NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.56

National Policy

Effective Date:
01/22/09

Cancellation Date:
01/22/10

SUBJ: Part 135 Helicopter Emergency Medical Service (HEMS) Operational Safety Enhancements

1. Purpose of This Notice. This notice was developed to provide guidance to aviation safety inspectors (ASI) with oversight responsibilities for Title 14 of the Code of Federal Regulations (14 CFR) part 135 helicopter emergency medical services (HEMS) operators. This notice provides policy and regulatory operational safety enhancements specifically tailored to mitigate hazards identified in HEMS operations.

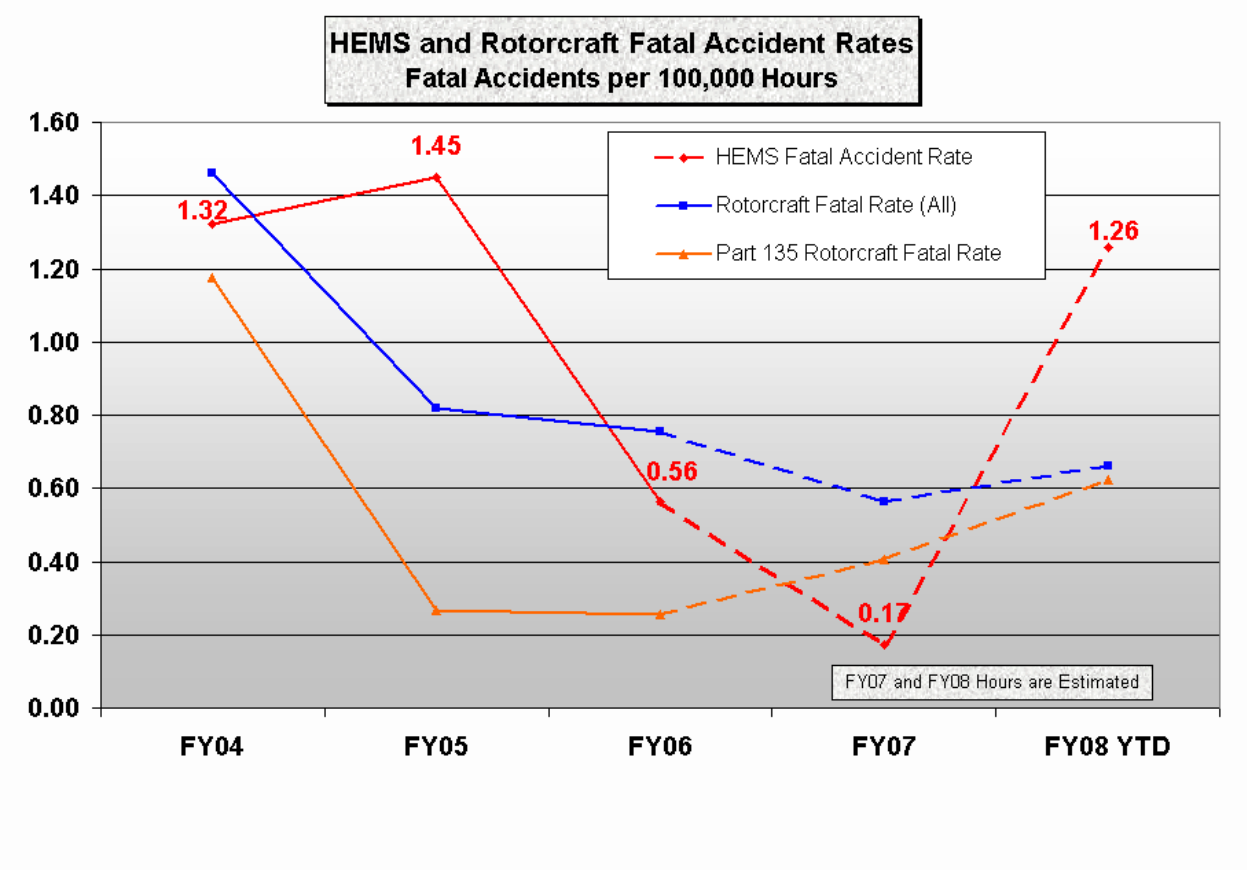
2. Audience. The primary audience for this notice is Flight Standards District Office (FSDO) and ASIs having oversight of HEMS operations, as well as those certificate holders conducting such operations. The secondary audience includes Flight Standards branches and divisions in the regions and in headquarters.

