



NOAA Fleet Update

**FOR
JANUARY 2014**

The following update provides the status of the ships and aircraft in NOAA's fleet, including current location and planned mission(s). NOAA's ships and aircraft play a critical role in the collection of oceanographic, atmospheric, hydrographic, and fisheries data. NOAA's fleet of research aircraft and ships are operated, managed, and maintained by NOAA's Office of Marine and Aviation Operations ([OMAO](#)), which includes both civilians and the commissioned officers of the NOAA Commissioned Officer Corps ([NOAA Corps](#)), one of the seven Uniformed Services of the United States. Please click on the Table of Contents entry to be taken directly to a specific ship or aircraft. The fleet is listed based on the geographical location of their homeport/base starting in the Northeast and ending in the Pacific.



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On January 2, Secretary of Commerce Penny Pritzker conducted the promotion and swearing-in ceremony for Vice Admiral Michael Devany, Rear Admiral David Score, and Rear Admiral Anita Lopez.

VADM Devany now serves as NOAA's Deputy Under Secretary of Operations, RADM Score is now Director of OMAO and the NOAA Corps, and RDML Lopez now serves as OMAO's Deputy Director for Operations and Deputy Director of the NOAA Corps.

Photo: David Hall

NOAA's Ships

NOAA's Ship Tracker (screen shot below) shows information about the location, present and past, of NOAA's ships.

<http://shiptracker.noaa.gov>



Ferdinand R. Hassler

Homeport and Commanding Officer: New Castle, NH – LCDR Marc Moser

Primary Mission Category: Hydrographic Surveys

Ship Status: Alongside in New Castle, NH, for winter inport, dockside repair period and crew training. Ship shakedown and underway training are scheduled for April.

Henry B. Bigelow

Homeport and Commanding Officer: Woods Hole, MA (currently docked in Newport, RI) – CDR G. Mark Miller

Primary Mission Category: Fisheries Research

Ship Status: Alongside the Marine Operations Center – Atlantic in Norfolk, VA, for a dockside repair period and crew training. Sea trials are scheduled for the end of February.

Okeanos Explorer

Homeport and Commanding Officer: North Kingstown, RI – CDR Ricardo Ramos

Primary Mission Category: Oceanographic Exploration and Research

Ship Status: Alongside in North Kingstown, RI, for winter inport, routine maintenance and repairs, and crew training. Mission system shakedown and patch test are scheduled for the beginning of February.

Thomas Jefferson

Homeport and Commanding Officer: Norfolk, VA – CDR James Crocker

Primary Mission Category: Hydrographic Surveys

Ship Status: In drydock at Deyton's Drydock in Charleston, SC, for routine maintenance and repairs.

Nancy Foster

Homeport and Commanding Officer: Charleston, SC – LCDR Nicholas Chrobak

Primary Mission Category: Oceanographic Research, Environmental Assessment

Ship Status: Alongside in Charleston, SC, for winter inport, routine maintenance and repairs, and crew training. Shakedown and sea trials are scheduled for the end of February.

Ronald H. Brown

Homeport and Commanding Officer: Charleston, SC – CAPT Joseph Pica

Primary Mission Category: Oceanographic Research, Environmental Assessment

Ship Status: Underway December 21, 2013 – February 5, 2014

DEPART: Recife, Brazil **ARRIVE:** Punta Arenas, Chile

Project: Global Ocean Ship-based Hydrographic Investigations Program (GOSHIP) Climate Variability/Carbon Dioxide (CLIVAR/CO₂) Repeat Hydrography cruise A16S 2014

Objectives: Monitor inventories of CO₂, heat and freshwater, and their transports in the ocean. Compare new measurements against the baseline observational field for these parameters and study the changing patterns on decadal scales. Serve as a backbone to assess changes in the ocean's biogeochemical cycle in response to natural and/or man-induced activity. Global warming-induced changes in the ocean's transport of heat and freshwater, which could affect the circulation by decreasing or shutting down the thermohaline overturning, can be followed through long-term measurements. The Repeat Hydrography Program provides a robust observational framework to monitor these long-term trends. The goal of the effort is to occupy a set of hydrographic transects with full water column measurements over the global ocean to study physical and hydrographic changes over time.

