



NTSB National Transportation Safety Board

Office of Highway Safety

Special Investigation Report

Pedal Misapplication in Heavy Vehicles

Today's Presentations

- Pedal misapplication
- Liberty accident
- Falls Township accident
- Brake transmission shift interlocks
- Pedal design and familiarity
- Mitigation and event data recorders



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Pedal Misapplication Overview

Dennis Collins

Sudden Acceleration

- Entered spotlight mid/late 1980s
- 1989 NHTSA report
 - Defined “sudden acceleration”
 - Determined human error most likely when no mechanical cause found
 - Made recommendations
- Other agencies reached similar conclusions

Role of Human Factors

- Response execution errors
- Variabilities in muscle movement
- Impairment of ability to recognize and correct errors
 - Can last >10 seconds
 - Stress
 - Time pressure

Pedal Misapplication Summary

- Typically found to have no mechanical cause
- Likely human error: pedal misapplication
- Focus to date primarily on light vehicles
- A human phenomenon, can occur with any driver in any vehicle



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