
USAF

Achieving peak safety performance: listening and learning

Organisations need to be confident that they are hearing all the safety concerns and observations of their workforce. They also need the assurance that their safety decisions are being actioned. The RAeS HUMAN FACTORS GROUP: ENGINEERING (HFG:E)† set out to find out a way to check if organisations are truly listening and learning.

Accountable managers and senior executives are increasingly reliant on their organisation's Safety Management System (SMS) to help them make sound safety decisions and to implement their decisions. As part of a move to Performance Based Regulation (PBR), the UK Civil Aviation Authority now also has 'conversations' with accountable managers on their organisation's risks and safety performance.

Organisations that aspire to peak safety performance need a heightened awareness of two things: the warning signs of impending threats and their opportunities to improve. They need a reliable organisational ability to 'listen' for warning signs and opportunities, analyse their significance, learn and crucially, to promptly act on that learning. To do this effectively they must engage everyone in their organisation, meaning that effective leadership is vital too.

† The HFG:E project team consisted of Stephen Bramfitt-Reid (Rolls-Royce), Colleen Butler (Health and Safety Laboratory), Andy Evans (Aerossurance), Doug Owen (The Schumacher Institute) and Tania Wilson (Virgin Atlantic Airways).

They say 'safety is no accident' but, as commercial aviation accidents become rarer, having had no recent accidents does not mean an organisation is 'safe'. So how can accountable managers and senior executives prove to themselves that they have listening and learning organisations? The RAeS HFG:E set out to answer this question.

The traditional approach would have been to deconstruct the components of ideal SMS (typically from a regulatory requirement or an industry standard for SMS), create a checklist and do an audit. During that audit one might even grade the maturity of the components as present, suitable, operating and effective (for example). While this conventional approach has value, it also has three limitations. Firstly, it is structured around compliance with pre-determined practices. Secondly, it doesn't actively encourage innovatively creating future best practices. Thirdly, it focuses on processes and procedures yet, as highlighted in the *Haddon-Cave Nimrod Review*, people make safety, not just processes and paper.

Are you getting a true picture of your organisation's operations and threats? Do your people trust the reporting and investigation processes, enabling them to be open and honest? Are they motivated to continually suggest improvements? Consider:

- How much time do your managers and supervisors spend with their people, talking about safety and encouraging a dialogue?
- How do you know that your people understand their responsibility for safety?
- How do you show you are committed to a *just culture* and how confident are you that this commitment is understood by your people?
- How well do you maintain trust through your investigation process? Are your HR policies and processes aligned with your safety policy? Are investigations primarily aimed at systemic improvement?
- Does your SMS capture the general feeling of your people on safety matters?

> THEY SAY 'SAFETY IS NO ACCIDENT' BUT, AS COMMERCIAL AVIATION ACCIDENTS BECOME RARER, HAVING HAD NO RECENT ACCIDENTS DOES NOT MEAN AN ORGANISATION IS 'SAFE'

NATS

The RAeS HFG took a different approach. They choose to develop ten performance-based questions, organised in three themes, to prompt reflective thought. As well as self-reflection, they can be used as discussion topics in safety meetings and workshops, or as part of safety leadership coaching.

Identifying the warning signs and opportunities:

Q1 How do you know that employees are confident to confide their concerns, report occurrences, reveal human performance issues and suggest improvements?

Q2 How does your organisation react to 'bad news'?

A strong safety culture is one in which everyone, especially senior executives, are ready and willing to hear bad news. In such an organisation no one denies an ugly or inconvenient truth, shoots the messenger or mistrusts the reporter's intent. Stay open minded and non-judgemental, listen for understanding and opportunities for improvement. Consider:

- Do you welcome bad news as an opportunity to improve or as a way to identify who is at fault?
- Do managers go to see for themselves and talk to the right people before acting?

- Are managers open and inquisitive, willing to listen, learn and change?
- In your organisation, is it normal to aspire to be a leader that nurtures, enhances, enables and empowers?

Q3 How do you ensure that it is easy for employees to raise concerns, report occurrences, reveal human performance issues and suggest improvements?

Effective reporting and employee engagement are key components of your safety system. Are your processes sufficiently flexible to capture and highlight safety concerns and improvement opportunities in varied situations, in a timely manner? Consider:

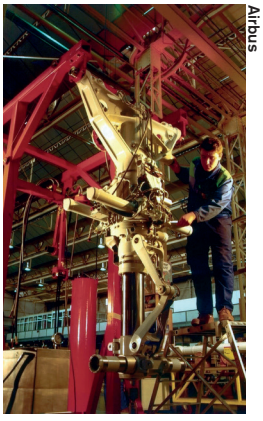
- How wide is your range of reporting methods (eg verbal, paper forms, IT network, web or app)? Does everyone have easy access to one or more of these methods?
- In practice, are these simple and easy to use?
- Are you sure your people understand what needs to be reported? How well do you train and promote this? Are they given the time to complete reports?

