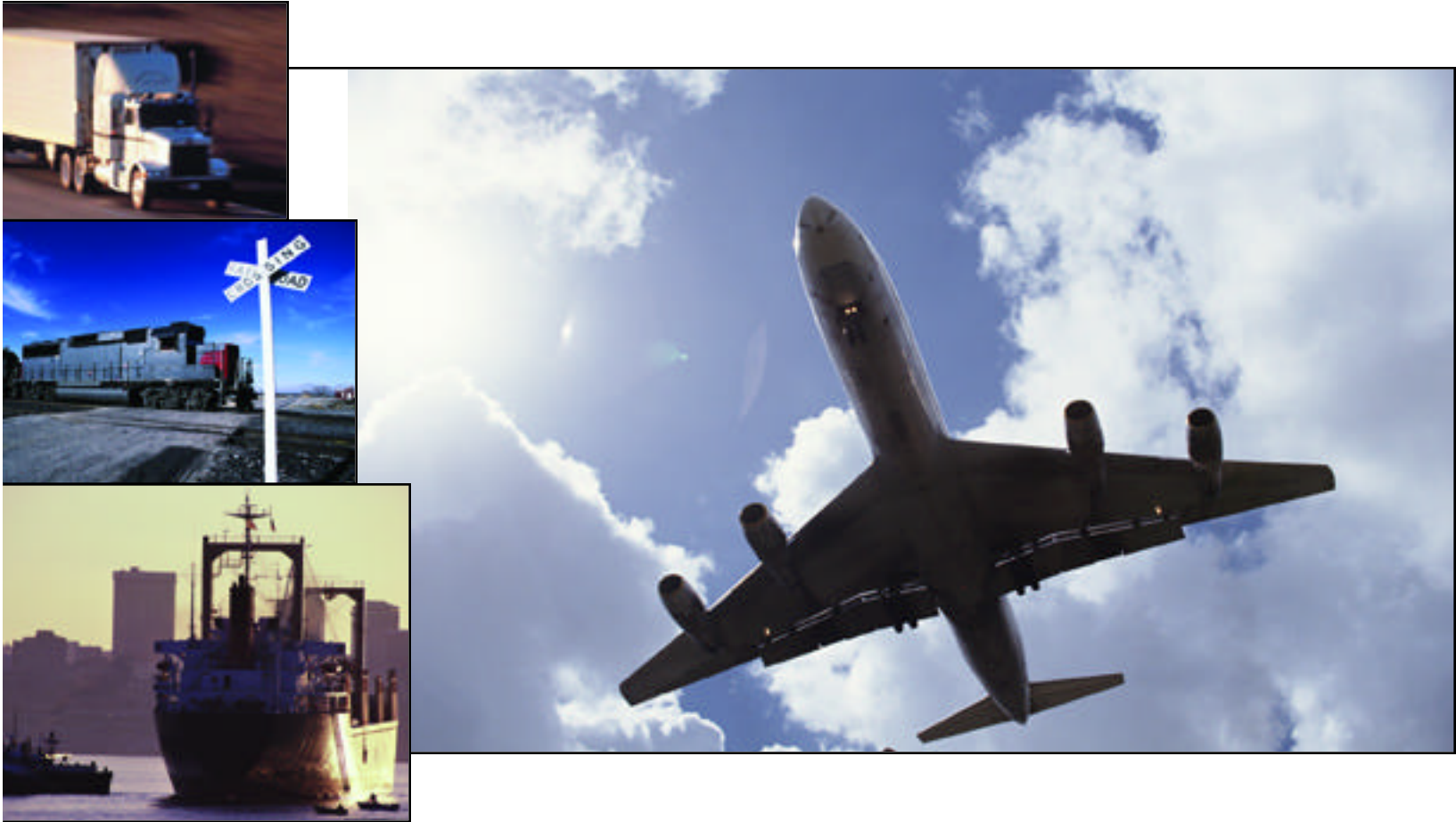


# U.S. DOT Operator Fatigue Management Program Partnerships

for 21st Century Transportation Safety and Security



**DOT Administrations Team Together to Combat Accidents Caused by Operator Fatigue**

January 2003



Bringing Innovation to Practice Through R&D Partnerships



## Fatigue Management is Critical for Safety in All Transportation Modes

Operator fatigue is a critical safety issue that cuts across all modes and operations in the transportation industry. Fatigue produces physical and mental decrements in alertness that can reduce job performance effectiveness, decrease the ability to safely operate vehicles, and increase the risk of human error resulting in fatalities and injuries. The incidence of fatigue is underestimated in virtually every transportation mode because it is so hard to quantify and measure fatigue. Effective fatigue management requires major changes in work organizational culture and operator behavior. Managing fatigue is a safety priority for reducing operator error and accidents.

## ONE DOT Fatigue Management Partnership Program

Recognizing the importance of managing operator fatigue, DOT modal administrations joined together, under the auspices of the U.S. Department of Transportation's (DOT) Safety Council and DOT's Human Factors Coordinating Committee (HFCC), to start a partnership research initiative focused on Operator Fatigue Management (OFM). The partnership initiative is managed by the Research and Special Programs Administration (RSPA).



In August 2000, the Research and Special Program Administration co-sponsored a stakeholder conference titled, "Partnering For Transportation Safety, Human-Centered Systems: Operator Fatigue Management." The conference spurred the development of public private partnerships for formulating fatigue management strategies in transportation operations. Using the conference recommendations, RSPA issued a Broad Agency Announcement (BAA) to seek partnership research on important project themes applied to

fatigue management. After evaluating responses to the BAA, DOT selected the following four projects and executed partnership agreements.

- A software tool to aid managers and schedulers in evaluating and designing work schedules that promote on-duty alertness.
- A procedure for validating fatigue modeling tools for use by managers, schedulers, accident investigators and operators in predicting employee alertness and perform-

ance levels based on their work schedule.

- A handbook of best practices for operator fatigue management, providing guidance for managers and schedulers in identifying, evaluating, and implementing fatigue management approaches.
- A program evaluation and planning tool that organizes current information on operator fatigue management and provides a blueprint for evaluating and implementing additional interventions.



## Taking Results to Transportation Practice

The DOT Operator Fatigue Management (OFM) initiative is a team effort involving all DOT modal administrations. The initiative pulls together the expertise of government, industry, and labor to create tools that meet the immediate and future needs of operators who must cope daily with unusual and difficult work schedules and the practicalities of fatigue management.

Representatives of industry and labor are involved in the planning and field-testing stages of tool development. Many commercial carriers and government agencies are poised to use these tools as they become available.

"We greatly appreciate DOT's help on this difficult issue," says **Al Lindsey**, General Director, Safety and Rules for BNSF Railroad. "This program has the potential to help us optimize our crew scheduling practices for both operational efficiency and crew fatigue prevention."

"Fatigue management tools can help minimize the health and safety risks to union member that can be brought on by poorly designed work schedules," says **William Walpert**, national chairman of the Safety Task Force for the Brotherhood of Locomotive Engineers. "This project may help save lives."

For additional information on the DOT initiative, please call the RSPA Office of Innovation, Research and Education (202-366-0375) or email [K.Thirumalai@rspa.dot.gov](mailto:K.Thirumalai@rspa.dot.gov).



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