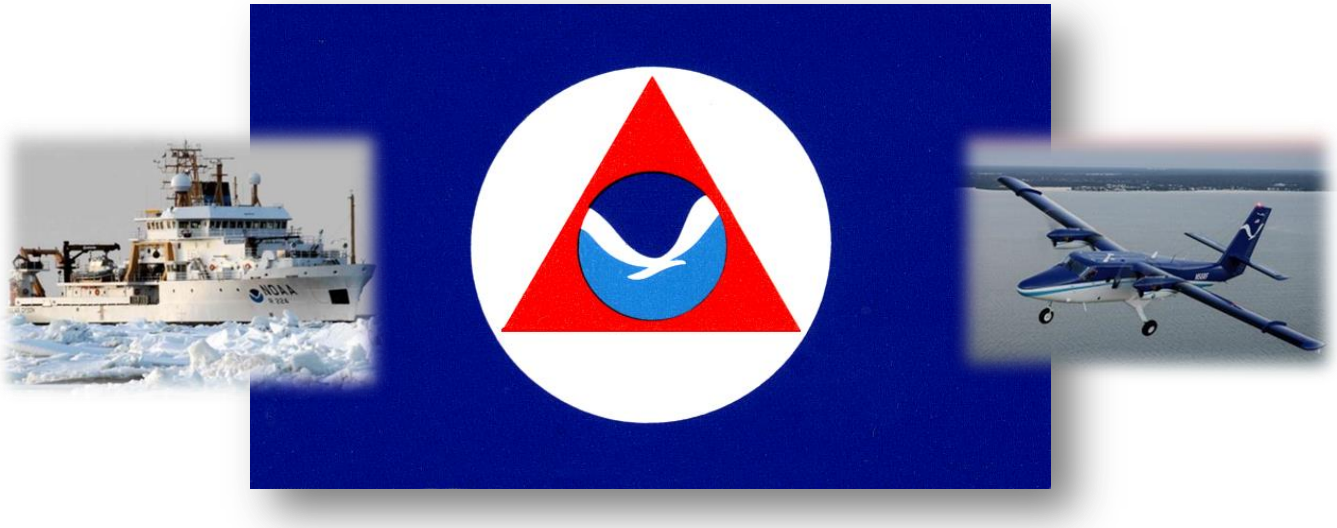
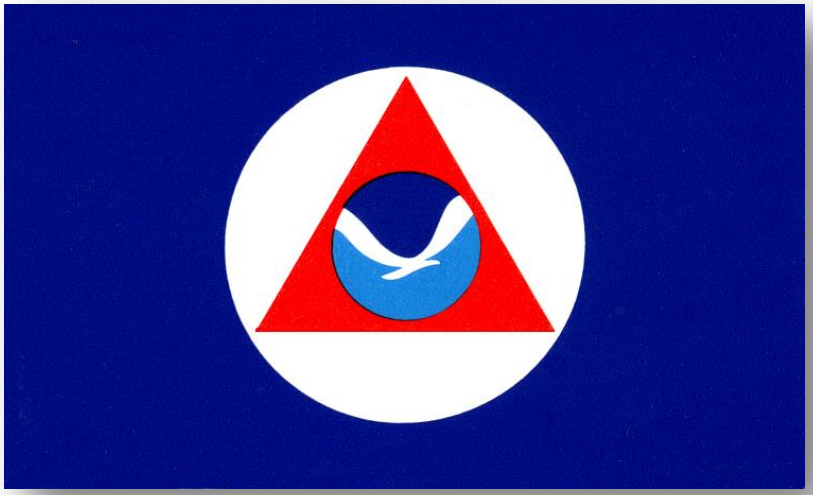
Office of Marine and Aviation Operations (OMAO) 101



May 2016



For future questions and information on OMAO and the NOAA Corps, please contact Tim Bagley in NOAA's Office of Legislative and Intergovernmental Affairs – timothy.bagley@noaa.gov.

Copies of the monthly **NOAA Fleet Update** may be viewed and downloaded at http://www.legislative.noaa.gov/.

