



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

Office of the Administrator

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

October 23, 2020

The Honorable Roger Wicker  
Chairman, Committee on Commerce, Science,  
and Transportation  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

Enclosed is the Federal Aviation Administration's (FAA) report to Congress pursuant to Section 314(d) of the FAA Reauthorization Act of 2018 (Public Law 115-254).

Section 314(d) amended section 44731(d) of title 49, United States Code, which requires the FAA to submit an annual report to Congress containing a summary of certain data collected on helicopter air ambulance operations. This report contains a summary of the data collected by the FAA from helicopter air ambulance operators from January 1, 2019, to December 31, 2019.

We look forward to continued collaboration with your staff and would be happy to schedule time to brief you further if desired.

We have sent identical letters to Chairman DeFazio, Senator Cantwell, and Congressman Graves.

Sincerely,

A handwritten signature in black ink that reads "Steve Dickson". The signature is fluid and cursive.

Steve Dickson  
Administrator

Enclosure



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October 23, 2020

The Honorable Peter A. DeFazio  
Chairman, Committee on Transportation  
and Infrastructure  
House of Representatives  
Washington, DC 20515

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800 Independence Ave., S.W.  
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October 23, 2020

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

Dear Senator Cantwell:

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800 Independence Ave., S.W.  
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October 23, 2020

The Honorable Sam Graves  
Ranking Member, Committee on Transportation  
and Infrastructure  
House of Representatives  
Washington, DC 20515

Dear Congressman Graves:

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Steve Dickson  
Administrator

Enclosure



**FAA**  
**Aviation Safety**

## **REPORT TO CONGRESS:**

# **Safety of Air Ambulance Operations**

*Annual Report – Calendar Year 2019*

**FAA Reauthorization Act of 2018 (Pub. L. No. 115-254) – Section 314(d)**

## Introduction

Section 314(d) of the Federal Aviation Administration (FAA) Reauthorization Act of 2018 (Public Law 115-254) amended § 44731 of title 49, United States Code, which requires the FAA to submit an annual report to Congress containing a summary of certain data collected on helicopter air ambulance operations. Section 314(d) created new reporting requirements for part 135 certificate holders providing helicopter air ambulance (HAA) services. As amended, section 44731(a) now requires each part 135 operator providing HAA services to submit annual reports to the FAA that include the following:

1. The number of helicopters that the certificate holder uses to provide HAA 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.

This report contains a summary of the data collected by the FAA from HAA operators for the period of January 1, 2019, through December 31, 2019.

## Response

To protect the confidentiality of any trade secret or proprietary information, data collected from each operator has been de-identified. Therefore, the identity of the certificate holders, the aircraft bases of operations, and the registration numbers of helicopters engaging in HAA operations have been coded. The seven elements of Section 44731(a) are delineated below, with responses for 2019:

(1) Report the number of helicopters that the certificate holder uses to provide HAA services and the base locations of the helicopters:

- a. The total number of helicopters certificate holders operated in HAA service during 2019 was 1,230. Of the 64 reporting operators, 52 operated between one and nine helicopters; eight operated between 10 and 99 helicopters; and four operated more than 100 helicopters. The total of all base locations from which HAA certificate holders operated was 977. The only state where certificate holders who provide HAA services did not report a base location of a helicopter was Rhode Island. One operator reported an HAA base in Puerto Rico, one reported a base in the District of Columbia, and two operators reported three bases outside the United States.

(2) Report the number of hours flown by helicopters operated by certificate holders.

- a. Overall, the operators reported a total of 399,051 hours flown. Three of the reporting operators reported zero hours flown in HAA operations.

(3) Report the number of patients transported and the number of patient transport requests for helicopters 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).

- a. The total number of patients transported in HAA services during 2019 was 310,104. A summary of the flights accepted/declined for the respective types of requests is delineated in the tables below:

Flight Requests - Accepted		Flight Requests - Declined	
Scene Response	126,791	Scene Response	154,590
Inter-Facility	252,308	Inter-Facility	133,138
Organ Transport	734	Organ Transplant	140

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

- a. Certificate holders reported nine HAA accidents for this period. Three of the nine accidents resulted in six fatalities. One of the accidents reported occurred while the aircraft was not involved in HAA operations. A summary of these nine accidents involving HAA

operators is provided from the operators' submitted reports in Appendix A of this report.

- b. The overall accident rate for HAA during 2019 was 2.22 per 100,000 flight hours. The fatal accident rate for HAA during 2019 was 0.75 accidents per 100,000 flight hours.

(5) Report the number of hours flown under instrument flight rules by helicopters operated by certificate holders while providing air ambulance services.

- a. For the 64 reporting operators, 34 reported zero flights and zero hours flown under instrument flight rules. The remaining 30 operators reported a total of 8,581.8 hours flown under instrument flight rules while providing air ambulance services.

(6) Report the number of hours flown at night by helicopters operated by certificate holders while providing air ambulance services.

- a. The total number of hours flown at night by the 64 operators of helicopters during HAA was 163,635. Five of the operators reported flying zero hours at night. The hours flown at night represents 41 percent of the total hours flown during HAA operations.

(7) Report 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.

