



**National  
Transportation  
Safety Board**

**Lessons from the ashes:  
The critical role of leadership  
in promoting safety**

Robert L. Sumwalt, III

# Thomson, GA

## February 2013



Accident aircraft prior to N-number change to N777VG.



NTSB



1993

Imagery Date: 1/29/2015 33°31'35.58" N 82°30'06.95" W elev 490 ft eye alt 8059 ft



NTSB



Google earth

Imagery Date: 1/29/2015 33°31'41.29" N 82°30'08.01" W ele

1993

# Left wing at edge of tree line

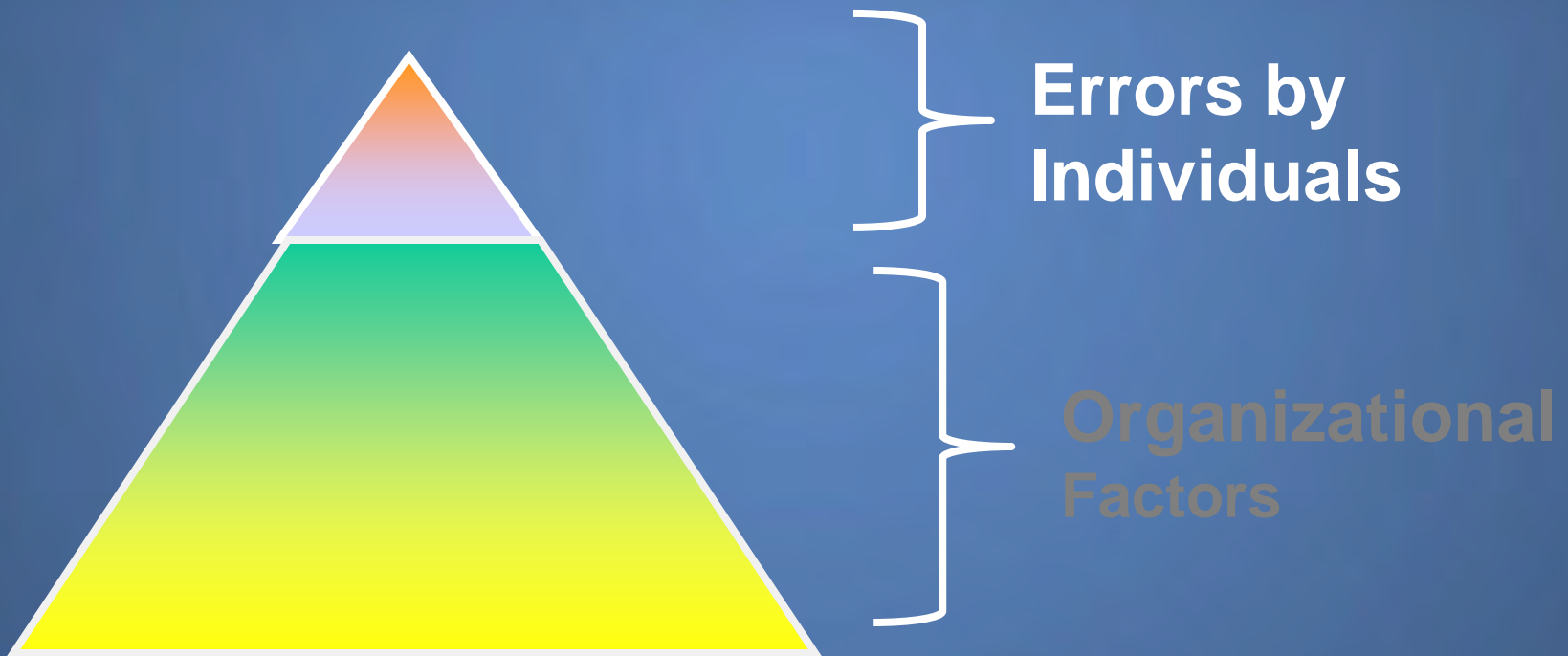


ANTI SKID FAIL



- Pilot did not refer to, or comply with, Abnormal Procedure.
- With anti-skid failure, the required landing distance exceed the available runway length at Thomson.