Director, OMAO and the NOAA Corps

Rear Admiral David A. Score (2 star)
Director, NOAA Commissioned Officer Corps and
Office of Marine and Aviation Operations (OMAO)

As Director of the NOAA Corps and OMAO, Rear Admiral (RADM) Score is responsible for the safe, efficient and effective operation of the agency's fleet of research and survey ships and aircraft, as well as guiding the 321 commissioned NOAA officers and approximately 1,000 civilian personnel assigned to OMAO.

RADM Score previously served as Deputy Director of the NOAA Corps and OMAO's Deputy Director for Operations. Earlier assignments include: Director of OMAO's Marine Operations Centers, which oversees all NOAA ship operations, and Commanding Officer of the NOAA Marine Operations Center-Atlantic in Norfolk, Virginia. Before directing NOAA's Atlantic fleet, RADM Score commanded NOAA Ship *Gordon Gunter*, which conducted key research missions during the BP *Deepwater Horizon* oil spill response.

RADM Score's full bio may be found at http://www.omao.noaa.gov/bio_noaacorps_omao_director.html.

Deputy Director for Operations and Deputy Director of the NOAA Corps

Rear Admiral Anita L. Lopez (1 star)
Deputy Director, NOAA Commissioned Officer Corps and Deputy Director for Operations, Office of Marine and Aviation Operations (OMAO)

As Deputy Director, Rear Admiral (RDML) Lopez is responsible for the direct leadership and management of program and business operations, providing for the safe, efficient and effective operation of the agency's fleet of research and survey ships and aircraft, as well as the management of the NOAA Corp's 321 commissioned officers and approximately 1,000 civilian personnel assigned to OMAO.

RDML Lopez has over nine years of sea experience sailing on eight NOAA ships. Ashore, RDML Lopez has held positions in leadership, management, staff and operational billets at NOAA headquarters, the Pacific Marine Environmental Laboratory, the National Marine Mammal Laboratory, the Marine Operations Center – Pacific, and as the Executive Director to NOAA's Deputy Under Secretary of Operations in Washington, DC.

RDML Lopez's full bio may be found at http://www.omao.noaa.gov/bio_maoc.html.

Deputy Assistant Administrator for Programs and Administration

Mr. Thomas Crowley, SES
Deputy Assistant Administrator for Programs and Administration

As Deputy Assistant Administrator for Programs and Administration, Mr. Crowley is responsible for the management of six divisions within OMAO, including the Safety and Environmental Compliance, Information Management, Corporate HR Services, Platform Acquisitions, Planning and Performance Management, and Resource Management Divisions.

Prior to arriving at OMAO, he spent seven years as the Director for Naval Programs in the Department of the Navy's Office of Legislative Affairs, executing the Navy's legislative functions and synchronizing efforts across the Navy's acquisition, requirements, financial, and fleet offices. Mr. Crowley retired from the U.S. Navy as a Captain, having served as the Executive Assistant for the Deputy Chief of Naval Operations, Warfare Requirements and Programs, and as the Assistant Deputy for Surface Ships. He has 16 years of operational and marine engineering experience on six ships, including command of two naval vessels and a naval nuclear propulsion prototype site.

