



NTSB National Transportation Safety Board

Establishing and Maintaining Safety Culture

Robert L. Sumwalt
Vice Chairman

Do you have a safety culture?

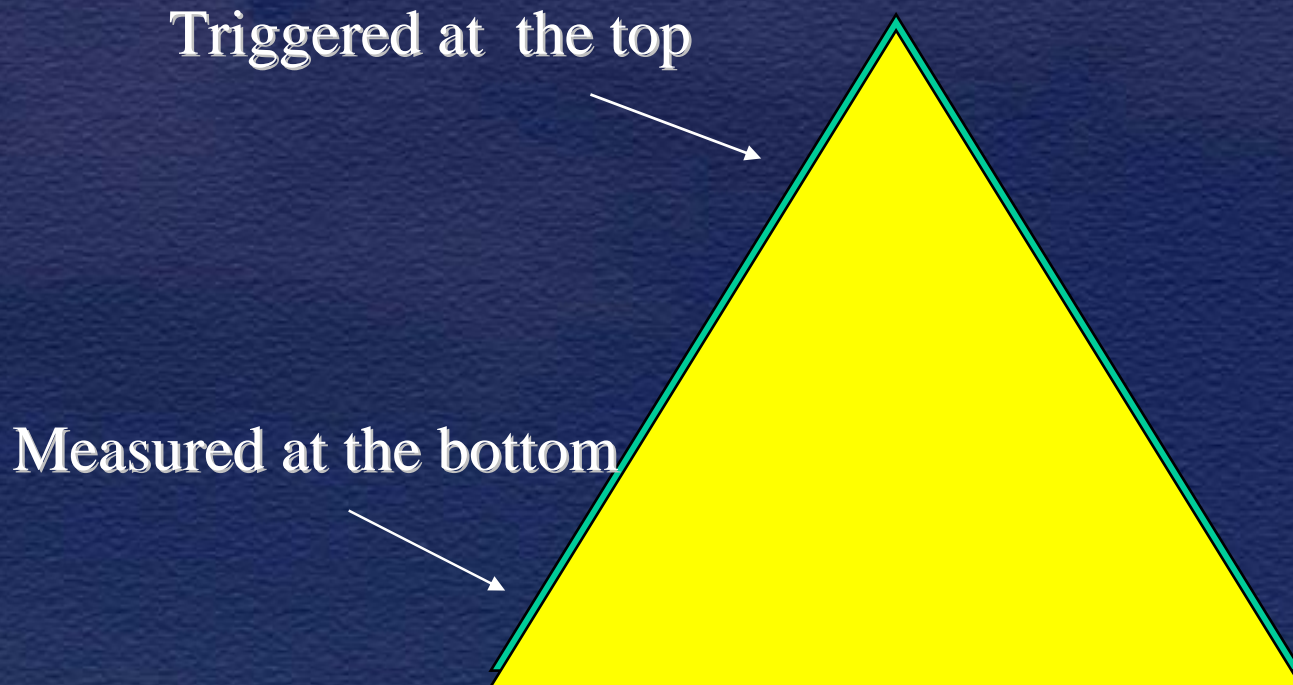
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Do you have a Safety Culture?

- “... it is worth pointing out that if you are convinced that your organization has a good safety culture, you are almost certainly mistaken.”
- “... a safety culture is something that is striven for but rarely attained...”
- “...the process is more important than the product.”
 - James Reason, “Managing the Risks of Organizational Accidents.”

Safety Culture is:



Safety culture starts at the top of the organization and permeates the entire organization.

Safety Culture

- Doing the right thing, even when no one is watching.

Roadmap to Safety Culture

- Management Commitment and Emphasis
- Standardization and Discipline
- Training
- Data Collection and Quality Control Programs

Roadmap to Safety Culture

- Management commitment and emphasis on safety
 - Safety begins at top of organization
 - Safety permeates the entire operation

NTSB Perspective



We've found through years of accident investigation that sometimes the most common link is the attitude of corporate leadership toward safety.

NTSB Perspective



The safest companies have more effectively committed themselves to controlling the risks that may arise from mechanical or organizational failures, environmental conditions and human error.

Roadmap to Safety Culture

Standardization and Discipline

- Management stresses need for these items
- Strict compliance with Standard Operating Procedures

What Safety Board investigations have found...

- Lack of established procedures
- Failure to follow established procedures

Clymers, Indiana



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Probable cause:

- failure of ... management to develop and implement safe procedures for offloading [hazardous] wastes....
 - NTSB report: Rupture of a railroad tank car containing hazardous waste, Clymers, Indiana, February 18, 1999.

