September 18, 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) fourth report to Congress on meeting the requirements of Section 306 of the FAA Modernization and Reform Act of 2012 (Public Law 112-95).

In Section 306, the FAA was directed to submit a report to Congress containing a summary of the 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, 2018, to December 31, 2018.

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

Sincerely,

[Signature]
Steve Dickson
Administrator

Enclosure
September 18, 2020

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

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Ranking Member, Committee on Commerce,
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United States Senate
Washington, DC  20510

Dear Senator Cantwell:

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September 18, 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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Enclosure
REPORT TO CONGRESS:

Safety of Air Ambulance Operations

Annual Report
Fourth Submission - covering 2018

FAA Modernization and Reform Act of 2012 (Public Law 112-95),
Section 306
Introduction

The Federal Aviation Administration (FAA) Modernization and Reform Act of 2012 (Public Law 112-95), Section 306 mandated new reporting requirements for helicopter air ambulance (HAA) operators codified at 49 United States Code § 44731. This provision requires each operator conducting HAA operations 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 flights and hours flown, by registration number, during which helicopters operated by the certificate holder were providing HAA 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, inter-facility 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.
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 is the FAA’s fourth submission to Congress to meet the requirements of Section 306. This report contains a summary of the data collected by the FAA from HAA operators for the period of January 1, 2018 through December 31, 2018.

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 306 are delineated below, with responses for 2018:

(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 2018 was 1,230. Of the 65 reporting operators, 52 operated between one and nine helicopters; 10 operated between 10 and 99 helicopters; and three operated more than 100 helicopters. For operators who provide HAA services from multiple bases, 15 reported base locations of the helicopters in one state only, while 21 reported base locations in multiple states. The only state where certificate holders who provide HAA services did not report a base location of a helicopter was Rhode Island. Two operators reported a HAA base in Puerto Rico, and three operators reported four bases outside the United States. The total of all base locations from which HAA certificate holders operated was 976.
(2) Report the number of flights and hours flown, by registration number, during which helicopters operated by the certificate holder were providing HAA services.

a. For the 65 reporting operators, the number of flights and the hours flown for each helicopter operated in HAA service by certificate holder varied tremendously. For instance, 35 aircraft were reported to have flown between zero and 10 hours in HAA service during 2018, while the highest reported HAA flight time for one aircraft was 1,313 hours. Overall, the operators reported a total of 1,052,412 flights with 457,623 hours flown.

(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, inter-facility transport, organ transport, or ferry or repositioning flight).

a. A summary of the flights accepted or declined for the respective types of requests is delineated in the tables below:

<table>
<thead>
<tr>
<th>Flight Requests Accepted</th>
<th>Flight Requests Declined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scene Response</td>
<td>150,884</td>
</tr>
<tr>
<td>Inter-Facility</td>
<td>247,576</td>
</tr>
<tr>
<td>Organ Transplant</td>
<td>701</td>
</tr>
<tr>
<td>Reposition</td>
<td>9,765</td>
</tr>
<tr>
<td>Ferry</td>
<td>1,459</td>
</tr>
<tr>
<td>Scene Response</td>
<td>110,704</td>
</tr>
<tr>
<td>Inter-Facility</td>
<td>110,317</td>
</tr>
<tr>
<td>Organ Transplant</td>
<td>79</td>
</tr>
<tr>
<td>Reposition</td>
<td>131</td>
</tr>
<tr>
<td>Ferry</td>
<td>11</td>
</tr>
</tbody>
</table>

(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. Six HAA accidents were reported for this period. One of the six accidents resulted in fatalities. A summary of these six 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 2018 was 1.31 per 100,000 flight hours. The fatal accident rate for HAA during 2018 was 0.22 accidents per 100,000 flight hours.

(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. For the 65 reporting operators, 37 reported zero flights and zero hours flown under instrument flight rules. For the remaining 28 operators, there were an average of 1,032 flights and 431 hours flown under instrument flight rules by the certificate holders 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 one hour segment of the day is delineated in the table below:

