Contents

Safety promotion 01
Safety training 01
Safety communication 06
Toolkit – safety promotion 09
Safety promotion

Safety promotion is an important part of an SMS, setting the tone for the organisation, and helping to build a robust safety culture. Safety promotion also helps to foster improved safety performance by communicating lessons learned, broader safety information and the distribution of the SMS manual and safety procedures in the organisation.

Under the ICAO SMS structure, safety promotion is divided into two elements: safety training and safety communication. Both are vital to the ongoing success of your SMS. Your people need to be trained and competent to perform their roles in your SMS, and you also need strong lines of communication at all stages of your SMS implementation and maintenance.

Aviation organisations need trained and competent personnel. However, it is not a case of one size fits all, so training programs should fit the needs and complexity of your organisation. How much safety training each employee receives should depend on their involvement in the SMS.

Providing appropriate training to all staff, regardless of their level or role in the organisation, gives them a better understanding of your SMS and helps to make them part of your organisation’s safety goals. It is also important wherever possible, to include third-party contractors/service providers.

Third-party contractors can then add to the organisation’s SMS by reporting any hazards etc. through the hazard reporting system. It also shows management’s commitment to an effective SMS. The quality and effectiveness of training significantly influence the attitude and professionalism your employees will demonstrate every day.

Safety training

If you are a larger organisation, you may do your own training in-house.

As you begin to implement your SMS, you should identify what training your operational safety-critical personnel need by doing a training needs analysis (TNA).

A training needs analysis can save you time and money by ensuring you are teaching the right things to the right people, and using the best training methods in the most efficient order.

The results of your training needs analysis will also help to reduce unnecessary training, so that you spend your time and money where it counts.

Most smaller organisations might prefer to contract external trainers for their SMS training. However, it is still valuable to understand what process these external providers should follow, and what you require.

Ask:

» What training do we need?
» Who needs to be trained?
» Who can we get to do this?
Documenting the SMS training plan

Your SMS training plan documents need to include:

» A list of those requiring SMS training

» The timing of each staff member’s specific safety training course/s

» The type of training for each staff member

» Safety induction course/s for staff with no previous SMS training/background

» SMS induction training for all third-party service providers

» Recurrent safety course/s for all operational safety-critical personnel

» Evaluation of your safety training effectiveness.

You should also produce an SMS training register. This includes individual training records so that you can track who has been trained, what your people have been trained in, what they have yet to complete, and when they are due for their next refreshers.

Training delivery methods

You do not always have to deliver training lecture-style, face-to-face—there are other options. However, small organisations have the advantage that face-to-face training is often easier to organise and deliver. People are on site, and rosters may not be as complex, making logistics easier.

Larger organisations may wish to to reduce face-to-face training costs, and could consider using:

» an intranet system

» circulating information internally

» a centrally located safety library

» safety posters in workplace areas – the tea room/ops room/briefing room/hangars.

The following table outlines the suggested content for safety training: for initial employee induction; management awareness; safety-critical personnel; and safety specialists. This is sample content only – what you will need depends on the size of your operation.

<table>
<thead>
<tr>
<th>RISK CATEGORY</th>
<th>SAFETY TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1:</strong></td>
<td>Full modular training required as part of:</td>
</tr>
<tr>
<td><strong>High-level operations</strong></td>
<td>a) Induction</td>
</tr>
<tr>
<td><strong>Safety-critical personnel</strong></td>
<td>b) Refresher as required</td>
</tr>
<tr>
<td>Knowledge and/or awareness assessment required</td>
<td></td>
</tr>
<tr>
<td><strong>Category 2:</strong></td>
<td>Part modular training required, based on identified role, as part of:</td>
</tr>
<tr>
<td><strong>Medium-level operations</strong></td>
<td>a) Induction</td>
</tr>
<tr>
<td><strong>Safety-critical personnel</strong></td>
<td>b) Refresher as required</td>
</tr>
<tr>
<td>Knowledge and/or awareness assessment recommended</td>
<td></td>
</tr>
<tr>
<td><strong>Category 3:</strong></td>
<td>Part modular training required, based on identified role, on as-needed basis</td>
</tr>
<tr>
<td><strong>Indirect contact</strong></td>
<td>a) Induction</td>
</tr>
<tr>
<td><strong>Non-safety-operations personnel</strong></td>
<td>Assessment optional</td>
</tr>
<tr>
<td><strong>Category 4:</strong></td>
<td>No training or assessment required, but induction or awareness training will be useful.</td>
</tr>
<tr>
<td><strong>No contact</strong></td>
<td>Include all staff in education bulletins and critical briefings about safety to keep them involved.</td>
</tr>
</tbody>
</table>

| **Non-safety-operations personnel** | |

The following table outlines the suggested content for safety training: for initial employee induction; management awareness; safety-critical personnel; and safety specialists. This is sample content only – what you will need depends on the size of your operation.
### Sample content for safety training

