U.S. Department
of Transportation
**Federal Aviation
Administration**

Idaho EMS
Received by Central Office
AUG 14 2006

800 Independence Ave., SW.
Washington, DC 20591

AUG 19 2006

Ms. Dia Gainor
EMS Bureau Chief
ID Emergency Medical Services
590 W Washing ton Street
Boise, ID 83720

Dear Ms. Gainor:

We are writing you today in order to solicit your State's support in reducing the number of accidents with air medical aircraft. Emergency medical service (EMS) operations provide a unique and vital public service. There are currently more than 700 helicopters used nationwide in commercial air medical operations and approximately 100 fixed wing services that are dedicated to transporting patients. Of particular interest is the rapid growth in the numbers of helicopters used in EMS operations and the influence of that growth on safety and on Federal Aviation Administration (FAA) oversight methods. A graphical representation of the helicopter EMS (HEMS) operations across the United States is enclosed as Enclosure 1 and accessible at: *http://www.adamsairmed.org.*

The number of HEMS accidents has risen dramatically in recent years. As a result, in August 2004, the FAA initiated a new government and industry partnership to improve the safety culture in HEMS organizations and recommended short and long-term strategies for reducing accidents. While the FAA has not ruled out proposing new or changing existing rules, the agency has promoted significant short-term safety gains that do not require rulemaking. For a detailed listing of the FAA's actions, please see Enclosure 2, "*FAA Fact Sheet.*"

While the FAA retains responsibility for aviation safety, many States have developed standards for air ambulances in order to ensure public health and service requirements are met by air ambulance service providers. The FAA understands that each State exercises its responsibilities concerning the licensing of air ambulances differently, including some States that do not license air ambulances at all. Some States license air ambulances in the same manner as ground ambulances, and some apply specific air ambulance requirements.

Associations and organizations exist within the air medical community that serves providers of air medical transport systems by encouraging and supporting their members in maintaining a standard and a safety culture that exceed the Federal minimums for operations. Two of the organizations that State EMS directors have as resources are the Association of Air Medical Services (AAMS) (*http://www.aams.org)* and Commission on Accreditation of Medical Transport Services (CAMTS) (*http://www.camts.org)*. The FAA has encouraged operators to adopt such standards to reinforce a safety culture in the air

medical services industry. We encourage you to visit the Web sites of both AAMS and CAMTS to provide you with assistance and additional information on their operational standards and points of contact within their organizations.

An analysis of HEMS fatal accidents reveals a dangerous operational practice known as "helicopter shopping." "Helicopter shopping" refers to the practice of calling, in sequence, various operators until an operator agrees to take a flight assignment, without sharing with subsequent operators the reasons the flight was declined by the previously called operators. For example, a local 911 dispatch center might call an air ambulance operator for a transport, and the operator turns the flight down for some reason, e.g., weather conditions are not favorable for flight, aircraft capabilities, aircraft maintenance issues, etc. Subsequent calls are made to other operators, each made without mentioning the previous refusals until an operator, unaware of the complete situation, agrees to accept the flight assignment. This practice can lead to an unsafe condition in which an operator initiates a flight that it would have declined if it had been aware of all of the facts surrounding the assignment.

We believe it is imperative that full disclosure of previous operators' responses to requests for patient transfer be passed on to the subsequent operators for use in the operator's risk management evaluation, particularly if an original flight request was denied due to weather. Accordingly, we are asking you to promote full disclosure of the reasons for refusal of an EMS flight assignment by one or more operators when contacting subsequent operators with a flight request. For your convenience, we have enclosed (Enclosure 3) a sample memo from your office to EMS dispatch operations within your State. We would greatly appreciate your consideration of establishing a standard for EMS dispatch in your State which prohibits "helicopter shopping."

EMS is one form of commercial transportation where the customer (patient) does not have the "choice" with whom he/she travels. It is our obligation, as guardians of the public trust, to ensure we provide the safest possible transportation system. The FAA is seeking your cooperation and participation in achieving this noble goal.

Your role in improving aviation safety is critical to reducing the number aviation-related EMS accidents. Thank you for your time and consideration on this matter of high public interest.

If more assistance is needed, please feel free to contact me or my staff in the Air Transportation Division at telephone (202) 267-8166.

