Safety Culture Assessment Tools

As noted in chapter 10 of the ***SMS Guidance Manual*** and amplified in Don Arndt's discussion papers ***Cultures: What are they?*** and ***A Model of Organizational Culture*** that are included in this toolkit, "culture is the complex social dynamic that sets the rules of behavior, or the framework for all our interpersonal interactions". A positive safety culture is necessary in order to achieve the potential benefits of an SMS but the challenge for an aviation organization will be to assess the current organizational culture so that strengths and aspects that may need to be addressed can be identified.
Included in these cultural assessment tools are:

- ***Dr. James Reason's survey tool Checklist for Assessing Institutional Resilience;***
- ***Safety Culture Characteristics***; and
- Several ***Culture Dynamics*** survey tools.

It is suggested that prior to conducting any culture surveys that chapter 10 of the ***SMS Guidance Manual*** and the Don Arndt's safety culture discussion papers be reviewed. James Reason's survey tool contains explanatory material and the Safety Culture Characteristics grid is straight forward.

When using the Culture Dynamics survey tools it is suggested that operators should attempt to use at least three of the four different assessment tools to gain perspective from as diverse a group as possible (flight coordination, ground handling, maintenance, management, operations, peer operators, vendors, auditors, consultants, etc).

For example, all participants might be asked by a mutually appointed facilitator to fill out the Cultural Assessment Tools questionnaire and to place their assessment of the current department safety culture on the sine wave tool according to the instructions on the page. Then each discipline within the group might use the applicable Four Culture Characteristics rating scales, to give their assessment of each characteristic from low to high performance. Once these have been completed, the results should be aggregated on a whiteboard or summary form for comparison and discussion of the differing scale results, paying special attention to the difference between the perception ratings of management and non- management participants.

The purpose of the tools is to get a sense of the degree of congruence between different stakeholders' perceptions of the operation's culture so that a plan can be developed to support, enhance or further investigate the culture of the operation.

The last paragraph of the instructions on the Sine Wave tool assists in determining next steps.

Other culture assessment options are: peer assessments, auditor assessments, external safety culture assessment services and safety culture workshop facilitators (links are included in Chapter 10 of the ***SMS Guidance Manual***). The safety culture workshops may also be used a part of a cultural change process.

Score Your Safety Culture

In his book *Managing the Risk of Organizational Accidents*, Dr. James Reason argues that three ingredients are vital for driving a company's safety engine, all of them the purview of top managers: commitment, competence and cognizance—the three Cs. But managers come and go. This is a fact of life.

So how does a company maintain a commitment to safety in the face of personnel turnover, volatile market forces and economic reality?

James Reason suggests that this is where an organization's safety culture comes in to play!

Dr. Reason states that "A good safety culture is something that endures and so provides the necessary driving force."

To find out if your organization has or is well on its way to having a good safety culture, Dr. Reason prepared the following checklist.

HEALTH WARNING

High scores on this checklist provide no guarantee of immunity from accidents or incidents.

Even the "healthiest" institutions can still have bad events. But a moderate to good score (8–15) suggests that you are striving hard to achieve a high degree of robustness while still meeting your other organizational objectives. The price of safety is chronic unease: complacency is the worst enemy.

There are no final victories in the struggle for safety.

CHECKLIST FOR ASSESSING INSTITUTIONAL RESILIENCE[1]	**Yes**	**?**	**No**
MINDFUL OF DANGER: Top managers are ever mindful of the human organizational factors that can endanger their operations.	☐	☐	☐
ACCEPT SETBACKS**:** Top management accepts occasional setbacks and nasty surprises as inevitable. They anticipate that staff will make errors and train them to detect and recover from them.	☐	☐	☐
COMMITTED: Top managers are genuinely committed to aviation safety and provide adequate resources to serve this end.	☐	☐	☐
REGULAR MEETINGS: Safety-related issues are considered at high-level meetings on a regular basis, not just after some bad event.	☐	☐	☐
EVENTS REVIEWED**:** Past events are thoroughly reviewed at top-level meetings and the lessons learned are implemented as global reforms rather than local repairs.	☐	☐	☐
IMPROVED DEFENCE**:** After some mishap, the primary aim of top management is to identify the failed system defenses and improve them, rather than to seek to divert responsibility to particular individuals.	☐	☐	☐
HEALTH CHECKS: Top management adopts a proactive stance toward safety. That is, it does some or all of the following: • takes steps to identify recurrent error traps and remove them; • strives to eliminate the workplace and organizational factors likely to provoke error; • brainstorms new scenarios of failure; and • conducts regular "health checks" on the organizational process known to contribute to mishaps.	☐	☐	☐
INSTITUTIONAL FACTORS **RECOGNIZED:** Top management recognizes that error-provoking institutional factors (under-staffing, inadequate equipment, inexperience, patchy training, bad human-machine interfaces, etc.) are easier to manage and correct than fleeting psychological states, such as distraction, inattention and forgetfulness.	☐	☐	☐
DATA: It is understood that the effective management of safety, just like any other management process, depends critically on the collection, analysis and dissemination of relevant information.	☐	☐	☐

[1] This checklist was written by Professor James Reason and presented at the 2000 Manly Conference and was published by Transport Canada under the auspices of their System Safety Program.

