ASMS

Aviation Safety Management System

Safety Policy
and Objectives

Safety Risk
Management

Safety Oversight
and Improvement

Safety Promotion

DEFENCE FLIGHT
DFSB
SAFETY BUREAU

Guidebook – Edition 3

Introduction

Defence has a moral and legal obligation to ensure risks to the health and safety of personnel, arising from all military tasks and operations, are eliminated So Far As is Reasonably Practicable (SFARP) and where this is not reasonably practicable, to minimise those risks SFARP.

Defence Aviation is a unique and complex undertaking that necessitates the amplification of statutory Work Health and Safety (WHS) requirements and contemporary safety practices resulting in the need for a comprehensive safety management system. Accordingly, our Defence Aviation Safety Regulations (DASRs) require the establishment of an Aviation Safety Management System (ASMS).

Defence Aviation must give safety management the priority it deserves and ensure that the lead element of the Defence ASMS – 'Management Commitment' – is enacted at all levels of Command and Unit leadership. However, our entire workforce needs to be equally committed if the health and safety of our people is to be an integral part of our day-to-day business.

This guidebook is an aide-memoir to the Defence Aviation Safety Manual (DASM 2nd edition & later) and assists in implementation and maintenance of a DASR.SMS-compliant Defence ASMS. Please note that best efforts have been made to ensure consistency with these documents. In the event of any errors, omissions or contradictions, DASR.SMS remains the requirement, and DASM provides practical support.

Aviation in itself is not inherently dangerous. But to an even greater degree than the sea, it is terribly unforgiving of any carelessness, incapacity or neglect.

CAPTAIN ALFRED GILMER 'LAMPS' LAMPLUGH, BRITISH AVIATION INSURANCE GROUP, LONDON. CIRCA EARLY 1930'S.

Edition 3 – 2020

Contents

Aviation Safety Management System

An ASMS is a systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures. Aviation safety is progressed when the ASMS is coupled with the positive attitudes, beliefs, values and practices of the personnel within an organisation.

The objective of the Defence ASMS is to ensure an appropriate level of safety for the context whilst allowing operational commanders to exploit capability to the maximum possible extent. Striking this balance is a continuous process. Importantly, aviation safety management expects commanders to enhance the wellbeing of personnel through visible continuous improvements, and to make operational judgements based on a known and sustainable state of their aviation assets.

The Defence ASMS applies to all Defence Aviation activities, Defence Personnel and External Service Providers who may detect, contain or eliminate hazards in, or on behalf of, Defence Aviation. All Defence Personnel and External Service Providers, regardless of employment or specialisation, may be involved with Defence Aviation to varying degrees and therefore have an integral role in the ASMS.

The Defence Flight Safety Bureau (DFSB) sponsors aviation safety policy through the Defence Aviation Safety Manual (DASM) and is accountable to Defence Aviation Authority (Defence AA) for matters concerning aviation safety. The DFSB is also responsible to assisting commanders meet their ASMS requirements under the Defence Aviation Safety Regulation (DASR) with advice and expertise to continually improve their ASMS.

A cross reference between the DASM and DASR SMS is provided at the rear of this guidebook.

Aviation Safety Management System Components

The Defence ASMS framework consists of four components and brings simplicity to the management of aviation safety. The four-component framework is based on the internationally-accepted International Civil Aviation Organization (ICAO) Annex 19 and is contextualised for the Defence environment. Like any other system, an ASMS will only function effectively if all of its components are working properly. It is a system of proportion where each of the four components are to be considered equally and symmetrically. Most importantly, the ASMS can only function effectively if all four components are built on a foundation of a positive safety culture.

Defence ASMS Framework

Safety Policy and Objectives	Safety Risk Management	Safety Oversight and Improvement	Safety Promotion
Create the Environment	*Manage the Risks*	*Verify and Validate*	*Promote Culture and Competence*

COMPONENT 1

Safety Policy and Objectives

Create the Environment

Safety Policy and Objectives

- Management Commitment
- A Generative Safety Culture
- Safety Accountability and Responsibilities
- Appointment of Key Safety Personnel
- Coordination of Emergency Response Planning
- SMS Documentation

"Create the Environment"

Safety Policy and Objectives is the first component of the Defence ASMS framework and focuses on creating an environment where safety management can be implemented effectively. It is founded on safety policy and objectives that sets out management's commitment to safety, its goals and the supporting organisational structure.

Management commitment to safety must be visibly demonstrated through management decision-making and effective allocation of resources. These decisions and actions should always be consistent with the safety policy and objectives to cultivate a generative safety culture.

