Docket No. SA-530

Exhibit No. 9-I

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

FAA NOTICE 8000.293 – HEMS Operations

(5 Pages)

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8000.293

1/28/05

Cancellation
Date: 1/28/06

INCORPORATE INTO 8000.1

SUBJ: HELICOPTER EMERGENCY MEDICAL SERVICES OPERATIONS

1. PURPOSE. This notice, which was developed in close coordination with the Helicopter Emergency medical Services (HEMS) industry, provides guidance for principal inspectors (PI) in all specialties regarding HEMS operators for whom they have oversight responsibilities. This notice also contains information which PIs can provide to HEMS operators for a review of pilot and mechanic decisionmaking skills, procedural adherence, and crew resource management (CRM).

2. DISTRIBUTION. Hard copy of this notice is distributed to the division level in the Flight Standards Service in Washington headquarters; to the branch level in the regional Flight Standards divisions; to the Flight Standards District Offices, and to the Regulatory Standards Division at the Mike Monroney Aeronautical Center. This notice is also distributed electronically to the division level in the Flight Standards Service in Washington headquarters and to all regional Flight Standards divisions and district offices. This information is available to the public at no charge at the Federal Aviation Administration's (FAA) Web site at: http://www.faa.gov/avr/afs/notices/8000/N8000-293.doc.

3. BACKGROUND.

a. Introduction. The HEMS role is a very demanding and time critical-/mission-orientated operation. One consistent priority that must be addressed by each individual EMS organization is the safety of their flightcrew, medical staff, and passengers. The safety of these persons must be a priority. Preventing accidents is the responsibility of everyone involved in HEMS operations. Reducing accidents takes the dedicated involvement of all the aviation and medical professionals involved.

b. Soft Skills. "Soft skills" often refers to proficiencies that go beyond technical knowledge and psychomotor skills necessary to operate a helicopter. Soft skills are often the first line of defense – and sometimes the last – against accidents caused by lapses in human performance. Soft skills include adherence to standard operating procedures, decisionmaking, judgment, air medical resource management (AMRM) (similar to CRM), and professionalism. These skills are not easily or quickly conveyed in training programs but are developed through the continuing commitment of corporate managers, trainers, pilots, mechanics, and medical staff.

Distribution: A-W(FS)-2; A-X(FS)-3; A-FFS-7 (LTD); AMA-200 (80 cys)
(Electronically: A-W(FS)-2; A-X(FS)-2; A-FFS-7)
Initiated By: AFS-200

c. Preliminary Review. A preliminary review of the commercial HEMS accidents from January 1998 through December 2004 reveals that CONTROLLED FLIGHT INTO TERRAIN (CFIT), NIGHT OPERATIONS, AND INADVERTENT FLIGHT INTO INSTRUMENT METEOROLOGICAL CONDITIONS (IMC) are predominant factors. Of the 27 fatal HEMS accidents, 21 occurred during night operations. Of the 21 night accidents, 16 of the operations originated under visual flight rules (VFR) and inadvertently flew into IMC conditions resulting in CFIT. In addition, approximately 13 accidents during this timeframe were attributed to maintenance. See the table below.

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Total Number of HEMS Accidents ('98-'04)	**85**
Fatal HEMS Accidents (all)	**27**
Day Operations	**06**
Night Operations	**21**

In 16 of the 27 fatal accidents, VFR into IMC and CFIT are listed as contributing factors by the NTSB.
This data derived from NTSB accident investigation reports and does not include accidents from the public sector.

d. Course of Action. The FAA plans to continue surveillance and inspection oversight. In cooperation with air medical industry the FAA will help develop strategies, such as risk management tools and system safety approaches, to reduce the number of accidents. Operators can make an immediate difference by reviewing their human performance issues, and aggressively implementing measures to enhance human performance in air medical operations. Those measures begin with a strong corporate safety culture that carries through to flight operations and training. There must be an unwavering commitment of every individual involved.

4. INTERVENTION STRATEGIES.

a. FAA Actions. Because of rapid growth of the HEMS industry in recent years and an unacceptable rise in the number of accidents, more emphasis and cooperation between the FAA and the HEMS industry is required.

