

Making Professionalism Personal

*Empowered Accountability
in Aviation Operations and Air Traffic Control*

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Overview

- How big is the problem?
- What is *professionalism*?
- Challenges for stakeholders
- One new approach to the challenge
- Questions

Experts See A Different World



How Big a Problem?

- As we speak, over 100,000 Airline pilots and Air Traffic Controllers are making our industry the safest form of transportation the world has ever known
- We can do better . . .
. . . and we need to.

Source: Bureau of Labor Statistics, 2008 data

Suggesting we can do better is not
an indictment of our industry.

It is a confirmation of our
professionalism.

The Herald of Free Enterprise



“From top to bottom, the body corporate was infected with the disease of sloppiness.”

Lord Justice Sheen, Official public inquiry

After the Tragedy

In hindsight, the endgame of so-called “honest mistakes” and seemingly trivial unchecked error will find us at the obvious destination of a road we never meant to choose and did not intend to travel, but one we never fought hard enough to get off of.

Kern, Blue Threat, Introduction



Our Own Infection?

Our industry (operations and ATC) is becoming infected with complacency, casual noncompliance, and sloppiness

Right now the infections are few, small and probably localized

Many in the industry are aware but aren't sure what to do about it

If not corrected, this will result in more avoidable compromises of safety

Primarily a Self Regulating System

Centralized management and oversight with decentralized execution

Allows for maximum flexibility in a tightly coupled, high risk, complex system

Puts the human operator at the center of the safety management system

Also exposes us to risks when individuals choose noncompliance or do not fully engage with their operational tasks

This forum is an historic opportunity for industry experts to jointly tackle a challenge that threatens the present and future of our industry.

To do so, we must avoid the temptation of posturing around typical stakeholder positions.

Good – Better – How?

Defining Terms

Isn't *professionalism* something more
than *compliance*?

One Starting Point

Excerpts from the ALPA Code of Ethics

An Airline Pilot . . .

“will never permit external pressures or personal desires to influence his judgment . . .”

“will continue to keep abreast of aviation developments so that his skill and judgment, which heavily depend on such knowledge, may be of the highest order.”

“Professional” Proposed definition

An aviation professional consistently exceeds minimum standards, continuously improves and helps others to do so.

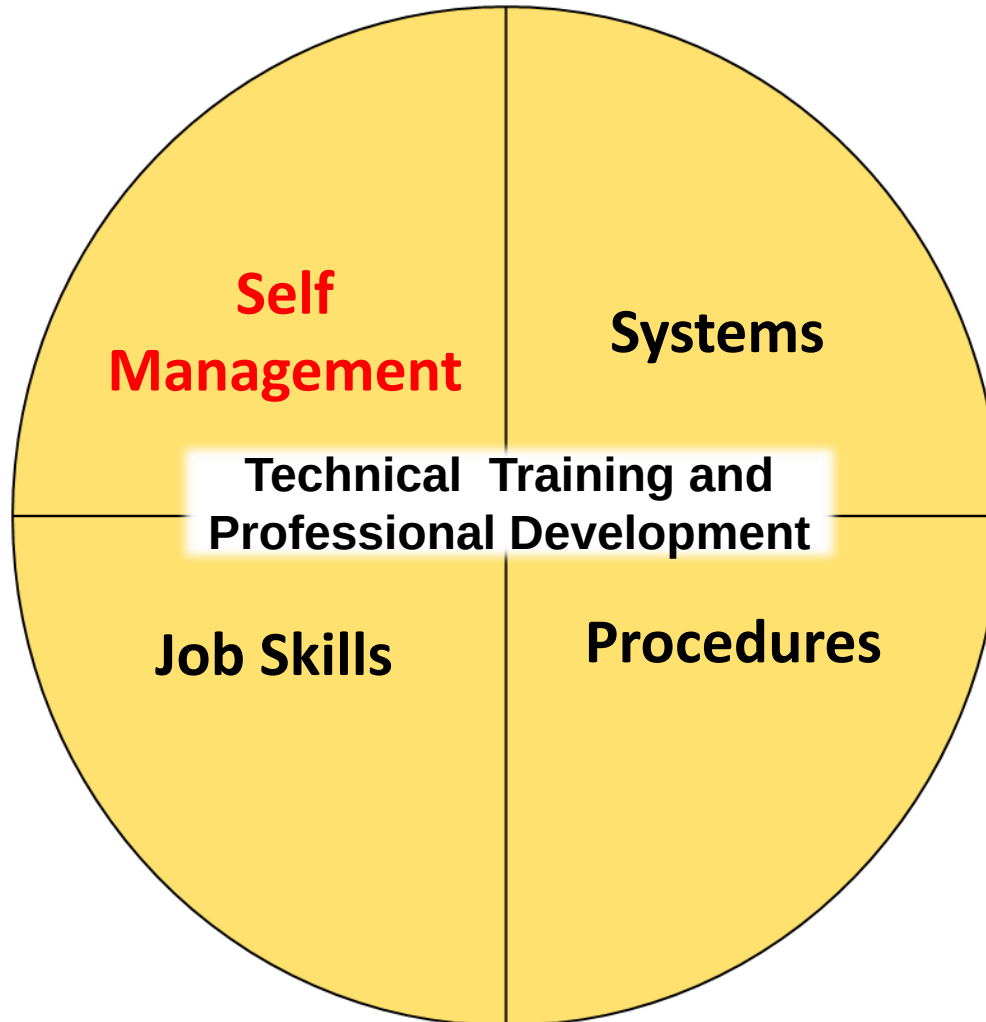
Two Core HF Challenges

- Full compliance in a self regulating system
- Full engagement in a highly automated and highly repetitive setting