Management Commitment

The whole ethos of Defence's attitude to safety succeeds or fails based on the extent to which commanders and all leaders under their command accept responsibility for safe operations, particularly for the proactive management of risk.

An ASMS will only be successful if visibly driven and championed by the commander. Without a commander's wholehearted commitment, any safety management system will be ineffective. The commander must accept the requirement for a robust ASMS and ensure all subordinates are aware of the command commitment to the ASMS.

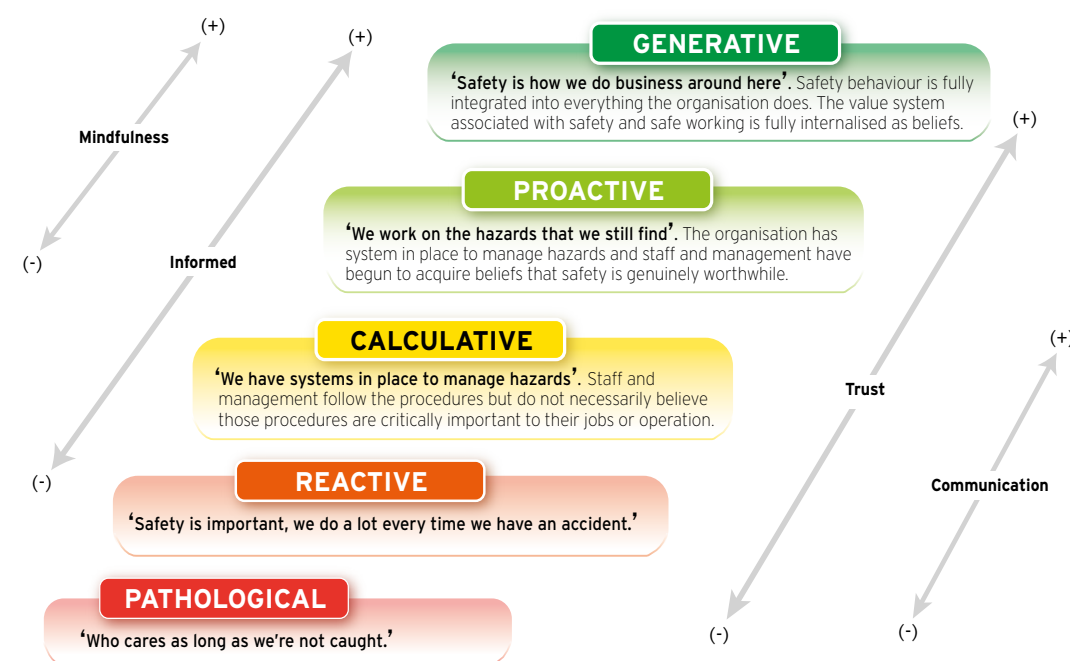The success of an ASMS is based on three critical components:

1. Safety must be recognised as a priority within the organisation, by everyone, through visible behaviours.
2. Commanders and leaders must be visibly committed to improving safety standards.
3. Appropriate resources must be allocated for effective safety management, as defined by policy.

Accordingly, management's commitment is necessary to support an enduring, continuously improving, and effective ASMS within their respective organisations. (DASM Part 1 Chapter 1)

A Generative Safety Culture

Unique to Defence's ASMS is the emphasis placed on aviation safety culture. Culture not only underpins Management's commitment to safety, it is the glue that holds Defence's ASMS together. Safety culture represents and influences the way in which safety is managed and prioritised in an organisation, and reflects attitudes, beliefs, perceptions and values that personnel share in relation to safety.

GENERATIVE
'Safety is how we do business around here'. Safety behaviour is fully integrated into everything the organisation does. The value system associated with safety and safe working is fully internalised as beliefs.

PROACTIVE
'We work on the hazards that we still find'. The organisation has system in place to manage hazards and staff and management have begun to acquire beliefs that safety is genuinely worthwhile.

CALCULATIVE
'We have systems in place to manage hazards'. Staff and management follow the procedures but do not necessarily believe those procedures are critically important to their jobs or operation.

REACTIVE
'Safety is important, we do a lot every time we have an accident.'

PATHOLOGICAL
'Who cares as long as we're not caught.'

Mindfulness · Informed · Trust · Communication

An organisation's safety culture can be described in terms of the five levels of development or maturity ranging from the lowest level 'Pathological' to the highest 'Generative'. Defence strives for a generative safety culture in aviation wherein safety performance is maximised and effective safety behaviour is fully integrated into everything the organisation does.

Commanders at all levels must engender a generative safety culture throughout their organisation by demonstrating continuous safety culture improvement within their command and ensuring subordinates are educated on what constitutes a generative safety culture.