Sincerely,

James J. Ballough

James J. Ballough
Director, Flight Standards Service

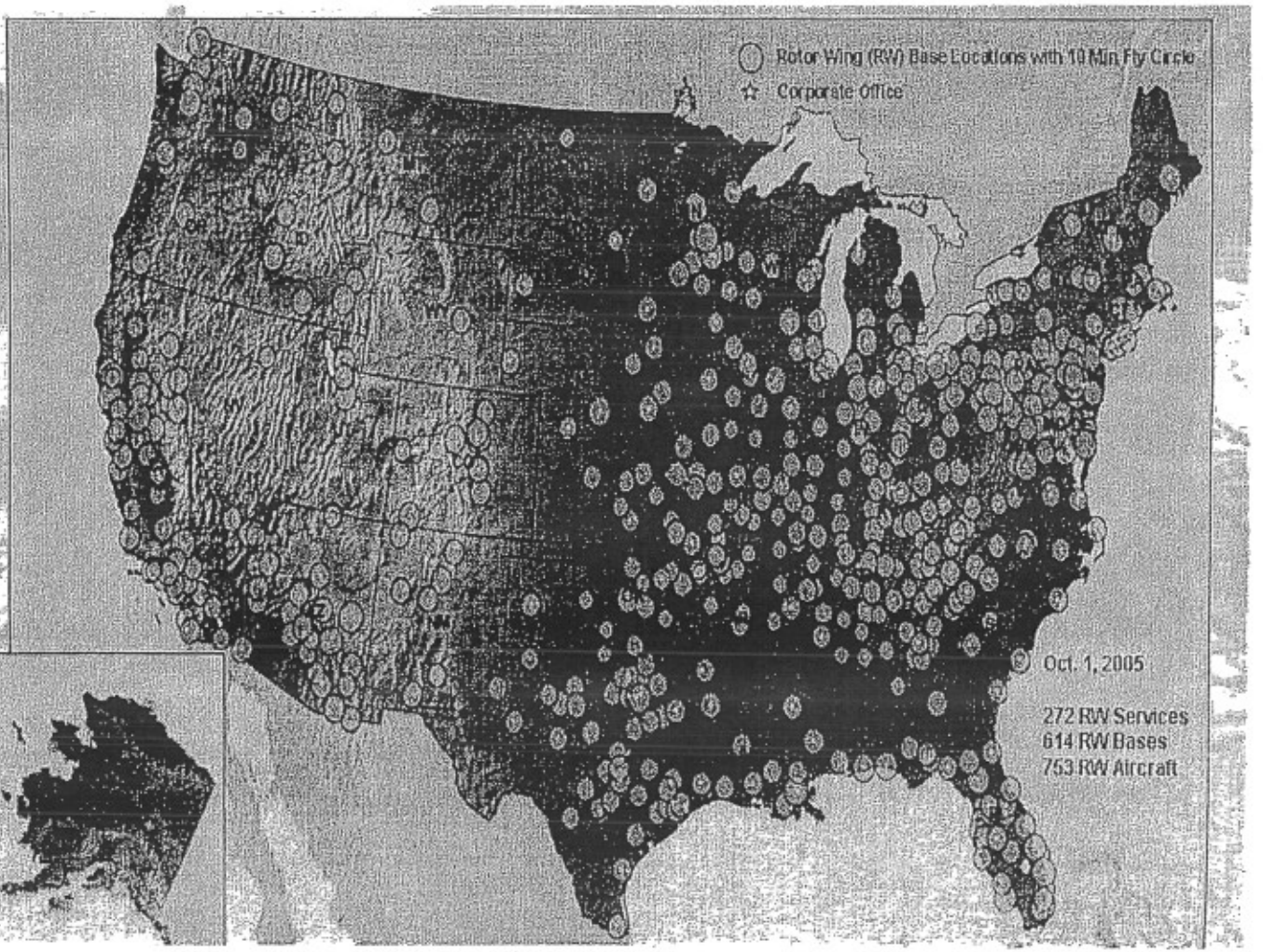
Enclosures

Enclosure 1

Atlas & Database of Air Medical Services

Third Edition National Air Medical Services GIS Database

ADAMS 2005



Enclosure 2

FAA News

Federal Aviation Administration, Washington, DC 20591

Date: Updated July 2006
Contact: Alison Duquette
Phone: 202-267-3883

Fact Sheet
EMS Helicopter Safety

Helicopter Emergency Medical Service (HEMS) operations are unique due to the emergency nature of the mission. In August 2004, the FAA initiated a new government and industry partnership to improve the safety culture at HEMS operators and recommend short-and long-term strategies for reducing accidents. While the FAA has not ruled out proposing new or changing existing rules, the agency has prompted significant short-term safety gains that do not require rulemaking. The FAA's immediate focus is:

- Encourage risk management training to flight crews so that they can make more analytical decisions about whether to launch on a mission.
- Better training for night operations and responding to inadvertent flight into deteriorating weather conditions.
- Promote technology such as night vision goggles, terrain awareness and warning systems and radar altimeters.
- Provide airline-type FAA oversight for operators. Identify regional FAA HEMS operations and maintenance inspectors to help certificate new operators and review the operations of existing companies.

Background

There are approx. 650 emergency medical service helicopters operating today, most of which operate under Part 135 rules. HEMS operators may ferry or reposition helicopters (without passengers/patients) under Part 91.

The number of accidents nearly doubled between the mid-1990s and the HEMS industry's rapid growth period from 2000 to 2004. There were nine accidents in 1998, compared with 15 in 2004. There were a total of 83 accidents from 1998 through mid-2004. The main causes were controlled flight into terrain (CFIT), inadvertent operation

into instrument meteorological conditions and pilot spatial disorientation/lack of situational awareness in night operations. Safety improvements are needed.

FAA Oversight

The FAA inspects HEMS operators, but is prompting changes beyond inspection and surveillance. Rather, the FAA is moving to a risk-based system that includes the initiatives outlined below which focus on the leading causes of the HEMS accidents.

FAA Actions

- In August 2004, the FAA established a task force to review and guide government and industry efforts to reduce HEMS accidents.

