Leading Teams at the Sharp End:

Creating Safety through Teamwork in High-Risk Environments

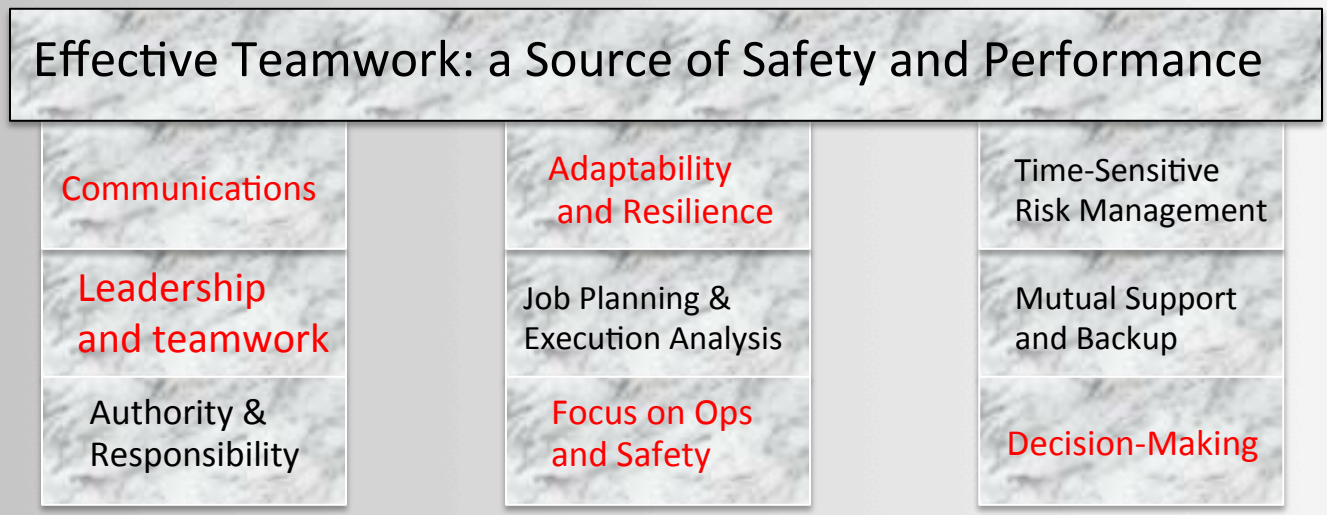
Presented By

Randy E. Cadieux, M.S., MEng

Overview

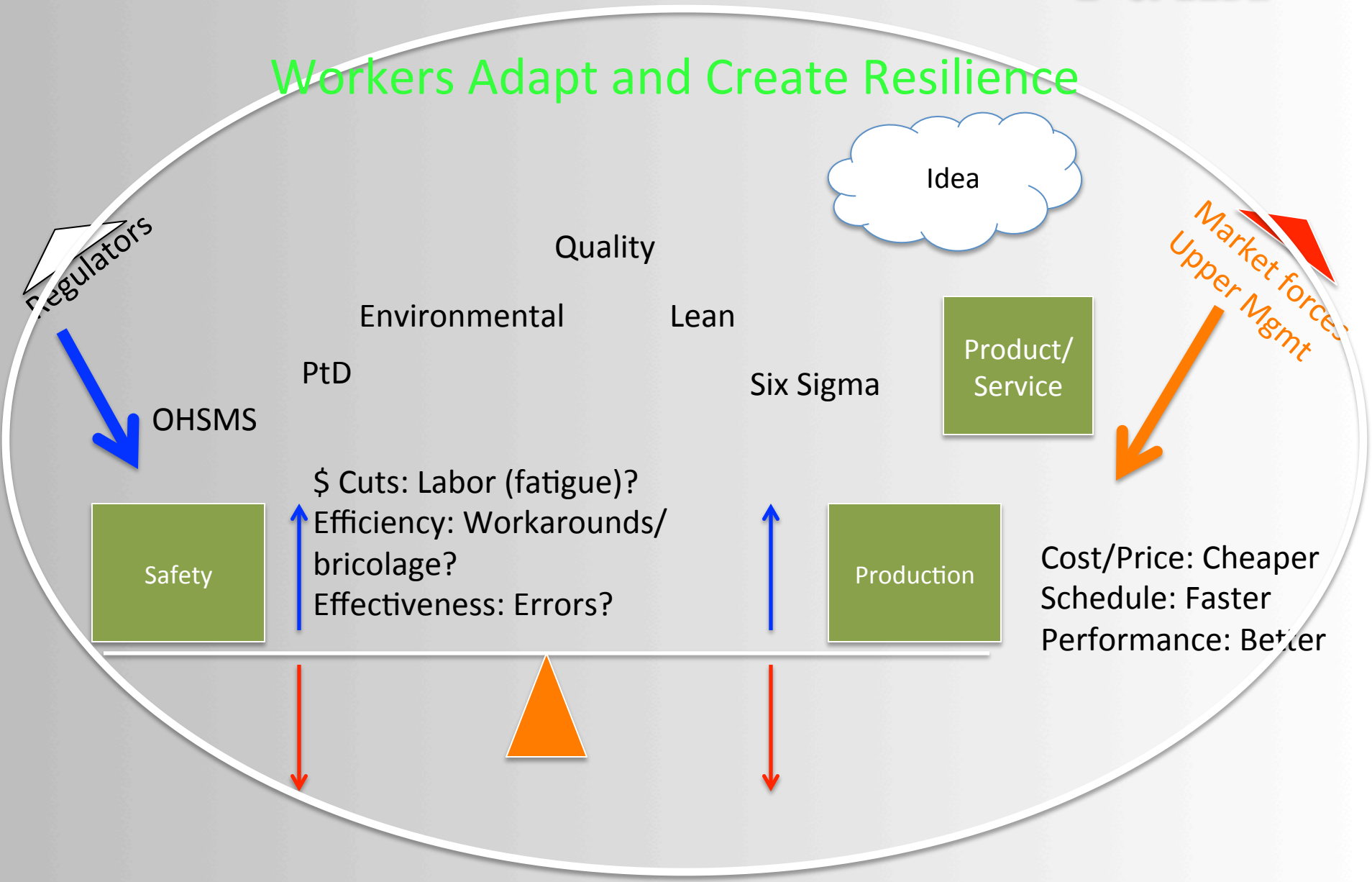
- CRM non-technical skills
- HRO and system safety
- Human Performance
- Safety professionals coaching teams to become a robust resource for safety/ops performance

Essential Components of Team Performance



Teamwork: Resource for Crew Performance

What is Resilience?

