Overtraining for High Reliability

Increasing Organizational Resilience

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Protected…
48 million hectares
8,000 kilometers of rivers worldwide
100 marine conservation projects
Prescribed Burning…
585,000 TNC hectares since 1988
47,000 TNC hectares in FY10
3 x that on partner lands in FY 10
Active burn programs in 33 states
Why Overtrain?

Situational Awareness is constantly undermined
Human condition

1. No perfect people
2. No perfect systems
3. Error is pervasive
4. The unexpected is pervasive
5. Reliability cannot be banked
Subtle forces feeding cognitive shortcuts

- Expectations
  - Seek confirming evidence
  - Undervalue disconfirming evidence
  - Slow to realize the unexpected has occurred

- Success
  - Overconfidence in abilities
  - Discount criticism

- Modes of failure
  - Not all have been experienced
  - Not all have been imagined
Mindlessness

1. Deluded by expectations
2. Intoxicated by success
3. Ignorant of new modes of failure
Sensitivity to strategy

Big plans
What the boss wants

Avoiding trouble
Success
Sensitivity to operations

- Disconfirming
- Uncertainty
- Impossibilities
- Contested
What do you emphasize – Strategy or Ops?

**Pleasures of**
- Plans
- What the boss wants
- Success
- Avoiding trouble

**Discomfort of**
- Evidence that disconfirms expectations
- The uncertain
- The contested
- The impossible
Forces undermining mindfulness

- Human condition
- Pull of strategy
- Limits of perception
- Modes of failure
- Expectations
- Success
Elements of an informed culture

- Reporting
- Just
- Flexible
- Learning
- Informed
Elements of an informed culture

- Expectation that incidents and near misses are reported
- Management leads by example
- No sweeping problems under the rug
Elements of an informed culture

- Trust in appropriate consequences
- Free lessons shared or hidden?
- Care and concern

The Nature Conservancy
"Protecting nature. Preserving life."
Elements of an informed culture

- Adaptable to changing demands
  - Assumption that system is in danger until proven otherwise
  - Inconclusive evidence of danger spurs digging deeper for more information
Elements of an informed culture

• Ongoing debates about discrepancies
• Inquiry, doubt and updating encouraged
Elements of an informed culture

- Members have current knowledge of factors impacting safety
- Intelligent wariness
- Trust among members is key
Management pays close attention to input from frontline
Updating

Updates are communicated up, down and across
Updating

Everyone is updated with changes
HRO Audit

- Choose two of your important strategies
  - One for home unit, one agency wide
- Complete the audit with those strategies in mind
Training practices for high reliability

- Sandtable exercises
- Incident management simulations
- Role playing field scenarios

Periodic review with updates shared across unit/agency
- Informs overtraining priorities for upcoming season

Tactical Decision Making

Lessons Learned
Impact on Mindfulness

- Critical skills become 2nd nature
- Hones the thought processes of incident commanders
- Allows for maximum attention to be devoted to creative solutions
- Affirms the organization’s commitment to high reliability
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