



Jason Aguilera
Senior Air Safety Investigator
National Transportation Safety Board

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16 February 2024
RE: CEN24FA094

Dear Mr. Aguilera,

The Smithsonian Institution's Feather Identification Lab received 5 bags of samples on 2 February 2024 for examination. The samples were from a helicopter accident near Hydro, Oklahoma that occurred on 20 January 2024 (Accident number: CEN24FA094). In addition to the samples, 7 photographs of partial bird carcasses were reviewed in connection with this event.

The following species identifications were determined from the 5 samples using, DNA, microscopy and whole feather comparisons with museum specimens:

Bag 1 – Cockpit area – Cackling Goose (*Branta hutchinsii*)
Bag 2 – Engine Inlet – no wildlife detected in sample
Bag 3 – Tail rotor – Cackling Goose
Bag 4 – Main rotor – no wildlife detected in sample
Bag 5 – Pitch change + leading edge – Cackling Goose

DNA gender-typing (sexing) was conducted on samples that contained bird remains (Bag 1, 3, and 5) and all determined to be female. Male individuals are larger than females in this species. The average weight of Cackling Goose is 4.5 pounds. The subspecies of Cackling Goose that occurs in mid-continent United States in winter is Richardson's Cackling Goose (*Branta hutchinsii hutchinsii*).

Based on the 7 photographs of bird carcasses, a minimum of two birds were struck in this event. Some of the photographs could have originated from the same individual bird but at least 3 bird feet are visible.

Additional information is attached to this report regarding population trends for Cackling Goose, previous occurrences of this species documented in the FAA Wildlife Strike



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Database, and events specific to helicopters. This additional information was compiled by Richard Dolbeer (Science Advisor – Airport Wildlife Hazards Program, USDA).

The details of this report will be entered into the FAA Wildlife Strike Database. Let us know if you have any questions, and good luck with your investigation.

Sincerely,

A handwritten signature in black ink, which appears to read "Carla Dove", is positioned above a solid black rectangular redaction box.

Carla Dove, Ph.D.
Feather Identification Lab
Washington, DC 20560