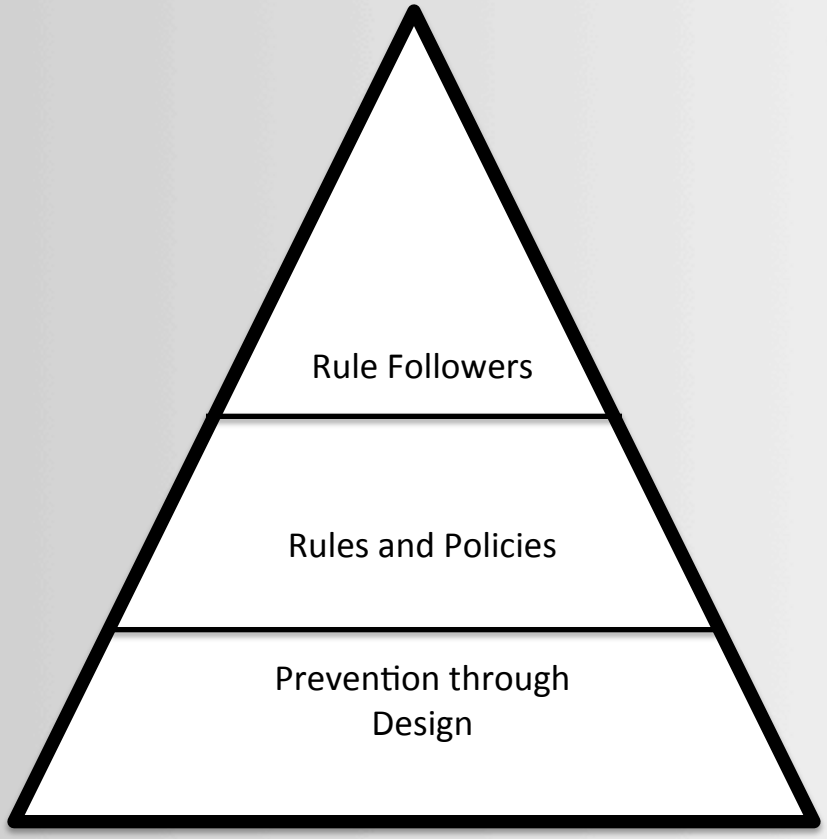


How Leaders and Managers May Envision Safety

Operational Teams

Leadership and Management

System/Equipment Design

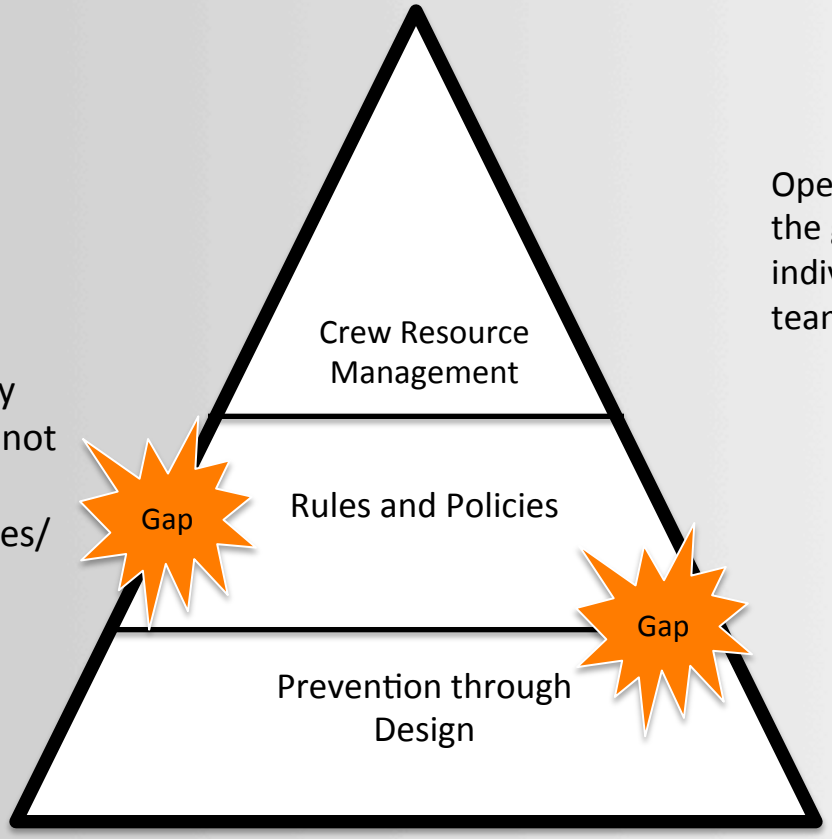


-PPE
-Administrative/ Procedural Controls

-Warnings

-Engineering controls
-Substitution
-Elimination

How Employees and Crews May Create Safety



Rule makers may try their best, but may not foresee external environment changes/ market demands

Operational teams left to fill the gaps in safety through individual action and teamwork

Resource constraints force designers to leave out safety features, unable to foresee certain risks during design, unintended consequences of design

Bridging the Gap

Work-As-Designed

Job requirements (planned)

Optimal scheduling

Hazards (identified/ unidentified)

Safety Rules

Incentives/Rewards

Work-As-Performed

Job requirements (actual)

Production pressure/ On-time performance

Hazards and Risk Perspective

Risk attitude and risk-taking behavior

Actions to achieve rewards

Elements of an Effective Team

- Training, qualifications, and competence-all levels
- Safety focus
- Range of experience and expertise
- Collaboration and trust
- Shared mission and objectives
- Distributed leadership and decision-making
- Collective understanding of the job