Commanders must also ensure all personnel can raise safety concerns without fear or favour, ensuring just and fair treatment of human error and violation. (DASM Part 1 Chap 2)

Safety Accountability and Responsibilities

In the Defence ASMS context, safety 'accountability' refers to obligations which cannot be transferred, whereas the term 'responsibilities' refers to functions and activities which may be delegated. This means that accountabilities and responsibilities can co-exist at multiple organisational levels simultaneously.

Chief of Air Force (CAF) is appointed as the Defence Aviation Authority (Defence AA) who is accountable to SEC/CDF for the regulation and oversight of all aspects of Defence Aviation safety. This is achieved via the establishment of the Defence Aviation Safety Authority (DASA), and DFSB as the independent Defence Aviation investigation organisation with the powers, resources and expertise to oversee Defence Aviation investigation processes and reporting systems.

Commander Australian Fleet (Navy), Commander Forces Command (Army) and Air Commander Australia (Air Force) are accountable for ensuring the safe operation of aviation systems they control.

Accountable Managers (AMs), who are designated by the relevant Approved Organisation, are accountable to higher command for maintaining relevant DASR safety standards, and are responsible for implementing an ASMS structure including the promulgation of duty-statements for aviation safety-specific responsibilities.

Wing/Regiment and Unit commanders are accountable to the AM for contributing to ASMS implementation and responsible for the management and maintenance of aviation safety standards within their area of control. (DASM Part 1 Chap 3)

Appointment of Key Safety Personnel

The appointment of key safety personnel ensures that commanders have appropriate support for the ASMS within their chains of command, and is staffed by competent (qualified, trained and experienced) personnel. Commanders should ensure that all members are aware of who is allocated to each aviation safety role.

The following key safety personnel will normally be appointed, if deemed appropriate, at the various chain of command levels:

- **Command Level** — Command Aviation Safety Office (CASO) and Command Maintenance and Engineering Aviation Safety Officer (CMEASO).
- **Group/Fleet/Senior Aviation Level** — Group/Fleet/Senior Aviation Safety Officer (GASO/FASO/SASO).
- **Wing/Regiment Aviation Level** — Wing/Regiment Aviation Safety Officer (WASO/RASO).
- **Unit Aviation Level** – Unit Aviation Safety Officer (UASO) and Maintenance Aviation Safety Officer (MASO) with embedded maintenance personnel. A Safety Liaison Officer (SLO) for units with contracted workforce.
- **Base/Station Aviation Level** – Base Aviation Safety Officer (BASO).

(DASM Part 1 Chap 4)

Coordination of Emergency Response Planning

One of the goals of Defence is to achieve zero safety events resulting from organisational and systemic deficiencies. Notwithstanding this goal, Defence must be prepared to respond to accidents involving Defence Aviation assets, both in Australia and overseas.

Worst case emergency planning as a philosophy has definite advantages and should be the planning philosophy adopted. If all realistic circumstances are considered, unforeseen difficulties or deficiencies will be minimised in emergency situations.

Defence Aviation organisations at all levels must have appropriate emergency response plans in place with suitably trained and equipped personnel to respond immediately and effectively to aviation emergencies.

Commanders of Defence facilities/Units that host flying operations must ensure preparedness for appropriate response to emergencies. To achieve this they must promulgate, regularly review and exercise at least annually an Aerodrome Emergency Plan (AEP)/Unit Emergency Plan (UEP). A full-scale exercise involving all parties must be conducted at least every two years.

An Aerodrome/Unit Emergency response kit ('crash kit') is to be compiled and maintained with appropriate equipment necessary for response to an aviation emergency, including safety events near an aerodrome or involving a unit.

(DASM Part 1 Chap 5)

SMS Documentation

An effective ASMS must be supported by robust and current documentation. Commanders at all levels must ensure that relevant safety documentation is available to all personnel, and adequately managed. Information can take many forms and be in any medium so long as it is accessible, credible, relevant, current, and easily understood by the personnel that need it.

All safety documentation is to describe the scope of the organisation's ASMS and the interrelationships between all of the ASMS components and elements. Safety documentation must remain current, available and be reviewed at least every three years. Obsolete documents and data are to be removed promptly from all points of issue/use and finally, archival documents and data retained for legal or knowledge preservation purposes, or both, is to be suitably identified.

Examples of safety documentation are:

- safety policy and objectives
- ASMS description and organisational structure
- aviation safety accountability and key safety personnel duty statements
- hazard identification and safety risk assessment processes and procedures
- aviation safety investigation procedures
- procedures for establishing and monitoring safety performance indicators
- ASMS training processes and procedures
- aviation safety communication processes and procedures
- internal audit procedures
- management of change procedures
- ASMS documentation management procedures
- where applicable, coordination of emergency response planning.

