



University of Michigan
Health System

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Honorable Robert L. Sumwalt
Chairman, Board of Inquiry
National Transportation Safety Board
90 L'Enfant Plaza, SW
Washington, DC 20594

VIA EMAIL: HEMS@ntsb.gov

Dear Chairman Sumwalt,

As a physician who has been directly involved in helicopter EMS for over 20 years, I respectfully offer the following comments and suggestions. As much of the supporting data has already been heard during the hearings, I do not intend to provide all supporting details and documentation, but will upon request.

Put simply, the government's goal must be ensuring that flying in an air medical helicopter is as safe as flying on a commercial jet. As an insider, I will say that that as it operates now, the current industry model is dysfunctional and unnecessarily dangerous. The following statements will undoubtedly raise objections from some, if not all, of the current operators as well as many air medical programs themselves. That does not mean that they should not be seriously entertained.

Dual Pilot Operation

It is surprising to me that there has been minimal discussion regarding the industry's use of a single pilot for the majority of HEMS operations. EMS flights by nature are done at low altitudes and frequently in less than ideal weather conditions. If two pilots are required on commercial jetliners, which fly to and from known airports on predetermined flight paths at altitudes high above radio towers, mountains, and other obstacles, it seems obvious to require two pilots to perform the more dangerous operation of EMS helicopters, which operate at lower and more hazardous altitudes and frequently in marginal weather conditions. There is already precedence for this: Canadian air medical programs have been utilizing two pilots for patient flights and have a significantly better safety record. Anecdotally, at Survival Flight, my own program, we have had three major rotorwing incidents resulting in substantial aircraft damage that I believe would not have occurred had we been using two pilots.

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Stricter Regulation of Community-based programs

The most significant changes within the industry have come about since the changes in Medicare reimbursement and the development of the “community model”. To ensure profitability, these programs minimize costs by flying older, usually single-engine aircraft; employing part-time, less well trained crewmembers rather than full time experienced personnel; and, most significantly, performing as many flights as possible, since a transport is the only way of generating revenue. This volume-driven model results in a direct incentive to fly – regardless of the weather conditions or patient acuity, as pilots and crewmembers know that lack of flights might lead to closure of their base and loss of their job. The pressure to fly is also felt by competitors, who know that if they refuse a flight, a competing program may accept it, getting the patient and the resulting revenue. Anecdotally, in areas where several programs compete, these competitive tactics can result in actions that directly compromise patient care, such as giving inaccurate information regarding aircraft availability, arrival times, and/or capabilities. And although certainly not an issue for the NTSB, these programs usually provide a lower level of medical care than the more traditional ones. Ensuring that states continue to be able to regulate the number of air ambulances is one step that must be taken.

Mandatory Implementation of Existing Technologies

As the NTSB has already recommended, terrain awareness and warning systems must be installed and utilized. Additionally, mandatory use of night vision goggles (not just night vision enhancement) should be implemented.

There is no doubt that these ideas will generate a controversy within the industry, and will be strongly and vigorously opposed by those who put profit over patient care. If adopted, the resulting expense of implementation would force the consolidation and regionalization of many programs. This would decrease the number of unnecessary air transports (which, despite claims to the contrary, is still a significant number), and the competitive pressure felt to complete every possible transport would be greatly reduced. Health care costs, although not an issue for the NTSB, would decrease as well.

Critics will say that hard evidence to support these recommendations is lacking. However, the dismal safety record speaks for itself. Those of us who administer these programs have a responsibility to ensure that the patients and staff who fly in our aircraft do so at minimal risk. Although nothing can completely eliminate that risk, neither cost nor absence of “hard evidence” should be a barrier in minimizing it. The lives of our

patients and the dedicated men and women in air medical transport depend on it.

In the interest of the safety of our patients and crew, University of Michigan Survival Flight is considering the adoption of all of the above as we look to replace our aircraft in the near future.

Thank you for the opportunity to comment. Please feel free to contact me should you wish to discuss this further.

Respectfully,



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