Elements of an Effective Team

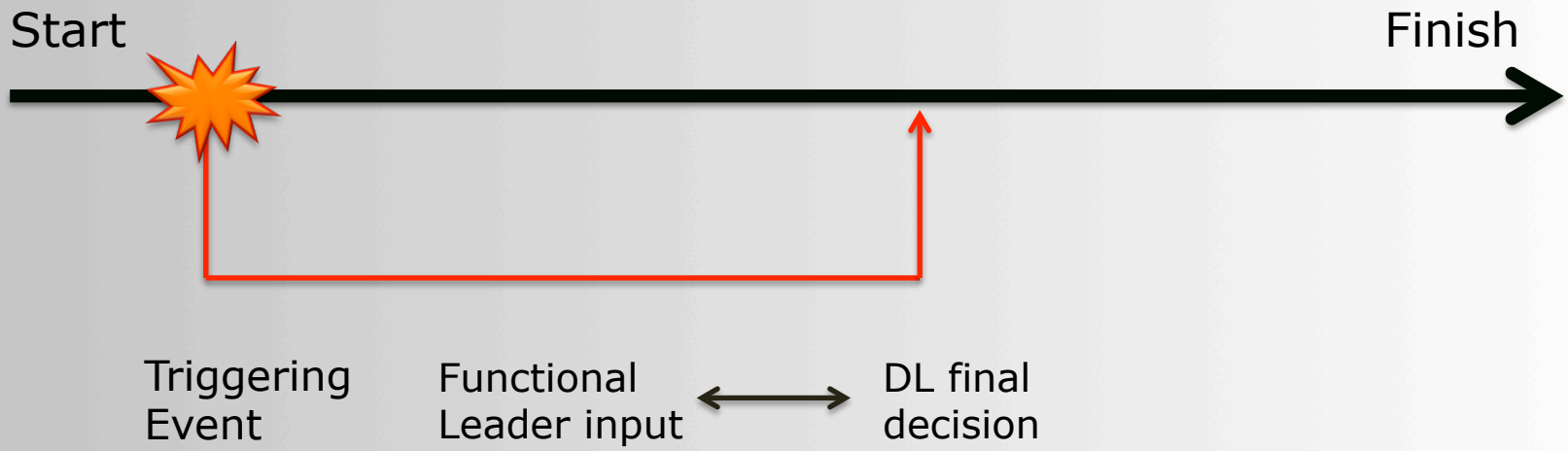
- Adaptability
- Standardization
- Participation in work improvement processes
- Initiative and innovation
- Communications and information sharing
- Empowerment
- Debriefing/learning culture

Leadership in Operational Teams

- Designated Leadership
  - Assigned in writing; “the one in charge”
  - Final responsibility for mission success or failure and safety outcomes
- Functional Leadership
  - Team member with a skill that is essential at that point in time or with critical information to share

The Shifting Emphasis of Leadership During Operations

DL: overall authority and responsibility



DL may defer to expertise of Functional Leader for input on control/resource needs to complete the job safely

(Cadieux 67)

Leaders and Teams Need Tools

- Why do we make people leaders and then set them and their teams/crews up to fail?
- Without the best tools for empowering team members leadership loses its effectiveness
- Would you send your teams/crews out on the job without tools?

Leader's Toolkit: a Crew Performance System

- Communications
  - Deliberate approaches go beyond 3-Part Comm's
- Mutual Support and Backup
  - What is a SWA without teeth?
- Job Planning and Execution Analysis
- Focus on Operations and Safety
  - Human Error and the Situational Awareness fallacy
- Authority and Responsibility
  - Control vs. the illusion of control

Leader's Toolkit: a Crew Performance System

- Decision-making
  - Leaders and managers must make decisions, but why don't we train them how?
- Adaptability and resilience
  - Are all jobs the same?
  - Adaptability as a core skill to build resilient teams
- Time-Sensitive Risk Management
  - Why do we preach compliance when we need risk management?