Both deal more with introspection and self management than with technical training



Aviation Training System



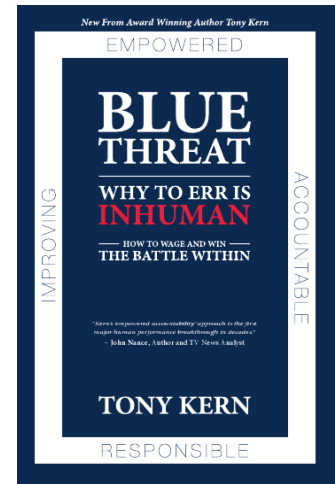
The Blue Threat Curriculum

All serious change efforts begin with a “threat assessment” step.

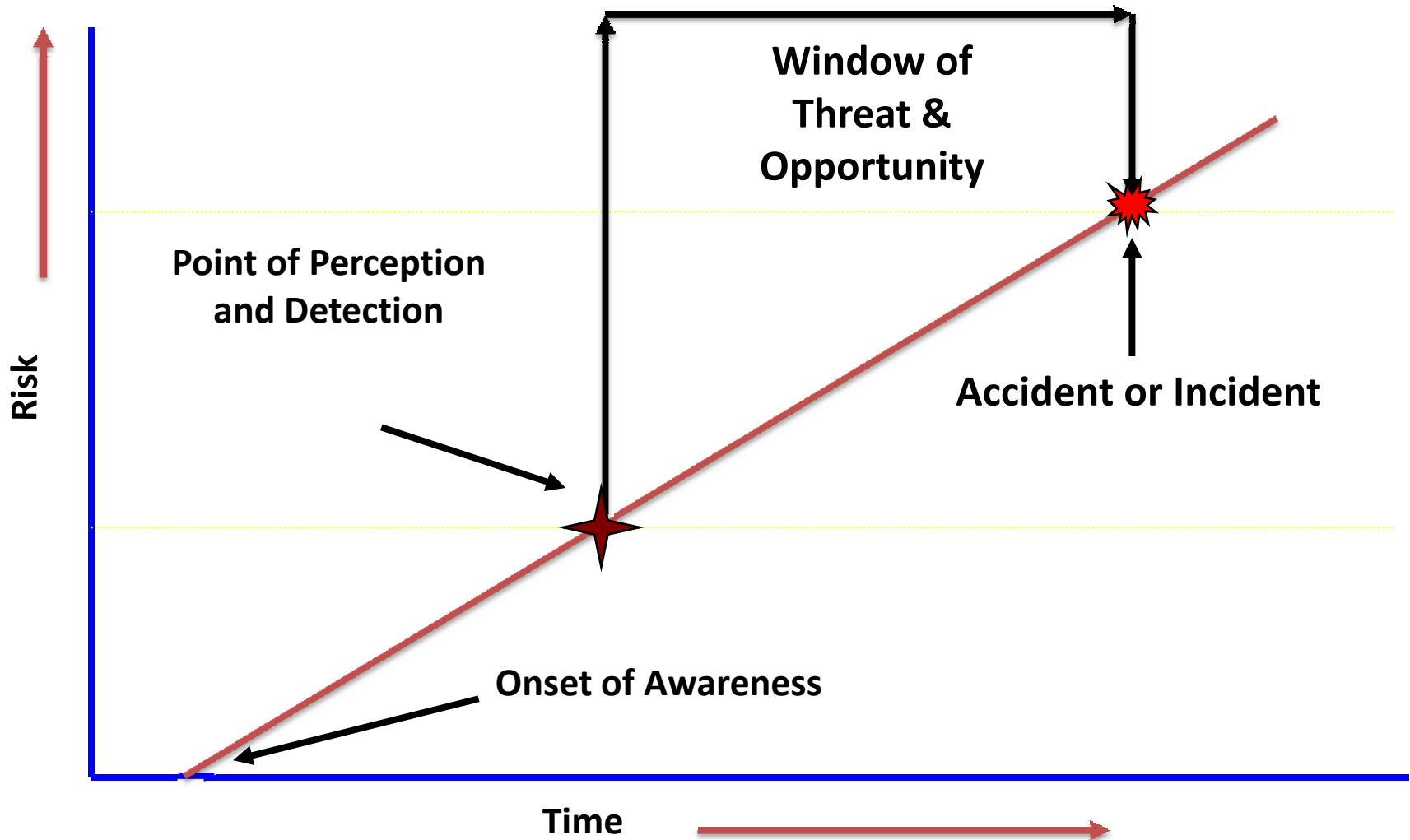
External threats are typically referred to as the **Red Threat**.

Internal obstacles include such things as human error, noncompliance, inadequate training or planning are collectively referred to as the **Blue Threat**.