- On January 14, 2005, the FAA hosted a meeting with HEMS industry representatives to discuss safety issues and gain feedback. Representatives from the Association of Air Medical Services, Helicopter Association International, the National EMS Pilots Association and several operators attended.

- On January 28, 2005, the FAA published a notice providing guidance for safety inspectors to help operators review pilot and mechanic decision-making skills, procedural adherence, and crew resource management practices. It includes both FAA and industry intervention strategies (Notice 8000.293 Helicopter Emergency Medical Service Operations).

- On August 1, 2005, the FAA issued guidance to inspectors promoting improved risk assessment and risk management tools and training to all flight crews, including medical staff (Notice 8000.301 Operational Risk Assessment Programs for Helicopter Emergency Medical Services).

- On September 22, 2005, the FAA issued guidance to HEMS operators establishing minimum guidelines for Air Medical Resource Management (AMRM) training. The training focuses on pilots, maintenance technicians, flight nurses, flight paramedics, flight physicians, medical directors, specialty team members (such as neonatal teams), communications specialists (dispatchers), program managers, maintenance staff, operational managers, support staff, and any other air medical team members identified by specific needs (AC No. 00-64 Air Medical Resource Management).

- On September 27, 2005, the FAA issued a notice to inspectors providing guidance for special emphasis inspection programs (Notice 8000.307 Special Emphasis Inspection Program for Helicopter Emergency Services). During summer 2005, FAA safety inspectors met with EMS operators to review their Operations Specifications (OpSpecs) for EMS VFR weather minima.

- On September 27, 2005, the FAA issued revised standards for inspection and surveillance of HEMS operators, with special emphasis on operations control, risk

assessment, facilities and training, especially at outer locations away from the certificate holder's principal base of operations (Notice 8000.317, Operator Training Provided by Part 142 Training Centers for Helicopter Emergency Medical Services).

- In December 2005, the FAA's Flight Standards Service's Air Transportation Division established the new Commuter, On Demand, and Training Center Branch (AFS-250) to work Part 135 and Part 142 policy issues. The branch is staffed by a manager and five specialists. Of those six inspectors, four are helicopter-qualified.

