



**National
Transportation
Safety Board**

The Role of Aeromedical Expertise in Aircraft Accident Investigation

Robert L. Sumwalt, III

85th Annual Scientific Meeting of Aerospace Medical Association



NTSB is an independent federal agency, charged by Congress to investigate transportation accidents, determine probable cause, and issue safety recommendations.



The Board



Mark Rosekind



Chris Hart



Robert Sumwalt



Earl Weener



The Staff



NTSB

The Anatomy of an NTSB Accident Investigation



Breaking News: A plane has crashed.



NTSB

NTSB Response Operations Center



NTSB

Anatomy of an accident investigation

NOTIFICATION + 2 HOURS



NTSB

The Launch



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Arrival on Scene



Boots on the Ground





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The Hunt for ...



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The “Black Boxes”



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NTSB Medical Officers



Mary Pat McKay, MD, MPH
Chief Medical Officer



Hirin N. Progress, MD
Senior Medical Officer

Aviation Human Performance Investigators



Evan Byrne, Ph.D.



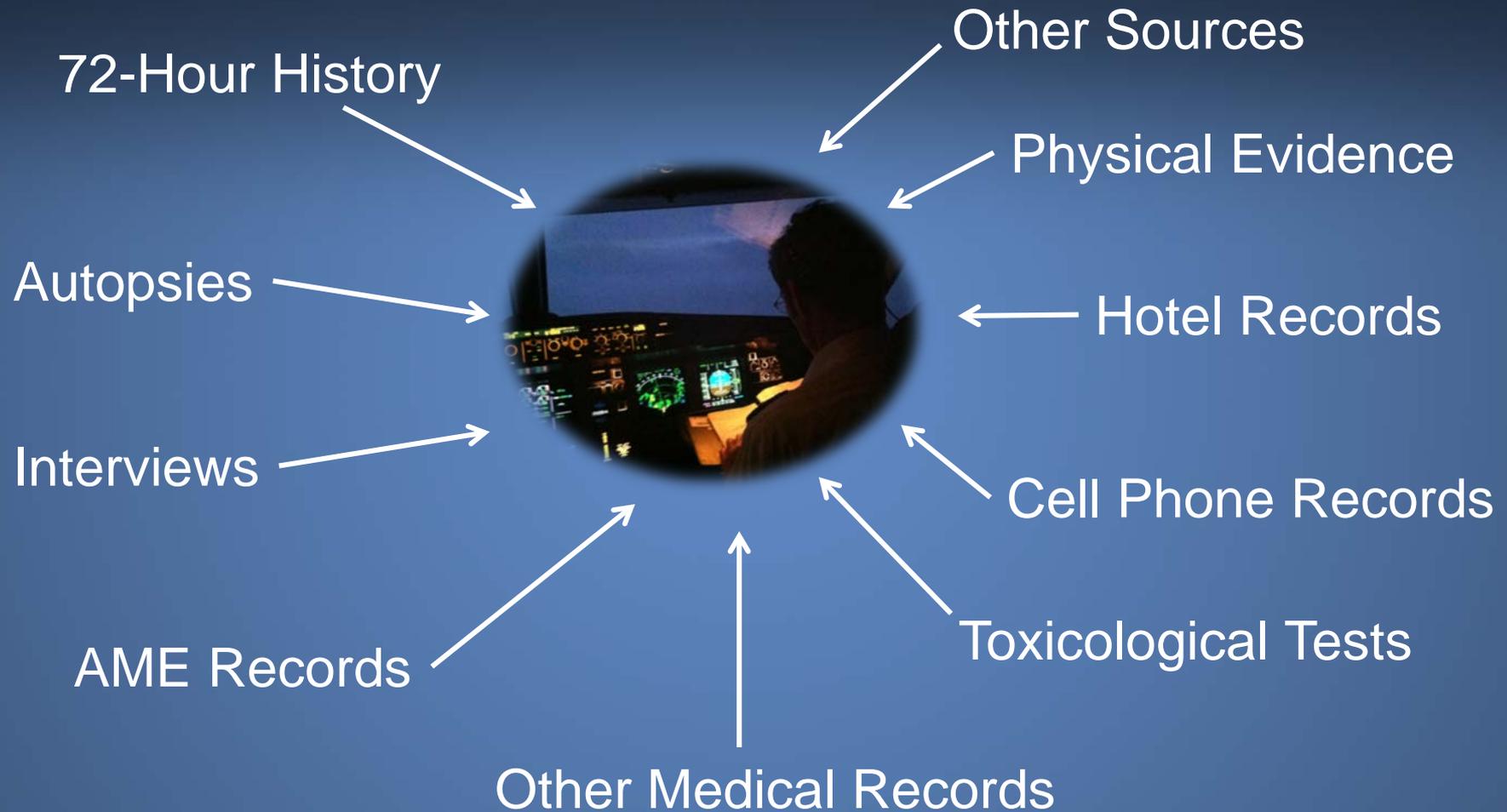
Katherine Wilson, Ph.D.