3. Where You Can Find This Notice. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at http://fsims.avs.faa.gov. Operators and the public can find this notice at http://fsims.faa.gov. The revised operations specifications (OpSpecs) paragraphs will be available through the automated Operations Safety System (OPSS).

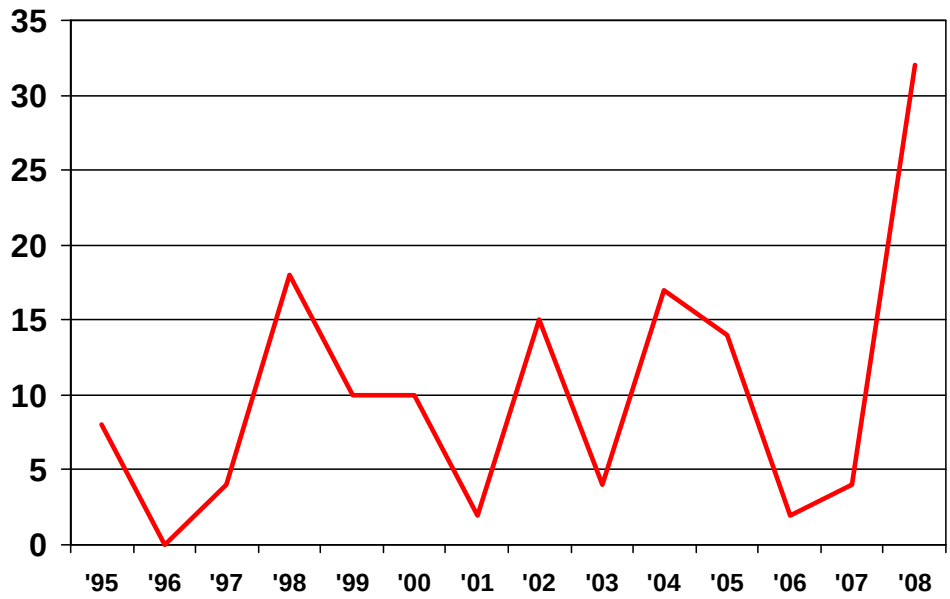
4. Background.

a. Introduction. HEMS pilots operate in a demanding environment. They provide an invaluable service to the public by providing crucial, safe, and efficient transportation of critically ill and injured patients to medical facilities. While the contribution of HEMS is profound as a component of the nation's medical infrastructure, from an operational standpoint, it is a commercial aviation activity performed by Federal Aviation Administration (FAA) certificated air carrier operators. HEMS, therefore, must be conducted with the highest level of safety.

b. Accident History. Based on the recent increase in HEMS related accidents, the FAA has initiated an accident mitigation program that focuses on immediate safety initiatives aimed at mitigating hazards identified in HEMS operations. The following graphs support a need for additional regulatory and policy supported safety changes targeted at the HEMS industry.



HEMS Accidents: Fatal Injuries FY 1995 Through FY 2008



5. Explanation of Changes.

a. OpSpecs Paragraph A021. An amendment was made to OpSpecs A021, HEMS Operations template. These changes reflect our short-term safety initiatives directed towards mitigating HEMS accidents. A draft OpSpecs template is contained in Appendix A and will be made available in OPSS on December 1, 2008. The amendments are summarized below.

