



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, DC 20591

September 26, 2023

The Honorable Maria Cantwell
Chair
Committee on Commerce, Science,
and Transportation
United States Senate
Washington, DC 20510

Dear Chair Cantwell:

Enclosed is the Federal Aviation Administration's (FAA) report to Congress on the collection of data on helicopter air ambulance (HAA) operations for calendar year (CY) 2022, pursuant to Title 49 of the *United States Code* § 44731. This annual report contains a summary of the data received by the FAA from HAA certificate holders from January 1, 2022, to December 31, 2022, as required by § 44731.

The enclosed report includes the number of accidents and the number of fatal accidents experienced by HAA certificate holders and the rate of accidents and fatal accidents per 100,000 flight hours. Out of the 11 reported HAA accidents for CY 2022, 6 accidents resulted in injuries, and none resulted in fatalities.

A similar letter has been sent to the Ranking Member of the Senate Committee on Commerce, Science, and Transportation and the Chairman and Ranking Member of the House Committee on Transportation and Infrastructure.

Sincerely,

A handwritten signature in black ink that reads "Polly Trottenberg". The signature is fluid and cursive, with the first name "Polly" and last name "Trottenberg" clearly distinguishable.

Polly Trottenberg
Acting Administrator

Enclosure



U.S. Department
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800 Independence Ave., S.W.
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September 26, 2023

The Honorable Ted Cruz
Ranking Member
Committee on Commerce, Science,
and Transportation
United States Senate
Washington, DC 20510

Dear Ranking Member Cruz:

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A similar letter has been sent to the Chair of the Senate Committee on Commerce, Science, and Transportation and the Chairman and Ranking Member of the House Committee on Transportation and Infrastructure.

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Acting Administrator

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September 26, 2023

The Honorable Sam Graves
Chairman
Committee on Transportation
and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Graves:

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Polly Trottenberg
Acting Administrator

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September 26, 2023

Report to The Honorable Rick Larsen
Ranking Member
Committee on Transportation
and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Ranking Member Larsen:

Enclosed is the Federal Aviation Administration's (FAA) report to Congress on the collection of data on helicopter air ambulance (HAA) operations for calendar year (CY) 2022, pursuant to Title 49 of the *United States Code* § 44731. This annual report contains a summary of the data received by the FAA from HAA certificate holders from January 1, 2022, to December 31, 2022, as required by § 44731.

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Polly Trottenberg
Acting Administrator

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Federal Aviation Administration

Aviation Safety

REPORT TO CONGRESS:

Collection of Data on Helicopter Air Ambulance Operations

Annual Report – Calendar Year 2022

Title 49 of the United States Code § 44731

Introduction

The Federal Aviation Administration (FAA) submits this report in accordance with Title 49 of the *United States Code* §44731, *Collection of Data on Helicopter Air Ambulance Operations*, which mandates:

(a) IN GENERAL.—*The Administrator of the Federal Aviation Administration shall require a part 135 certificate holder providing helicopter air ambulance services to submit to the Administrator, annually, a report containing, at a minimum, the following data:*

(1) The number of helicopters that the certificate holder uses to provide helicopter air ambulance services and the base locations of the helicopters.

(2) The number of hours flown by the helicopters operated by the certificate holder.

(3) The number of patients transported and the number of patient transport requests for a helicopter providing air ambulance services that were accepted or declined by the certificate holder and the type of each such flight request (such as scene response, inter-facility transport, or organ transport).

(4) The number of accidents, if any, involving helicopters operated by the certificate holder while providing air ambulance services and a description of the accidents.

(5) The number of hours flown under instrument flight rules by helicopters operated by the certificate holder.

(6) The number of hours flown at night by helicopters operated by the certificate holder

(7) The number of incidents, if any, in which a helicopter was not directly dispatched and arrived to transport patients but was not utilized for patient transport.

(b) REPORTING PERIOD.—

Data contained in a report submitted by a part 135 certificate holder under subsection (a) shall relate to such reporting period as the Administrator determines appropriate.