(DASM Part 1 Chap 6)

Safety Risk Management

Defence ASMS Framework

Create the Environment

Verify and Validate

Promote Culture and Competence

Safety Policy and Objectives

Safety Oversight and Improvement

Safety Promotion

⚠️ *Manage the Risks*

Safety Risk Management

- Hazard Identification
- Safety Risk Assessment and Mitigation
- Investigation
- Medical Aspects to Aviation Safety Investigations

"Manage the Risks"

The Safety Risk Management process systematically identifies hazards that exist within the context of the delivery of its products or services. Hazards may be the result of systems that are deficient in their design, function, human interface or interactions with other people, processes and systems. Hazards may also result from a failure of existing processes or systems to adapt to changes in the operating environment. Careful analysis of these factors can often identify potential hazards at any point in actions, tasks, operation or asset life cycle.

Hazard Identification

A key element of an effective ASMS is the closed-loop process used for the identification, reporting, investigation, tracking, review, analysis and control of safety hazards in the workplace. Open, timely and accurate reporting of this information allows the organisation to apply corrections to system vulnerabilities before adverse consequences arise. Effective hazard identification forms the basis of effective risk management (RM).

Hazard identification is to be conducted for all Defence Aviation activities by all ranks at all levels, so that aviation risks to health and safety can

In flying I have learned that carelessness and overconfidence are usually far more dangerous than deliberately accepted risks.

WILBUR WRIGHT IN A LETTER TO HIS FATHER, SEPTEMBER 1900

be eliminated SFARP, and where elimination is not reasonably practicable, to minimise the risks SFARP. Besides the immediate positive effect this has on the health and safety of Defence personnel and their families, effective management of safety hazards and risks also enhances combat power through minimising the loss of combat assets.

Hazard identification is continuously conducted in the workplace through reactive, proactive and predictive approaches. A balance of all three approaches provides the best opportunity to identify and mitigate all workplace hazards, and to keep improving safety culture through improved RM.

Commanders and Managers are to ensure processes are implemented to identify and manage reactive, proactive and predictive aviation safety hazards.

Any safety event or issue that has, or can have, a direct impact on personnel arising from aircraft operations, shall be considered relevant to Defence Aviation safety. Where events and issues do not impact aviation safety, they are outside the scope of the ASMS and shall be reported in accordance with relevant Single Service WHS requirements.

Sentinel is the Defence mandated tool for:

• **Aviation Safety Events and Issues:** All aviation safety events and issues are to be reported via the initiation of an Aviation Safety Report (ASR). Specific reporting requirements are detailed at the rear if this guidebook.

• **Non-Aviation Personnel related WHS Events:** All personnel WHS related safety events are to be reported in Sentinel.

Mishaps are like knives that either serve us or cut us as we grasp them by the blade or the handle.

JAMES RUSSELL LOWELL,
CAMBRIDGE THIRTY YEARS AGO,
LITERARY ESSAYS, VOLUME I,
1864-1890.

Aviation safety event or issue reports available in Sentinel are:

• Flight Operations Event Report,
• Maintenance Event Report,
• Other Support Systems Event Report,
• Operational Hazard Report (OPHAZ),
• Fatigue Report, and
• Duty Variation Report.

An important aviation hazard management tool for Commanders and leaders is the establishment of an Aviation Hazard Review Board (AHRB) for each Aviation System. These review and oversee the progress of safety-related procedures and corrective actions enable the appointed hazard tracking authority to fulfil responsibilities in the proactive management of hazards and the closed-loop system of review. This ensures that all activities required to treat the hazard are accomplished in a timely manner. AHRBs are to be held at least biannually. Additional detail regarding AHRBs is provided at the end of this guidebook.

