



U.S. Department
of Transportation

**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

April 4, 2018

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

Dear Mr. Chairman:

As required by Public Law 112-95, the Federal Aviation Administration (FAA) Modernization and Reform Act of 2012 (the Act), Section 306, the FAA is pleased to provide the enclosed report on Safety of Air Ambulance Operations.

The Act directs the FAA to submit a report to Congress containing a summary of the data collected on helicopter air ambulance operations. This report is the FAA's second submission under the Act and it contains a summary of the data collected by the FAA from helicopter air ambulance operators from January 1, 2016 to December 31, 2016.

We have sent identical letters to Chairman Shuster, Senator Nelson, and Congressman DeFazio.

Sincerely,

A handwritten signature in black ink, reading "DK Elwell".

Daniel K. Elwell
Acting Administrator

Enclosure



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The Honorable Bill Shuster
Chairman, Committee on Transportation
and Infrastructure
House of Representatives
Washington, DC 20515

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The Honorable Bill Nelson
Committee on Commerce, Science, and Transportation
United States Senate
Washington, DC 20510

Dear Senator Nelson:

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April 4, 2018

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

Dear Congressman DeFazio:

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Acting Administrator

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Report to Congress
Safety of Air Ambulance Operations



FAA Modernization and Reform Act of 2012

Pub. L. No. 112-95—Section 306

I. Introduction

Section 306 of the Federal Aviation Administration Modernization and Reform Act of 2012 Pub.L. No. 112-95 (FMRA or the Act) amended Title 49 of the United States Code (49 U.S.C.) to add a new section 44731 which mandated new reporting requirements for helicopter air ambulance (HAA) operators. Subsection (a) of this provision requires each operator conducting HAA operations to submit annual reports to the Federal Aviation Administration (FAA) that include the following:

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 flights and hours flown, by registration number, during which helicopters operated by the certificate holder were providing helicopter air ambulance services;
3. The number of flight 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, interfacility transport, organ transport, or ferry or repositioning flight);
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 flights and hours flown under instrument flight rules by helicopters operated by the certificate holder while providing air ambulance services;
6. The time of day of each flight flown by helicopters operated by the certificate holder while providing air ambulance services; and
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.

Section 44731(d) also requires the FAA to submit a report to Congress containing a summary of the data collected under subsection (a) no later than two years after the date of enactment and annually thereafter. In order to do so, FAA was required to complete an application to the Office of Management and Budget (OMB) to collect data as required by the Paperwork Reduction Act (PRA).

The FAA published its initial Federal Register Notice on July 31, 2013 (78 FR 46405) with correction published August 12, 2013 (78 FR 48925). Following the 60-day public comment period and disposition of comments, the FAA published the final Notice for PRA approval with a 30-day comment period on July 29, 2014 (79 FR 44083), and collected data from April 1, 2015 through December 31, 2015.

This report is the FAA's second submission to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate under section 44731 and contains a summary of the data collected by the FAA from HAA operators for the period of January 1, 2016 through December 31, 2016 in accordance with subsection (a) of section 44731.

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 helicopter engaging in HAA operations have been encoded. The seven requests of section 306 and the responses are delineated below:

II. Summary of Data Collected Under 49 U.S.C. § 44731 (Jan. 1 through Dec. 1, 2016)

- (1) Report the number of helicopters that the certificate holder uses to provide helicopter air ambulance services and the base locations of the helicopters:
 - a. The total number of helicopters operated by the 66 certificate holders in HAA service in 2016 is 1209.
- (2) Report the number of flights and hours flown, by registration number, during which helicopters operated by the certificate holder were providing helicopter air ambulance services.
 - a. The 66 HAA operators reported a total of 555,857 HAA flights utilizing 1,209 aircraft. This number represents a total of scene response, interfacility transfer, and organ transplant flights as shown in the table in item 3. The total number of flight hours flown for the HAA flights was 428,526.
- (3) Report the number of flight 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, interfacility transport, organ transport, or ferry or repositioning flight).
 - a. A summary of the flights accepted/declined for the respective types of requests is delineated in the table below:

FLIGHTS ACCEPTED		FLIGHTS DECLINED	
SCENE RESPONSE	196,689	SCENE RESPONSE	44,068
INTERFACILITY	357,692	INTERFACILITY	62,484
ORGAN TRANSPORT	1,476	ORGAN TRANSPORT	89
REPOSITION	62,622	REPOSITION	625
FERRY	8,315	FERRY	24

- (4) Provide the number of accidents, if any, involving helicopters operated by the certificate holder while providing air ambulance services and a description of the accidents.
 - a. Nine accidents involving HAA operations were reported for this period, eight of which were conducted as part 14 CFR Part 135 HAA flights as defined in § 135.601. A

summary of these eight accidents involving HAA services is provided in Appendix A of this report.

