

Joint Session

*Operational Drivers of Fatigue:
National Transportation Safety
Board Findings*

*The Evolution of NTSB
Fatigue Related
Recommendations*

Jana Price, Ph.D.

National Transportation Safety Board

11:00 - 11:15

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Jana M. Price, Ph.D.
Biography

Jana M. Price, Ph.D. has worked at the National Transportation Safety Board (NTSB) since 2001 as a Transportation Research Analyst in the Office of Research and Engineering. At the Safety Board, she conducts safety studies addressing all modes of transportation as well as providing statistical and human factors support for accident investigations. She leads the safety team addressing the Board's Most-Wanted recommendations concerning operator fatigue, and she helped to develop and coordinate a two-day NTSB Training Center course on investigating human fatigue factors in transportation accidents. Dr. Price also represents the Safety Board as part of the Department of Transportation's Human Factors Coordinating Committee.

Dr. Price received her M.A. and Ph.D. at the University of Connecticut in human factors psychology where her graduate research focused on break-taking patterns among commercial truck drivers, and hazard perception in expert and novice drivers.



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The Evolution of NTSB Fatigue Related Recommendations

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NTSB Fatigue Recommendations

- Over 100 recommendations since 1970s
- 34 recommendations in aviation
 - Pilots
 - Maintenance workers
 - Air traffic controllers

Most Wanted List

- Fatigue included since 1990
- Original DOT recommendations
 - Research
 - Education
 - Hours of service
- 7 current aviation fatigue recommendations

Most Wanted Aviation Recommendations

- Flight crews
 - Modify and simplify flight and duty time regulations
 - Prohibit assigning “tail-end” Part 91 flights
- Maintenance personnel
 - Establish science-based duty time limits
- Air traffic controllers
 - Revise work scheduling policies/practices
 - Develop fatigue training for controllers

Fatigue Risk Factors

- Sleep deprivation
- Circadian variability
- Time awake
- Sleep disorders/health
- Workload/environment

Fatigue Management Systems

- Employ multiple countermeasures to mitigate fatigue, errors, and accidents
- Continuous evaluation, validation and improvement

NTSB Fatigue Management Recommendations

Develop guidance, based on empirical and scientific evidence, for operators to establish fatigue management systems, including information about the content and implementation of these systems.

NTSB Fatigue Management Recommendations

Develop and use a methodology that will continually assess the effectiveness of fatigue management systems implemented by operators, including their ability to improve sleep and alertness, mitigate performance errors, and prevent incidents and accidents.

Future Directions

- Assess operational issues
- Identify specific countermeasures
- Determine whether the countermeasures
 - Mitigate fatigue
 - Improve performance
 - Reduce errors and incidents



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