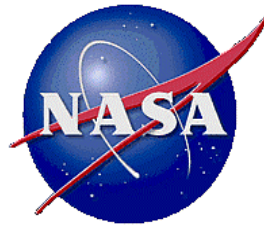


Safety Culture

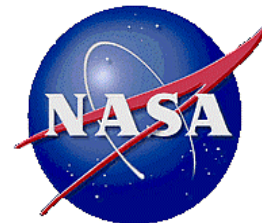
NRC Internal Safety Culture Public Meeting December 4, 2008

Tracy Dillinger
Safety Culture Manager
Office of Safety and Mission Assurance
NASA, HQ



Agenda

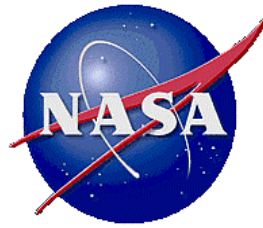
- **Introduction**
- **Philosophy**
- **Lessons Learned**
- **History**
- **Current Status**
- **Possibilities**
- **Question and Answers**



Introduction

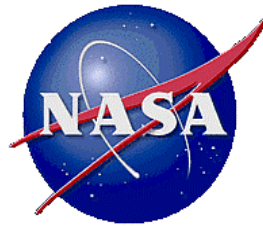
- **USAF Detailee**
- **Arrived May 20th 2008**
- **Here for you**
- **2 Years**





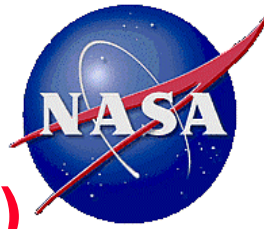
INTRODUCTION: Culture and Climate (C & C) Defined

- **Culture: The set of shared attitudes, values, goals, and practices that characterizes an institution or organization
“a corporate culture focused on the bottom line”
(Merriam-Webster dictionary)**
- **Climate: The prevailing influences or environmental conditions characterizing a group or period - atmosphere
- “a climate of fear” (Merriam-Webster dictionary)**
- **Climate is to Culture as Mood is to Personality**



Safety Culture Lessons Learned

- **Fundamentals**
 - 6 Pillars of USAF
 - 5 Factors from NextGen
 - 5 Lessons from CAIB and “Beyond the Widget”
- **Assessments**
 - Several types available
 - Commonly used throughout
 - Government
 - Industry
 - Military
 - Academia
 - Health Care
- **Bottom Line – Safety focus makes a difference**



Lessons Learned

USAF Organizational Safety Assessments (OSAs)

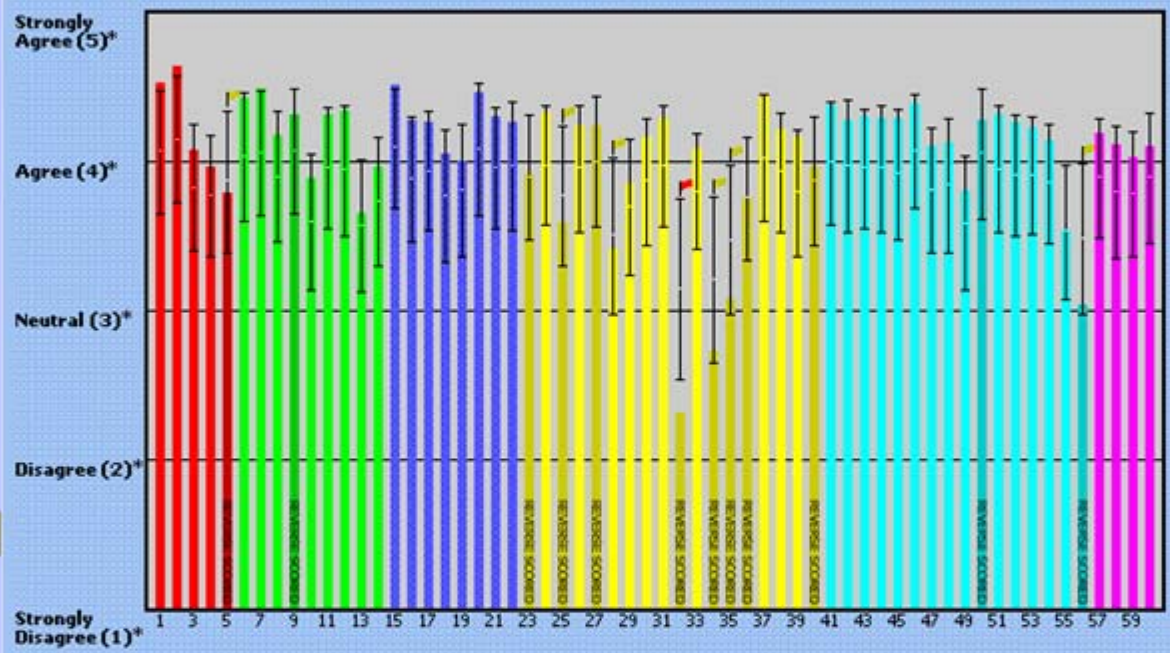
- Assess top to bottom, per leadership request
- Survey
- Interview
- Gather historical data
- 6 Pillars
 - Unity
 - Communication
 - Justice
 - Flexibility
 - Support
 - Learning
- Recommendations
- 1 Yr follow - up



