NASA’s Safety Culture Program: Methodology and Initial Results

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Agenda

- Safety Culture Program (SCP) 4 Components
  - Organize
  - Assess
  - Educate
  - Engage
Organize:

Respect and learn from NASA history

- Engineering, science and exploration focused organization
  - Evolving, recently much more “acquisition” focused
- Engaged in organizational “looks” throughout it’s history
  - Formal and informal
  - Internal and external
- Enjoyed great successes....and some failures
- Challenged by oversight groups after Columbia mishap to focus more on safety culture
- Several decentralized efforts occurred between 2004-2008
- HQ Office of Safety and Mission Assurance created dedicate Safety Culture Program Manager to create, implement and manage a comprehensive Safety Culture program
Organize: The SCP beginnings.....

- A Comprehensive Program
  - Survey Does NOT = Safety Culture Change
- Safety Culture Working Group (SCWG)
  - POCS from each of the 10 Centers
- SCP Charter
  - Defines purpose, goals, procedures, products, and SCWG membership
- Includes Safety Culture Assessments
  - Need for Agency-wide Safety Culture Survey (SCS)
Organize:
SCP fundamentals

• Organize
  – Charter
  – SCWG
  – Vision
  – Model
  – Definition
  – Guidance
  • 8700 (d) It is NASA policy to encourage support and monitor programs, activities, and events that strengthen and sustain a healthy safety culture at NASA

• NASA’s Safety Culture definition
  NASA STD 8709.22
  Safety Culture is the value placed on safety as demonstrated by people’s behavior. It is the way safety is perceived, valued and prioritized in an organization. It reflects the commitment to safety at all levels in the organization. It has also been described as "how an organization behaves when no one is watching". Safety culture is expressed and observed via individual and group attitudes and behavior; and organizational processes.
Organize:
Safety Culture Working Group (SCWG) Vision

An environment characterized by safe attitudes and behaviors, modeled by leaders, and embraced by all, that fosters an atmosphere of open communication, mutual trust, shared safety values and lessons, and confidence that we will balance challenges and risks consistent with our core value of safety to successfully accomplish our mission.
“All models are wrong ... but some are useful”  George Box
Organize:

NASAs 5-Factor Safety Culture Model

• We communicate our concerns without fear (Reporting Culture)
• We treat each other fairly (Just Culture)
• We adapt to meet challenges (Flexible Culture)
• We learn from our successes and mistakes (Learning Culture)
• We all do our part (Engaged Culture)
  • Important evolution of the model
  • Consistently scored as most important factor of the model
Assess:

The Safety Culture Survey (SCS)

● First – Reviewed theories, surveys, and options
  • NASA 5-Factor Model
  • 20 Agency questions
  • 2-5 Center Specific questions
  • Quick
  • Easy access
  • Open ended feedback
    • This is where the real “meat” appears

HTTPS://WWW.NASASCS.ORG
Assess: The SCS Process

- Center POC & teams
- Rolling participation on 3 year schedule
- Center CD out-brief
  - Includes
    - Data,
    - Analysis
    - Feedback trends,
    - Way ahead
    - Closing the look
- HQ outbrief at midpoint and conclusion of R1
Assess:

NASA SCS Agency Profile

-Our benchmark
-10,932
-Centers & HQ
-12/2009-4/2012
-5 on 6 pt scale
-Slight step-down profile
Assess: NASA SCS Sample
Assess: Round 1 Takeaways

- Need for leaders to maintain awareness
- Occupational differences
- Commenters versus non-commenters
  - I Choose Not To Answer (ICNTA) looks similar
- Workspace “Pockets”
- Feedback – not for the faint-hearted
  - Differentiating “noise” from real problems is difficult ....remembers Diane Vaughan’s “weak signals”.....
  - Takes time to read
  - Takes more time to digest
  - Takes even more time to decide what to do, implement and evaluate effectiveness
Assess: SCS Status

• Round 1 completed
  – Overall favorable feedback from Center Directors
    • Tool and Process
    – All working to “close the loop” and implement recommendations
    – HQ is watching with interest
• Round 2 started July 2012
• Anticipate a 2-3 year cycle
• SCS is one part of the SCP
  – Add on the Educational component to R2 in 2012
Educate: First Steps

• Educate
  – Orientation Course
  – Supervisor Course
  – Step Course
  – Web based
  – Individual or Group
  – Beginning Fall 2012
NASAs recent path... in a nutshell...

• Making progress
• Still a long way to go
• Strong leadership that understands and encourages need for BOTH technical and cultural excellence
Thanks for listening!

- **Questions?**
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