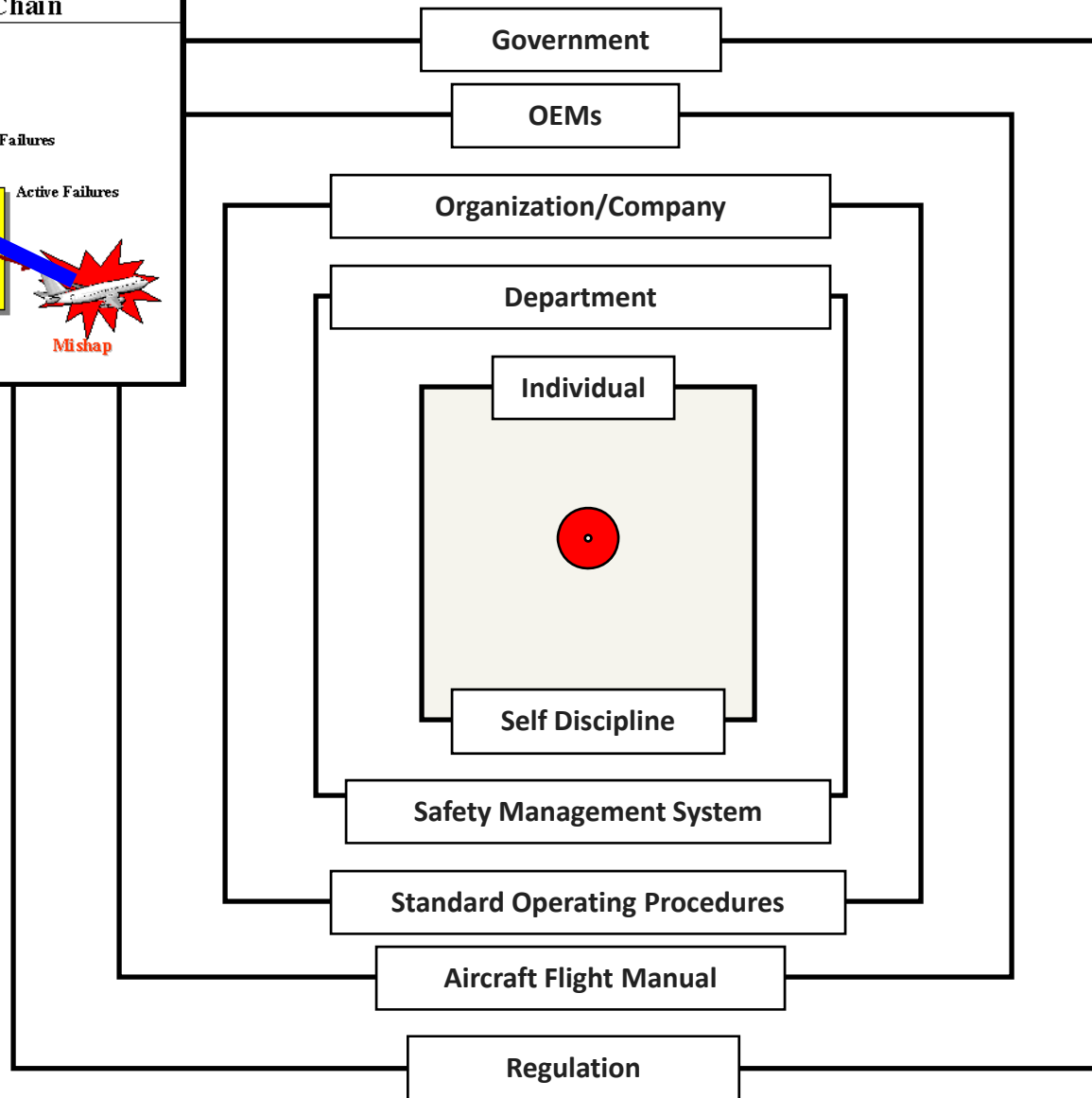
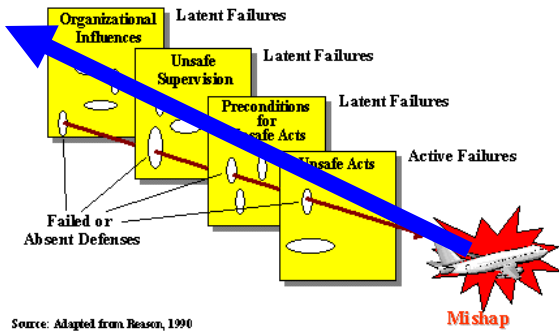
Typically, the **Blue Threat** is responsible for far more failed outcomes than external factors.