OMAO

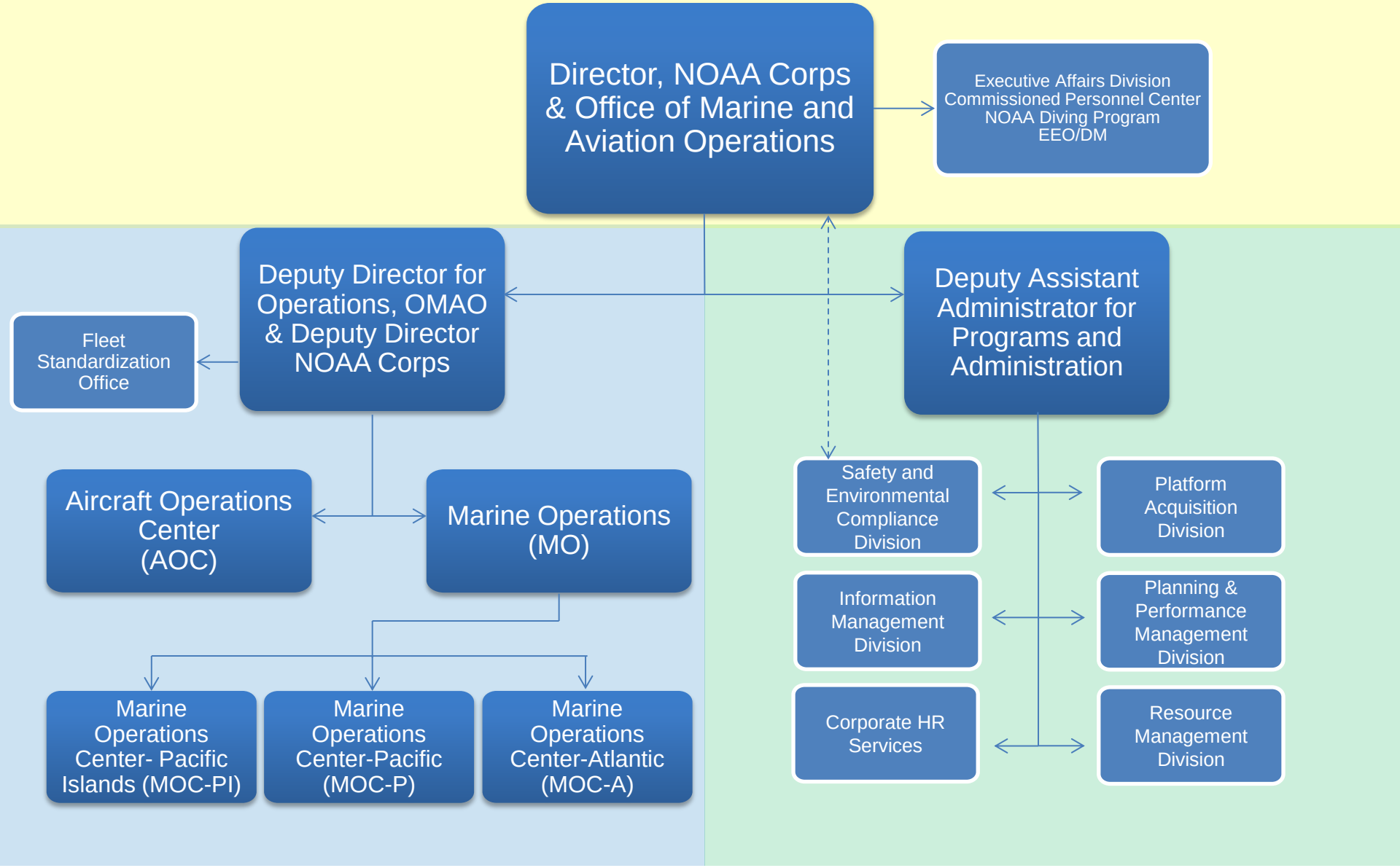
Providing environmental intelligence for a dynamic world.

- 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 is managed and operated by OMAO, one of six Line Offices within NOAA, and is comprised of civilians, mariners, and officers of the NOAA Corps - one of the seven uniformed services of the United States.

- NOAA's roots trace back to when President Thomas Jefferson ordered the first comprehensive coastal surveys. 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.


Director, NOAA Corps & Office of Marine and Aviation Operations
Executive Affairs Division
Commissioned Personnel Center
NOAA Diving Program
EEO/DM
Deputy Director for Operations, OMAO & Deputy Director NOAA Corps
Fleet Standardization Office
Aircraft Operations Center (AOC)
Marine Operations (MO)
Marine Operations Center- Pacific Islands (MOC-PI)
Marine Operations Center-Pacific (MOC-P)
Marine Operations Center-Atlantic (MOC-A)
Deputy Assistant Administrator for Programs and Administration
Safety and Environmental Compliance Division
Platform Acquisition Division
Information Management Division
Planning & Performance Management Division
Corporate HR Services
Resource Management Division

OMAO Personnel

A diverse, highly skilled, adaptable workforce with an authorized strength of approximately 1,100 employees, with six personnel systems and five employee unions:

- GS/CAPS civilians and SES (1) – Primarily land-side mission support, platform acquisition and maintenance, resource management, and administration.
- Wage Mariners – Licensed engineers and mates and unlicensed deck, engineering, steward, and survey technician personnel comprise the majority of sea-going crew aboard NOAA ships.
- NOAA Commissioned Officer Corps – NOAA Corps officers serve in OMAO's operational and administrative leadership positions at sea, in the air, and ashore, as well as leadership positions throughout NOAA Line Offices and other federal agencies and institutions.
- U.S. Public Health Service Commissioned Officers Corps – USPHS officers provide medical care at sea and medical administrative services and specialized IT services ashore.
- Contractors – Specialized support in IT and platform acquisition.