# Accidents Involve Many Factors



# Teterboro, NJ

## February 2005



NTSB



# Lexington, KY

## August 2006



NTSB

# Chatsworth, CA

## September 2008



NTSB

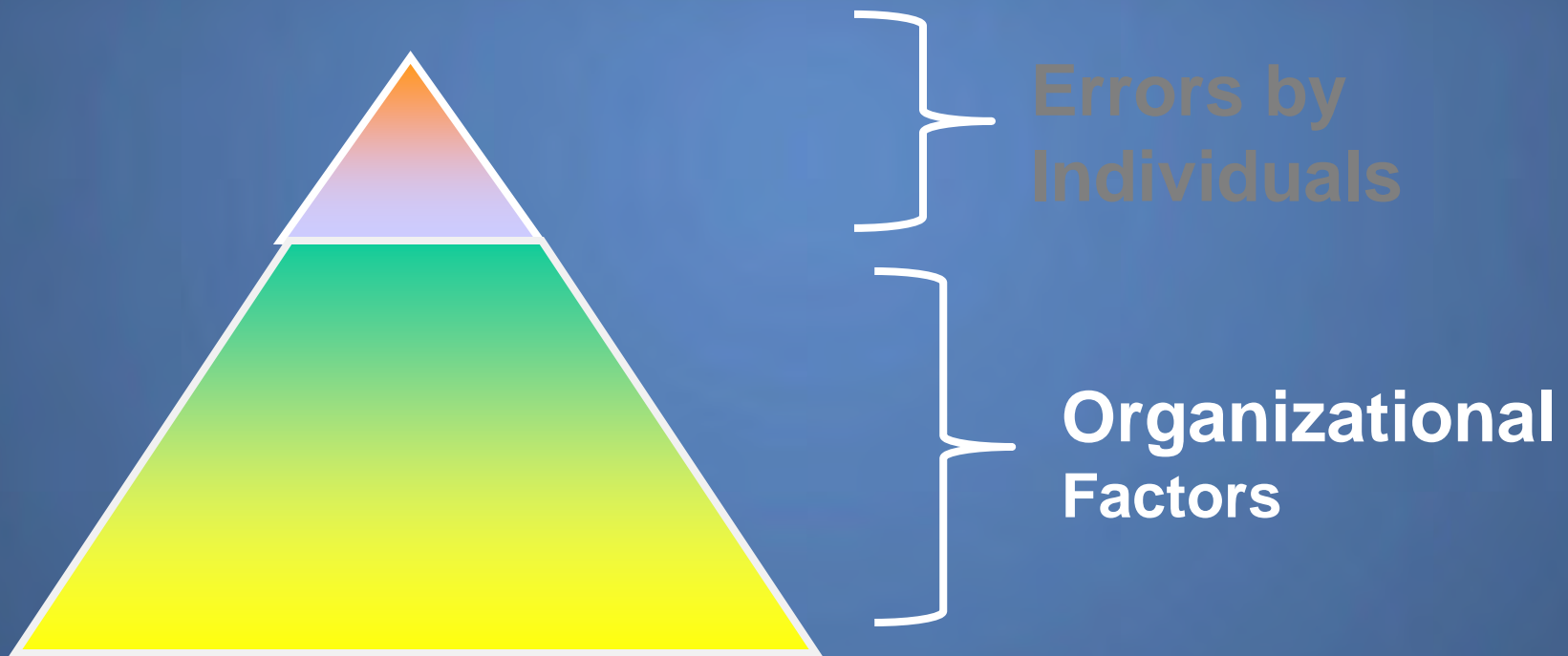
# Manteo, NC

## October 2010



NTSB

# Accidents Involve Many Factors



# New Brighton, PA

October 2006



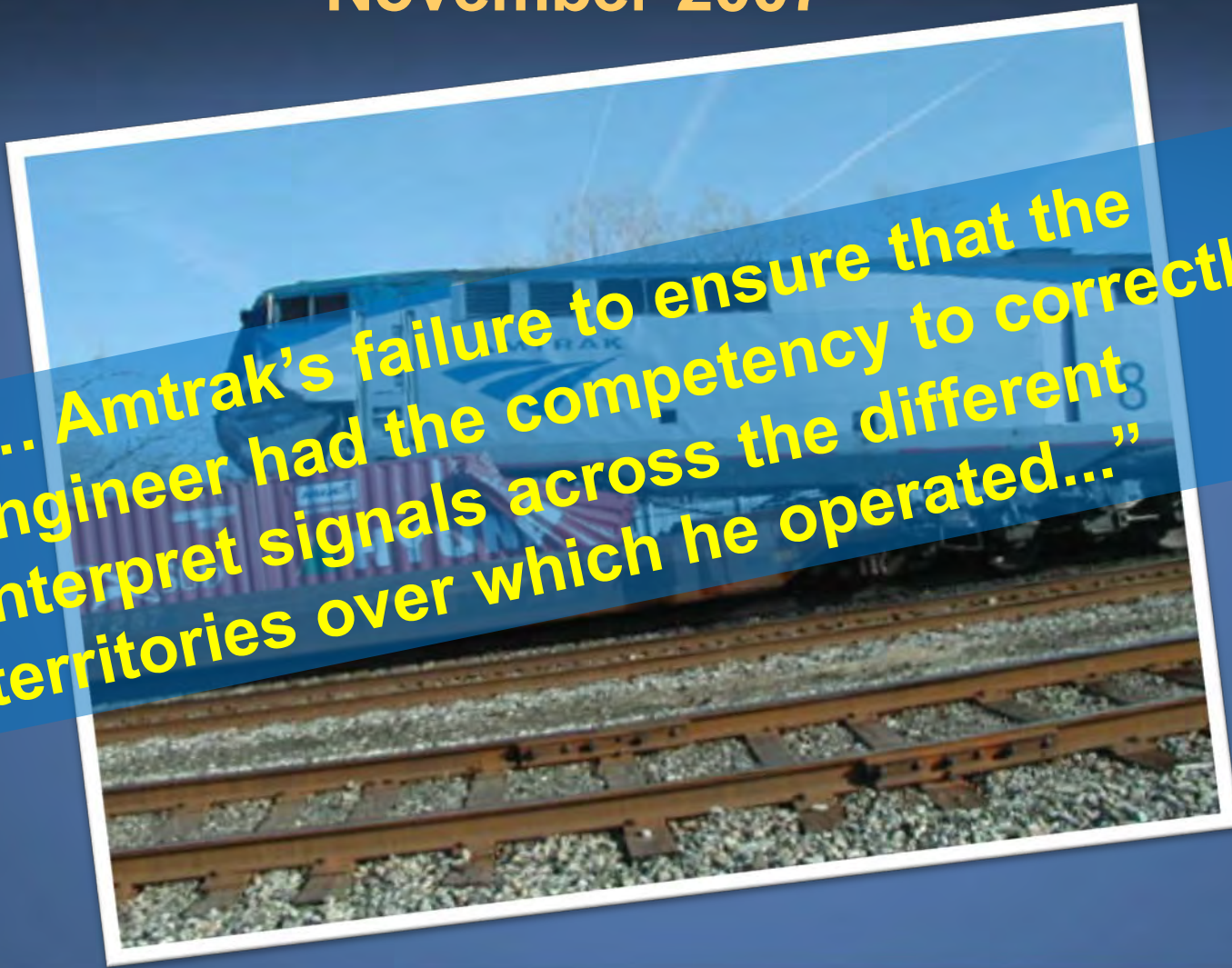
**“Norfolk Southern Railway Company’s  
inadequate rail inspection and maintenance  
program ...”**