Empower Professionals to See Trouble Coming



The Reason Model and Accident Causal Chain



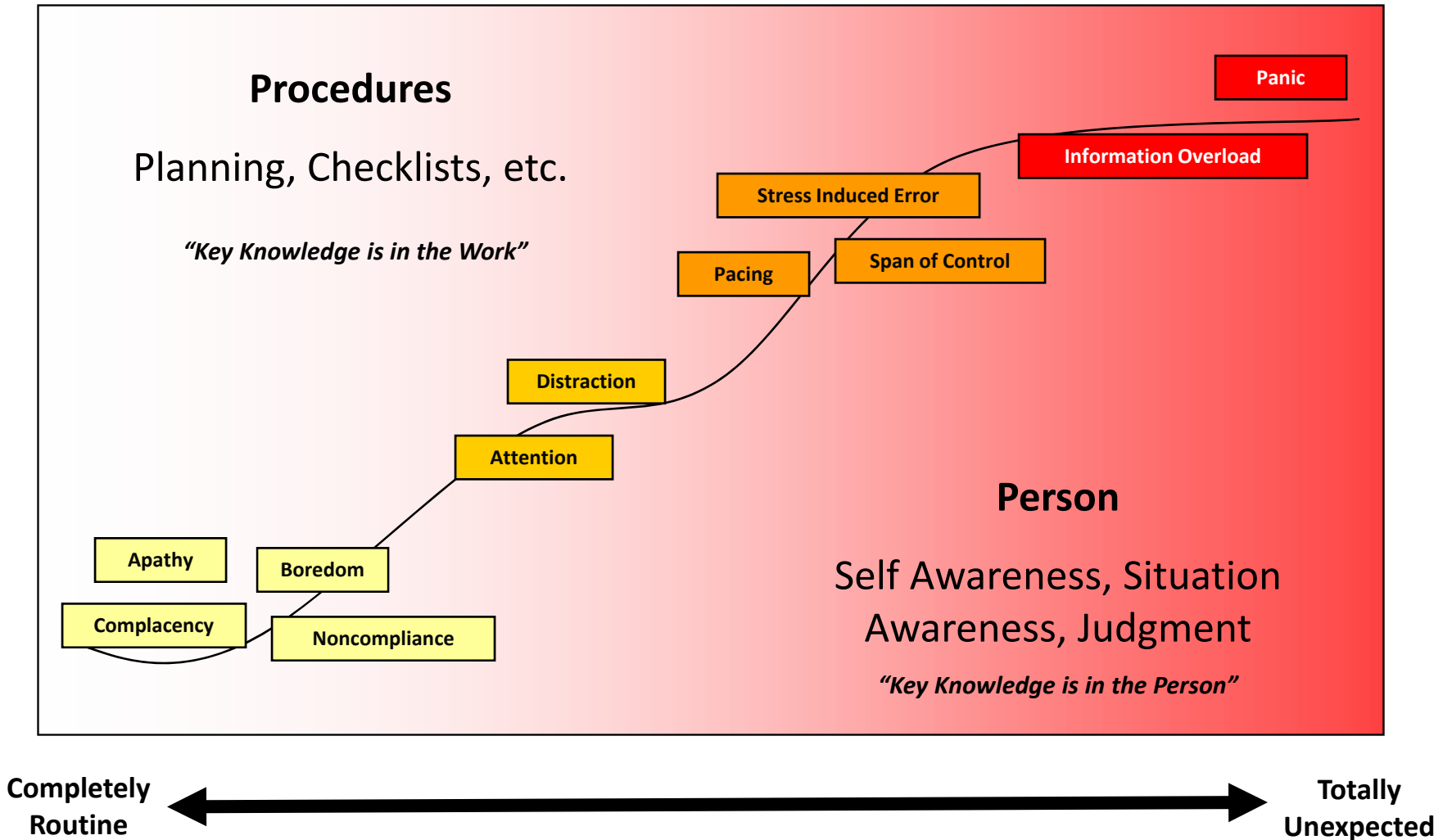
When self discipline fails, safety management systems disintegrate from within.

Mastery Level Compliance in **3D**

- Attention to **D**etail – Every step done right
- **D**iligence – Every time, all the time
- **D**iscipline – to successfully see and resist temptations to deviate in real time



Mastery Across Every Level of Challenge



Flawed Assumption

It has long been assumed that when you train someone to do something right you are simultaneously training them not to do it wrong.

This simple premise is grossly in error and is responsible for thousands of lost lives and billions in lost revenue every year in high risk industries.

In 2005, the USAF Chief of Safety stated he doubted the Air Force flight mishap rate can be significantly reduced because there aren't widespread common problems.

“It seems the cause is *just human error*.”

Source: Air Force Times, Oct 17, 2005, "Aircraft mishaps increase in 2005" p. 16

Conventional Wisdom on Human Error

“People will always make mistakes, that’s a given.”

“It’s easier to change situations than people.”

“To err is human . . . it is easier to manage error than to prevent it.”

“Trying to stop human error is a blame and shame game.”

“Errors happen without advanced warning, there is no ‘aura’ beforehand.”

“Human error mishaps are just the cost of doing business.”

“We are forced to work with the crooked timber of human fallibility.”

“Serious human factors experts moved beyond the individual error approach 20 years ago.”

“The weakest link in the cockpit is wearing a headset.”

“Only human” is the ultimate oxymoron.



