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This kit is for information purposes only. It should not be used as the sole source of information and should be used in the context of other authoritative sources.

The case studies featuring 'Bush Aviation and Training' and 'Outback Maintenance Services' are entirely fictitious. Any resemblance to actual organisations and/or persons is purely coincidental.



Safety policy and objectives

The first component of an SMS is safety policy and objectives.

Safety Policy

A safety policy outlines what your organisation will do to manage safety. Your policy is a reminder of 'how we do business around here.'

Safety objectives

Your safety objectives are what you are going to do—they should state an intended safety outcome.

Management commitment and responsibility

Good safety management is not about having an SMS manual on the shelf, outlining each of the elements you have in place.

Safety management needs *context* to be effective – you need to establish a few fundamentals before you even consider things such as a manual.

The ultimate responsibility for safety rests on the shoulders of senior managers—those at the top. You should demonstrate your commitment to, and responsibility for, safety in a formal safety policy, which then flows into safety objectives. These safety objectives must be practical, achievable, regularly reviewed and reassessed, and communicated to the staff with clear endorsement of senior management.

To successfully implement an SMS you need to:

- » Establish expectations. These must come from senior management. What safety standards does senior management want?
- » Engage personnel (somebody to run the SMS) with competence (some formal knowledge of safety management)
- » Get staff involved and committed to identifying safety risks. That way you create a culture of shared accountability and responsibility for managing risks from the very start. The stage for a positive safety culture is set by the extent to which organisations accept the importance of proactive risk management.
- » Do a gap analysis of your existing SMS to see what is missing and develop a customised SMS implementation plan – one which is relevant and appropriate to your organisation.



Management commitment and responsibility checklist

- There is commitment of the organisation's senior management to the development and ongoing improvement of the SMS
- This commitment should be demonstrated in a formal safety policy, which details:
 - The organisation's safety objectives
 - Management support of the SMS in providing the resources necessary for effective safety management
 - Who does what a statement about responsibility and accountability for safety throughout the organisation
- There is evidence of decision making, actions and behaviours that reflect a more positive safety culture
- There is a defined disciplinary policy clearly identifying when punitive action would be considered (for example in cases of illegal activity, negligence or wilful misconduct)
- There is evidence that the organisation is applying its disciplinary policy

Case studies

The case studies of Bush Aviation and Training, a fictitious air transport operator, and Outback Maintenance Services, a fictitious maintenance organisation, illustrate how operators might take these steps.



About

Bush Aviation and Training is a small, family-owned charter business operating from a regional airport. The company employs four full-time pilots, a number of casual pilots on a seasonal basis, and two admin staff. The chief pilot owns the business and directs day-to-day operations, as well as occasionally working as a relief pilot.

The company owns and operates two Chieftains on statewide charters and a Cessna 172 and 152 for training. A local on-airport maintenance organisation provides maintenance.

Safety is managed informally, with an open communication policy and a written safety reporting policy. There is no dedicated resource for safety management.

The chief pilot has identified an opportunity to conduct regular public transport (RPT) services between three regional locations to meet increased mining industry activity in the area. The company intends to re-equip progressively with larger twinengine aircraft, taking on additional pilots and bringing aircraft maintenance in house. He expects that this growth will require 10 full-time pilots, eight support staff, including maintenance personnel, and eight aircraft in the expanded fleet.

Vision

'We are all leaders in safety'

Safety leadership ultimately comes from the top, but everyone at Bush Aviation, regardless of position, can make a significant difference in reducing the number of near misses and accidents. Success in the future will depend on each one of us teaching, coaching and supporting others, so that no one is hurt, and no aircraft are damaged

Safety is the new economy

Safety is not just a priority, because priorities change; rather, it is our core and ever-present value. Our safety performance at Bush Aviation must continue to improve so we can lead our competition: in human performance, engagement and reduced worker turnover.

Think with both the heart and the head

Effective safety management is more than rules, training, safety meetings and a set of posters – those are just the mechanics. Everyone at Bush Aviation must believe that safety is important, make it automatic, and embrace it with all the energy, passion and personal commitment it deserves.

The new team

Regardless of our role or professional background at Bush Aviation, we are all equal when it comes to safety responsibility – we are all in this together. I hope that you will join me in this exciting growth phase of Bush Aviation and make a valuable contribution to our safety system.

John Mathers

Chief pilot and owner **Bush Aviation and Training**



Establish expectations

The CEO is ultimately accountable for safety. Regardless of the type of aviation business you are in, the CEO must provide the resources necessary to implement and maintain an effective SMS. The CEO should create a clear safety vision—their expectation of why safety is fundamental to their business growth and sustainability.



About

Outback Maintenance Services is a small aircraft maintenance organisation based at a regional airport. The company was founded by LAME, Peter Lawson, to service local GA and charter aircraft. It employs two LAMEs, an apprentice, and one admin staff member (Lawson's wife).

They service Bush Aviation's Chieftains and Cessna 172 and 152s, as well as the local GP's Beechcraft Bonanza, and privately-owned fixed-wing and rotary GA aircraft, some used by local station owners for mustering.

Outback Maintenance Services is transitioning to becoming a Part 145 maintenance organisation, with a view to meeting the future growth they see in the area with increased mining activity. As part of this, Lawson saw the need to implement an SMS three years ago. Lawson is aware that John Mathers at Bush Aviation is considering taking his maintenance in house, but feels that with a strengthened organisation, Outback Maintenance Services could offer competitive, safe, best-practice maintenance for Bush Aviation's expanded fleet. Unlike Bush Aviation, Outback Maintenance Services manages safety formally, and are implementing a formal SMS.

Peter Lawson has ongoing meetings with the LAMEs and apprentice at smoko, keeping them up-to-date about his plans, outlining his expectations of them and the business.

'At Outback Maintenance Services we have a proud safety record—not one of the aircraft we maintain has had an engineering accident, even a serious incident. But that doesn't mean we can sit back—far from it. We're only as good as our as last job. And you all know what's happening with the mining in our area; that's where I think our future income is going to come from. I have talked to some of the people at Outback Exploration, and they have very demanding operational and safety standards.

'We have a vision and some procedures.

'I know safety is ultimately my responsibility, but to maintain and improve our safety performance, so that we can grow as the mining industry in our area grows, all of us have to make safety the basis of everything we do.

'As you know, Mick has put his hand up to be our safety officer, and we need to continue to work on our safety objectives, how it's all set up, and how we track how it's working.'



Safety accountabilities of managers

The safety of operations rests with the relevant manager/s. The safety manager's role is to assist these managers with safe operations.

As well as the safety manager, all managers and supervisors are expected to show leadership and commitment to the organisation's SMS. Their responsibilities/accountabilities should include their need to:

- » actively support and promote the SMS
- » ensure that they and their staff comply with the SMS processes and procedures
- » ensure resources are made available to achieve the outcomes of the SMS
- » continually monitor their area of responsibility, as outlined in the SMS manual.

You should ensure that safety management is seen as an integral aspect of your business by giving it the highest priority. This level of commitment is vital for the effectiveness of your SMS.



Safety accountabilities of managers checklist

- The SMS roles, responsibilities and accountabilities of the positions outlined on the organisational chart are explicit.
- All managers ensure that sufficient resources are made available to achieve the outcomes of the SMS.
- The safety manager has established working arrangements with the local management team to meet SMS objectives.
- The structure of the organisation is documented so that everyone understands their roles and responsibilities.
- The safety manager reports to the CEO, with direct access to the CEO at all times. This is formalised in the organisational structure.
- To demonstrate their ongoing support for the SMS, managers:
 - have ensured due processes and procedures needed for safe operations are in place
 - have made sufficient resources available to support the SMS
 - are continually monitoring their areas of responsibility, as outlined in the SMS manual.

On your organisational chart, clearly detail the SMS roles and responsibilities of each person/manager.



Appointment of key safety personnel

Safety manager

Appointing the right safety manager is critical. This role can make or break an SMS.

A large organisation might have a dedicated safety department, led by a head of safety management.

A medium-sized organisation might have a separate safety manager, possibly with a small number of staff. A a small organisation might just appoint a part-time safety manager, or add these duties to an existing role.

Depending on the size of the organisation, you should ensure that the safety manager has operational management experience and an adequate technical background to understand the systems supporting your operations. Operational skills alone will not be sufficient. The safety manager should have a sound understanding of safety management principles, typically acquired through both formal training and practical experience.

The safety manager is responsible for:

- » drafting the SMS manual
- » implementing, maintaining, reviewing and revising the SMS
- » providing safety advice to management and staff
- » promoting safety awareness and a positive safety culture
- » investigating incidents and accidents
- » maintaining an appropriate reporting system to identify and manage hazards
- » identifying ongoing safety training requirements to support the SMS objectives
- » overseeing internal and external SMS audit programs
- » maintaining the emergency response plan (ERP).