<table>
<thead>
<tr>
<th>TYPE OF TRAINING</th>
<th>SAMPLE CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial employee induction</td>
<td>» Safety philosophy, safety policies and safety standards including:</td>
</tr>
<tr>
<td></td>
<td>- approach to ‘safety culture’</td>
</tr>
<tr>
<td></td>
<td>- not apportioning blame</td>
</tr>
<tr>
<td></td>
<td>- difference between acceptable and unacceptable behaviour</td>
</tr>
<tr>
<td></td>
<td>- internal safety investigation policy and procedures</td>
</tr>
<tr>
<td>Initial SMS implementation</td>
<td>» The content of the SMS and rationale for it</td>
</tr>
<tr>
<td></td>
<td>» Importance of complying with the safety policy and with the standard operating procedures that form part of the SMS</td>
</tr>
<tr>
<td></td>
<td>» Organisational roles and responsibilities of staff in relation to safety</td>
</tr>
<tr>
<td></td>
<td>» Organisational safety record, including areas of systemic weakness</td>
</tr>
<tr>
<td></td>
<td>» Procedures for hazard reporting</td>
</tr>
<tr>
<td></td>
<td>» Organisational safety management programs (e.g. reporting system, internal audit program, line operations safety audit [LOSA] etc.)</td>
</tr>
<tr>
<td></td>
<td>» Requirement for ongoing internal assessment of organisational safety performance (e.g. employee surveys, safety audits and assessments)</td>
</tr>
<tr>
<td></td>
<td>» Reporting ATSB and WH&amp;S reportable matters, hazardous events and potential hazards</td>
</tr>
<tr>
<td></td>
<td>» Lines of communication for safety matters</td>
</tr>
<tr>
<td></td>
<td>» Feedback and communication methods for disseminating safety information</td>
</tr>
<tr>
<td></td>
<td>» Safety awards programs (if applicable)</td>
</tr>
<tr>
<td></td>
<td>» Safety promotion and information dissemination</td>
</tr>
<tr>
<td></td>
<td>» Emergency response.</td>
</tr>
<tr>
<td>Management awareness</td>
<td>» The manager’s role in shaping safety/reporting culture, including a ‘just culture’</td>
</tr>
<tr>
<td></td>
<td>» The safety risk management process</td>
</tr>
<tr>
<td></td>
<td>» Managers’ responsibilities and accountabilities for safety</td>
</tr>
<tr>
<td></td>
<td>» Managers’ legal liabilities under CASA legislation</td>
</tr>
<tr>
<td></td>
<td>» Safety committee’s risk assessment/root cause analysis</td>
</tr>
<tr>
<td></td>
<td>» Safety promotion/communication and information dissemination.</td>
</tr>
<tr>
<td>Safety-critical personnel</td>
<td>» Procedures for reportable matters</td>
</tr>
<tr>
<td></td>
<td>» Specific safety initiatives, such as: threat and error management (TEM), crew resource management (CRM), approach and landing accident reduction (ALAR), maintenance error decision aid (MEDA), and line operations safety audit (LOSA)</td>
</tr>
<tr>
<td></td>
<td>» Seasonal safety hazards and procedures (weather-related operations etc.)</td>
</tr>
<tr>
<td></td>
<td>» Emergency procedures/response</td>
</tr>
<tr>
<td></td>
<td>» Current/recent safety situations</td>
</tr>
<tr>
<td></td>
<td>» Safety promotion/communication and information dissemination.</td>
</tr>
<tr>
<td>Safety specialist</td>
<td>» Monitoring safety performance</td>
</tr>
<tr>
<td></td>
<td>» Conducting risk assessments</td>
</tr>
<tr>
<td></td>
<td>» Managing the safety information system (database)</td>
</tr>
<tr>
<td></td>
<td>» Performing safety audits</td>
</tr>
<tr>
<td></td>
<td>» Understanding the role of human performance in accident causation and prevention</td>
</tr>
<tr>
<td></td>
<td>» Operation of the SMS</td>
</tr>
<tr>
<td></td>
<td>» Investigation of reportable matters and hazardous events</td>
</tr>
<tr>
<td></td>
<td>» Crisis management and emergency response planning</td>
</tr>
<tr>
<td></td>
<td>» Safety promotion/communication methods</td>
</tr>
<tr>
<td></td>
<td>» Communication skills</td>
</tr>
<tr>
<td></td>
<td>» Computer skills such as word-processing, use of spreadsheets and database management.</td>
</tr>
</tbody>
</table>
Evaluating safety training effectiveness

You need to measure how effective your training program is. This can be a relatively simple process – asking participants what they thought – or may require more time and resources to gather the information.

