

Overtraining for High Reliability

Increasing Organizational Resilience

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The Nature
Conservancy 

Protecting nature. Preserving life.™

Protected...

48 million hectares

8,000 kilometers of rivers worldwide

100 marine conservation projects



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The Nature
Conservancy



Protecting nature. Preserving life.™

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

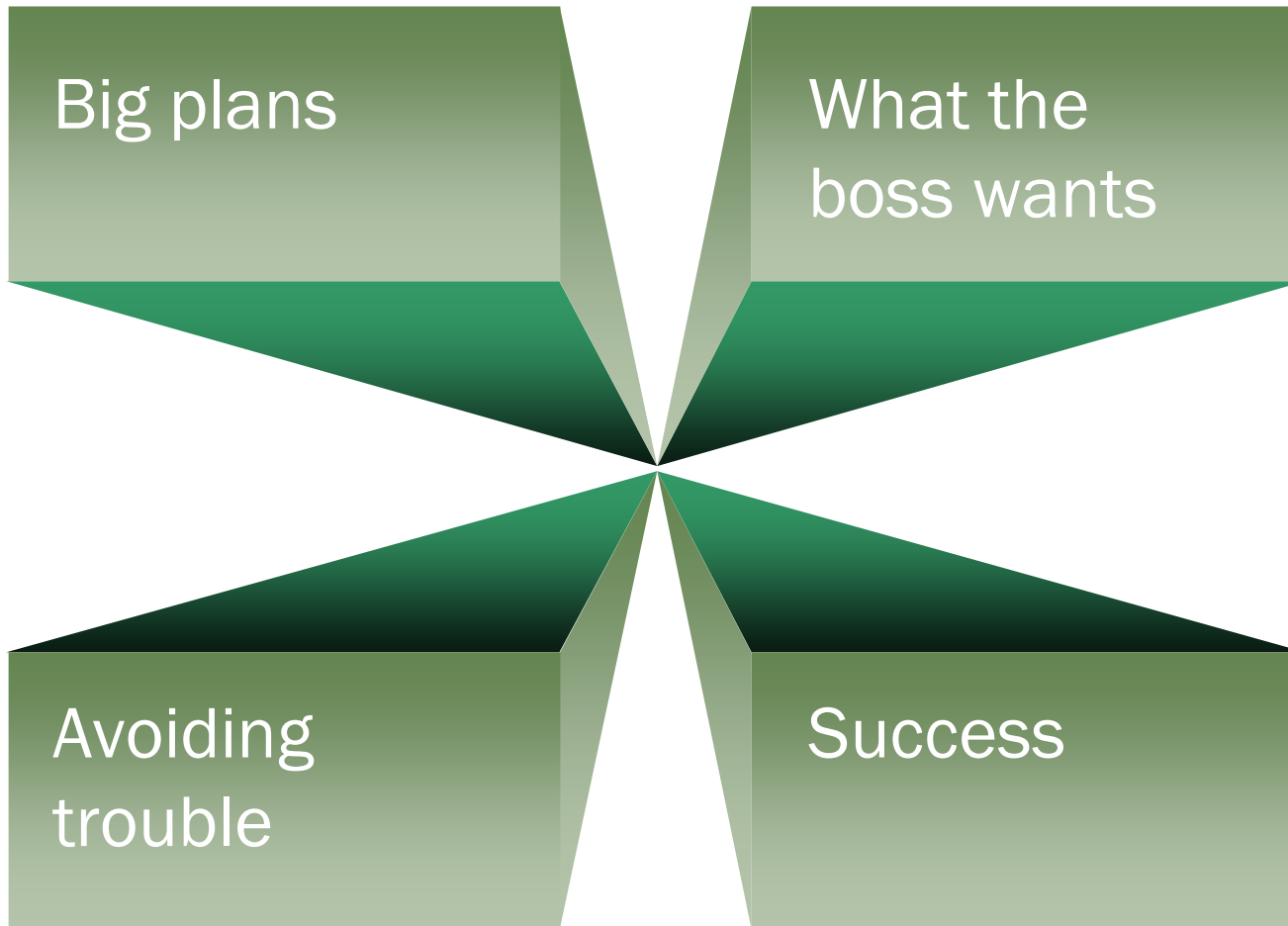
Mindlessness

① Deluded by expectations

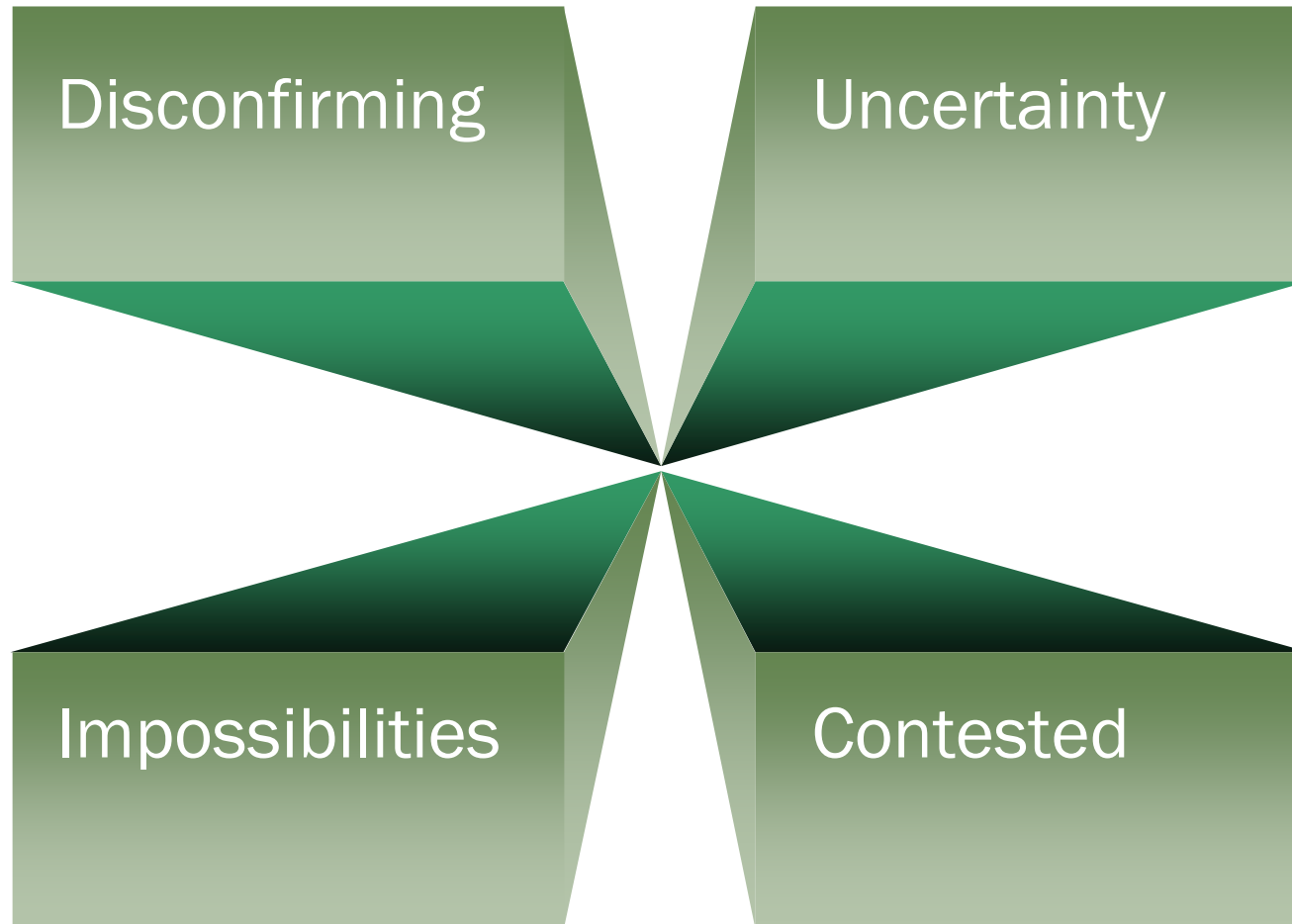
② Intoxicated by success

③ Ignorant of new modes of failure

Sensitivity to strategy



Sensitivity to operations



What do you emphasize – Strategy or Ops?

