NOAA’s Office of Marine and Aviation Operations (OMAO)

Aircraft Flights and Mission Info Summary

December 2018
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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# N43RF]
- 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.
December 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.

AOC’s Annual Safety meeting will be held from December 3-7. All pilots and aircraft will stand down for this event.

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

The aircraft will be used for training and scheduled maintenance at AOC.

WP-3D “Hurricane Hunter” [Tail ID# N43RF]

Instrumentation and outfitting will continue at AOC until mission-ready on June 1, 2019.
**G-IV “Hurricane Hunter” [Tail ID# N49RF]**

The aircraft is in scheduled phase maintenance for the month of December.

![G-IV “Hurricane Hunter”](image)

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

Training and scheduled upgrades will follow the Annual Safety meeting.

**Who:** Officers and crew of OMAO/NOAA Corps along with scientists from [NOAA’s National Weather Service (NWS), National Operational Hydrologic Remote Sensing Center](https://www.weather.gov/)

**What:** Water Resource Surveys (Soil Moisture)

**When:** December 15 – December 31

**Where:** Surveys will be conducted over Minnesota, North Dakota, South Dakota, Montana, Maine, New Hampshire, and Vermont.

**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](image)

**King Air 350 [Tail ID# N68RF]**

The aircraft will stand by for Emergency Response tasking following GRAV-D test flights.

![King Air 350](image)
Who: Officers and crew of OMAO/NOAA Corps along with scientists from NOAA’s National Ocean Service, National Geodetic Survey Grav-D Program.
What: Gravity for the Redefinition of the American Vertical Datum (GRAV-D) instrument test flights
When: December 8 – December 19
Where: Lakeland, FL
Why: Test flights to explore the capability of using AOC’s King Air 350 to serve the Grav-D mission. 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.

Twin Otter [Tail ID# N46RF]

Aircraft is inducted into scheduled maintenance in Calgary, Alberta. Due out February 1, 2019.

Twin Otter [Tail ID# N48RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from NOAA’s National Weather Service (NWS), National Operational Hydrologic Remote Sensing Center
What: Water Resource Surveys (Soil Moisture)
When: December 8 – December 31
Where: Surveys will be conducted over Minnesota, North Dakota, South Dakota, Montana, Maine, New Hampshire, and Vermont.
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# N56RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from NOAA’s National Marine Fisheries Service (NMFS), Northeast Fisheries Science Center (NEFSC).
What: Northeast Atlantic Right Whales  
When: December 8 – December 31  
Where: Based out of Cape Cod, MA. Possible survey location to include Moncton, New Brunswick, Canada. The survey area will cover coastal waters off the Maritime Provinces.  
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. With as few as 400 remaining, surveillance flights to track their migration patterns are important for conservation and recovery efforts.

Twin Otter [Tail ID# N57RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from NOAA’s National Marine Fisheries Service (NMFS), Northeast Fisheries Science Center (NEFSC).  
What: Southeast Atlantic Right Whales  
When: December 8 – December 31  
Where: Based out of St. Simons, GA  
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. With as few as 400 remaining, surveillance flights to track their migration patterns are important for conservation and recovery efforts.