The safety manager needs certain knowledge for the role. You would not expect anybody to service one of your aircraft simply using common sense to operate the controls, or to maintain its avionics. Similarly, safety management is underpinned by basic scientific principles and personal skills, which safety managers need to learn.

Before you appoint someone, develop a position description for the safety manager outlining their specific duties. A safety manager needs to have (or be given the opportunity to develop) knowledge of the following:

- » safety management principles and practices
- » human factors
- » written and verbal communication skills
- » interpersonal skills
- » computer literacy
- » the ability to relate to people at all levels, both inside and outside the organisation
- » training instructional qualifications and experience such as a Certificate IV in Training and Assessment.

Ideally, the safety manager should be a person who is approachable, convincing, reliable, able to stay cool under pressure, and above all, tenacious.

Your safety manager might need formal training in:

- » integrating human factors into an SMS
- » familiarisation with different fleets, types of operations, routes
- » developing, implementing, operating and maintaining an SMS
- » investigating accidents and incidents.

3USH aviation and training



Bush Aviation Safety Officer | case study

The chief pilot drafts a position description for a part-time aviation safety officer, with the expectation that the role will grow with the business.

The chief pilot appoints one of his instructors, Patricia Chee, to the role and decides to send her on two training courses as a quick way to improve her safety management knowledge and skills, and build on her university study. By doing this, Mathers can utilise her skills and passion

- Safety incident investigation training two-day course
- Human factors and error management two-day course.

These courses cost \$4,000, but the chief pilot feels this is a good investment in the future of his company.

The aviation safety officer arranges for one of CASA's aviation safety advisors (ASAs) to visit and provide further advice on SMS. Bush Aviation's safety officer receives some free CASA safety promotion products to further build the Bush Aviation SMS. The safety officer also attends free workshops and seminars on safety management hosted by CASA in the region.

Bush Aviation safety committee

Armed with the training Bush Aviation has provided, the safety officer establishes a safety committee, comprising the chief pilot/ CEO, one of the full-time pilots, the safety officer and one of the administration staff.

They also invite a representative from the local on-airport maintenance organisation, Outback Maintenance Services, to meetings.



Safety committee and action groups

If your organisation is large and complex, you are likely to need more than one group to support your SMS. Typically, you would have a high-level safety committee to oversee the SMS program, and one or more safety action groups that take strategic direction from the safety committee.

Smaller and less complex organisations may only need to establish a safety committee.

Regardless of the number of sub-groups, a safety committee's job usually includes:

- » making recommendations or decisions about safety policy and objectives
- » defining safety performance indicators and setting safety performance targets for the organisation
- » directing and monitoring the initial SMS implementation process
- » reviewing safety performance and outcomes
- » evaluating safety training effectiveness.

The organisation understands that 'safety is everyone's responsibility'.



Appointment of key safety personnel checklist

- There is a dedicated safety department, led by a head of safety management (large organisations).
- There is a separate safety manager, possibly with a small number of staff (medium organisations).
- There is a part-time safety officer (who is supported through safety training) (small organisations).
- The safety manager has operational management experience and enough technical background to understand the systems that support operations (operational skills alone will not be sufficient).
- The safety manager has a sound understanding of safety management principles, typically acquired through formal training and practical experience.
- The role and responsibilities of the safety manager are specified in the SMS manual.
- The safety manager reports directly to senior management (ideally the CEO).
- The organisation recognises that the safety manager is not the sole person responsible for safety. Specific safety activities and functional or operational safety performance are the responsibility of the relevant operational or functional managers. The safety manager monitors all cross-functional or departmental SMS activities to ensure appropriate integration.
- The safety manager is approachable, remains cool under pressure and has credibility with staff.
- Regardless of the size of the organisation, there is a safety committee which provides a forum for discussing safety issues and the overall health and direction of the SMS.

Gap analysis

To implement your SMS effectively, you need to understand where your organisation is now, where you want it to be, and how you are going to get there.

A gap analysis provides valuable information about which parts of your SMS you already have in place, and which parts you should add or modify to meet both your company's and regulatory requirements.

(See the comprehensive gap analysis checklist on pages 26-31 of this booklet for guidance.)

Use a checklist to assess each component, marking off a 'yes', 'no' or 'not applicable' response. The results will show where you should focus your efforts.

Once you have completed and fully documented your gap analysis, the items you have identified as missing or deficient will form the basis of your SMS implementation plan.

SMS implementation plan

Developing an SMS implementation plan

Implementing your SMS will be more effective with careful planning. This plan will be a detailed guide to how you are going to set up your SMS. Your SMS will change and grow – improving continuously – so your implementation plan can be a living document, used throughout the life of your SMS.

Your implementation plan should address all the areas covered in the SMS manual, especially safety strategy, safety objectives, safety management processes and activities, resource implications, training, safety promotion and timelines.

Chapter 4 of the *ICAO Safety Management Manual* provides a detailed implementation plan, including guidance on a **phased** approach.

SMS implementation plan

The SMS implementation plan defines your organisation's approach to putting your SMS in place. It needs to be realistic: it has to meet the organisation's safety objectives and support efficient delivery of services.

The plan, which may consist of more than one document, describes how an organisation will achieve its corporate safety objectives, how it will meet any new or revised safety requirements, regulatory or otherwise, and details the actions to be taken, by whom, and in what time frame.

The organisation's business plan will normally include significant items in the SMS implementation plan.

Depending on the size of the organisation and the complexity of its operations, one person, or a planning group with an appropriate experience base, can develop the SMS implementation plan.

The planning group should meet regularly to assess the progress of the implementation plan, and have the necessary resources (including time for meetings) to do the job.

An SMS implementation plan typically includes:

- 1. safety policy and objectives
- 2. system description
- 3. gap analysis
- 4. SMS components
- 5. safety roles and responsibilities
- 6. hazard reporting policy
- 7. means of employee involvement
- 8. safety performance measurement
- 9. safety communication
- 10. safety training
- 11. management review of safety performance.

Once completed, senior management must endorse the SMS implementation plan.





SMS implementation plan checklist

- The SMS implementation plan details all aspects of developing and implementing your SMS.
- The implementation plan addresses all the areas covered in the SMS manual, especially safety strategy, safety objectives, safety management processes and activities, resource implications, training, safety promotion and timelines.
- Current capabilities for safety management (including experience, knowledge, processes, procedures, resources etc.) have been reviewed.
- Shortcomings in safety management experience have been recognised and resources to assist in development and implementation of the SMS identified.
- Internal procedures for the investigation of incidents, hazard identification, safety monitoring etc. have been reviewed and modified as required for integration in the SMS.
- A gap analysis of system/s has determined which parts of a safety management system are in place, and which parts should be added or modified to meet SMS and regulatory requirements (the review involves comparing the SMS components and elements against the existing systems in the organisation).
- A checklist accounts for each component and its respective sub-elements. 'Yes' and 'no' responses show how the existing system complies with SMS requirements. There are fields in which to report partial compliance or deviations, as well as any actions needed to meet the criteria.
- The gap analysis is complete and fully documented. Identified missing or deficient items form the basis of the SMS implementation plan.

Safety objectives

The most effective SMS objectives are those which provide a call to action and develop commitment from, and engagement of, staff.

Safety objectives are broad directions that help to establish specific safety goals or desired targets for relevant aspects of your organisation's safety vision, senior management commitment, realistic safety milestones and desired results. You should make them clear and review them regularly.

Safety objectives should be **SMART**—in other words they should be:

- » Specific
- » Measurable
- » Achievable
- » Realistic; and have a specified
- » Timeframe within which they are to be achieved.

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Safety objectives

- To encourage reporting of all incidents, no matter how trivial they may seem (Measure: 20 per cent increase in reporting for each of the next three years)
- To build an accurate database of these incidents, and give feedback to staff within two weeks of the initial report
- To set up a more formal rostering and reporting system, so that we can track and minimise fatigue-related mistakes. This system will take into account limits on consecutive shifts, as well as the extra time required for task completion if a night shift is involved.

Ideally, your objectives should be grouped into short-, medium- and long-term objectives, which you will need to review periodically to ensure you are meeting targets, and that they are still relevant.

Contractors/third party interfaces

As an aviation service provider you will often employ contractors in areas such as refuelling; catering; ground handling; aircraft maintenance; crew training and flight planning/dispatch. These contractors will be referred to as 'third party interfaces' in your SMS. You have probably always had contractual arrangements with your providers. Your SMS provides both an opportunity (and an obligation) to extend these contractual arrangements to include safety performance.

While a contractor provides you with a service, you still hold overall responsibility for the safety of services they provide. The safety standards specified in your SMS must not be eroded by any products and services provided by external organisations.

It is a good idea to investigate the third party's previous safety record thoroughly and establish whether they have ever breached any regulations. Simply asking around—talking to other organisations currently using their services, or who have used them in the past—will quickly give you a sense of how professional they are.