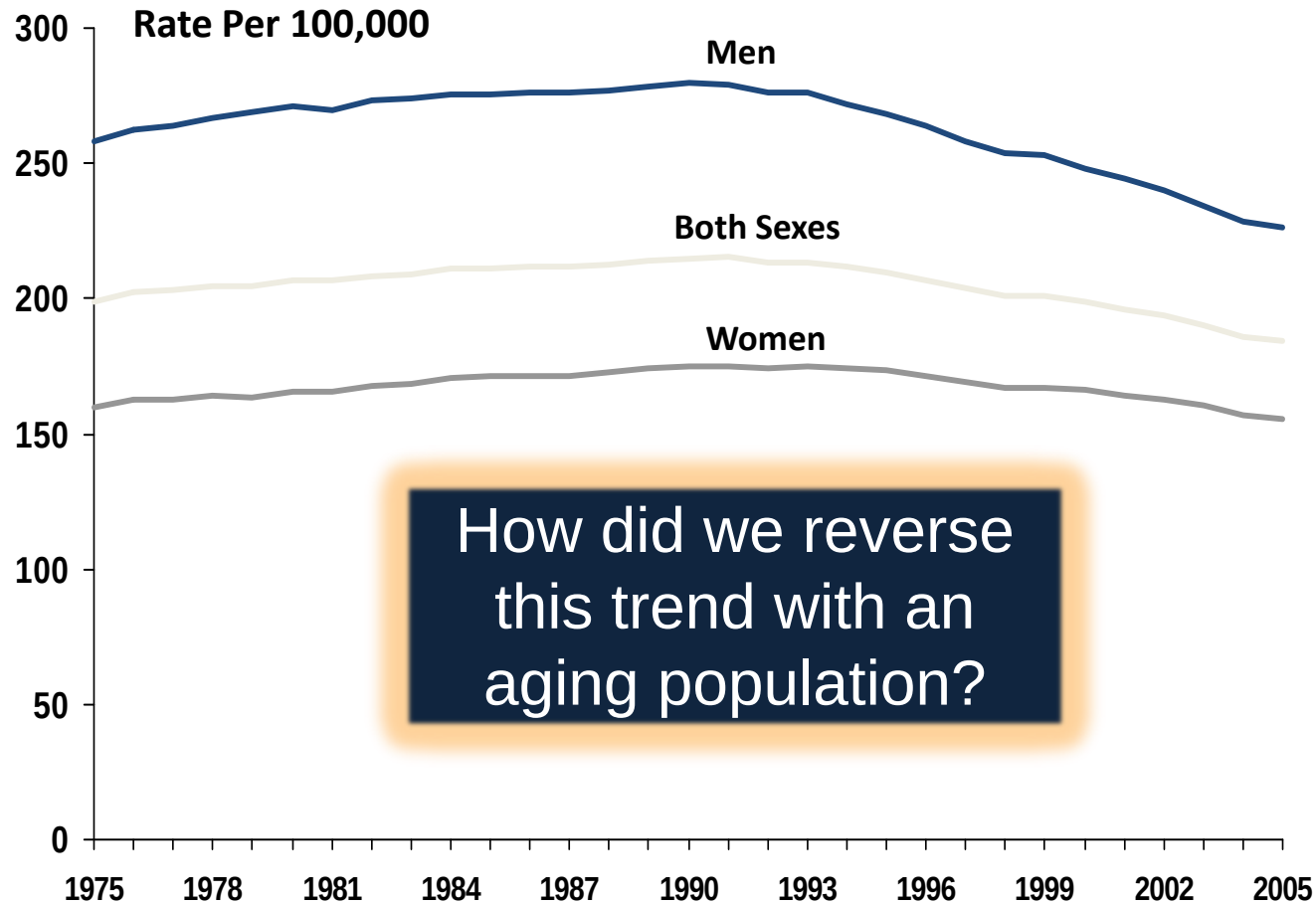
So What?

We disagree with the conventional wisdom on error.