NOAA Commissioned Officer Corps

The officers of the NOAA Corps are operational leaders:

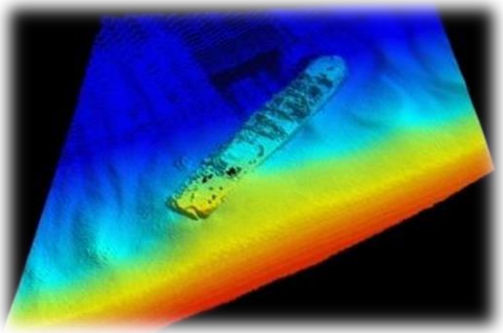
- As one of the seven U.S. uniformed services, serve with the “special trust and confidence” of the President.
- The NOAA Corps traces its roots back to the former U.S. Coast and Geodetic Survey, which dates back to 1807 and President Thomas Jefferson. In 1970, NOAA was created to develop a coordinated approach to oceanographic and atmospheric research and subsequent legislation converted the commissioned officer corps to the NOAA Corps.
- NOAA Corps officers all have a science or engineering background and provide the technical and operational expertise, dynamic leadership, and breadth of experience to optimize NOAA’s missions through planning, preparation, and execution.
- The NOAA Corps is an integral part of NOAA and 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.
- NOAA Corps officers operate NOAA’s ships, fly aircraft, manage research projects, conduct diving operations, and serve in staff and leadership positions throughout NOAA.

OMAO Operations

- The OMAO Fleet includes 16 ships – the largest civilian research fleet in the United States - and nine specialized aircraft.
- OMAO's ships support fishery, hydrographic, and marine ecosystems surveys, allowing us to support more robust stock assessments, update our nautical charts faster, and ensure our buoy networks receive the maintenance they need.
- OMAO's aircraft collect environmental and geographic data essential to studying climate change, assessing marine mammal populations, surveying coastal erosion, investigating oil spills, improving hurricane and winter storm forecasts.

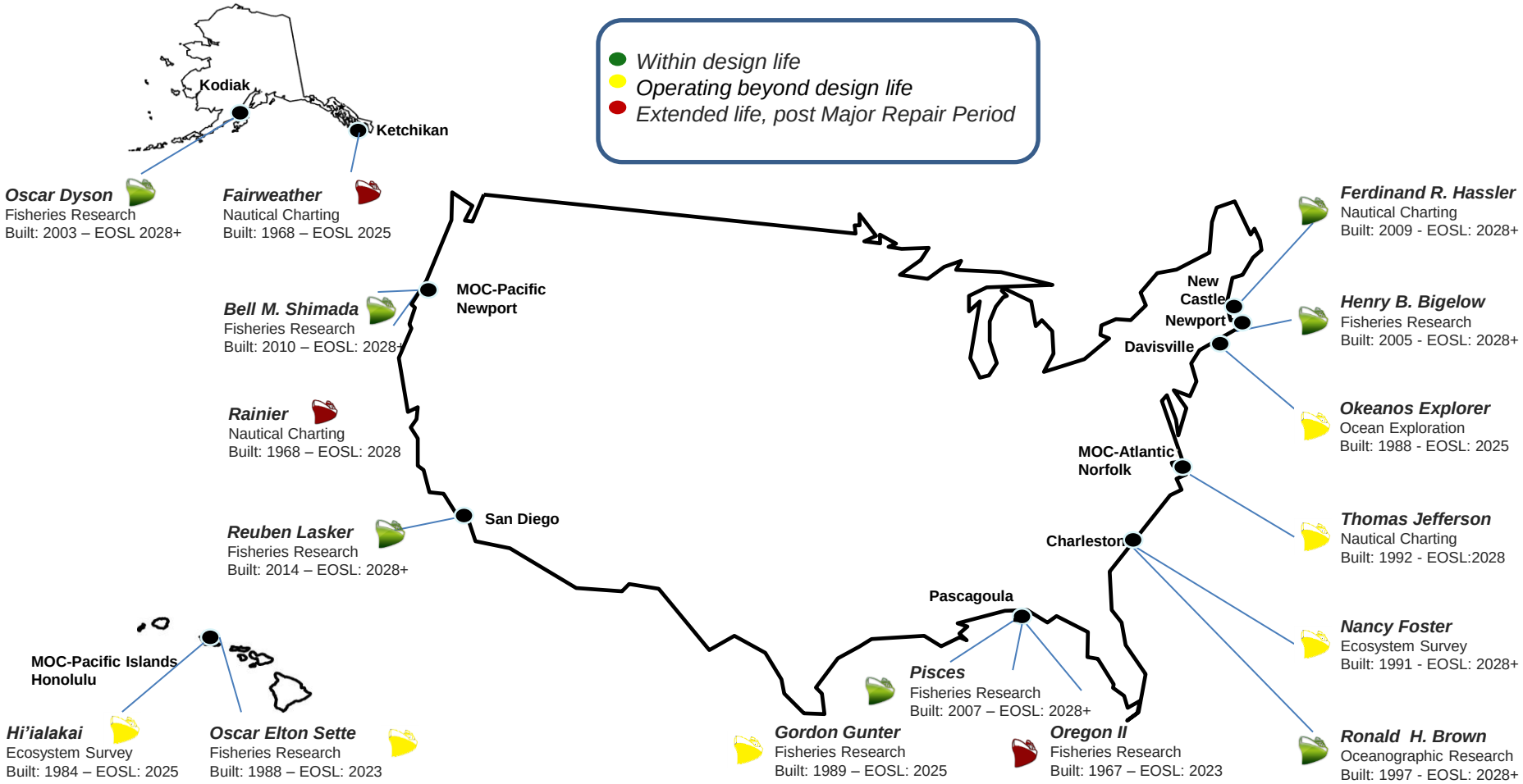
In 2015:

