

Heather Nepaul, Ph.D.

Storm Surge Specialist

Storm Surge Unit, National Hurricane Center

Heather Nepaul, Ph.D., is a storm surge specialist with the Storm Surge Unit (SSU) at NOAA's National Hurricane Center (NHC) in Miami, Florida.

While born in South Florida, Heather grew up in Charlotte, North Carolina. Heather returned to Florida after high school to attend Florida International University (FIU) in West Miami-Dade. She earned a Bachelor of Science in Geoscience (2012), a Master of Science in Geoscience (2015), and a Doctor of Philosophy in Geoscience (2018), all with an atmospheric track. Her dissertation focused on evaluating changes in oceanic natural variability on a warming globe.

While attending graduate school, Heather volunteered with the Miami Weather Forecast Office, where she completed her upper air certification and collaborated with the NHC on evaluating Gulf of Mexico hurricane track forecasts from 2004–2013.

After graduating with her doctorate, Dr. Nepaul began her professional career with the National Weather Service forecast office for Miami/South Florida, where her duties were to analyze and assess the daily weather to provide forecasting products for South Florida and the adjacent waters. She was also responsible for issuing watches, warnings, and forecasts for the public, aviation, marine, and fire weather communities across South Florida.



Heather joined NHC in July 2021, initially splitting her time between storm surge forecasting and surface analysis. She later transitioned to a full-time role in the SSU, focusing on collaborating with hurricane specialists and coastal offices to issue timely storm surge warnings and support emergency response.

Beyond her operational duties, Heather regularly presents at conferences, facilitates workshops, and trains emergency managers, meteorologists, and students on forecasting tools and risk analysis maps to enhance storm surge awareness and preparedness and strengthen public safety and disaster readiness.

Heather enjoys spending time with her family and dog in her spare time, cheering on the infamous Florida Gators. She also embraces the challenges of maintaining her sourdough starter while staying committed to fitness and exploring new workout routines.



January 2025