

Aidan D. Mahoney, Ph.D.

Meteorologist Technology and Science Branch National Hurricane Center

Aidan Mahoney, Ph.D., is a Meteorologist with the Technology and Science Branch (TSB) of NOAA's National Hurricane Center (NHC) in Miami, Florida.

Aidan graduated from Cornell University with a Bachelor of Science Degree in Atmospheric Science in 2021. He earned a Doctorate in Atmospheric Sciences from the University of Miami's Rosenstiel School of Marine, Atmospheric, and Earth Science in 2026. Aidan's research focused on tropical cyclone thermodynamics, the influence of upper atmospheric temperatures on tropical cyclone intensity, and the numerical modeling of tropical cyclones across different large-scale environments.

Many meteorologists have an "origin storm" that motivated their interest to study atmospheric science. Aidan experienced Hurricanes Irene (2011) and Sandy (2012) at his home in Westchester, NY, in addition to countless snowstorms. Together, these events fostered Aidan's interest in meteorology from a very early age.

During high school, Aidan participated in the Science Research program at Somers High School in Somers, NY. He conducted an independent research project under the mentorship of Dr. Lance F. Bosart at the University at Albany from 2015-2018. Aidan studied predecessor rain events ahead of tropical cyclones, which significantly developed his interest in tropical meteorology. Aidan presented his work at local, regional, and international science competitions, including earning a silver medal at the GENIUS Olympiad International Science Competition in 2017 and NOAA's "Taking the Pulse of the Planet" award in 2018.

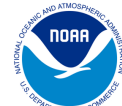
In June 2018, Aidan was awarded the American Meteorological Society's Bernard Vonnegut and Vincent Schaefer Freshman Undergraduate Scholarship. Later that year, Aidan enrolled in the College of Agriculture and Life Sciences, Atmospheric Science program at Cornell University. In complement to the rigorous course work, Aidan was appointed a Teaching Assistant for Introductory Oceanography in 2019, Basic Principles of Meteorology in 2020, and Atmospheric Thermodynamics in 2021.



Aidan led the Cornell Chapter of the American Meteorological Society as Co-President from May 2019 through May 2021, during which time he made considerable efforts to provide professional opportunities to chapter members through local, regional, and national events and conferences. Additionally, Aidan continued to use the Chapter to build a strong sense of community among students, faculty, and staff within Cornell's Earth and Atmospheric Sciences Department. Above all, Aidan is grateful to have met many talented people that he is honored to now call friends and colleagues.

Aidan served as a Pathways Intern in NHC's Tropical Analysis and Forecast Branch (TAFB) from 2020 to 2026. In that role, he supported TAFB's critical tropical marine services, worked as a surface analyst, and studied tropical waves. In 2025, Aidan transitioned new guidance to operations that uses artificial intelligence and machine learning to identify tropical waves, the monsoon trough, and the intertropical convergence zone. Aidan started as a meteorologist in TSB in 2026. In this role, Aidan supports forecast operations, maintains local applications and software, and transitions new research to operations. He serves as a Hurricane Support Meteorologist with the Hurricane Specialists' Unit, and contributes to NHC Tropical Cyclone Reports.

Aidan is a member of the American Meteorological Society.



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