There are four possible levels of evaluation – from simple to more complex:

» What participants thought of the training (Level 1 reaction)
» What participants learned (Level 2 learning)
» How the learning applies to operational tasks (Level 3 transfer)
» Measurable benefits for the organisation (Level 4 results).

If you are a small to medium-sized operator, you should start with level 1. However, as your system matures, and time and resources allow, you should move to levels 2, 3, and 4 in that order.

**Level 1 training evaluation** - Level 1 participants complete brief surveys at the end of their training course. They give feedback on whether the training was useful and relevant, and the content interesting and practical.

**Level 2 training evaluation** - Level 2 involves a similar process, but participants complete specific attitude and knowledge questionnaires before and after training to measure what impact the training has had. The results of the pre-training survey give a baseline for comparison with the after-training survey, ideally completed six months after the training.

You can then use this information to highlight broad operational problems/issues and to identify training needs.

**Level 3 training evaluation** - Level 3 evaluation takes the process one step further. It measures the change in participants’ on-the-job behaviour as a result of attending the training program.

Level 3 evaluation attempts to answer the question: ‘How well are participants applying the desired skills, knowledge, or attitudes in their operational environments?’ Arguably, this is the most accurate method of measuring a program’s effectiveness.

However, this type of measurement is complex. It is hard to predict when changes in behaviour will occur, and how long they are likely to last; and, as with any evaluation, it is also difficult to establish a direct link between training and results. You can assess these results by having trained observers assess the work performance of operational staff against a set of relevant behavioural markers.

Level 3 evaluations work best in strict ‘non-jeopardy’ conditions, under which employees are not penalised if shortcomings are observed (as long as these are errors, and not deliberate violations). Trained observers make anonymous, confidential and non-punitive assessments of performance for groups of employees.

**Level 4 training evaluation** - Level 4 evaluation identifies tangible organisational benefits that come from a training program. **Level 4 is the most important:** It determines whether a program has achieved material results and demonstrates how valuable the program is to the business, identifying benefits such as improved safety, increased productivity or quality, decreased operating costs, and higher return on investment.
The best approach is to use several separate levels of program evaluation. All aviation service providers should be able to use level 1 (participant questionnaires) and level 2 (attitude and knowledge evaluations) with minimal difficulty and cost. While you need significantly more effort and resources for level 3 and 4 evaluations, they can bring substantial added benefits for your organisation.

Further reading
See, CAAP SMS-3(1) – Human Factors Training and Non-technical Skills Assessment for Regular Public Transport Operations – for information on how to assess behavioural markers.

Safety training checklist

- Have all safety-critical personnel (including third-party organisations) been identified?
- Has a training needs analysis (TNA) been undertaken for all operational safety-critical personnel in the organisation?
- Has documentation been developed to support the SMS training plan, which includes an SMS training register?
- Is there an appropriate safety induction course for all staff? Is this course relevant to your operations? If the employee is new, is this induction within a month of the employee commencing work?
- Does the management team understand the principles on which the SMS is based and their responsibilities in supporting it?
- Is specialist training available for personnel undertaking safety-related functions?
- Is enough time allowed for training and to implement what was learned in training afterwards?
- Does the company keep training records showing what training everyone has had, and their current level of competence?
- Are trainees tested after training to see if the training has been successful (met its objectives)?
- Are contractors, temporary workers and part-timers given the training they need?
- Does training cover rare, unusual and emergency events?
- Are training courses regularly updated and improved?
- Is feedback obtained from attendees and suggestions for improvement incorporated in training programs as appropriate?
Safety communication

Maintaining two-way communication: ensuring you inform staff fully about your SMS and capture and act upon their feedback where appropriate, is vital to the success of your SMS. If staff report safety issues, and do not receive timely feedback, or see no evidence that their reporting is making a difference, they will soon stop doing it.

At a minimum, your safety communication should:

» ensure all staff are fully aware of the SMS and the SMS processes
» convey safety-critical information
» explain why particular actions are taken
» explain why safety procedures are introduced or changed
» give timely feedback to those who make safety reports.