**NTSB**

# Chicago, IL

## November 2007



“ ... Amtrak’s failure to ensure that the engineer had the competency to correctly interpret signals across the different territories over which he operated...”



NTSB

# Buffalo, NY

## February 2009

**“Contributing to the accident [was] ... Colgan Air’s inadequate procedures for airspeed selection and management during approaches in icing conditions.”**

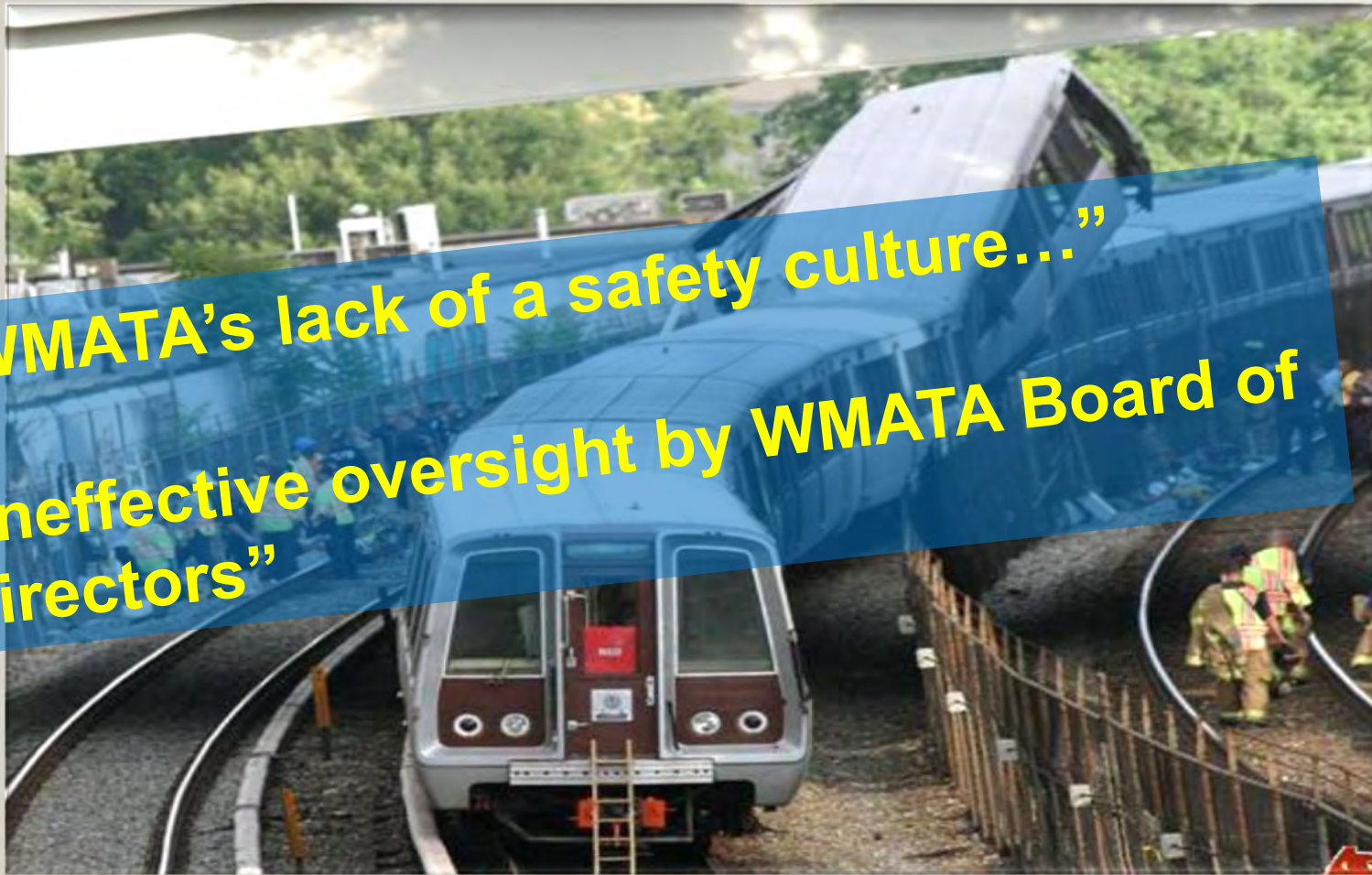


NTSB

# Washington, DC

## June 2009

**“WMATA’s lack of a safety culture...”**  
**“Ineffective oversight by WMATA Board of Directors”**



**NTSB**



# Goodwell, OK

June 2012



# Near Koehn Dry Lake, CA

## October 2014

**“Scaled Composites fail[ed] to consider and protect against the possibility that a single human error could result in a catastrophic hazard to the SpaceShipTwo vehicle.”**