Gordon Gunter

Homeport and Commanding Officer: Pascagoula, MS – CDR Nathan Hancock

Primary Mission Category: Fisheries Research

Ship Status: Alongside in Pascagoula, MS, for a dockside repair period, routine maintenance, and crew training. Sea trials are scheduled for the middle of February.

Oregon II

Homeport and Commanding Officer: Pascagoula, MS – Master Dave Nelson

Primary Mission Category: Fisheries Research

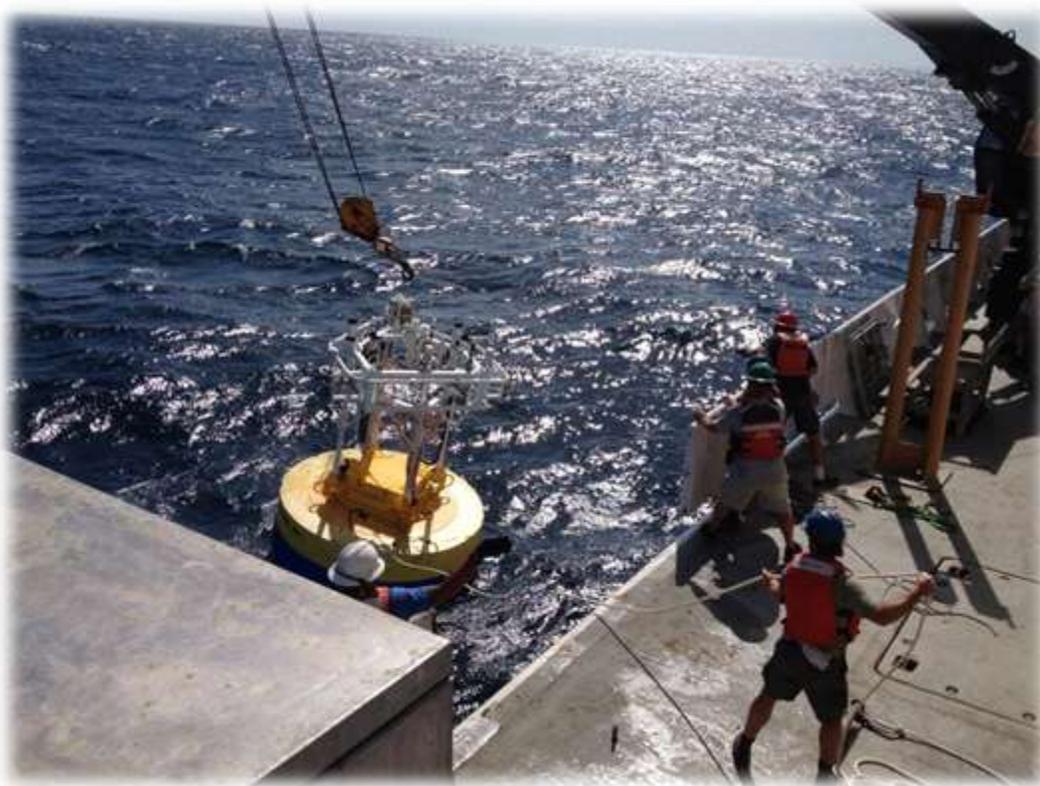
Ship Status: Alongside in Pascagoula, MS, for winter inport and dockside repair period, routine maintenance, and crew training. Shakedown and underway training scheduled prior to May, which begins the ship's field season.

Pisces

Homeport and Commanding Officer: Pascagoula, MS – CDR Peter Fischel

Primary Mission Category: Fisheries Research

Ship Status: Alongside in Pascagoula, MS, for winter inport for routine maintenance and crew training, to be followed by a drydock period.



