



NOAA Fleet Update

October 2019

The following update provides the status of NOAA's fleet of ships and aircraft, which play a critical role in the collection of oceanographic, atmospheric, hydrographic, and fisheries data. NOAA's current fleet of 16 ships – the largest civilian research and survey fleet in the world – and nine aircraft, are operated, managed, and maintained by NOAA's Office of Marine and Aviation Operations ([OMAO](#)). OMAO includes civilians, mariners, and officers of the United States NOAA Commissioned Officer Corps ([NOAA Corps](#)), one of the nation's seven Uniformed Services.



Table of Contents

OMAO in the News	5
NOAA Commissioned Officer Corps	7
Basic Officer Training Class 134	8
OMAO's Ships and Centers	9
National	9
OMAO'S MARINE OPERATIONS	9
New Castle, New Hampshire	10
NOAA Ship <i>Ferdinand R. Hassler</i>	10
Newport, Rhode Island	10
NOAA Ship <i>Henry B. Bigelow</i>	10
North Kingstown (Davisville), Rhode Island	11
NOAA Ship <i>Okeanos Explorer</i>	11
Norfolk, Virginia	11
NOAA Ship <i>Thomas Jefferson</i>	11
OMAO'S MARINE OPERATIONS CENTER – ATLANTIC (MOC-A)	11
Charleston, South Carolina	12
NOAA Ship <i>Nancy Foster</i>	12
NOAA Ship <i>Ronald H. Brown</i>	12
Pascagoula, Mississippi	12
NOAA Ship <i>Pisces</i>	12
NOAA Ship <i>Oregon II</i>	13
NOAA Ship <i>Gordon Gunter</i>	13
San Diego, California	14
NOAA Ship <i>Reuben Lasker</i>	14
Newport, Oregon	14
NOAA Ship <i>Rainier</i>	14
NOAA Ship <i>Bell M. Shimada</i>	15
OMAO'S MARINE OPERATIONS CENTER – PACIFIC (MOC-P)	15
Ketchikan, Alaska	16
NOAA Ship <i>Fairweather</i>	16

Kodiak, Alaska	16
NOAA Ship <i>Oscar Dyson</i>	16
Honolulu, Hawaii	17
NOAA Ship <i>Oscar Elton Sette</i>	18
OMAO'S MARINE OPERATIONS CENTER – PACIFIC ISLANDS (MOC-PI)	18
OMAO's Aircraft	18
Lakeland, Florida	18
P3 "Hurricane Hunter" [Tail ID# N42RF]	18
P3 "Hurricane Hunter" [Tail ID# N43RF]	18
G-IV "Hurricane Hunter" [Tail ID# N49RF]	18
King Air [Tail ID# N68RF]	19
Jet Prop Commander [Tail ID# N45RF]	19
Twin Otter [Tail ID# N46RF]	20
Twin Otter [Tail ID# N48RF]	20
Twin Otter [Tail ID# N56RF]	20
Twin Otter [Tail ID# N57RF]	21
Unmanned Aerial System (UAS) Section	22
OMAO'S AIRCRAFT OPERATIONS CENTER (AOC)	22
Unmanned Systems Support	23
Nationwide	23
OMAO Partnerships	29
United States House of Representatives	29
National Science Foundation	29
Department of Defense – U.S. Pacific Command	30
Department of Defense – U.S. Northern Command	30
Department of Defense – U.S. Navy	30
Department of Homeland Security – U.S. Coast Guard	30
Teacher at Sea Program	31
OMAO - NOAA Diving Program	32
NOAA Diving Center and Program	32
NOAA Small Boat Program	34

Office of Marine & Aviation Operations	35
NOAA Commissioned Officer Corps	37
OMAO/NOAA Corps Resources	38
OMAO Sites	38
Two Pagers, Reports, and Informational Slide Decks	38
Other Web Resources	38



OMAO in the News



[How do NOAA's Hurricane Hunter planes work?](#) September 2, 2019; KING5 News. An entry-level description of what the crew of a Hurricane Hunter aircraft does while flying through a storm.



The view inside Hurricane Dorian's eye from a NOAA P-3 Orion.

[Photo Credit: NOAA]

[Hurricane Hunter Flight Director Live Interview during Hurricane Dorian](#) September 4, 2019; Fox News. Richard Henning, a Flight Director aboard NOAA's Hurricane Hunter P-3 gives a live interview to Fox News during a flight through Hurricane Dorian.



Hurricane Hunter crew studying observations of Hurricane Dorian.

[Photo Credit: NOAA]

[Lakeland, Florida Native Becomes NOAA Pilot](#) September 4, 2019; The Ledger. Ensign Kennieth Brewer, whose family has a long history in Lakeland, recently joined the NOAA Corps and completed his initial pilot training. He aspires to be a Hurricane Hunter some day.

[Video from NOAA Ship shown to live audience at the New England Aquarium](#) September 12, 2019; Boston Magazine. The New England Aquarium displayed underwater and aerial video from NOAA Ship *Okeanos Explorer* at the Northeast Canyons and Seamounts Marine National Monument – 130 miles offshore of Cape Cod - on their IMAX screen, with live narration by scientists aboard the ship.



Photo from a deep sea survey.

[Photo Credit: NOAA Office of Exploration and Research]

[Fall Survey of Bottomfish Survey Underway Across Hawai'i](#) September 17, 2019; The Garden Island (Kauai). Scientists aboard NOAA Ship *Oscar Elton Sette* are conducting surveys of bottomfish stock using cameras throughout the Hawai'iian islands. This survey has been conducted each year since 2016. Along with the efforts of cooperative research fishermen, nearly 500 sample sites will be surveyed.

[NOAA Ship *Bell M. Shimada* investigating latest marine heatwave](#) September 20, 2019; Oregon Live. Researchers aboard NOAA Ship *Bell M. Shimada* are conducting observations of the marine heatwave which took shape in the northern Pacific Ocean in June. Since then, it has persisted and grown in size.



NOAA Ship *Bell M. Shimada* at NOAA's Marine Operations Center – Pacific, in Newport, Oregon.

[Photo Credit: NOAA]



NOAA Commissioned Officer Corps



OMAO and the NOAA Corps are an integral part of NOAA and our officers operate OMAO’s research and survey fleet of 16 ships and nine aircraft. Mission areas can range from launching a weather balloon at the South Pole, conducting hydrographic or fishery surveys in Alaska, maintaining buoys in the tropical Pacific, flying snow surveys over the Midwest, or flying our “Hurricane Hunter” aircraft into, or above, hurricanes.

Selection Boards and Application Process

The NOAA Corps is currently accepting applications for BOTC 136, which will begin in July 2020. The application deadline is January 17, 2020, to receive an interview. A selection board will convene in mid-March 2020. Additional information may be found on the [NOAA Corps website](#) and BOTC 136 applicants may start the process, utilizing the online NOAA Corps E-Recruit System. ([NOAA Corps E-Recruit](#)).

Recruiting Events

The recruiting team is preparing for a heavy fall recruiting season to recruit the next generation of NOAA Corps Officers. Some upcoming events are below.

- October 1 – University of New Hampshire
- October 2 – Southern New Hampshire University
- October 2 – Loyola University Maryland
- October 9 – University of Tennessee
- October 10 – Massachusetts Maritime Academy
- October 16 – University of Maine
- October 17 – Maine Maritime Academy
- October 17 – West Virginia University

- October 21 – Champlain College
- October 22 – California Maritime Academy
- October 22 – University of Vermont
- October 23 – Oregon State University
- October 24 – Norwich University
- October 29 – University of Massachusetts – Amherst
- October 30 – University of Massachusetts – Boston



NOAA Corps Recruiting Officer Lieutenant Doug Pawlishen staffs Recruiting Fairs at Manhattan College (left), the United States Merchant Marine Academy (center), and Ohio State University (right) in late September.