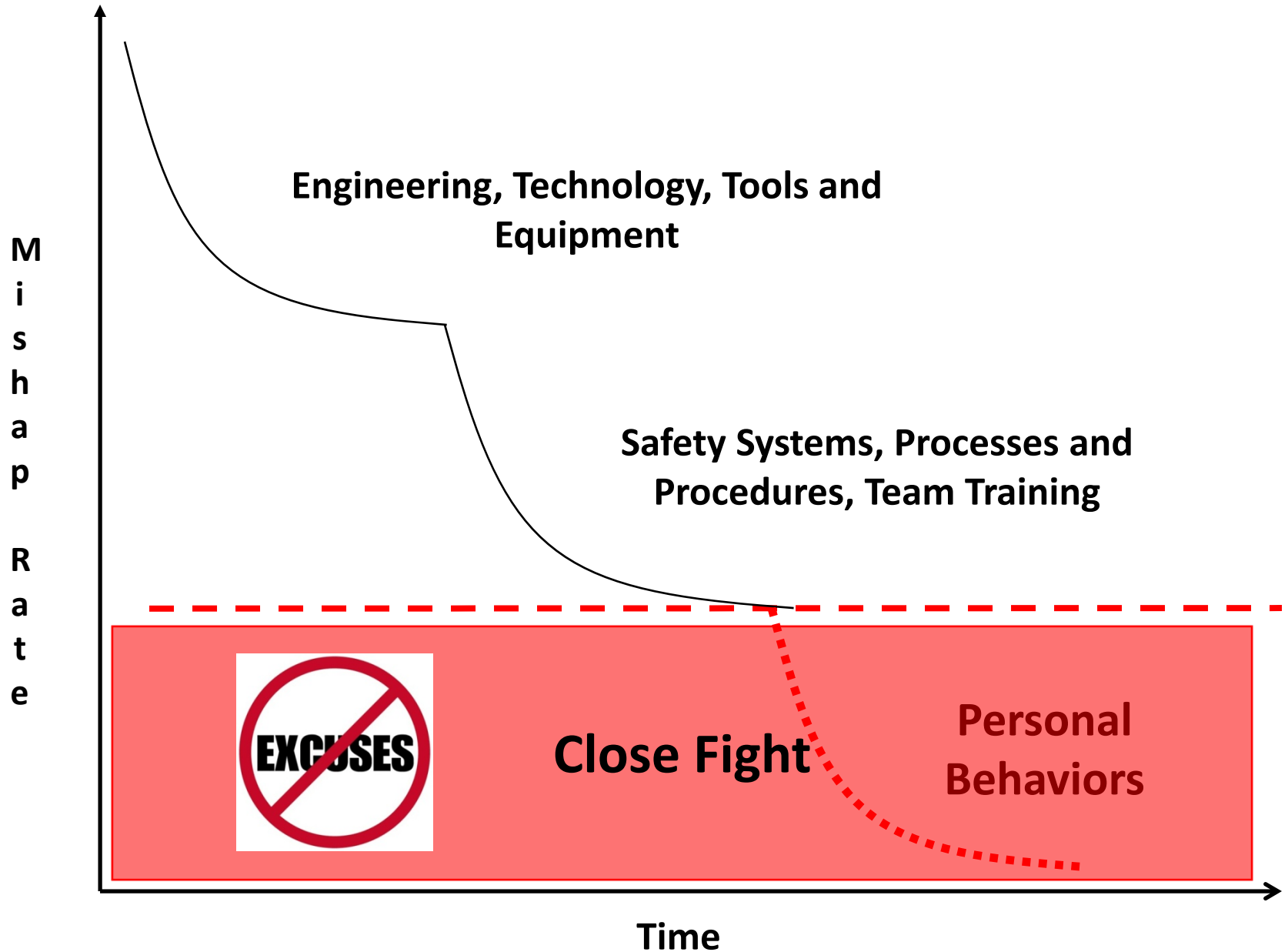
We believe that human error is not inevitable nor
“part of being human” any more than **cancer** is.

Errors do happen, but to simply say “to err is human”
gives up far too much ground.

