



NTSB National Transportation Safety Board

Update on NTSB's HEMS-Related Activities

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NTSB Board Member
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- HEMS safely transports nearly 400,000 patients each year in U.S.
- HEMS performs a vital function of providing critical care



6 years - 85 accidents; 77 fatalities

- 2003 - 19 accidents; 7 fatalities
- 2004 - 13 accidents; 18 fatalities
- 2005 - 15 accidents; 11 fatalities
- 2006 - 13 accidents; 5 fatalities
- 2007 - 12 accidents; 7 fatalities
- 2008 - 13 accidents; 29 fatalities

49 weeks without a fatal HEMS accident

UNTIL ...

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September 25, 2009

Georgetown, SC

3 Fatalities



November 14, 2009
Doyle, CA
3 Fatalities



February 5, 2010
El Paso, TX
3 Fatalities



NTSB Public Hearing on HEMS



Feb 3-6, 2009

- 41 witnesses representing
 - HEMS operators
 - industry associations
 - manufacturers
 - hospitals

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30 New NTSB Safety Recommendations

- From NTSB HEMS Public Hearing (Sept 1, 2009 Board Meeting)
 - 10 to FAA
 - 5 to public HEMS Operators
 - 2 to FICEMS
 - 4 to CMS
- From Maryland State Police Accident (Oct. 27, 2009 Board Meeting)
 - 1 to FAA
 - 3 to public HEMS operators
 - 3 to Maryland State Police
 - 1 to Prince Georges County
 - 1 to various emergency responder groups

Recommendations to FAA:

TRAINING

- Develop criteria for scenario-based training that includes IIMC and determine frequency of training for *proficiency*. (A-09-87)
- Require periodic scenario based training for HEMS pilots, using simulators & FTDs, after developing it. (A-09-88)



Recommendations to FAA:

SAFETY EQUIPMENT

- Require use of night vision systems by pilots (A-09-95)
- Require installation of flight data recorder devices & establish data monitoring program (A-09-90)
- Require an autopilot, and that the pilots be trained to use the autopilot, if a second pilot is not available (A-09-96)



Recommendations to FAA:

AIRSPACE INFRASTRUCTURE

- Conduct an evaluation & issue report on low-altitude airspace infrastructure for EMS helicopters (A-09-93)
- Initiate action to develop the infrastructure (A-09-94)
- Permit HEMS Weather Tool to be used as an official weather product (A-09-92)

Recommendations to FAA:

SAFETY OVERSIGHT

- Require implementation of Safety Management Systems (SMS) Programs in HEMS operations (A-09-89)
- Require reporting of HEMS flight activity data (A-09-91)

“Public” HEMS Operations

- 40 HEMS operators are government entities
 - i.e., National Park Service, Maryland State Police, Fairfax County, etc.
- FAA does not oversee “public” operations
- Few FAA requirements
- Not consistent with commercial (Part 135) HEMS operations



Recommendations to Public HEMS

Operators:

- Conduct scenario-based training with simulators & FTDs frequently
- Install & require use of NVIS
- Install flight data recorder devices and establish data monitoring program
- Implement SMS Programs
- Equip & train with autopilots, if a second pilot is not used

Recommendations to Federal Interagency Committee on EMS (FICEMS):

- Develop national guidelines that consider use & availability of HEMS during planning
- Develop national guidelines for selection of appropriate transportation modes for urgent care

Recommendations to DHHS Centers for Medicare & Medicaid Services (CMS)

- Evaluate HEMS reimbursement rate structure to determine if rates should differ according to level of safety.
- Establish new reimbursement rate if determined that higher rates are required for increased safety.
- Develop accreditation standards for safety that consider NTSB recommendation issues.
- Establish policy to only reimburse those HEMS operators that meet accreditation standards.



Maryland State Police Accident

“Trooper 2”



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Trooper 2 Recommendations

- To FAA
 - Seek legislative authority to regulate public HEMS operators
- To All Public HEMS Operators
 - Develop and implement flight risk evaluation programs
 - Develop and implement formal dispatch and flight following programs
 - Install TAWS in all HEMS helicopters

Trooper 2 Recommendations, Continued

- To Maryland State Police
 - Develop program to screen for obstructive sleep apnea and treatment if necessary
 - Revise policy regarding incident commander to specify that an aviation command trooper will serve as the incident commander
 - Provide training to dispatchers about the use of cell phone “pinging”

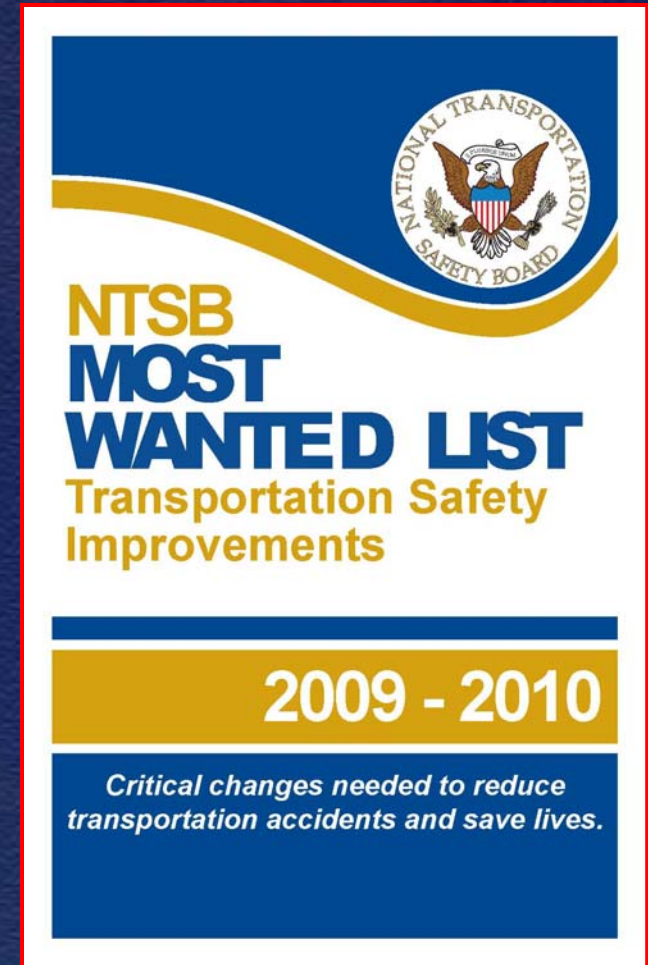
To Prince George’s County, Maryland

- Provide training to dispatcher about the use of cell phone “pinging”
- To a number of associations
 - Inform your members about the lessons learned from the emergency response to this accident

NTSB's Most Wanted List

Improve the Safety of Emergency Medical Services (EMS) Flights

- Conduct all flights with medical personnel on board under FAR part 135
- Develop and implement risk evaluation programs for EMS operators
- Require formalized dispatch and flight following procedures including up-to-date weather information
- Install terrain awareness and warning systems (TAWS) on aircraft used for EMS operations.





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