NOAA Ship *Ronald H. Brown* conducting operations

Photo: LCDR Jason Appler, NOAA

Rainier

Homeport and Commanding Officer: Newport, OR – CDR Rick Brennan

Primary Mission Category: Hydrographic Surveys

Ship Status: Alongside Marine Operations Center – Pacific, Newport, OR, for standard winter repair period, maintenance, and training. Departing for scheduled drydock in mid-January.

Bell M. Shimada

Homeport and Commanding Officer: Newport, OR – CDR Scott Sirois

Primary Mission Category: Fisheries Research

Ship Status: Underway January 12 – 15, 2014, January 18 – February 11, 2014, & February 14-17, 2014

DEPART: Newport, OR **ARRIVE:** San Diego, CA

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Project: Winter California Cooperative Oceanic Fisheries Investigations (CalCOFI) Fisheries Resources Division

Objectives: Survey the distribution and abundance of pelagic fish stocks, their prey, and their biotic and abiotic environments in the area of the California Current between San Francisco, California and San Diego, California.

McArthur II

Homeport: Newport, OR

Ship Status: The ship is currently docked in Newport, OR, in layup status.

Fairweather

Homeport and Commanding Officer: Ketchikan, AK – CDR David Zezula

Primary Mission Category: Hydrographic Surveys

Ship Status: Alongside Marine Operations Center – Pacific, Newport, OR, for winter repair period, routine maintenance, and crew training.

Oscar Dyson

Homeport and Commanding Officer: Kodiak, AK – CDR Mark Boland / CDR Jesse Stark

Primary Mission Category: Fisheries Research

Ship Status: At Bay Ship and Yacht drydock in Alameda, CA. Ship's departure from the yard is scheduled for the end of January.

Hi'ialakai

Homeport and Commanding Officer: Honolulu, HI – LCDR Daniel Simon

Primary Mission Category: Oceanographic Research, Environmental Assessment

Ship Status: At Lake Union Drydock, Seattle, WA; scheduled to be refloated at the end of January.

Oscar Elton Sette

Homeport and Commanding Officer: Honolulu, HI – LCDR Stephanie Koes

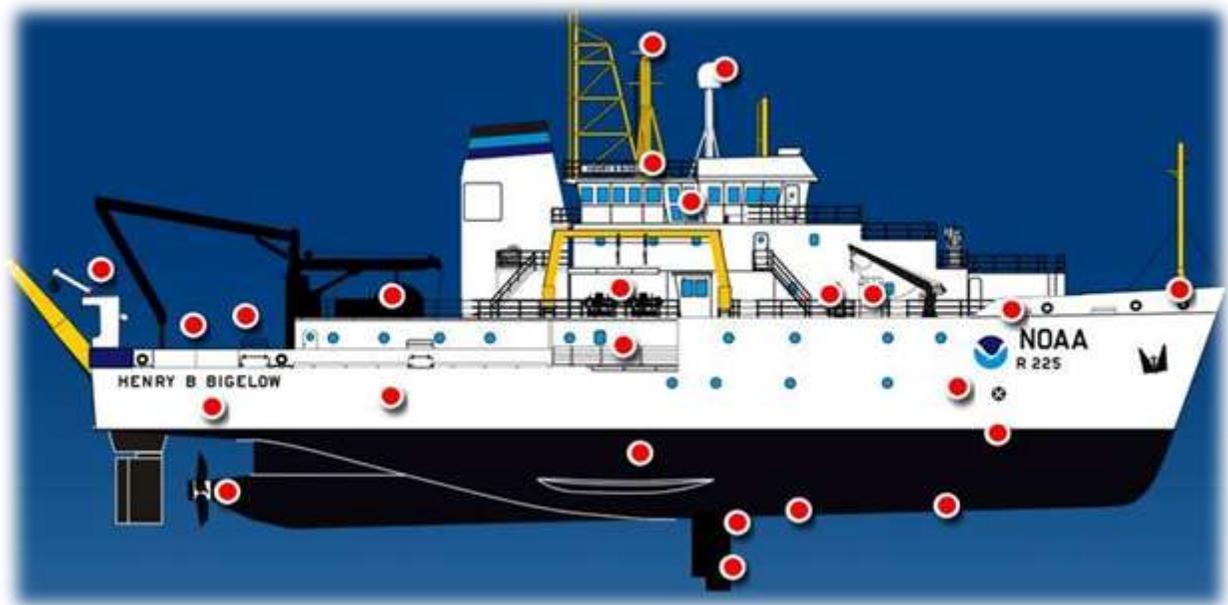
Primary Mission Category: Fisheries Research

