

## Thought Leadership

# Be SMARRT™ and FAIR™ to Improve Your Safety Performance

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### **Introduction**

For as long as aircraft have been flying the holy grail of safety management has always been preventing loss of life. The fact is, all accidents are a culmination of events or threats coming together. Good safety management demands mitigation or removal of those threats throughout the organization's operation before they cause harm.

Safety Management Systems (SMS) succeed as the result of good organizational management, where Company Directors intentionally act in a way most likely to reduce risk, and promote the success of the business.

One of the most difficult (but necessary) first steps on the journey is a clear understanding of where an organization actually is on the road towards better safety performance. This article will highlight a three-step process, using a suite of diagnostic and event management tools, to enable organizations to find the optimal relationship between culture and systems to promote better safety management.

## Thought Leadership

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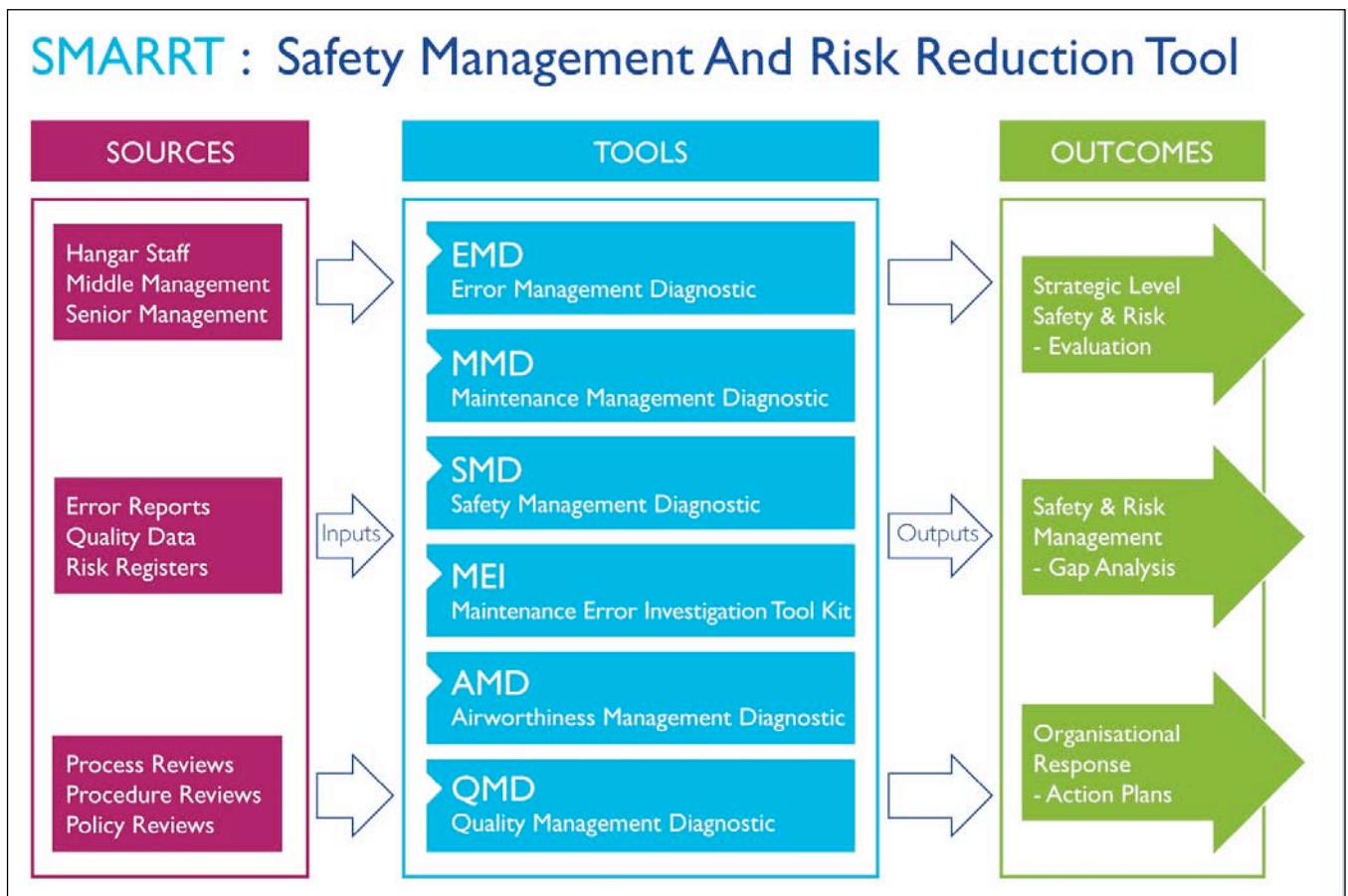
### Step I: Be SMARRT™

The Safety Management and Risk Reduction Tool (SMARRT™) is unique in significantly strengthening the ability to identify organizational processes and safety culture development needs. The rapid analysis and interpretation capability of the tool connects information and perspectives in the flight deck, on the shop floor, offices, hangar and flight-line with understanding and decision-making in the board room.