NTSB

# Near Santa Fe, NM

## June 2009



**“Contributing to the accident was an organizational culture that prioritized mission execution over aviation safety...”**



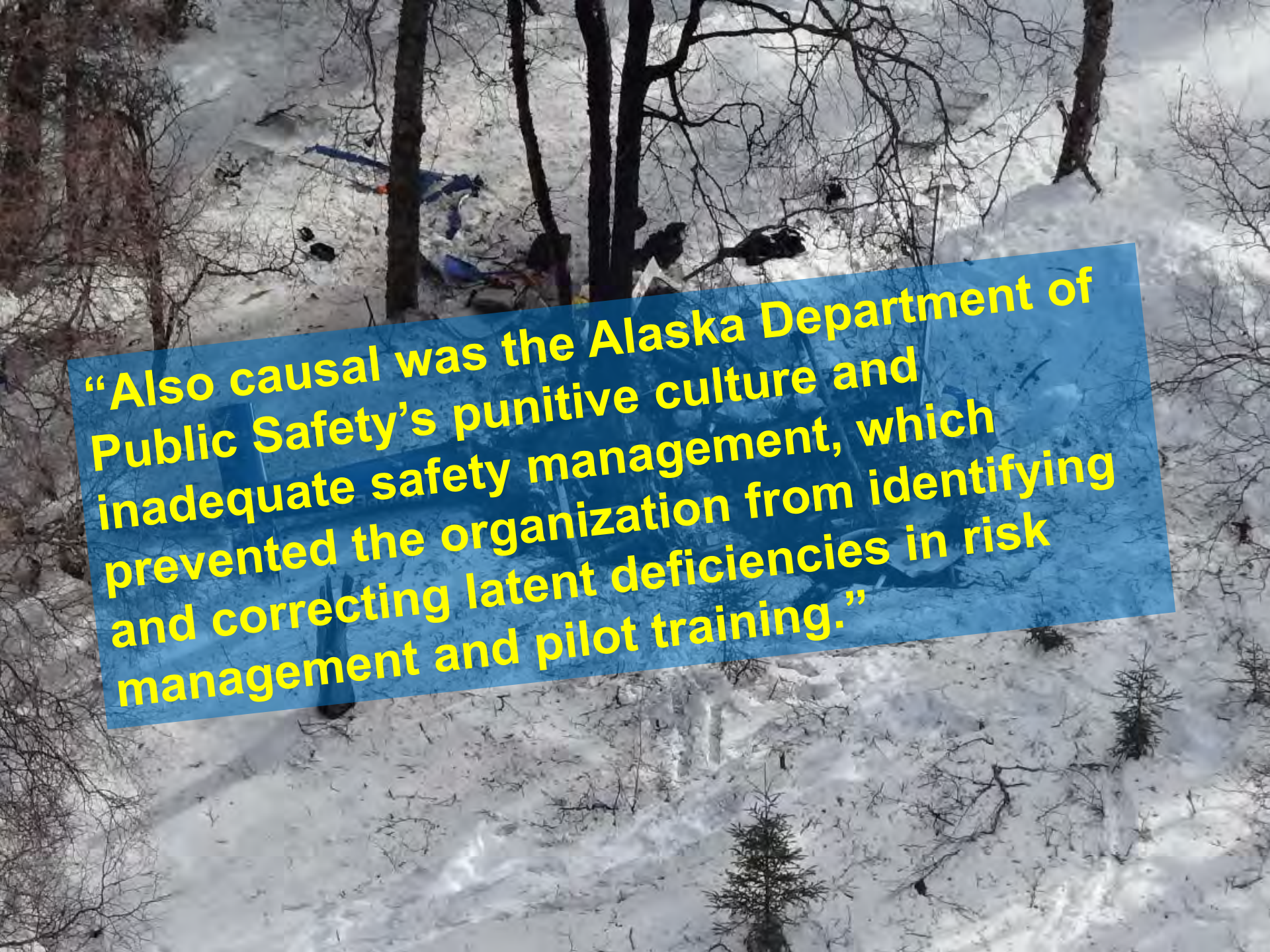
**NTSB**

# Talkeetna, AK

## March 2013



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A photograph of a snowy forest. The ground is covered in a thick layer of snow, and several bare trees stand in the background. A blue semi-transparent rectangular box is overlaid on the image, containing yellow text. The text is a quote about organizational culture and safety management.

**“Also causal was the Alaska Department of Public Safety’s punitive culture and inadequate safety management, which prevented the organization from identifying and correcting latent deficiencies in risk management and pilot training.”**


# Roswell, NM

## April 2011



NTSB



A photograph of an airport scene. In the foreground, there is a dry, grassy field. In the middle ground, an air traffic control tower stands prominently. To the right, a tarmac area is visible with several aircraft parked and ground service equipment. The sky is clear and blue.