Biloxi, Mississippi



Probable cause:

- Failure of Premium Tank Line, Inc's officials to follow established company procedures...
- The company's lack of adequate procedures for dispatching drivers and delivering cargo to customer facilities
- Failure of [company] to have adequate safety procedures for accepting product offered for deliver at its service stations...
 - NTSB report: Overflow of gasoline and fire at a service station-convenience store, Biloxi, MS, August 9, 1998.

Roadmap to Safety Culture

- Training
 - Strong oversight of training
 - Ensure training standardization and discipline are maintained

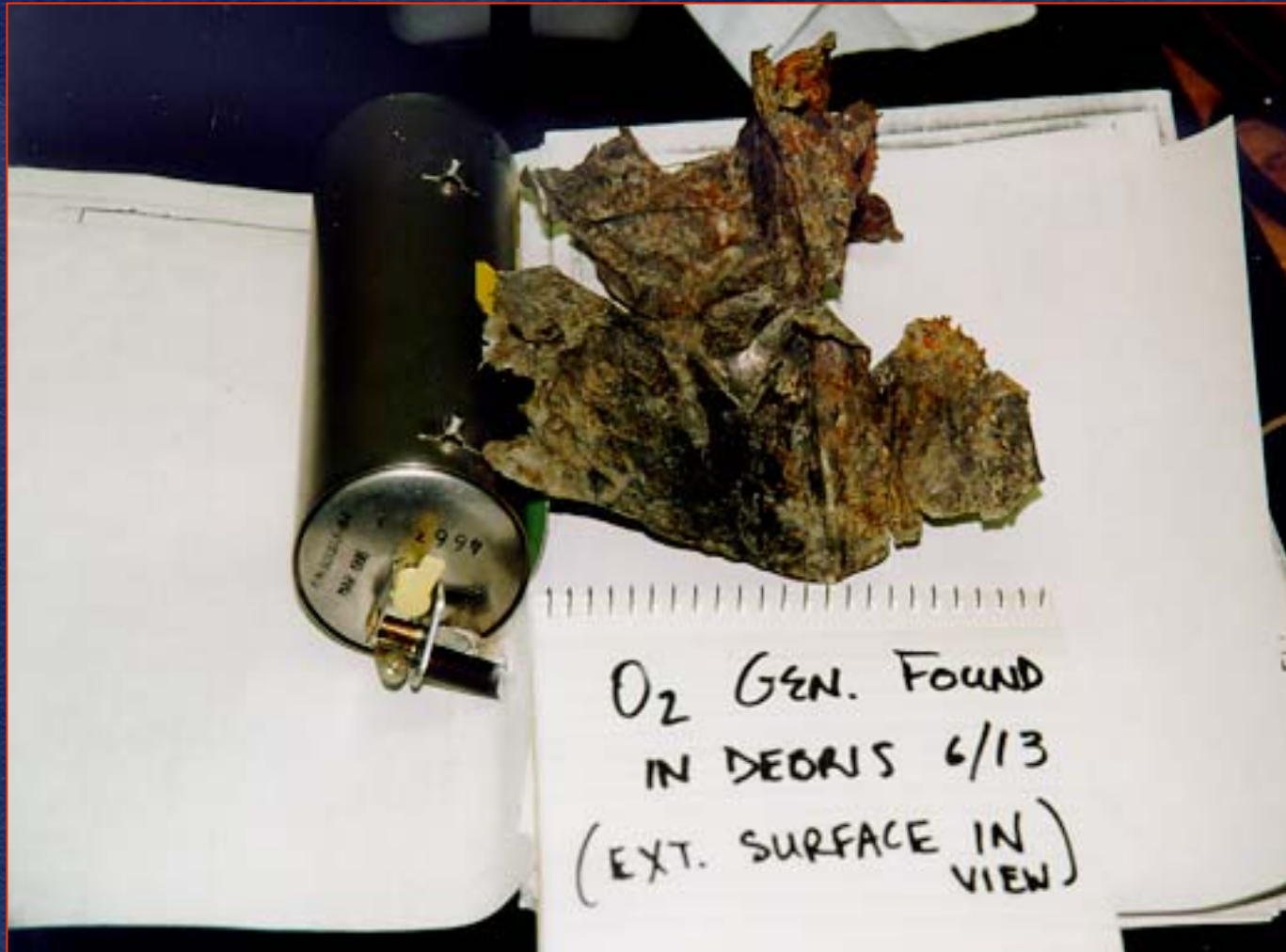
ValuJet Flight 592



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ValuJet Flight 592



Contributing to the Accident:

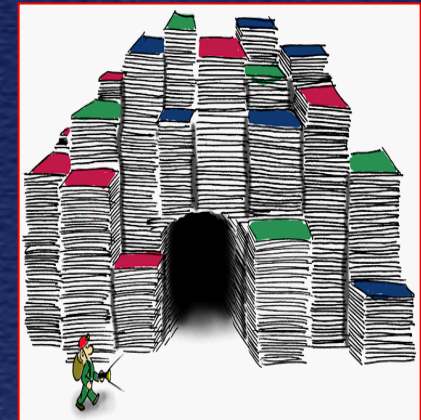
- “...ValuJet’s failure to ensure that both ValuJet and contract maintenance facility employees were aware of the carrier’s ‘no carry’ hazardous materials policy and had received appropriate hazardous materials training.”
 - NTSB report of In-Flight Fire and Impact with terrain. ValuJet Airlines. Everglades, Florida. May 11, 1996.