[Photo Credit: NOAA]



Basic Officer Training Class 134



BOTC 134 is now more than halfway through their 17 week training program in conjunction with Coast Guard Officer Candidate School. The class recently completed their Senior Board evaluations, which consisted of a uniform inspection, precision drill movements, and a practical knowledge examination. On Tuesday, September 17th, BOTC 134 and OCS class 1-20 were advanced to Senior status, which officially recognized their accomplishments and significant progression towards officership. All officer candidates are now currently embarked on Coast Guard Barque *EAGLE*, practicing teamwork and putting their newly acquired shipboard knowledge into action, many for the first time. After four days of giving tours and enjoying some well-earned liberty over a four-day port call in Philadelphia, the class will return to New London, Connecticut on October 3rd and complete RADAR and fast rescue boat training prior to the joint NOAA/Coast Guard billet night on October 10th, when they will receive their initial duty assignments.



Members of BOTC 134 receiving senior status from their instructors.

[Photo Credit: NOAA]

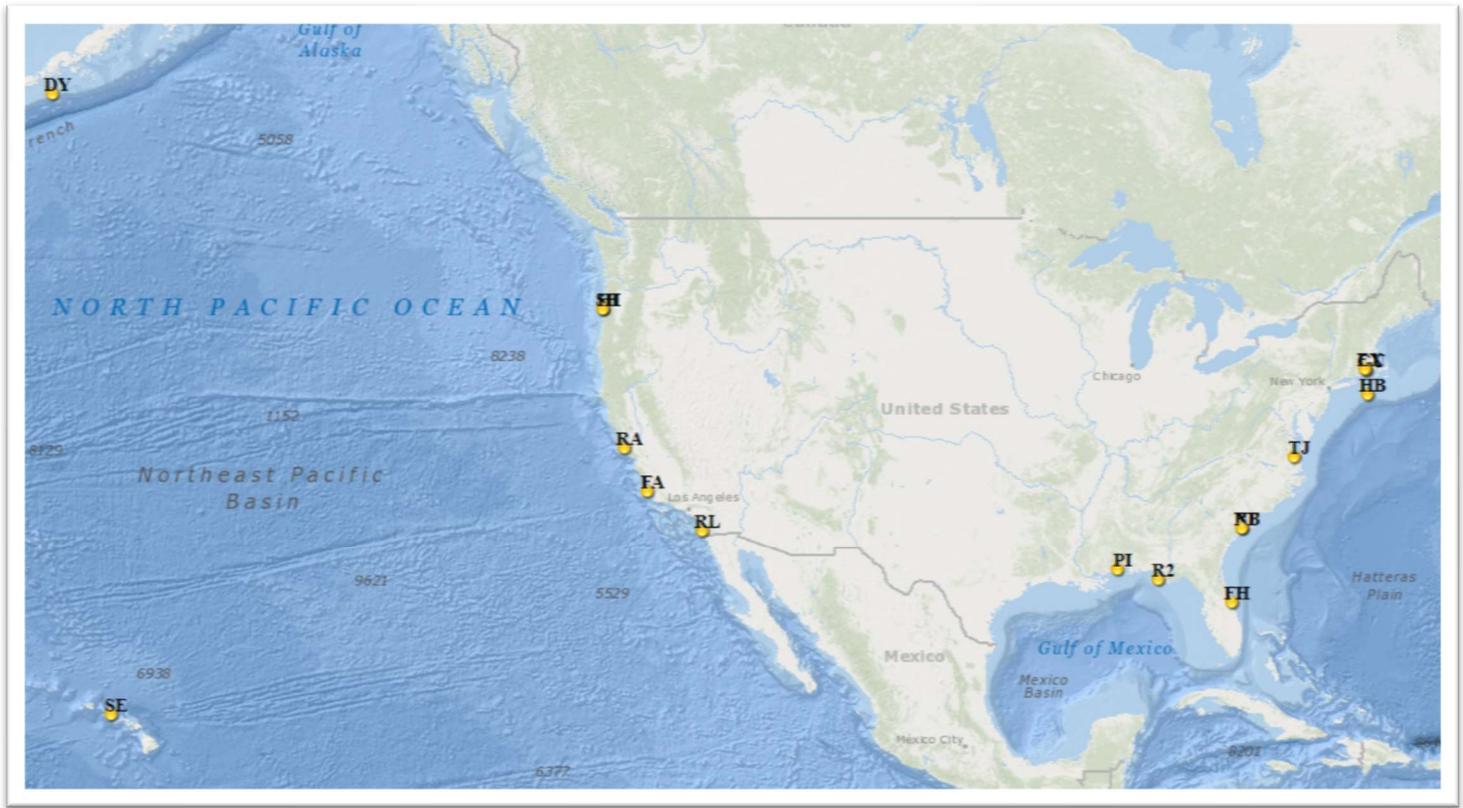


OMAO's Ships and Centers



OMAO's [Ship Tracker](#) shows information about the present location of our fleet of research and survey ships. Please note: To access Ship Tracker you must have an account with a .gov or .mil email address. All other access is restricted.

OMAO's ships and related Marine Centers are listed below based on the geographical location of the vessels' homeports starting in the Northeast and ending in the Pacific.



NOAA Ship locations at the start of October, 2019.

[Photo Credit: NOAA]

National

OMAO'S MARINE OPERATIONS

Director of Marine Operations: Mr. Troy Frost

OMAO's Marine Operations oversees the operations of OMAO's ships and the three regional Centers, including the Marine Operations Center-Pacific, Marine Operations Center-Atlantic, and Marine Operations Center-Pacific Islands. Employees of Marine Operations are stationed nationwide to provide strategic, administrative, engineering, maintenance, electronic, budgetary, and personnel support to the OMAO fleet. Each year these ships conduct dozens of missions to assess fish and marine mammal stocks, conduct coral reef research, collect seafloor data to update nautical charts, and explore the ocean.

New Castle, New Hampshire

NOAA Ship *Ferdinand R. Hassler*

Commanding Officer: Commander Mark Blankenship

Primary Mission Category: Hydrographic Surveys

Depart: Port Canaveral, Florida

Arrive: Port Canaveral, Florida

Ship Status: Delayed for alongside repairs in Port Canaveral. Planned departure for rudder testing in early October.

Newport, Rhode Island

NOAA Ship *Henry B. Bigelow*

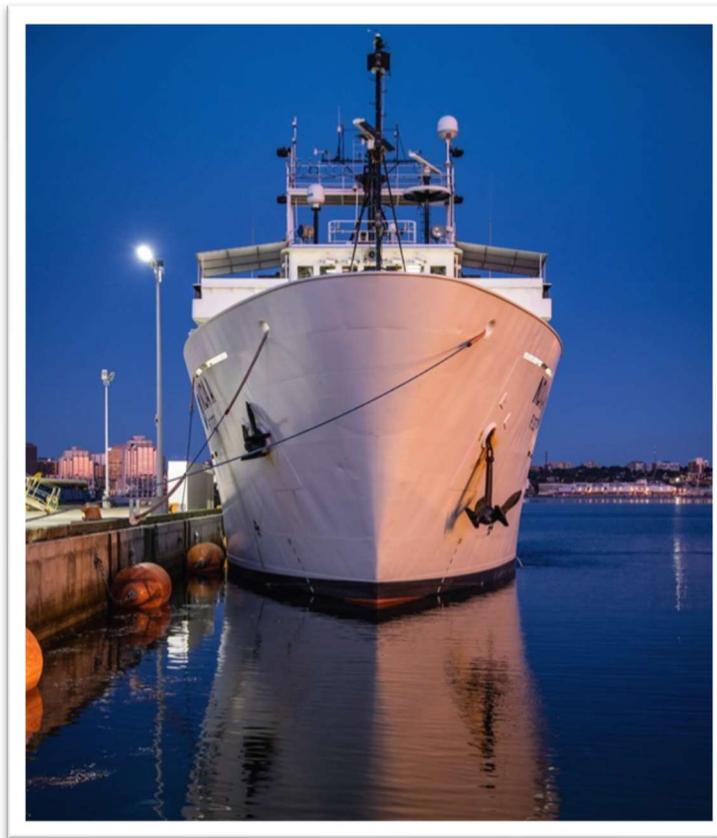
Commanding Officer: Captain William Mowitt

Primary Mission Category: Fisheries Research

Depart: Newport, Rhode Island

Arrive: Newport, Rhode Island

Ship Status: Planned departure in early October for Northeast Fisheries Science Center (NEFSC) Autumn Bottom Trawl Survey, to determine autumn distribution and relative abundance of fish and invertebrate species on the continental shelf and upper slope.