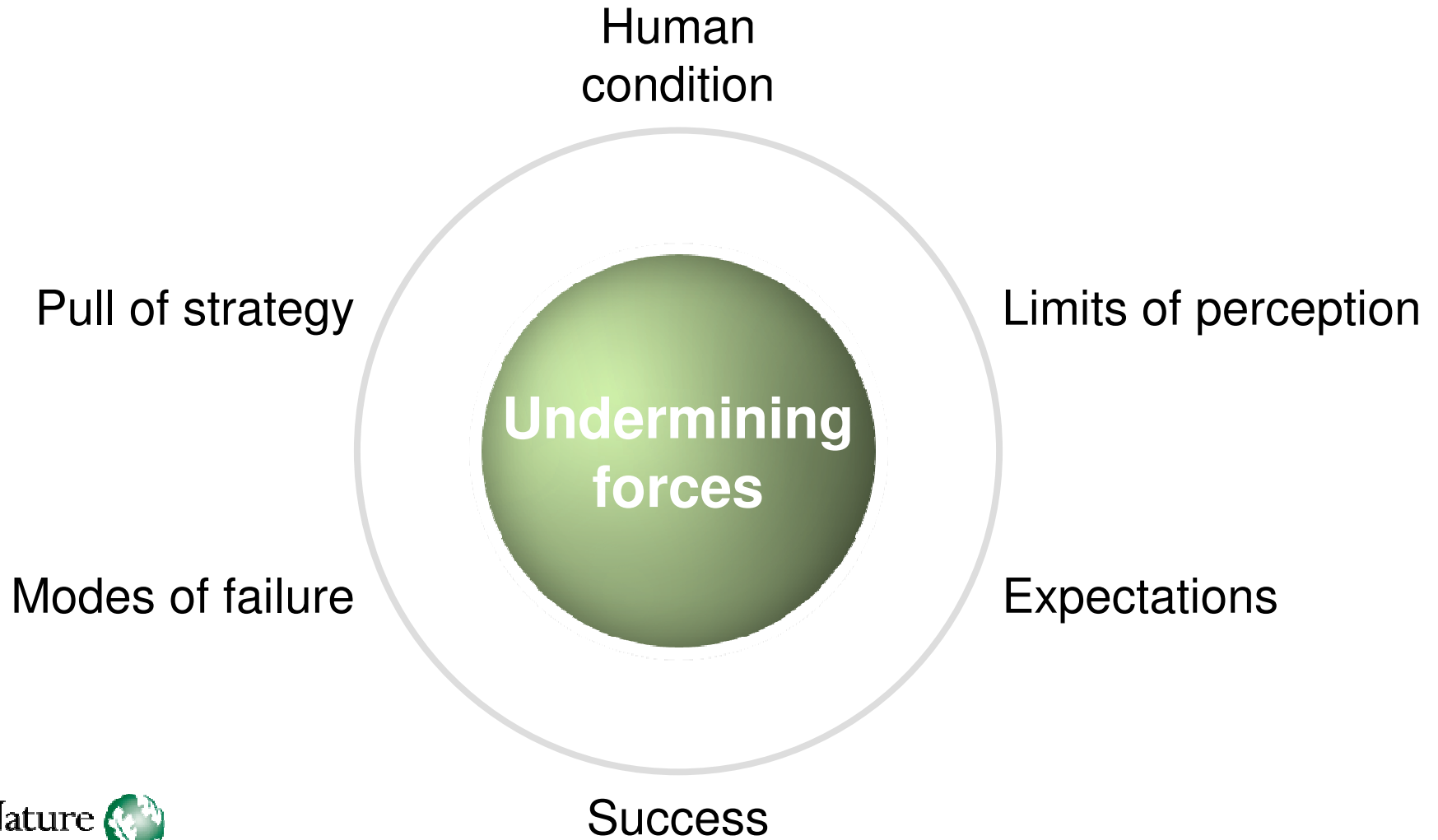
Pleasures of

- Plans
- What the boss wants
- Success
- Avoiding trouble

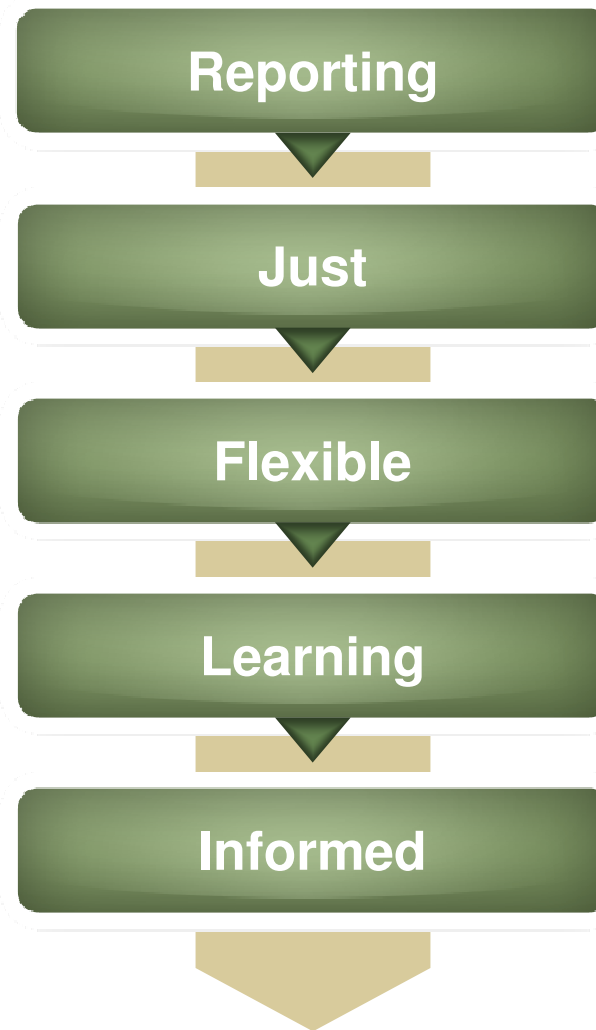
Discomfort of

- Evidence that disconfirms expectations
- The uncertain
- The contested
- The impossible