Understanding The Mind of the Line Crews or Teams

Emphasis on the Essential Components of Crew and Team Performance

Communications Exercise

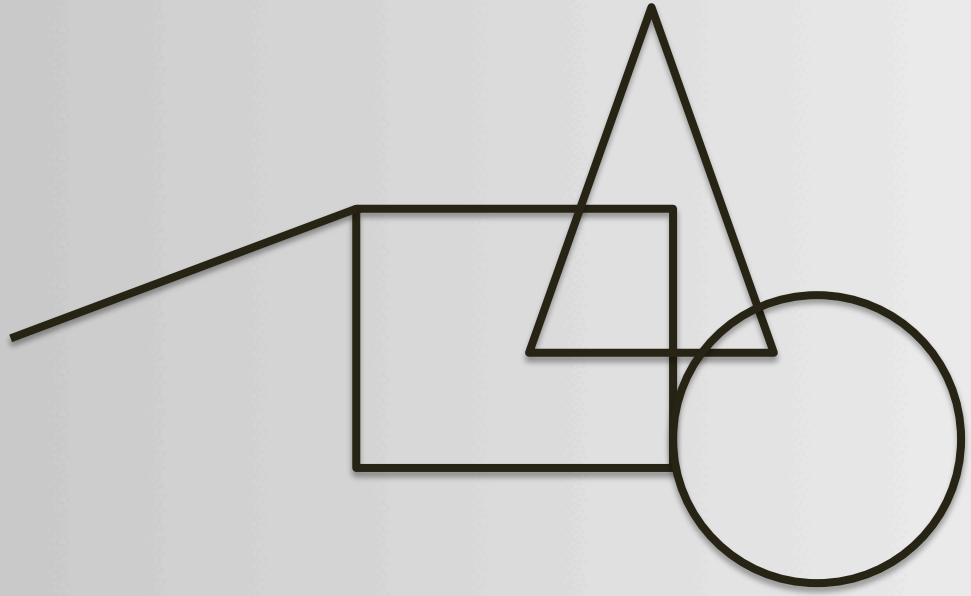
Before proceeding to the next slide, get a pen/ pencil and sheet of paper. Follow the instructions in and draw the picture as instructed.

IMPORTANT: Do not proceed to the next slide until you are instructed to do so.

Your Drawing

Communications Exercise

- Did your drawing look like this?



- Is simple communication really that easy? If not, why don't we plan deliberate strategies?