It is also important to take the time to explain to the contractor all about your SMS and particularly what they need to do under it. When you are making a decision about using their services, whether they are willing to comply with your SMS is as important as factors such as price, quality and on-time delivery.

The following minimum standards should apply when engaging third-party contractors:

- » Any agreement for the provision of services should be supported by a written contract before these services commence
- » All third-party providers should hold the appropriate qualifications/credentials or approvals for the work being carried out
- » All third parties should understand your SMS, and their responsibilities within it



Contractor checklist

Third-party interface

- Contracts or service level agreements specify the safety standards to be met.
- There are provisions to ensure that contractors comply with the prescribed safety standards.
- Processes/checks ensure that the level of safety is not adversely affected by services and supplies provided by external organisations.
- The previous safety record of, and any regulatory breaches by, the third party are considered before engagement.
- The third party understands your SMS and their responsibilities relating to it.
- Decision to engage third parties considers their previous safety record, any regulatory breaches, and their understanding of your SMS and their responsibilities in it.
- Induction of contractors into your SMS?
- » Where possible, the organisation should provide SMS induction training for all third party services providers
- » All third-party organisations should be able to demonstrate their ability to provide trained and competent staff (training may be provided by your organisation, where relevant)
- » All written service-level agreements should contain a schedule of oversight to monitor the third party's performance on a regular basis
- » All agreements should detail how any noted safety hazards and deficiencies will be addressed, and the time frame in which to do this
- » Where a service being provided is CASA-licensed or certified, the written agreement should require the third party to advise you, as the contracting organisation, of any CASA regulatory action that may affect their ability to provide the required services.





Documentation

One of the formal ways to communicate your safety approach effectively to all employees and third parties is through clear safety management documentation.

This safety documentation demonstrates to your managers, staff and third parties that you always conduct business based on safety management principles.

If your procedures are in separate manuals (as can happen in larger more complex operations), you must make this clear, so your staff have simple, effective access to the detailed information about your safety management procedures.

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Documentation checklist

- Safety management documentation means management can effectively communicate the organisation's approach to safety to the entire organisation.
- Key components and elements, as per the CASA SMS framework, are documented.
- The documentation reflects the intent and processes of the SMS.
- All documentation is updated to reflect any changes to the SMS.
- The SMS manual is concise and to the point.
- Information that changes regularly (e.g. names of personnel assigned specific safety responsibilities) is recorded in annexes/appendices at the back of the SMS manual.
- There is an internal approved amendment process. Amendment and distribution of SMS documentation is controlled.
- Timetable for periodic review of all documentation



Minimum SMS components to be documented

COMPONENT	ELEMENTS
Safety policy, objectives and	 Management commitment and responsibility
planning	» Safety accountabilities of managers
	» Appointment of key safety personnel
	» SMS implementation plan
	» Third-party interfaces/ contractor activities
	» Coordination of the emergency response plan
	» Documentation*
	- describes the SMS
	 is regularly reviewed and updated
	- is available to all personnel
	details where and how any other SMS-related records are kept
	- has a table of contents
Safety risk management	Hazard identification processes
	 » Risk assessment and mitigation processes.
Safety assurance	 Safety performance monitoring and measurement
	» Internal safety investigations
	» Management of change
	» Continuous improvement process
Safety promotion	» Safety communication
	» Training and education

^{*} The SMS manual is a working document. While there is a need for some policy statements, your manual should be largely procedural.

SMS components you should document

Your documentation should reflect the intent and processes of the SMS. Therefore, if you change your SMS, you will probably need to update your SMS manual.

To make it easy to use and understand, keep your SMS manual concise and to the point.

Any information you expect to change regularly (e.g. the names of personnel with specific safety responsibilities) should be presented as annexes/appendices at the back of your manual.

Above all, make sure that when you amend and distribute SMS documents they are controlled. In other words, make sure that the approved person authorises them, they are distributed to all the places where they will be needed, and that old or obsolete versions are removed/replaced.





Coordination of the emergency response plan

An emergency response plan (ERP) is an integral part of your SMS, to be activated if there is an accident or major in-flight incident. The ERP sets out what you will do in the case of an emergency and importantly, how you return to normal operations. It lists procedures for:

- » Orderly and efficient transition from normal to emergency operations
- » Delegation of emergency authority
- » Assignment of emergency responsibilities
- » Authorisation by key personnel for actions mandated by the plan
- » Coordination of efforts to handle the emergency
- » Safe continuation of operations, or return to normal operations, as soon as possible
- » Planned and coordinated action to manage and minimise the risks associated with an accident/ incident.

Consider also the role of contractors/third parties in a remote airport emergency.

You can either document the ERP in a separate manual, incorporate it into your organisation's SMS manual, or a combination of both. As long as, in an emergency, key personnel know where to find emergency procedures information.

Emergency situations create unique pressures – they are complex and unfamiliar. Accident investigations consistently show how important regularly rehearsed emergency procedures and scheduled refresher training are in preventing or minimising harm.

Approved maintenance organisations' emergency response plans must focus on events which can affect aircraft or components' flight safety.

Aircraft maintenance organisations' ERP scenarios should include, as required:

- » emergency response to a major aircraft occurrence during maintenance, such as an oxygen fire, or major engine failure during a ground run
- » response to requests for expert advice from aircraft and/or aerodrome operators during an occurrence
- » response to requests for expert emergency aircraft recovery assistance from aircraft and/or aerodrome operators.

The ERP will be less involved for component maintenance organisations. A small component organisation's ERP might only include:

- » quarantine of components and/or maintenance documents related to the occurrence
- » where an AMO finds measurement tool(s) are out of calibration limits and urgently needs a documented and formally agreed process to inform operators of at-risk installed components.

Both aircraft and component maintenance organisations should also consider including personnel-related considerations in their ERP, such as:

- » appropriate during and post-incident personal behaviours
- » welfare and deployment of affected personnel immediately following a major occurrence.

You may find it effective to have relatively stable information (ERP policies, roles and responsibilities, succession plans, training requirements, etc.) in your SMS manual and put response information required immediately (such as procedures, checklists, phone numbers, locations, etc.) in separate, easily accessible booklets.

An ERP for a small, non-complex organisation may simply consist of a laminated lanyard card of current emergency contact numbers.

Doing periodic desk-top exercises, as well as live exercises where and when appropriate, will help to make sure your emergency response plan works and is current. You should review your plan regularly and update it where necessary – having out-of-date contact details for example, for key emergency services and personnel is the last thing you need in an emergency.

The more you prepare and test not only will you be better prepared in an emergency; but your communication and organisational coordination will also improve. Such exercises are also valuable for developing more effective relationships with local, state, and federal agencies.



Emergency response plan (ERP) checklist

- The SMS documents include an emergency response plan which can be activated in the event of a major occurrence.
- The ERP covers:
 - Orderly and efficient transition from normal to emergency operations
 - Delegation of emergency authority
 - Assignment of emergency responsibilities
 - Authorisation by key personnel for actions included in the plan
 - Coordination of efforts to handle the emergency
 - Safe continuation of operations, or return to normal operations, as soon as possible
 - Planned and coordinated action to manage and minimise the risks associated with an emergency.
- The ERP is either documented in a separate manual, or incorporated into the SMS manual.





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
- » Just culture procedure
- » Appendix A Workflow process for applying the healthy safety culture procedure
- » Appendix B Bush Aviation and Training counselling/ discipline decision chart

Index of toolkit items

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

- » Appendix A Workflow process for applying the healthy safety culture procedure
- » Appendix B Bush Aviation and Training counselling/discipline decision chart.

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 fatigue
- » How to give a safety briefing/toolbox talk
- » Aviation safety toolbox talk
- » Safety briefing/toolbox meeting attendance form.



SMS organisation checklist



Safety accountabilities of managers checklist

- The SMS roles, responsibilities and accountabilities of the positions outlined on the organisational chart are explicit.
- All managers ensure that sufficient resources are made available to achieve the outcomes of the SMS.
- The safety manager has established working arrangements with the local management team to meet SMS objectives.
- The structure of the organisation is documented so that everyone understands their roles and responsibilities.
- The safety manager reports to the CEO, with direct access to the CEO at all times. This is formalised in the organisational structure.
- To demonstrate their ongoing support for the SMS, managers:
 - have ensured due processes and procedures needed for safe operations are in place
 - have made sufficient resources available to support the SMS
 - are continually monitoring their areas of responsibility, as outlined in the SMS manual.

This checklist also appears on page 4. You can use it and others in this kit as tools to check your organisation's health.



Safety policy statement

Safety policy statement #1

Safety is one of our core business functions. We are committed to developing, implementing, maintaining and constantly improving strategies and processes to ensure that all our aviation activities take place under a balanced allocation of organisational resources, aimed at achieving the highest level of safety performance and meeting national and international standards, while delivering our services.