Your safety communication is also valuable for communicating ‘good-to-know’ safety information, to build a more robust safety culture.

You can promote and communicate safety information internally by means such as:

» safety bulletins
» safety notices
» posters
» CDs, DVDs
» newsletters
» briefings or toolbox talks
» seminars and workshops
» refresher training
» emails
» an intranet.

Depending on the size of your organisation, some of these ways of communicating safety information will be more relevant than others.

You can promote and communicate safety information externally by means such as:

» meetings, workshops and networking
» websites, online forums and email distribution lists
» magazines, posters, DVDs and other publications.

Managing communication

In some circumstances, there is a legal duty to pass on information, or to coordinate activities with others. Some communication rules are basic to all organisations, whether large or small, simple or complex.

» To be effective, communication must be two-way. It must go up, as well as down, your chain of responsibility to ensure everyone understands the organisation’s risk management activities. Managers must get their safety message across, and employees, who are at the coal face, must have their safety concerns heard and acted upon—the feedback loop must be closed.

» Communication should focus on raising awareness of potential hazards and risk issues.

» Regular discussion about the reasons for incidents and near-misses will foster a learning and ongoing reporting culture.

Effective safety communication is vital in motivating employees, so that they both understand, and act upon, safety messages. Propaganda which merely tells people to avoid making errors, or to take more care—the ‘bumper sticker’ approach to safety—does not work. Communication must be robust and relevant to management and employees alike.

Select safety topics for safety promotion campaigns in your organisation, basing your communication on mitigation of:

» past events or near-misses
» identified hazards/potential hazards, especially those reported by employees, thus reinforcing the value of reporting
» observations from routine internal safety audits.

In smaller organisations, where gathering of data can be an issue, topics for safety promotion could be based on relevant ATSB reports, or safety issues common to other industries.
Distributing safety information

Your employees are your main target audience, and therefore a critical one, so you must communicate your safety messages well to inform and motivate them. All methods of safety communication—the spoken and written word, and visual communication—require talent, skill and experience to be effective.

Communication can be defined as achieving shared meaning, and to be effective, requires four elements working together.

» The individual sending the message must present that message clearly, with the necessary detail, and must have credibility. Talking about safety but not walking the talk will not help your credibility

» The person receiving the message must be prepared to, and decide to, listen; ask questions if they don’t understand something; and trust the person sending the message

» The delivery method (the channel) must be appropriate to the needs of both sender and receiver

» The content of the message has to resonate and connect, on some level, with the receiver’s already-held beliefs

It is a basic of journalism that stories should always contain answers to six questions: What? Who? Why? Where? When? How? This also applies to communication generally, so when you are planning safety communication, ask the what, who, why, where, when and how questions as a guide.

» What messages are you communicating? ‘At Bush Aviation and Training, we’re committed to safety – target zero accidents’, or ‘Report all incidents’

» Who is your audience? Pilots? Engineers? Cabin crew? Ground handling staff? What you are saying needs to be appropriate to your audience, expressed in plain English and using terms relevant to their knowledge and culture.

» Why are we doing this? What do we hope to accomplish?

» Where and when should we be doing this? What are the best venues or sites for this information, and how frequently should these messages be communicated?

» How will we communicate these safety messages? What is the best format to use to inform employees and raise awareness? A regular e-newsletter, because employees work in several regional sites? A poster in the lunch room/hangar/operations room? Videos? Podcasts? An online safety library? Centrally located safety library? A tool box talk, or safety briefing, face-to-face?

It is no use communicating a key message targeting ground handling staff via an intranet if the majority do not have access to a computer, for example.

- Effective communication will use both verbal and visual elements—words and pictures, working together to attract attention and highlight your messages.

- Often, less is more, especially in an era when we are all bombarded by information. Make your communication simple, direct, inclusive and relevant to your audience.
Safety communication checklist

- Is safety-related information actively and routinely communicated?
- Are there set standards for safety communication based on risk potential?
- Is safety actively promoted through a safety newsletter or web site?
- Is safety actively promoted through safety briefings, posters, videos etc.?
- Are different mediums used to convey key information (e.g. written, spoken/oral and visual communication)?
- Is sufficient time allocated for communication, particularly at shift handovers?
- Is two-way communication encouraged, with both the giver and recipient of the information taking responsibility for accurate communication?
- Is confirmation sought that the message has been understood?
- Is face-to-face communication practised where feasible?
- Does the organisation freely share safety-related information with employees?
- Is this information shared fully and accurately, and in timely fashion?
- Are there concerted efforts to continually raise awareness of potential hazards and risk issues in the workforce?
- Are the reasons for incidents and near-misses discussed with the workforce, so that lessons can be learned?
- Is feedback considered, and included where relevant and appropriate, in a process of continuous improvement?
- Is feedback provided to safety reporting in timely fashion?
Toolkit