Error-Provocative Environment

- Sometimes referred to as error pre-cursors or error-traps
- High task loading vs. limited time available
- Low task loading
- Distractions, deficient equipment/system design, the list goes on…
- Faced by employees in many high-risk operations daily

Situational Awareness

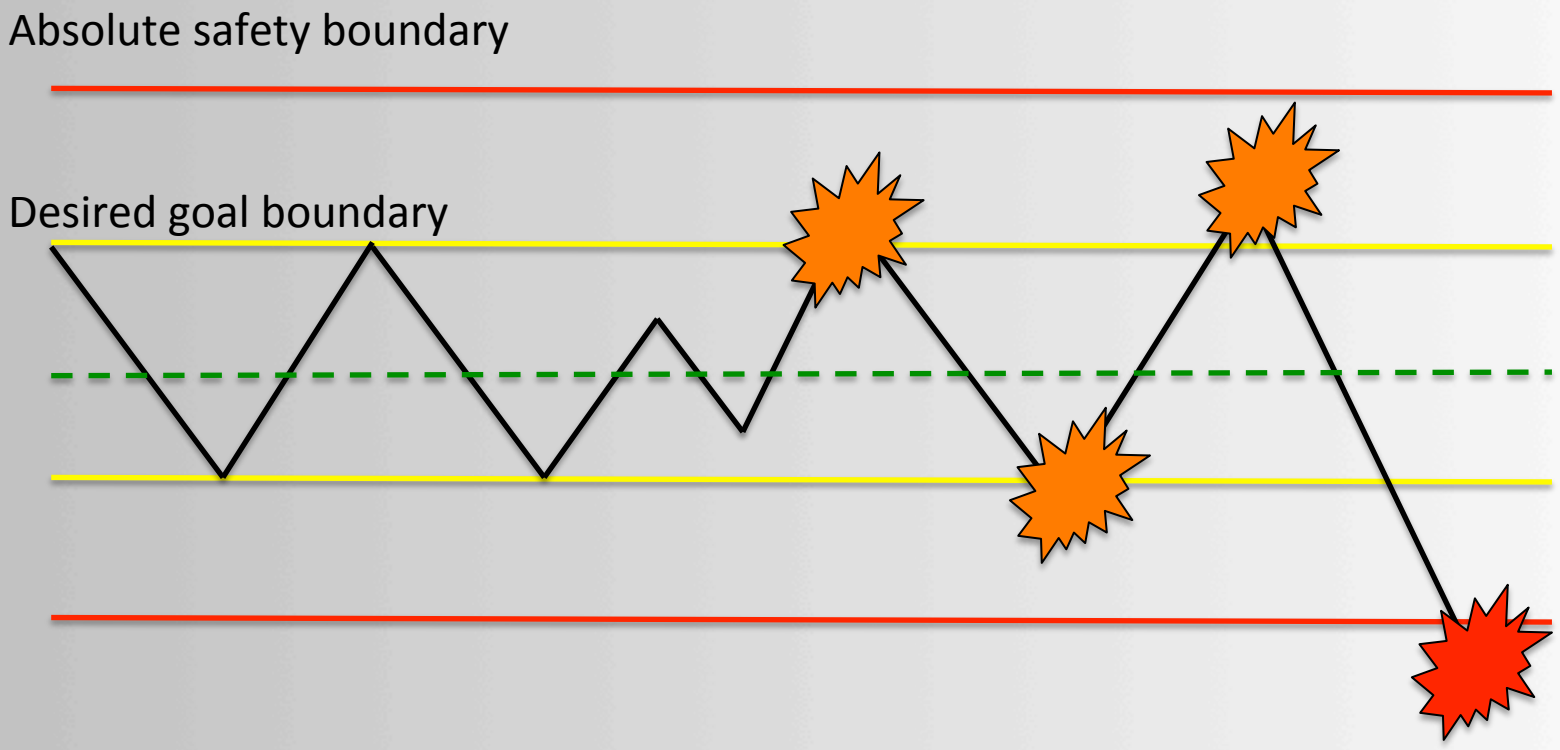
- "All you need is better Situational Awareness!"
- Really? Is it that easy?
- Question: If the price of a bagel and a soda is $2.50 and the bagels costs $2.00 more than the soda, how much does the soda cost?

