIC HIGHLIGHTS

### FY19 Q4: EPIC Community Workshop Report

The EPIC Community Workshop Report was publicly released on November 19, 2019. The Workshop Report summarizes speaker presentations and community comments about EPIC. The workshop is available here and presentations are available here.

Released November 2019

### The Earth Prediction Innovation Center (EPIC) Community Workshop Report

August 6-8, 2019  
University of Colorado, Boulder  
University Memorial Center

### EPIC Industry Day

NOAA's OWAQ hosted Industry Day from October 8-10, 2019. Industry Day materials and participants lists are available here. Industry Day provided interested professionals an opportunity to learn more about EPIC and the Draft Statement of Objectives (SOO).



### Release of the Draft Statement of Objectives (SOO) and Sources Sought (SS)

A Draft Statement of Objectives (SOO) was released on September 23, 2019.

### A Sources Sought (SS) solicitation was open from September 23, 2019 to October 11, 2019.

The market research conducted during the Request for Information (RFI), Industry Day, and Sources Sought (SS), allows the EPIC Team to move towards finalizing and releasing the Request for Proposals (RFP).



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## EPIC HIGHLIGHTS

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### FY20 Q1: The EPIC Strategic Plan

NOAA's Office of Weather and Air Quality (OWAQ)'s Draft EPIC Strategic Plan was released on January 10, 2020. The Draft Strategic Plan was discussed during the NOAA Town Hall at the American Meteorological Society (AMS) 100 in Boston, MA in January. Here, community members were able to provide comments on the Draft EPIC Strategic Plan.

OWAQ Team Members, Tamara Battle, Dr. DaNa Carlis, and Dr. Jessie Carman will provide technical briefings on the Weather Act, EPIC, and S2S respectively at the January 2020 EISWG meeting.



Drs. DaNa Carlis and Neil Jacobs during the EPIC Townhall at AMS.





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## National ESPC Interagency Report Released



The National Earth System Prediction Capability held an interagency workshop June 4-5, 2019, to assess the needs, current capabilities, and emerging science in the Federal enterprise for environmental prediction on the 2 to 30 year time frame. The final workshop report for Building an Interannual to Decadal Prediction and Projection Capability for Decision Support is now available to be distributed to the participants, leadership, and the public.

The workshop served as a foundation for continuing information exchange leading to a unified, reliable, and actionable prediction capability, and built on the prior work of agencies involved in the U.S. Global Change Research Program (USGCRP) and the U.S. Climate Variability and Predictability program (USCLIVAR). Attendance consisted primarily of representatives from all Federal agencies participating in the Federal Committee for Meteorological Services and Supporting Research (FCMSSR), providing long-range predictions/projections, and using or potentially using long-range predictions/projections of the Earth system in their decision support.

The workshop was organized to inform participants of identified user needs; provide overviews of present capability and research efforts; fully understand the complexities and challenges surrounding decadal prediction; understand the range of emerging capabilities and research efforts; and begin to develop an initial unified US strategy for fulfilling user needs. In each of these main categories of information, presenters outlined the scope of their work, and responded to questions from the participants. The discussions identified key challenges and possible initial steps towards cross-agency coordination for interannual to decadal prediction (2-30 years).



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## OWAQ RECEIVES OAR EEO/DIVERSITY AWARD

**On Monday, December 2nd, 2019**, NOAA's Office of Oceanic & Atmospheric Research (OAR) EEO/Diversity Program Office presented NOAA's Office of Weather and Air Quality (OWAQ) with the 2019 EEO Program/Laboratory Award for Diversity for their work on NOAA's Diversity & Inclusion Initiatives.

Over the last year, under the guidance of Drs. John Cortinas and Kandis Boyd, OWAQ has expanded to a 19-member award-winning team and pushed education through community outreach efforts by serving as judges at symposiums, publishing the FY20 NOFO which requires each applicant to discuss their efforts to support Diversity & Inclusion (D&I), hiring a diverse group through department wide, bureau level and partner programs and collaborations with organizations who are aligned with OWAQ's goal to create a diverse and inclusive organizational culture.