(DASM Part 2 Chap 1)
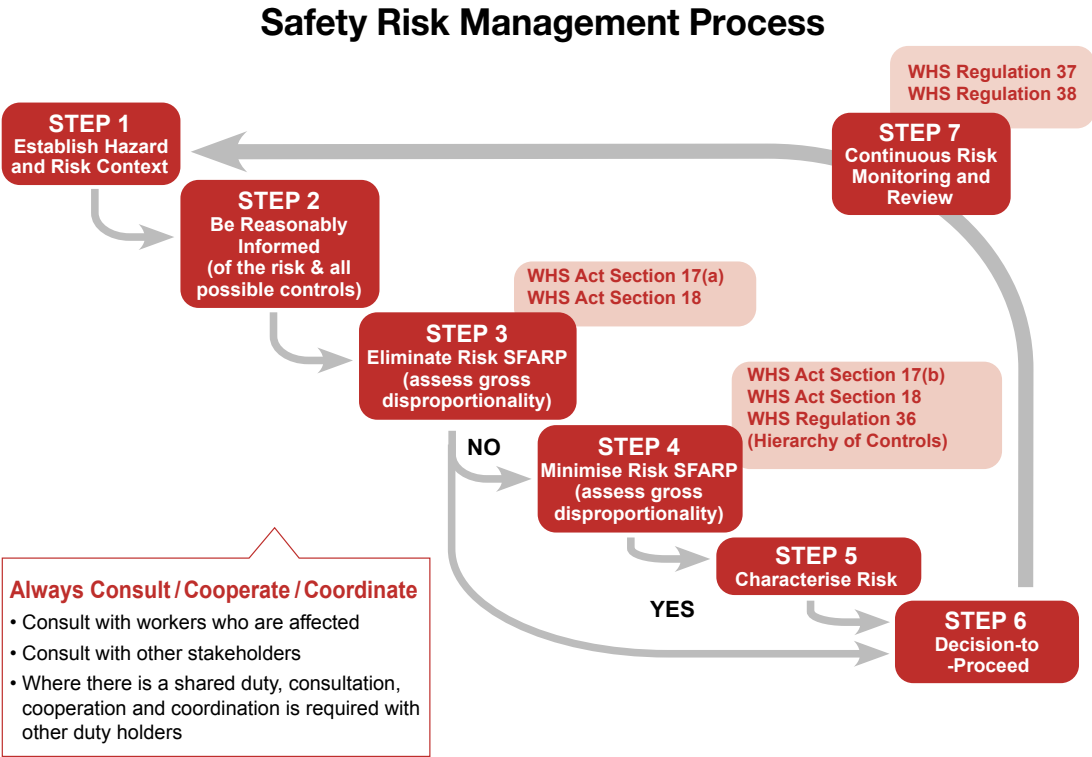
Safety Risk Assessment and Mitigation

Defence has both a moral and legal obligation to ensure the health and safety of all members involved in military aviation activities. The aim of RM is to support the successful achievement of the Defence mission in a manner that enhances air power and readiness whilst mitigating the risk of harm to personnel, preventing the loss of or damage to equipment, and damage to the reputation of the organisation.

For Defence Aviation activities, RM is to be integrated into decisions for all planning, approval, review, implementation and execution of all tasks/activities, at all levels. RM outcomes must be appropriately documented and the decision to proceed made at a level of authority commensurate with the level of risk remaining after minimisation (i.e. residual risk), which could change with time.

Previous editions of the DASM have made reference to Aviation Risk Management (AVRM). The AVRM process has been replaced by the seven-step risk management process and is referred to more broadly as RM .

The following key RM principles apply at all times to all tasks/activities:

• Accept no unnecessary risk.
• Make risk decisions at the appropriate level.
• Integrate RM into operations, tasks, activities and planning at all levels.
• Apply the RM process cyclically and continuously.

Safety Risk Management Process

STEP 1
Establish Hazard and Risk Context

STEP 2
Be Reasonably Informed
(of the risk & all possible controls)

STEP 3
Eliminate Risk SFARP
(assess gross disproportionality)

STEP 4
Minimise Risk SFARP
(assess gross disproportionality)

STEP 5
Characterise Risk

STEP 6
Decision-to-Proceed

STEP 7
Continuous Risk Monitoring and Review

WHS Regulation 37
WHS Regulation 38

WHS Act Section 17(a)
WHS Act Section 18

WHS Act Section 17(b)
WHS Act Section 18
WHS Regulation 36
(Hierarchy of Controls)

NO

YES

Always Consult / Cooperate / Coordinate
• Consult with workers who are affected
• Consult with other stakeholders
• Where there is a shared duty, consultation, cooperation and coordination is required with other duty holders

To support risk-based decisions in the workplace, two levels of RM must be applied:

- **Deliberate RM.** Deliberate risk management (DRM) must be conducted in advance of task/activity execution, such as during the planning phase, and must involve a thorough analysis of the circumstances surrounding the task/activity, and formally documenting results and outcomes (including documentation of SFARP argument).

- **Immediate RM.** Immediate risk management (IRM) must be undertaken immediately prior to conducting a task/activity, and is used to inform a decision that:
  o determines if additional controls are to be implemented, based on context, environmental, and/or organisational factors
  o confirms the task/activity will be conducted in accordance with the established controls documented in Orders, Instructions & Procedures (OIP).

(DASM Part 2 Chap 2)

Investigation

Investigation is a key component of the organisation's ASMS and directly contributes to the effectiveness of hazard identification and the mitigation of aviation safety risks. The sole aim of the investigation is preventing further occurrences and enhancing safety.