(1) If the purpose of a flight or sequence of flights includes a part 135 segment, then all visual flight rules (VFR) segments of the flight, including the tail-end ferry flight, must be conducted either in accordance with the prescribed procedures and applicable weather minimums contained in OpSpec A021 or conducted under part 91 instrument flight rules (IFR) or part 135 IFR.

(2) The types of flights listed below are examples in which the requirements discussed in paragraph (1) above do not apply. This is not an all inclusive list.

(a) Initial and recurrent training flights;

(b) Transporting company personnel, other than medical crewmembers; or

(c) Maintenance test flights.

(3) Table 1 Weather Minimums (Appendix A) were increased for all basic VFR HEMS operations. Separate minimums were established for:

(a) Pilots conducting operations with operable Helicopter-Terrain Awareness and Warning System (H-TAWS),

(b) Pilots conducting operations with operable Night Vision Imaging System (NVIS)/night vision goggle (NVG) equipped aircraft, and

(c) IFR current and qualified pilots conducting operations in appropriately equipped helicopters under IFR.

(4) Departure and arrival IFR weather reporting requirements for HEMS operations were revised based on previously issued exemptions in order to facilitate IFR operations.

(5) A preflight planning requirement was added to OpSpec A021 requiring the pilot in command (PIC) to determine the minimum safe altitudes along the planned en route phase of flight.

(a) The minimum safe cruise altitudes will be determined by evaluating the terrain and obstacles along the planned route of flight.

(b) The pilot must ensure that all terrain and obstructions along the route of flight, except for takeoff and landing, are cleared vertically by no less than the following:

- 300 feet for day operations; or
- 500 feet for night operations.

(c) The PIC, prior to conducting VFR operations, must identify and document the highest obstacle along the planned route of flight.

b. OpSpec Paragraph A050. An amendment was made to the NVIS /NVG weather minimums chart, consistent with the weather minimums chart established in OpSpec A021. A draft OpSpec template is contained in Appendix B and is available in OPSS.

c. Pilot Training Program and General Operations Manual (GOM) Revision.

(1) Principal inspectors (PI) will ensure each HEMS operator, for which they have oversight, has a documented part 135 preflight planning and obstacle assessment procedure consistent with the requirements outlined in OpSpec A021. This procedure must be outlined in the pilots' GOM and included in the initial and recurrent pilot training program. HEMS pilots must be trained on these preflight planning and obstacle assessment procedures, in a manner acceptable by the POI, within 30 days of the publication date of this notice.

(2) The operator may elect to identify minimum part 135 VFR en route altitudes for routinely flown routes and routes used for routine hospital-to-hospital patient transfers.

(3) All HEMS operators must have a process to ensure safe operations, such as a risk assessment program or FAA accepted equivalent. This program should be tailored to the size and complexity of the HEMS operation. PIs will ensure each HEMS operator, for which they have oversight, has documented such a program. This program must be incorporated in the air carriers approved pilot initial and recurrent training program, as well as, in applicable sections of their GOM. Operators not having a risk assessment program or equivalent, prior to the issuance of this notice, must train their pilots on the use of this new program. Such training must be accomplished within 30 days of the publication of this notice. Guidance for establishing a risk assessment program can be found in FAA Order 8900.1, Volume 4, Chapter 5, Section 5, Operational Risk Assessment Programs for Helicopter Emergency Medical Services.

(4) PIs and Operators can access additional guidance on these topics online at http://fsims.faa.gov, then typing a key word into the search box (e.g., Risk Assessment or Helicopter Training).

(5) OpSpecs A021 and A050 are available in OPSS. A copy will also be made available on the AFS-250 Web site located at: http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs200/branches/afs250/.

6. Action. These revisions are mandatory. Using the authority granted in 14 CFR part 119, § 119.51(a)(1) and part 135, § 135.325(d), the POI with oversight responsibility of a HEMS operator will provide notice to such operator, consistent with the aforementioned regulations, and a copy of this notice within 10 days of the issuance of this notice. The PIs will ensure the operators have revised their OpSpecs, applicable manuals, pilot training programs, trained their pilots (as applicable), and completed the Program Tracking and Reporting Subsystem (PTRS) entries within 30 days of the publication date of this notice.