Situational Awareness

- If the price of a bagel and a soda is $2.50 and the bagels costs $2.00 MORE THAN the soda, how much does the soda cost?
- $.50 + $2.50 = $3.00
- $.25 + $2.25 = $2.50
- Teams need tools to assist with performance variability in error-provocative environments

Performance Variability

- Performance variability vs. carelessness/willful violation
  - First time, low proficiency, distractions, task overload
- Blame vs. Error detection, management, and learning



Situational Awareness Strategies

- Memory Aids/Focus Aids
  - Checklists
  - Focus Aid examples
- Load-Shedding
  - Focus during high-task load/high stress situations
- Assess the plan and ask
  - What was planned, what changed?
  - Who/what is affected by the changes?
  - W^2HD

Error Prevention vs. Error Detection

- Error detection and correction
  - Detect
  - Trap
  - Correct or manage the effects
- LEARN AND IMPROVE!
  - Take error events and improve the design to make it harder to make mistakes
    - Systems, procedures, checklists
    - Reevaluate and continue improving
    - Lessons-learned sharing

Ongoing Analysis of Job Execution

- Compare actual to planned conditions
- Share information with those who need to know/who will be affected by the changes
- W^2HD mnemonic
  - "What do I know?"
  - "Who needs to know it?"
  - "Have I told them?"
  - "Do they understand?"
- Debriefing culture

Decision-Making

- Slow tempo approaches
  - Complexity and scale/timeframe for decision
- Fast tempo approaches
  - Simpler rules based on timeframe and criticality
- What is the upside of risk?
  - What is the opportunity cost of not performing an operation?

Decision-Making Process

- Situational assessment
- Information verification
- Solution identification
- Anticipation of decision consequences
- Making a decision
- Informing others of the decision and rationale
- Evaluating the decision

Source: *NATOPS General Flight and Operating Procedures Instructions (OPNAVINST 3710.7U* 3-17)

Decision-Making Techniques

- Slow tempo approaches, such as decision matrix
- Event Tree Analysis/What-If scenarios
- Simple rules for fast-tempo situations
  - Go/No-Go criteria
  - Pre-determine redundancies and backup options
  - Identify Threshold and Objective requirements
  - Pre-identify adaptive capacity cutoff points
  - Create IFTTT sequential decisions
- Analyze process (not just outcomes) and LEARN!

CRM Pathway to Excellence

Additional Resources

- Slides: www.v-speedsafety.com/asse
- Resources
  - Free Resources/Crew Performance eBook
  - *Team Leadership in High-Hazard Environments* book
  - Workshops
  - Online training
- Contact Info

  Web: www.v-speedsafety.com

  Email: randycadieux@v-speedsafety.com

  Phone: (205) 312-9987

  LinkedIn

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References

- References for this presentation are too numerous to list in this slide. They may be found in the Bibliography of the book *Team Leadership in High-Hazard Environments: Performance, Safety and Risk Management Strategies for Operational Teams,* published by Gower Publishing.