The SMARRT™ tool set is a mix of diagnostic tools that selectively examines actions and processes via innovative evaluation dimensions to rapidly construct independent and impartial quantitative measures that:

- Quantify safety performance
- Assess organizational safety culture and risks
- Provides a method of clearly identifying, evaluating, benchmarking and communicating strategic and operational perspectives of safety management to senior managers

Depicted below are the elements of SMARRT™ applicable to various aviation environments.



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SMARRT™ highlights the areas of highest risk exposure and in doing so allows an organization to prioritize and propose safety initiatives (from often limited resources) against the right issues for a focused and strategically driven safety improvement implementation plan.

SMARRT™ gathers qualitative indicators and turns them into quantitative measures providing operational and strategic perspectives. The real value of the tool set is that it is able to rapidly decode often vague thoughts and ‘gut feelings’ about safety culture and turn them into an identifiable and quantitative reporting medium, to facilitate rational discussion and assessment at board room and strategic management levels of an organization. Significantly, it offers an organization (often for the first time) an opportunity to benchmark its safety management capability against industry standards, best practice and that of other comparable players within its industry sector.

### A SMARRT™ Case Study Example

Below is an example of how the use of a SMARRT™ element revealed for one organization where it could most effectively allocate its resources to improve the long-term probability of the success of its error management program (in this example) or its Safety Management System (SMS) by extension.

<b>EXAMPLE Executive Summary - of an organizations error management program scores</b>	<b>SMARRT™ measurements % likelihood of error management success</b>
A - Top-level commitment and support	60
B - Ownership of the program	57
C - Reporting	38
D - Investigations	59
E – Organization enablers check list	61
F - Procedures and maintenance data	59
G - Education and Feedback	15
H - Workforce Commitment and Support	64
<b>Predicted probability of overall program success (%)</b>	<b>52</b>

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## Step 2: Keep SCORE™

SCORE™ – **S**afety **C**ulture **O**rganizational **R**eview **E**valuation

Part of any organizational safety assessment includes identifying what is *actually* happening within an organization. Senior leaders need to know what at-risk behaviors and cultural norms may exist in their organization. Baines Simmons utilizes a series of safety culture surveys to help identify these behaviors and to engage the workforce as part of the risk management solution. The safety culture surveys consist of 60 to 95 questions depending on the type of organization being surveyed and are categorized into seven categories. The survey questions are customized for each client as required. .

The SCORE™ system includes a scoring element aligned with the process used in the SMARRT™ suite. The scoring system allows the senior management team to identify any potential problems or hotspots much more easily and also establishes a baseline metric which should be used to help measure the progress of safety management efforts.

Below is an example of a SCORE™ sheet used to quickly identify potential problem areas in an organization. Individual reports are also generated for each location with scores, observations and recommendations down to each workgroup and shift level. This level of granularity allows identification of potential problems and cultural norms that would have otherwise gone undetected at a macro level view of the data.

# Thought Leadership



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Legend = Mean Score	Atlanta	Boston	Dallas	Denver	Los Angeles	Montreal	Miami	Seattle	Toronto	Vancouver	All Locations Combined
Lowest											
Second Lowest											
Third Lowest											
Highest											
<b>Management Communication and Support</b>	2.97	3.04	3.25	3.71	3.22	3.67	3.14	3.09	3.21	2.83	3.15
<b>Organizational Communication and Support</b>	2.73	2.60	2.95	3.28	3.09	3.12	3.33	2.91	2.77	2.61	2.89
<b>Organizational Policies and Procedures</b>	2.76	3.05	3.08	3.20	3.21	3.27	2.76	3.08	2.81	2.46	2.99
<b>Organizational Resources</b>	2.66	2.79	2.74	2.81	2.80	3.10	2.64	2.82	2.69	2.50	2.74
<b>Safety Motivation</b>	3.25	3.32	3.27	3.66	3.19	3.65	3.23	3.24	3.36	3.04	3.26
<b>Fatigue Management</b>	2.89	2.74	2.61	2.78	2.74	3.05	2.86	3.01	2.66	2.60	2.78
<b>Error Management</b>	3.47	3.19	3.17	3.69	3.29	3.62	3.42	3.41	3.40	3.33	3.37
<b>Total Score</b>	<b>2.96</b>	<b>2.96</b>	<b>3.01</b>	<b>3.30</b>	<b>3.08</b>	<b>3.35</b>	<b>3.05</b>	<b>3.08</b>	<b>2.99</b>	<b>2.77</b>	<b>3.03</b>
<b>Percent of eligible population surveyed</b>	32%	24%	17%	50%	84%	39%	16%	24%	24%	69%	29%

