

# Risk – Where to Begin

Implementing a Safety Management System for your organisation is now a rule requirement for most organisations. For some of you, there's not much more than 16 weeks to have SMS plans in to the CAA for approval.\*

## What's in it for you?

Establishing a Safety Management System (SMS) provides a simple and co-ordinated approach to preventing undesirable events, including accidents.

No 'undesirable event' is without cost, so a robust SMS leads to a more profitable business. There's an old saying, "If you think safety is expensive, try having an accident."

A good safety record enhances the reputation of your organisation, and a safe working environment helps to minimise staff turnover, which is another cost saving.

## Start by Identifying Hazards

Hazards are objects or conditions that could cause injuries to staff, damage to equipment or structure, loss of material, or a reduction in the ability to perform a function.

Hazards are as varied as fatigued pilots, inadequately completed tech logs, and insufficient staff chasing tight deadlines.

Under SMS, staff *proactively* identify hazards, rather than only dealing with their effects after the event. That can be done by analysing occurrence data for instance, or surveying all employees, or holding a brainstorming session with key staff.

Mike Groome, the Chief Executive Officer of the Taupo Airport Authority advises organisations still developing their SMS that it's critical all possible stakeholders are engaged in the process.

"This isn't necessarily only those directly involved in your operation, but anyone who is affected, or affects safe outcomes. Get them all in a room and talk!"

## Managing Risk

Risk management is not the same as hazard identification. A hazard is something that can cause harm, and risk is the potential outcome of that hazard. For example, an uneven runway surface would be considered a hazard, but the risk comes from operating on that runway.

Risk is the likelihood of something happening, combined with the severity of the consequences if it does. One way of assessing risk is to design a matrix, such as that on page 9.

A matrix doesn't need to be drawn up for all organisations however. Smaller scale operators might just rank their risks according to what they believe is the highest.

Not all risk can be completely eliminated, but it can be managed by ensuring it remains at an acceptable level. That involves reducing the likelihood of it occurring, or the impact of the consequences if it does.

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Never assume that the absence of accidents indicates an organisation has robust 'safety health'.

*When anyone asks me how I can best describe my experience in nearly 40 years at sea, I merely say uneventful ... I have never been in an accident of any sort worth speaking about ... I never saw a wreck and have never been wrecked, nor was I ever in any predicament that threatened to end in disaster of any sort.*

Captain Edward John Smith, RMS *Titanic*

### Doing something about it

"I visited an operator recently," says Steve Backhurst, a CAA Airworthiness Inspector, "and as we entered the hangar office, my host said 'oh, mind the step' indicating a step up into that area. They'd obviously identified that step as a hazard, but had done nothing about it, other than to tell people to 'watch out' for it."

Once a hazard has been identified, it needs to be eliminated, or the degree of risk it presents minimised. In the case of the step, that could be done by building a ramp over the top of it, or by erecting a large and obvious sign next to it, or by the front edge being painted a bright colour.

"A Safety Management System is only as good as the degree to which hazards are dealt with," says Mark Hughes, CAA's General Manager of Air Transport and Airworthiness.

"If there's little follow-up, everyone's relying for safety on something that does not actually exist. They think everything must be okay because hazards have been identified."

"The SMS can even be nicely written down, but if it's not enforced and practised, the end result is the same as if there was no SMS."

"In fact, it's worse than knowing that you don't have any kind of SMS, and need one."

### Dependence on Good Reporting

"A strong Safety Management System relies on data," says Mark Hughes. "And that data comes from staff not just reporting the large incidents, but also the small things, like poor lighting in the maintenance area, constant disruption to tasks by having to answer the phone, or a pilot's regular rushed fuel handling at the pump."

"Good reporting helps to identify weaknesses in the system. Conversely, someone who doesn't report is depriving the organisation of the opportunity to prevent an accident. Everyone has an obligation to report."

At Air New Zealand, reporting was made easier by the introduction of the Korusafe online database. All staff use the system for submitting safety reports.

Reports are then collectively reviewed by the safety team, receive an operational risk classification, and actions are tracked to completion through the same system.

