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Aircraft Operations

NOAA’s fleet of nine manned aircraft is operated, managed and maintained by NOAA’s Office of Marine and Aviation Operations (OMAO) based at OMAO’s Aircraft Operations Center (AOC). Located at Lakeland Linder Regional Airport in Lakeland, Florida, the NOAA Commissioned Officer Corps (NOAA Corps) – one of the nation’s seven Uniformed Services - officers, crew, and scientists from AOC provide capable, mission-ready aircraft and professional crews to the scientific community – see photo below. 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:

- Lockheed WP-3D Orion (WP-3D) “Hurricane Hunter” [Tail ID# N42RF]
- Gulfstream IV-SP (G-IV) “Hurricane Hunter” [Tail ID# N49RF]
- Gulfstream Turbo (Jet Prop) Commander AC-695A (Jet Prop Commander) [Tail ID# N45RF]
- Beechcraft King Air 350CER (King Air 350) [Tail ID# N68RF]
- De Havilland DHC-6-300 Twin Otter (Twin Otter) [Tail ID# N46RF]
- De Havilland DHC-6-300 Twin Otter (Twin Otter) [Tail ID# N48RF]
- De Havilland DHC-6-300 Twin Otter (Twin Otter) [Tail ID# N56RF]
- De Havilland DHC-6-300 Twin Otter (Twin Otter) [Tail ID# N57RF]

In addition to the fleet of nine, manned aircraft, AOC provides oversight and guidance for all of NOAA’s Unmanned Aircraft System (UAS) operations. Please visit AOC’s UAS Section for additional information.
June Mission Summary

Whether studying severe weather, assessing marine mammal populations, surveying coastal erosion, investigating oil spills, flight checking aeronautical charts, or improving hurricane prediction models, the AOC flight crews, scientists, and partners, operate all across the United States and beyond, including in some of the world's most demanding flight regimes.

The following Mission Summary provides an overview of the status or location(s) and mission(s) for each aircraft for the month. Please note all mission bases, projected flight locations, and mission parameters and requirements may shift based on changing needs and circumstances.

For the latest news from the NOAA skies, please visit the Aircraft Operations Center on [Facebook](#) and [Twitter](#).

WP-3D “Hurricane Hunter” [Tail ID# N42RF]

The aircraft supported the East Coast Hurricane Awareness Tour in May in the following cities: Quonset, Rhode Island; Harrisburg, Pennsylvania; Roanoke, Virginia; Charlotte, North Carolina; and, Brunswick, Georgia.

**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from [NOAA’s Office of Atmospheric Research (OAR), National Severe Storms Laboratory](#)

**What:** TORUS (Targeted Observations by Radars and UAS of Supercells)

**When:** Present - June 26

**Where:** Salina, Kansas

**Why:** The aircraft will support research teams that will follow severe thunderstorms to study how factors like wind speed, temperature, humidity and pressure may reveal the small-scale structures in a supercell storm and how it contributes to tornado formation. The goal is to use the data collected to improve conceptual models of supercell thunderstorms. Aims of the project include measuring and observing the frequency of changes in the atmosphere and relationships between the different atmospheric boundary layers.
**WP-3D “Hurricane Hunter” [Tail ID# N43RF]**

Instrumentation and outfitting will continue at AOC until operationally-ready on July 1. The aircraft will be research mission-ready on July 15.

**G-IV “Hurricane Hunter” [Tail ID# N49RF]**

The aircraft is supporting the inaugural Pacific Hurricane Awareness Tour in Honolulu, HI on June 1.

**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from [NOAA’s National Ocean Service (NOS), National Geodetic Survey (NGS) Grav-D Program](#)

**What:** Gravity for the Redefinition of the American Vertical Datum (GRAV-D)

**When:** Present - June 28

**Where:** Honolulu, Hawaii. The aircraft will conduct flights over U.S. Pacific Island territories.

**Why:** Grid pattern flight lines will be flown at 20,000 feet while collecting GPS and inertial data to update the U.S. vertical datum. A vertical datum is a base measurement point (or set of points) from which all elevations are determined.

**Jet Prop Commander [Tail ID# N45RF]**

**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from the [NOS, NGS Grav-D Program](#)

**What:** GRAV-D

**When:** Present - September 15

**Where:** Ontario, California; Reno, Nevada; and Grand Junction, Colorado. The aircraft will conduct flights over southern Nevada and California.
Why: Grid pattern flight lines will be flown at 20,000 feet over the Southwest United States while collecting GPS and inertial data to update the U.S. vertical datum. A vertical datum is a base measurement point (or set of points) from which all elevations are determined.

King Air 350 [Tail ID# N68RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from the NOS, NGS Coastal Mapping Program
What: Coastal mapping flights
When: Present - July 1
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.

Twin Otter [Tail ID# N46RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from NMFS, Southeast Fisheries Science Center (SEFSC)
What: Southeast Atlantic Marine Assessment Program for Protected Species (AMAPPS)
When: Present - June 29
Where: St. Simons Island, Georgia
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.
**Twin Otter [Tail ID# N48RF]**

**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from the NOS, NGS Coastal Mapping Program

**What:** Coastal mapping flights

**When:** Present - July 15

**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.

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**Twin Otter [Tail ID# N56RF]**

**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from NOAA’s National Marine Fisheries Service (NFMS), Alaska Regional Office (ARO).

**What:** Alaska Harbor Seals

**When:** Present - June 17

**Where:** Dutch Harbor, Adak and Shemya, Alaska.

**Why:** As part of the Marine Mammal Protection Act, the purpose of this project is to monitor the western population stock and recovery efforts of Harbor Seals from Endangered Species status.

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**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from NFMS, ARO.

**What:** Alaska Steller Sea Lions

**When:** June 21 - July 12

**Where:** Sitka, Kodiak, and Homer, Alaska.

**Why:** As part of the Marine Mammal Protection Act, the purpose of this project is to monitor the western population stock and recovery efforts of Steller Sea Lions from Endangered Species status.

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**Twin Otter [Tail ID# N57RF]**

**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from NMFS, NEFSC

**What:** Northeast North Atlantic Right Whale Surveys

**When:** Present - September 12

**Where:** Cape Cod, Massachusetts

**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.