- AFCAST POLICY
- SURVEY OVERVIEW
- SURVEY INSTRUCTIONS
- SET-UP UNIT SURVEY
- SAMPLE SURVEY
- TAKE A SURVEY
- SURVEY ADMIN
- COMMANDER ACCESS**
- ISSUE PAPERS
- SITE MAP
- HELP / FAQ
- CONTACT US
- SUGGESTIONS
- HOME

AMC COMMANDER ACCESS

Graph Of Mean For All Items Compared With Mean And Standard Deviation with respect to All Respondents



Comparison (all years):
 All Respondents

(*Items 5, 9, 23, 25, 27, 32, 34, 35, 36, 40, 50, 56 are "reverse scored")

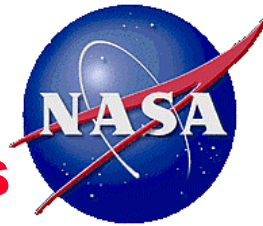
Legend	
<p>Assessment Item Category:</p> <ul style="list-style-type: none"> ■ PA: Process Auditing ■ RS: Reward Systems ■ QA: Quality Assurance ■ RM: Risk Management ■ CC: Command & Control ■ C/FR: Communication / Functional Relationships 	<p>Lines and Flags:</p> <ul style="list-style-type: none"> Comparison's standard deviation centered on its mean (white dot) Mean is less than comparison but within one-half standard deviation Mean is below one-half standard deviation less than comparison

- Composite Categories Graph
- All Survey Items Table
- Single Item Graph
- Open-Ended Responses
- Debriefing Support
- Printable Data Summary