- On January 24, 2006 the FAA issued a handbook bulletin to inspectors describing acceptable models for CFIT Avoidance and Loss of Control (LOC) Avoidance Programs. The bulletin provides inspectors with information to provide to HEMS operators for developing LOC/CFIT accident avoidance programs and clarifies existing guidance (HBAT 06-02 Helicopter Emergency Medical services (HEMS) Loss of Control (LOC) and Controlled Flight Into Terrain (CFIT) Accident Avoidance Programs).

- On January 24, 2006 the FAA issued revised guidance to inspectors regarding HEMS OpSpecs, amending the Visual Flight Rule (VFR) weather requirements for HEMS operations, including consideration of the adverse affects of reduced ambient lighting at night and mountainous terrain (HBAT 06-01 Helicopter Emergency Services; OpSpec A021/A002 Revisions).

- On February 24, 2006, the FAA issued a Notice to Training Center Program Managers assigned to oversee Part 142 training Centers advising them of recent changes to HEMS operations and training standards (Notice 8000.317, Operator Training Provided by Part 142 Training Centers for Helicopter Emergency Medical Services.)

- On March 2, 2006, the FAA issued guidance to inspectors on the surveillance and oversight of public aircraft operators for HEMS operations (Notice 8000.318 Public Helicopter Emergency Medical Services (HEMS) Operations).

- On June 27, 2006, at the FAA's request, RTCA, Inc. established a Special Committee to develop Helicopter Terrain Awareness and Warning System (H-TAWS) standards. These standards will be used to develop FAA requirements for H-TAWS systems, installation and operations.

- In August 2006, the FAA will revise the Aeronautical Information manual (AIM) providing guidance for pilots on assessing ambient lighting for night visual flight rule (VFR) operations and for off-airport/heliport landing zone operations.

- The FAA is currently reviewing the 140 recommendations made by the Part 135/125 Aviation Rulemaking Committee, many of which pertain to HEMS operations and training.

- The helicopter industry has formed the International Helicopter Safety Team (IHST) to gather data and draft strategies to reduce helicopter accidents globally by 80 percent by 2015. The effort is modeled on the Commercial Aviation Safety Team (CAST) which has achieved a significant reduction in the commercial fatal accident rate in the United States. Members include the FAA, European Aviation Safety Agency (EASA), Transport Canada, the International Civil Aviation Organization (ICAO), and industry representatives.

- The FAA's Flight Standards Service has a task group focusing on the certification and surveillance requirements for large HEMS operators that support diverse medical programs throughout the United States.

Weather

On March 21-23, 2006, the FAA in cooperation with the University Corporation for Atmospheric Research hosted a government/industry HEMS Weather Summit in Boulder, Colorado. The summit's goal was to identify the HEMS-specific issues related to weather products and services. Attendees explored possible regulatory improvements, weather product enhancements, and operational fixes specific to HEMS operations. Attendees included the National Weather Service, National Center for Atmospheric Research, Helicopter Association International, American Helicopter Society International, Association of Air Medical Services, National EMS Pilots Association, National Association of Air Medical Communications Specialists, manufacturers, and many operators. As a result, the FAA is funding NCAR to develop and implement a graphical flight planning tool for ceiling and visibility assessment along direct flights in areas with limited available surface observations capability. This may improve the quality of go/no-go decisions. The tool should be available in October 2006, prior to the winter season.

Night Vision Goggles

The FAA has a solid record of facilitating safety improvements as well as new technologies for EMS helicopters, including certification of Night Vision Goggles (NVGs). Since 1994, the FAA has worked 28 projects or design approvals called Supplemental Type Certificates (STCs) for installation of NVGs on helicopters. This number includes EMS, law enforcement and other types of helicopter operations .Of the 28 projects, the FAA has approved approx. 15 NVGs for EMS helicopters. The FAA initiated and wrote (in coordination with RTCA) the minimum standards for NVGs/cockpit lighting. Technical Standard Order (TSO) C164 was published on September 30, 2004 referencing RTCA document DO 275 Minimum Operational Performance Standards (MOPS), published October 12, 2001. The FAA has hosted workshops to help applicants work with the FAA to obtain NVG certification. One set of NVGs costs approx. $7,000 and an operator must carry multiple sets per flight.