All levels of management and employees are accountable for the delivery of this highest level of safety performance, starting with the [chief executive officer (CEO) /managing director/or as appropriate to the organisation].

Our commitment is to:

- » Support the management of safety by providing appropriate resources to build an organisational culture that fosters safe practices, encourages effective safety reporting and communication, and actively manages safety with the same attention given to results as the other management systems of the organisation.
- » Enforce the management of safety as a primary responsibility of all managers and employees.
- » Clearly define for staff, managers and employees alike, their accountabilities and responsibilities for the delivery of the organisation's safety performance and the performance of our safety management system.
- Establish and operate hazard identification and risk management processes, including a hazard reporting system, in order to eliminate or mitigate the safety risks of the consequences of hazards resulting from our operations or activities to a point which is as low as reasonably practicable (ALARP).

- » Ensure that no action will be taken against any employee who discloses a safety concern through the hazard reporting system, unless such disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or wilful disregard of regulations or procedures.
- » Comply with and, wherever possible, exceed, legislative and regulatory requirements and standards.
- » Ensure there are enough people skilled and trained available to implement safety strategies and processes.
- » Ensure that staff are provided with adequate and appropriate aviation safety information and training, are competent in safety matters, and are only allocated tasks in line with their skills.
- » Establish and measure our safety performance against realistic safety performance indicators and safety performance targets.
- » Continually improve our safety performance through management processes that ensure that relevant safety action is taken and is effective.
- » Ensure externally supplied systems and services to support our operations are delivered, and meet our safety performance standards.

(Signed)

CEO/Managing Director/or as appropriate



Safety policy statement #2

Safety is the first priority in all our activities. We are committed to implementing, developing and improving strategies, management systems and processes to ensure that all our aviation activities uphold the highest level of safety performance and meet national and international standards.

Our commitment is to:

- develop and embed a safety culture in all our aviation activities—one that recognises the value of effective safety management and acknowledges that safety is paramount
- clearly define all personnel's accountabilities and responsibilities for developing and delivering aviation safety strategy and performance
- 3. minimise the risks associated with aircraft operations to a point that is as low as reasonably practicable/achievable
- 4. ensure that externally supplied systems and services affecting the safety of our operations meet appropriate safety standards
- develop and improve our safety processes to conform to world-class standards
- comply with, and, wherever possible, exceed legislative and regulatory requirements and standards
- ensure that all staff have adequate and appropriate aviation safety information and training, are competent in safety matters, and are only allocated tasks in line with their skills
- 8. ensure there are enough skilled and trained personnel to implement safety strategy and policy
- 9. establish and measure our safety performance against realistic objectives and/or targets
- 10. achieve the highest levels of safety standards and performance in all our aviation activities
- 11. continually improve our safety performance
- 12. conduct safety and management reviews and ensure we take relevant action
- 13. ensure that an effective SMS is integral to all our aviation activities.

Safety policy statement #3

Management is committed to providing safe, healthy, secure work conditions and fostering positive safety attitudes. The organisation's owner/ CEO is committed to:

- » ongoing pursuit of an accident-free workplace, including no harm to people and no damage to equipment, the environment, or property
- » a culture of open reporting of all safety hazards
- » an open reporting culture in which management will not initiate disciplinary action against any personnel who, in good faith, disclose a hazard or safety occurrence resulting from unintentional conduct
- » supporting effective communication throughout the organisation
- » support for safety training and awareness programs
- » conducting regular audits of safety policies, procedures and practices
- » monitoring industry activity to ensure best safety practices are incorporated into the organisation
- » providing the necessary resources to support this policy
- » requiring all employees to maintain a safe work environment through adherence to approved policies, procedures, and training; and familiarising themselves, (and complying), with safety policies and procedures
- all levels of management, starting with the owner/ CEO, being accountable for safety performance.
 To be a good leader, you must be a good safety leader
- » the principle that the organisation is strengthened by making safety excellence an integral part of all activities.

Safety manager —job description

1. Overall purpose

» The safety manager is responsible for providing guidance and direction for the planning, implementation and operation of the organisation's safety management system (SMS).

2. Key roles

Safety advocate

» Demonstrates excellent safety behaviour and attitude, follows regulatory practices and rules, recognises and reports hazards, and promotes effective safety reporting.

Leader

» Models and promotes an organisational culture that fosters safety practices through effective leadership.

Communicator

- » Promotes two-way communication: brings safety issues to the attention of management, and delivers safety information to the organisation's staff, contractors and stakeholders.
- » Provides and articulates information regarding safety issues within the organisation.

Developer

» Assists in the continuous improvement of hazard identification, safety risk assessment and the organisation's SMS.

Relationship builder

» Builds and maintains an excellent working relationship with the organisation's safety action group (SAG) or safety committee (in a small, non-complex organisation) and across the organisation.

Ambassador

» Represents the organisation in government and industry activities.

Analyst

» Analyses technical data for trends relating to hazards, events and occurrences.

Process manager

- » Effectively utilises applicable processes and procedures to fulfil roles and responsibilities.
- » Investigates opportunities to increase the efficiency of processes.
- » Measures the effectiveness of processes and seeks to continually improve their quality.

3. Responsibilities

These responsibilities will include, but not be limited to:

- » Managing the audit program/performing a gap analysis
- » Operation of the safety committee
- » Managing the investigation of incidents
- » Maintaining the hazard register
- » Day-to-day operation of the SMS.

4. Nature and scope

The safety manager must interact with operational personnel, senior managers and departmental heads throughout the organisation. Small, noncomplex organisations: the safety manager must communicate effectively with all staff in the organisation. The safety manager should also foster positive relationships with regulatory authorities, agencies and outside organisations. Other contacts will be established at a working level as appropriate.



5. Qualifications

Attributes and qualifications include:

- a. broad operational knowledge and experience in the functions of the organisation (e.g. training management, aircraft operations, air traffic management, aerodrome operations and maintenance organisation management)
- sound knowledge of safety management principles and practices, preferably with completion of a recognised SMS course e.g. investigator's course
- c. good written and verbal communication skills
- d. being responsible for providing information and advice to senior management and to the accountable manager on matters relating to safe operations. Tact, diplomacy and a high degree of integrity are prerequisites
- e. computer literacy
- f. ability to relate to people at all levels, both inside and outside the organisation
- g. flexibility to undertake assignments with little or no notice, and outside normal working hours
- ability to cope with changing circumstances and situations with little supervision. The safety manager acts independently of other managers within the organisation
- i. good analytical skills
- j. leadership skills and an authoritative approach
- k. worthy of respect from peers and management.

6. Authority

The manager has the following authorities:

- Direct access to the accountable executive and appropriate senior and middle management on safety matters.
- To conduct safety audits, surveys and inspections of any aspect of the operation, and direct other areas to provide information.
- To conduct investigations of internal safety events in accordance with the procedures specified in the organisation's safety management systems manual.
- d. Liaise with regulatory authorities on behalf of the organisation.

Role of the safety committee

Safety committees should focus on action, as opposed to talk. The safety committee's role may include:

- a. acting as a source of safety expertise and advice for senior management
- b. reviewing progress on hazards identified and actions taken following accidents and incidents
- c. making safety recommendations to address safety hazards
- d. reviewing internal safety audit reports
- e. reviewing and approving the audit response and any resulting actions
- f. encouraging lateral thinking about safety issues
- g. helping to identify hazards and defences
- h. preparing and reviewing safety reports to be presented to the CEO
- i. reviewing progress against
 - safety objectives
 - safety performance indicators
 - safety targets.

Safety committees do not normally have the authority to direct individual departments, as this would interfere with the formal lines of authority. Rather, they make recommendations for action by the responsible managers. However, because of accountability issues, some organisations have introduced safety committees at the Board level, thus ensuring that corrective actions are taken.

In a small, non-complex organisation, the reporting line would be much simpler, with the safety manager and the CEO both members of the safety committee.

Who should chair the safety committee?

The senior manager, or the safety manager, can chair the meetings.

Minutes and agenda

- » Minutes: all committee meetings should be minuted. As soon as possible after the meeting, each committee member should receive a copy of the minutes with a clear indication of actions and timelines for completion. Display copies of the minutes for employees.
- » Agenda: a committee member, usually the safety manager, drafts the agenda, after adequate notice of any discussion items. The safety manager should distribute the agenda one week before the meeting.

A typical agenda might include some or all of the following items:

- » Review outstanding issues from previous meetings
- » Review safety action plans
- » Review accident investigation reports
- » Review the effectiveness of previous safety recommendations
- » Notify members of committee activities
- » Assess and resolve identified hazards
- » Review safety audits and action plans
- » Monitor and promote safety involvement
- » Carry out risk assessments on any new equipment, routes or procedures
- » Plan and organise staff training
- » Plan for the safety impact of operational changes.