- (5) Report the number of flights and hours flown under instrument flight rules by helicopters operated by the certificate holder while providing air ambulance services.
 - a. The HAA certificate holders authorized to conduct operations under IFR conducted 16,449 flights for a total of 9,068 hours under instrument flight rules while providing air ambulance services.
- (6) Report the time of day of each flight flown by helicopters operated by the certificate holder while providing air ambulance services.
 - a. The aggregate number of HAA flights initiated by all operators broken down by each 1 hour segment of the day is delineated in the tables below:

DEPARTING BETWEEN	NUMBER OF FLIGHTS	DEPARTING BETWEEN	NUMBER OF FLIGHTS
00:00 - 00:59	34,729	12:00 - 12:59	42,068
01:00 - 01:59	30,890	13:00 - 13:59	43,865
02:00 - 02:59	26,850	14:00 - 14:59	47,133
03:00 - 03:59	23,378	15:00 - 15:59	49,678
04:00 - 04:59	20,183	16:00 - 16:59	51,411
05:00 - 05:59	17,905	17:00 - 17:59	52,725
06:00 - 06:59	17,918	18:00 - 18:59	52,513
07:00 - 07:59	21,073	19:00 - 19:59	52,470
08:00 - 08:59	25,542	20:00 - 20:59	50,424
09:00 - 09:59	29,860	21:00 - 21:59	48,496
10:00 - 10:59	33,648	22:00 - 22:59	42,666
11:00 - 11:59	37,055	23:00 - 23:59	39,082

- (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 66 reporting operators cited 2,573 incidents in which a helicopter was not directly dispatched and arrived to transport patients but was not utilized for patient transport.

APPENDIX A
HAA Accident Summaries
Report Requirement #4

Company ID	Number Accidents	Accident Description
HAA2016003	1	Hard Landing / No Injuries (Additional Information from NTSB Report: On April 25, 2016, about 1845 central daylight time (CDT), a Bell Helicopter 206L4, N435AE, was substantially damage during a precautionary landing following a loss of directional control shortly after takeoff from the Memorial City General Hospital Heliport (8TS4), Houston, Texas. The pilot and two medical crewmembers onboard were not injured. The flight was being conducted under the provisions of 14 Code of Federal Regulations Part 135 as a repositioning approach. Day visual meteorological conditions prevailed for the flight. The intended destination was the Victoria Regional Airport (VCT), Victoria, Texas.)
HAA2016017	1	On 17 Sep 2016, at 0207 CDT, an Agusta S.p.A A109S helicopter, N91NM, impacted trees and terrain near Chandler Field Airport (AXN), Alexandria, MN. The commercial rated pilot and two crew members sustained serious injuries and the helicopter was destroyed. The helicopter was registered to North Memorial Health Care, Brooklyn Center, MN and operated by North Memorial Medical Center under the provision of 14 Code of Federal Regulations Part 135. Night instrument meteorological conditions prevailed at the accident site and an instrument flight rules (IFR) flight plan had been filed.
HAA2016026	1	PIC 2,805 Flight Time. On January 29, 2016, at 1303 eastern standard time, a Eurocopter France EC130 B4, N133HN, operated by Air Methods, Inc., was substantially damaged when the left rear entry door departed the airframe while airborne in the vicinity of Shoals, West Virginia. The commercial pilot and two medical flight crewmembers were not injured. Visual meteorological conditions prevailed. The helicopter was operating on a company visual flight rules flight plan from Cabell Huntington Hospital Heliport (WV27), Huntington, West Virginia, to a helipad at Three Rivers Hospital, Louisa, Kentucky. The positioning flight was conducted under the provisions of 14 Code of Federal Regulations Part 135.
HAA2016026	2	PIC 4,147 Flight Time. On April 15, 2016, about 1955 eastern daylight time, a Eurocopter France AS350B2, N561AM, NVG Equipped operated by Air Methods, Inc., was substantially damaged after it impacted terrain near Jasper, Georgia. The commercial pilot and three medical flight crewmembers were not injured. Visual meteorological conditions prevailed. The helicopter was operating on a company visual flight rules flight plan from Lanier Park Hospital Heliport (38GA), Gainesville, Georgia, to a helipad at Piedmont Mountainside Hospital, Jasper, Georgia. The helicopter emergency medical service flight was conducted under the provisions of 14 Code of Federal Regulations Part 135.
HAA2016026	3	PIC 5,246 Flight Time. Nonscheduled 14 CFR Part 135: Air Taxi & Commuter NVG equipped Accident occurred Tuesday, April 26, 2016 in Pittsburgh, PA Aircraft:

