

NASA using aircraft to measure mid-Atlantic greenhouse gases

September 12 2016, by Keith Koehler



Credit: NASA

NASA is conducting low-level aircraft flights measuring greenhouse gases over the mid-Atlantic region through September.

The flights are for the CARbon Airborne Flux Experiment or CARAFE, which will measure the exchange of greenhouse gases such as carbon dioxide and methane between the Earth and the atmosphere in the region. In addition, water vapor, temperature, and vertical wind measurements will be taken.

Randy Kawa, experiment principal investigator from NASA's Goddard Space Flight Center in Greenbelt, Maryland, said, "The direct measurements of the atmospheric interchange of these [greenhouse gases](#) will allow us to demonstrate the capability of the new instrument system being flown."

"It also will allow us to better understand the exchange processes in this area and compare and apply the data to existing atmospheric and ecosystem models," he said.

The NASA Langley Research Center in Hampton, Virginia, and the NASA Ames Research Center in Moffett Field, California, also are supporting the mission.

During the flights, a NASA C-23 Sherpa aircraft from the Wallops Flight Facility in Virginia will fly trajectories at various altitudes with the lowest being 500 feet above the vegetation or water.

The [flights](#) will be conducted over the Pocomoke Forest area on the Eastern Shore of Maryland; agricultural areas and tidal marshlands from the Eastern Shore of Virginia to southern Delaware; southern Maryland; the Chesapeake Bay and the Atlantic Ocean; the New Jersey Pine Barrens in the southern portion of the state; and the Alligator River and the Great Dismal Swamp in eastern North Carolina and southeastern Virginia.

Provided by NASA

Citation: NASA using aircraft to measure mid-Atlantic greenhouse gases (2016, September 12)
retrieved 25 March 2023 from <https://phys.org/news/2016-09-nasa-aircraft-mid-atlantic-greenhouse-gases.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.