How often should the safety committee meet?

How often your committee meets depends on the size of your organisation and the number and severity of identified hazards. Some safety committees will meet weekly, while others will need to meet less frequently, for example once every two months. You should hold meetings at least once every three months.

Before you can begin to implement an SMS, you need to know what safety management gaps there are in your organisation.

Gap analysis checklist

Use the following checklist to determine which safety management system elements may be missing from your organisation. Answer the questions frankly for your organisation, with a 'yes', 'no', or 'NA' (not applicable).

Any points for which you tick 'no' you need to examine further.

Count the total number of checked 'yes' answers, divide by the number of total checked items and multiply by 100 to get a positive percentage assessment result.

For example, if there were 39 'yes' responses on the gap analysis checklist.

$$\frac{39}{69}$$
 X $\frac{100}{1}$

gives a 56 per cent positive assessment.

The 44 per cent negative assessment result shows the SMS elements requiring attention.

Gap analysis checklist

SMS element	Check question	Response				
Safety policy,	Management commitment and responsibility					
objectives and planning	Is there a safety policy statement signed by the CEO?	No □ Yes □ NA □				
	Is the safety policy appropriate for the size, nature and complexity of the organisation?	No □ Yes □ NA □				
	3. Is the safety policy readily visible and accessible to all staff?	No □ Yes □ NA □				
	Are there clearly established safety objectives compatible with the safety policy?	No □ Yes □ NA □				
	5. Are the safety objectives measurable?	No □ Yes □ NA □				
	Are the safety objectives periodically reviewed to ensure ongoing validity?	No □ Yes □ NA □				
	Safety accountability of managers					
	Are the roles and responsibilities of management in the SMS documented?	No □ Yes □ NA □				
	Are the values of management identified as being safety oriented?	No □ Yes □ NA □				
	9. Are management aware of their SMS obligations?	No □ Yes □ NA □				
	Appointment of key safety personnel					
	10. Is there a safety manager/officer appointed to champion the SMS?	No □ Yes □ NA □				
	11. Is there a position description outlining the responsibilities of the safety manager/officer?	No □ Yes □ NA □				
	12. Does the appointed safety manager/officer have the required knowledge for the job?	No □ Yes □ NA □				
	13. Are there sufficient resources (financial, human, hardware/software) to support the SMS?	No □ Yes □ NA □				

SMS element	Check question	Response
	SMS implementation plan	
	14. Is there an SMS implementation plan to target resource allocation?	No □ Yes □ NA □
	15. Has a gap analysis been undertaken to identify existing and missing SMS elements?	No □ Yes □ NA □
	16. Are priorities for SMS implementation based on identified risks?	No □ Yes □ NA □
	Contractors (third party interfaces)	
	17. Does the organisation assess a contractor's previous safety performance before procuring contracted services?	No □ Yes □ NA □
	18. Does the organisation have contracts or service level agreements with contractors clearly specifying the safety standards they must meet?	No □ Yes □ NA □
	19. Does the organisation audit ongoing contractor safety performance for compliance regularly?	No □ Yes □ NA □
	Emergency response plan	
	20. Is there an appropriate emergency response plan for all workplace locations?	No □ Yes □ NA □
	21. Has the organisation assessed which emergencies are most likely and developed plans for each different type?	No □ Yes □ NA □
	22. Is there documentation of all major hazards in the work area?	No □ Yes □ NA □
	23. Are there sufficient notices in the workplace advising	No □ Yes □ NA □
	people what to do in the event of an emergency?	No □ Yes □ NA □
	24. Does the organisation have regular emergency exercises/ drills?	

SMS element	Check question	Response				
	Documentation					
	25. As part of SMS documentation, has the organisation developed a safety management manual?	No □ Yes □ NA □				
	26. Are there written policies, procedures and instructions covering all the SMS standards?	No □ Yes □ NA □				
	27. Are these written policies, procedures and documents authorised, current and available to all relevant personnel?	No □ Yes □ NA □				
	28. Is there a written policy for retaining and maintaining SMS documentation?	No □ Yes □ NA □				
	29. Are all documents maintained in accordance with established document control procedures?	No □ Yes □ NA □				
Safety risk	Hazard identification					
management	30. Is there an effective ongoing hazard identification program?	No □ Yes □ NA □				
	31. Does the hazard identification program include a confidential reporting system?	No □ Yes □ NA □				
	32. Are confidential reports properly de-identified?	No □ Yes □ NA □				
	33. Are hazards associated with contracted agencies included in the hazard reporting system?	No □ Yes □ NA □				
	34. Is there a procedure for acknowledging safety-related reports?	No □ Yes □ NA □				
	35. Are the results of hazard reports and safety suggestions made available to the initiator?					
	Risk assessment and mitigation					
	36. Is the process for risk assessment and management fully documented?	No □ Yes □ NA □				
	37. Is there a process for continuously assessing hazards for their risk potential (likelihood and severity)?	No □ Yes □ NA □				
	38. Does the organisation have a process for managing risks to a tolerable level i.e. as low as reasonably practicable (ALARP)?	No □ Yes □ NA □				

SMS element	Check question	Response
Safety	Safety performance monitoring and measurement	
assurance	39. Are there key safety performance indicators to measure aviation safety performance?	No □ Yes □ NA □
	40. Are the safety performance indicators monitored for achievement?	No □ Yes □ NA □
	41. Do the safety performance indicators go beyond reactive/lag indicator measurement?	No □ Yes □ NA □
	Internal safety investigation	
	42. Is there a simple, user-friendly system for reporting safety occurrences?	No □ Yes □ NA □
	43. Is there a standard procedure for incident/accident investigation?	No □ Yes □ NA □
	44. Is the approach to incident/accident investigation systemic in nature i.e. focused on root causes? (the 'why')	No □ Yes □ NA □
	45. Are both immediate causes (active failures) and contributing factors (latent conditions) identified?	No □ Yes □ NA □
	46. Are enough resources/time dedicated to conducting investigations?	No □ Yes □ NA □
	47. Are recommendations/corrective actions tracked to ensure completion?	No □ Yes □ NA □
	48. Are recommendations/corrective actions reviewed to determine if they have been effective in reducing risk?	No □ Yes □ NA □
	49. Is a just culture policy applied post investigation to consistently manage at-risk behaviour?	No 🗆 Yes 🗆 NA 🗆

SMS element	Check question	Response
	Management of change	
	50. Is there a documented change management procedure?	No □ Yes □ NA □
	51. Are changes carefully planned and staggered?	No □ Yes □ NA □
	52. Does the procedure require identification of (and consultation with) all stakeholders?	No □ Yes □ NA □
	53. Does the change management procedure contain an appropriate risk management strategy to reduce risks associated with the proposed change?	No □ Yes □ NA □
	54. Is performance monitored after the change?	No □ Yes □ NA □
	Continuous improvement	
	55. Are there regular internal and external audits to check if the SMS is working?	No □ Yes □ NA □
	56. Does the organisation have a written procedure specifying how and when the effectiveness of the SMS is evaluated?	No □ Yes □ NA □



SMS element	Check question	Response					
Safety	Training and education						
promotion	57. Has the organisation done a training needs analysis and clearly defined competencies?	No □ Yes □ NA □					
	58. Is a supply of safety-related information (magazines, books, pamphlets, posters, videos, DVDs, online resources) readily available to all employees who have safety responsibilities?	No □ Yes □ NA □					
	59. Are employees encouraged and assisted to attend safety- related training courses and seminars?	No □ Yes □ NA □					
	60. Are new employees given sufficient training and checking in their technical duties prior to being permitted to operate either supervised or unsupervised?	No □ Yes □ NA □					
	61. Is the refresher training and checking of all employees adequate?	No □ Yes □ NA □					
	62. Are employees given sufficient training in new procedures?	No □ Yes □ NA □					
	63. Are trainers and checkers adequately trained and checked, both for competence and standardisation?						
	64. Are employees trained in the procedures and policies of the SMS?	No □ Yes □ NA □					
	65. Is there a training records register?	No □ Yes □ NA □					
	66. Are training initiatives evaluated to determine if they are effective?	No □ Yes □ NA □					
	Safety communication						
	67. Are regular briefings/toolbox talks/newsletters etc used to communicate with staff about current safety issues?	No □ Yes □ NA □					
	68. Are there set standards for safety communication—the best method of communicating specific messages?	No □ Yes □ NA □					
	69. Does the organisation share safety-related information freely with all employees?						
Results	Total number of 'yes' responses	Assessment result					
	Total number of 'no' responses	(% of 'yes' responses)					
		%					
	Number of check questions completed						

Ten steps to implementing an SMS

An SMS allows an organisation to monitor and improve its safety culture. The International Civil Aviation Organization recommends implementing a safety management system in a ten-step sequence to ensure you build it efficiently.