(1) Certificate Holding District Offices (CHDO) will meet with their assigned HEMS operators to determine the location of all operating bases and geographic areas of operations. Principals will review and update Vital Information Subsystem (VIS) environmentals as required.

(2) If a CHDO determines that its HEMS operator has operating bases and/or geographical areas of operations outside its boundaries, the CHDO will notify other affected CHDOs of the operator's name (to include dba), location(s) of base(s), geographical areas of operation, and points of contact. The CHDO should also determine if the other affected CHDOs have assigned geographic inspectors to the HEMS operator and determine who these inspectors are. These actions will be completed prior to March 18, 2005.

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(3) Determine, with the HEMS operator, if its operations specifications are consistent with Order 8400.10, Air Transportation Operations Inspector's Handbook, volume 4, chapter 5, paragraphs 1335, 1337,1339, and 1343.

b. Operator Initiatives. These are voluntary initiatives which PIs shall encourage HEMS operators to undertake to help in mitigating accident risk factors. (FAA resources are listed below. There may be industry organizations that have similar resources available to operators.)

(1) Determine if pilot training includes inadvertent IMC and night cross-country for their specific area of operation (i.e., mountainous or flat areas). Operators are encouraged to develop action plans to deal with inadvertent IMC for their local flying areas.

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(2) Review FAA-H-8083-21, Rotorcraft Flying Handbook, Chapter 14, Aeronautical Decision Making, to see if your policies, procedures, and training programs reflect the principles in the handbook. The handbook is available at the following Web site: http://av-info.faa.gov/data/traininghandbook/faa-h-8083-21.pdf.

(3) Emphasize a safety culture within your HEMS organization that applies basic system safety attributes and risk management techniques to your operation. Apply safety attributes or risk management/assessment strategies to each flight. Information on System Safety and Risk Management can be found at the FAA Office of System Safety Web site: http://www.asy.faa.gov/Risk/

(4) Consider incorporation of realistic night flight training such as Line Oriented Flight Training (LOFT), provide operating experience for new crewmembers, and consider conducting line checks under operating conditions.

(5) Emphasize the use of a radar altimeter for night operations.

(6) Consider using enhanced vision systems and a Terrain Awareness Warning System (TAWS) for night operations when conditions and mission dictate.

(7) Consider the incorporation of an FAA-approved night vision goggle or enhanced vision system into your flight program. HBAT-04-02, TSO C-164 and AC29-2C Chapter 3 Miscellaneous Guidance.

(8) Consider a review of weather minimums particularly at night for each operational area, focusing on minimums specific to the terrain of the intended operational area. If necessary, increase weather minimums to enhance safety.

(9) Ensure pilots are aware of the importance of receiving a current weather briefing at the time of mission launch.

(10) Consider using an operations risk assessment tool to include dual decisionmaking for authorization to accept or continue a flight assignment (i.e., two or more persons' permission required).

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(11) Determine that operational control (flight locating) procedures are current and applicable for each base of operation (see Title 14 of the Code of Federal Regulations (14 CFR) part 135, sections 135.23(l) and 135.79).

(12) Make pilot compartment, to the extent possible, free of glare and reflections. Ambient light may have been a factor in some of the night accidents (see 14 CFR part 27, sections 27.773 and 29.773).

(13) Operators should review pilot and mechanic shift schedules and fatigue management programs.

5. ACTION. Principal inspectors assigned to HEMS operators should review the contents of this notice, take the FAA actions specified in paragraph 4, and provide a copy of this notice to their assigned operators. Principal inspectors should encourage the operators to distribute this notice to each of the operator's bases.

6. TRACKING. Document the conveyance of the information contained in this notice for each HEMS operator:

a. Use Program Tracking and Reporting Subsystem (PTRS) codes 1030, 3030, 5030, Convey Non-Reg. Info.

b. Enter "N8000293" in the "National Use" field (without the quotes).

c. Once the initial notification is completed close out the PTRS.

7. DISPOSITION. Because a number of considerations in this notice may require regulatory change, this notice will not be incorporated into Order 8400.10. Questions concerning this notice should be directed to the Air Carrier Operations Branch, AFS-220, at (202) 267-3518.

/s/ James J. Ballough
Director, Flight Standards Service

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