Emergency Transport Safety Air and Ground Comparison - 2008

**camts**
- Formerly the Commission on Accreditation of Air Medical Services (CAAMS).
- Incorporated in PA in 1990.
- Available for medical transport services that provide rotorwing, fixed wing and ground interfacility (ALS-BLS ground services can be included if part of an air or ground interfacility system).

Mission Statement and Goals
- CAMTS is a peer review organization that promotes quality patient care in the safest possible transport environment through a voluntary accreditation process.
- Goals:
  - Provide an organized forum for participants to improve their services.
  - Assist services in achieving accreditation through information sharing and education programs.
  - Provide a voluntary and objective mechanism for evaluating compliance with accreditation standards.
  - Maintain recognition and currency of the Accreditation Standards.

Air Medical Systems Develop
- In 1978 there were less than 10 hospital based helicopter services.
- By 1990, there were approximately 200 air medical services in the U.S.
- In 2008, there are well over 300 services with more than 750 helicopters with many types of business structures – fewer hospital managed-more independent service seen today.

1980s - ACCIDENTS

**NO Air Medical STANDARDS**

EMS Helicopters in 1981
Protecting Pilot and Controls
How do we know about these crashes?

- [www.NTSB.gov](http://www.NTSB.gov)
  - Preliminary report
  - Date/Aircraft/Operator/Location
  - Narrative
  - Complete description with interviews
  - Probable Cause
  - Cause of the accident with contributing factors

**NTSB Report, 1988**

- 59 HEMS accidents
  - 47 patient missions
  - 12 “other”
- Accident rates
  - 12.34/100,000 flight hours
  - Nearly double other Part 135
- Fatal Accident rates
  - 5.4/100,000 flight hours
  - Nearly 3.5 times other Part 135

**U.S. HEMS Accidents and Fatal Accidents**

**Changes in Rotorwing EMS Operations over the past 10 years**

- Hospital-based programs not as common as privately owned – vendor owned businesses.
- Rapid Growth - In 1991 there were approximately 225 helicopters dedicated to EMS – today there are more than 750.
Increase in Accidents Since 1998

- According to Blumen (2002)
  - 1980-1987: 54 accidents or 7.7 per year
  - 1988-1997: 4.9 per year
  - 1998 – present: 77 accidents – steady rise each year since 1998

Since 1998 – 54 of the 77 accidents occurred in VFR certified a/c – 23 in IFR certified a/c

NTSB Recommendations - 2006

- Adopt A System Safety Culture
- Use of IFR, TAWS and night vision goggles
- A Procedure Weighted Risk Avoidance Program
- Review Weather Minimums
- Improve Education on Weather Com / Dispatchers

“Safe is not Equivalent to Risk Free”
U.S. Supreme Court - 1972

Since 1978, it is reported that over 1,600 lives have been lost in ground ambulance crashes

- July 20, 2007: a volunteer ambulance with five crewmembers and two patients aboard collides with a tractor-trailer rig in rural Antwerp, Ohio, killing all but one - 3 volunteer crewmembers and an elderly husband and wife.
- The 3 crewmembers that perished left behind 7 young children and one spouse on dialysis. This is the single worst crash in the history of civilian ambulance service in the United States.
How will we impact change?

- We need to know what the issues are with real data collected on a consistent basis.
- Then we can trend probable causes and address the high risk issues and ...
- Develop recommendations to mitigate risks:
  - Culture, policies and practices
  - Technology and design for safer vehicles

CAMTS Website

- [www.camts.org](http://www.camts.org)
  - Order Standards and “Best Practices”
  - Download standards & Policy Manual
  - Complete application on-line

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