EMS Helicopter Safety:
Time for a paradigm change

Robert L. Sumwalt
NTSB Board Member
• 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 ...
September 25, 2009
3 Fatalities
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.
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

- HEMS Crew (Dedicated): (10-yr average) 113
- Fishers and related fishing workers: 111.8
- Logging workers: 86.4
- Aircraft pilots and flight engineers: 66.7
- Structural iron and steel workers: 45.5
- Farmers and ranchers: 38.4
- Roofers: 29.4
- Electrical power-line installers/repairers: 29.1
- Coal mining: 28.4
- Driver/sales workers and truck drivers: 26.2
- Refuse and recyclable material collectors: 22.8
- Police and sheriff's patrol officers: 21.4

Source: Ira Blumen, MD