**Booklet 5 - Safety promotion tools**

» How to do a training needs analysis

» Sample safety information bulletin on safety reporting

» How to give a safety briefing/toolbox talk

» Aviation safety toolbox talk

» Safety briefing/toolbox meeting attendance form
This is your safety toolkit with some best-practice tips and practical tools that can be adapted to meet your organisation’s needs. We hope you find them useful, whether you are further developing your SMS, starting an SMS from scratch, or simply looking for some ideas to improve your existing SMS.

This list summarises the checklists/templates you will find at the back of each of the respective booklets.

This is not an exhaustive list of resources.

NB: There are many systems and products across various industries, so this toolkit can only include a very small sample of practices and/or tools for information.

Inclusion of materials does not imply endorsement or recommendation. Each organisation must select the most appropriate products for its individual and specific needs.

Booklet 1 – Basics
- Jargon busters
- References

Booklet 2 – Safety policy and objectives tools
- SMS organisation checklist
- Safety policy statement
- Safety manager’s job description
- Role of the safety committee
- SMS implementation plan
- Ten steps to implementing an SMS
- SMS gap analysis checklist
- An effective emergency response plan (ERP)
- Language and layout of procedures/documentation
- Document register
- Sample safety leadership rules
- Aviation safety lifesavers policy
- Healthy safety culture procedure

Booklet 3 – Safety risk management tools
- Error prevention strategies for organisations
- Risk register
- Sample hazard ID
- Guidance on job and task design
- A six-step method for involving staff in safety hazard identification
- Hazard reporting form

Booklet 4 – Safety assurance tools
- Generic issues to be considered when monitoring and measuring safety performance
- Audit scope planner
- Basic audit checklist
- Information relevant to a safety investigation
- Event notification and investigation report
- Aviation safety incident investigation report
- Corrective/preventative action plan
- Checklist for assessing institutional resilience against accidents (CAIR)
- Practical safety culture improvement strategy
- Safety culture index

Booklet 5 – Safety promotion tools
- How to do a training needs analysis
- Sample safety information bulletin on safety reporting
- How to give a safety briefing/toolbox talk
- Aviation safety toolbox talk
- Safety briefing/toolbox meeting attendance form
How to do a training needs analysis

Step 1. Analyse the job

Start by looking at the specific documentation that describes the job, such as the current duty statement, or the performance review, which has key performance indicators. Identify phrases which specify key skills, processes or areas of knowledge. Also consider whether the job has changed. This may result in new tasks being considered, and a new duty statement being required.

For example: cabin crew members must:
- Immediately communicate critical safety information to the flight crew
- Follow the organisation’s WH&S guidelines to minimise risk and maximise safety
- Review what training, if any, already takes place.

Step 2. Decide on the skills/knowledge gaps

Formulate a ‘list’ of areas where some training would be required to improve the effectiveness of the job in question. You need to decide whether there is a gap in the skills or knowledge, or whether some revision is required to improve the general skill set. Ask a small but representative sample of people doing this job which areas they consider need addressing. This way you identify tasks you may have missed, or refine tasks so that the training can be more effective.

Step 3. Identify training solutions

This involves finding out the best way of closing the skills/knowledge gaps you identified in the previous step. There may be many different options available such as:
- One-on-one training or coaching in the workplace
- Self-directed learning – e.g. using written instructional material, or written guidelines, or instructions
- Short-term training courses – internal
- Short-term training courses – external
- Long-term courses e.g. certificate, diploma, degree or higher degree courses
- Mentoring.

Step 4. Evaluate performance after training

Once the training has been completed, consider whether or not the task/s can now be completed competently. You can achieve this by:
- Asking the staff member to evaluate their own effectiveness in the task
- Asking whether the performance gaps that were the reason for the training are still there
- Looking at the work area to determine whether there is still evidence of a deficiency in skills or knowledge.