(c) DATABASE.—

Not later than 180 days after the date of enactment of this section, the Administrator shall develop a method to collect and store the data collected under subsection (a), including a method to protect the confidentiality of any trade secret or proprietary information provided in response to this section.

(d) REPORT TO CONGRESS.—

The Administrator shall submit annually to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report containing a summary of the data collected under subsection (a). The report shall include the number of accidents experienced by helicopter air ambulance operations, the number of fatal accidents experienced by helicopter air ambulance operations, and the rate, per 100,000 flight hours, of accidents and fatal accidents experienced by operators providing helicopter air ambulance services.

(e) IMPLEMENTATION.—*In carrying out this section, the Administrator, in collaboration with a part 135 certificate holders providing helicopter air ambulance*

services, shall—

(1) propose and develop a method to collect and store the data submitted under subsection (a), including a method to protect the confidentiality of any trade secret or proprietary information submitted; and

(2) ensure that the database under subsection (c) and the report under subsection (d) include data and analysis that will best inform efforts to improve the safety of helicopter air ambulance operations.

(f) **DEFINITIONS.—**

In this section, the terms “part 135” and “part 135 certificate holder” have the meanings given such terms in section 44730.

Response

Below is a summary of the data that § 44731 requires:

- (1) Number of helicopters that the certificate holder uses to provide helicopter air ambulance (HAA) services and the base locations of the helicopters:
 - The total number of helicopters that certificate holders used in providing HAA services during calendar year (CY) 2022 was 1,283. The FAA received reports from 65 operators. Of those, 50 operated between 1 and 9 helicopters; 7 operated between 10 and 99 helicopters; and 5 operated more than 100 helicopters. The remaining 3 had 0 helicopters available for HAA service during 2022. For operators that provide HAA services from multiple bases, 18 reported base locations of the helicopters in one state only, while 19 reported base locations in multiple states. The only state in which operators that provide HAA services did not report a base location of a helicopter was Rhode Island. Two certificate holders reported an HAA base in Puerto Rico, one certificate holder reported a base in the District of Columbia, and four operators reported a total of seven bases outside the United States. The total of all base locations from which HAA certificate holders operated was 988.
- (2) Number of hours flown by the helicopters operated by the certificate holders:
 - Overall, the operators reported a total of 518,251 hours flown.
 - Seven of the reporting operators reported 0 hours flown in HAA operations.
- (3) Number of patients transported and the number of flight requests for helicopters providing HAA services that were accepted or declined by the certificate holder and the type of each such flight request (such as scene response, inter-facility transport, or organ transport):
 - The total number of patients transported by HAA services by operators that reported during CY 2022 was 364,079. A summary of the flight requests accepted or declined for the respective types of requests is depicted in the tables below:

Flight Requests - Accepted	
Scene Response	126,249
Inter-Facility	269,397
Organ Transport	1,304

Flight Requests - Declined	
Scene Response	138,001
Inter-Facility	153,148
Organ Transport	259

- (4) Number of accidents, if any, involving helicopters operated by the certificate holder while providing HAA services and a description of the accidents:
- Of the 65 certificate holders that reported information in accordance with § 44731, 7 reported a total of 11 HAA accidents in CY 2022. None of the accidents resulted in fatalities. Six of the 11 accidents resulted in injuries.
 - Appendix A of this report includes summaries of the eleven accidents that occurred during HAA operations.
 - The overall accident rate for HAA operations during CY 2022 was 2.1 per 100,000 flight hours. The fatal accident rate for HAA operations during 2022 was 0 accidents per 100,000 flight hours.
- (5) Number of hours flown under instrument flight rules by helicopters operated by the certificate holder while providing HAA services:
- Of the 65 reporting operators, 35 reported 0 flights and 0 hours flown under instrument flight rules. The remaining 30 operators flew a total of 8,798 hours under instrument flight rules while providing HAA services.
- (6) Number of hours flown at night by helicopters the certificate holder operated while providing HAA services:
- The total number of hours flown at night by the 65 reporting operators of helicopters during HAA operations was 214,567. Seven of the operators reported flying 0 hours at night. The hours flown at night represent 41 percent of the total hours flown during HAA operations.
- (7) Number of incidents, if any, in which a helicopter was not directly dispatched and arrived to transport patients but was not utilized for patient transport:
- The 65 reporting operators cited 0 incidents in which a helicopter was not directly dispatched and arrived to transport patients but was not utilized for patient transport.