NOAA Ship *Okeanos Explorer* alongside in Halifax, Nova Scotia in September.

[Photo Credit: NOAA]

North Kingstown (Davisville), Rhode Island

NOAA Ship *Okeanos Explorer*

Commanding Officer: Commander Nicole Manning

Primary Mission Category: Oceanographic Exploration and Research

Depart: North Kingstown, Rhode Island

Arrive: Miami, Florida

Ship Status: Alongside for mid-season repair period. Planned departure in early October for Atlantic Seafloor Partnership for Integrated Research and Exploration (ASPIRE) US Atlantic, to explore deep waters (>250 m) in the U.S. exclusive economic zone (EEZ) off the eastern U.S. Coast.

Norfolk, Virginia

NOAA Ship *Thomas Jefferson*

Commanding Officer: Commander Briana Hillstrom

Primary Mission Category: Hydrographic Surveys

Depart: Norfolk, Virginia

Arrive: Norfolk, Virginia

Ship Status: Alongside in Norfolk, Virginia for reconstitution of mission systems. Underway Operational Readiness Training 10/2-10/4 (day trips). Planned departure in early November for surveys of Chesapeake Bay.

OMAO'S MARINE OPERATIONS CENTER – ATLANTIC (MOC-A)

Commanding Officer: Captain David Zezula

MOC-A serves as homeport for NOAA Ship *Thomas Jefferson*. Its personnel provide administrative and logistical support and manage the day-to-day operations for the research and survey ships in NOAA's Atlantic and Gulf of Mexico fleet of nine vessels. Each year, these ships conduct dozens of missions, to assess marine ecosystems including fish and marine mammal stocks, coral reef research, collect seafloor data to update nautical charts, and explore the ocean.



NOAA's Marine Operations Center - Atlantic, in Norfolk, Virginia.

[Photo Credit: NOAA]

Charleston, South Carolina

NOAA Ship *Nancy Foster*

Commanding Officer: Commander James Brinkley

Primary Mission Category: Oceanographic Research, Environmental Assessment

Depart: Charleston, South Carolina

Arrive: Charleston, South Carolina

Ship Status: Alongside in Charleston until late October. Then departing for Deepwater Atlantic Habitats II: Continued Atlantic Research and Exploration in Deepwater Ecosystems.

NOAA Ship *Ronald H. Brown*

Commanding Officer: Captain Daniel Simon

Primary Mission Category: Oceanographic Research, Environmental Assessment

In port: Charleston, South Carolina

Ship Status: In drydock. Planned departure in November 2019.

Pascagoula, Mississippi

NOAA Ship *Pisces*

Commanding Officer: Commander Patrick Murphy

Primary Mission Category: Fisheries Research

Depart: Pascagoula, Mississippi

Arrive: Pascagoula, Mississippi

Ship Status: Alongside for Fleet Inspection and scheduled maintenance. Planned departure in February 2020.



A neuston net, used to sample larval fish, is deployed in the Gulf of Mexico from NOAA Ship *Pisces* during leg 1 of the Southeast Area Monitoring and Assessment Program (SEAMAP) Fall Plankton project. The samples collected will help scientists assess the occurrence, abundance, and distribution of early life stages of fall spawning fishes such as king and Spanish mackerel, red drum, and snappers.

[Photo Credit: NOAA]

[NOAA Ship Oregon II](#)

Commanding Officer: Master David Nelson

Primary Mission Category: Fisheries Research

Depart: Galveston, Texas

Arrive: Pascagoula, Mississippi

Ship Status: Underway for SEAMAP Fall Shrimp/Bottomfish Survey. Planned departure in early October.

[NOAA Ship Gordon Gunter](#)

Commanding Officer: Lieutenant Commander Christopher Skapin

Primary Mission Category: Fisheries Research

Depart: Newport, Rhode Island

Arrive: Newport, Rhode Island

Ship Status: Underway for Gulf of Maine Harmful Algal Bloom Forecast. Planned arrival in mid-October. Departing for Fall Northeast Ecosystem Monitoring project in mid-October.

[San Diego, California](#)

[NOAA Ship Reuben Lasker](#)

Commanding Officer: Commander Chad Cary

Primary Mission Category: Fisheries Research

Depart: San Diego, California

Arrive: San Diego, California

Ship Status: Underway conducting Expanding Pacific Research and Exploration of Submerged Systems (EXPRESS). EXPRESS fuses multiple data sets from various research vessels and projects to support US Government missions. Partners include NOAA, BOEM, USGS, MBARI and USC Sea Grant. This mission will access habitats off the West Coast using both an autonomous underwater vehicle (AUV) and remotely operated vehicle (ROV). This survey will focus primarily on essential fish habitat conservation areas proposed for modification under the Pacific Management Council and exploration of potential wind energy sites.



Replacing NOAA Ship *Reuben Lasker*'s hydrographic wire with optical wire for the EXPRESS ROV.

[Photo Credit: NOAA]

Newport, Oregon

[NOAA Ship Rainier](#)

Commanding Officer: Captain Benjamin Evans

Primary Mission Category: Hydrographic Surveys

In Port: Vallejo, California

Ship Status: Ship will undergo dockside and dry-dock maintenance from October 2019 through January 2020.



Rainier surveyed areas affected by the 2018 lava flows off the Puna Coast, at the Island of Hawaii.

[Photo Credit: NOAA]

[NOAA Ship Bell M. Shimada](#)

Commanding Officer: Captain Arthur “Jesse” Stark

Primary Mission Category: Fisheries Research

Depart: Newport, Oregon

Arrive: Vallejo, California

Ship Status: Ship will transit early October from Newport, Oregon to Vallejo, California to begin dockside and dry-dock repairs. Repairs will continue through late February.

[OMAO’S MARINE OPERATIONS CENTER – PACIFIC \(MOC-P\)](#)

Commanding Officer: Captain Michael Hopkins

MOC-P serves as a homeport for two NOAA ships. Its personnel provide administrative and logistical support, and manage the day-to-day operations, for the research and survey ships in NOAA's Pacific fleet. Each year, these ships conduct dozens of missions to assess fish and marine mammal stocks, conduct coral reef research, collect seafloor data to update nautical charts, and explore the ocean. MOC-P also serves as the home of OMAO’s Marine Operations.



WHOI *Atlantis*, UAF *Sikuliaq*, NOAA Ship *Bell M. Shimada* and NOAA Ship *Hi'ialakai* at the pier in Newport, Oregon.
[Photo Credit: Lieutenant Commander Carl Rhodes, NOAA]

Ketchikan, Alaska

NOAA Ship *Fairweather*

Commanding Officer: Captain Marc Moser

Primary Mission Category: Hydrographic Surveys

Depart: San Francisco, California

Arrive: Seattle, Washington

Ship Status: Underway continuing Expanding Pacific Research of Submerged Systems (EXPRESS) leg 2 offshore California from Ft. Bragg to the Channel Islands until October 7th. The purpose of this project is to collect data for surficial geology, benthic habitats, sub-bottom faults, geologic hazards and sedimentary processes. This data will support offshore energy projects, infrastructure, marine spatial planning, and ecosystem assessments. October 10th, the ship will begin Channel Islands National Marine Sanctuaries (CINMS) hydrographic survey operations. This project will focus primarily on remaining survey areas around Santa Cruz Island and covers an area approximately 130 square nautical miles in size.

Kodiak, Alaska

NOAA Ship *Oscar Dyson*

Commanding Officer: Commander Sarah Duncan

Primary Mission Category: Fisheries Research

Depart: Kodiak, Alaska

Arrive: Newport, Oregon

Ship Status: The ship will transit from Kodiak, Alaska to Newport, Oregon, arriving in mid-October, to begin major dockside repairs until mid-January.



Peggy, one of two surface moorings in the Bering Sea, is recovered aboard NOAA Ship *Oscar Dyson* for the season. She has been deployed at a consistent location for 25 years, and provides physical and biological oceanographic measurements during summer months.