OWAQ plays a critical role in helping OAR & NOAA effectively accomplish their mission by making a long-term commitment to maximize D&I by placing people together who have different characteristics and backgrounds and have a variety of different skills and experiences that support world-class weather and air quality research to save lives, reduce property damage, and enhance the national economy.



# ROUND OF APPLAUSE

Congratulations to Dr. Gina Eosco for winning the SRA-Risk Communication Specialty Group inaugural Award for Excellence in Risk Communication Research and Practice!



Penn State Student Nicola Guisewhite shadows Dr. Kandis Boyd and learns about OWAQ's programs and various educational and professional opportunities at NOAA.

Dr. Kandis Boyd receives NOAA Administrators Award 2019 for her work on the #WomenofNOAA initiative.



## In case you missed it...

Dr. Jessie Carman receives NOAA Employee of the Month for July 2019.



Dr. Chandra Kongragunta is profiled for 2019 National American Indian Heritage Month.



# #WOMENOFNOAA

## MEET TAMARA BATTLE

Tamara Battle is the Policy Coordinator for the Weather Act, in NOAA's Office of Weather and Air Quality (OWAQ) in Silver Spring, Maryland. Her essential role in OWAQ involves working with researchers and subject matter experts across NOAA to create congressional reports required by the Weather Act, and briefing NOAA leadership on supporting activities and accomplishments within NOAA's Oceanic and Atmospheric Research (OAR). Her work incorporates her love for communicating science to wider audiences, as well as her passion for diverse scientific interests. Currently, Tamara is a doctoral candidate at Morgan State University, where she is completing her studies in Environmental Engineering.

For the full article visit

<https://owaq.noaa.gov/Resources/News/ArtMID/446/ArticleID/52/Women-of-NOAA-Meet-Tamara-Battle>

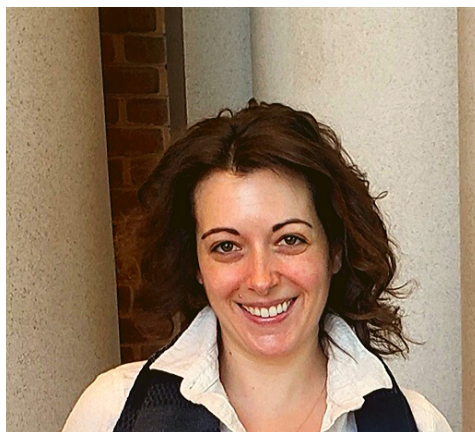


## MEET JOHNNA INFANTI, PHD

Johnna Infanti, PhD is a Scientist 2 (Contractor) with NOAA's Climate Prediction Center in College Park, MD. Previously, she worked at NOAA's Office of Weather and Air Quality through Trivector. Johnna currently is working on The Calibration Bridging and Merging (CBaM) forecast system is intended to add skill to subseasonal to seasonal (S2S) climate predictions by applying statistical post-processing to dynamical climate model predictions. The project was worked on previously by Dr. Sarah Strazzo.

For the full article visit

<https://owaq.noaa.gov/Resources/News/ArtMID/446/ArticleID/59/Women-of-NOAA-Johnna-Infanti-PhD>



**WELCOME TO THE TEAM**



**OFFICE OF WEATHER  
AND AIR QUALITY**  
National Oceanic and Atmospheric Administration

## NEW EMPLOYEES

**Mark Cohen, PhD**

Air Quality Program Manager  
Detaillee

**Winnie Mutuli**

JTTI Program Coordinator  
Contractor

**Hernan Garcia, PhD**

OWAQ Acting Deputy Director  
Detaillee

**Melissa Pratt-Zossounbo**

Administrative Officer  
Federal

**Krishna Kumar, PhD**

EPIC Program Coordinator  
Contractor

**Andrea Ray, PhD**

Testbeds Program Manager  
Detaillee

**Harish Vasuden**

Financial Analyst  
Contractor