Sentinel is the Defence mandated tool for documenting all aviation safety investigations. Sentinel provides a single closed-loop mechanism to support the management and analysis of all aviation safety reporting and investigation outcomes.

Investigation process

6 — Input in Sentinel
5 —
Develop actions and recommendations
4 —
Develop findings
3 — Analysis
2 — Organise information
1 — Gather information

Commanders and Managers are to ensure that all documented safety investigations are conducted by trained staff, to establish causal and contributory factors, and to identify underlying potential hazards for current and future operations.

Military Air Operators (MAOs) must ensure the timely quarantining of flight recorder equipment (or similar), and limited access of its data, for aviation occurrence investigations

The DFSB Aviation Safety Investigation Guidebook provides assistance to investigators in the conduct of internal aviation safety investigations.

(DASM Part 2 Chap 3)
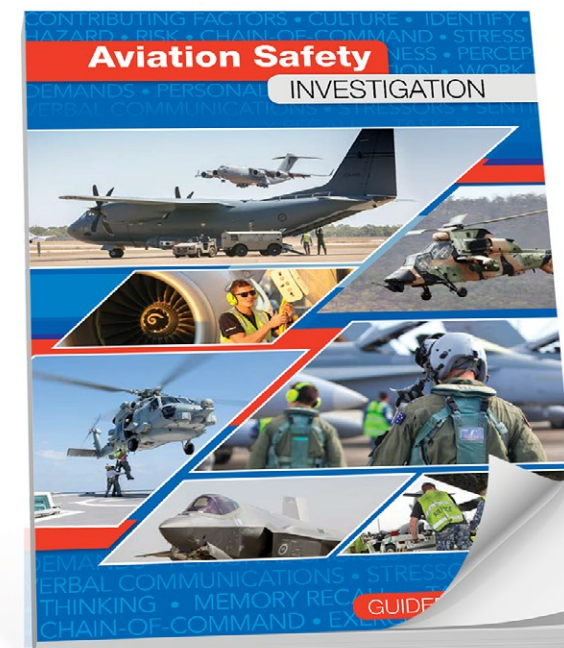
Medical Aspects to Aviation Safety Investigations

Aviation Medical Officers (AVMOs) and Senior Aviation Medical Officers (SAVMOs) play a key role in all Class A or lower aviation safety investigations. AVMOs are the medical officer(s) likely to be involved in an emergency first response, and will perform the initial elements of an accident and safety investigation before the arrival of an appointed Aviation Safety Investigation Team (ASIT) SAVMO.

The DFSB is responsible for ensuring any aviation safety event and issue is investigated competently, and the appointment of appropriate SAVMOS/AVMOs through the RAAF Institute of Aviation Medicine (IAM) and when required, aviation medicine SMEs to the Australian Transport Safety Bureau (ATSB) or aviation safety investigations in other jurisdictions.

Important ADF medical forms for aviation medicine SMEs when supporting and reporting aviation safety events and issues are PM185 – Medical Officer's Aircraft Incident/Accident Checklist and PM184 – Medical Report on an Aircraft Incident or Accident.
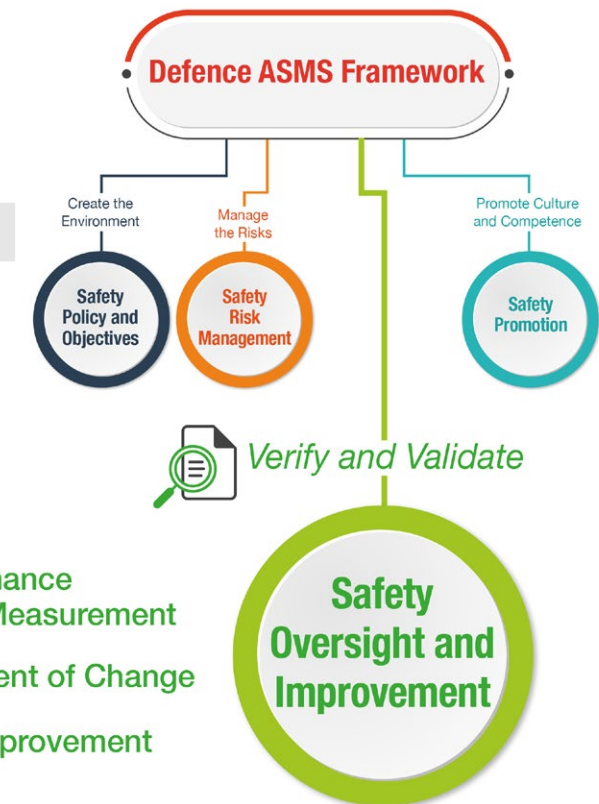
(DASM Part 2 Chap 4)

Though the urge to hurry was beginning to beat through my brain, I knew that was the one thing I couldn't do. Not if I wanted to save lives.

