

## 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.

## 1980s - ACCIDENTS *NO Air Medical STANDARDS*

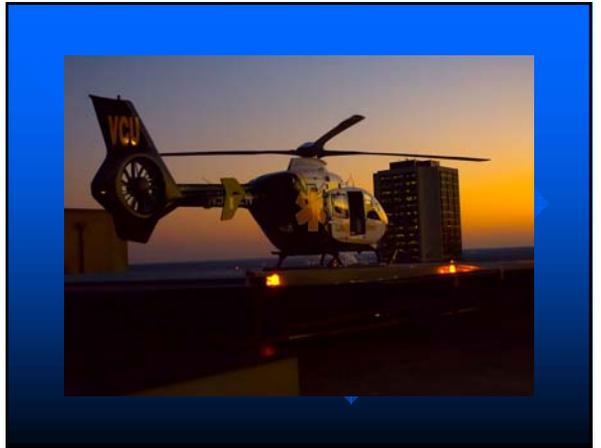
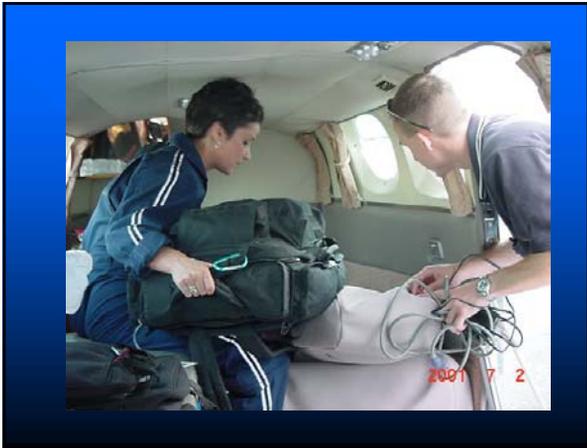


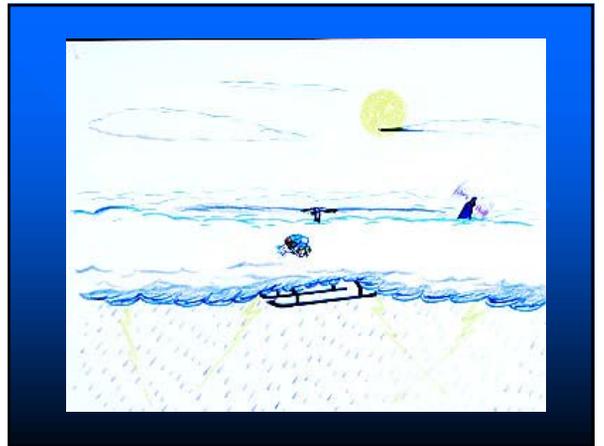
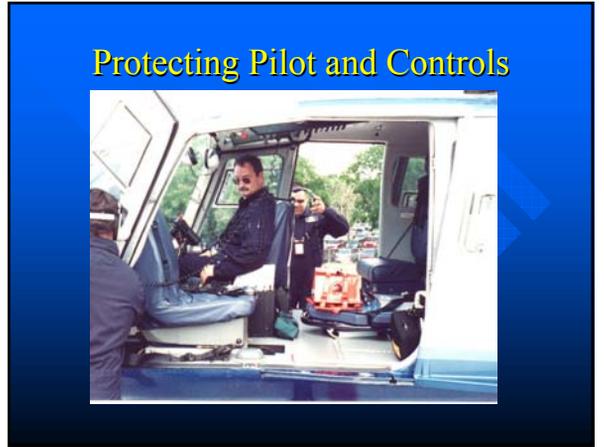
## Air Medical Systems Develop

- 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.

## EMS Helicopters in 1981









### How do we know about these crashes?

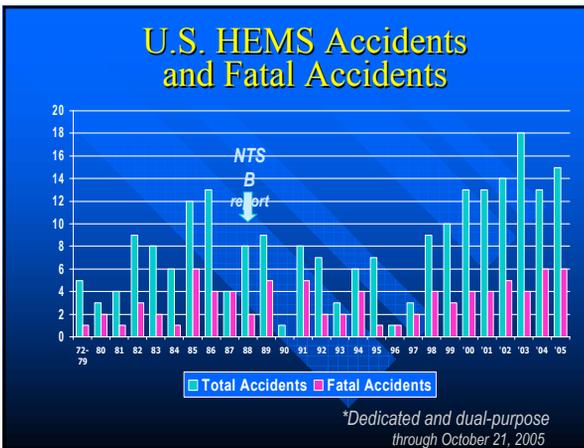
- [www.NTSB.gov](http://www.NTSB.gov)
  - Preliminary report
    - Date/Aircraft/Operator/Location
  - Narrative
    - Complete description with interviews
  - Probable Cause
    - Cause of the accident with contributing factors

### 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*

\*Safety Study -- Commercial Emergency



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

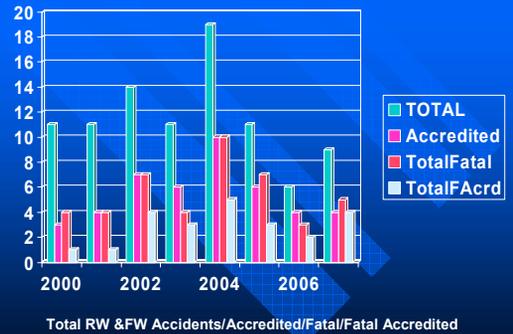
- Hospital-based programs not as common as privately owned – vendor owned businesses.
- Rapid Growth - In 1991 there were approximately 225 helicopters dedicated to EMS – today there are more than 750.

## 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
- Office – 864 287-4177
- FAX – 864 287-4251
- Email – [efrazer@aol.com](mailto:efrazer@aol.com)

