



**National
Transportation
Safety Board**

NTSB Highway Investigations: Process and Strategies

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Human Performance

Office of Highway Safety

- Total staff of 30 managers, investigators, writers, and support staff
- Headquartered in Washington, DC
 - Some regional teleworkers
- Crashes of national interest are monitored 24-7 from the NTSB's Response Operations Center located at HQ



Types of Highway Crash Investigations



Miriam, NV 6/14/12



Gray Summit, MO 8/5/10



New York, NY 3/12/11



Minneapolis, MN 8/1/07

The Launch



- Staff travel from HQ and regional telework locations to crash scenes anywhere in the U.S.
- Typically on-scene
~ 5 to 14 days
- Parties typically include
 - Law enforcement
 - Motor carriers
 - State highway organizations
 - Vehicle and component manufacturers

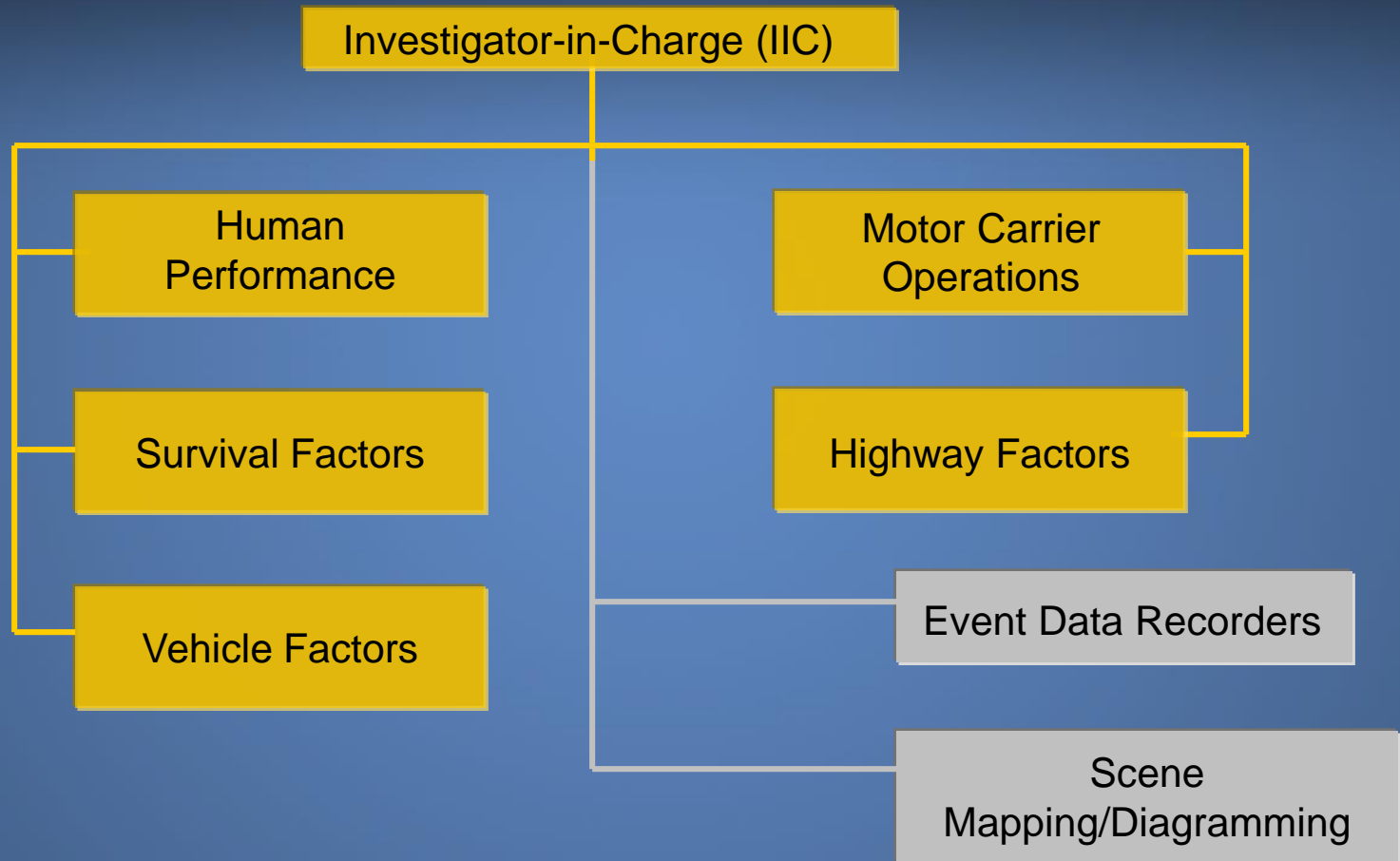


NTSB

Not there to...

- Take over the investigation
- “Oversee” the investigation
- Slow the process

The Team



Highway Group

- Looks at:
 - Initial Design of roadway
 - Modifications
 - Maintenance
 - Accident history
 - ADT
 - Roadway evidence
 - Traffic Control Devices
- Information from:
 - DOT
 - Law enforcement
 - MUTCD
 - Roadside Design Guide
 - AASHTO Geometric Design Guide

Motor Carrier Group

- Looks at:
 - Logbooks
 - DVIRs
 - DQ file(s)
 - DOT D&A testing
 - Company policies
 - FMCSA rating
- Information from:
 - Company staff
 - Company records
 - FMCSA
 - Driver licensing
 - Law enforcement

Vehicle

- Looks at:
 - Crash damage
 - Pre-crash condition
 - Maintenance
 - Recalls
- Information from:
 - Vehicle inspection
 - Owner records
 - Law enforcement

Survival Factors

- Looks at:
 - Injuries
 - Injury causes
 - Emergency response
- Information from:
 - Responders
 - CAD
 - Run sheets
 - Hospital records
 - Autopsies
 - Law enforcement

Human Performance

- Looks at:
 - Fatigue
 - Distraction
 - Psychology
 - Meds/Drugs
 - Medical conditions
 - Weather
 - Illumination
- Information from:
 - Driver
 - Family/Friends
 - Witnesses
 - Doctors
 - Toxicology
 - Cell records
 - USNO
 - Law enforcement

Investigating Distraction

- Is there a source of distraction?
 - AM/FM/XM/CB radio
 - Personal electronics (cell phone)
 - GPS/Maps
 - Dispatch
 - Passengers
 - Billboards/signs
 - Crashes/other cars
- What kind of distraction?

Questions to ask

- What's installed in vehicle?
- What was brought in?
- Who was in the vehicle?
- What was going on outside?

Challenges & Techniques

- No independent record
 - Interviews - early
- Cell activity – meaning? Recorded?
 - Physical phone
- Related to driving?
 - Programming, area of interest
- Recreating conditions
 - Other agencies, news, locals



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