



# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

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**Date:** June 9, 2010

**In reply refer to:** A-10-102 through -104

Mr. Rol Murrow  
Chairman  
The Air Care Alliance  
2060 State Highway 595  
Lindrith, New Mexico 87029

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The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating transportation accidents, determining their probable cause, and making recommendations to prevent similar accidents from occurring. We are providing the following information to urge The Air Care Alliance (ACA) to take action on the safety recommendations in this letter. The NTSB is vitally interested in these recommendations because they are designed to prevent accidents and save lives.

These recommendations address verification of pilot currency; passenger awareness of operating standards; and the need for dissemination of safety guidance, information about best practices, and training material for pilots and organizations providing charitable medical transport flights. These recommendations are derived from the NTSB's investigations of four accidents that killed eight people and seriously injured two between September 26, 2007, and August 12, 2008; each involved flights providing charitable medical transportation. These recommendations are supported by the evidence collected and the analysis performed during each investigation; supporting information is discussed below. The NTSB would appreciate an initial response from you within 90 days addressing the actions you have taken or intend to take to implement our recommendations.

### Background

On August 12, 2008, a Beech G35, operating as a 14 *Code of Federal Regulations* (CFR) Part 91 charitable medical flight, descended uncontrolled and crashed into a shopping plaza parking lot in South Easton, Massachusetts.<sup>1</sup> The flight had been arranged by Angel Flight Northeast, a member of ACA. The 65-year-old volunteer pilot and the two passengers, a cancer

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<sup>1</sup> Additional information about this accident, MIA08FA163, can be found on the NTSB's website at <<http://ntsb.gov/ntsb/query.asp>>.

patient and his wife, were killed. Radar data and communications records show that the pilot failed to intercept the localizer on his initial approach to the airport and was receiving vectors from the controller to re-intercept the localizer when the flight was lost from radar. The instrument-rated pilot had not logged actual or simulated instrument flight time between August 4, 2006, and February 3, 2008,<sup>2</sup> and there was no record that he had completed an instrument proficiency check. The NTSB determined that the probable cause of this accident was the pilot's failure to maintain control of the airplane while attempting to execute an instrument approach in instrument meteorological conditions. Contributing to the accident was the pilot's lack of instrument currency.

On July 17, 2008, a Beech A36, operating as a 14 CFR Part 91 charitable medical flight, crashed after colliding with an airport glideslope antenna during takeoff from Tampa Executive Airport, Tampa, Florida.<sup>3</sup> The flight had been arranged by ACA member Mercy Flight Southeast, Inc., to transport a cancer patient for medical treatment. The 81-year-old volunteer private pilot, the cancer patient, and a family friend accompanying her were killed. The NTSB determined that the probable cause of this accident was the pilot's improper decision to take off with a tailwind and his failure to maintain runway alignment during initial takeoff climb.

On June 3, 2008, a Socata TBM 700, operating as a 14 CFR Part 91 charitable medical flight, crashed during initial climbout from Iowa City Municipal Airport, Iowa City, Iowa.<sup>4</sup> The flight was arranged by ACA member Angel Flight Central, Inc., to transport a child who needed medical treatment and her mother. The child died in the crash; the mother and the 57-year-old volunteer private pilot were seriously injured. The NTSB determined that the probable cause of this accident was the pilot's improper decision to depart with a preexisting tailwind and failure to abort the takeoff.

On September 26, 2007, a Piper PA-32R-301T, operating as a 14 CFR Part 91 flight, descended uncontrolled and crashed in Defiance, Ohio.<sup>5</sup> The 57-year-old pilot, an Angel Flight Central, Inc., volunteer, was killed; he was en route to pick up a patient to transport him to a medical facility. The NTSB determined that the probable cause of this accident was the pilot's spatial disorientation when he encountered convective turbulence, which resulted in a loss of control.

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<sup>2</sup> The pilot conducted an instrument approach on February 3, 2008, and 5 instrument approaches on June 23, 2008, even though he had not received an instrument proficiency check, as required. Between January 1, 2004, and July 28, 2008 (the last flight before the accident), the pilot only logged 12.8 hours of actual instrument flight time and had conducted 16 instrument approaches.

<sup>3</sup> Additional information about this accident, MIA08FA144, can be found on the NTSB's website at <<http://ntsb.gov/ntsb/query.asp>>.

<sup>4</sup> Additional information about this accident, CHI08FA150, can be found on the NTSB's website at <<http://www.nts.gov/ntsb/query.asp>>.

<sup>5</sup> Additional information about this accident, CHI07FA305, can be found on the NTSB's website at <<http://ntsb.gov/ntsb/query.asp>>.

## Discussion

In Part 91 operations, the pilot is solely responsible for evaluating his own level of proficiency, determining if the flight can be safely conducted, and ensuring he is operating an airworthy airplane; the Federal Aviation Administration (FAA) provides no oversight of Part 91 operations. However, each of the four pilots in these accidents failed to fully accomplish these tasks: two pilots failed to properly evaluate the winds when selecting a departure runway and did not maintain directional control of the airplane; one pilot became spatially disoriented in convective turbulence; and the other pilot had difficulties performing an instrument approach and was not current for instrument flight. In these accidents, the pilots demonstrated shortcomings in sound aeronautical decision-making by failing to adequately assess the weather and their inability to operate the airplane in those conditions. The NTSB is concerned that these pilots did not provide the passengers with the basic level of safety that passengers in these circumstances have a right to expect. Furthermore, the voluntary pilot organization arranging or fostering the flights made no attempt to verify the pilots' currency. Because each of these flights was operated under Part 91, the passengers on board received only the level of safety that the individual pilot provided to them; no additional oversight, training, verification, or guidance was provided to these pilots beyond the basic Part 91 requirements imposed on the pilots themselves.