<table>
<thead>
<tr>
<th>DEPARTING BETWEEN</th>
<th>NUMBER OF FLIGHTS</th>
<th>DEPARTING BETWEEN</th>
<th>NUMBER OF FLIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>00:00 - 00:59</td>
<td>46,741</td>
<td>12:00 - 12:59</td>
<td>42,468</td>
</tr>
<tr>
<td>01:00 - 01:59</td>
<td>42,366</td>
<td>13:00 - 13:59</td>
<td>47,084</td>
</tr>
<tr>
<td>02:00 - 02:59</td>
<td>37,258</td>
<td>14:00 - 14:59</td>
<td>50,950</td>
</tr>
<tr>
<td>03:00 - 03:59</td>
<td>33,650</td>
<td>15:00 - 15:59</td>
<td>55,481</td>
</tr>
<tr>
<td>04:00 - 04:59</td>
<td>28,468</td>
<td>16:00 - 16:59</td>
<td>58,947</td>
</tr>
<tr>
<td>05:00 - 05:59</td>
<td>24,888</td>
<td>17:00 - 17:59</td>
<td>59,925</td>
</tr>
<tr>
<td>06:00 - 06:59</td>
<td>22,868</td>
<td>18:00 - 18:59</td>
<td>59,925</td>
</tr>
<tr>
<td>07:00 - 07:59</td>
<td>24,830</td>
<td>19:00 - 19:59</td>
<td>62,435</td>
</tr>
<tr>
<td>08:00 - 08:59</td>
<td>27,700</td>
<td>20:00 - 20:59</td>
<td>60,503</td>
</tr>
<tr>
<td>09:00 - 09:59</td>
<td>30,349</td>
<td>21:00 - 21:59</td>
<td>57,896</td>
</tr>
<tr>
<td>10:00 - 10:59</td>
<td>34,167</td>
<td>22:00 - 22:59</td>
<td>54,598</td>
</tr>
<tr>
<td>11:00 - 11:59</td>
<td>37,755</td>
<td>23:00 - 23:59</td>
<td>51,160</td>
</tr>
</tbody>
</table>

(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 65 reporting operators cited 706 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

<table>
<thead>
<tr>
<th>Company ID</th>
<th>Number Accidents</th>
<th>Accident Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018HAA007</td>
<td>1 of 3</td>
<td>1/4/2018, Norfolk, Nebraska, 19:00 Central Standard Time (CST) – NXXX, Bell 407. Non-fatal accident. During approach to a hospital helipad, crewmembers felt a slight “shudder” on the helicopter but there was no effect on the controls or flight characteristics. The landing continued without incident. After landing, the tail rotor drive shaft cover was missing. Maintenance personnel did not properly secure the tail rotor drive shaft cover, which resulted in the cover departing the helicopter in flight. Substantial damage occurred to the tail rotor drive shaft. No injuries to the pilot or any of the medical crew.</td>
</tr>
<tr>
<td>2018HAA007</td>
<td>3 of 3</td>
<td>4/26/2018, Hazelhurst, Wisconsin, 22:50 Central Daylight Time (CDT) - NXXX, Eurocopter AS350-B2. Accident with fatalities. Helicopter destroyed by impact with trees and terrain. Pilot and two medical crewmembers fatally injured. Flight was return to base leg from an inter-facility transport to University of Wisconsin Hospital in Madison, Wisconsin. Cause unknown, aircraft was operating normally according to satellite tracking data, then suddenly lost control and descended into terrain just a few miles south of the base.</td>
</tr>
<tr>
<td>2018HAA035</td>
<td>1 of 1</td>
<td>12/24/2018, Strum, Wisconsin, 22:15 CST, NXXX145SM, BK117C2. Non-fatal accident. During the landing phase at an off-airport (scene) location, the tail rotor of N145EC struck the top of a fire truck. The tail rotor sustained immediate damage with varying degrees of aircraft and component damage. A hard landing was executed. No serious injuries were reported.</td>
</tr>
<tr>
<td>2018HAA050</td>
<td>1 of 1</td>
<td>7/3/2018, Chicago, Illinois, 21:23 CDT, NXXX, EC-135 P1. Non-fatal accident. Aircraft experienced an engine fire enroute to a hospital for a patient transport with four persons on board. Pilot-in-Command was able to get the aircraft on the ground, however sustained enough damage from hard landing to be classified as destroyed. Two on board had minor injuries, one on board had major injuries, and the patient did not sustain injuries.</td>
</tr>
<tr>
<td>2018HAA062</td>
<td>1 of 1</td>
<td>9/29/2018, Ski Apache Resort, New Mexico, 14:30 Mountain Daylight Time, NXXX, Eurocopter AS350B2. Non-fatal accident. Pilot began the approach to a scene call at the Ski Apache Resort in New Mexico at an elevation of approximately 9,500 ft. On the low recon, the pilot spotted wires in the approach path and started a go around. The pilot turned the aircraft and started the approach. The approach was faster than normal with a higher than normal rate of decent. Rotor Revolution-Per-Minute began to decay at about 20 feet and the aircraft did not have sufficient power to hover resulting in a hard landing. The aircraft bounced and then slid down an embankment before coming to rest on the skids. Weather was clear with light winds in mountainous terrain. Three persons were onboard the aircraft at the time (one pilot, two medical crew) and there were no fatalities or major injuries. This was the first flight of the day for the pilot and they had flown approximately .5 hrs to reach the location of the scene call.</td>
</tr>
</tbody>
</table>