Step 1: Planning

Logically, the SMS process starts with careful planning, including a gap analysis. Creating a planning group of appropriately experienced staff and managers is an important aspect of this. Setting up the group involves designating a safety manager (if you haven't already done so) and developing a realistic safety strategy, including your SMS implementation plan.

Step 2: Senior management's commitment to safety

The ultimate responsibility for safety rests on the shoulders of senior management. The stage for a positive safety culture is set by the extent to which company leaders accept the importance of safety management. Safety objectives must be practical, achievable, regularly reviewed and reassessed, and communicated to the staff with a clear endorsement by senior management.

The CEO should sign and support safety plans and program documents. They should include a reasonable reporting chain for safety issues that goes through the safety manager and ends at the CEO, if necessary. The CEO should allocate, and be seen to allocate, appropriate resources to support your safety manager and the safety program.

Step 3: Safety promotion

Keeping staff informed of current safety issues is vital for continuous improvement. You can accomplish this using appropriate training, safety communication and participation in safety-related seminars. Training is an investment in the future of your organisation. All employees, regardless of their role and experience, can benefit from safety analysis feedback and lessons learned. Safety communication is two-way: management and employees give and receive feedback.

Step 4: Organisation

A company's way of conducting business and managing safety influences its resilience.

To support the efficient implementation of an SMS, the company safety manager should be appointed by, and have direct access to, the CEO.

Your safety committee should be structured to support safety management, have a clear statement of responsibilities and accountabilities, and should oversee training and competency, and management of aviation safety risk.

Step 5: Hazard identification

In a good safety culture, hazard identification is proactive and non-punitive. When humans operate in fear of being punished for making normal mistakes, errors and unsafe actions will remain hidden, and organisations will lose opportunities for improvement and prevention. Proactive hazard identification processes such as the line operations safety audit (LOSA) or the maintenance error decision aid (MEDA) provide a continuous commitment to safety. Management must provide adequate resources to systematically record and store data on identified hazards, as well as to competently analyse data on such hazards.



Step 6: Safety risk management

After you have identified the hazards, risk management focuses safety efforts on those hazards posing the greatest risks. Assess all risks critically and rank them according to their accident potential, taking into account both their likelihood of occurrence and the severity of consequences. If you decide the risks are acceptable, the company's operations may continue unchanged, at least for the present. However, even 'acceptable' risks can be the focus of SMS efforts to reduce overall accident exposure. If you consider the risks to be 'unacceptable', you must stop, or change, operations until you can remove or avoid the identified hazards.

Safety management is a closed-loop process: residual risks are assessed and cost-benefits analysed after each risk-reduction step. Staff feedback on actions taken and the success of procedures put into place is vital in this process.

Step 7: Safety investigation

Safety lessons are more beneficial when they include a focus on root causes (the why?) rather than on a description of the accident or incident (the what?). Identifying root causes requires trained investigators who look beyond the obvious causes at other possible contributing factors, including, (but not limited to), organisational issues. Key operational staff must be properly trained to conduct safety investigations and have appropriate management support. Their findings should be disseminated throughout the organisation. The regulatory authority might also need to be made aware of causal findings so they can be communicated to other operators, as appropriate.

Include a focus on root causes (the why?) rather than on a description of the accident or incident (the what?)

Step 8: Safety analysis

Solid analytical capabilities provide compelling evidence to steer cultural change, and analytical tools and up-to-date safety databases (used by specialists) support the risk-management process. Safety recommendations should be proposed to senior management, and corrective measures must be taken and tracked to verify their effectiveness.

Step 9: Safety information management

Operating an SMS generates a large amount of data. If you do not properly record, store and use this data, it can be a waste of time and money. Your safety management manual is the way in which you document how the SMS relates to other functions in your organisation, and how SMS data should flow and be used. You need to have appropriate ways of disseminating safety information, (including necessary technical support and equipment), at the same time assuring the protection of sensitive safety and personal information.

Step 10: Safety performance monitoring and measurement

This last step 'closes the loop'. Feedback for continuous improvement relies on:

- » safety oversight, through inspections and audits, documenting for staff and management that the safety actions are performed properly.
- » safety performance monitoring, to assess if the SMS efforts remain effective and are meeting the organisation's safety objectives. For this you must identify accepted safety performance indicators.
- » safety communication dissemination of findings and implementation of corrective actions to improve the system.

An effective emergency response plan (ERP)

For your emergency response plan to be effective, you need to address some critical issues. Ensure you have:

- » adequate training and competency arrangements
- » well thought-out procedures (easily assessable, understood and applied)
- » clear understanding of roles in emergency response situations
- » clear lines of command and communication
- » realistic expectations of people's abilities in an emergency
- » prepared/practised for an emergency.

Emergency response responsibilities for operators

The aircraft operator's emergency response plan (ERP) should be coordinated with the airport emergency plan (AEP), so both operator and airport management know who is responsible for what. As part of emergency response planning, aircraft and airport operators together must:

- a. provide training to prepare personnel for emergencies
- b. make arrangements to handle phone queries about the emergency
- c. designate a suitable holding area for uninjured people ('meeters and greeters')
- d. outline duties for company personnel (the person-in-command, receptionists for receiving passengers in holding areas)

- e. gather essential passenger information and ensure passengers' safety
- f. establish mutual support arrangements with other operators and agencies for an emergency
- g. prepare and maintain an emergency communications kit containing:
 - necessary administrative supplies, such as forms, paper, name tags, computers/laptops
 - critical telephone numbers and contact details, such as doctors, local hotels, translators/ linguists, caterers, airline transport companies.

If there is an aircraft accident at or near the airport, operators should:

- a. report to the airport command post to coordinate the aircraft operator's activities
- b. assist in locating and recovering any flight recorders
- assist investigators to identify aircraft components and ensure that hazardous components are made safe
- d. provide passenger and flight crew information, as well as information about any dangerous goods on board
- e. transport uninjured people to the designated holding area
- f. make arrangements for any uninjured passengers who wish to continue their journey, or who may need accommodation or other assistance
- g. with the airport public information officer and police, inform the media
- h. remove the aircraft (and/or wreckage) when the investigation authority authorises it.



Language and layout of procedures/ documentation

When drawing up procedures, you should ensure that you:

- » use terms the user will know
- » include a glossary of terms and abbreviations (use the term in full the first time it is mentioned, and then abbreviate it). However, be wary of overuse of abbreviations and jargon – in many cases they do not help understanding, and can often confuse rather than clarify
- » use short sentences
- » write 'actively' (e.g. 'train the appropriate personnel' rather than, 'the appropriate personnel should be trained')
- » are clear and concise
- » set out actions in the right order
- » emphasise any hazards, precautions or warnings with bold text or other highlighting
- » avoid negatives where possible (e.g. 'wait until the person is competent, then assign responsibilities' rather than 'do not assign responsibilities if competency has not been assured')
- » include visual aids for keeping track of where the reader is (tick boxes, markers etc.), especially if the document is long
- » avoid complicated or ambiguous language, jargon and buzz words
- » avoid using different terms for the same thing.

When producing SMS documentation (both procedural and technical), you should take the following into account:

» Accuracy

Your procedures and documents must be accurate, using, for example, correct location names and task sequences.

» Consistency

Use the same layout, language, font etc. for each procedure, job card and technical document. Comply with established conventions (see below) and stick to established design guidelines. Having consistent procedures and documents is good human factors practice, because it reduces ambiguity and uncertainty.

» Convention

A convention is an agreed-upon way of doing things. Having a convention such as simplified technical English, or plain English, makes documents and procedures easier to understand. Conventions also ensure that what is learned in one task card, for example, can be transferred to any other, without the error-prone process of 'unlearning'.

» Feed forward/communicate widely

Although this term is used frequently in aviation maintenance, 'feed outward' might be more accurate. Feeding forward means communicating the lessons personnel learn on the job more widely. If someone identifies an easier, more effective way of doing something, then (subject to appropriate approvals) share this information/method with others.

» Template

A template is a formatted outline into which procedure writers place information for specific tasks. A template typically contains sections with formatting, font types, indentation rules etc.

» Validation

A valid procedure has been tested and shown to work properly in the real world. It is quite possible to write a procedure that cannot actually be performed in any operations for which it was intended. That is why you must make sure your procedures are valid/work.

» Verification

A verified procedure has been checked for accuracy and completeness. Verifying a procedure does not mean it can actually be performed (see validation), but it does at least contain all the material it is supposed to, and that material is accurate.

Document register

Date withdrawn/ disposal action								
Retention								
Document Risk register status cross-reference (Draft, current, archived, destroyed)								
Status (Draft, current, archived, destroyed)								
sible for ning ent								
Website or supplier reference								
How document Website or Person is maintained supplier respons on file reference maintai docume web link)								
Date								
Document title and version	List the documents used in your operations							
Doc. no.								

