



NTSB National Transportation Safety Board

Collaboration

to

Reduce Risk

and

Improve Productivity

Presentation to: North American
Electric Reliability Corporation

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The Challenge: Increasing Complexity

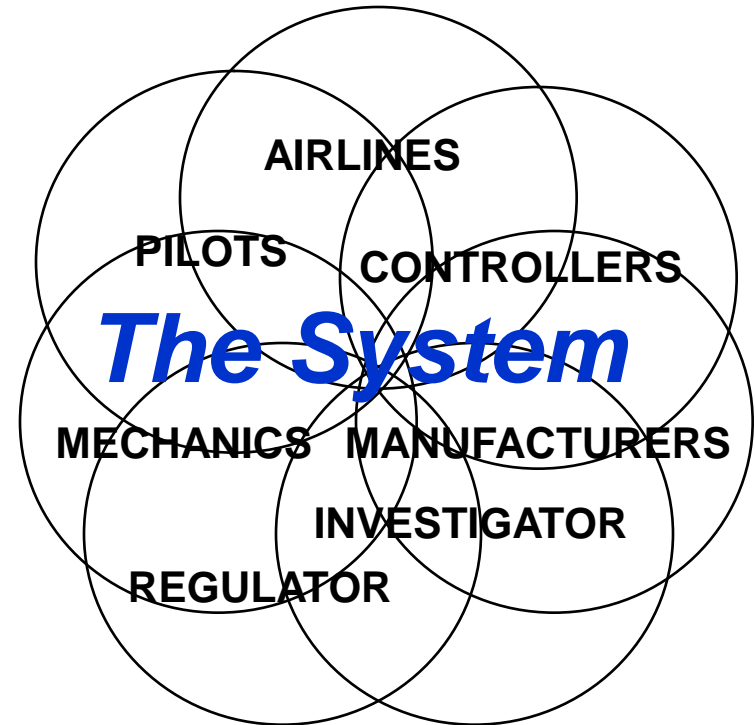
- **More System**

 - Interdependencies*

 - Large, complex, interactive system
 - Often tightly coupled
 - Hi-tech components
 - Continuous innovation
 - Ongoing evolution

- **Safety Issues Are More Likely to Involve**

 - Interactions Between Parts of the System*



The Solution – System Think

An awareness of how a change in one subsystem of a complex system may affect other subsystems within that system

“System Think” via Collaboration

Bringing all parts of a complex system together to

- **Identify potential issues**
- ***PRIORITIZE* the issues**
- **Develop solutions for the prioritized issues**
- **Evaluate whether the solutions are**
 - **Accomplishing the desired result, and**
 - **Not creating unintended consequences**

Collaboration: A Major Paradigm Shift

- **Old: Regulator identifies a problem and proposes solutions**
 - Industry skeptical of regulator’s understanding of the problem
 - Industry resists regulator’s proposed solutions and/or implements them begrudgingly
- **New: Collaborative “System Think”**
 - Industry involved in identifying problem
 - Industry players have “ownership interest” re solution because everyone had input, everyone’s interests mutually considered
 - Prompt and willing implementation (and tweaking)
 - Solution probably more effective and efficient
 - Unintended consequences much less likely

Challenges of Collaboration

- Human nature: “I’m doing great . . . *the problem is everyone else*”
- Differing and sometimes competing interests
 - Labor-management issues between participants
 - Participants are potential adversaries
- Regulator probably not welcome
- Not a democracy
 - Regulator must regulate
- Requires all to be willing, in their enlightened self-interest, to leave their “comfort zone” and think of the System

Aviation Success Story

65% Decrease in Fatal Accident Rate,
1997 - 2007

largely because of

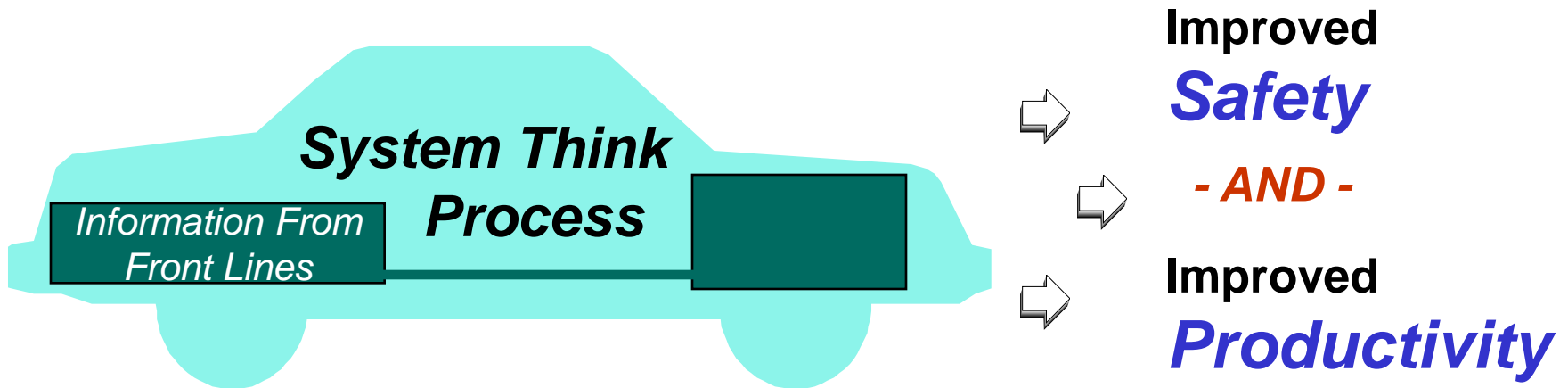
System Think

fueled by

***Proactive Safety Information
Programs***

P.S. Aviation was already considered **VERY SAFE** in 1997!!

Conclusion: Process Plus Fuel Enables A Win-Win



Thank You!!!



Questions?