KERI ARTHUR,
FULL MOON RISING

COMPONENT 3

Safety Oversight and Improvement

Defence ASMS Framework

- Safety Performance Monitoring & Measurement
- The Management of Change
- Continuous Improvement of the SMS

Safety Oversight and Improvement

"Verify and Validate"

Safety Oversight & Improvement requires that commanders and managers develop and maintain the means to verify the safety performance of their organisation against required outcomes, and to validate the effectiveness of safety risk controls. Safety Oversight and Improvement consists of activities undertaken to continuously monitor processes as well as the operating environment, and to detect deviations that may introduce emerging safety risks or degrade existing safety risk controls. Such changes or deviations may then be addressed through the Safety Risk Management process. Finally, Safety Oversight and Improvement activities should also include actions to address future-focused potential safety impacts, resulting in continuously improving the performance of the ASMS.

Safety Performance Monitoring & Measurement

Defence Aviation accidents and serious incidents are reactive events and generally too infrequent, making it difficult to perform statistical analysis to identify trends and implement actions to prevent events occurring in the first place. Mature performance management systems aim to be more predictive in nature by moving to proactive data ('lead' indicators). Otherwise, the reliance on reactive data can lead to a false sense of confidence that Defence's aviation safety performance is effective.

We are perhaps the only government agency trying to put itself out of work.

ROBERT BENZON, NATIONAL TRANSPORTATION SAFETY BOARD (NTSB) INVESTIGATOR, THE WASHINGTON POST, 4 MAY 2010

Safety performance management is central to the effective functioning of the Defence ASMS as it will provide an organisation with the means to determine whether its activities and processes are working effectively to achieve its safety objectives. This is accomplished through the establishment of effective Safety Performance Indicators (SPI) which are used to monitor and measure safety performance.

Safety performance monitoring and measurement is conducted through the collection and combination of safety data and information from a variety of sources such as audits, surveys, face-to-face workshops and operational performance data. Valid and available data to support informed risk decision-making is one of the most important aspects of Defence's ASMS.

Commanders and leaders are to develop and maintain a means to verify, monitor and measure the safety performance of the organisation and to feed information back into the safety RM process.
(DASM Part 3 Chap 1)

The Management of Change

Defence Aviation recognises that change is both constant and expected if we wish to harness opportunities for continuous improvement in both safety and capability delivery. Adopting a formal, tailored and systematic management of change process is global best-practice and crucial to allow organisations and their personnel to keep meeting obligations, as well as minimising risk.

Changes within an organisation are inevitable, and can stem from both internal and external influences (some planned, some forced), and organisations need the flexibility to meet change requirements effectively. Without careful planning, these changes can result in the unintended introduction (or modification) of safety hazards. By taking a systematic approach to implementing change, organisations can gain a much clearer picture of the objectives of change and how to achieve them safely.

Commanders and leaders are to develop and maintain a process to identify and treat new or different risks that may arise from changes in the workplace.

If back then, we knew everything we know now, we would have made different decisions.

ROBERT BENZON, NATIONAL TRANSPORTATION SAFETY BOARD (NTSB) INVESTIGATOR, THE WASHINGTON POST, 4 MAY 2010

Management of the change process typically involves:

* communication and consultation
* developing a case for change
* conducting risk assessments and planning
* preparing a phased plan
* implementing the plan
* implementing on-going monitoring and review.

(DASM Part 3 Chap 2)

CONTINUOUS IMPROVEMENT PROCESS

1. Safety Policy
2. Planning
3. Implementation
4. Measurement and Evaluation
5. Management Review

Continuous Improvement of the SMS

To be effective and to continually exploit opportunities to reduce the number of safety occurrences, an ASMS must strive for continuous improvement. The ASMS must continually evolve as lessons are learnt and processes change. Regular reviews provide the opportunity to exploit 'free' lessons learnt (the safety occurrences that have not yet eventuated) to identify areas for improvement and ensure the continued applicability and relevance of the ASMS.

For an ASMS, a planned continuous improvement process consists of a cycle of five steps (Safety Policy, Planning, Implementation, Measurement and Evaluation, and Management Review) that should be implemented and exercised at all levels of the organisation.