Sample safety leadership rules

$\hfill \square$ I will never walk past,	or ignore, an unsafe act, or unsafe behaviour.
☐ I will ensure that my p	eople are using task risk assessments to manage risk effectively.
•	ersonnel, including new starters and contractors, are familiar with existing safety res, including the tools for risk assessment.
☐ I will verify that houselimmediately.	keeping/hazard inspections are done as required and will rectify all identified issues
☐ I will do at least one s	afety observation per week.
☐ I will communicate all within my control.	site incidents and safety investigation reports and immediately rectify all issues
☐ I will ensure that no st manner.	aff are asked to do a task that they are not competent to perform in a safe
☐ I will ensure daily and safety toolbox talk.	monthly safety meetings take place with all of my people, including a weekly
☐ I will ensure issues rain feedback is given in a	sed in daily and monthly safety meetings are recorded, followed up on, and timely manner.
	noroughly investigate all incidents and injuries, take action on the findings, and aviation safety database, in a timely manner.
=	here is no distinction between casual employees, contractors, and permanent tment and communication of safety matters.
☐ I will be absolutely impincidents.	partial in dealing with safety issues and apply the 'just culture' process to all
I a safety role model.	agree to live and work by these rules while I am working at XXXXXX and to be a
Signed:	Date:



Aviation Safety Lifesavers Policy

Purpose

All personnel of Bush Aviation have a responsibility to themselves, their family and work colleagues to work safely. Accordingly, Bush Aviation has developed a set of non-negotiable aviation safety rules for all personnel.

This set of aviation safety rules, called *lifesavers*, is based on incident management system data, and developed in consultation with managers and employee representatives. The objective is to target and reinforce crucial behaviours and processes that ensure safety performance, particularly in high-risk areas of the business.

Aviation safety *lifesavers* are rules that, if broken, will cause serious safety breaches. If these rules are not followed, there is the potential for serious injury to employees, contractors and/or members of the general public, and even for fatalities.

Scope

This procedure, defining Bush Aviation's aviation safety *lifesavers*, applies to all personnel.

Responsibility

All employees and contractors working for Bush Aviation and its associated operations must adhere to the aviation safety *lifesavers*.

Lifesavers are Bush Aviation's standards for safeguarding safety and are key controls and procedures.

All managers/supervisors must ensure that all personnel know, understand and apply these principles when working for Bush Aviation. New employees and contractors will be familiarised with the standards in their induction programs and site-based safety training.

Consequences of non-compliance

All personnel must work to comply with the aviation safety *lifesavers*. Where someone is in breach of the *lifesavers*, an investigation will be conducted and disciplinary action may be taken. This action will be in accordance with the Bush Aviation Positive Safety Culture Procedure, BA-AS-05.

LIFESAVERS . . . Your safety depends on them!

- 1. Only operate equipment for which you are trained, competent and authorised.
- 2. Only commence a task after all appropriate permits/authorisations are in place.
- Always speak up if standard operating procedures (SOPs) are not followed. Don't stand by and accept poor work standards.
- 4. Always report incidents, to ensure a good learning culture.
- Always use the appropriate personal protective equipment (PPE) when working around aircraft.
- Report any hazards you notice in your workplace.

POSITIVE SAFETY CULTURE PROCEDURE

BA-AS-05

Responsible Officer: Aviation Safety Manager

Approved: CEO

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1	Purpose	х
2	Scope	х
3	Responsibilities	х
	3.1 Chief executive officer	X
	3.2 Managers	X
	3.3 Aviation safety manager	X
	3.4 Employees	X
	3.5 Contractors	X
4	Application	х
	4.1 Commitment to a safety culture	X
	4.2 Safety culture application	X
	4.3 Training	X
	4.5 Record keeping and documentation	X
5	Definitions	х
6	Reference documentation	х
7	Appendix	х
	Appendix A: Workflow process for applying the safety culture procedure	X
	Appendix B: Bush Aviation counselling/discipline decision chart	X

Version history

Revision	Description	Originator	Date
Н	Draft - Issued for implementation	J Mathers	24.08.13
G	Draft - Changes following review by staff representatives.	J Mathers	18.08.13
В	Draft - Review and amendments by CEO	J Mathers	16.07. 13
А	Draft	J Mathers	25.06. 13

1. Purpose

The purpose of this procedure is to provide Bush Aviation staff with guidance on:

- » the application of safety culture procedures to incident management
- » the management of incidents, near-misses, hazards, and risks involving people
- » Bush Aviation's commitment to a positive safety culture approach that complements our values, zero harm outcomes and the sustained delivery of a healthy safety culture
- » the recognition that exceptional, or above-andbeyond team and individual performance should be acknowledged and rewarded.

2. Scope

This procedure applies to all personnel across all Bush Aviation workplaces.

It does not provide detailed advice regarding the disciplinary process but it will be used in conjunction with existing company discipline procedures.

The positive safety culture procedure will also be integral to management processes following incident investigations, primarily where the contributing factors involve human error.

3. Responsibilities

3.1 Chief Executive Officer

The CEO is responsible for:

- » implementing this procedure
- » providing sufficient resources to act upon this procedure
- » leading and modelling the positive safety culture process.

3.2 Managers

Managers are responsible for:

- » ensuring all employees and contractors comply with this procedure by
- » leading and modelling the positive safety culture process
- » periodically reviewing the process (if used) and reporting monthly on its effectiveness and application
- » providing appropriate training and support to all personnel in applying this procedure.

3.3 Safety Manager

The safety manager:

- » assists managers to implement and maintain this procedure
- » promotes and models the positive safety culture procedure
- » audits periodically to ensure the implementation of, and adherence to, this procedure
- » coordinates management level training/ awareness about applying the procedure
- » compiles and distributes statistics relating to its effectiveness and application.

3.4 Employees

Employees will:

- » comply with the requirements of this procedure
- » attend appropriate training and awareness sessions, as directed by their manager.

3.5 Contractors

Contractors will comply with the requirements of this procedure.





4. Application

4.1 Commitment to a healthy safety culture

A healthy safety culture is applied knowing that:

- » people make mistakes
- » people may develop unhealthy patterns of behaviour
- » there is zero tolerance of reckless conduct
- » people must be recognised and rewarded for doing a good job and promoting sound work practices on an ongoing basis.

If there is an incident, near-miss or identified risk to safety, the healthy safety culture approach creates an alternative to the two extremes of punitive or blame-free cultures. A healthy safety culture balances the need to have a non-punitive reporting and learning environment (an environment that is not focused on attributing blame and administering punishment), with the need to hold people accountable for their actions.

A healthy safety culture is an important part of a positive health and safety culture. It recognises that behaviours may fall below expectation. However, the employee may not necessarily be in the wrong.

A healthy safety culture:

- » focuses attention predominantly on identifying and addressing the system/organisation factors (root causes) which affect reliability and performance
- » provides an atmosphere of trust in which people are encouraged to provide essential safety-related information (e.g. incident, hazard and near-miss reports) and build a healthy reporting culture
- » clearly defines where the line is drawn between acceptable and unacceptable behaviour (see also the Bush Aviation procedure for Aviation Safety *Lifesavers* BA-AS-06).

4.2 Healthy safety culture application

To ensure the development and sustainability of the high trust levels necessary to create a healthy safety culture at Bush Aviation, managers will apply these principles in a consistent manner. An incident does not always trigger the use of this process.

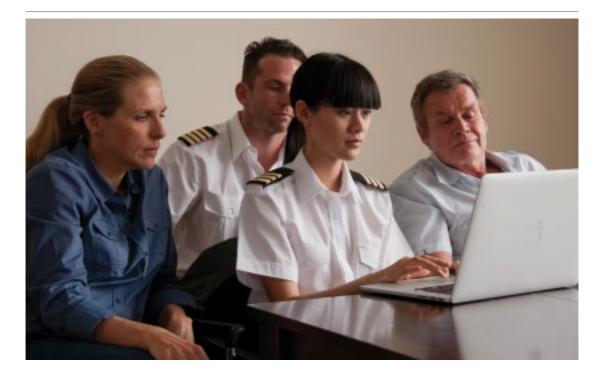
The healthy safety culture procedure should only apply:

- » following a systemic investigation into an incident, event or exceptional behaviour
- » after factual information or data has been collected from a thorough investigation. Investigations should focus predominantly on identifying and addressing system/organisation contributing factors and related causes.

Following the investigation of an incident/event or exceptional behaviour, managers should consult the workflow process in Appendix A to guide their approach. This workflow process provides a step-by-step approach to using the just culture decision chart in Appendix B. This procedure cannot incorporate every possible scenario or situation; however, it will help managers and leaders to consider a broad range of issues so the final decision is consistent with company values, and with the sense of fairness and justice that ultimately leads to achieving safe operations.







