NOAA Aircraft

Operated by NOAA's Office of Marine and Aviation Operations





Gulfstream IV-SP – NOAA's high-speed, high-altitude Gulfstream IV-SP jet plays a vital role in collecting data in the upper atmosphere. During hurricane season, the aircraft gathers data above and around developing tropical cyclones. Forecasters use this information to improve hurricane track and intensity predictions. Equipped with special radars and air-launched sensor probes, the aircraft also supports studies of "atmospheric rivers" over the Pacific, which can deliver vast amounts of moisture to the U.S. West Coast.

Lockheed WP-3D Orion – NOAA's two Lockheed WP-3D Orion "hurricane hunters" support hurricane research and reconnaissance, air chemistry, and variety of other projects to improve our understanding of the environment. The P-3s collect data with a wide array of sensors, including three radar systems and air-launched probes that collect data on weather and ocean conditions.





DHC-6 Twin Otter – Twin Otters are among the most versatile airplanes in NOAA's fleet. They can carry many different payloads and be configured to support multiple mission types, from marine mammal and snow surveys to coastal mapping and oil spill response. These short-takeoff and-landing aircraft can operate where many other aircraft cannot. NOAA currently operates four Twin Otters.

Gulfstream Jet Prop Commander 1000 (AC-695A) –
This twin-engine aircraft supports aerial snow surveys in
the United States and Canada. Special equipment on
board the aircraft measures the amount of moisture
contained in snow and soil. NOAA National Weather
Service forecasters use the data to predict where
flooding might occur when the snow melts.





Hawker Beechcraft King Air 300 CER – NOAA uses this versatile twin-engine turboprop aircraft for a variety of missions, including coastal mapping and post-disaster aerial photography. NOAA's King Air flew aerial surveys following the BP Deepwater Horizon oil spill, Haiti earthquake, and devastating tornados in the Midwest.

Learn more at: www.omao.noaa.gov/learn/aircraft-operations

NOAA Aviation

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NOAA's aircraft provide a wide range of airborne capabilities.

The specialized Lockheed WP-3D "hurricane hunters" carry scientific instruments and systems to measure the atmosphere, the Earth, and its environment. They have the unique ability to conduct tropical cyclone research as well as storm reconnaissance, using their C-band weather radar and X-band tail Doppler radar systems.

NOAA's Gulfstream IV-SP hurricane surveillance jet flies above and around developing tropical cyclones. It uses special radars and air-launched sensor probes to gather data.

The WP-3D and Gulfstream IV-SP together 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. These versatile platforms can perform many important missions. NOAA's King Air missions include coastal mapping and post-disaster aerial photography. NOAA's Jet Prop Commander conducts snow surveys in the U.S and Canada, measuring moisture to support flooding forecasts. NOAA's Twin Otters are very versatile, supporting missions from marine mammal and snow surveys to coastal mapping and oil spill response.

NOAA also operates unmanned aircraft systems.

NOAA's Aircraft Operations Center in Lakeland, Florida operates, manages, and maintains this fleet. It is part NOAA's Office of Marine and Aviation Operations. The Office includes both civilians and commissioned officers of the NOAA Corps. The NOAA Corps, one of the seven uniformed services of the United States, celebrated its 100th anniversary in 2017.