It's also possible for the submitting staff to see the progression of their report through the database.

### Encouraging Reporting

Staff are not going to report any genuine mistakes, or events arising from them, if senior management humiliate or penalise them for it.

A management culture recognising that human errors occur, and that lessons can be learned from them, will encourage staff to report.

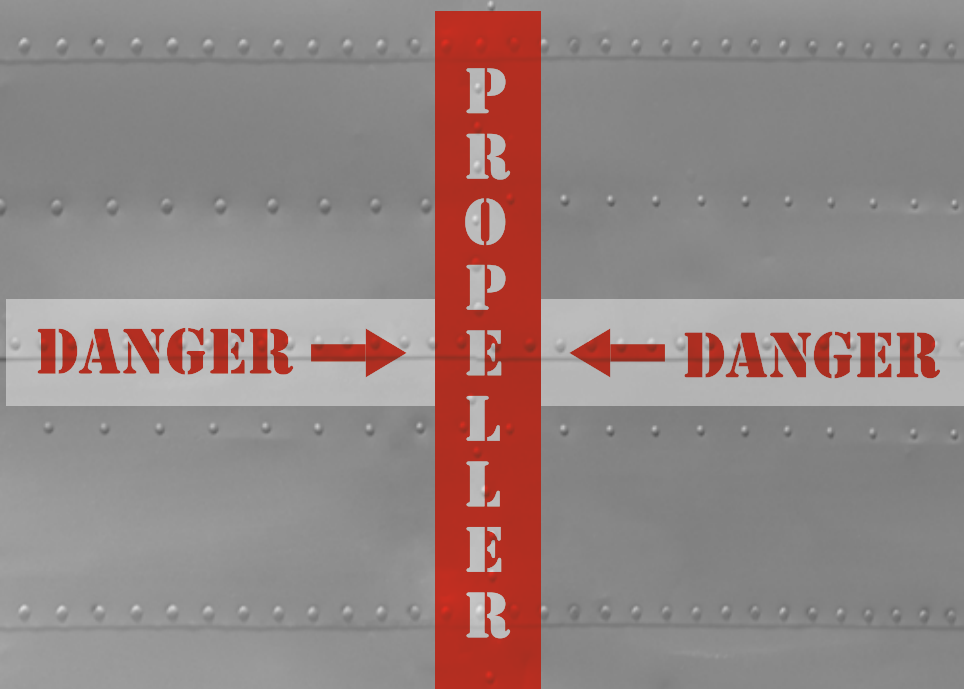
As Mark Hughes says, "In the same way that employees have an obligation to report, it's the responsibility of management to create the right atmosphere for reporting."