Appendix A: Accidents Involving HAA Operations

Date	Description
1/11/2022	An EC-135 helicopter departed a Chambersburg, Pennsylvania hospital at 12:04 EST with a patient on board en route to Children's Hospital of Philadelphia. At approximately 12:38 EST, the aircraft began what appeared to be a normal descent from 3700', leveling at 3400'. At approximately 12:52 EST, the crew established normal communication with the communication center. At 12:53 EST, satellite tracking was lost. Surveillance video shows the aircraft contacting the ground at approximately 12:54 EST on the property of Drexel Hill United Methodist Church, Drexel Hill, Pennsylvania. According to the medical crew members, the aircraft engines remained running after ground contact. The crew members performed an emergency engine shutdown and evacuated all crew members and passengers. The pilot sustained serious injuries that required hospitalization for more than 48 hours. The two medical crew members and the patient were uninjured.
2/11/2022	A Bell-206 helicopter pilot in Eldorado, Illinois, was getting ready to start the aircraft at approximately 20:22 CST to begin a patient transfer flight. She noticed a flash and flame reflection on the front left windscreen, followed by the cabin filling with smoke. The nurse and medic were in the back. The medic had loose lithium batteries for her vaping device in her pocket, along with her keys. A battery shorted out and ignited in her pocket. The nurse immediately pulled the medic out of the aircraft and to the ground. The medic suffered 3rd-degree burns (just around the pocket/breast area). The aircraft suffered no aircraft damage. The cause of the accident was the medic carrying loose lithium batteries in her flight suit breast pocket, along with her personal keys.
3/16/2022	A Sikorsky S-76 helicopter was substantially damaged during an accident at 18:30 CDT in Texarkana, Texas, when the tail rotor struck the roof of an elevator shaft while conducting a day visual meteorological conditions (VMC) approach to an elevated hospital helipad. The weather was clear, and the wind was calm. There was one pilot, one respiratory therapist, one nurse, and no patient or passenger on board at the time of the accident. The pilot had been on duty for 1 hour and 22 minutes at the time of the accident and had flown approximately 55 minutes. There were no injuries.
4/16/2022	An AS-350B helicopter landed at 22:24 MST at the Deer Valley, Utah airport for fuel. Upon landing, the crew decided to perform a rapid refuel (fueling with engine and rotors turning). The refueling attendant approached the aircraft to perform the refueling. The attendant struggled to get the bonding cable to the desired length and began whipping the cable in an up-and-down motion, causing the cable to enter the spinning main rotor. During the sequence, the line attendant was injured, and the aircraft sustained minor damage. The line attendant sustained serious injuries to his hand that required hospitalization for greater than 48 hours. The pilot and medical crewmembers were uninjured.
5/18/2022	The flight team of an AS-350B helicopter accepted a patient transport request at 16:37 PST. The flight team departed from Bend, Oregon, at 16:53 PST en route to Christmas Valley Airport, arriving at approximately 17:33 PST. The pilot terminated the approach to a hover on the taxiway and hover-taxied to the ramp area to rendezvous with Emergency Medical Services for patient transfer. As the helicopter approached, the ground ambulance was parked (stationary) on the ramp. As the aircraft attempted to land, a very strong wind gust pushed the helicopter into an extremely nose-low, tail-high attitude in the direction of the ambulance. The pilot appeared to make a corrective input to prevent the rotor system from striking the ambulance by reversing the direction of the aircraft rearward. As the aircraft moved aft, another gust of wind (estimated to be 50mph by the witness) impacted the aircraft broadside. The aircraft then began to rotate and drifted well east of the intended landing area, impacting the ground right skid first (which collapsed and separated from the aircraft) before flipping over possibly twice before coming to rest on its left side. There were three serious injuries and one minor injury.