4.3 Training

Managers, employees, aviation safety personnel and contractors (where necessary) will undergo just culture training to ensure quality and consistency in using the model in the organisation. This training covers the following:

- 1. Human factors and human error
- 2. Systemic health and safety incident investigation process (Incident Management BA-IM-01)
- 3. Background to, and rationale for, healthy safety culture principles
- 4. Sample case studies on how to apply the procedure
- 5. Explanation of linkages to other procedures such as:
 - aviation safety lifesavers, BA-AS-06
 - counselling, discipline and dismissal, BA-HR 01.

4.4 Record keeping and documentation

Where the counselling discipline decision chart is used, the accountable manager will ensure that relevant actions are recorded on the incident management database or on the employee's file (only if discipline is taken). Use the decision chart, detailed in appendix B, as a guide, ticking the appropriate box to verify what action you have taken.

This process will follow the procedure for counselling, discipline and dismissal, BA-HR-01, including privacy and confidentiality requirements, and use the appropriate form for that procedure, such as the pro-forma counselling and disciplinary interview forms.

The relevant site/industrial instrument practices will apply to records held on file.





5. Definitions	
At-risk behaviour (unintentional)	The action increases the risk of an accident.
Blame-free	Not deserving of discipline/punitive action.
Culpable	Deserving of discipline/punitive action.
Healthy safety culture	Healthy safety culture is about understanding and effectively applying human factors principles, and clearly defining acceptable and unacceptable/culpable behaviour to ensure:
	» incidents that result from honest mistakes and failures in human reliability are not punished, but acknowledged as organisational failures.
	» zero tolerance for reckless actions and violations, which are treated appropriately.
	» ongoing support for reporting and learning as the basis of a healthy safety culture
	» continuous improvement to reach, and then sustain, our zero harm objective.
Highly culpable behaviour	Conscious disregard of a substantial and unjustifiable risk.
Human factors	A field of scientific knowledge that involves optimising the relationship between the human operator and the environment.
Human error	Occasions in which a planned sequence of mental or physical activity fails to achieve its intended outcome.
Punitive	Intended to inflict punishment.
Reckless (intentional)	Risk-taking, where the action constituted a significant and unjustifiable risk, and there was a conscious disregard of consequences.
Aviation safety lifesavers	Fundamental safety rules to ensure a safe workplace. A breach of any of these rules will result in disciplinary action.
'Will'	Understood as mandatory.
'Should'	Recommended, but not mandatory.

6. Reference documentation

Bush Aviation Safety Policy

Bush Aviation Procedure for Aviation Safety Lifesavers, BA-AS-06

Bush Aviation Procedures for Incident Management, BA-IM-01

Bush Aviation Counselling/Discipline & Decision Chart BA-HR-01

Errors: A Balance between learning and accountability. Marx,

David. Outcome Engineering (2004)

Managing the Risks of Organisational Accidents, Reason J. Ashgate, Brookfield (1997)





Appendices

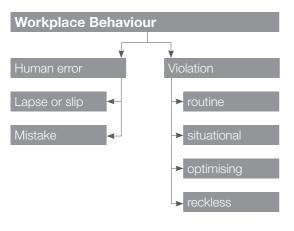
Appendix A: Workflow process for applying the healthy safety culture procedure

Understanding workplace behaviour

Human error is a part of life and cannot be entirely eliminated. Where someone makes a slip or lapse in following procedures, or a mistake, disciplinary measures are not usually appropriate. Even when someone violates established procedures (an intentional act not to follow established procedures), you should examine the organisational context. For example, is their violation a one-off, individual act, or is there a culture of workforce non-compliance? The diagram below shows various types of error, and the distinction between the *unintentional* nature of human error, and the *intentional* nature of violations.

Error types

When someone does something wrong, you should look at the underlying cause/why they did it, before deciding on a just consequence.









Applying the healthy safety culture procedure

Work flow process

Trigger Process step		Required action
Incident or event occurs	Incident investigation	» Has the incident investigation been completed?
Exceptional behaviour occurs	Review relevant information & findings	» Has any human performance issue been identified as a contributing factor?
	3. Refer to decision chart	 » Apply to only one action/behaviour at a time. » If there are multiple actions by an individual, you should treat each separately.
		» Use for the employee first, then repeat for the manager/ supervisor.
	4. Move from left to right across	» Locate the START point at the behaviour description column on the top left-hand side of the page.
	decision chart	» Determine the most accurate description of the behaviour
		» At each 'yes' or 'no' check point record the response. Each subsequent 'no' identifies increasingly culpable behaviour.
		When you reach the appropriate 'yes', the manager moves down the matrix to seek guidance on the most appropriate consequence.
	5. Determine disciplinary action	» If you identify a reckless violation or personal optimising violation, consider disciplinary action for the employee, referencing procedure BA-HR-01
	6. Documentation	» Document any actions and attach decision chart as a record on employee/manager files.

Note: when team members *intentionally* break a well-known rule to gain a benefit or advantage, or simply disregard known risks and/or workplace standards, it is reasonable that there should be a personal consequence of violation.

The consequence for *unintentional* human error must be different to that for violation. Errors may result from a lack of skill, training, or knowledge, whereas violations are deliberate acts that knowingly contravene systems, processes and policies.

For very small organisations, internal confidential reporting will be impossible. Sharing lapses or mistakes with your colleagues or peers is vital, as is building a culture of openness and trust.



Appendix B: Bush Aviation counselling/discipline decision chart

Recognition Coaching

Behaviour type	Exceptional behaviour	Expected behaviour	Unintentional error (slip, lapse, or mistake)	Routine violation
Team member behaviour START ▶	Did the team member go above & beyond call of duty?	Were all procedures and instructions followed?	Did the team member think they were doing things the right way?	Do other team members normally not follow safety procedures in the same way?
	☐ Yes ☐ No ▼ ▶	☐ Yes ☐ No ►	□ Yes □ No ►	☐ Yes ☐ No ▼ ▶
Team member consequence	□ Recognition or reward□ Record on employee file□ Communicate to wider team	☐ No action required	 □ Does this happen often? (If yes, routine error & record for trend analysis) □ Record type of error on incident management database □ Coach person on taking more care 	☐ Coach team members on importance of following correct procedures and not taking short cuts ☐ Record on file
Supervisor/ manager behaviour START ▶	Did the supervisor/ manager also exhibit exceptional behaviour?	Does the supervisor/ manager lead by example, by complying with procedures and instructions?	Did the supervisor/ manager think the task was being completed in the required manner?	Does the supervisor/ manager normally ensure work is completed in the appropriate and correct manner?
	□ Yes □ No ▼ ▶	☐ Yes ☐ No ▼ ▶	☐ Yes ☐ No ▼	□ Yes □ No ►
Supervisor/ manager consequence	 □ Recognition or reward □ Record on employee file □ Communicate to wider team □ Copy to supervisor 	□ No action required	 □ Does this happen often? (If yes, routine error & record for trend analysis) □ Record type of error on incident management database □ Coach employee on 	 □ Coaching on how to monitor & enforce procedures □ Safety leadership skills training □ Record on file
			taking more care	



Initiate discipline

Situational violation	Organisational optimising violation	Personal optimising violation	Reckless violation
Did the team member think the procedure was a barrier to getting the job done?	Did the team member think there was some benefit for the company by doing the job a different way?	Did the team member deviate from the procedure to make it easier for themself?	Did the team member intentionally not follow the procedure, without thinking or caring about the consequences?
▼ ▶	▼ ▶	▼ ▶	▼ 165
 □ Coach the team member on speaking up when procedures cannot be followed, and delaying the job until it can be completed safely □ Record on file 	□ Coach the team member on balancing work and time pressure with company values. Consider disciplinary measures where appropriate □ Record on file	 □ Formal disciplinary action in accordance with relevant procedures □ Consider suspension until further action required □ Record on employee file 	 ☐ Formal disciplinary action in accordance with relevant procedures ☐ Consider suspension until further action required ☐ Record on employee file
Did the supervisor/ manager know the procedure was a barrier to getting the job done; however, managed the matter appropriately?	Did the supervisor/ manager authorise shortcuts or other non-approved methods, thinking this was a benefit for the company?	Did the supervisor/ manager manage the variance/behaviour on this, or previous, occasions?	Did the supervisor/ manager condone the actions of the team member?
☐ Yes ☐ No ▼	☐ Yes ☐ No ▼	☐ Yes ☐ No ►	□ Yes ▼
 □ Coaching on how to monitor & enforce procedures □ Safety leadership skills training □ Record on file 	 □ Consider health & safety leadership training □ Formal disciplinary action in accordance with relevant procedures □ Record on file 	 □ Formal disciplinary action in accordance with relevant procedures □ Coaching on how to recognise and deal with such behaviour earlier □ Record on employee file 	 □ Formal disciplinary action in accordance with the relevant procedures □ Consider suspension until further action required □ Record on employee file

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