Certification is just one step. The operator must also have an FAA-approved training program for using NVGs.

The FAA is revising the NVG guidance in the Air Transportation Operations Inspectors Handbook, Order 8400.10. Produced using considerable industry input, the revision included the establishment of a cadre of NVG national resource inspectors.

Flight Data Recorders

Flight Data Recorders (FDRs) are not required for HEMS operations. FDRs offer value in any accident investigation by providing information on aircraft system status, flight path and attitude. The weight and cost of FDR systems are factors. Research and development is required to determine the appropriate standards for FDR data and survivability in the helicopter environment, which typically involves substantially lower speeds and altitudes than airplanes. Funds are currently best invested in preventive training.

However, the FAA is studying alternatives to expensive and heavy airliner-style FDRs, especially in light of the relatively low-impact forces in most helicopter accidents. By establishing a standard appropriate to the helicopter flight envelope, the FAA may be able to make meaningful future FDR rulemaking efforts.

Terrain Awareness Warning Systems

The FAA supports the voluntary implementation of Terrain Awareness Warning Systems (TAWS) and did consider the possibility of including rotorcraft in the TAWS rulemaking process. Through this process, however, the FAA concluded that there are a number of issues unique to VFR helicopter operations that must be resolved before the FAA considers mandating the use of TAWS in this area, such as modification of the standards used for these systems. For example, helicopters typically operate at lower altitudes so TAWS could potentially generate false alerts and "nuisance" warnings that could negatively impact the crew's response to a valid alert. TAWS application to HEMS would require study of TAWS interoperability within the lower altitude HEMS environment, and possibly a modification of TAWS system standards.

At the FAA's request, RTCA, Inc. has established a Special Committee to develop H-TAWS standards for use in future FAA rulemaking projects.

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Enclosure 3

From: State EMS Director
To: EMS and 911 Dispatch Coordinators

Subject: "Helicopter Shopping"

Background:

It has come to the attention of this office that the Federal Aviation Administration (FAA) has identified "helicopter shopping" as a contributing factor in several fatal helicopter EMS (HEMS) accidents.

"Helicopter shopping" refers to the practice of calling, in sequence, various operators until an operator agrees to take a flight assignment, without sharing with subsequent operators the reasons the flight was declined by the previously called operators.

For example, an EMS dispatch center might call an air ambulance operator for a transport, and the operator turns the flight down for some reason, e.g. weather conditions are not favorable for flight, aircraft capabilities, aircraft maintenance issues, etc. Subsequent calls are made to other operators, each made without mentioning the previous refusals until an operator, unaware of the reasons for the previous refusals, and therefore, unaware of the complete situation, agrees to accept the flight assignment.

The practice of "helicopter shopping" can lead to an unsafe condition in which an operator initiates a flight that they would have declined if they had been aware of all of the facts surrounding the assignment, as was the case in several fatal HEMS accidents.

Discussion:

It is recognized that the refusal of one operator may indeed have nothing to do with another operator's determination to accept or refuse an assignment. For example, one operator may not be able to accept an assignment because of a mechanical problem on the aircraft which grounds it, or limits its use (such as a lighting failure prohibiting night operations). Also, certain operators may not be able to accept a particular assignment due to local weather conditions, while subsequently called operators may be able to complete the assignment without encountering those weather conditions, due to their geographic location.

However, only the entity capable of determining whether a previously called operator's refusal has any bearing on accepting a flight assignment is the operator which is currently receiving the request. Therefore, even when the dispatcher

believes an operator's refusal is based on an operator-specific consideration, the reason for the refusal should be known to the subsequently called operator(s).

Action:

This office is requesting that your dispatch center develop a procedure that ensures that, after an EMS operator has refused a flight assignment, subsequently called operators are made aware of the circumstances surrounding the first (or subsequent) operator's refusal(s). This will ensure that the best decisions are made at the operator level, and that only flight assignments that can be conducted safely will be accepted.

Rather than have the dispatcher attempt to determine if the reason(s) for refusal are material to subsequently called operators, EMS dispatchers should pass along the reason(s) for refusal in all subsequent requests to operators for the affected flight request.

Thank you for your prompt consideration of this matter.

/s/
State EMS Director