7. PTRS. This notice requires two PTRS entries.

a. Initial Action. Within 10 days of the issuance of this notice, the POI must transmit this notice, with its two OpSpecs, to the management of the HEMS operator for which they have oversight. After the POI has transmitted the notice of OpSpecs and training program change, the POI will:

(1) Open a PTRS record using code 1030.

(2) Enter “HEMS2” in the National Use field, (without quotes).

(3) Close the PTRS record when the action is completed.

b. Subsequent Action. Within 30 days of the publication of this notice, the POI, after confirming that the operator for which they have oversight has complied with all the requirements of this notice, will:

(1) Open a PTRS record using code 1030.

(2) Enter “HEMS3” in the National Use field, (without quotes).

(3) Close the PTRS record when the inspection is completed.

8. Disposition. We will not incorporate the information in this notice in FSIMS. Direct questions concerning this notice to the part 135 Air Carrier Operations Branch, AFS-250, at (202) 267-8166.

ORIGINAL SIGNED by
John McGraw for

John M. Allen
Director, Flight Standards Service

Appendix A. Sample Paragraph A021

A021. Helicopter Emergency Medical Services (HEMS) Operations

a. The certificate holder is authorized to conduct helicopter emergency medical services (HEMS)/air ambulance operations in accordance with 14 CFR Part 135 and this OpSpec. (HEMS and air ambulance terms are used interchangeably.)

b. The certificate holder is authorized to conduct takeoff and landing operations, provided the site used is adequate for the proposed operation, considering the size, type of surface, surrounding obstructions, and lighting. During night operations, the lighting source must provide adequate illumination of the takeoff/landing area and of any obstructions that may create potential hazards during approach, hovering, taxiing, and departure operations.

c. The flightcrew must satisfactorily complete the certificate holder's approved training program prior to commencing HEMS/air ambulance flights.

d. If the purpose of a flight or sequence of flights includes a Part 135 segment, then all visual flight rules (VFR) segments of the flight, including the tail-end ferry flight, must be conducted either in accordance with the applicable weather minimums contained in subparagraph e, Table 1, Weather Minimums, or paragraph h, and the flight planning requirements contained in subparagraph i, or under instrument flight rules (IFR).

e. The certificate holder is authorized to use no lower than the VFR weather minimums in Table-1 below when operating in Class G (uncontrolled) airspace for the conditions specified when conducting HEMS/air ambulance work, subject to subparagraphs f, g, h, i, and j.

Table 1 – Weather Minimums

[redacted]	Non-Mountainous		Mountainous (see 14 CFR 95)	
Area / **Condition**	**Local**	**Cross Country**	**Local**	**Cross Country**
	Ceiling-visibility			
Day	**800-2**	**800-3**	**800-3**	**1000-3**
Night – Equipped with Night Vision Imaging System (NVIS) or Terrain Awareness Warning System	**800-3**	**1000-3**	**1000-3**	**1000-5**
Night – Without NVIS or TAWS	**1000-3**	**1000-5**	**1500-3**	**1500-5**

Note: Refer to Subparagraph g for NVIS utilization.

f. IFR operations at locations without weather reporting. If the certificate holder is authorized to conduct IFR operations, the certificate holder may conduct IFR operations at airports or heliports with an instrument approach procedure (IAP), and at which a weather report is not available from the National Weather Service (NWS), a source approved by the NWS, or a source approved by the Administrator, subject to the following limitations:

(1) IFR departures made under provisions of this OpSpecs are authorized only after the pilot in command (PIC) of the affected flight determines that the weather conditions at the departure point are at or above VFR minimums in accordance with 14 CFR part 135, § 135.205(b). This may be determined by the PIC's own observation or that of another person competent to supply appropriate observations.