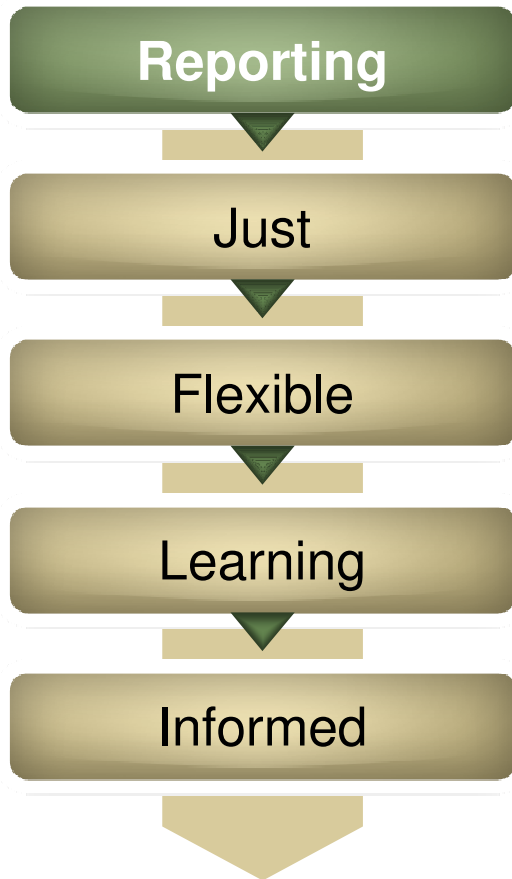
Forces undermining mindfulness



Elements of an informed culture

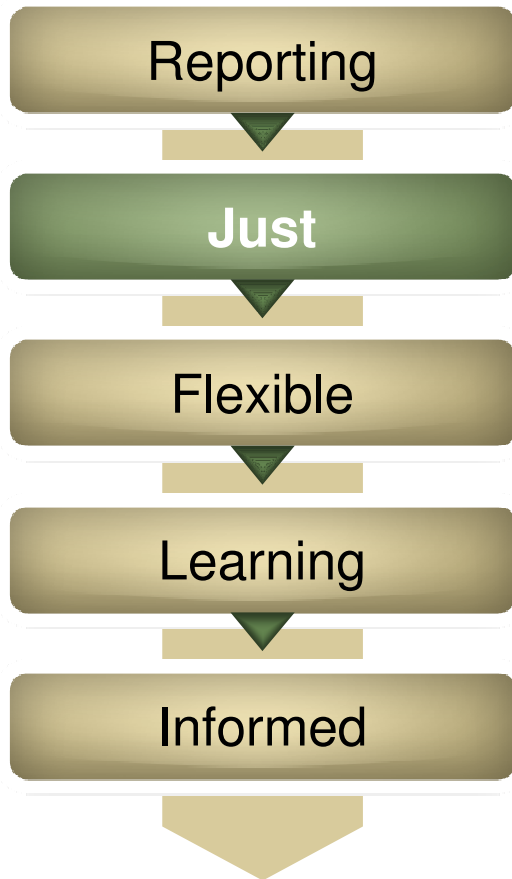


Elements of an informed culture



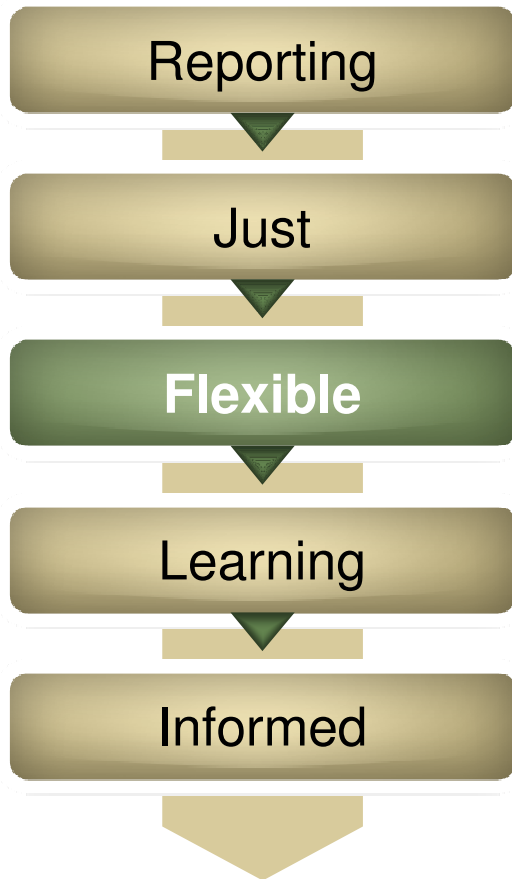
- Expectation that incidents and near misses are reported
- Management leads by example
- No sweeping problems under the rug

Elements of an informed culture



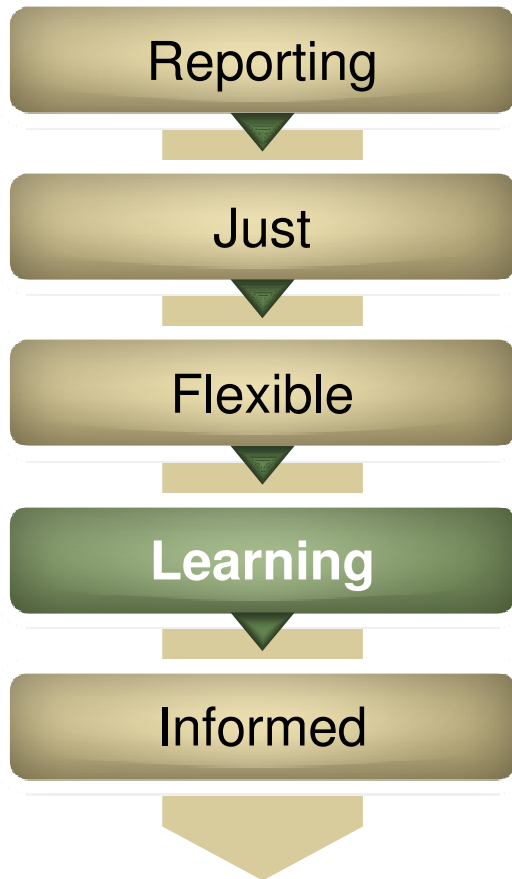
- Trust in appropriate consequences
- Free lessons shared or hidden?
- Care and concern

Elements of an informed culture



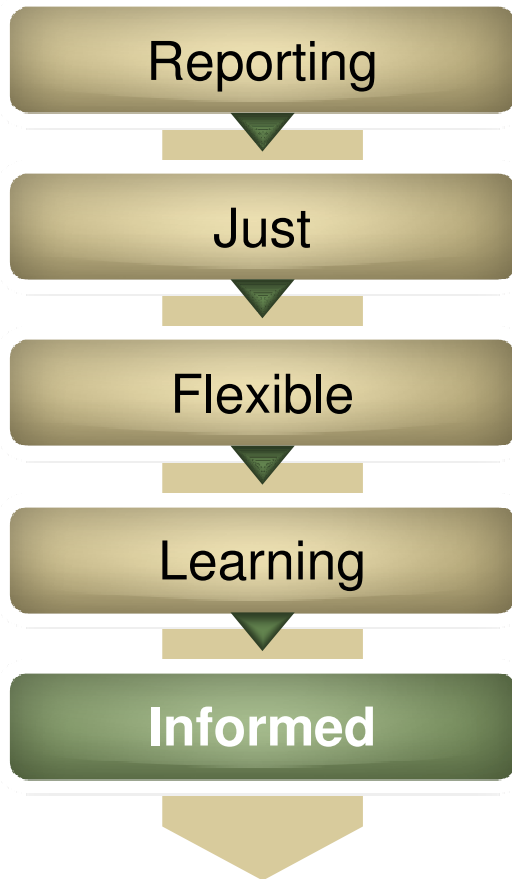
- Adaptable to changing demands
 - Assumption that system is in danger until proven otherwise
 - Inconclusive evidence of danger spurs digging deeper for more information

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

Updating



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

Tactical Decision Making

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

Lessons Learned

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

Impact on Mindfulness

- ✓ Critical skills become 2nd nature
- ✓ Honers 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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