

NTSB National Transportation Safety Board

Office of Highway Safety

Human Performance

Deborah Bruce, PhD

Driving Experience

- Part-time driver since 2001
- No traffic violations
- School bus driver 2000-2005
- Excellent pre-employment reference
- One past motorcoach accident
- Third trip to Florida for Bluffton



Driver's Work/Rest Schedule

- Off-duty 12-day period
- March 1st on-duty 10.5 hours
- Arrived in Adairsville, GA, at 7:37 p.m.
- Began driving at 4:30 a.m. March 2nd
- Opportunity for 7 hours of sleep
- Driving an hour before accident



Fatigue-Related Accident Factors

- Duration of last sleep
- Total sleep in past 24 hours
- Split sleep/work pattern



Driver Medical Information

- Expired medical certificate
- Recent visit to primary care physician, but did not get medical exam
- Risk factors for obstructive sleep apnea, but had never been tested
- Not impaired by alcohol, illicit drugs, or narcotic pain medication



Accident Trip

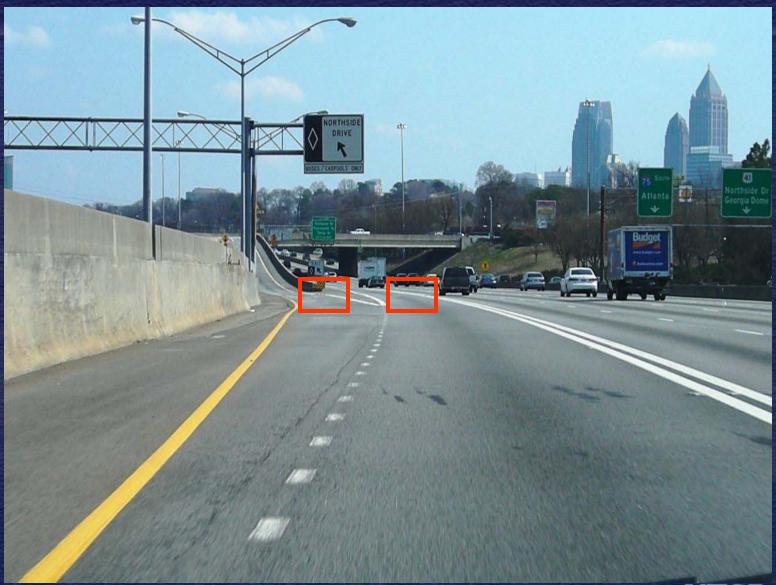
- Traveling in HOV lane at est. 65 mph
- Not using telephone or CB radio
- Road conditions were dry
- It was dark at 5:38 a.m.
- Roadway lighting met current design standards
- Headlights were likely on low beam



Driver Expectancy

- Driver expected I-75 HOV lane to diverge to the left
- The driver did not expect a left interstate exit
- Primary lane following cues were
 - yellow edge line marker on the left
 - double white line on the right
 - repeated diamond road markers







Route Following Mistake



Failure to Stop

Factors Affecting Perception-Reaction Time:

- Low contrast nighttime conditions
- Older age
- Object size
- Driver expectancy
- Visual complexity
- Driver experience/familiarity



Driver Error

- Route following mistake takes him up the exit ramp
- Failure to decrease speed ignores road elevation cues
- Failure to stop even with STOP AHEAD signs





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