



**NTSB** National Transportation Safety Board

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# **EMS Helicopter Safety: Time for a paradigm change**

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NTSB Board Member  
October 5, 2009**

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





# However:

- Current HEMS accident record is alarming and it is unacceptable



- Improvements must be made



# Last 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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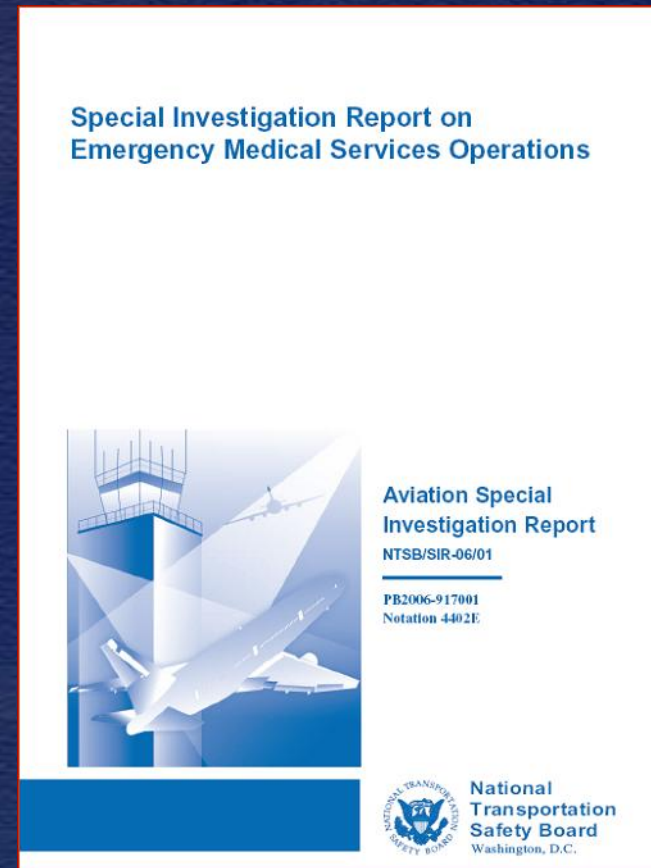
September 25, 2009  
3 Fatalities





# 2006 Special Investigation Report

- Analyzed 55 EMS Accidents
  - 14 Airplane
  - 41 Helicopter
- Determined that 29 of the 55 accidents could have been prevented
  - if corrective actions in the report had been implemented



# 2006 Safety Recommendations

- To FAA:
  - Require operations under Part 135 for all legs of EMS missions.
  - Require flight risk evaluation for all EMS missions.
  - Require EMS operators to utilize flight dispatch procedures.
  - Require that EMS operators use Terrain Awareness and Warning Systems (TAWS).







# NTSB MOST WANTED LIST

Transportation Safety  
Improvements

2009

*Critical changes needed to reduce  
transportation accidents and save lives.*

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# NTSB Public Hearing on HEMS



Feb 3-6, 2009

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



# 2009 Safety Recommendations

- 10 recommendations to FAA, including:
  - Better training for flight crews
  - Require use of Night Vision Imaging Systems (NVIS) equipment and training
  - Require autopilots if second pilot not available



# 2009 Safety Recommendations

- Recommendations to Federal Interagency Committee on EMS (FICEMS)
  - Develop national guidelines for the use and availability of HEMS by regional, state, and local authorities during emergency medical response system planning.
  - Develop national guidelines for selection of the most appropriate emergency transportation mode for urgent care.