(2) The operator must use an approved weather reporting source if located within 15 nautical miles (NM) from the destination landing area, or use the area forecast if no such weather reporting source is available. This weather reporting source meets the requirements of the weather reporting source required in paragraph H113 of these OpSpecs. The PIC will obtain the altimeter settings with any applicable adjustments for the IAP from the weather facility specified on the instrument approach chart.

(3) Flight planning for IFR flights conducted under this OpSpec must include selection of an alternate airport that meets the requirements of §§ 135.221 and 135.223 and has an approved weather reporting source in accordance with § 135.213.

(4) After completing a landing at the destination airport/heliport that does not meet the weather requirements of the affected sections, the PIC is authorized to determine if the weather meets the takeoff requirements of 14 CFR Part 97 or the certificate holder's OpSpecs, as applicable.

g. Subparagraph e, Table 1 NVIS or TAWS minima may be used if either NVIS or TAWS is installed in the aircraft and the pilot is using such equipment. For operations with approved NVIS/night vision goggles (NVG), paragraph A050 must also be issued.

h. VFR/Visual transitions from instrument approaches.

(1) The following VFR weather minimums will be applied, Day: 600' ceiling / 2 sm visibility, or Night: 600' ceiling / 3 sm visibility, as applicable when:

(a) The certificate holder is authorized to conduct IFR "Point in Space" (PinS) Special Instrument Approach Procedures, with a "Proceed VFR" transition to the heliport or landing area of 3 nm or less.

(b) The certificate holder is authorized to conduct IFR standard or special IAP and transitions VFR from the missed approach point to a helipad or landing area within 3 nm.

(2) If the distance from the missed approach point to the heliport or landing area exceeds 3 nm, apply the VFR minima prescribed in Table 1 above, appropriate to the actual terrain and lighting conditions.

(3) If an approved visual segment exists as part of an approved IAP, the appropriate associated minimums on the approach chart would apply.

i. VFR Flight Planning. Prior to conducting VFR operations under these OpSpecs, the pilot must determine the minimum safe altitudes along the planned en route phase of flight.

(1) The minimum safe cruise altitudes shall be determined by evaluating the terrain and obstacles along the planned route of flight.

(2) The pilot must ensure that all terrain and obstacles along the route of flight, except for takeoff and landing, are cleared vertically by no less than the following:

(a) 300 feet for day operations

(b) 500 feet for night operations.

(3) Prior to each flight, the PIC must identify and document, in a manner consistent with the operator's general operations manual, the highest obstacle along the planned route of flight.

(4) Using the minimum safe cruise altitudes, the pilot must determine the minimum required ceiling and visibility to conduct the planned flight by applying the weather minimum derived from the subparagraph e, Table 1 above, as appropriate to the conditions of the planned flight, and the visibility and cloud clearance requirements of 14 CFR Part 91, § 91.155(a) (as applicable to the class of airspace the planned flight will operate in) and the ground reference requirements of § 135.207.

(5) This is an additional preflight planning requirement. Pilots may deviate from the planned flight path as required by conditions or operational considerations. During such deviations, the pilot is not relieved from the weather or terrain/obstruction clearance requirements of the regulations. Re-routing, change in destination, or other changes to the planned flight that occur while the aircraft is on the ground at an intermediate stop require evaluation of the new route in accordance with this OpSpecs.

j. Local Flying Areas. Local flying areas are those areas in which the pilot has demonstrated a level of familiarity which allows the use of lower VFR operating minima. Local flying areas used by a specific HEMS program base need not be contiguous.

(1) Local flying area minima may only be used by pilots who have passed an examination on the appropriate local flying area within the previous 12 months. This examination must be conducted in accordance with the certificate holder's approved local area pilot knowledge testing procedure. Pilots may be qualified for more than one local flying area.