Ship Status: Alongside at the Marine Operations Center – Pacific Islands, Pearl Harbor, HI, for standard winter repair period, maintenance, and training.

Ka'imimoana

Homeport: Honolulu, HI

Ship Status: The ship is currently docked in Newport, OR, in layup status.



Take a virtual tour of NOAA Ship *Henry B. Bigelow* through this great interactive feature developed by the Northeast Fisheries Science Center -

<http://www.nefsc.noaa.gov/Bigelow/shiptour.html>

NOAA's Aircraft



NOAA's Gulfstream Jet Prop Commander taking off for a mission which measures the water content of snow to support flood and water resource forecasts.

Photo: Johann Gebauer

WP-3D (N42RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LCDR Justin Kibbey

Current Mission: Ocean Winds over North Atlantic

Dates of Operation: January 21 – February 21, 2014

A scheduled maintenance period is expected to be complete and functional test flights conducted in the early part of the month. The aircraft will then be instrumented for its next project, a study of Ocean Winds for NOAA's National Environmental, Satellite, Data, and Information Service, starting in late January. This project has the goal of improving the understanding of measurements from existing satellite sensors such as ASCAT, OSCAT and AMSR2 sensors. This will result in better utilization of these data by weather and ocean models, and human forecasters in their decision making process.

WP-3D (N43RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – CDR Mark Sweeney
Temporary Base: Costa Rica
Current Mission: Ecological Synthetic Aperture Radar (EcoSAR)
Dates of Operation: Late January to early February 2014

Aircraft is in the process of being instrumented for the NASA EcoSAR project which will utilize a P-Band Synthetic Aperture Radar system. The system will provide fine scale measurements of terrestrial and coastal ecosystem structure and biomass. The data will aid in understanding the carbon uptake and release by forested ecosystems which will help close the gap in understanding the global carbon cycle, an important element in climate change studies. Installation and preparation work will take place during most of the month. Flight and science testing will occur at the end of January out of MacDill AFB, over Andros Islands, Bahamas. A deployment to Costa Rica would tentatively begin in early February and consist of 24 flight hours over 10 days.

Twin Otter (N46RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – TBD
Temporary Base: Calgary, Alberta
Current Mission: Corrosion Inspection

Aircraft is in a long-term scheduled corrosion inspection. Expected completion is in late winter.

Twin Otter (N57RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LTJG Kevin Doremus
Temporary Base: Hyannis, MA
Current Mission: Northeast Right Whale Survey – Atlantic waters off of Maine, Massachusetts, and Rhode Island
Dates of Operation: January 2014

This survey will serve multiple objectives with respect to marine mammal conservation.

- 1) Provide locations of Right whales to mariners.
- 2) Provide description of right whale distribution to support the implementation of seasonal and dynamic area management.
- 3) Provide annual photo-identification records on Right whales, as well as detailed vertical photogrammetry in selected periods.
- 4) Provide information on the distribution and abundance of marine mammals and marine turtles in the winter, spring, summer and fall seasons.
- 5) Provide sightings of dead whales.
- 6) Provide information on the distribution of shipping and fishing gear.
- 7) Census seal populations along the New England coast. The aircraft will return to MacDill AFB mid-January for scheduled maintenance, with a short marine mammal survey en route for the Riverhead Foundation.

