



# WEATHER PROGRAM OFFICE

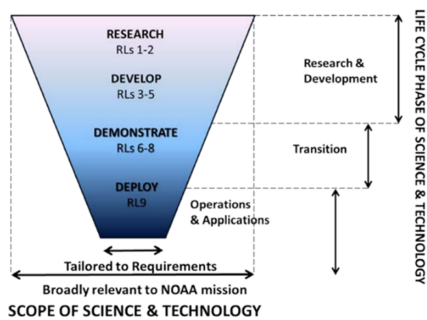
National Oceanic and Atmospheric Research

## Who We Are

The **Weather Program Office (WPO)** supports world-class weather and air quality research to save lives, reduce property damage, and enhance the national economy. In pursuit of its vision and mission, WPO works closely with the weather enterprise and the National Weather Service (NWS) to develop and transition weather and air quality research from minutes out to seasons, including hurricanes, severe thunderstorms, heavy precipitation, and air pollution.

## Transitioning Research to Operational and Societal Applications

One of WPO's foremost missions is to foster the transition of world-class collaborative research into operational, commercial, and other societal applications for timely and accurate weather and air quality forecasts. This is accomplished through:



- **Collaborative Funding Opportunities.** WPO continually engages its partners, especially in NWS and academia, to better inform research priorities. Input from operational centers and external partners allows WPO to identify current science gaps and develops funding priorities to address them.

- **Tracking Readiness.** NOAA's system of Readiness Levels (RLs) classifies research projects based on a spectrum of research and development stages, ranging from Initial Research (RL1-2) and Development (RL3-5), through Demonstration (RL6-8) and Deployment to operations/other applications (RL9).

- **Transition Planning.** Transition plans are used to strategically bridge R&D principal investigators with operational centers and represent an initial commitment by both OAR and NWS to develop a path into operations and an enhancement of communication and collaboration between researchers and operations.

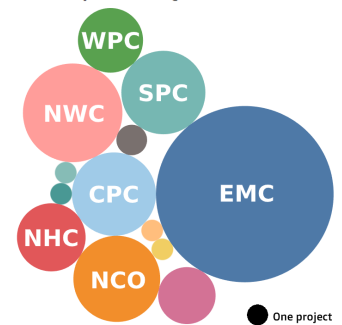
- **Evaluation and Implementation of Transition Activities.** WPO and NWS jointly evaluate existing transition plans and incorporate feedback from NWS Service Delivery portfolios. This encourages further collaboration and mutual preparation of resource allocation for eventual transitions.
- **Utilizing NOAA Testbeds.** WPO prepares projects for eventual transition by enabling evaluation in NOAA's testbeds and proving grounds.
- **Informing Policy.** WPO plays a key role in informing NOAA policymakers on research transition processes and effectiveness. This is done by utilizing feedback from researchers and operators to evaluate the successes and shortcomings of its transition policies in order to continually refine and improve the process.
- **Dedicating Resources.** WPO continues to invest in a transition manager to improve the transition process itself while ensuring that the underlying transition conversations continue throughout the life of each project.

## Successes

In FY19 alone, WPO supported 5 transitions into NWS operations and 58 projects with signed transition plans.

- **Tracking Transitions.** WPO maintains an extensive database of its projects and transition activities to identify our most common partners and opportunities for expansion. WPO also funds the NOAA Research and Development Database (NRDD), a tool used by NOAA leadership to quickly access and query NOAA's research portfolio.
- **Successful Transitions.** Since 2016, successful WPO-supported transitions to operations have included a variety of model improvements, Multi-Radar Multi-Sensor system upgrades, probabilistic forecast techniques, and observation instrumentation.

Primary Operational Partners of Proposed OWAQ R2O Transitions



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