



**NTSB** National Transportation Safety Board

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# Accident Investigation Process

## Cause and Effect Analysis

# Cause and Effect Relationship

Cause —————> Effect

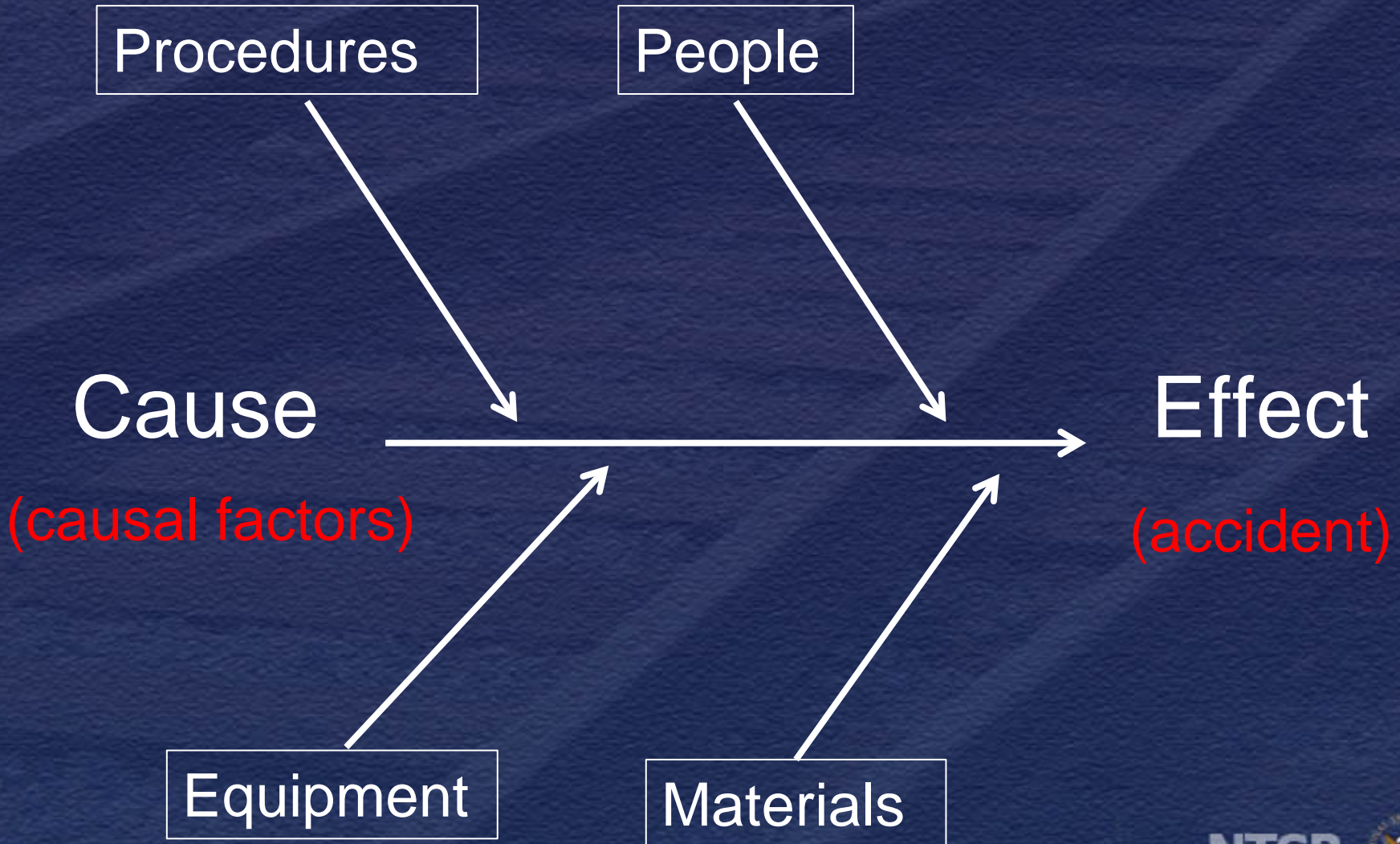
(causal factors)

(accident)