Twin Otter (N56RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LTJG Michael Hirsch /
LTJG Sandor Silagi

Temporary Base: Saint Simons Island, GA

Current Mission: Southeast Right Whale Survey – Georgia Coastal Waters

Dates of Operation: January – March, 2014

The aircraft is conducting the Southeastern Right Whale survey out of Saint Simons Islands, GA. NOAA Fisheries Service Southeast Regional Office conducts these multi-aircraft surveys annually, from South Carolina to Florida, in an effort to determine calf production, Right whale distribution relative to habitat variables, and to reduce ship collisions with Right whales.

Twin Otter (N48RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LT David Cowan /
LT Francisco Fuenmayor

Current Mission: Calibration Flights / Snow Survey

Dates of Operation: TBD

Aircraft will fly intercomparison flights with N45RF to calibrate that aircraft's Snow Survey instrumentation. It will then resume Snow Survey operations in the Midwest as well.

Jet Prop Commander (N45RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LCDR Cathy Martin /
LT Paul Hemmick

Current Mission: Calibration Flights / Snow Survey

Dates of Operation: TBD

The aircraft will be conducting intercomparison flights with N48RF to calibrate the Snow Survey instrumentation. It will then resume Snow Survey operations for the National Operational Hydrologic Remote Sensing Center (NOHRSC), utilizing an Airborne Gamma Radiation detector to make airborne Snow Water Equivalent (SWE) and soil moisture measurements in the Midwest. Airborne SWE measurements are used by NWS Weather Forecast Offices (WFO) and NWS River Forecast Centers (RFC) when issuing river and flood forecasts, water supply forecasts, and spring flood outlooks.

Gulfstream IV (N49RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL - TBD

Temporary Base: Travis AFB, Fairfield, CA

Current Mission: Atmospheric Rivers. February 3 - 18, 2014

The project will serve as an evaluation of G-IV Doppler radar performance in preparation for CalWater2 project planned for 2015. The objectives are improved understanding of atmospheric river structure, lifecycle, impact on US west coast due to precipitation and flooding, as well as improved forecast capability for Atmospheric River events. Project will deploy when conditions are right for the study, sometime during the project window of February 3 – 18, 2014.

King Air (N68RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – CAPT Al Girimonte / LCDR Scott Price

Current Mission: Various locations for coastal mapping

Dates of Operation: Continuous operations

The King Air will continue to support the Coastal Mapping program. This on-going effort, run by the Remote Sensing Division of the National Geodetic Survey (NGS), works to provide a regularly-updated national shoreline for supporting marine navigation, defining territorial limits, and managing coastal resources. Stereo photogrammetry and LiDAR are used to produce a digital database for a national shoreline. Surveys locations will be dependent on weather and tide levels. Most likely survey areas for January are Mobile, AL; Southwest FL; FL Panhandle; Wilmington, NC; and Louisiana.



**WP-3D “Hurricane Hunter” at the OMAO Aircraft Operations Center,
MacDill Air Force Base, Tampa, FL.**

Photo: NOAA Hurricane Hunters

Unmanned Systems Support

Hexacopter

Location: Antarctica
Dates: Through March 2014
Mission: Marine Mammal Surveys

NOAA's Southwest Fisheries Science Center is operating an APH-22 Hexacopter in Antarctica - specifically Cape Shirreff. Their mission is the study of marine mammals (primarily penguins and leopard seals). This season's operations will focus on collecting replicate counts of breeding pairs and chicks for Gentoo and Chinstrap penguins, Antarctic fur seal pup counts, and defining the relationship between mass of leopard seals and their size and shape as determined from vertical aerial photographs. This later goal is especially important because the other alternative is to drug and capture the animals, which can be dangerous for both the scientist and the animals studied. OMAO's Aircraft Operations Center is in communication with the team and weekly reports are being sent for situational awareness purposes.