[Photo: Lieutenant Laura Dwyer, NOAA]

Honolulu, Hawaii

NOAA Ship *Oscar Elton Sette*

Commanding Officer: Commander Héctor Casanova

Primary Mission Category: Fisheries Research

Departure: Honolulu, Hawaii

Arrival: Honolulu, Hawaii

Ship Status: Underway for Insular Bottomfish Survey. The focus of this mission is to support the operational Bottomfish Fishery-Independent Survey in Hawaii (BFISH) using the Modular Optical Underwater Survey System fishery-independent sampling gear.



NOAA Ship *Oscar Elton Sette* departs MOC-PI at Ford Island, Honolulu, Hawaii.

[Photo Credit: NOAA]

OMAO'S MARINE OPERATIONS CENTER – PACIFIC ISLANDS (MOC-PI)

Commanding Officer: Commander Jeffrey Shoup

MOC-PI serves as a homeport for one NOAA ship. Its personnel provide administrative and logistical support, and manage the day-to-day operations for the ships in NOAA's Pacific Islands fleet and for ships operating in the western Pacific. Each year, these ships conduct dozens of missions to assess fish and marine mammal stocks, conduct coral reef research, collect seafloor data to update nautical charts, and explore the ocean. Captain Joe Bishop will take command of MOC-PI on October 29th.



NOAA's MOC-PI (Ford Island; Honolulu, Hawaii) with NOAA ship *Oscar Elton Sette* alongside
[Photo Credit: Lieutenant (Junior Grade) Christopher Gallagher, NOAA]



OMAO's Aircraft



Lakeland, Florida

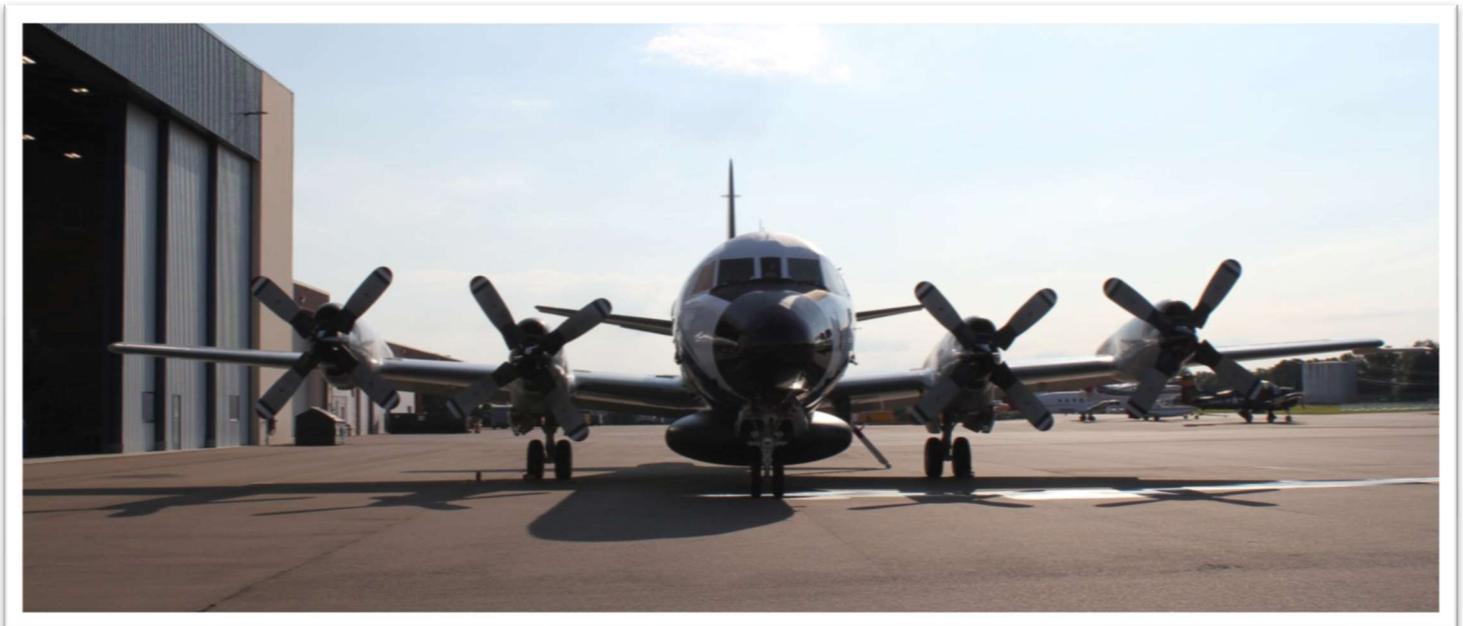
NOAA's fleet of nine manned aircraft is based at OMAO's Aircraft Operations Center ([AOC](#)). Located at Lakeland Linder Regional Airport in Lakeland, Florida, the officers, crew, and scientists from AOC provide capable, mission-ready aircraft and professional crews to the scientific community. AOC is committed to the safe, efficient and economical use of NOAA aircraft and has more than four decades of experience developing, coordinating and successfully and safely conducting airborne environmental data gathering missions. OMAO's aircraft fleet includes the following platforms and the web links provide additional photos, information on each aircraft, and the missions they serve:

[P-3 "Hurricane Hunter" \[Tail ID# N42RF\]](#)

The aircraft is hurricane ready and standing by for tasking.

[P-3 "Hurricane Hunter" \[Tail ID# N43RF\]](#)

The aircraft is hurricane ready and standing by for tasking.



NOAA P-3 Orion, "Miss Piggy", prior to deployment to the Eastern Caribbean to fly reconnaissance missions into Hurricane Lorenzo.

[Photo Credit: NOAA]

[G-IV "Hurricane Hunter" \[Tail ID# N49RF\]](#)

The aircraft is hurricane ready and standing by for tasking.

King Air 350 [Tail ID# N68RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from the [National Ocean Service \(NOS\)](#), [National Geodetic Survey \(NGS\) Coastal Mapping Program](#)

What: Coastal mapping

When: October 8 – November 24

Where: TBD based on weather and tide stages.

Why: These flights provide critical baseline data to help accurately map the U.S. shoreline. The data are important for national security, maritime shipping, and navigation.



A NOAA distribution from September highlighted the imagery NOAA's King Air 350 collected over St. Augustine, Florida after Hurricane Dorian passed nearby in early last month. Over 12,500 images, assessing safety concerns related to navigation, coastal zone management and hazardous spills.

[Photo Credit: NOAA]

Jet Prop Commander [Tail ID# N45RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from the [National Weather Service \(NWS\)](#), [National Operational Hydrologic Remote Sensing Center \(NOHRSC\)](#)

What: Water Resources Survey (Soil Moisture)

When: October 1 - November 24

Where: Midwest and Northeast United States

Why: The aircraft will conduct low level (500 feet) surveys to collect Soil Moisture data for NWS River Forecast Centers. This data is used by NWS Weather Forecast Offices and NWS River Forecast Centers for determining baseline moisture levels prior to the winter snow fall. SWE (Snow Water Equivalent) data will be collected during the winter months and used for river and flood forecasts, water supply forecasts, and spring flood outlooks.



Jet Prop Commander

[Photo Credit: NOAA]

Twin Otter [Tail ID# N46RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from the [National Weather Service \(NWS\)](#), [National Operational Hydrologic Remote Sensing Center \(NOHRSC\)](#)

What: Water Resources Survey (Soil Moisture)

When: October 1 - November 24

Where: Midwest and Northeast United States

Why: The aircraft will conduct low level (500 feet) surveys to collect Soil Moisture data for NWS River Forecast Centers. This data is used by NWS Weather Forecast Offices and NWS River Forecast Centers for determining baseline moisture levels prior to the winter snow fall. SWE (Snow Water Equivalent) data will be collected during the winter months and used for river and flood forecasts, water supply forecasts, and spring flood outlooks.

Twin Otter [Tail ID# N48RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from the [National Ocean Service \(NOS\)](#), [NGS Coastal Mapping Program](#)

What: Coastal Mapping LIDAR

When: October 1 - November 24

Where: TBD based on weather and water conditions and tide requirements

Why: Coastal mapping flights provide critical baseline data to help accurately map the U.S. shoreline. The data is important for national security, maritime shipping, and navigation.