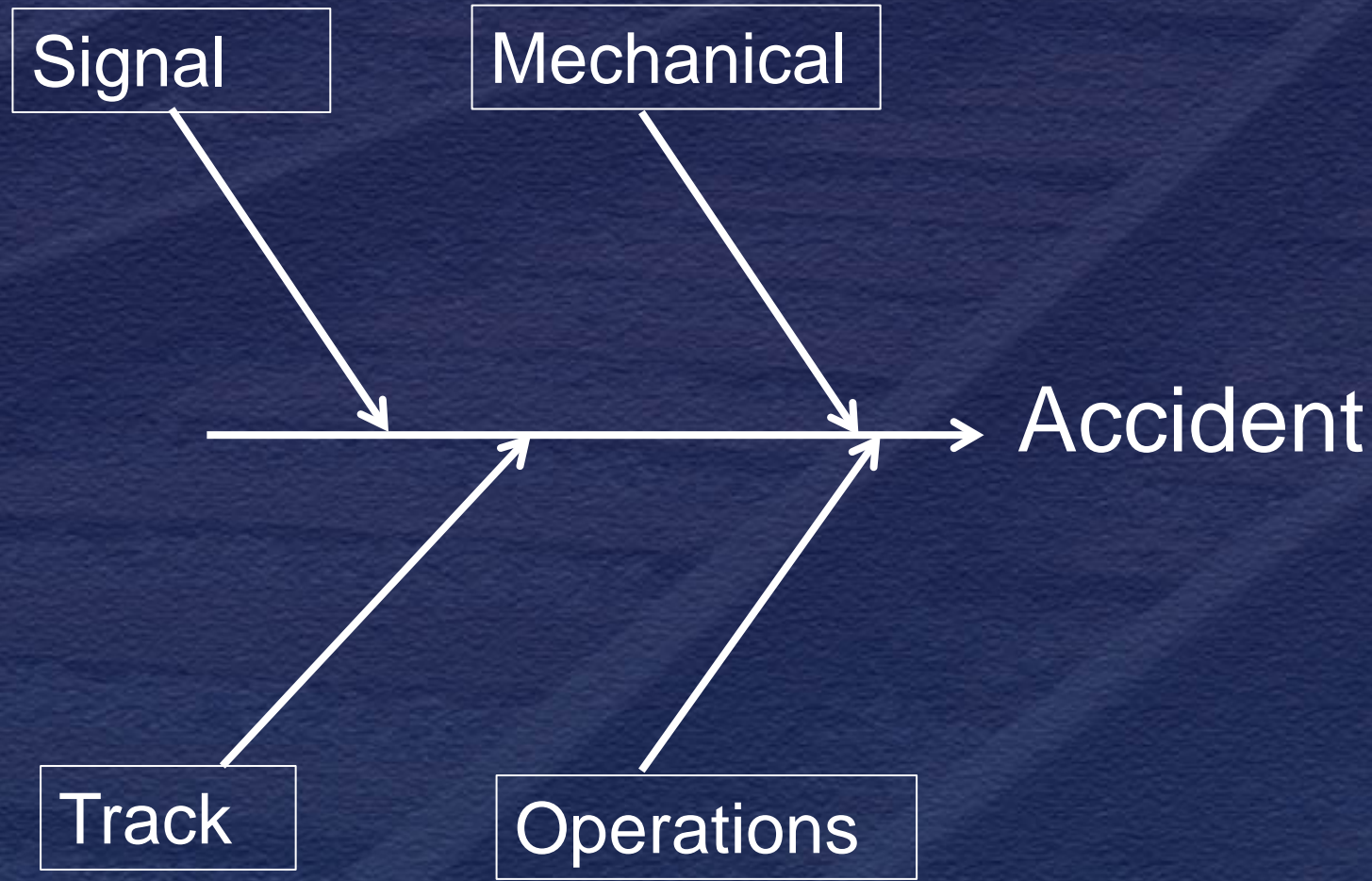
# Typical Cause Categories

- Machine/Technology
- Methods/Procedures
- Materials
- People
- Inspections
- Maintenance
- Environment

