

Parallel Session

Current State of Mitigation: Shiftwork Operations

NAV CANADA's Fatigue Management Program

Ann Lindeis, Ph.D.
NAV CANADA

8:35 - 9:00

June 18, 2008



Ann Lindeis, Ph.D.
Biography

Ann obtained her doctorate in Experimental Psychology from York University and has been working in the field of Human Factors for over 20 years. During that time she: investigated pilot survival and performance issues in "next generation" fighter aircraft in support of research at the Defence and Civil Institute of Environmental Medicine in Toronto, Ontario; investigated for Human Factors issues in air, rail, and marine accidents at the Transportation Safety Board of Canada, and; joined NAV CANADA in 2001.

At NAV CANADA, Ann worked as a Human Performance Specialist in the Office of Safety and Quality, where she was responsible for evaluating and recommending tools, methods and techniques to optimize human performance in providing air navigation services (ANS), and developing and delivering Human Factors training for managers and their teams. For the past 4 years, Ann's responsibilities as Manager, Safety Management Planning and Analysis for the Operational Support department have focussed on enhancing the processes and procedures of the Safety Management System, and on integrating the processes within and across functional groups. Her team is responsible for:

- developing and producing safety performance metrics
- managing the Aviation Occurrence Reporting system
- providing Human Factors guidance and training to investigators
- developing integrated risk management techniques that employ system safety and human factors principles
- leading the national implementation of Just Culture
- leading the national implementation of Normal Operations Safety Survey (NOSS), which is the ATC equivalent of the airlines Line Operations Safety Audit (LOSA)

Ann is a member of the Human Factors and Ergonomics Society, and has published a number of articles in refereed journals and conference proceedings.



NAV CANADA's Fatigue Management Program

Ann Lindeis

*Aviation Fatigue Management:
Partnerships for Solutions
June 17 – 19, 2008*

Overview

NAV CANADA

- Who we are
- Our Fatigue Management Program
- How we investigate for fatigue in incidents
- Continuing challenges

Who We Are

NAV CANADA

- Canada's provider of civil air navigation services
- 5,300 employees
- 6.5 million IFR movements per year
- Second largest ANS in world
- Regulated by Federal Government (Transport Canada) on safety performance



Fatigue Management Program

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- Fatigue Management Policy
 - incorporated into safety management system
- Purpose
 - to enhance safety and reduce fatigue-related risks in our operations



Fatigue Management Program

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Guiding Principles

- scientific basis
- comprehensive approach
- shared responsibility



Fatigue Management Program



Program Components

- education
- alertness strategies
- scheduling practices



Fatigue Management Program

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Education

- controllers receive a module on the physiological basis of sleep and fatigue, circadian rhythms, personal alertness strategies



Fatigue Management Program



Alertness Strategies

- preventive alertness strategies
- operational alertness strategies



Fatigue Management Program

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Scheduling Strategies

- measures developed to assess schedules for their impact on fatigue
- periodic assessments of units' scheduling practices

Investigating for Fatigue

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Investigation tool

- questionnaire on 72 hour history
- quantitative/qualitative analysis
- link fatigue to performance

Challenges

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Balancing scientific principles of fatigue with:

- personal lifestyle preferences
- operational demands of traffic
- collective agreements



Conclusion

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- Program provides:
 - solid framework for continuous improvement in managing fatigue
- Investigation tool provides:
 - data for assessing impact of fatigue on safety
- NAVCANADA is committed to actively manage fatigue to reduce risks to safety