NOAA56 taking off at Dutch Harbor, Alaska for a harbor seal survey.

[Photo Credit: Brent Shoumaker, NOAA]

Twin Otter [Tail ID# N56RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from Oceanic and Atmospheric Research ([OAR](#)) and the [Pacific Marine Environmental Laboratory \(PMEL\)](#).

What: Arctic Heat

When: October 1 – October 5

Where: Chukchi and Beaufort Seas, Alaska

Why: The purpose of this project is to perform near-surface data collection that will lead to improvements in weather and sea-ice forecasting in the Pacific Arctic.

Who: Officers and crew of OMAO/NOAA Corps along with scientists from the [National Marine Fisheries Service \(NMFS\)](#), [Northeast Fisheries Science Center \(NEFSC\)](#)

What: Northeast North Atlantic Right Whale Surveys

When: October 6 - November 24

Where: Moncton, New Brunswick, Canada

Why: The objectives of this project are to provide real time sighting information to commercial shipping interests in an effort to reduce ship collisions, to better understand the distribution and abundance, and to collect photographic images of the critically endangered North Atlantic Right Whales. With as few as 400 remaining, surveillance flights to track their migration patterns are important for conservation and recovery efforts.



Twin Otter NOAA48 providing tours at Girls in Aviation Day at Eden Prairie, Minnesota.

[Photo Credit: NOAA]

[Twin Otter \[Tail ID# N57RF\]](#)

Who: Officers and crew of OMAO/NOAA Corps along with scientists from the [NMFS, Northeast Fisheries Science Center \(NEFSC\)](#)

What: Northeast Atlantic Marine Assessment Program for Protected Species (AMAAPS)

When: October 10 - November 23

Where: Cape Cod, Massachusetts

Why: Improved information is needed on living marine resource abundance, distribution, habitat use, and behavior in the Atlantic Ocean to properly mitigate and monitor for potential impacts of human activities, including those related to offshore energy development.

[Unmanned Aerial System \(UAS\) Section](#)

The UAS Section provides nationwide policy input, oversight, and guidance for all of NOAA's UAS operations. The UAS Section of AOC is staffed by a team of aviation professionals who specialize in operational UAS implementation. The UAS Section tracks all small UAS (sUAS) operations for NOAA to include aircraft hours, types, pilot qualifications, and pilot training. The UAS Section also coordinates airspace approvals for operations within the United States National Airspace System, special use airspace, and foreign airspace. AOC conducts a thorough review of all projects by applying established risk management procedures to UAS missions, including an airworthiness review of all aircraft. This support is provided to NOAA Line Offices and partners to further develop and refine the use of sUAS for NOAA's research and data collection.

[OMAO'S AIRCRAFT OPERATIONS CENTER \(AOC\)](#)

Commanding Officer: Captain Timothy Gallagher

The AOC, located at Lakeland Linder Regional Airport in Lakeland, Florida, serves as the main base for OMAO's fleet of nine aircraft and provides capable, mission-ready aircraft and professional crews to the scientific community. Whether studying global climate change or acid rain, assessing marine mammal populations, surveying coastal erosion, investigating oil spills, flight checking aeronautical charts, or improving hurricane prediction models, the AOC flight crews continue to operate in some of the world's most demanding flight regimes.



AOC personnel and aircraft in the hangar at the NOAA Aircraft Operations Center in Lakeland, Florida

[Photo Credit: NOAA]



Unmanned Systems Support



Nationwide

APH-22 Hexacopter

Location: Muskeget Island, Massachusetts

Mission: NEFSC Muskeget Grey Seal Pupping Survey

The Northeast Fisheries Science Center (NEFSC) has been approved to conduct survey flights over Grey Seal colonies throughout FY19. Images collected will be used to assess Grey Seal health and population.

Location: Oahu, Hawaii

Mission: PIFSC APH-22 Training

The Pacific Islands Fisheries Science (PIFSC) Center utilizes the location at the Kawainui Model Airplane Field to conduct training and proficiency flights. This allows APH-22 operators to maintain proficiency for future operations at a reduced cost. Training flights are also approved from NOAA small boats.

Location: San Miguel Island, California

Mission: MML/Alaska Fisheries Science Center (AFSC)/NOAA Fur Seals and California Sea Lions

Marine Mammal Laboratory's (MML) California Current Ecosystem Program is conducting northern fur seal and California sea lion surveys to identify tagged/branded individuals and conduct population assessments.

Location: Sea Life Park and Dolphin Quest Oahu, Hawaii

Mission: PIFSC Cetacean Research Program

Images taken by the APH-22 are used to collect photogrammetric measurements of captive cetaceans. Photogrammetric measurements are compared with the known manual measurements to determine accuracy. Consistent trade winds can make image collection difficult. Practices found to improve image quality and accuracy can be used to improve operations over wild populations.



APH-22 Hexacopter



APH-28 Hexacopter

APH-22 Hexacopter/APH-28 Hexacopter

Location: AOC, Lakeland, Florida

Mission: New Aircraft

The NOAA Aircraft Operations Center acquired 1 APH-22 and 1 APH-28 for training, testing and fleet support. Training flights will be conducted monthly.

Location: Western Regional Center, NOAA Campus, Seattle, Washington

Mission: AFSC Training Site

Alaska Fisheries Science Center (AFSC) has been approved to conduct proficiency training, manufacturer training, and payload calibration flights at the Western Regional Center-Seattle, NOAA Campus. These flights will allow AFSC to remain proficient and prepare for upcoming projects.

Location: Cook Inlet, Alaska

Mission: SWFSC Beluga Whale Survey

The Southwest Fisheries Science Center (SWFSC), in conjunction with the Alaska Fisheries Science Center and the Alaska Department of Fish and Game, plans to conduct photogrammetry of Cook Inlet beluga whales using hexacopter UAS platforms. The primary research goal will be to collect aerial images to estimate the abundance and population length structure. Flights will be conducted from a 25' SAFE boat, or from land flying over water, operating below a 150FT AGL ceiling.

Location: Woods Hole, Massachusetts

Mission: NMFS NEFSC Training sites

NEFSC is approved to conduct proficiency and demonstration flights at Woods Hole Pier, Waquoit Bay National Estuarine Research Reserve, and nearshore waters in the Woods Hole area.

Location: Cape Cod National Sea shore, Massachusetts

Mission: NEFSC Seal Survey

Characterization and documentation of seal haul outs including analysis of entanglement rates, species composition, and general health assessment. Operations are approved until the end of November.

APH-22 Hexacopter/APH-28 Hexacopter/APO-42 Octocopter

Location: Jamul, California

Mission: Jamul Bureau of Land Management Area

Southwest Fisheries Science Center has been approved to conduct training and proficiency flights in Jamul, California. This training site is owned by US Fish and Wildlife. This will allow pilots to practice landing, following a target, and approaching to collect blow samples.

Location: Puget Sound, Washington

Mission: Southern Resident Killer Whale Condition

Southwest Fisheries Science Center will be conducting flights to collect images of Southern Resident Killer Whales to assess changes in body condition and growth of individual whales. Images and blow samples may also be collected from Humpback and Grey Whales. Flights will be conducted from a 31' catamaran.



APO-42 Octocopter



SenseFly eBee

SenseFly eBee RTK

Location: Muskeget Island, Massachusetts

Mission: NMFS/Remote Sensing Division (RSD) Grey Seal Habitat

Sensefly Ebee will be used to conduct Grey Seal habitat mapping and population assessment flights over Muskeget Island.

FireFLY6 PRO

Location: Kanehoe Bay, Hawaii

Mission: Pacific Islands Regional Office (PIRO) Coral Reef Mapping

Coral reef mapping operations are being conducted in Kanehoe Bay. An FAA waiver, 2018-P107-WSA-29955, was granted to allow operations.

Location: Oahu, Hawaii

Mission: PIFSC Proficiency Training

The Kawainui model airplane field will be used monthly to perform proficiency flights for PIFSC operators. The main objective will be to practice hand launches, recoveries and locating targets. These flights are essential in providing the necessary skills needed for successful operations.