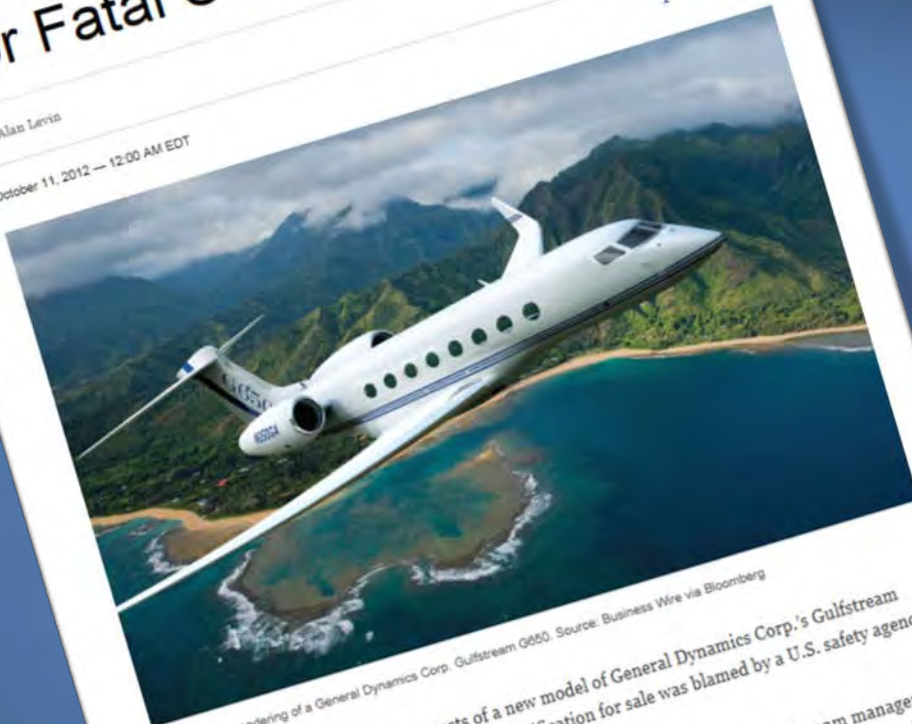
**“Gulfstream’s focus on meeting the G650’s planned certification date caused schedule-related pressure that was not adequately counterbalanced by robust organizational processes to prevent, identify, and correct the company’s key engineering oversight errors.”**



# Gulfstream Managers Blamed for Fatal Crash on Test Flight

by Alan Levin

October 11, 2012 — 12:00 AM EDT



■ An artist's rendering of a General Dynamics Corp. Gulfstream G650. Source: Business Wire via Bloomberg

f  
t  
h

Pressure to speed flight tests of a new model of General Dynamics Corp.'s Gulfstream business jet so it could win U.S. certification for sale was blamed by a U.S. safety agency for crash that killed four employees.

The National Transportation Safety Board yesterday ruled that Gulfstream management was responsible for the accident that sent a G650, which costs \$65 million and has the longest range of any private aircraft, sliding off a Roswell, New Mexico, runway in flames on April 2, 2011.



NTSB

# Hardwood Manufacturer Managers Blamed for Fatal Accident

October 11, 2012 — 12:00 AM EDT



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h

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**“The best way to predict the future is to create it.”**

- Peter Drucker



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# Creating a Future of Safety: Four Leadership Questions

1. How strong is our safety culture?
2. Are we really living our values?
3. Are we fooling ourselves?
4. Are we measuring and rewarding the right things?



Creating a Future of Safety

# HOW STRONG IS OUR SAFETY CULTURE?



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# Safety Culture is:

“Safety culture is the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment.”

Source: U.S. Nuclear Regulatory Commission



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**Do you have a good safety culture?**



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# Do you have a good 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.”