CHECKLIST FOR ASSESSING INSTITUTIONAL RESILIENCE	Yes	?	No
VITAL SIGNS: Management recognizes the necessity of combining reactive outcome data (i.e., the near miss and incident reporting system) with active process information. The latter entails far more than occasional audits. It involves the regular sampling of a variety of institutional parameters (scheduling, budgeting, fostering, procedures, defenses, training, etc.), identifying which of these vital signs are most in need of attention, and then carrying out remedial actions.	☐	☐	☐
STAFF ATTEND SAFETY MEETINGS: Meetings relating to safety are attended by staff from a wide variety of department and levels.	☐	☐	☐
CAREER BOOST: Assignment to a safety-related function (quality or risk management) is seen as a fast-track appointment, not a dead end. Such functions are accorded appropriate status and salary.	☐	☐	☐
MONEY VS. SAFETY: It is appreciated that commercial goals and safety issues can come into conflict. Measures are in place to recognize and resolve such conflicts in an effective and transparent manner.	☐	☐	☐
REPORTING ENCOURAGED: Policies are in place to encourage everyone to raise safety-related issues (one of the defining characteristics of a pathological culture is that messengers are "shot" and whistleblowers dismissed or discredited).	☐	☐	☐
QUALIFIED INDEMNITY: Policies relating to near miss and incident reporting systems make clear the organization's stance regarding qualified indemnity against sanctions, confidentiality, and the organizational separation of the data-collecting department from those involved in disciplinary proceedings.	☐	☐	☐
BLAME: Disciplinary policies are based on an agreed (i.e., negotiated) distinction between acceptable and unacceptable behavior. It is recognized by all staff that a small proportion of unsafe acts are indeed reckless and warrant sanctions but that the large majority of such acts should not attract punishment. The key determinant of blameworthiness is not so much the act itself—error or violation—as the nature of the behavior in which it was embedded.	☐	☐	☐
Did this behavior involve deliberate unwarranted risk-taking or a course of action likely to productive avoidable errors?			
If so, then the act would be culpable regardless of whether it was an error or a violation.			
NON-TECHNICAL SKILLS: Line management encourages their staff to acquire the mental (or non-technical) as well as the technical skills necessary to achieve safe and effective performance. Mental skills include anticipating possible errors and rehearsing the appropriate recoverable recoveries. Such mental preparation at both individual and organizational levels is one of the hallmarks of high-reliability systems and goes beyond routine simulator checks.	☐	☐	☐
FEEDBACK: The organization has in place rapid, useful and intelligible feedback channels to communicate the lessons learned from both the reactive and proactive safety information systems. Throughout, the emphasis is upon generalizing these lessons to the system at large.	☐	☐	☐
ACKNOWLEDGE ERROR: The organization has the will and the resources to acknowledge its errors, to apologize for them and to reassure the victims (or their relatives) that the lessons learned from such accidents will help to prevent their recurrence.	☐	☐	☐

SCORING: **YES** = This is definitely the case in my organization (scores 1);
? = "Don't know," "maybe" or "could be partially true" (scores 0.5);
NO = This is definitely not the case in my organization (scores zero).

INTERPRETING YOUR SCORE

- **16–20** So healthy as to be barely credible.
- **11–15** You're in good shape, but don't forget to be uneasy.
- **6–10** Not at all bad, but there's still a long way to go.
- **1–5** You are very vulnerable.
- **0** Jurassic Park

Safety Culture Characteristics[2]

Circumstance	Safety Culture Characteristics		
	Poor	**Bureaucratic**	**Positive**
Hazard information is:	Suppressed	Ignored	Actively sought
Safety messengers are:	Discouraged or punished	Tolerated	Trained and encouraged
Responsibility for safety is:	Avoided	Fragmented	Shared
Dissemination of safety information is:	Discouraged	Allowed but discouraged	Rewarded
Failures lead to:	Cover-ups	Local fixes	Inquiries and systemic reform
New ideas are:	Crushed	Considered as new problems (not opportunities)	Welcomed

[2] *Safety Management Manual*, ICAO, Montreal, 2006