If the performance gap still exists you have some more work to do. Was the training solution selected appropriate for the identified problem, or is there another performance issue that needs addressing?
### Safety training and assessment

<table>
<thead>
<tr>
<th>Risk category</th>
<th>Non-technical skill training and assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1:</strong></td>
<td></td>
</tr>
<tr>
<td>High-level operations</td>
<td>Full modular training required as part of:</td>
</tr>
<tr>
<td>Safety-critical personnel</td>
<td>» Induction</td>
</tr>
<tr>
<td></td>
<td>» Refresher</td>
</tr>
<tr>
<td></td>
<td>» Conversion</td>
</tr>
<tr>
<td></td>
<td>» Command/upgrade</td>
</tr>
<tr>
<td></td>
<td>Non-technical skills assessment required</td>
</tr>
<tr>
<td><strong>Category 2:</strong></td>
<td></td>
</tr>
<tr>
<td>Medium-level operations</td>
<td>Part modular training required based on identified role, as part of:</td>
</tr>
<tr>
<td>Safety-critical personnel</td>
<td>» Induction</td>
</tr>
<tr>
<td></td>
<td>» Refresher as required</td>
</tr>
<tr>
<td></td>
<td>Non-technical skills assessment optional, but knowledge and/or awareness assessment required</td>
</tr>
<tr>
<td><strong>Category 3:</strong></td>
<td></td>
</tr>
<tr>
<td>Indirect contact</td>
<td>Part modular training required based on identified role on an as-needed basis</td>
</tr>
<tr>
<td>Non-safety-operations personnel</td>
<td>» Induction</td>
</tr>
<tr>
<td></td>
<td>Assessment optional</td>
</tr>
<tr>
<td><strong>Category 4:</strong></td>
<td></td>
</tr>
<tr>
<td>No contact</td>
<td>No training or assessment required, but induction or awareness training will be useful. Include all staff in education bulletins and critical briefings about safety to keep them involved.</td>
</tr>
<tr>
<td>Non-safety-operations personnel</td>
<td></td>
</tr>
</tbody>
</table>
Sample Safety Information Bulletin

Speak up!
Why reporting is important at XXX

Information Bulletin: 2
Date XXX

This information bulletin is for XXX’s employees
XXX is committed to encouraging all employees, contractors, service providers, and clients to report any safety issues they see in XXX’s operation.

We believe that safety is everybody’s responsibility, and that part of this responsibility is to report incidents, near misses and equipment/facility hazards. But we don’t want to hear only the negative stories, but also any positive reports of safety interventions—when someone noticed something amiss and intervened to prevent a safety issue.

Think how history could have been different in the following cases.

Aloha Boeing
The Aloha Boeing accident, on 28 April 1988, was a landmark accident in ageing aircraft and metal fatigue. About twenty minutes after take off from Hilo en route to Honolulu, a small section on the left side of the B737-200’s roof ruptured with a ‘whooshing’ sound. The resulting explosive decompression tore off six metres of the upper fuselage, roof and cabin, exposing six rows in the first class section. A flight attendant was killed, sucked out in the decompression, while numerous passengers in the six exposed rows were severely injured.

The B737-200 operated by Aloha Airlines between Hilo and Hawaii was 19 years old and had completed 89,680 flight cycles because of its short island flights.

A passenger, Gayle Yamamoto, who boarded at Hilo, told NTSB investigators that, while entering through the main door, she noticed a small crack in the side of the fuselage. She ran through a row of rivets just aft of the door—evidently a small longitudinal crack in the upper row of rivets along a lap joint. Believing she would only be ‘humoured’ if she ‘made a fuss’, she made no mention of it.
Aeroperú Flight 603

If only someone had noticed, and reported, a very simple cleaner’s oversight, it is possible the lives of 70 people could have been saved. On 2 October 1996, flight 603, a B-757 operated by Aeroperú, took off from Lima on the last leg of its flight from Miami, bound for Santiago, Chile. Not long into the flight the crew reported receiving contradictory serial emergency messages from the on-board computer; their basic flight instruments were giving false airspeed, altitude and vertical speed data. This data conflicted with that provided by ATC, leading to compromised situational awareness.

This situation had come about because a cleaner had placed duct tape (and not the coloured approved tape) over the aircraft’s three static ports on the left side to protect them before washing and polishing the aircraft.

It is not just in airlines where reporting, and acting upon those reports, is important. In the drama SOS, which is part of the SMS resource kit, the ground handling staff report two issues to the boss, which prove to have serious consequences. If he had acted upon one of the reports made about the defective trolley, things could have been quite different.

Reporting incidents at XXXX

The people at the coalface—you—are the ones who have the best opportunity to know what’s going on—to observe issues and report them. That is why we are trying to provide as many ways as possible for people to report any issues or incidents. Because ours is a small operation, it is impossible to have anonymous reporting. However, we give a commitment to respect reports, and treat them as the vital intelligence they are.