In the South Easton, Massachusetts, flight, the pilot flew into instrument meteorological conditions, even though he had not logged actual or simulated instrument flight time between August 4, 2006, and February 3, 2008, and there was no record that he had completed an instrument proficiency check within the 12 months immediately preceding the accident flight. Thus, he was not current for conducting the flight in such conditions. There is no evidence that Angel Flight Northeast checked the pilot's qualifications before the flight. The NTSB concludes that the pilot's lack of currency in conducting the flight in instrument conditions placed the passengers at higher risk for an accident. Therefore, the NTSB recommends that ACA require voluntary pilot organizations to verify pilot currency before every flight.

The typical patient seeking a charitable medical flight is not likely aware of the significant differences in pilot training, pilot qualifications, or FAA oversight for a charitable medical flight operated under Part 91 compared to commercial flights operated under 14 CFR Parts 121 or 135. The NTSB is concerned that members of the public who accept charitable medical flights likely have no meaningful awareness of the resulting increased potential for exposure to the risks that may be associated with these flights. In most instances, passengers flying on such charitable medical flights are unaware of the pilot's experience level or the airworthiness of the aircraft. The NTSB concludes that a more meaningful awareness of the less rigorous oversight provided for such Part 91 charitable medical flights would provide passengers with a basis for making an informed decision about the standards of safety that apply to these operations before accepting the flight. The NTSB recommends that ACA require that voluntary pilot organizations inform passengers, at the time of inquiry about a flight, that the charitable medical flight would not be conducted under the same standards that apply to a commercial flight (such as under Part 121 or Part 135).

Although many of the volunteer pilots who provide charitable medical transportation are highly skilled, proficient in operating their aircraft, and prepared to execute an appropriate response to changing flight conditions or emergencies, others may not be. The NTSB is

concerned that the pilots flying charitable medical flights receive no guidance, additional training, or oversight regarding aeronautical decision-making, proper preflight planning, or the risk of self-induced pressure. Since the failures in aeronautical decision-making and improper preflight planning were major factors in the accidents reviewed, it is evident that stronger guidance, training, or oversight that ensures pilot and aircraft safety is needed for the volunteer pilots who provide charitable medical flights.

The NTSB notes that the pilots in these accidents were experienced and likely should have been aware of the risks associated with taking off with excessive tail or crosswinds or flying into deteriorating weather. Although the NTSB could not determine why these experienced pilots made the inappropriate decisions that led to the accidents, the pilots may have been subject to self-induced pressure to start or complete the flight because of their passengers' serious medical conditions. The NTSB's study of helicopter emergency medical services (HEMS) accidents<sup>6</sup> cited time pressures as a risk factor in HEMS flights, and a similar risk can exist for charitable medical flights: the desire to get a patient to medical treatment quickly. The NTSB believes that if pilots are consciously aware of the self-induced pressure associated with charitable medical flights and have mechanisms for appropriately dealing with this pressure, the risk associated with these flights can be reduced.

A review of the pilot requirements for some ACA members revealed that the organizations differed widely in the minimum standards for volunteer pilots who participate in charitable medical flights and most require only basic pilot and airplane documentation before assigning patient flights, sometimes without actually meeting the volunteer pilot. In addition, most of the organizations do not provide the volunteer pilots with guidance or training materials on such topics as aeronautical decision-making, preflight planning, and techniques for avoiding self-imposed time pressures that may result in poor decisions. The NTSB concludes that guidance and training on aeronautical decision-making and best practices would make the volunteer pilots more aware of aeronautical risks and how to address them, thus improving the level of safety that volunteer pilots who operate charitable medical transport flights provide to their passengers. Therefore, the NTSB recommends that ACA, in conjunction with its affiliate organizations and other charitable medical transport organizations, develop, disseminate, and require all voluntary pilot organizations to implement written safety guidance, best practices, and training material for volunteer pilots who operate charitable patient transport flights under 14 CFR Part 91. The information should address, at a minimum, aeronautical decision-making; proper preflight planning; pilot qualification, training, and currency; and self-induced pressure.

Therefore, the National Transportation Safety Board recommends that The Air Care Alliance:

Require voluntary pilot organizations to verify pilot currency before every flight.  
(A-10-102)

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<sup>6</sup> National Transportation Safety Board, *Commercial Emergency Medical Service Helicopter Operations*, Safety Study NTSB/SS-88-01 (Washington, DC: NTSB, 1988).

Require that voluntary pilot organizations inform passengers, at the time of inquiry about a flight, that the charitable medical flight would not be conducted under the same standards that apply to a commercial flight (such as under 14 *Code of Federal Regulations* Part 121 or Part 135). (A-10-103)

In conjunction with your affiliate organizations and other charitable medical transport organizations, develop, disseminate, and require all voluntary pilot organizations to implement written safety guidance, best practices, and training material for volunteer pilots who operate charitable patient transport flights under 14 *Code of Federal Regulations* Part 91. The information should address, at a minimum, aeronautical decision-making; proper preflight planning; pilot qualification, training, and currency; and self-induced pressure. (A-10-104)

In response to the recommendations in this letter, please refer to Safety Recommendations A-10-102 through -104. If you would like to submit your response electronically rather than in hard copy, you may send it to the following e-mail address: [correspondence@ntsb.gov](mailto:correspondence@ntsb.gov). If your response includes attachments that exceed 5 megabytes, please e-mail us asking for instructions on how to use our secure mailbox. To avoid confusion, please use only one method of submission (that is, do not submit both an electronic copy and a hard copy of the same response letter).

Chairman HERSMAN, Vice Chairman HART, and Member SUMWALT concurred with these recommendations.

*[Original Signed]*

By: Deborah A.P. Hersman  
Chairman