



**NTSB** National Transportation Safety Board

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*Office of Aviation Safety*

## **Human Performance**

Bombardier CRJ-200

Pinnacle Airlines

Traverse City, Michigan

April 12, 2007

# Human Performance Issues

- Decision-making
- Fatigue
- Training

# Decision-making

- Captain familiar with procedure
- Crew received updated weather information
- Adequate time available
- Pilots were trained and had time to perform landing distance assessment

# Fatigue

- Accident at 12:43 a.m.
- 14 hours on duty
- Four previous landings
- Cockpit voice recorder contained statements about being tired and yawns

# Fatigue

- Check airman duties increased captain's workload during duty day
- Increased workload likely aggravated fatigue for captain

# Fatigue effects

- Long duty periods associated with errors/accidents
- Degrades decision-making
- Poor decision-making likely reflected the effects of fatigue

# Training

- Must reinforce the need for calculating landing distance assessments

# Recommendations

- Hours of service standards
- Training guidance
- Fatigue management programs





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