- OMAO's ships sailed more than **371,000 nautical miles**
- OMAO's aircraft flew more than **4,400 accident-free hours**
- 383 NOAA Divers logged **11,114 dives**, resulting in more than 7,300 hours underwater



OMAO's Ships and Centers

The fleet is listed with ship name, homeport location, primary mission, year built, and projected End of Service Life (EOSL).
NOAA's ships range in age from two to 49 years old. Out of 16 ships in the fleet, only eight are operating within their design life.
By FY2028 the NOAA fleet will shrink by 50% without immediate investment.



OMAO's Fleet Without Investment

Design Life | Extended Life | Gap in Capacity | X = Inactive

		Ship	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
REGION SUPPORTED	Northeast	*Ferdinand R. Hassler*														
		Henry B. Bigelow														
		Okeanos Explorer											X			
	Southeast	*Ronald H. Brown*														
		Nancy Foster														
		Thomas Jefferson														X
	Gulf of Mexico	*Pisces*														
		Gordon Gunter											X			
		Oregon II									X					
	Alaska	*Oscar Dyson*														
		Fairweather											X			
	West Coast	*Reuben Lasker*														
		Bell M. Shimada														
		Rainier														X
	Pacific Islands	*Hi'ialakai*											X			
		Oscar Elton Sette									X					
		Total Ship Count	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**14**	**14**	**10**	**10**	**10**	**8**

OMAO's Ships – Sample of Missions

Exploration and Mapping in the PMNM, Johnston Atoll, and Seamounts– The NOAA Ship *Okeanos Explorer* mapped 79,000 square km during CAPSTONE 2015 (Campaign to Address Pacific monument Science, Technology, and Ocean NEeds).

Regional Hydrographic Surveys - The NOAA Ship *Fairweather* and *Rainier* conducted hydrographic surveys in Arctic waters, which will result in updates and new charts.

Atmospheric Surveys and Tropical Atmosphere Ocean Moorings- The NOAA ship *Ronald H. Brown* released 176 instrument carrying ozonesondes and radiosondes for a better understanding of atmospheric rivers and aerosols. Serviced 35 moorings of the TAO Array in the equatorial Pacific.

Reef Assessment and Monitoring- The NOAA Ship *Hi'ialakai* conducted over 3,400 scuba dives during the American Samoa RAMP effort.