Analysing the significance of warning signs and suggestions

Q4 How do you ensure that your organisation appropriately analyses its safety data?

You may gather much safety data in many forms but how well do you turn that into actionable 'intelligence' to improve your processes and reduce risk? Consider:

- What safety-related data do you gather (or could you gather)?
- How well does your organisation collate that data, analyse it, monitor for changes and share those insights?
- Do you routinely use this data to update your risk assessments and procedures?
- How many of your organisation's safety decisions are based on solid data and how many times do you lack the critical information you need?
- Are you able to routinely use safety data pre-emptively or are you mostly using data only after occurrences?
- Do you actively search public domain sources and participate in industry safety groups to supplement your internal data?


Airbus

STAYING ALERT: MANAGING FATIGUE IN MAINTENANCE

Maintenance personnel fatigue is a topic that has featured in several recent air accident reports. Successfully managing fatigue is a major safety opportunity. The RAeS HFG:E will be holding a conference at Cranfield University on 9 May 2017 on staying alert during maintenance. The one-day conference will feature both presentations and interactive workshop sessions. See the RAeS website for registration details.

Q5 How deeply does your organisation consider what prevented 'near-misses' from becoming accidents?

Holistically investigating near-misses can help you understand and reinforce what went right, by design or coincidence and how you were protected against a more severe outcome. Consider:

- Are near-miss reports systematically investigated, analysed and risk assessed?
- Do your investigations look for what went right, as well as what went wrong?
- How do you determine 'how close' near-misses were to an accident?

Q6 How can your organisation get more safety insight out of the corporate data it collects?

When monitoring your safety performance and making safety decisions, are you relying only on the safety department's own data or do you look at all corporate data as potential safety data? Consider:

- Are you fully exploiting audit reports, entries in maintenance records, reliability data, parts usage data, planning / production / project management data, supplier performance data, competence assessment records, training feedback forms, overtime records, employee retention data, customer complaints, warranty claims, meetings actions etc?
- Are you combining data from multiple sources or are you limited by how you record and store data (ie by data silos)?

Q7 How well do you monitor your top risks with Safety Performance Indicators (SPIs)?

The use of appropriate leading and lagging metrics can help measure performance, anticipate the future and proactively prevent problems from occurring. Consider:

- How well do your SPIs provide assurance of your safety performance?
- Do your SPIs provide you with early warning that critical safeguards are deteriorating so timely interventions can be made?
- Do your SPIs cover your top risks and critical controls?

Q8 How confident are you that your organisation has accurately identified its top risks?

To make informed risk-based decisions requires an understanding of the hazards that your organisation is exposed to, their potential severity and the likelihood. How complete and accurate is your organisation's risk picture? Consider:

- How do you collect information to help you understand and prioritise your organisations greatest threats?
- Worst case consequences can be relatively easy to imagine but likelihood can be much more difficult to estimate. Do you have the right data to make confident estimates?
- Has your organisation the appropriate skills and tools to understand risk?
- Do occurrences validate your existing risk assessments or are they sometimes surprises?
- How often do you re-examine all your risks? Do you only look at a narrow sub-set?

Taking action: learning, improving and leadership

Q9 How do you ensure learning and improvement is achieved across your organisation?

A learning culture is one which processes information in a conscientious way and makes changes accordingly. Consider:


BAE Systems

- How well do you systematically gather, analyse and review safety data, both internally and from other organisations?
- How well do you learn from both 'successes' and 'failures' within your organisation and also from outside? Are those lessons widely disseminated?
- How well does your organisation act on and communicate rule-making, risk assessments, procedure changes, new technology and changing circumstances?
- How do you ensure information is communicated and shared effectively both horizontally (across different locations, departments or shifts), vertically (across hierarchical levels within the organisation) but also with customers and sub-contractors?
- What are the barriers to responding to action? Cost-cutting? Lack of leadership? Lack of or contradictory incentives? Excessive secrecy? Lack of trust? Organisational silos?

Q10 How can you behave to clearly demonstrate you are an authentic safety leader who promotes trust in your organisation?

The importance of safety leadership cannot be overstated. Humility affects what you are willing to hear and learn about your organisation and its risks. Consider:


Lufthansa

- How well do you champion safety? What do you condone by walking past?
- Do you set clear expectations for safety behaviours and objectives for safety improvement?
- Are you prepared to 'follow' too, when appropriate?
- Are you aware of how you come across, the messages you send and how you are perceived?
- Do you lead by example and consistently demonstrate those behaviours you expect to see in a healthy safety culture? Encourage and reward engagement in safety, demonstrate that you have an interest in the day to day operations, 'go look see', include safety feedback in employee briefings/communications, focus on learning and improvement.

Final word

The RAeS HFG:E believe that reflecting on these ten questions should give you some insight into how your organisation can become better at listening and learning. Acting on that insight will enhance your safety performance. They recommend revisiting the questions periodically on your journey to peak safety performance. However, it is vital to remain constantly vigilant of the reality of what is happening across your organisation.