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## Be SMARRT™ and FAiR™ to Improve Your Safety Performance

### Step 3: Be FAiR™

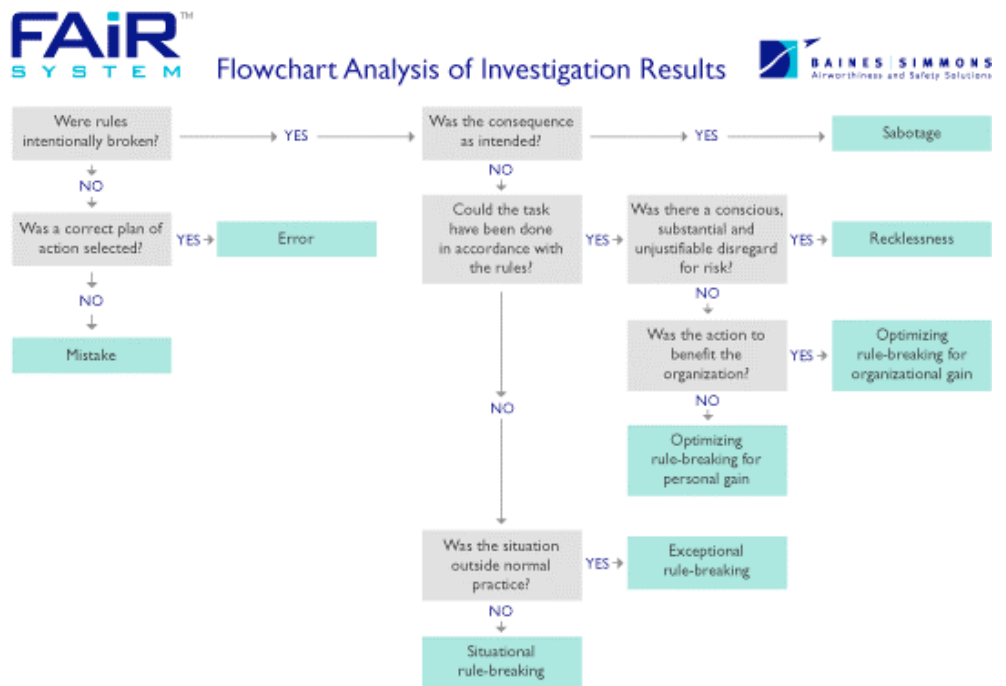
Global aviation now recognizes the importance of effective human factors programs and the need to develop open reporting cultures to support effective Safety Management Systems (SMS). Many countries have now regulated both human factors and SMS. However, organizational efforts to match the right interventions to the events that occur are still often erratic, inconsistent and variable in terms of effectiveness.

The FAiR™ System (Flowchart Analysis of Investigation Results) is an innovative management tool for determining the nature of errors and enables management to assess levels of culpability and ensure appropriate remedial actions.

Building upon existing academic research, the FAiR™ System lies at the heart of an organization’s efforts to ensure fairness and learning, and offers a straightforward practical solution to event management by focusing upon the individual or group actions and intentions as opposed to the consequences.

The FAiR™ System guides intervention choices so that an organization can ensure that any defenses put in place to prevent recurrence can be tailored to maximize effectiveness from both a systems and human performance perspective. The FAiR™ System relies upon a complete and comprehensive event investigation and as such, complements tools such as the Maintenance Error Decision Aid (MEDA) and the Human Factors Analysis and Classification System (HFACS), bridging the gap between the investigation and the organization’s disciplinary processes thus enhancing an organization’s Safety Management System.

This tool has been designed to be simple to use, with minimal training and can be used by non-human factors specialists. The FAiR™ System responds to the challenge of creating an open reporting culture within complex regulated organizations, balancing accountability with the desire for learning and improvement.



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## Conclusion

As industry moves into the brave new world of Safety Management Systems (SMS), the actions that an organization takes in assessing and strengthening its safety management capabilities and post-event response processes will continue to be the two biggest determinants of SMS success. The use of structured diagnostic safety culture assessment and post-event response tools are the way ahead if we are to realize the safety gains envisioned through SMS.

## EVENT MANAGEMENT 101

### The Fundamentals

- Human error is both universal and inevitable
- Errors are consequences rather than causes
- Errors are not intrinsically bad—they're telling you about your system performance
- Many errors fall into recurrent patterns
- Safety-significant errors can occur at all levels of the system

### The People

- You cannot fundamentally change the human condition, but you can change the conditions in which humans work
- The best people can make the worst mistakes
- People cannot easily avoid those actions they did not intend to commit
- Event Management is about managing the manageable.
- Event Management is about making good people excellent

### The Organization

- There is no one best way
- Effective event management aims at continuous reform rather than local fixes
- Managing “event management” is the most challenging and difficult part
- A deep breath is the first key for a senior manager