

# Preventing Financial Industry Mishaps



Christopher A. Hart  
Vice Chairman

# Question

Could an unbiased and impartial mishap investigation process, such as an NTSB-type investigation, help the financial world manage risk more effectively?

*Answer: It depends.*



# Two Categories of Mishaps

- Low Frequency High Consequence Events
  - Insiders surprised, rarely if ever seen it before
  - Exhaustive investigation, may take years
  - For transportation mishaps, NTSB investigates
- High Frequency Low Consequence Events
  - If longstanding, probably indicates process problems, rather than people problems (thus, punishment is not usually helpful)
  - More efficient to address the trends than individual events
  - Suggest voluntary collaborative effort
  - In aviation, Commercial Aviation Safety Team (CAST)



# High Consequence Events: NTSB

- NTSB is an independent federal agency, investigates transportation accidents and incidents in all modes
- Determines probable cause(s) (*not liability or blame*) and makes recommendations to prevent recurrences
- Not a regulator, can only recommend
  - Favorable response to recommendations: > 80%
- Single focus of recommendations: **SAFETY**



# Independent

## – Political “independence”

- Members appointed/confirmed, but with a fixed term (i.e., not discretionary appointees)
- Member terms staggered
- Political party balance
- Technical expertise
- Objective: Conclusions from the facts, not the politics

## – Functional independence

- Role is solely as investigator; not an operator or regulator
- No “dog in the fight”
- Objective: Unbiased and impartial investigations and analyses



# The “Party” System: Developing the Facts

- NTSB relies heavily on parties who were involved in the mishap to develop the facts
  - Carrier/Operator
  - Manufacturers
  - Unions
  - Air traffic controllers
  - Regulator
- Parties are selected for their *technical expertise*
  - Excludes plaintiffs, attorneys, insurers



# The Party System: Undertaking the Analysis

- Once the facts are developed, NTSB undertakes analysis, makes findings, determines probable cause, and develops recommendations *without* the parties
- NTSB's neutrality is important for unbiased and impartial analyses, findings, and recommendations
- Anyone, including the parties, is free to submit their own analysis into the public docket



# Keeping the Public Informed

- Objective: *TRANSPARENCY* of the facts and the process
  - Factual information is placed in the public docket (except proprietary information, as appropriate)
  - Sunshine Act requires Board deliberations to occur in public
  - Final NTSB accident report is also in the public docket

*BUT . . .*

- Final NTSB accident report is *not admissible in court*





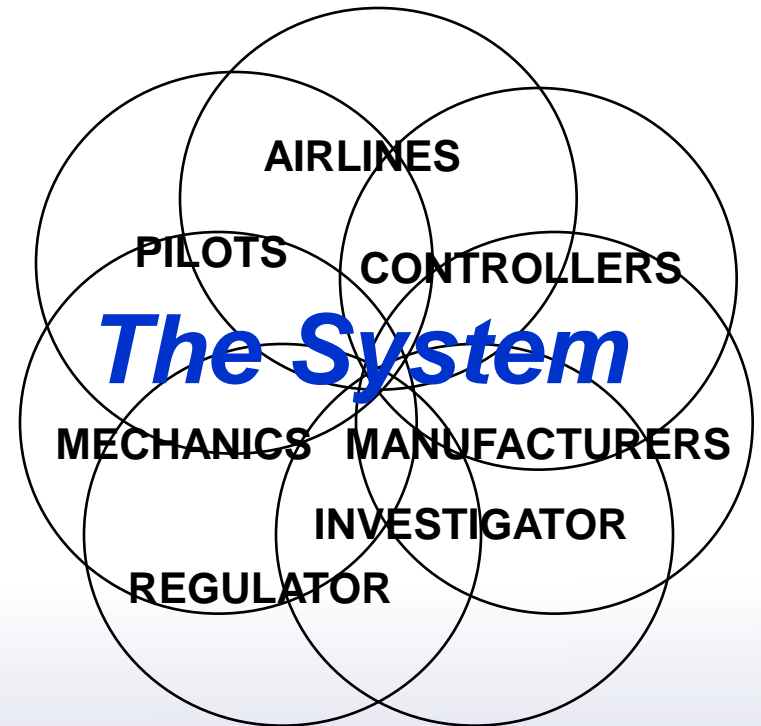
# High Frequency Events: CAST

- Suggest voluntary collaborative effort
- Suggest focus on trends, rather than individual events
  - If trend is longstanding, problem is probably systems and processes rather than people
  - Employees are more willing to participate in the investigation because it is focused on improvement rather than punishment
- Example: Commercial Aviation Safety Team (CAST)



# 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

*Understanding 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 collaboratively

- 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 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!!



# Major Paradigm Shift

- Old: The regulator identifies a problem, proposes solutions
  - Industry skeptical of regulator’s understanding of the problem
  - Industry fights regulator’s solutions and/or implements them begrudgingly
- New: Collaborative “System Think”
  - Industry is involved in identifying the problem
  - Industry “buy-in” re solutions because everyone had input, everyone’s interests considered
  - Process is *completely voluntary*
  - Prompt and willing implementation . . . *and tweaking*
  - Solutions probably more effective and efficient
  - Unintended consequences much less likely

– *Note: The CAST process generated no new regulations!*



# Challenges of Collaboration

- Human nature: “I’m doing great . . . *the problem is everyone else*”
- Participants may have competing interests, e.g.,
  - Labor/management issues
  - May be potential co-defendants
- Regulator probably not welcome
- Not a democracy
  - Regulator must regulate
- Process is voluntary, but all must be willing, *in their enlightened self-interest*, to leave their “comfort zone” and think of the System



# Manufacturer Level Success

**Aircraft manufacturers are increasingly seeking input, from the earliest phases of the design process, from**

- *Pilots* (*User* Friendly)**
- *Mechanics* (*Maintenance* Friendly)**
- *Air Traffic Services* (*System* Friendly)**





# Collaboration at Other Levels?

- **Entire Industry**
- **Company (Some or All)**
- **Type of Activity**
- **Facility**
- **Team**



# Moral of the Story

*Anyone who is  
involved in the problem  
should be  
involved in the solution*



Thank You

*Questions?*



National Transportation Safety Board