Cancer Death Rates* by Sex, US, 1975-2005

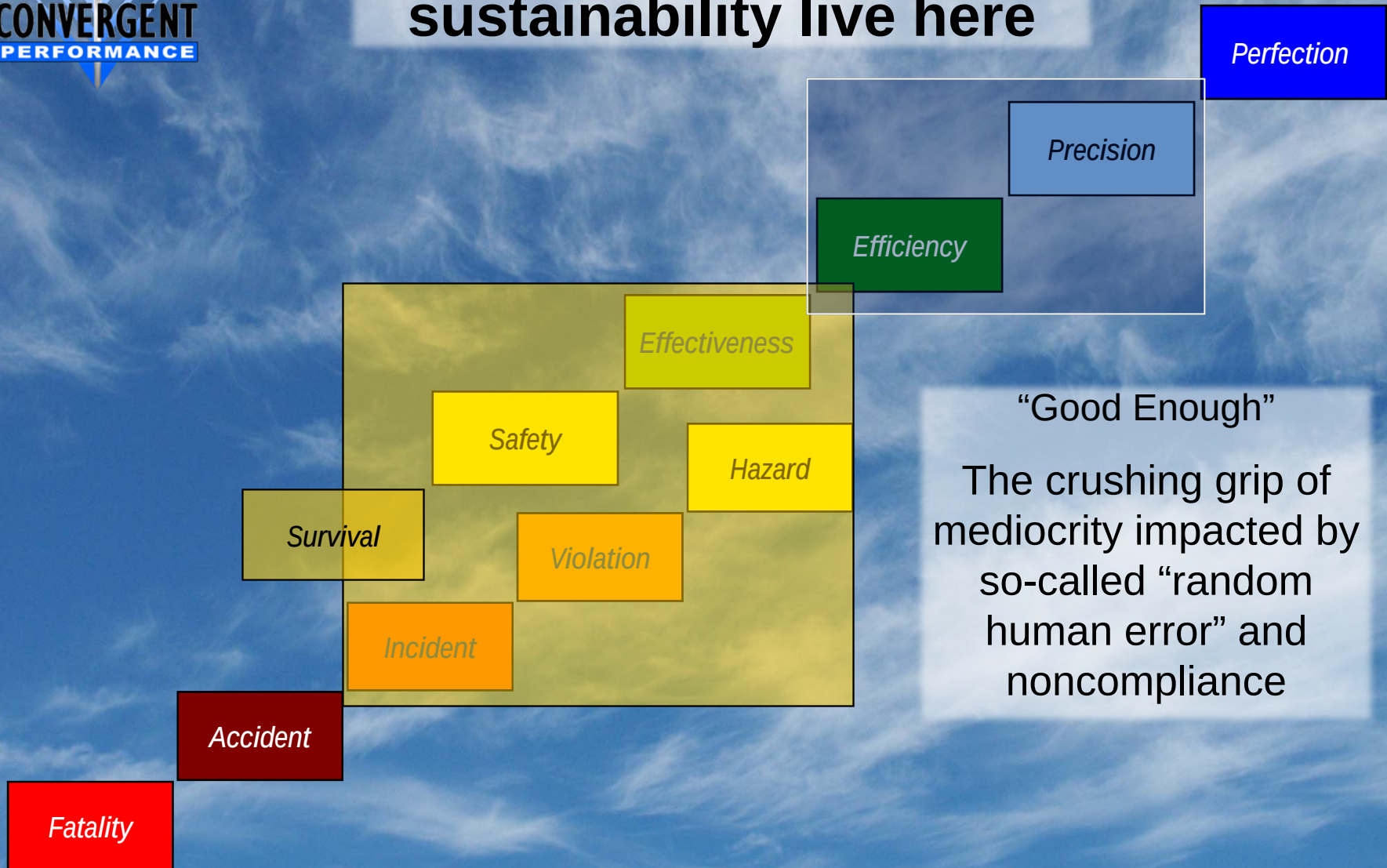


Source: US Mortality Data 1960-2005, National Center for Health Statistics, Centers for Disease Control and Prevention, 2008.

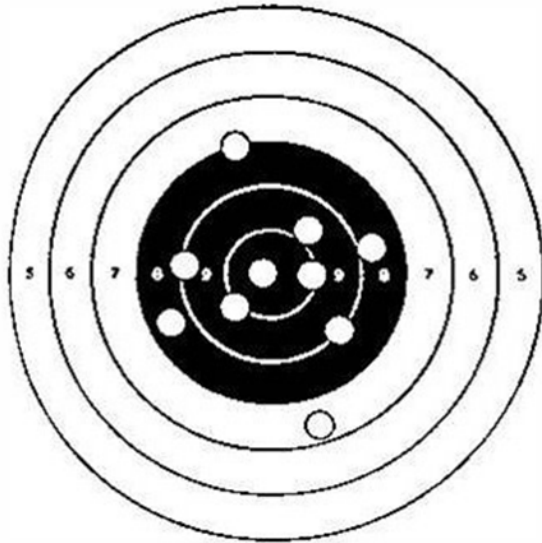




True safety, quality and sustainability live here



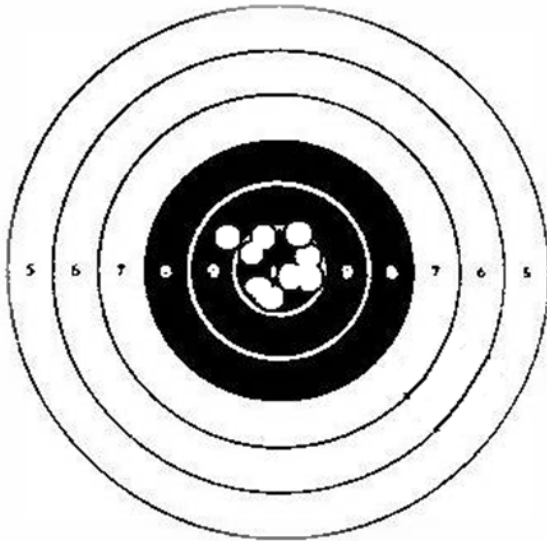
Fighting Complacency – One Approach



There are times when precision is required; when “good enough” isn’t anymore.

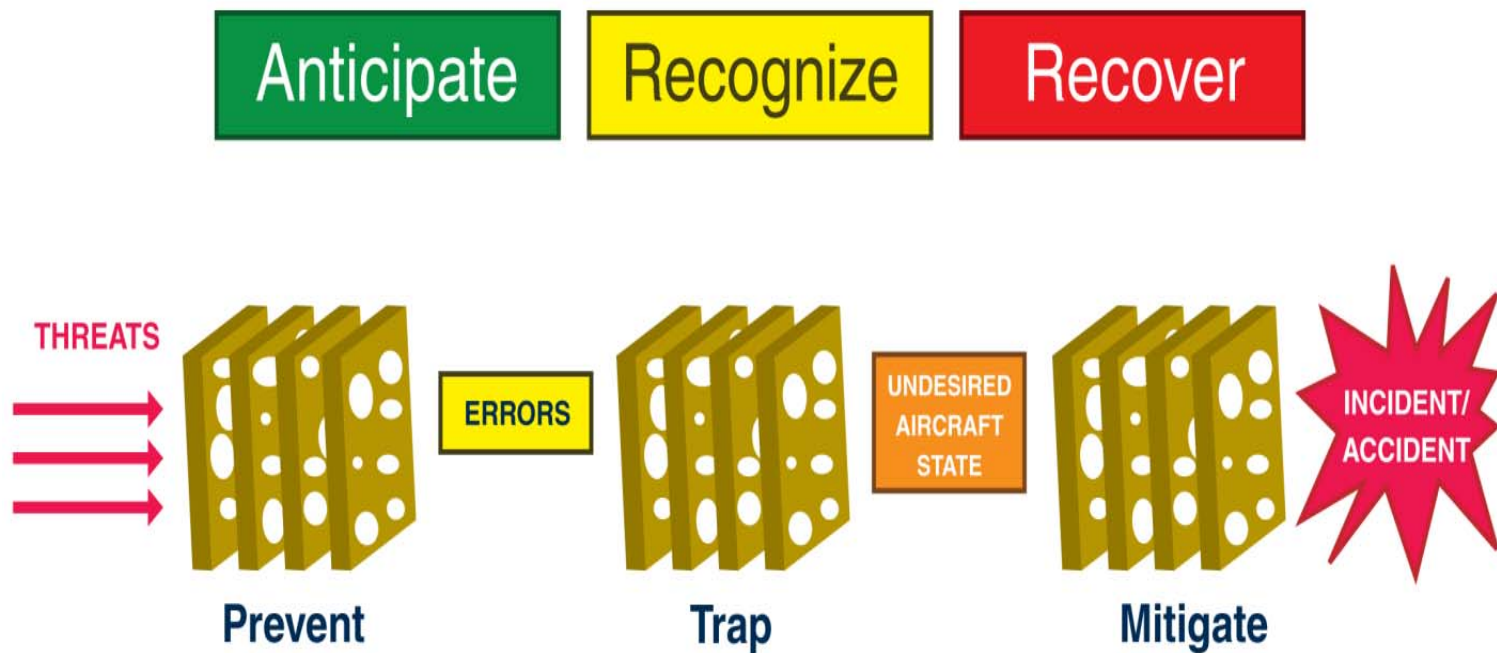
Maybe only 1 time in 1000, or even 1 in 10,000 but you don’t get to choose the time of reckoning.