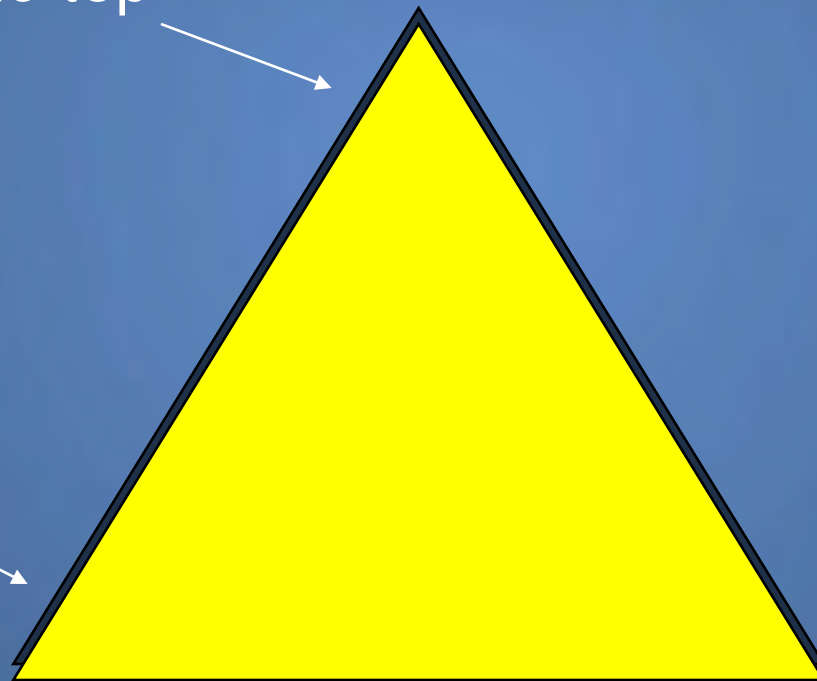


# Safety Culture is:

Triggered at the top



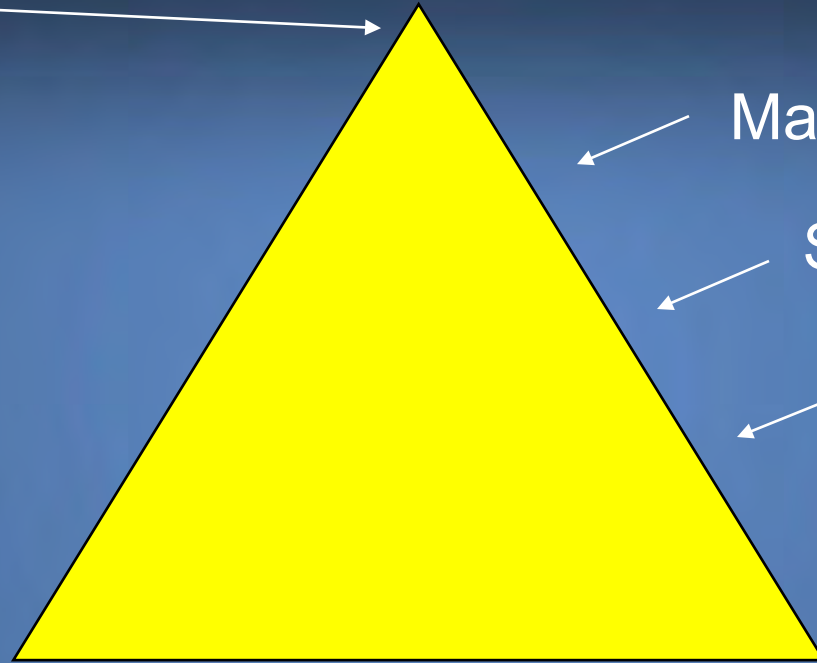
Measured at the  
bottom



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

# Sometimes the Message gets Distorted

Safety  
Quality  
Timeliness  
Efficiency



Managers



Supervisors



Coworkers



MOST IMPORTANT – Output!!!!

Cut corners to save money

Fear of retribution

Get job done at all costs

Unfair discipline

Work sucks

Call in sick for extra vacation day



## WORD OF THE DAY

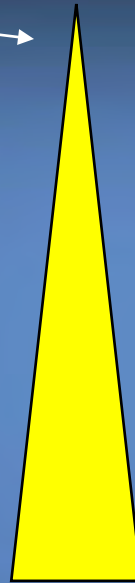
Friday, March 11, 2016

**align·ment** *noun* \ə-'līn-mənt\  
Where the leaders and front line employees, and everyone in between, share and practice the same values.



# Alignment

Safety  
Quality  
Timeliness  
Efficiency



Managers



Supervisors



Coworkers



Safety  
Quality      Timeliness  
Efficiency



# How leaders influence safety

“The safety behaviors and attitudes of individuals are influenced by their perceptions and expectations about safety in their work environment, and they pattern their safety behaviors to meet demonstrated priorities of organizational leaders, regardless of stated policies.”