We also give our commitment that reporting incidents will not lead to a blame game or individual finger pointing. Obviously this does not apply if the incident/accident involves pre-mediated or willful acts of violence, or actions and decisions involving a reckless disregard for safety.

There are several ways you can report an issue/incident, near miss or risky situation:

» Use the simple, check-box form on the shared safety drive on the hangar PC

» Use the hardcopy form on the noticeboard in the lunch room

» Email the details to the safety officer

» Bring it up in a quick ‘safety huddle’ at debriefing sessions, or shift handovers

In turn, at xxx, we will give you feedback within two weeks, to let you know about what’s happening with the report, and any action taken as a result.

The success of our SMS depends on effective reporting: gathering data to help identify any issues and to track how our risk management is working. We are a relatively small organisation, so it is not as easy for us to collect as much useful data, but one of our safety objectives is to increase the number of reports by XX per cent. Simply, we can’t fix what we don’t know about: without the data, the reports, we don’t know what we don’t know.
Effective safety reporting

Accountability
People are encouraged to report essential safety-related information. However, there is a clear line drawn between acceptable and unacceptable behaviour.

Flexibility
In unusual or emergency situations, people can report directly to decision makers to allow more timely response.

Information
People are knowledgeable about the various factors: human, technical and organisational, affecting the safety of the whole system.

Learning
People are competent to draw conclusions from safety information systems, and are willing to implement safety changes.

Willingness
People are willing to report their errors and experiences.
How to give a safety briefing/toolbox talk

Introduction

Communication and consultation are sound ways to prevent incidents, and reduce injuries at work. One of the easiest ways for managers to communicate the importance of safety on the job is through safety briefings, or ‘toolbox talks’, as many refer to them. You don’t have to be a professional speaker to do this well.

The agenda

» Know your topic and plan your agenda so you are well prepared. Be able to present the talk without reading it, and lead a discussion afterwards

» Wherever possible use case studies, materials and equipment from your operation to illustrate your points. A good subject would be issues your staff have reported, giving feedback on what action has been taken, if appropriate

» Collate hand-out literature or other material you intend to use at the talk

» Limit the length of your talk. You know your business so you will be the best judge of how much time to set aside. Try to keep to half an hour as a maximum time. Allow for questions and answers afterwards

» If possible use visual examples. Workers can identify more easily with situations or equipment in their own workplace. For example if you’re talking about baggage carts, use one of your own so that you can point out problems and solutions, or take photographs around the hangar/ workshop employees can relate to

» When closing the briefing/toolbox talk, reinforce the important points discussed. Thank your staff for their interest and enthusiasm

» It is very important to document any action item/s arising from the toolbox meeting, who is responsible for completing the item/s and by when.

The format

» Start the talk on a positive note. After welcoming your staff, compliment them on a job well done, promote teamwork and explain how briefings/toolbox talks not only provide valuable information, but also give everyone the opportunity to get together and exchange ideas

» Include any feedback from past meetings, and give a report on follow-up action/s

» Keep the talk informal. Even though you may be using this resource, as well as others, use your own words and style in promoting and leading the discussion

» Invite people to participate and listen to their concerns, without being defensive. The purpose of any briefing/toolbox talk is to start people thinking about safety problems. Include practical examples in the talk

» Encourage workers to identify hazards and ask them to suggest possible solutions. Use open-ended questions to encourage discussion instead of questions that require only a ‘yes’ or ‘no’ answer.

The topic

» Choose topics related to recent developments in your hazard reporting and incident investigation policies, procedures and forms

» Review recent incidents or hazards identified:
  - What happened?
  - Why did it happen?
  - What could have been done?
  - What hazard did it create?

» Review upcoming work schedules:
  - What hazards are you concerned about?
  - What safety equipment should be used?
  - What procedures should be followed?
The place and time

» Hold the talk in the work area, at a time when the workday will be least interrupted, and the work area is relatively quiet

» Schedule briefing/toolbox talks once a week, reinforcing your company’s commitment to safety.

Sample topics for discussion

Hazard reporting

» Hazard reporting is required whenever somebody notices a potential problem that may affect the safety of people or equipment, or harm the environment.
  - Introduce procedure
  - Explain reasons for the hazard reporting procedure
  - Go through the procedure step by step
  - Introduce the hazard report form
  - Show examples of previous reports and positive actions completed
  - Allow for questions
  - Record any issues and follow up
  - Ask for suggestions about future toolbox talk topics.