Location: Jamul, California

Mission: SWFSC Training

The SWFSC is procuring a Firefly 6 Pro and will conduct training in Jamul, California Oct 5-13, 2019.



FireFly 6 PRO



3DR Solo

3DR Solo

Location: MOC-P, NOAA Ship *Bell M. Shimada*, Newport, Oregon

Mission: Public Outreach and ship inspection

The UAS will proceed to take aerial photographs from the MOC-P pier and the deck of *Bell M. Shimada*. An FAA Certificate of Authorization (COA) has been granted for operations in the Class E airspace around MOC-P. AOC has received and installed updated software that will allow marine based UAS operations. An updated 3DR Solo has been shipped to NOAA Ship *Bell M. Shimada*.

Location: Roanoke (Virginia) and Charleston (South Carolina) Weather Forecast Offices (WFO)

Mission: New mission

3DR Solos have been deployed to these Weather Forecast Offices for the National Weather Service to integrate UAS into their mission. Original Equipment Manufacturer (OEM) training has been conducted in preparation for future operations.

Location: Alafia River State Park (Tampa-area), Florida

Mission: AOC airworthiness

3DR Solo airworthiness flights at Alafia River state park.

Blackswift S-2

Location: Oak Ridge, Tennessee

Mission: Calibration and Proficiency

OAR's Atmospheric Turbulence and Diffusion Division (ATDD) is approved to use Knox County Radio Control Society (KCRC) and House Mountain Radio Control (HMRC) sites to conduct calibration and vertical profile flights up to 1200 feet AGL. These flights will allow ATDD to test and calibrate scientific instruments before use on their upcoming projects.

Location: Oak Ridge, Tennessee

Mission: Instrument Testing and Calibration

A combination of these will be used to conduct flights to in an experiment at Oliver Springs Airport up to 3500' in altitude. Operation will occur under an approved COA.



Blackswift S2



Meteomatics Meteodrone SSE



MD4-1000

Meteodrone SSE

Location: Albuquerque, New Mexico

Mission: Vertical profiling for real time forecasting

ATDD will provide real time forecasting during the Albuquerque, New Mexico Balloon Festival. Vertical profiles of the boundary layer will be flown up to 1200' in altitude. Operations will be conducted under the Blanket Class G COA.

MD4-1000

Location: Oak Ridge, Tennessee

Mission: Instrument Testing and Calibration

A combination of these will be used to conduct vertical profile flights to at Oliver Springs Airport up to 1200' in altitude. The NOAA Class G Blanket COA is utilized for these operations.



DJI S-1000



Matrice 210

Matrice 210 / DJI Phantom 4

Location: Santa Barbara, California

Mission: Payload testing and training

This is a request to add the M210RTK and Phantom series to existing authorization to fly the M600 at University of California - Santa Barbara (UCSB). Various payloads on the M210RTK and Phantom occasionally require troubleshooting and validation prior to field deployments. NOAA NMFS partnership with UCSB provides access to University property and has representative coastal and terrestrial environment. Occasional short data collection flights are planned to maintain and test platforms, payloads and software.

Location: Newport, Oregon

Mission: RSD/OCS MOC-P testing and training

RSD and Office of Coast Survey (OCS) are developing procedures and protocols for static launch and recovery of the M210 system. Launch and recovery training from a ship is being conducted.



DJI Phantom 4



Latitude FVR-55

DJI Phantom 4

Location: Swann Island, Maryland and Mordecai, New Jersey

Mission: National Centers for Coastal Ocean Science (NCCOS) Swann Island/ NCCOS Mordecai Island

NCCOS is conducting Intertidal wetland and shallow near shore habitat mapping flights, for the purpose of tracking changes in vegetative cover and creating digital elevation models.

Location: Pivers Island, North Carolina

Mission: NCCOS Pivers Island

Method development flights will be conducted to determine the most efficient way of mapping intertidal wetlands and shallow nearshore habitats. For the purpose of tracking changes in vegetative cover and creating digital elevation models.

Location: Newport, Oregon

Mission: RSD/OCS MOC-P testing and training

Six personnel are being trained to operate the DJI Mavic and Phantom 4. Operations are being conducted at the MOC-P facility.

L3 Latitude FVR-55

Location: AOC, Lakeland, Florida

Mission: Atomic 2020/Initial Testing/Payload integration

The L3 Latitude FVR-55 UAS will support operations from the NOAA Ship *Ronald H. Brown* in FY20. Payloads have been designed for the vehicle to support NOAA OAR PMEL's project goals for the upcoming Atomic 2020 project. The charter vessel utilized for aircraft testing will now support additional test flights with integrated NOAA payloads.



OMAO Partnerships



OMAO and the NOAA Commissioned Officer Corps provide key services and leadership to a number of federal agencies and external partners to help them meet their mission – and ours – and to better leverage federal resources.

United States House of Representatives - Natural Resource Committee

Location: Washington, District of Columbia

Detail: Lieutenant Commander Zachary Cress

Lieutenant Commander Cress is currently on detail with the staff to the Committee Chair, Representative Raúl M. Grijalva (D-AZ), where he is assisting on activities pertaining to the Committee’s work on oversight and authorization of NOAA programs, as well as other matters within the Committee’s jurisdiction.

National Science Foundation (NSF)

Location: South Pole, Antarctica

Embedded Liaison: Lieutenant Benjamin Kaiser

Members of the NOAA Commissioned Officer Corps carry out NOAA’s mission in remote locations across the globe. Lieutenant Kaiser is assigned to Antarctica where he serves as the Station Chief for NOAA’s Atmospheric Research Observatory (ARO) at the Amundsen-Scott South Pole Station. The ARO at the Amundsen-Scott South Pole Station is a National Science Foundation facility used in support of scientific research related to atmospheric phenomena.



Sunrise at the Amundsen-Scott South Pole Station, six months after it set in March.

[Photo Credit: Lieutenant Ben Kaiser, NOAA]

Department of Defense – U.S. Pacific Command

Location: Honolulu, Hawaii

Embedded Liaison: Captain Joe Bishop

The U.S. Pacific Command (USPACOM) area of responsibility encompasses approximately half the earth's surface and more than half of its population. The 36 nations that comprise the Asia-Pacific include: two of the three largest economies and nine of the ten smallest; the most populous nation; the largest democracy; the largest Muslim-majority nation; and the smallest republic in the world. The region is a vital driver of the global economy and includes the world's busiest international sea lanes and nine of the ten largest ports. By any meaningful measure, the Asia-Pacific is also the most militarized region in the world, with seven of the world's ten largest standing militaries and five of the world's declared nuclear nations. Under these circumstances, the strategic complexity facing the region is unique. Captain Bishop is linked closely with the activities within the region allowing for identification of opportunities and cooperation between USPACOM and NOAA, and better overall government function situational awareness in the region.

Department of Defense – U.S. Northern Command

Location: Boulder, Colorado

Embedded Liaison: Captain Catherine Martin

The U.S. Northern Command (USNORTHCOM) area of responsibility includes air, land and sea approaches and encompasses the continental United States, Alaska, Canada, Mexico and the surrounding water out to approximately 500 nautical miles. It also includes the Gulf of Mexico, the Straits of Florida, and portions of the Caribbean region to include The Bahamas, Puerto Rico, and the U.S. Virgin Islands. The commander of USNORTHCOM is responsible for theater security cooperation with Canada, Mexico, and The Bahamas. The embedded NOAA liaison is linked closely with the activities within the region allowing for identification of opportunities and cooperation between USNORTHCOM and NOAA, and serves as a liaison between fostering greater situational awareness of NOAA response activities to natural disasters and Arctic activities.

Department of Defense – U.S. Navy

Location: Stennis Space Center, Mississippi

Embedded Liaison: Lieutenant (junior grade) Garrison Grant

Embedded in the Navy's Naval Oceanography Mine Warfare Center, Lieutenant (junior grade) Garrison Grant works side by side with Navy officers operating Unmanned Underwater Vehicles worldwide and is currently stationed at Stennis Space Center. This collaboration will provide knowledge and experience that will keep NOAA on the cutting edge of this emerging technology as well as strengthen the partnership between NOAA and the Navy.