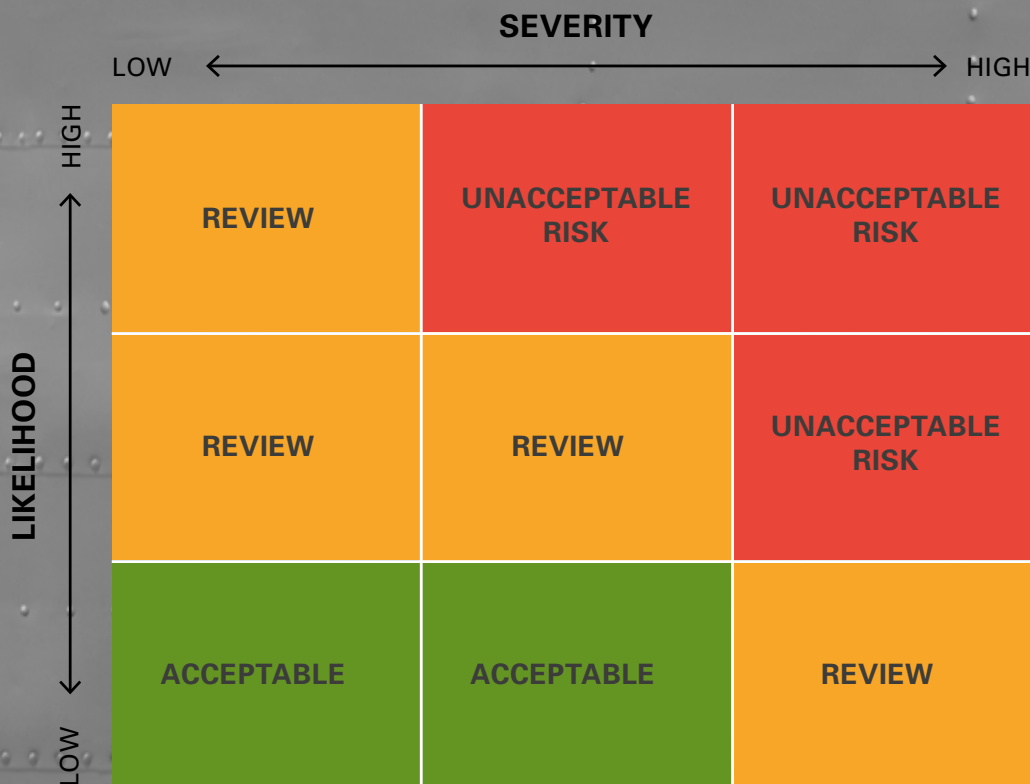
### Risk is Dynamic

Identifying *today's* hazards, and assessing and dealing with *today's* risk, is not the end of the process.

Risk ebbs and flows, depending on the working environment: staff numbers fluctuate; an operation carrying little risk in summer might carry more in winter; the introduction of new technology presents higher risk if staff are not properly trained to use it. All such factors influence the nature, and degree, of risk to an operation.

Undertaking regular reviews of risk, as well as at high-risk times, will keep an SMS robust. Times of higher risk would include periods of major expansion, or major staff changes.





This type of risk matrix combines the likelihood of an event happening with the severity of the consequences if it does. Those potential events that score high on both are the ones that pose an intolerable risk. Those that score low on both can probably be lived with. Some that are high on one, and low on the other, or that are middling on both, should be reviewed regularly to ensure the risk they pose has not changed.

Similarly, an ongoing exchange of safety information between management and employees will help everyone understand the state of safety in the organisation, and their role in maintaining it.

One way Massey School of Aviation has ensured that it is continually improving safety is through using an external analyst to identify and measure any 'gaps' in the school's SMS.

That has provided the school with a prioritised list of what needs to be improved, and the use of someone outside the organisation has given it a more objective result.

### **Put someone in charge ... but don't leave them to it**

Someone – appropriately qualified – needs to have oversight of the whole SMS. That doesn't mean, however, only one person has responsibility for hazard identification, reporting, and risk assessment.

That obligation falls on all employees, from the CEO to the maintenance shop junior.

Ideally, it becomes part of the everyday routine of each employee. It does not stand apart from everything else, but is woven into the fabric of the company. For instance, regularly challenging staff about their understanding of the risks associated with the job they're about to do, or incorporating risks and hazards discussions into regular meetings will help to make SMS part of business as usual.

South Island-based Air Safaris, with 12 staff, has developed a company 'safety culture', led from the top.

"We have regular, formal safety meetings. But with a small close-knit team, we also use the opportunity to discuss, over our daily cuppa in the crew room, safety considerations and any new issues," says CEO, Richard Rayward.

"Safety is embedded in the company ethos. It's not just the pre-winter and pre-summer briefing, day-to-day safety practices are front and centre of every employee's mind."

### **Nil Desperandum**

Paul Kearney, the Quality Assurance Manager for the Massey School of Aviation says operators should take heart that developing an SMS is easier than it looks.

"A lot of organisations may worry that there is an insurmountable amount of work in implementing an SMS. However, for those with Quality Management Systems already, it's mostly done."

And Stephen Burrows, Oceania Aviation's former Group Quality Manager, says to keep it simple.

"Try to reduce the number of systems, processes and tools so you aren't making things so complex, they're unsustainable. Look around for what's already out there that works and then tailor this for your use."

Richard Rayward of Air Safaris agrees.

"SMS might at first look daunting but keeping it simple and practical for *your* company means staff will understand it and support it." ■