Collaborative Large Whale Survey - The NOAA Ship *Reuben Lasker* completed its first scientific mission to assess large whale species off the U.S and Canadian west coast.

OMAO's Aircraft Fleet

- Nine active aircraft based at OMAO's Aircraft Operation Center located at MacDill, Air Force Base, Tampa, FL:
  - 2 - WP-3D Orion "Hurricane Hunters"
  - 1 - Jet Prop Commander
  - 1 - Gulfstream IV
  - 4 - Twin Otters
  - 1 - King Air
- Support of NOAA's missions through atmospheric and extreme weather studies, fisheries and marine mammal observations, coastal mapping, water resource surveys, and hurricane reconnaissance and surveillance operations.
- NOAA's aircraft operate throughout the United States and around the world; over open oceans, mountains, coastal wetlands, and Arctic pack ice.
- The average age of NOAA's aircraft is 30 years.

OMAO Aircraft – Sample of Missions

Hurricane Surveillance and Research – NOAA's WP-3D (N43RF) and G-IV (N49RF) conducted 17 operational missions in seven days into Hurricane Danny and Tropical Storm Erika gathering vital data used to improve hurricane track and intensity forecasts.

Atmospheric Research – NOAA's WP-3D (N43RF) executed the first Midwest thunderstorm study in 12 years investigating factors that control the development of severe weather over the Great Plains region.

Water Resources – First dual calibration of the Snow Survey gamma detection system in NOAA's Twin Otters (N46RF and N48RF) increasing operational flexibility in gathering accurate, real-time measurements of snowpack and soil moisture across the Nation.

Emergency Response – NOAA's King Air (N68RF) responded rapidly to unprecedented flooding in South Carolina providing critical information to emergency response managers.

OMAO – Other Programs and Support

NOAA Dive Program

The NOAA Diving Program (NDP) is the largest non-DoD federal diving program with over 375 active divers.

In addition to 32 sites around the U.S. OMAO operates 15 ships with full diving compliments.

In 2015, NOAA Divers completed over 11,000 incident-free dives with a total of over 7,300 hours underwater.

NOAA has divers trained on mixed-gas rebreathers who are working at depths of up to 330 feet.

Small Boat Program and Aircraft Safety

OMAO sets policy and provides safety inspections for almost 400 small boats throughout NOAA. OMAO also sets and implements aircraft safety policy for NOAA and our contractors.

Teachers at Sea

NOAA's Teacher at Sea program provides a unique environment for learning and teaching by sending kindergarten through college-level teachers to sea aboard OMAO's research and survey ships to work under the tutelage of scientists and crew, including officers of the NOAA Commissioned Officer Corps.

Since its inception in 1990, the program has enabled more than 600 teachers to gain first-hand experience of science and life at sea.

Unmanned Systems Support

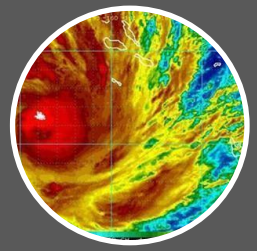
OMAO and the NOAA Corps provide a number of services to NOAA and NOAA's Partners to support unmanned systems from launch platforms, to technical support, to pilots.

OMAO's NOAA Partnerships

OMAO personnel and assets work with and serve all across NOAA Line Offices.

National Weather Service (NWS)

Office of Oceanic and Atmospheric Research (OAR)



National Environmental, Satellite, Data, & Information Service (NESDIS)

National Ocean Service (NOS)

National Marine Fisheries Service (NMFS)

OMAO's NOAA Partnerships

OMAO personnel and assets work with and serve all across NOAA Line Offices.

National Weather Service (NWS)

Did you know?

Using our aircraft (P-3, G-IV, Jet Prop) and ships, OMAO supports NWS missions such as:

- Hurricane track and landfall predictions
- Winter storm intensity and tracks
- Snow Surveys and soil moisture measurements
- TAO Buoy Maintenance

OMAO's NOAA Partnerships

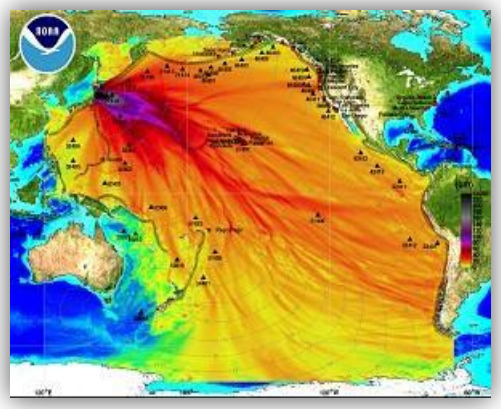
OMAO personnel and assets work with and serve all across NOAA Line Offices.