(2) Any flight outside a local flying area is a cross-country operation. Pilots who have not passed such a knowledge test on a particular local flying area within the previous 12 calendar-months, regardless of operational experience in that area, must use the cross-country minima described in the subparagraph e, Table 1 above when operating in that area.

(3) The certificate holder is authorized to conduct HEMS operations using the local flying area minima in the following areas listed in Table 2 below, provided the pilot is qualified under subparagraph j (1) above.

Table 2 – Authorized HEMS Operations

Local Flying Area Base	Description	Coordinating geographic FSDO (if outside the CHDO District)
TABL01	TABL02	TABL03

TEXT99

Appendix B. Sample Paragraph A050

A050 Helicopter Night Vision Goggle Operations (HNVGO)

a. Helicopter Night Vision Goggle Operations (HNVGO) - General. The certificate holder is authorized to conduct HNVGO in accordance with 14 CFR Part 135 and the limitations and provisions of this OpSpecs.

(1) The certificate holder may not use any person, nor may any person serve as a crewmember in passenger-carrying HNVGO under the provision of Part 135 unless that crewmember has satisfactorily completed the appropriate initial or recurrent phase of the certificate holder's approved training program for HNVGO since the beginning of the 12th calendar-month before that service.

(2) The certificate holder may not use any person, nor may any person serve as a pilot in command of a helicopter during passenger-carrying HNVGO unless, within the preceding 90 days, that person has logged three HNVGO wherein they were the sole manipulator of the flight controls during the period beginning one hour after sunset and ending one hour before sunrise (as published in the Air Almanac) in the same category and class, and, if a type rating is required, type of aircraft. In addition this person must have accomplished one aircraft night vision goggle (NVG) Visual Inspection and Operational Check within the preceding 90 days.

(a) For currency of experience an HNVGO consists of the accomplishment of all of the following maneuvers and procedures:

- Before Takeoff—NVG Check
- Arrival—At Objective Area Initial Reconnaissance.

- FOR OPERATIONS LIMITED TO MINIMUM ALTITUDE OF 300 FEET AGL, ALL OF THE ABOVE MANEUVERS PLUS THE FOLLOWING:
  - Departure--Transitioning From Unaided to Aided (if aided takeoff is not authorized by the NVG Rotorcraft Flight Manual (RFM).
  - Transitioning From Aided to Unaided.

- FOR OPERATIONS BELOW 300 FEET AGL, ALL OF THE ABOVE MANEUVERS PLUS THE FOLLOWING:
  - Takeoff (if authorized by the NVG RFM).
  - Landing (if authorized by the NVG RFM).

(b) The above maneuvers will be in accordance with those stated in the certificate holder's Federal Aviation Administration (FAA)-approved HNVGO training program.

(3) The certificate holder is authorized to use no lower than the visual flight rules (VFR) weather minimums in the table below when operating in Class G Airspace for the conditions specified when conducting HNVGO:

Table 1 – Weather Minimums When Operating in Class G Airspace

Non-Mountainous		Mountainous (see 14 CFR 95)	
Local	**Cross Country**	**Local**	**Cross Country**
Ceiling-visibility			
800-3	**1000-3**	**1000-3**	**1000-5**

(4) For the purposes of this OpSpecs, HNVGO local flying area for each base of operations is the same as the local flying areas described in OpSpec A021, unless otherwise described below:

(a) Description of the HNVGO local flying area:

HNVGO local flying areas are the same as those listed in OpSpecs paragraph A021.

(b) Any flight outside the local flying area is a cross-country operation.

b. Additional Checking Requirements. The authorized night vision devices shall not be used to conduct HNVGO under the provisions of part 135 unless the equipment is maintained in accordance with the provisions of OpSpec D093 and the following:

(1) Prior to conducting HNVGO, each crewmember will complete any required checks on the night vision device to be used in accordance with Table 2.

Table 2 – Required Checks for Night Vision Device Users

Required Check	Document	Reference

(2) Any night vision device that does not pass any required check is prohibited from use in HNVGO.