- a. The 64 reporting operators cited 39 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
01/11/2019	<p>Non-HAA Accident: Accident: Dynamic rollover. Time: 1145 central daylight time. Weather: 1200/3. Light rain. Terrain/obstructions: on airport ramp in front of hangar. Apparent mechanical failure: No. Pilot: first flight. On duty for four hours and 45 minutes. Night Vision Imaging System: Night Vision Goggles (NVGs) not in use; daylight hours. Number on board: two (pilot and medic). Patient on board: No. Repositioning from base to airport hangar less than two miles away because of deteriorating weather.</p>
01/29/2019	<p>At around 0650 eastern daylight time, the aircraft collided with terrain near Zaleski, Ohio. Visual Flight Rules conditions prevailed at the base location and patchy light snow showers existed throughout the state. The flight launched prior to sunrise and was considered a night flight. The pilot was not using NVGs at the time of the accident. The location of the accident contained hilly, foothill terrain and the aircraft collided with the ground on a downhill slope. There were no known mechanical failures at the time of the accident and this was the pilot's first flight of the day. Therefore, the Pilot-in-Command had only flown about 15 minutes prior to the accident. There were three souls on board: Pilot, Flight Nurse, and Medic. There were no patients on board the aircraft.</p>
03/03/2019	<p>At about 0013 mountain standard time, a Bell 407 helicopter was substantially damaged on the ground near Union Center, South Dakota. The pilot and one crewmember were not injured. One crewmember sustained minor injuries. The helicopter sustained substantial damage. The flight was conducted under the provisions of 14 CFR Part 135. Visual meteorological conditions prevailed and it is unknown if a FAA flight plan had been filed for the flight. The helicopter had arrived at the landing zone at Union Center to pick up a patient. According to the FAA inspector who responded to the accident, the helicopter had just landed and the pilot was conducting the routine engine cool down segment before shutting the helicopter down. The flight paramedic disembarked from the helicopter and the ambulance drove towards the helicopter. The main rotor blades of the helicopter impacted the top of the ambulance resulting in substantial damaged to the main rotor blades, tail boom, and fuselage of the helicopter.</p>

04/15/2019	Engine failure at approximately 25 feet when departing from the helicopter's home base (Fairview Park Hospital Heliport (48GA)) in Dublin, Georgia. Time: 0351 eastern daylight time. Weather: Clear. Terrain/obstructions: level with no obstructions. Apparent mechanical failure: Yes, engine failure determined by National Transportation Safety Board at post accident analysis. Pilot: first flight. On duty for eight hours and 51 minutes. NVIS: Yes, NVGs in use. Number on board: three (pilot, nurse, and medic). Patient on board: No. Was departing on an HAA flight when engine failure occurred.
05/15/2019	The aircraft departed Rice-Bell Field Airport at 1750 central daylight time for a Visual Flight Rules (VFR) flight to Arkansas Children's Hospital Heliport with six persons on board, including one patient. At 43 minutes into the flight at 1833, the pilot experienced fumes in the cockpit. Within approximately 10 seconds, visual and aural warnings indicated smoke within the aft baggage compartment so the pilot initiated an emergency descent and landing to the Morrilton Municipal Airport. Upon inspection, it was determined that the design locking feature failed to secure two bolts maintaining the integrity of the number two engine exhaust system. Misdirected exhaust gases caused heat deformation to the forward tail boom skin and drive shaft bearings. The pilot had been on duty 13 hours and three minutes and had flown 1.8 hours that day.
06/17/2019	The operator of the helicopter reported that during takeoff (during an inter-facility transfer) at 1712 eastern daylight time, the pilot allowed the helicopter to drift during a pedal turn. As the pilot performed a pedal turn, the main rotor blades struck tree branches that outlined the confined area of the landing zone. The remainder of the flight was completed without incident. Further inspection by the operator's maintenance personnel identified two main rotor blades displaying damage at the tips, three fan-in-fin blades displaying bending, a crack in the vertical fin, a puncture in the horizontal stabilizer, and substantial damage to the anti-torque gearbox. The pilot reported that there were no pre-accident mechanical failures or malfunctions with the helicopter that would have precluded normal operation. There were no injuries.
06/28/2019	At about 0041 central daylight time, an Agusta A109 helicopter impacted terrain while landing at Brainerd Lakes Regional Airport (BRD). The pilot and flight nurse were fatally injured, the flight paramedic was seriously injured,

	<p>and the helicopter sustained substantial damage. Instrument meteorological conditions prevailed at BRD for the instrument flight rules flight, which departed from North Memorial Heliport (MY77), Robbinsdale, Minnesota, about 2348. The helicopter was returning to BRD after delivering a patient to MY77. Following descent from a cruise altitude of 6,000 feet mean sea level, the pilot flew the Instrument Landing System Runway 23 approach at BRD. According to the flight paramedic, who was seated in the left forward seat, the runway surface and lights were visible below a thin fog layer during the approach to landing. He noticed a few clouds to the side of the helicopter and recalled the pilot remarking that the weather conditions were foggy, and they would need to go-around. He subsequently noticed the helicopter spin to the right and impact the ground. The helicopter impacted a grassy area to the left of Runway 23 and came to rest on a heading of 074 degrees. The main fuselage and tail boom exhibited crushing consistent with a high velocity vertical descent. The helicopter was upright and nearly intact, with no movement from the initial impact point. There was no evidence of a post-crash fire.</p>
11/12/2019	<p>En route to night scene flight in Spanish Fork Canyon, Utah, the flight nurse inadvertently pressed left anti-torque pedal resulting in 11 degree rapid yaw to the left. Tail rotor struck left side of tail boom. No discernable change in flight characteristics. Damage was observed during preflight inspection the following morning. Aircraft was taken out of service.</p>
12/25/2019	<p>At around 1720 central daylight time, NXXXX was on final approach to its base location in Dothan, Alabama, when the Pilot-in-Command suffered a medical emergency. The aircraft descended to the ground and then toppled over onto its side after landing. VFR conditions prevailed at the base location that day. There were three souls on board: Pilot, Flight Nurse, and Paramedic. There were no patients on board. After the aircraft crashed, the medical crew shut down the aircraft and pulled the pilot out of the cockpit. Life saving measures were made to save the pilot, but he was later pronounced dead at the hospital. Both medical crewmembers were uninjured and cleared from the hospital that night.</p>