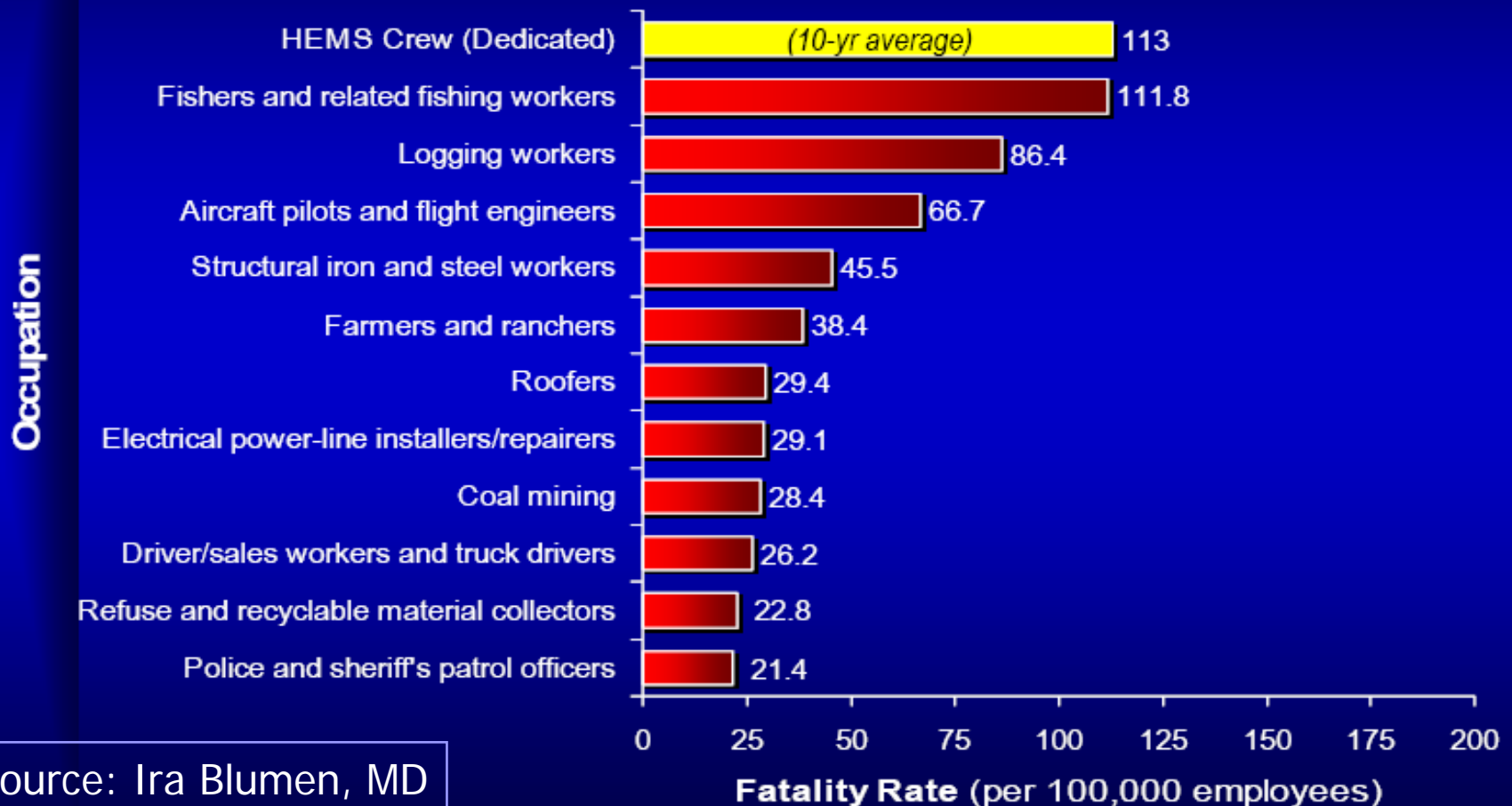
# 2009 Safety Recommendations

- Recommendations to the Centers for Medicare & Medicaid:
  - Evaluate the HEMS reimbursement rate structure to determine if reimbursement rate should differ according to level of HEMS transport safety provided,
    - Establish new rate structure, if warranted
  - Develop minimum safety accreditation standards
  - Provide Medicare reimbursement only for HEMS transportation that meets accreditation standards



# Something to think about:

## High-Risk Occupations, 2007



Source: Ira Blumen, MD





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