Bill Bramble, Ph.D.



Potential Sources of Information



Anatomy of an accident investigation

MONTH 3 - 4



NTSB

Investigative Hearing





Anatomy of an accident investigation

MONTH 12



NTSB

Sunshine Meeting



Reno Air Race Accident

- September 16, 2011
- 11 fatalities







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Photo by Julia Kirchenbauer



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From NTSB Report

“With the link assembly broken, the left elevator trim could no longer provide downward force on the elevator, and the high-G pitch-up caused the pilot to lose consciousness and control of the airplane.”



Other NTSB Products:

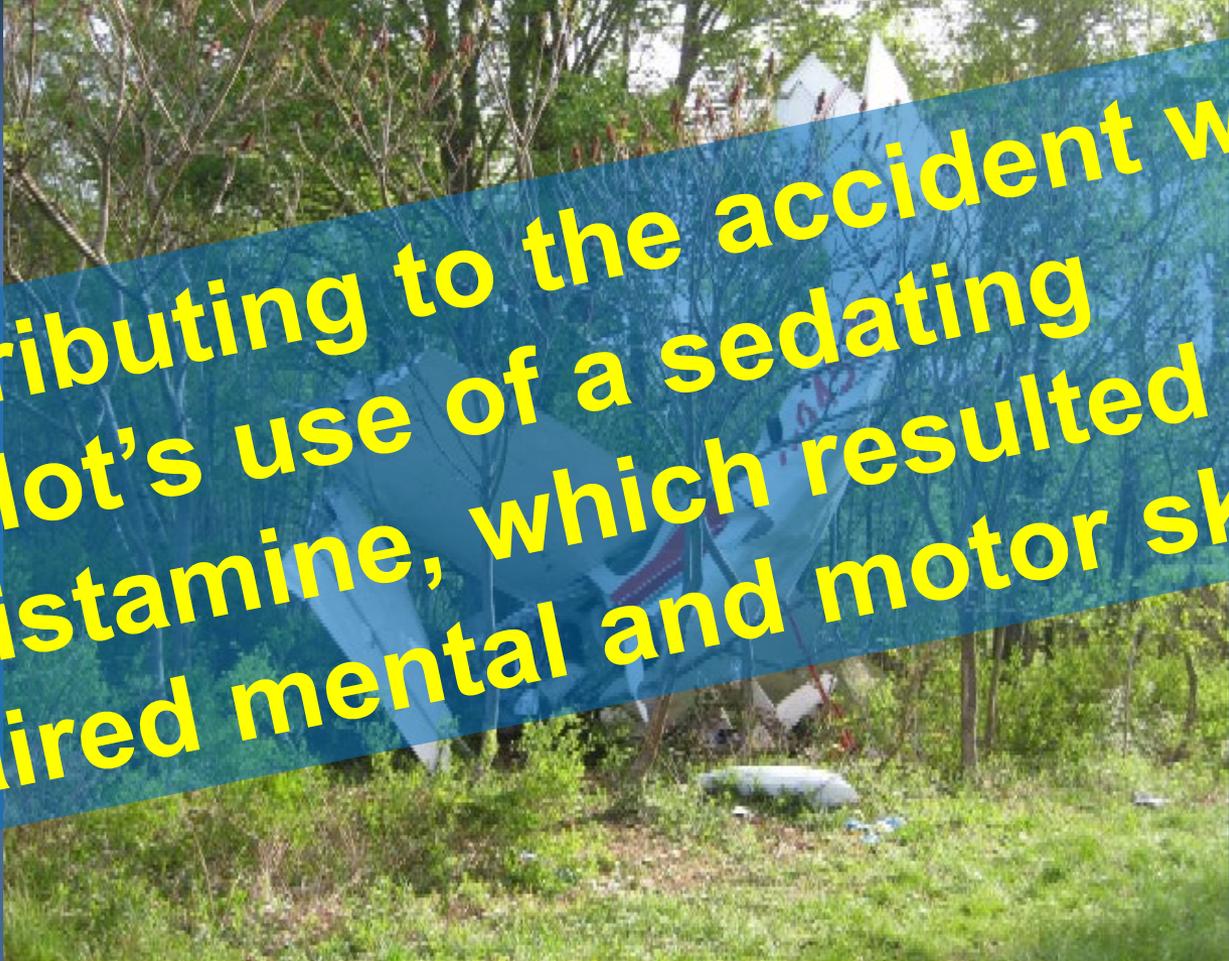
SAFETY STUDIES



NTSB



NTSB



“Contributing to the accident was the pilot’s use of a sedating antihistamine, which resulted in impaired mental and motor skills.”

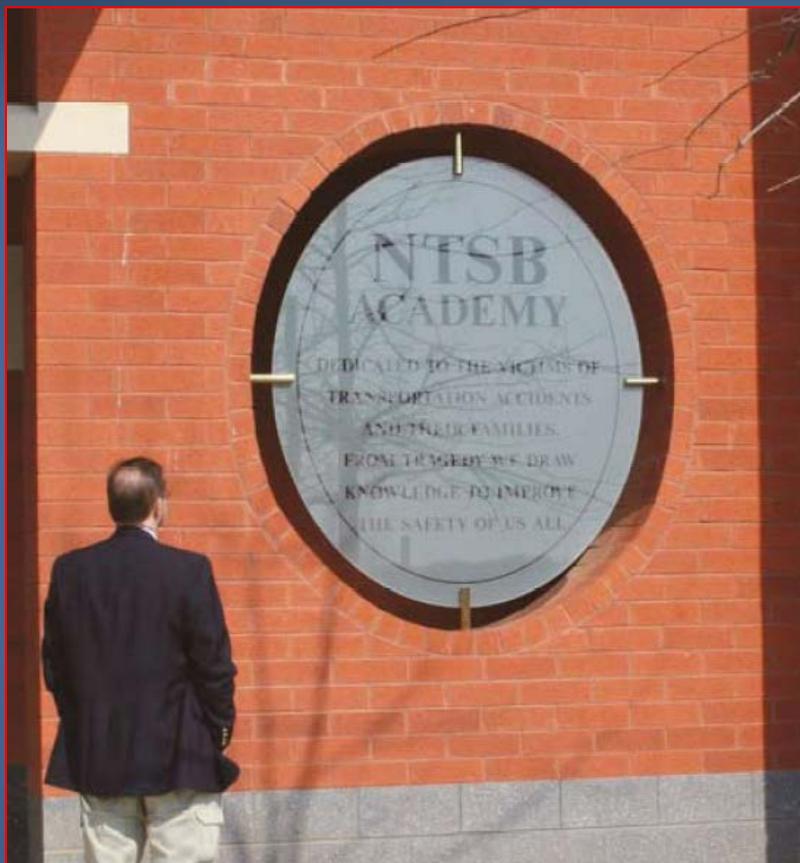


NTSB

Safety Study: Drug use in aviation

- Focused analysis of CAMI toxicology testing and NTSB accident databases to:
 - Characterize the prevalence of prescription, OTC, and illicit drug use in fatally injured pilots.
 - Evaluate potential safety mitigation





“From tragedy we draw knowledge to improve the safety of us all.”



NTSB



National Transportation Safety Board