



NOAA Fleet Update

**FOR
FEBRUARY 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 29, several members of the NOAA Commissioned Officer Corps were recognized with U.S. Department of Commerce Gold and Silver Medals.

Photo: LT Joshua Slater, NOAA

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>



Ronald H. Brown

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

Primary Mission Category: Oceanographic Research, Environmental Assessment

Ship Status: Underway February 11 – February 17, 2014 for transit and February 25 – March 14, 2014

DEPART: Punta Arenas, Chile

ARRIVE: Valparaiso, Chile

DEPART: Valparaiso, Chile

ARRIVE: Arica, Chile

Project: Thirteenth Setting of the Stratus Ocean Reference Station

Objectives:

- 1) The recovery and redeployment of the Stratus Ocean Reference Station (ORS) at ~20°S, 85°W
- 2) Deployment for up to several days of a near-surface sampling array next to the Stratus 13 buoy
- 3) Servicing the NOAA National Data Buoy Center (NDBC) Deep-ocean Assessment and Reporting of Tsunamis (DART) 32412 (17°58'30" S 86°23'30" W)
- 4) Collection of meteorological and oceanographic data while underway and on station
- 5) Deployment of surface drifting buoys for NOAA Atlantic Oceanographic Meteorological Laboratory (AOML)
- 6) Deployment of profiling Argo floats for the international Argo program

Gordon Gunter

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

Primary Mission Category: Fisheries Research

Ship Status: Sea trials are scheduled for February 13 / Underway February 14 – March 4, 2014

DEPART: Pascagoula, MS

ARRIVE: Newport, RI

Project: Winter Ecosystem Monitoring Survey

Objectives:

- 1) Assess changing biological and physical conditions which influence the sustainable productivity of the living marine resources of the northeast continental shelf ecosystem using CTD's and bongo nets at stations located at predetermined randomly stratified locations. CTD will collect electronic data on temperature, salinity, density, and oxygen.
- 2) Trends in ocean acidification and nutrient levels will be determined by collecting water samples using a rosette sampler at predetermined fixed locations.
- 3) Detail incursion of Labrador Current water into the Gulf of Maine by conducting CTD casts in deep basin areas.
- 4) Collect samples for the Census of Marine Zooplankton Project by the use of 20-cm bongos piggybacked above the 61-cm bongos.
- 5) Assess the effectiveness of the Dave Richardson-modified Karatsuri Rake for the collection of adult sand lance.
- 6) Determine the abundance and distribution of larval and juvenile sand lance (*Ammodytes sp*) and cod (*Gadus morhua*) in the areas surveyed. 6) Report northern right whale and other marine mammal, bird and turtle sightings.
- 7) Collect TSG, fluorometer, SCS, EK-60 Scientific Sounder and ADCP data from along the cruise track.

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: In drydock at VT Halter Marine in Pascagoula, MS, for routine maintenance and repairs. Sea Trials are scheduled for March 3 – 4, 2014.



NOAA Ship *Ronald H. Brown* completed an ocean chemistry mission in the South Atlantic, and headed for port in Punta Arenas, Chile. To get there, the ship had to traverse the infamous “Roaring Forties”, the area between 40°S and 50°S Latitude where fierce winds wrap around the globe, making large waves. Here is a great shot of one of those waves coming over the bow.

Photo: Bruce Cowden, NOAA

Rainier

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

Primary Mission Category: Hydrographic Surveys

Ship Status: In drydock at Lake Union Drydock (LUDD) shipyard in Seattle, WA, for routine maintenance and repairs.

Bell M. Shimada

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

Primary Mission Category: Fisheries Research

Ship Status: Underway February 14-19, 2014

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

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. Sea trials are scheduled for the end of March.

Oscar Dyson

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

Primary Mission Category: Fisheries Research

Ship Status: Underway February 10 – 15, 2014 – transiting to working ground

DEPART: Seattle, WA **ARRIVE:** Kodiak, AK

Hi'ialakai

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

Primary Mission Category: Oceanographic Research, Environmental Assessment

Ship Status: Underway February 6 – 18, 2014

DEPART: Seattle, WA **ARRIVE:** Pearl Harbor, HI

Project: Completed drydock at Lake Union Drydock (LUDD) in Seattle, WA, and commenced transit back to Marine Operation Center – Pacific Islands, Pearl Harbor, HI.