		EUROCOPTER DEUTSCHLAND GMBH MBB BK 117 C-2, registration: N145HN. Injuries: 5 Uninjured. This is preliminary information, subject to change, and may contain errors. Any errors in this report will be corrected when the final report has been completed. NTSB investigators may not have traveled in support of this investigation and used data provided by various sources to prepare this aircraft accident report. On April 26, 2016, about 1500 eastern daylight time, a Eurocopter Deutschland GMBH MBB-BK-117 C-2, N145HN, operated by Air Methods, Inc., was substantially damaged during cruise flight to West Penn Hospital Heliport (PN80), Pittsburgh, Pennsylvania. The commercial pilot, three crewmembers and one patient were not injured. The on-demand air medical flight was conducted under the provisions of 14 Code of Federal Regulations Part 135. Visual meteorological conditions prevailed and a company flight plan was filed for the flight that originated from Grafton City Hospital Heliport (22WV), Grafton, West Virginia, about 1430. The pilot reported that the patient transfer flight was the first flight following maintenance work performed on the helicopter. The flight was uneventful; however, after landing the pilot noticed that a vertical fin cowling had partially separated and came in contact with a tailrotor blade. The pilot added that 8 of the 11 fasteners on the left side of the vertical fin cowling were unlocked. Examination of the tailrotor blade by representatives from the helicopter manufacturer revealed that the tailrotor blade had sustained substantial damage.
HAA2016047	1	Date/Time of Accident - March 26, 2016, approx. 05:15 GMT, Aircraft collided with terrain - Weather - low ceilings and visibility reported in the area, Terrain/obstacles -non-mountainous terrain, no significant obstacles in the area, Mechanical -preliminary inspection suggests the aircraft was producing power and flight control continuity was intact at time of impact. Pilot flight time = 5,301 hrs, Pilot was qualified for NVIS operations, the aircraft was certified for NVIS operations, flight was conducted under NVIS. The pilot, two medical personnel and one patient were fatally injured.
HAA2016051	1	On September 29th, 2016 – N361SF filed a company flight plan at 05:59CST to reposition the helicopter back to its base location (18OK) from the airport (KLaw). Approximately 18 minutes later the pilot contacted the communications center to report the aircraft had crashed right outside of the hospital (18OK) while he was on final. Pilot stated the aircraft spun to the right, he was unable to gain control and had to put the aircraft down on the road. Pilot advised no serious injuries and that there were some minor traumatic injuries to one of the persons on board. Pilot advised that the ambulance had already arrived to the scene. There were no adverse weather considerations at the time of the crash. Pilot flight time since reporting for duty, but prior to the incident was 2 hours and 47 minutes. Communications advised management that the aircraft had stopped tracking over Lawton, OK. There were 4 souls on board; 2hours and 30minutes of fuel; and an ETA of 2 minutes for the reposition flight. No other pertinent details at this time.
HAA2016060	1	On June 3, 2016, about 1345 eastern daylight time, a Bell 407, N4999, operated by PHI Air Medical, Inc., was substantially damaged during a forced landing to a

		parking lot, following a partial loss of engine power during initial climb near Mountain City, Tennessee. The commercial pilot incurred minor injuries. The two crewmembers and one patient were not injured. The on-demand air medical flight was conducted under the provisions of 14 Code of Federal Regulations Part 135. Visual meteorological conditions prevailed and a company flight plan was filed for the flight that originated from the parking lot; destined to Johnson City Medical Center Heliport (TN91), Johnson City, Tennessee. The pilot stated that during initial climb, about 125 feet above ground level, he heard a loud "bang" that was accompanied by a left yaw and rapidly increasing measured gas temperature. The pilot advised the crewmembers that he was rejecting the climb and landing immediately. The pilot further stated that he had to maneuver the helicopter right to avoid ground personnel, level the helicopter with cyclic control, and used all available collective to cushion the landing. The helicopter was equipped with a Rolls Royce (Allison) 250-C47B, 650 horsepower turboshaft engine. Examination of the helicopter by a Federal Aviation Administration inspector revealed that it landed hard, which spread the skids and resulted in substantial damage to the fuselage. Initial examination of the airframe and engine did not reveal any pre-impact mechanical malfunctions; however, the engine was retained for further examination.
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