Department of Homeland Security – U.S. Coast Guard

Location: Washington, District of Columbia

Embedded Liaison: Captain Kurt Zegowitz

As the NOAA liaison to the United States Coast Guard (USCG), Captain Zegowitz maintains a current and comprehensive knowledge of interagency activities and policies related to the USCG and NOAA. He identifies potential conflicts or benefits issues for analysis and evaluation, conducts appropriate assessments and studies, and serves as the interface between NOAA and the USCG. Captain Zegowitz initiates, designs, and implements strategies through federal agency liaison and coordination that results in cooperative arrangements for maritime security, oceanographic research, hazardous materials spill response, and many other activities.



Teacher at Sea Program

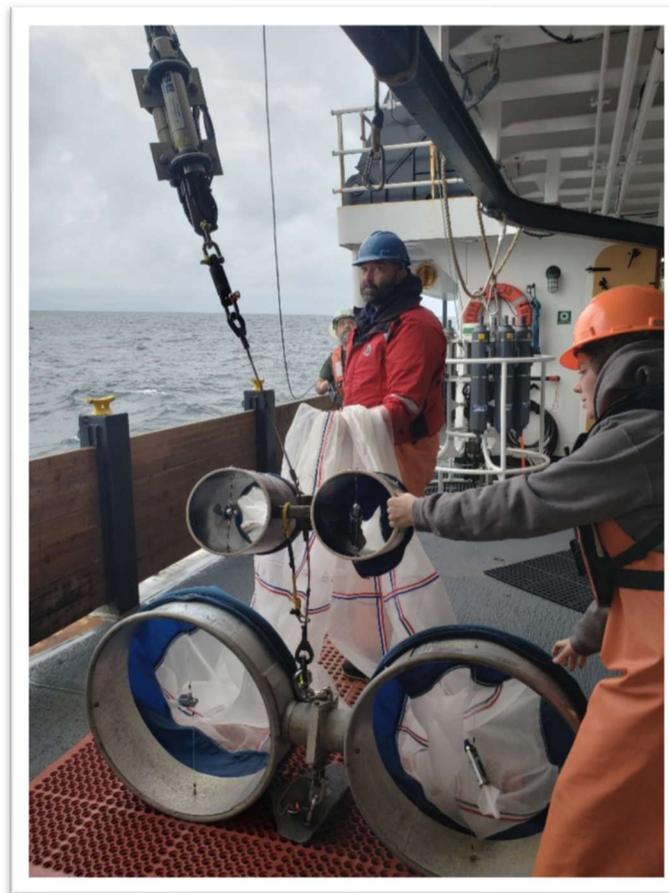


The mission of NOAA's [Teacher at Sea Program](#) (TAS) is to provide teachers hands-on, real-world research experience working at sea with world-renowned NOAA scientists, thereby giving them unique insight into oceanic and atmospheric research crucial to the nation. The program provides a unique opportunity for kindergarten through college-level teachers to sail aboard NOAA research ships and work under the tutelage of scientists and crew.

Since its inception in 1990, the program has enabled more than 800 teachers to gain first-hand experience of science and life at sea. By participating in this program, teachers enrich their classroom curricula with knowledge that can only be gained by living and working side-by-side, day and night, with those who contribute to the world's body of oceanic and atmospheric scientific knowledge. Former teacher at sea [blogs](#) can be accessed, which document their missions at sea and offer a wealth of information about the research being conducted as well as personal stories.

The 2019 TAS Field Season commenced in May. One educator will be getting underway on NOAA ships in October:

09/21/2019 - 10/02/2019 - Kathy Schroeder (Palmetto Ridge High School, Naples, FL) will sail on a shark/red snapper bottom longline survey from Galveston, TX, to Pascagoula, MS, on **NOAA Ship Oregon II**.



NOAA Teacher at Sea, Phil Moorhouse helping with bongo net deployment during the Fisheries-Oceanographic Coordinated Investigations (FOCI) survey aboard NOAA Ship *Oscar Dyson* in September.

(Photo Credit: NOAA)



OMAO - NOAA Diving Program



Seattle, Washington

NOAA Diving Center and Program

OMAO manages and implements [NOAA's Diving Program \(NDP\)](#), which trains and certifies scientists, engineers, and technicians from federal, state, tribal governments, and the private sector to perform the variety of tasks carried out underwater to support NOAA's mission. NDP also has cooperative diving agreements with over 100 government agencies and academic institutions. NOAA has approximately 350 divers who perform over 8,000 dives per year and leverages its cooperative agreements to accomplish twice that number of dives contributing to scientific research. The NDP is headquartered at the NOAA Diving Center (NDC), which is located at the NOAA Western Regional Center in Seattle, Washington.

The NOAA Diving Center (NDC) has been quite busy the last few weeks training a new cadre of NOAA Divers and Divemasters in Seattle, WA. The classes include students representing OMAO, NOS, the U.S. Air Force, the Environmental Protection Agency, the Department of the Interior, as well as local Seattle public safety divers. The training consists of rigorous classroom instruction in conjunction with a physically demanding diving component introducing students to various modes of scuba. The third week of training assesses the divers' practical application of skills by tasking them with underwater projects that parallel the work they will be doing upon return to their units. Divers will also be introduced to new environments, logging both deep and shallow dives in salt and fresh water as well as a night dive.



NOAA Diving Center instructors operate NDC's hyperbaric chamber to simulate a dive to 130 feet for those inside.

[Photo Credit: Matt McIntosh, NOAA]

Divemasters are also put to the test in the final week of training. Incorporating dive casualty drills into the last week of diving allows the Divemasters to get used to assessing dive injuries as well as managing the scene of a diving accident.

On the horizon, NDC is making preparations to host a Diving Medical Technician (DMT) course in Honolulu, Hawaii from October 28 to November 07, 2019.



NOAA divers practice deploying their Reserve Air Supply Systems (RASS) in the shallow end of the pool.

[Photo Credit: Lieutenant Junior Grade Sean Digre, NOAA]



NOAA Small Boat Program



Oversight of the NOAA Small Boat Fleet is a collaboration across OMAO, NMFS, NOS, OAR and NWS. The Small Boat Program (SBP) was established in 2004 to create policies and procedures to ensure safety in support of NOAA's field operations. Direction, technical and administrative support is provided by OMAO through the NOAA Small Boat Program Office. NOAA Line and Program Offices are responsible for acquisitions, operational funding and mission support. The NOAA Small Boat Safety Board is comprised of NOAA Line Offices, SBP, and Safety and Environmental Compliance Office (SECO) representatives and is charged with initiating policies and training, program metrics, and compliance.

In addition to its ships and aircraft, NOAA relies on hundreds of small boats located throughout the country to complete the organization's complex and varied scientific missions. The NOAA Small Boat Program is committed to supporting the safe operation of these small boats through the principles of risk management.

The NOAA Small Boat Program manages a fleet of about 400 small boats that perform various data collection missions for NOAA throughout the United States and its territories including hydrographic surveys, fishing, diving, scientific instrument deployment/recovery, water and air quality monitoring, law enforcement and marine mammal surveys. Vessels vary in size from a simple 10-ft. kayak to a complex 85 foot research vessel. The majority of small boats fall within the range of 16-26 feet in length and operate in near-shore environments, but extended missions in deep water environments are common among the larger vessels.

In August, 13 students from across four Line Offices attended training at the National Marine Fisheries Station in Warrenton OR. The purpose of the 32 hours of classroom and hands-on Annual Small Boat Evaluation training was to train NOAA personnel how to complete the required Annual Inspections on NOAA small boats 39' and under.



NOAA small boat operators receive hands on training at the Annual Small Boat Evaluation course in August.

[Photo Credit: NOAA]



Office of Marine & Aviation Operations



Providing Environmental Intelligence for a Dynamic World

The personnel, ships, and aircraft of NOAA play a critical role in gathering environmental data vital to the nation's economic security, the safety of its citizens, and the understanding, protection, and management of our natural resources. The NOAA fleet of ships and aircraft is managed and operated by the Office of Marine and Aviation Operations (OMAO), an office comprising civilians, mariners, and officers of the NOAA Commissioned Officer Corps, one of the seven uniformed services of the United States. NOAA's roots trace back to 1807 when President Thomas Jefferson ordered the first comprehensive coastal survey. Those early surveys ensured safe passage of ship-borne cargo for a young nation. As the needs of the nation have grown, so too have OMAO's responsibilities. Today, OMAO civilians and NOAA Corps officers operate, manage, and maintain NOAA's active fleet of 16 research and survey ships and nine specialized aircraft. Together, OMAO and the NOAA Corps support nearly all of NOAA's missions.



