

DETAILED AGENDA

- TRACK A: *Define and Measure Fatigue Problem*
- TRACK B: *Health-Related/Pharmacological Issues*
- TRACK C: *Enacting/Implementing Change*
- TRACK D: *Supporting Technologies*
- TRACK E: *Fatigue and Performance Modeling*
- TRACK F: *Evaluation of Fatigue Risk Management System Interventions*

MONDAY, MARCH 23

- 16:00 – 19:00 Registration/Information (Grand Ballroom Pre-Function area)
- 19:30 – 21:30 Reception – appetizers provided (Palm Garden, 2nd floor)

TUESDAY, MARCH 24

TRACK

- 7:30 – 15:30 Registration/Information (Grand Ballroom Pre-Function area)
- 7:30 Light Continental Breakfast (Grand Ballroom Pre-Function area)
- 8:00 – 17:00 Exhibits (Salons G – I)
- 8:30 – 10:00 Opening Session (Salons A – F)
Keynote Speaker: MEMBER DEBORAH A.P. HERSMAN, National Transportation Safety Board
- 10:00 – 10:30 Poster Session I and Alertness Break – coffee service (Palm Garden)
Posters available, authors not present
- 10:30 – 12:00 **Fatigue Management and Individual Change (Salons J – L)** C
 - Objective sleepiness predicts performance on a hazard perception simulator task
 - Internet-based driving tips for commercial motor vehicle drivers
 - Overcoming barriers to commercial driver sleep apnea screening
 - Addressing obstructive sleep apnea in commercial drivers
- Panel: Fatigue Risk Management Systems (FRMS) Business Case Model: Operation Healthy Sleep, Harvard Medical School (Salons D – F)** F
 - FRMS evaluation business case model: Operation Healthy Sleep: An evaluation teaching case
 - FRMS business case discussion
 - Closing summary, comments, review, and discussion
- Cross-Modal Fatigue Status and Unresolved Methodological Issues (Salons A – C)** A
 - Methodological issues associated with measuring the operational impact of fatigue in aviation
 - The fatigue status of the U.S. railroad industry: A preliminary analysis
 - Incidence and predictors of fatigue-related aviation accidents
- Planes, Trains, Boats, and Trucks: Supporting Technologies Across Transport Platforms (Faneuil/Harbor/Haymarket)** D
 - Flight crew scheduling based on fatigue risk guidance
 - Locomotive alerter technology assessment
 - Relationship between marine pilot complement and pilot fatigue risk during tanker vessel movements: Optimizing staffing efficiency and safety
 - Truck driver fatigue management survey
- 12:00 – 1:30 Lunch – provided (Palm Garden)
Keynote Speaker: AUDREY REICHARD, M.P.H., CDC/NIOSH
- 13:30 – 15:00 **Pharmaceuticals for Sleep and Wakefulness: Impact on Worker Safety (Faneuil/Harbor/Haymarket)** B
(CONTINUED ON NEXT PAGE)
 - Pharmacological management of fatigue
 - Stimulants, hypnotics, nutritional aids, medications, and other chemical substances: Their effects on driving alertness and performance
 - Medical provider practices on drugs and commercial driver certification
- Panel: Fatigue and Performance Modeling 101 (Salons A – C)** E
 - Biomathematical modeling of fatigue: Basic theoretical, mathematical and scientific concepts
 - Technical integration of biomathematical models of fatigue into systems: What approaches are valid and feasible?
 - Use of biomathematical models of fatigue: Safety, liability, confidentiality, adherence, consequences
- Eye Closure and Lane Change: Multiple Approaches for Real-Time Drowsiness Detection (Salons D – F)** D
 - A model based on machine learning approach to classify lane-change maneuver as an indirect measure of fatigue
 - From research to market: Development of a truck Driver Alert System (DAS)
 - Real-time microsleep detection and warning system significantly improves safety on public roads
 - An innovative approach to the assessment of a multi-dimensional driver drowsiness monitoring system

DETAILED AGENDA, CONTINUED

TUESDAY, MARCH 24

TRACK

13:30 – 15:00 (CONTINUATION)	<p>Review of Fatigue Risk Management System Interventions (Salons J – L)</p> <ul style="list-style-type: none"> • Injury reduction with a sleep disorders screening program • Fatigue risk management integrated within an airline management system • Findings from international railway roster studies – moving beyond fatigue management limitations of current schedule design: A three prong approach • Effects of a fatigue management program on fatigue in the commercial motor vehicle industry 	F
15:00 – 16:00	<p>Poster Session I and Alertness Break – coffee service (Palm Garden) <i>Posters available, authors present</i></p> <ul style="list-style-type: none"> • Prevalence of fatigue in serious hazardous material truck crashes: A database analysis approach • Modeling fatigue in split sleep schedules with a new biomathematical model for the homeostatic effects of sleep loss • EEG-based model for real-time driver drowsiness recognition and prevention • Novel identification of optimal physiological indices for monitoring cognitive fatigue • The detection of drowsy drivers through driver performance indicators • Restart period and sleep for commercial motor vehicle drivers • Sleep history affects performance during subsequent sleep restriction and recovery • Detection of driver drowsiness using EEG alpha wave bursts: Comparing accuracy of morphological and spectral algorithms • Gene expression changes in response to 36 hours sleeplessness • Predicting driver's hypovigilance on monotonous roads: Literature review • A review of fatigue risk management systems and their potential for managing fatigue within the U.K. road transport industry • Analyses of fatigue-related large truck crashes, the assignment of critical reason, and other variables using the Large Truck Crash Causation Study • Comparing fatigue reports across road transport industry sectors • Development of a multi-dimensional scale for driver fatigue 	
16:00 – 17:30	<p>Cross-Modal Panel I: Sleep Requirements in the Transportation Industry: One Size Fits All (Salons A – F)</p>	
17:30	<p>Dinner – on your own</p>	
18:00	<p>Optional Tour of Boston (Meet in Hotel Lobby)</p>	

