

“Operational Benefits of a Fatigue Risk Management System”

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Abstract

This presentation outlines how using validated fatigue data from actigraph, PVT, etc. along with objective performance data from FOQA can help in developing tools to effectively build trip pairings and roster crews. This would provide for the development of effective strategies to manage fatigue issues and maintain appropriate levels of crew alertness.

The International Civil Aviation Organization (ICAO) defines Safety Management System (SMS) as an organized approach to managing safety, including the necessary organizational structures, accountabilities, policies, and procedures. As a company we look at a SMS program as a quality management approach to controlling risk (threats). The development of a Fatigue Risk Management Program is a necessary part of an Effective SMS program in developing strategies to manage risk in an operation.

Working with Dr. Greg Belenky, Research Professor and Director of the Sleep and Performance Research Center at Washington State University, Continental has formed a Fatigue Risk Management Team (FRMT) that reports to the Flight Operations Safety Action Team. Dr. Belenky and the FRMT will be using the Sleep, Activity, Fatigue, and Task Effectiveness Model / Fatigue Avoidance Scheduling Tool (SAFTE™/ FAST™). The beauty of a mathematical model is that it

incorporates extant scientific knowledge, and given a validated model, we can assess the performance consequences of any possible schedule.

Main Points

- Describe the structure of a Fatigue Risk Management Team (FRMT)
- Outline how the fatigue and performance data will be collected
 - Use of the SAFTE/FAST tool
 - Actigraph
 - Palm Pilot Psychomotor Vigilance Task (PVT)
 - Flight Operational Quality Assurance (FOQA)
- Outline how the data analysis will help validate the SAFTE/FAST tool and lead to the development of scheduling programs that incorporate fatigue mitigation strategies.

A copy of Captain Don Gunther’s biographical information and presentation slides are provided in Appendix B.