Roadmap to Safety Culture

- Data Collection and Quality Control Programs
 - data-driven risk management
 - safety audits
 - confidential incident reporting systems

Data is starting point of action

- Data creates information
- Information creates knowledge
- With knowledge, we can manage risks
- When we manage risks, we are taking action.



Data collection and analysis

- The organization collects and analyzes “the right kind of data” to keep it informed of the safety health of the organization
 - collects, analyzes and disseminates information on incidents and near-misses, as well as proactive safety checks.

- Dr. James Reason

Data collection and analysis

1. How do you keep your finger on the pulse of your operations?
2. Are you taking proactive measures?
3. Do you have multiple data sources?



Are employees comfortable reporting?

- Employees are open to report safety problems
 - Assurance that information will be acted upon
 - Confidentiality will be maintained or the data are de-identified
 - Assurance they will not be punished or ridiculed for reporting
 - Non-reprisal policy signed by CEO

Non Reprisal Policy
December 2005

SCANA Aviation Department is committed to the safest flight operation possible. Therefore, it is imperative that we have uninhibited good faith reporting of any hazard, occurrence or other information that in any way could enhance the safety and efficiency of our operations. It is each employee's responsibility to communicate any information that may affect the integrity of flight safety.

We will not use this reporting system to initiate disciplinary proceedings against an employee who discloses in good faith a hazard or occurrence involving safety which is the result of conduct which is inadvertent, unintentional or not deliberate.

We urge all employees to use this program to help this Department be a leader in providing our passengers and our employees with the highest level of flight safety.

William B. Timmerman
Chief Executive Officer

Robert L. Sunwalt, III
Manager – Aviation



Just Culture

“An atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety-related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behavior.”

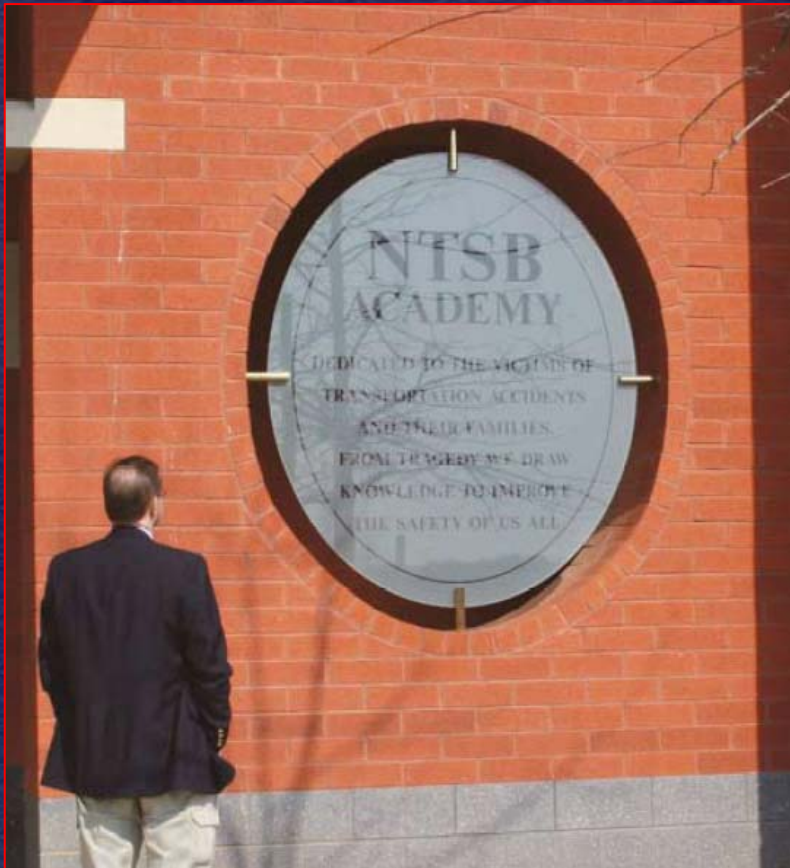
Roadmap to Safety Culture

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“From tragedy we draw knowledge to improve the safety of us all.”



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