- Dov Zohar, as cited in NTSB accident report

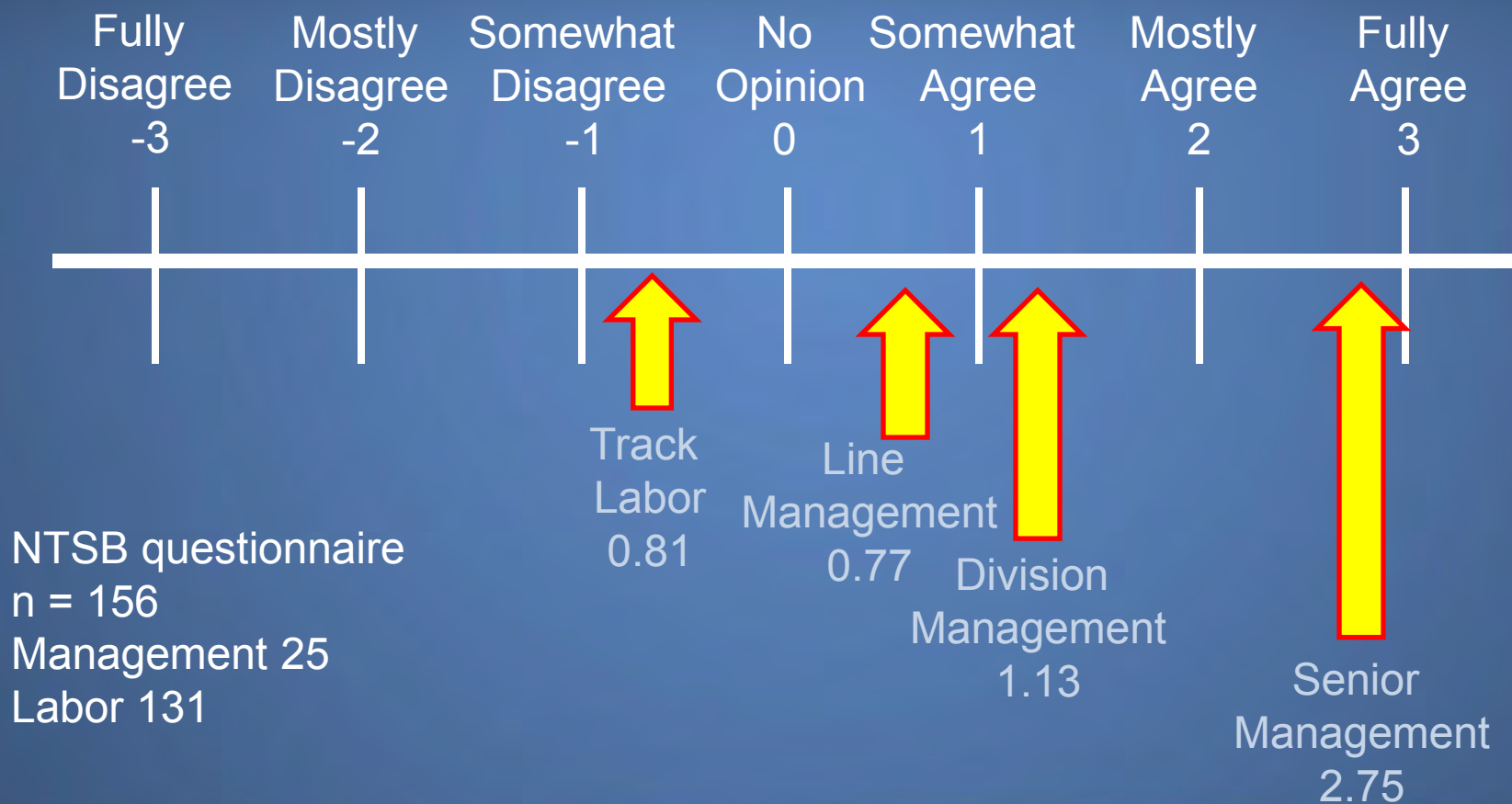
# Metro-North Railroad



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Metro North management is committed to workplace safety and participates regularly in safety events.



Management does not pressure staff to maintain service or operations, potentially at cost of safety.



# Employee Comments

- “Sometimes I feel safety is priority one as long as it's convenient.”
- “Metro-North pays lip service to safety. On time performance & budgets take precedence over safety.”
- “The railroad only cares about the on-time performance.”
- “It's all about on-time performance and safety rules are thrown out the window to keep on time performance. Management has no clue.”





December 10, 2015

We aspire to be:

- Most loved airline.
- Most flown airline.
- Most profitable airline in the world.



December 16, 2015

Southwest Airlines jet hits another aircraft at  
Bob Hope Airport; no injuries reported



December 20, 2015



NTSB

# Southwest settles FAA complaint for \$2.8M

TODAY IN THE SKY **Bart Jansen, USA TODAY** 5:51 p.m. EST December 21, 2015



WASHINGTON – Southwest Airlines agreed to pay a \$2.8 million civil penalty to settle a lawsuit over maintenance of dozens of its Boeing 737 aircraft, the Justice Department announced Monday.



A Southwest Airlines jet lands Feb. 3, 2014, at Love Field in Dallas. (Photo: AP)

Southwest could still face \$5.5 million in deferred penalties if the airline doesn't enhance its oversight and control of other companies which perform maintenance on its aircraft to

See why so many people return to Aruba every year.

SEE DEALS

### MOST POPULAR



Sen. McCaskill introduces bill against hidden resort fees  
236 Shares



Favorite world airports: Top pick

December 21, 2015



December 10, 2015

We aspire to be:

- Most loved airline.
- Most flown airline.
- Most profitable airline in the world.



Creating a Future of Safety

**ARE WE REALLY LIVING OUR  
VALUES?**



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# Values

- Is safety the top priority of your organization?
- Don't make it a priority – make it a core value.



# Living the Values

- In a successful organization, everything you do is run through the filter of your core values to make sure you are being true to them.
- And, most importantly, you must live those values.



# The Leader's Role

- As a leader, your role is to ensure that your organization has safety as a core value and then, most importantly, you do everything you can to live those values.



**SURGEON GENERAL'S WARNING:**  
Smoking Causes Lung Cancer,  
Heart Disease, Emphysema, And  
May Complicate Pregnancy.



**NTSB**



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# CVS Stops Tobacco Sales



“The sale of tobacco products is inconsistent with our purpose – helping people on their path to better health.”

- Larry J. Merlo, CEO, CVS Health

“This move is clearly in-line with their stated purpose and values, a move we don’t see often enough today in corporate America. Relying on a strong foundation of values is often what sets market leaders apart from the pack.”