Should we expect to perform under extreme conditions at levels we do not practice for on a daily basis?



Completing the Threat and Error Management Model

Reemphasize the primacy of the individual throughout.



“The challenge of human error will never be remedied by any traditional training or safety program. Personal error must be slowly untangled – in a private battle within each individual.



This is true because in high achievers, human error and personal weakness is secret and sacred ground; at least until the accident investigators and lawyers show up.”

Blue Threat, 2010



Formal Feedback Sources

NO SIGNAL

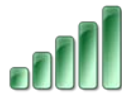
Individual



Crew

 (Debrief tools - if used)

Organization

 (Standards, Safety, etc.)

External

 (NTSB, FAA, Insurers, Courts)

Proposed Integrated, Career Spanning, Human Factors Continuum

Combine individual, team and systems level approaches into one evolving continuum

- Fully integrate personal, team and organizational safety programs into a common language, goals and metrics
- Three year annual cycle
- Career stage appropriate and “growth based” as opposed to “currency based”
- Built in ability to take advanced programs and “leap ahead”

Three Year Cycle

Year 1/1 – Focus on the Individual (Blue Threat)

- Professional ethics, personal error control, flight discipline, compliance

Year 2/1 – Focus on the Team

- Threat and error management, crew dynamics, precision communications, use of all available resources

Year 3/1 – Focus on the System

- Roles and responsibilities inside the SMS, reporting, use of data, mutual support across functional lines

Repeat with advanced instruction in Cycles 2 and beyond with resources for high achievers to go deeper, sooner

Making it Happen

- Achievable within existing AQP architecture
 - Possible need for a blanket one year FAA approval for early adopters and refinement of the CRM AC
- Industry wide team to integrate objectives and develop training levels, cycles and metrics
- Similar simultaneous efforts for Air Traffic Control and Maintenance operations
- Could be easily integrated into other areas, i.e. selection and screening, academia, standards

Summary

- The problem of unprofessional behavior is small but serious
- It has the potential to get worse
- New thinking is required
- We have the experts here to map the path

Challenge for Uncommon Bedfellows

- Regulator
- Industry
- Labor
- Academia
- OEMs
- Insurers
- Private Sector Support

“Whether we venture into the realms of space in our latest vehicles, or whether we are concerned principally with here on the ground . . . We are part of a vast proud mechanism that must function cleanly if it is to function at all.”

- Curtis LeMay



Trouble Ahead?



Hypothetical Question?

What if many of our future colleagues grew up thinking that following rules wasn't mandatory, that cheating was a competitive advantage and that most everyone was noncompliant when it suited them?

Impact on Compliance?

Cheating in school continues to be rampant and it's getting worse. A substantial majority (64 percent) cheated on a test during the past year; 38 percent did so two or more times.

Impact on Compliance?

More than one in three boys and one quarter of the girls — a total of 30 percent overall — admitted ***stealing from a store within the past year.***

Impact on Compliance?

More than two of five (42 percent) said that they sometimes ***lie to save money***.

Impact on Compliance?

As bad as these numbers are, it appears they understate the level of dishonesty exhibited by America's youth.

More than one in four (26 percent) confessed they ***lied on at least one or two questions on the survey that produced these results.***

Impact on Compliance?

Despite these high levels of dishonesty, the respondents have a high self-image when it comes to ethics. A whopping 93 percent said they were satisfied with their personal ethics and character and 77 percent said that

“when it comes to doing what is right, I am better than most people I know.”

Impact on Compliance?

Eighty percent of respondents agreed that

“people who are willing to lie, cheat, or break the rules are more likely to succeed than people who are not.”

What Now?

If we can't expect people to have a shared understanding of right vs. wrong, we must educate them on why it is critical and then teach them the self management skills to implement and sustain the high standards of our industry.

This begins with getting our house in order now.

COMPLACENCY
KILLS

**GLOBAL WAR
ON ERROR**