Green = 3.5 >

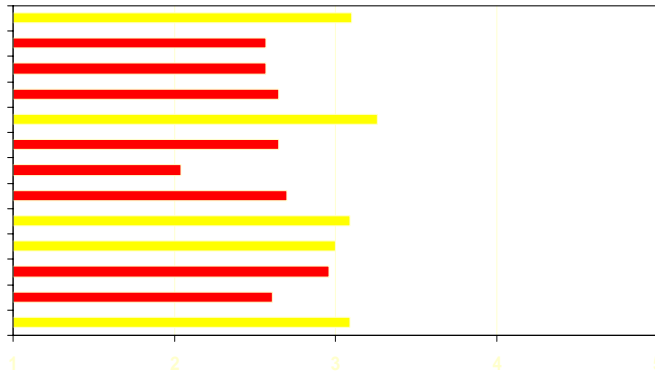
Yellow = 3.0 - 3.49

Red = 1.0 - 2.99

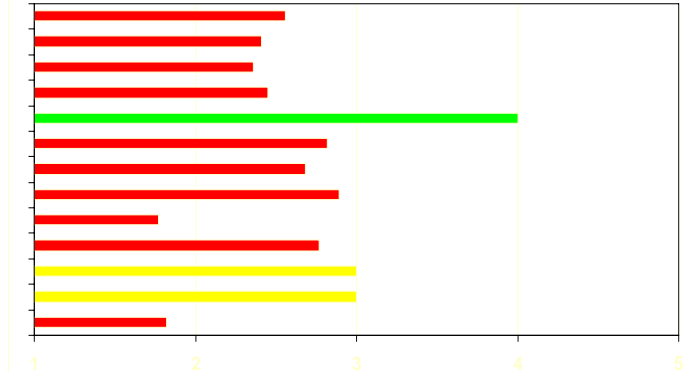


USAF Inter-Organizational Pillar Comparisons

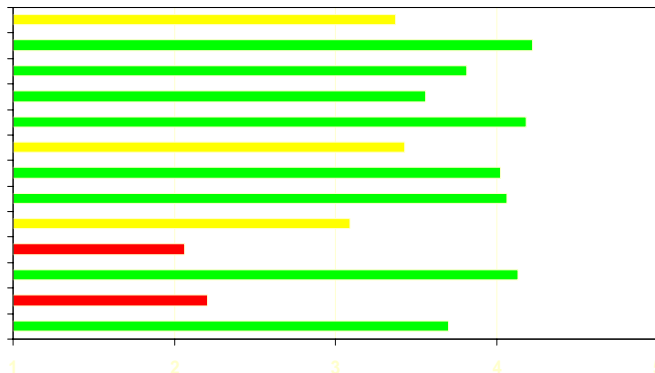
Organization W



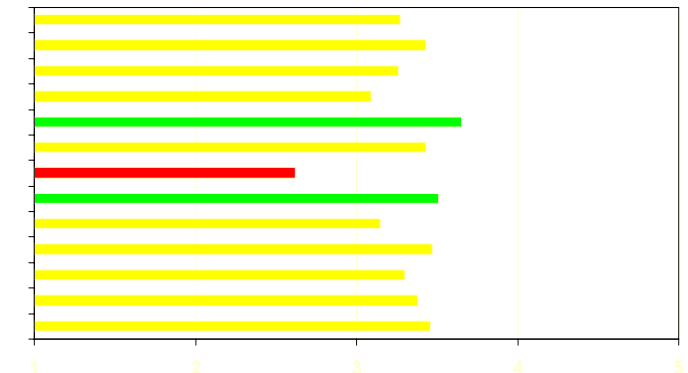
Organization X

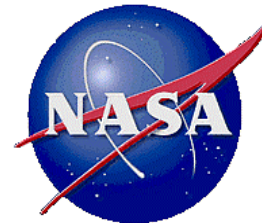


Organization Y



Organization Z

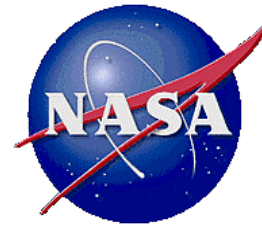




Lessons Learned: OSAs

- Organizations 1 year before vs 1 year after an OSA shows a consistent reduction in mishaps
- 74% reduction in Class A's
- 38% reduction in Class B's
- 15% reduction in Class C's
- 33% reduction in Class E's

- **LESSON LEARNED** – These are an effective mishap reduction tool and help preserve resources



Lessons Learned

CAIB Vol 1

1. Inadequate concern over deviations from expected norms / standards
 - **Any foam a violation from original design requirements**
 - **Over time moved from “out of family” to “in family**
 - **“Normalization of Deviance” Diane Vaughn**
2. A silent safety culture
 - **4200 criticality 1 write ups**
 - **3200 waived**
 - **36% not reviewed in 10 years**
3. Bureaucratic accountability
 - **Required involvement**
 - **Diffuse accountability**
 - **Decision by power point**
4. Schedule pressure
 - **Node 2 screen saver to US portion of ISS**
 - **Cutting corners to decrease “flow” (pre/post mx) time**
5. A “can-do” attitude
 - **Original shuttle plan – every 10 days**
 - **“Operational”**
 - **98.2 % Success**

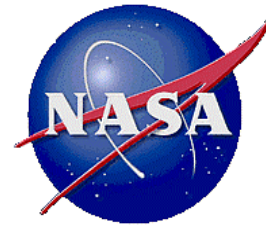


Lessons Learned

Beyond the Widget: Lessons Affirmed*

- 1. Stick to basics**
- 2. Communicate, communicate, communicate**
- 3. Be thorough and inquisitive – don't accept status quo**
- 4. Keep safety in front – always**
- 5. Go beyond the widget**
- 6. Do your organizational self assessment**
 - Initially, periodically, and continually**

