

*AVIATION FATIGUE MANAGEMENT SYMPOSIUM:
PARTNERSHIPS FOR SOLUTIONS*

“Domestic Operations: Transcontinental Focus”



Aviation Fatigue
Management
Symposium:
Partnerships
for Solutions
June 17-19, 2008

*Presented by
Federal Aviation
Administration*

Domestic Operations- Transcontinental Focus

The statements in this report reflect discussions among symposium participants and do not reflect the official position of the Federal Aviation Administration.



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Objectives

For Each Discussion Group Area

- **Objective 1:** Compile fatigue-related challenges and drivers
- **Objective 2:** Compile the major current (as well as historical) barriers to fatigue mitigation.
- **Objective 3:** Compile potential fatigue mitigation concepts and activities that may apply to particular discussion group area.

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2



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Discussion Group Area

- Major occupational groups represented in this discussion group include:
 - Representatives from the scientific community
 - Airline Management Representatives
 - Crewmember Labor Organizations
 - Crewmembers
- Specific schedules that were considered by the group were domestic operations with a transcontinental focus

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3



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Challenges/Drivers

- Scheduled vs. irregular (actual) operations
- Current regulations blind to circadian rhythm
- Schedules
 - Daytime layover / night time flight
 - Consecutive back-to-back duty periods
- Layover quality
- Other issues in transcontinental flight

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4



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Barriers

- Cost
- Lack of Education and Knowledge
- Negative public opinion
 - Napping
 - Pharmacology
- Regulations don't address circadian factors
- Prevailing parochial interests
- Trust

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5



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Barriers

- Current regulatory limits may force undesirable schedules
- Science either not available or not validated for aviation
- Need data gathering / research beyond current regulatory limits
- Scheduling constraints
 - Slot times
 - Facility constraints
 - Connections
 - Competition

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6



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Barriers

- Technology Barriers
- Undiagnosed sleep disorders
- Misinformation
- Complexity of regulations
- Need for confidentiality / anonymity
- Fatigue policy issues
 - No policy
 - Punitive
 - Not paid

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7



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Mitigations

- Scheduling Solutions
 - Fatigue Friendly schedules
 - Pairing, line-building and re-routing software that optimizes resources and incorporates a “fatigue” component
 - Apply the same “science” to both “scheduled” and “reserve” flying

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Mitigations

- Controlled Rest (napping)
 - As a “coping”, not a “planning” tool
- Pharmacology
 - Sleep Aids
 - Stimulants
- Petition for Rulemaking
 - Alternative to current flight and duty limits based on FRMS concepts
 - Higher flight time limit vs. daytime layover

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9



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Mitigations

- Fatigue Risk Management System
- Fatigue Policy
 - Policy standard developed by the FAA to ensure standardization
- Fatigue Reduction Education
- Health and Nutrition Education
- Fit for Duty- Shared Responsibility
 - Carrier to provide adequate rest opportunity
 - Crewmember to utilize rest opportunity

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10



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Mitigations

- Adequate layovers
 - True eight hour sleep opportunity
 - Hotel “standards” to promote rest
- Physiologic Measures
 - Establish validated measure of fatigue
- Data collection
 - Actigraphy to measure actual sleep
 - Model validation for aviation

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11



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Concluding Remarks

- We can't eliminate fatigue, but if all the stakeholders can work together, we can take steps to mitigate its effects.

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12