



Press release
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CMRE and NOAA join forces to monitor Atlantic Ocean dynamics

The two organisations signed a five-year framework agreement to conduct oceanic and atmospheric monitoring on board the NATO Research Vessel Alliance.

There are strong societal needs for improved prediction of climate variability and its impact on the countries surrounding the tropical Atlantic basin. To address this challenge, in 1997 the United States Department of Commerce - National Oceanic and Atmospheric Administration (NOAA) initiated the PIRATA (Prediction and Research Moored Array in the Tropical Atlantic) multinational observation network, established to enhance knowledge and understanding of ocean-atmosphere variability in that area.

PIRATA is a three-party project between Brazil, France and the United States that seeks to monitor the upper ocean and near surface atmosphere of the Tropical Atlantic via the deployment and maintenance of an array of moored buoys and automatic meteorological stations and via ancillary observations collected during annual servicing cruises. The network includes array of backbone moored buoys in key regions such as the climate-critical Tropical North Atlantic where the US-led PIRATA Northeast Extension (PNE) is present.

The program requires global class research vessel support to accomplish studies, monitoring and maintenance. The world-class NATO Research Vessel Alliance, operated by the NATO Centre for Maritime Research and Experimentation (CMRE), has proved to be particularly well-suited to this mission.

In this context, NOAA Vice Admiral Michael S. Devany, Deputy Under Secretary for Operations at NOAA, and Rear Admiral (Rtd.) Hank Ort, CMRE Director, signed a five-year framework agreement to facilitate research vessel support from NRV Alliance in particular, with monitoring of meteorological, hydrological, and oceanographic processes, bathymetry, and climate. The collaboration marks a breakthrough in transatlantic cooperation while fostering sharing of assets and capabilities in the North Atlantic.

"CMRE is proud to serve as an unbiased, trusted hub for research partners thereby contributing to optimise use of resources", says Rear Admiral Ort, CMRE Director. "Leading edge research undertaken by NOAA is vital to improve global ocean knowledge".

"NOAA is pleased to work with CMRE and the highly capable NRV Alliance to conduct this important mission," said Vice Admiral Devany. "NOAA is committed to working with organisations like CMRE to address the growing gap in our own sea-going capability and need for new ships."

The agreement is already being implemented in the PNE '15 cruise, the first NOAA charter of NRV Alliance, conducted in tropical and equatorial waters of the western Atlantic from mid-November to mid-December 2015. As a main activity, PNE '15 plans include the service and maintenance of the four moorings of the PIRATA NE extension.



Secondary activities are: the collection of in situ measurements to characterise the impacts of continental African aerosol outflows across the Atlantic Ocean, the collection of data to evaluate upper ocean hydrography, for example, for studying variability in the Tropical North Atlantic as well as for model verification; the collection of atmospheric profiles, for example for the calibration of satellite observations of ozone concentrations; in situ collection of air samples for validation of chemical models.

Through all these means, this multi-year project will lead to better understanding of anomalies in the main development region of Atlantic hurricanes, including interannual variations associated with the West African Monsoon. In PNE, NOAA also partners with Aerosol and Ocean Science Expedition (AEROSE) to collect data on long-range transport of mineral dust and smoke aerosols. Data gathered will be available as open-source to the scientific community.

About CMRE. The STO-CMRE (Science and Technology Organization – Centre for Maritime Research and Experimentation) is located in La Spezia, Italy. Formerly the NATO Undersea Research Centre (NURC), the Centre focuses on research, innovation and technology in areas such as defence of maritime forces and installations against terrorism and piracy, secure networks, development of the common operational picture, the maritime component of expeditionary operations, mine countermeasure systems, non-lethal protection for ports and harbours, anti-submarine warfare, modelling and simulation, and marine mammal risk mitigation. CMRE operates two ships, NATO Research Vessel Alliance, a 93-meter 3,180-ton open-ocean research vessel, and Coastal Research Vessel Leonardo, a smaller ship designed for coastal operations. In addition to its laboratories the Centre is equipped with a fleet of autonomous underwater and surface vehicles and a world-class inventory of seagoing sensors.

About NOAA. NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Join us on Facebook, Twitter, Instagram and our other social media channels.

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