NOAA Partnerships

NASA Global Hawk

Location: Guam
Dates: Ongoing
Mission: Airborne Tropical Tropopause Experiment (ATTREX).

The project is a series of measurement campaigns using the long-range NASA Global Hawk (GH) unmanned aircraft system (UAS) to directly record atmospheric conditions in the Tropopause Layer. ATTREX will utilize a multitude of instruments geared toward measuring various aspects of the environment to better understand the processes in the Tropical Tropopause. The Global Hawk and its support staff will deploy to Guam in mid-January and begin operations out of Andersen Air Force base. Payload principal investigators are from NASA, NOAA, and academia. Operations staff for the NASA Global Hawk includes NOAA Corps and civilian personnel.

About OMAO

NOAA's Office of Marine and Aviation Operations operates a wide variety of specialized aircraft and ships to complete NOAA's environmental and scientific missions. OMAO is also responsible for the administration and implementation of the [NOAA Diving Program](#), [Small Boat Program](#) and [Aviation Safety Program](#), to ensure safe and efficient operations in NOAA-sponsored underwater activities and aviation and small boat operations. The Director of OMAO and the [NOAA Corps](#) is Rear Admiral David A. Score (two star). Rear Admiral (lower half or one star) Anita L. Lopez is the Deputy Director of OMAO and the NOAA Corps.

NOAA's [Aircraft Operations Center](#) (AOC), located at the MacDill Air Force Base in Tampa, Florida, is home to NOAA's fleet of aircraft. These fixed-wing aircraft operate in some of the world's most remote and demanding flight regimes--over open ocean, mountains, coastal wetlands, Arctic pack ice, and in and around hurricanes and other severe weather--with an exemplary safety record. There are no comparable aircraft in the commercial fleet to support NOAA's atmospheric and hurricane surveillance/research programs. AOC provides unique specialized platforms to NOAA's scientists. The hard-working versatile aircraft collect the environmental and geographic data essential to NOAA [hurricane](#) and other [weather and atmospheric research](#); provide aerial support for [coastal](#) and [aeronautical](#) charting and [remote sensing](#) projects; conduct aerial surveys for [hydrologic](#) research to help predict flooding potential from snow melt, and provide support to NOAA's [fishery](#) research and marine mammal assessment programs.



NOAA's ship fleet provides [hydrographic survey](#), [oceanographic](#) and [atmospheric](#) research, and [fisheries](#) research vessels to support NOAA's strategic plan elements and mission. The vessels are located in various locations around the United States. The ships are managed by the [Marine Operations Center](#), which has offices in [Norfolk](#), Virginia, [Newport](#), Oregon, and Honolulu, Hawai'i. Logistic support for these vessels is provided by the Marine Operations Center offices or, for vessels in Woods Hole, Massachusetts; Charleston, South Carolina; Pascagoula, Mississippi; San Diego, California; Kodiak and Ketchikan, Alaska; and Honolulu, Hawaii; by Port Captains located in those ports.



NOAA's aircraft and ship fleet is operated and managed by a combination of NOAA Corps Officers, wage marine and civilian employees. NOAA Corps pilots are the only pilots in the world who are trained and qualified to fly into hurricanes at dangerously low altitudes (below 10,000 feet). Officers and OMAO civilians also frequently serve as chief scientists on program missions. The wage marine and civilian personnel include licensed engineers, mechanics, navigators, technicians, and members of the engine, steward, and deck departments. Administrative duties and navigation of the vessels are performed by the commissioned officers. The aircraft and ship's officers and crew provide mission support and assistance to embarked scientists from various NOAA laboratories as well as the academic community.

In addition to NOAA's research fleet, OMAO is fulfilling NOAA's ship and aircraft support needs with contracts for ship and aircraft time with other sources, such as the private sector and the university fleet.