NOAA has the largest fleet of federal research and survey ships in the nation. The fleet ranges from large oceanographic ships capable of exploring and charting the world's deepest ocean, to smaller vessels responsible for surveying the shallow bays and inlets of the United States. The fleet supports a wide range of marine activities including fisheries surveys, nautical charting, and ocean and climate studies. Based throughout the continental United States, Alaska, and Hawaii, the ships operate in all regions of the nation and around the world.

NOAA's aircraft provide a wide range of airborne capabilities. Our highly specialized Lockheed WP-3D aircraft are equipped with an unprecedented variety of scientific instrumentation, radars, and recording systems for both in situ and remote sensing measurements of the atmosphere, the Earth, and its environment. Equipped with both C-band weather radar and X-band tail Doppler radar systems, the WP-3Ds have the unique ability to conduct tropical cyclone research in addition to storm reconnaissance. Together with NOAA's Gulfstream IV-SP jet, these 'hurricane hunter' aircraft greatly improve our physical understanding of hurricanes and enhance the accuracy of tropical cyclone forecasts. NOAA's light aircraft also play a vital role in monitoring our environment. Our King Air, Turbo Prop Commander, and Twin Otter aircraft support marine mammal population studies, shoreline change assessments, oil spill investigations, and water resource/snowpack surveys for spring flood forecasts.



The NOAA fleet provides immediate response capabilities for unpredictable events. For example, during the 2018 Hurricane season NOAA flight crews and scientists flew a combined 556.8 hours for hurricane surveillance, research, reconnaissance, and emergency response. NOAA's Lockheed WP-3D and Gulfstream IV-SP collected and provided vital data used by NOAA scientists for improved modeling, forecasting, and ensuring accurate forecasts provided to the public. NOAA's Beechcraft King Air 350 rapidly responded to demand from emergency managers, using state-of-the-art equipment to collect thousands of aerial images from Cape Henry, Virginia to Charleston, South Carolina of damaged communities following Hurricane Florence. This imagery provided a cost-effective way to better understand the damage sustained to both property and the environment. NOAA Ship *Ferdinand R. Hassler* surveyed eastern North Carolina for multiple days in order to ensure vessels could safely navigate the area. Late last year, NOAA Ship *Thomas Jefferson* conducted 66 days of post-Hurricane Maria survey operations around Puerto Rico and the U.S Virgin Islands to support the area's recovery efforts following the destructive 2017 storm.

While manned aircraft and sea-going vessels have been, and will continue to be, a primary source of environmental data, new technology will have a significant role to play in the future NOAA fleet. OMAO, in coordination with other NOAA offices and federal agencies, is evaluating and deploying unmanned aerial and marine systems that could significantly contribute to environmental observations. To better serve the needs of the Nation, NOAA is examining the composition of the fleet through an exhaustive and critical review of at-sea science and observation requirements. Our objective is to develop a clear, cost-efficient path forward to ensure that the NOAA fleet can continue to conduct at-sea surveys and research vital to fisheries management, updating nautical charts, responding to natural and manmade disasters, and understanding coastal and marine systems more fully. Meeting these requirements is essential to the development of sustainable, science-based management and conservation plans that protect the health and resiliency of these resources over the long-term.

We continue our efforts to build a civilian and NOAA Corps officer workforce that is uniquely qualified to gather critical environmental intelligence and be adaptive and responsive to a changing world and work to expand our partnerships with other federal agencies. For example, NOAA Corps officers are currently assigned to work in the Department of Defense, National Science Foundation, and the U.S. House Representatives among others where they lend their leadership, expertise and service. We also continue to strengthen our partnership with the Department of Homeland Security through the U.S. Coast Guard. Our basic NOAA Corps officer training class is held at the U.S. Coast Guard Academy, where newly commissioned officers train alongside Coast Guard officer candidates, developing skills and professional relationships that will benefit both services, especially during challenging times. Active collaboration the Federal family is critical to ensuring the long-term capability and success of the federal ocean infrastructure. Our partners' success is our success.



NOAA Commissioned Officer Corps



– Honor, Respect, Commitment –

The NOAA Commissioned Officer Corps is one of the United States' seven Uniformed Services and commissioned officers serve with the 'special trust and confidence' of the President. NOAA Corps officers are an integral part of the National Oceanic and Atmospheric Administration, an agency of the U.S. Department of Commerce. With an authorized strength of 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. The U.S. Coast and Geodetic Survey Corps was founded in 1917 to provide officers to command U.S. coastal survey ships and field survey parties locally and abroad. 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. The NOAA Corps celebrated its Centennial year in 2017.

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. Discipline and flexibility are inherent in the NOAA Corps personnel system. Officers are trained for positions of leadership and command in the operation of ships and aircraft; in the conduct of field projects on land, at and under the sea, and in the air; in the management of NOAA observational and support facilities; as members or leaders of research efforts; and in the management of various organizational elements throughout NOAA. NOAA Corps officers must be technically competent to assume positions of leadership and command in NOAA and Department of Commerce programs and in the Armed Forces during times of war or national emergency. 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 2018, NOAA aircraft flew over 556 hours in support of storm reconnaissance, surveillance, research and emergency response. NOAA assets were deployed to the Central Pacific for Hurricanes Hector, Lane and Norman and performed multiple operations in the Gulf of Mexico, North Atlantic and the Caribbean for Hurricanes Chris, Florence, Gordon, Isaac, and Michael. In response to Hurricane Florence, NOAA Ship Ferdinand R. Hassler surveyed eastern North Carolina for multiple days in order to ensure vessels could safely navigate the area. NOAA Ship Thomas Jefferson conducted 66 days of post-Hurricane Maria surveys in and around Puerto Rico to support the island's recovery efforts.
- In 2017, NOAA aircraft flew over 600 hours in support of storm reconnaissance, surveillance, research, and emergency response for Hurricanes Harvey, Irma, Jose, Maria, and Nate. NOAA Ship Thomas Jefferson conducted post-storm surveys of waterways of Puerto Rico following Hurricane Maria to help re-open the ports for maritime delivery of critical supplies to the island.
- The BP Deepwater Horizon oil spill was the worst oil disaster in U.S. history. The NOAA fleet and the NOAA Corps played a major role in the response to the Deepwater Horizon oil spill. NOAA's entire Atlantic fleet and over a quarter of the total strength of the NOAA Corps were deployed to the Gulf of Mexico following this devastating event.



OMAO/NOAA Corps Resources



OMAO Sites

- [OMAO](#)
- [NOAA Corps](#)

Two Pagers, Reports, and Informational Slide Decks

- **Monthly NOAA Fleet Update** - The latest version is provided to Committee staff and is also available through the Office of Legislative and Intergovernmental Affairs.
- [Hurricane Michael Flight and Mission Info Recap](#) - 2018
- [Tornado Formation, Intensity, and Path for the Southeast United States: Research Flight and Mission Info Recap](#) – 2018
- [Hurricane Lane Flight and Mission Info Recap](#) - 2018
- [OMAO two pager with Recent Mission Highlights](#) – 2018
- [OMAO Fleet Recapitalization Slide Deck – Building NOAA’s 21st Century Fleet](#)
- [OMAO Fleet Recapitalization Questions and Answers \(Q&As\)](#)
- [NOAA Fleet Independent Review Team Final Report](#)
- [The NOAA Fleet Plan: Building NOAA’s 21st Century Fleet](#)

Other Web Resources

- [OMAO Marine Operations](#)
- [OMAO Aircraft Operations](#)
- [OMAO on Facebook](#)
- [Hurricane Hunters on Facebook](#)
- [OMAO on Twitter](#)
- [Hurricane Hunters on Twitter](#)
- [OMAO Ship Tracker](#) - (restricted to only .gov or .mil users)