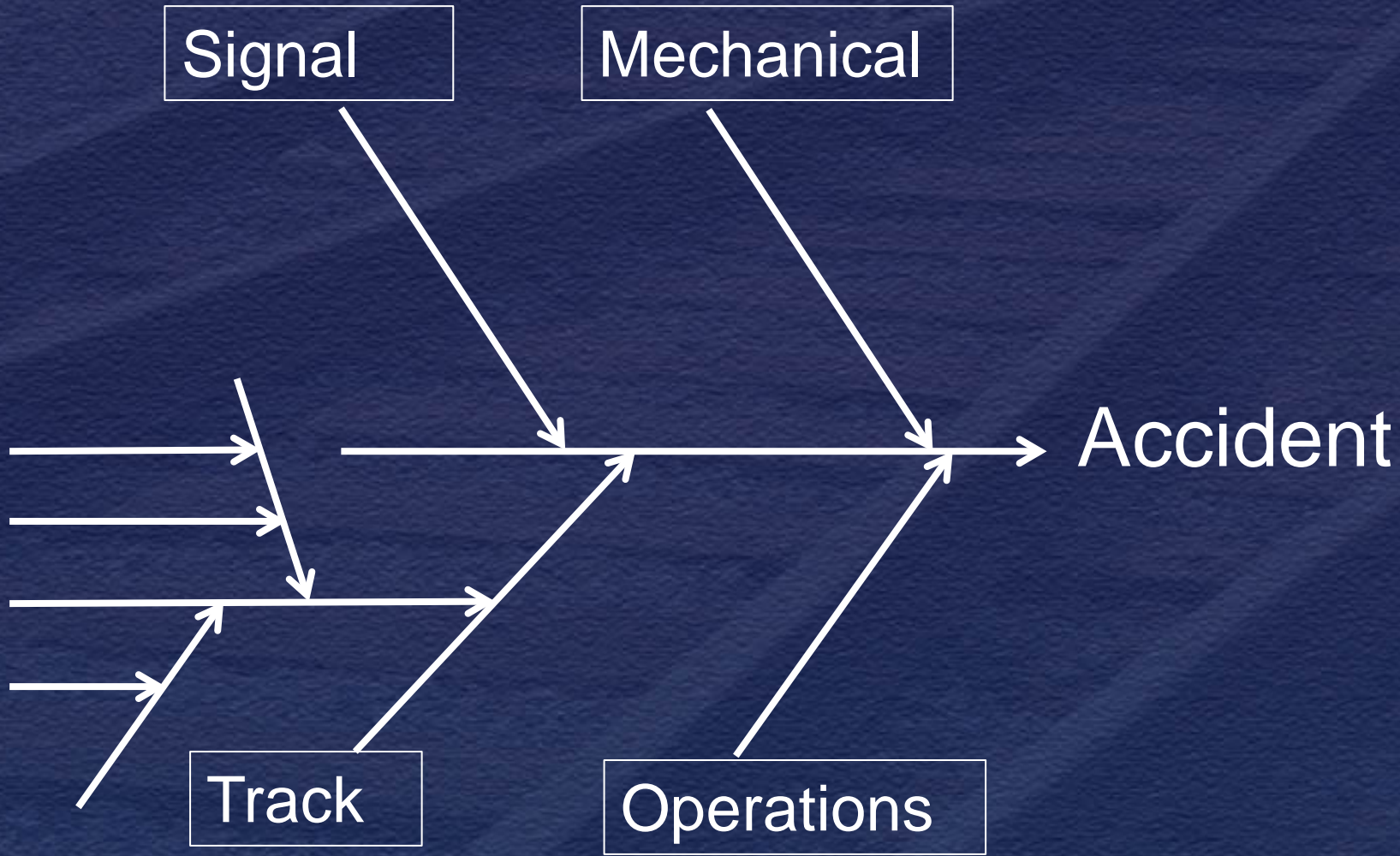
# Cause and Effect Relationship



# Cause and Effect Relationship Railroad Accident Investigation



# Accident Investigation Tool



# Use of Cause/Effect Diagrams

Cause/Effect Diagrams help the investigation team to:

- Identify areas to investigate
- Identify people to interview
- Develop interview questions
- Identify documents to request
- Identify safety issues