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. Gear trials are scheduled for the first week of March 2014.

Ka'imimoana

Homeport: Honolulu, HI

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



NOAA Ship Oscar Dyson in Newport, OR.

Photo: CAPT Wade Blake, NOAA

NOAA's Aircraft



The underneath of a NOAA WP-3D Hurricane Hunter Aircraft, piloted and maintained by members of the NOAA Commissioned Officer Corps.

Photo: NOAA Hurricane Hunters

<https://www.facebook.com/NOAAHurricaneHunters>

WP-3D (N42RF)

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

Temporary Base: Halifax, Nova Scotia

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 is conducting a study of Ocean Winds for NOAA's National Environmental, Satellite, Data, and Information Service (NESDIS), out over the North Atlantic and basing out of Halifax, Nova Scotia. This project for NESDIS 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 February through March 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 continue for most of the month. Flight and science testing will occur at the end of February out of MacDill AFB. A deployment to Costa Rica would tentatively begin March 3, 2014.

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 late March 2014.

Twin Otter (N57RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LT David Cowan
Current Mission: Northeast Atlantic Marine Assessment Program for Protected Species (AMAPPS) over the Atlantic waters off of Maine, Massachusetts, and Nova Scotia.
Dates of Operation: February 17- March 27, 2014

Aircraft is currently undergoing a scheduled maintenance period. It will then conduct the Northeast Atlantic Marine Assessment Program for Protected Species (AMAPPS) survey. This multi-year survey will serve multiple objectives with respect to marine mammal conservation: 1) provide distribution and abundance of all species of cetaceans, seals, and sea turtles for the spring which will be used to develop spatially and temporally-specific density maps that will be available to other agencies and the public; 2) provide photo-identification records on Right whales, and 3) provide sightings of dead whales. The AMAPPS survey is a cooperative effort between National Marine Fisheries Service (NMFS)'s Northeast and Southeast Fisheries Science Centers.

Twin Otter (N56RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LCDR Jason Mansour /
LTJG Sandor Silagi / LT David Cowan

Temporary Base: Saint Simons Island, GA

Current Mission: Southeast Right Whale Survey – Georgia Coastal Waters

Dates of Operation: February – March 31, 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. Surveys are flown under contract or grants to the Florida Fish and Wildlife Conservation Commission, Georgia Department of Natural Resources, New England Aquarium, and the Wildlife Trust. The U.S. Army Corps of Engineers, Coast Guard, and Navy also contribute funds to the Central Early Warning System surveys

Twin Otter (N48RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL – LT David Gothan /
LT John Rossi

Temporary Base: Eden Prairie, MN

Current Mission: Calibration Flights / Snow Survey

Dates of Operation: TBD

Aircraft will also be conducting Snow Survey operations, locations to be determined based on NOHRSC tasking.

Jet Prop Commander (N45RF)

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

Current Mission: Calibration Flights / Snow Survey

Dates of Operation: TBD

The aircraft will be conducting some training flights at the beginning of the month out of MacDill AFB. 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. Survey locations will be determined based on NOHRSC tasking.

Gulfstream IV (N49RF)

Homeport and Aircraft Commander: MacDill Air Force Base, Tampa, FL - LT Ron Moyers

Temporary Base: Travis AFB, Fairfield, CA

Current Mission: Atmospheric Rivers. February 3 - 24, 2014

Next project will be an Atmospheric Rivers study over the Pacific. 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. The project will base out of Travis AFB, CA with possible deployments to Alaska or Hawaii, depending on the meteorological conditions.

King Air (N68RF)

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

Current Mission: Various locations for coastal mapping

Dates of Operation: Continuous operations

The King Air continues supporting the Coastal Mapping Program. Most likely survey areas are Charleston, SC and Wilmington, NC, depending on tides and weather. 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. The aircraft will also be conducting surveys with an oblique camera system to take images for the Coast Pilot, a publication for mariners. These surveys will take place throughout Florida, Georgia and South Carolina.



The NOAA Office of Oceanic and Atmospheric Research project on Atmospheric Rivers over the Pacific was very busy recently as major storm activity moved into the North American Coast. Here, OMAO Flight Meteorologist Rich Henning is shown at his workstation in the NOAA G-4 aircraft helping coordinate the work.

Photo: Mr. Gabe Defeo, NOAA

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