The NOAA Commissioned Officer Corps

[– Supporting NOAA’s Science, Service, and Stewardship –](#)

The NOAA Commissioned Officer Corps (NOAA Corps) is one of the seven uniformed services of the United States and serve with the ‘special trust and confidence’ of the President. NOAA Corps officers are an integral part of the National Oceanic and Atmospheric Administration (NOAA), an agency of the U.S. Department of Commerce. With 321 officers, the NOAA Corps serves throughout the agency’s line and staff offices to support nearly all of NOAA’s programs and missions. The combination of commissioned service and scientific expertise makes these officers uniquely capable of leading some of NOAA’s most important initiatives.

The NOAA Corps is part of NOAA’s Office of Marine and Aviation Operations and traces its roots back to the former U.S. Coast and Geodetic Survey, which dates back to 1807 and President Thomas Jefferson. In 1970, NOAA was created to develop a coordinated approach to oceanographic and atmospheric research and subsequent legislation converted the commissioned officer corps to the NOAA Corps.

The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines. Corps officers operate NOAA’s [ships](#), fly [aircraft](#), manage research projects, conduct [diving operations](#), and serve in staff positions throughout NOAA.

Benefits of the NOAA Corps to the Nation

The combination of commissioned service with scientific and operational expertise, allows the NOAA Corps to provide a unique and indispensable service to the nation. NOAA Corps officers enable NOAA to fulfill mission requirements, meet changing environmental concerns, take advantage of emerging technologies, and serve as environmental first responders. For example:

- In 2012 after Hurricane Sandy, seafloor sonar surveys completed by NOAA ships and small boats helped reopen Baltimore and Virginia ports, quickly restarting commerce and allowing Navy ships to return to port. New York and New Jersey ports were reopened, enabling emergency supplies to reach some of the hardest-hit areas. Maritime traffic resumed more quickly because NOAA embedded regional navigation managers within command centers.
- Hours after Sandy, NOAA planes and scientists conducted aerial surveys of the affected coastlines and immediately published the photos online, allowing emergency managers and residents to examine the damage even before ground inspections were permitted. These surveys are also vital to FEMA assessment teams and other on-the-ground responders and those managing oil spill clean-up and damage assessment. Over 3,000 miles of coastline have been surveyed, and over 10,000 images processed to document coastal damage and impacts to navigation.
- In 2011, OMAO’s Aero Commander and Jetprop Commander aircraft conducted snow surveys, which increased the accuracy of National Weather Service’s River Forecast Centers flood forecasting during a record year of snow and floods.
- After Hurricane Irene in 2011, the NOAA Ship *Ferdinand Hassler* and team completed 300 lineal nautical miles of survey work in less than 48 hours providing a Damage Assessment that enabled the

U.S. Coast Guard to re-open ports and restore more than \$5M per hour in maritime commerce less than 3 days after the storm.

- More than 80 officers, or a quarter of the Corps' total strength, were re-assigned and/or deployed to support the Deepwater Horizon disaster response in the Gulf in 2010.
 - Eight NOAA-owned vessels, or the entire Atlantic fleet, were also deployed to the Gulf of Mexico for spill response, as well as several aircraft.
- Corps officers who run NOAA's Ships support fish stock and marine mammal assessments, marine ecosystem studies, ocean exploration, coral reef preservation and protection, and mapping and charting around the United States and the Arctic, and more.
- Corps officers who run NOAA's Aircraft collect environmental and geographic data essential to studying climate change, assess marine mammal populations, survey coastal erosion, investigate oil spills, and improve hurricane and winter storm forecasts as they pilot the WP-3D Orion hurricane hunters and other aircraft that fly through, and above the storms to obtain critical forecasting data.

Find out more about the Corps, its mission and history at <http://www.noaacorps.noaa.gov/>.



**NOAA Corp's Basic Officer Training Class (BOTC) 122 Graduation
at the United States Coast Guard Academy in New London, CT.**

Photo: Petty Officer 3rd Class Cory J. Mendenhall, USCG