Incident reporting

» We report and investigate incidents to obtain accurate information about them, what events led up to them; who was involved; did the procedures fail, or did a piece of material or equipment fail?

» Evidence can be lost if it is removed from, or altered, at the incident site before making any records

» Evidence can be lost because people react to an incident rather than respond. Also, injured people may be moved, or removed from the site for treatment. Equipment and other items may be disturbed to assist in the treatment or rescue of an injured person, and to provide safe access and egress throughout the incident site

» We all learn from incidents. The investigation helps to bring all the facts together. Your input and involvement will help ensure that corrective actions are taken to prevent similar incidents

» Every effort should be made to detect existing hazards or unsafe activities. Report them to your supervisor immediately.
  - Introduce the safety investigation procedure
  - Explain the reasons for the procedure
  - Go through the procedure step by step
  - Introduce event notification and reporting form
  - Go through recent incident investigations and lessons learned
  - Allow for questions
  - Record any issues and follow-up
  - Ask for suggestions about future toolbox talk topics.
Aviation safety toolbox talk

No. 1 – Shift handover

Introduction

Shift handover, as our recent incident shows, is one of the more challenging times during maintenance. Errors following poor or inadequate shift handover have been identified as contributing factors in a number of accidents/incidents, as in the following report from the US National Transportation Safety Board (NTSB).

Departures from approved procedures included failures to solicit and give proper shift-change turnover reports, failures to use maintenance work cards as approved, failures to complete required maintenance/inspection shift turnover forms, and a breach in the integrity of the quality control.

NTSB AAR-92/04 Final Report

In the 1988 Piper Alpha disaster, where a North Sea offshore oil platform exploded and burned, killing 167 people, miscommunication during shift handover was a causal factor.

Some of the challenges of shift handover include:

» A high demand for teamwork and well-developed communication skills

» Having structured and standardised policies and procedures

» Finding a location conducive to discussion and planning

» Finishing workers are tired and want to leave

» Training on procedures for shift/task handover.

Good communication is especially critical at shift handover, when a task and its responsibilities are handed over to another person or team; and between different parts of an organisation within a shift (for example between pilots/operations and engineers).

There are three main parts of a good handover—one where task-relevant information is communicated accurately and reliably:

» The outgoing shift has time to prepare

» There is time for outgoing and incoming staff to exchange task-relevant information

» Incoming staff cross-check this information as they take over responsibility for the task.
At Outback Maintenance Services, we believe that shift handovers should be:

» face-to-face

» two-way, with both participants taking responsibility

» a mixture of written and oral communication, with a written checklist of items to convey, and/or a position log to review (in other words, where the task is up to)

» based on what information the incoming shift needs to know

» given the necessary time and resources

» monitored periodically.

So, the rosters will be adjusted to allow a half-hour handover time; we have set up a computer in a quiet corner of the hangar, so that the necessary handover paperwork can be completed; and with your input, we will put together a checklist of things to be covered in the handover, which we’ll try for a month, and then adjust any bits which aren’t working.

**Other things to consider**

» If someone is new to the job, or has been away from work for a few days, the shift handover may take longer, and need to be more thorough.

» We want to promote a culture where communication mistakes are expected, and efforts are made to avoid them, or mitigate their consequences. In this environment, you can expect to hear phrases such as ‘Good catch!’

» Handovers are seen not only as error-prone, but also as potentially beneficial, where the incoming shift can see problems with fresh eyes, and both shifts can solve them together.
Use this form to document attendance for weekly toolbox meetings and for the manager to track issues and actions raised from these meetings. Each meeting must include a brief overview by the manager of any issues incurring in the previous week with a focus on corrective actions. This information is available from the incident management database.

### Section 1 – Toolbox meeting details

<table>
<thead>
<tr>
<th>Manager’s name (print):</th>
<th>Area/workgroup/team:</th>
<th>Date: / /</th>
<th>Time: :</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Toolbox topic name:
(Include document number)

Additional attachments:
(or topics presented)

### Section 2 – Attendance (workgroup/team)

<table>
<thead>
<tr>
<th>Print name:</th>
<th>Signature:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Print name:</td>
<td>Signature:</td>
</tr>
</tbody>
</table>
### Section 3 – Business arising from previous meeting

<table>
<thead>
<tr>
<th>No.</th>
<th>Item/s</th>
<th>Action required</th>
<th>Status</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 4 – New safety issues

<table>
<thead>
<tr>
<th>No.</th>
<th>Item/s</th>
<th>Action required</th>
<th>Status</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 5 – Comments

...