***Duane Deal, BG USAF (ret)**

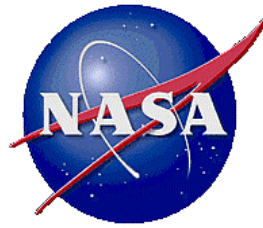


Lessons Learned*

NextGen's 5 Safety Culture Factors

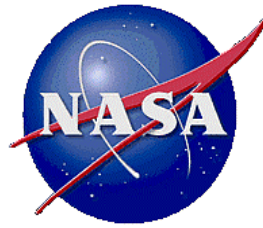
- **Reporting Culture**
- **Just Culture**
- **Flexible Culture**
- **Learning Culture**
- **Informed Culture**

***JPDO Paper 08-010, May 27, 2008**



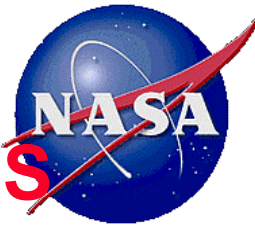
Possibilities - short and long term actions

- Short-term in addition to your ongoing local efforts
- Your own 5 factor safety culture “scorecard”
- Reporting
 - What’s your quality and accuracy of mishap reporting? IRIS?
- Just
 - Blame vs understanding
 - How are your award programs? Local recognition programs?
 - How many people were submitted – “should have” been submitted?
 - What are you doing to encourage submissions?
- Informed
 - How are you covering safety events at All hands? Staff? Director level meetings?
 - How well are you covering events OUTSIDE your center?
- Learning
 - How’s the messaging of events within your center?
 - Do all you people know as well?
- Flexible
 - What’s the rate and extent of change within your organization?



History – Summary of recent “looks”

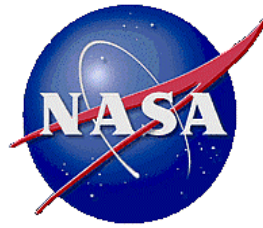
- CAIB
- BST
- PEP
- “Diaz” report
- Futron Safety Climate Pilot
- Human Capital 2007 Culture Survey
- ASAP



NASA 5 culture efforts for MANAGERS

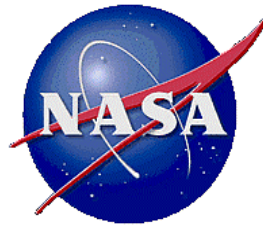
- **Some changes since CAIB, and continuing efforts**
- **From June 25 2008 report of 2007 results**
- **5 “solutions for management”**
- **To foster**
 - 1) **Management credibility**
 - 2) **Upward communication**
 - 3) **Organizational support**





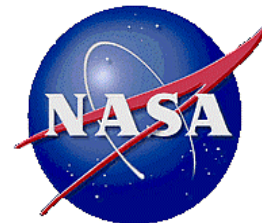
5 Solutions for Management

- 1. Management By Walking Around (MBWA)**
- 2. Give Frequent and Sincere Appreciation**
- 3. Involve Employees in Prioritizing Solutions**
- 4. Develop Effective Communication Skills**
- 5. Discover Entirely New solutions**



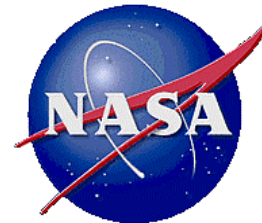
Challenges

- **Uncertainty**
- **Change**
- **Talent**
- **Research and Development**
- **Organizational structure**
- **Limited resources**
- **Lack of continuity / closure from previous efforts**
- **Overlapping efforts**
- **Survey fatigue**
- **Concerns about the safety as a priority**



Goals 2009

- **Safety Culture Roundtable**
- **Survey development**
- **Trend analysis**
- **Education seminars**
- **Site assessments**
- **Individual consultation**
- **Quarterly Safety C & C telecon**
- **Annual Safety C & C Symposium**



Questions?

- **Lt Col Tracy Dillinger, PsyD**
- **WP (202) 358-1680**
- **Tracy.Dillinger@NASA.Gov**