- Michael Woody, Ph.D. for Fox Business



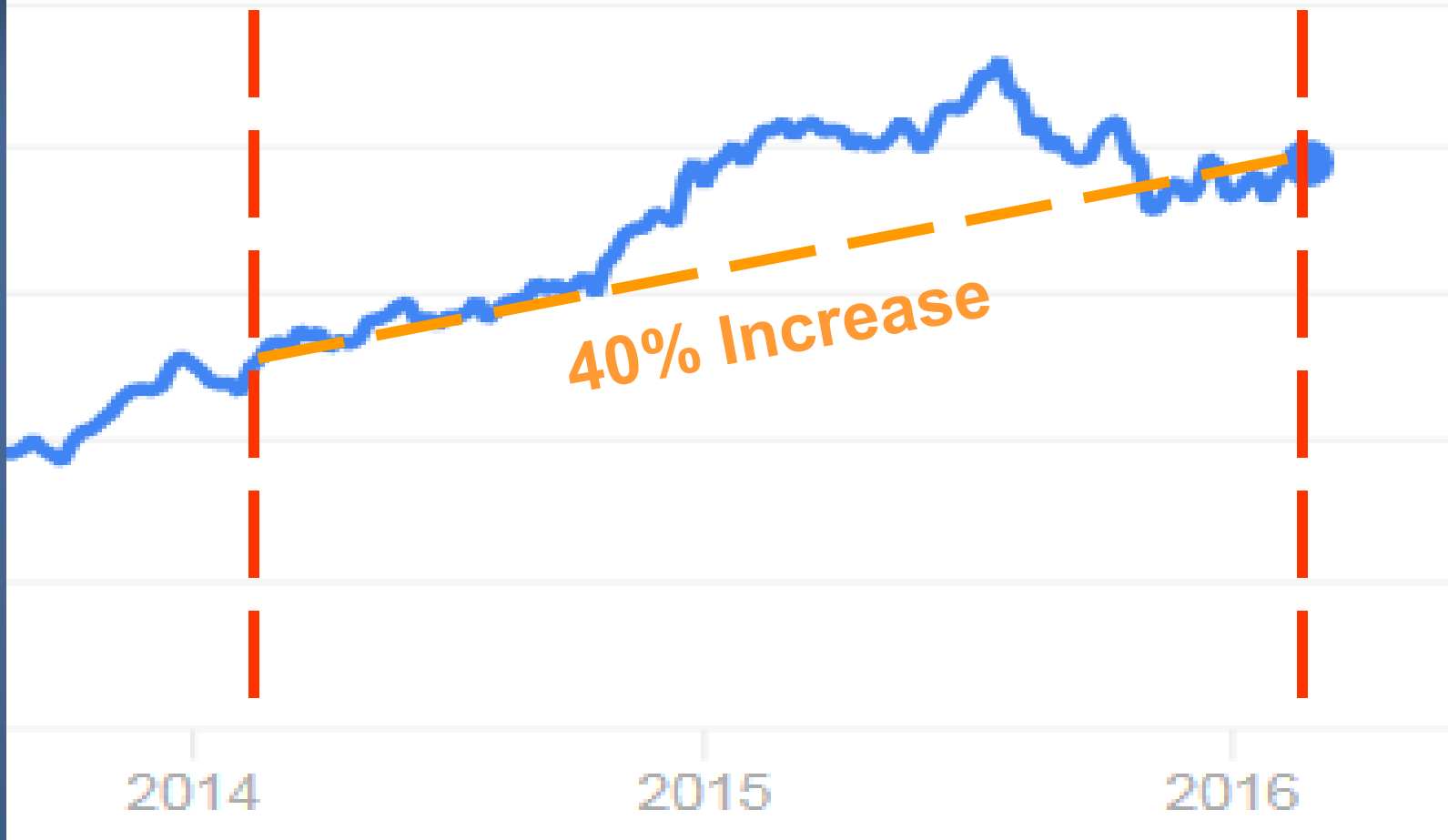
“Think of values as the core guiding principles that act as the foundation of your organization. These principles should guide every decision and serve as your fallback in times of uncertainty.”

- Michael Woody, Ph.D. for Fox Business

# CVS Health Corp

Feb 7, 2014  
\$66.44

Feb 5, 2016  
\$93.10



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- Organizations with strong leaders are those organizations that ensure their values are aligned and lived throughout the organization.
- They do the right things by caring for the safety and health of their employees and customers.
- Because of their commitment to values and caring, they have greater potential to perform well financially.



- What are your values?
- Is safety and health of your employees and customers one of your values?
- Are you truly living your values?



Creating a Future of Safety

**ARE WE FOOLING OURSELVES?**



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# An Impressive Operation



# An Impressive Operation

- Full time crew
- Impeccable maintenance
- High training standards
- Going above minimum standards
- Positive audit comments



# Positive Audit Comments

- “The [Safety Management Systems (SMS)] of this operator is well-developed”
- “Best practices are consistently employed in all facets of the program”
- “Continuous SMS improvement is actively pursued”
- “The Flight Ops Manual is remarkably well-written and comprehensive”
- “Safety culture within the department is shared among all team members”
- “Open reporting of hazards is consistently encouraged by management”
- “Solid safety program, maturing nicely”





**“You can fool the auditors,  
but never fool yourself.”**

- John Fenton



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And, fool the auditors, they did...



Gulfstream G-IV Crash  
Bedford, MA  
May 31, 2014  
7 Fatalities



NTSB

**And, perhaps they even fooled themselves.**



**NTSB**

# “Good can be Bad”

- With good safety performance, people/organizations can easily become complacent.
- Don't ever believe that a lack of accidents means you are “safe.”
- To counter this complacency, there must be a leadership obsession with continuous improvement.

- Courtesy of Jim Schultz



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# Are you on the right track?

**“Even if you're on the right track, you'll get run over if you just sit there.”**

- Will Rogers



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Creating a Future of Safety

# **ARE WE MEASURING AND REWARDING THE RIGHT THINGS?**



**NTSB**

# Metro North Railroad



# Metro North Railroad

“We were geared towards using the on-time performance number as a metric. And the philosophy was if we can deliver trains on time, all of the supporting activity that we did, track maintenance, signal maintenance and rolling stock maintenance must be performing well if we can deliver that high degree of service reliability.”

-Metro North SVP Operations



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# What do you measure and reward?

- Are you measuring the right things?
- Are they the most appropriate predictors of catastrophic events?





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# National Transportation Safety Board