Office of Oceanic and Atmospheric Research (OAR)

Did you know?

Using our aircraft (P-3) and ships, OMAO supports OAR missions such as:

- Blue water oceanographic research
- Hydrothermal vent studies
- Air quality studies
- Research to anticipate and respond to weather extremes such as El Niño



OMAO's NOAA Partnerships

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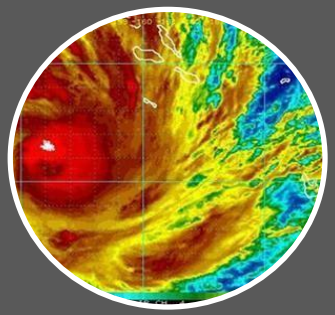
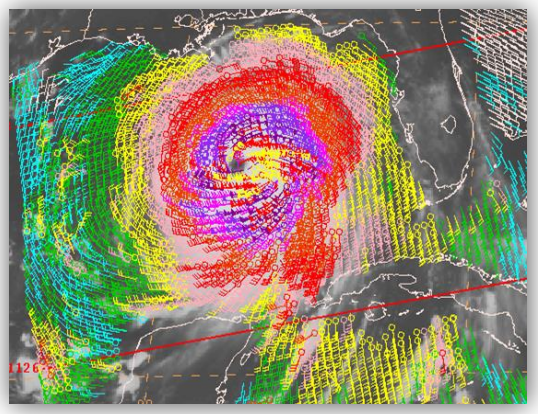


National Environmental, Satellite, Data, & Information Service (NESDIS)

Did you know?

Using our aircraft (P-3) and ships, OMAO supports NESDIS missions such as:

- Ocean Winds – Advanced measurements to improve the use of ocean surface wind data
- VIIRS – Validation and calibration of ocean color sensor missions



OMAO's NOAA Partnerships

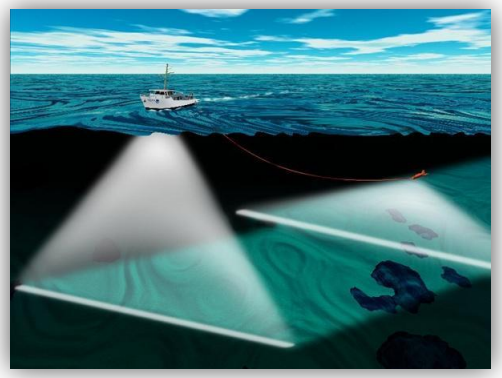
OMAO personnel and assets work with and serve all across NOAA Line Offices.

National Ocean Service (NOS)

Did you know?

Using our aircraft (King Air, Twin Otter, Jet Prop), ships, unmanned aircraft systems, and small boats, OMAO supports NOS missions such as:

- Nautical chart data, habitat, and coral reef mapping
- Sanctuary support and coral reef research and monitoring
- Dive platforms and operations
- Gravity measurements
- Update U.S. coastline data needed to manage coastal resources and support marine navigation



OMAO's NOAA Partnerships

OMAO personnel and assets work with and serve all across NOAA Line Offices.

National Marine Fisheries Service (NMFS)

Did you know?

Using our aircraft (Twin Otter) and ships, OMAO supports NMFS missions such as:

- Fish stock assessments
- Marine mammal surveys
- Biological sampling
- Ecosystems research

OMAO's Federal and External Partnerships

OMAO and the NOAA 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.

UNOLS
UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

NATO

NASA

NOPP
National Oceanographic Partnership Program

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

UNITED STATES COAST GUARD
SEMPER PARATUS
1790

DEPARTMENT OF THE NAVY
ONR
Science & Technology

Helpful Web Links

http://www.omao.noaa.gov/

http://www.moc.noaa.gov/MOC-A/index.html

http://www.moc.noaa.gov/MOC-P/index.html

http://www.moc.noaa.gov/MOC-PI/index.html

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