

Howard University professor leads research project into storm prediction

By [Owain Johnston-Barnes](#)



A NOAA research team plans to leave Bermuda today to study how African winds affect the Atlantic, and potentially improve hurricane forecasting.

National Oceanic and Atmospheric Association vessel

Ronald H

Brown is scheduled to depart from St George's for the waters off West Africa as part of the Aerosols and Ocean Science Expeditions project.

Howard University professor Vernon Morris, principle investigator for the programme, said the project is hoped to help detail the connection between African winds — and the aerosols they carry — and weather across the Atlantic.

"We are looking at the movement of air masses that come out of West Africa and the associated aerosols," Dr Morris said.

"Some aerosols come from the dust storms, some are coming from the slash and burn fires that they have. Some come from the mega-cities that they are building.

"Those aerosols can affect the weather and can affect human health. They can affect microorganisms, they can affect coral reefs.

"There are a whole variety of effects that they have. Things that lead to changes in Africa can really have a cascade effect."

One example, he said, was a potential link between aerosols carried across the ocean and a rise in asthma rates recorded in island nations across the Atlantic.

"Part of that may be due to a local trigger, but part of it is likely an external trigger," he said.

"The clues to finding out what that trigger is will come out of what is coming out of Africa." Along with looking at aerosols, Dr Morris said the research project will provide a platform for calibrating and validating information collected by satellites, comparing their readings to the "ground truth".

Such calibrations should lead to more accurate weather predictions.

With the majority of Atlantic hurricanes having their origins off the coast of Africa, more accurate readings in the region could make a difference throughout the Atlantic.

Professor Vernon Morris checks over equipment on the NOAA Vessel Ronald H Brown, in port in St Georges this week he will be performing research in the Atlantic while on board her (Photo by Glenn Tucker)

"There's a system there now which has a 50 percent or better chance of becoming a Category Two hurricane," he said on Wednesday.

"It's a great opportunity for us. It's not a great opportunity to avoid being seasick, but that will help us get measurements that are as close as possible to such systems.

"This all helps us better understand what happens."

The month-long expedition is scheduled to begin today, however engine troubles on-board the ship yesterday threatened a possible delay.

If delayed, Dr Morris said the start of the expedition could be set back until November, with the team setting out on a "rescue mission" to collect a detached mooring off the coast of Barbados before returning to the US.