WEDNESDAY, MARCH 25

7:30 – 15:30	<p>Registration/Information (Grand Ballroom Pre-Function area)</p>	
7:30	<p>Light Continental Breakfast (Grand Ballroom Pre-Function area)</p>	
8:00 – 17:00	<p>Exhibits (Salons G – I)</p>	
8:30 – 10:00	<p>Fatigue Management and Culture Change (Salons D – F)</p> <ul style="list-style-type: none"> • Safety culture and self-reported fatigue in commercial aviation operations • Mapping solutions to the evidence of fatigue challenges in aviation maintenance • Legislative initiative to reduce drowsy driving crashes • Motor vehicle crashes before and after implementation of the Massachusetts Junior Operators License legislation 	C
	<p>Predicting Accidents and Risk (Salons A – C)</p> <ul style="list-style-type: none"> • Railroad work schedules, fatigue, and the cost of accidents • Modeling the association of hours-of-service to motor carrier crash risk • A multidimensional research on train drivers' sleep and fatigue: From predictive models to actual data • Transient risk factor models for fatigue and human factors rail accidents 	E
	<p>Supporting Technologies for Testing, Detecting, and Counteracting Drowsiness (Salons J – L)</p> <ul style="list-style-type: none"> • Seeking a new way to detect human impairment in the workplace • Shiftwork adaptation testing system • The work schedule manager credential: Development of a new approach to managing worker fatigue • Fatigue countermeasure rebound: Temporary alertness gain from caffeinated chewing gum repaid as excessive sleepiness after countermeasure cessation 	D

DETAILED AGENDA, CONTINUED

WEDNESDAY, MARCH 25

TRACK

16:00 – 17:30	<p>Individual Differences in Response to Sleep Loss: Implications for Occupational Safety (Salons J – L)</p> <ul style="list-style-type: none"> • Inter-individual differences in the impact of sleep loss on neurobehavioral performance: Regulatory implications for the transportation industry • Individual differences in responses to sleep loss • Genetic predictors of physiological and behavioural responses to sleep loss • The Genetic Information Non-Discrimination Act of 2008: The intersection of science, individual privacy rights and the law 	B
	<p>Measuring the Fatigue Problem: The Contributions of Individual Health, Lifestyle, and Behavior (Salons A – C)</p> <ul style="list-style-type: none"> • Subjective and objective assessments of sleepiness following short-term, partial sleep restriction • Using naturalistic driving data to explore the relation of body mass index and fatigued driving among professional truck drivers • Screening for and confirmation of excessive daytime sleepiness (EDS) and obstructive sleep apnea (OSA) in railroad workers • Assessing associations between video drowsiness ratings and subjective measures of fatigue with lifestyle and behaviour: A driver study • Obstructive sleep apnea and motor vehicle crashes: A systematic review and meta-analysis 	A
	<p>Panel: Issues in Fatigue and Performance Model Implementation and Use (Salons D – F)</p> <ul style="list-style-type: none"> • Promise and limitations of fatigue and performance modeling as a tool for fatigue risk management in transportation • Modeling – implementation and accident risk • Fatigue modeling: Opportunities and challenges of the transition into every day use by government regulators and industry risk managers • A critical review of current fatigue and performance models and their use 	E
	<p>Ocular Measures and Technologies for Detecting Drowsy Drivers (Faneuil/Harbor/Haymarket)</p> <ul style="list-style-type: none"> • Method and apparatus for generating an indication of a level of vigilance of an individual. US patent # 7435227 • Validation of the PERCLOS loss of alertness and other oculometric measures as an index of clinical causes of driver impairment • Use of an ocular method for monitoring the drowsiness of drivers • Sensitivity and specificity of a driver drowsiness detection device: The CRAM 	D
18:30 – 21:00	<p>Banquet Reception – provided (Palm Garden) <i>Keynote Speaker: MASSACHUSETTS STATE SENATOR RICHARD T. MOORE, Chairman of the Committee on Health Care Financing</i></p>	

THURSDAY, MARCH 26

8:00 – 12:00	Registration/Information (Grand Ballroom Pre-Function area)
8:00	Light Continental Breakfast (Grand Ballroom Pre-Function area)
8:00 – 14:30	Exhibits (Salons G – I)
9:00 – 13:15	<p>Closing Plenary Session: Cross-Conference Evaluation (Salons A – F) <i>Keynote Speaker: MICHAEL QUINN PATTON, PH.D., Former President of the American Evaluation Association</i></p>
10:45 – 11:15	Alertness Break (Salons A – F)
13:15 – 16:00	<p>FAA Modal Session – box lunch (Salons A – C)</p> <p>FMCSA Modal Session – box lunch (Salons D – F)</p>