6/18/2022	An EC-135 helicopter, the pilot, and three medical crew departed Waukesha County Airport at 17:10 CDT to pick up a patient from Aurora Lakeland Medical Center. Upon reaching approximately 150 feet AGL, a loud noise was heard, followed by a shudder and pressure in the rotor pedals. The pilot executed a precautionary landing back at KUES with no further issues. It was discovered that the tail rotor hub cap had departed the aircraft and had been subsequently ingested into the Fenestron, causing substantial damage. There were no injuries.
7/19/2022	An EC-135 helicopter was returning from a flight and was landing in front of the refuel point at the airport in Mount Vernon, Illinois, at 20:41 CDT. As the aircraft was touching down, the red cloth cover that was over the fire extinguisher at the fuel point came off and was ingested into the Fenestron. The ingestion resulted in extensive damage to the Fenestron blades. All Fenestron blades, driveshaft, and tail boom had to be replaced. The cause of the accident was due to the cover over the fire extinguisher at the fuel farm not being properly secured, and the rotor wash causing it to fly off and then being ingested into the Fenestron. No patient was on board. There were no injuries.
7/26/2022	An Airbus AS365 helicopter based out of Lebanon, Ohio, responded to a motor vehicle accident scene request at approximately 4:39 AM EDT. Operations occurred during night visual meteorological conditions, and the pilot and crew utilized night vision goggles. On approach to the scene landing zone (LZ), the aircraft sustained catastrophic damage when one of the main rotor blades struck high-tension power lines resulting in a hard landing. The landing zone was set up in a manner where high-tension power lines were overhead and covered the southern 1/3 of the landing zone. First responders did not observe wires overhead when setting up the LZ, and they failed to walk/survey the area prior to allowing aircraft operations. The pilot and one medical crewmember sustained minor injuries, a second medical crewmember sustained serious injuries, and the aircraft was a complete loss.
7/29/2022	An Airbus AS350 helicopter was requested for an inter-facility transfer from Andalusia Medical Center to Sacred Heart Hospital in Pensacola, Florida. It sustained substantial damage at approximately 15:02 CST when it was involved in an accident in Andalusia, Alabama. The aircraft departed its base in Evergreen, Alabama, at 14:47 CST and headed for Andalusia Medical Center. At approximately 15:00, the helicopter began a descent towards Andalusia Medical Center. A few minutes later, the aircraft contacted the ground approximately 1 mile north of the hospital. One medical crew member sustained minor injuries. A second medical crew member and the pilot sustained serious injuries.
11/19/2022	A Bell 407 helicopter experienced an incident at 16:05 CST while landing at a Searcy, Arkansas, fuel depot. The flight departed at 16:05 CST from St. Vincent Infirmary - North in Little Rock, Arkansas, destined for Unity Health Medical Center - South to refuel before returning to base at White River Medical Center in Batesville, Arkansas, during visual meteorological conditions. The helicopter landed on the helipad uneventfully before repositioning closer to the fuel source. During the reposition, the helicopter drifted aft, and the tail rotor struck an electrical control box. The strike damaged the tail rotor, which caused the aircraft to lose tail rotor effectiveness. The pilot in command performed an emergency landing. The aircraft was shut down, and all crew evacuated. The landing gear sustained damage from the emergency landing. There were no injuries suffered during this event.
12/12/2022	An EC-130 helicopter pilot reported at 17:35 PST near Yuba City, California, during a cruise flight at dusk with night vision goggles on, that he encountered a flock of birds at 1,500 feet above ground level. As the pilot initiated a climbing left turn to avoid the birds, he heard a loud bang accompanied by a pain in his left leg. The helicopter began to vibrate, and the pilot initiated a precautionary landing in a nearby field without further incident. Bird remains were located throughout the pilot's side of the cockpit. The helicopter sustained substantial damage to the windshield. There were no injuries.