

# NOAA's Office of Marine and Aviation Operations (OMAO)

# **Aircraft Flights and Mission Info Summary**

April 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 (<u>OMAO</u>) and the NOAA Commissioned Officer Corps (<u>NOAA Corps</u>) – one of the nation's seven Uniformed Services - based at OMAO's Aircraft Operations Center (<u>AOC</u>). 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 – 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 (P3) "Hurricane Hunter" [Tail ID# N42RF]
- Lockheed WP-3D Orion (P3) "Hurricane Hunter" [Tail ID# N43RF]
- <u>Gulfstream IV-SP (G-IV) "Hurricane Hunter"</u> [Tail ID# N49RF]
- <u>Gulfstream Turbo (Jet Prop) Commander AC-695A (Jet Prop Commander)</u> [Tail ID# N45RF]
- <u>Beechcraft King Air 350CER (King Air)</u> [Tail ID# N68RF]
- <u>De Havilland DHC-6-300 Twin Otter (Twin Otter)</u> [Tail ID# N46RF]
- <u>Twin Otter</u> [Tail ID# N48RF]
- <u>Twin Otter</u> [Tail ID# N56RF]
- <u>Twin Otter</u> [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 <u>AOC's UAS Section</u> for additional information.



# **April 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 <u>Facebook</u> and <u>Twitter</u>.



#### P3 "Hurricane Hunter" [Tail ID# N42RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from <u>NOAA's Office of Atmospheric</u> <u>Research</u>

**What:** Research flights to better understand how environmental factors that are characteristic of the southeast United States affect the formation, intensity, and path of tornadoes for this region.

**When:** Present to April 15. Scientific instrumentation and phase maintenance to occur following the mission at Aircraft Operations Center (AOC), Lakeland, Florida.

Where: Flights will base from Huntsville, Alabama, and occur over Mississippi, Alabama, Tennessee, and Georgia.

Why: The ultimate goal is to improve tornado forecasts and warning performance in the southeast.

#### P3 "Hurricane Hunter" [Tail ID# N43RF]

Currently down for re-winging in Naval Air Station Jacksonville, Florida. The aircraft is due out of maintenance on or about September 17; instrumentation and outfitting at AOC will follow.



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

Aircraft is in a scheduled maintenance period in Savannah, Georgia, until April 15 followed by hurricane equipment installation at AOC. The aircraft will support the Caribbean Hurricane Awareness Tour from April 22-29 to include static display events in the following cities: La Paz, Mexico; Zihuatanejo, Mexico; Panama City, Panama; Montego Bay, Jamaica; and, San Juan, Puerto Rico.



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

Who: Officers and crew of OMAO/NOAA Corps along with scientists from <u>NOAA's National Weather</u> Service (NWS), National Operational Hydrologic Remote Sensing Center

What: Water Resource Surveys

When: Present - May 15

Where: Surveys will be conducted over Minnesota, North Dakota, South Dakota, Montana, and Alaska. Why: The aircraft will conduct Low level (500 feet) surveys to collect Snow Water Equivalent data for NWS River Forecast Centers. This data is used by NWS Weather Forecast Offices and NWS River Forecast Centers when issuing river and flood forecasts, water supply forecasts, and spring flood outlooks.



# King Air [Tail ID# N68RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from <u>NOAA's National Ocean</u> Service, National Geodetic Survey's Coastal Mapping Program

What: Coastal mapping, and pilot training

When: Present - April 30

Where: AOC (Lakeland, Florida)

**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. Pilot training will occur throughout the month between mission blocks.



#### Twin Otter [Tail ID# N46RF]

Who: Officers and crew of OMAO/NOAA Corps along with scientists from <u>NOAA's National Weather</u> Service (NWS), National Operational Hydrologic Remote Sensing Center

What: Water Resource Surveys

When: Present - April 23

**Where:** Aircraft will be conducting surveys over the mountainous regions in the Northeast: New York, Vermont, New Hampshire, Massachusetts, Connecticut, and Maine.

**Why:** The aircraft will conduct Low level (500 feet) surveys to collect Snow Water Equivalent data for NWS River Forecast Centers. This data is used by NWS Weather Forecast Offices and NWS River Forecast Centers when issuing 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 NOAA's National Marine
Fisheries Service (NMFS), Northeast Fisheries Science Center (NEFSC)
What: North Atlantic Right Whale Survey
When: Present - July 31
Where: Based out of Falmouth, Massachusetts, and Halifax, Nova Scotia, Canada. The survey area will cover coastal waters off Massachusetts, New Hampshire, Maine, and Nova Scotia, Canada.
Why: The objectives of this project are to provide real time sighting information to commercial shipping interests in an effort to reduce collisions between ships and North Atlantic Right Whales, to better understand the distribution and abundance of the North Atlantic Right Whale, and to collect photographic images of individual right whales for mark-recapture analysis to monitor the population.
With as few as 400 remaining, surveillance flights to track their migration patterns are important for conservation and recovery efforts.

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

Who: Officers and crew of OMAO/NOAA Corps along with scientists from <u>NOAA's Office of Atmospheric</u> <u>Research (OAR)</u>

What: Capturing of the East Coast Outflow (ECO) of Greenhouse Gases

When: April 1 - May 15

Where: Based out of Stafford, Virginia. Secondary operations will occur from Bedford, Massachusetts. Why: The objective of the ECO survey is to collect accurate measurements of total emissions of greenhouse gases and volatile organic compounds (VOCs). Measurements will be determined from transects between Virginia Beach, Virginia, and Portland, Maine, and from focused urban outflow areas such as Baltimore and Boston.

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

Who: Officers and crew of OMAO/NOAA Corps along with scientists from <u>NOAA's National Ocean</u> Service, National Geodetic Survey's Coastal Mapping Program

What: Coastal mapping flights

When: Present - Sept 30

Where: Based out of Newport News, Virginia, and will survey the Chesapeake Bay area (Virginia and Maryland).

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