Through regular reviews of their established ASMS, commanders can ensure that the intent and aims of the ASMS are being achieved, or instead identify opportunities for continuous improvement. Regular reviews are assisted through AHRBs (or equivalents), Aviation Safety Committee (ASC) meetings, safety working groups and other safety-related activities. Results and corresponding improvement activities should then be communicated widely both to unit staff and the chain of command.

Commanders and leaders are to ensure an effective program of continuous improvement is applied to their ASMS. Further details regarding AHRBs and ASC meetings are provided at the rear of this guidebook.

(DASM Part 3 Chap 3)

Safety Promotion

"Promote Culture and Competence"

Safety Promotion encourages a generative safety culture from all rank levels and helps achieve the organisation's safety objectives. This is achieved through continually improving staff competence through a combination of training and education, effective communication, and information-sharing. Commanders, managers and supervisors are critical in providing the leadership that promotes safety culture throughout an organisation.

Training & Education

The effective application of the Defence ASMS is dependent upon the competence of its participants and this directly translates to personnel knowledge, skills, attitudes and behaviours, at all levels. The continual improvement of competence rests with commanders, through an effective corporate and local training and education system.

Whereas aviation safety event investigation is reactive, safety learning opportunities, training and education are proactive and therefore, an essential contributor to the avoidance of future safety events.

For they had learned that true safety was to be found in long previous training, and not in eloquent exhortations uttered when they were going into action.

THUCYDIDES, THE HISTORY OF THE PELOPONNESIAN WAR, CIRCA 404 BC

The framework of ASMS training and education is based on a building-block approach, tailoring and targeting different levels and times in a career progression specific to each employment group. The ASMS training and education framework normally consists of corporate-provided generic ASMS training and education, and Unit-provided ASMS training and education specific to an asset type and local context. The depth and detail of ASMS training is also varied according to an individual's level of competence and context.

Commanders and leaders are to establish a process that ensures that all personnel in their chain-of-command are competent to perform their expected Defence ASMS duties.

Defence ASMS learning packages, opportunities and promotional materials are available through the DASA website and staff.

Aviation Safety Stand-downs are an important tool for commanders to update all personnel on topical safety training and safety information/issues. Aviation Safety Stand-downs are required to be conducted twice a year, and are usually conducted as both a training and communication mechanism. Further information is provided at the rear of this guidebook.
(DASM Part 4 Chap 1)

Safety Communication
An effective ASMS relies on good safety communication throughout the chain of command, from commanders to staff, and back. Therefore a safety information communication strategy is critical so all members understand how relevant information will be communicated to them, how they can communicate safety information back to supervisors, managers and commanders, and where information is stored so that it can be easily found.

It's better to miss the lead story at 6 ... than to become the lead story at 11

BRUCE ERION, PRESIDENT OF THE NATIONAL BROADCAST PILOTS ASSN., 1999

Effective safety communication strategies cover the downward, upward and sideway flow of information – internal and external. Communication strategies are also multifaceted, reflecting both reactive and proactive principles and corresponding initiatives.

Aviation safety awards should also be used by commanders to formally commend an individual for a specific act which prevented, or in other circumstances could conceivably have prevented, a significant safety event involving an aircraft. This award is to be used when the act does not meet the requirements of a Service decoration or Commendation.

Commanders and leaders are to promulgate a safety information communication strategy to ensure that personnel, both internal and external, have current and pertinent aviation safety information.
(DASM Part 4 Chap 2)

Aviation Hazard Review Boards

AHRBs review and oversee the progress of safety-related procedures, corrective actions and modifications thereof as required. AHRBs enable the appointed Hazard Tracking Authority (HTA) to fulfil responsibilities in the proactive management of hazards and the closed-loop system of review. This ensures that all activities required to treat the hazard are accomplished in a timely manner.

AHRBs review OPHAZ/ASRs of the Wing/Regiment to ensure associated investigations are of the required standard and formulated actions and recommendations are appropriate and tracked to completion in a timely manner. The AHRB must also identify safety trends or issues and take action as required to address them.

AHRBs are required to meet at least twice a year, but may be convened more often at the discretion of the Commander, especially if more meetings are required to effectively review and manage the volume of reported hazards and ASRs.

AHRBs may be held in conjunction with the relevant Wing/Regiment ASC (WASC/RASC) meetings, and to do so may be desirable noting similar membership and the common focus on aviation safety. If meetings are to be combined, then sufficient time and resources are to be applied to ensure that meeting success and effectiveness is not compromised.

WASO/RASO responsibilities as listed in the DASM include management and coordination of all aspects of the Wing/Regiment ASMS on behalf of the commander. Accordingly, WASO/RASO preparations for an AHRB are pivotal for a successful and effective AHRB.

Suggested minimum AHRB membership is provided in the DASM. Distribution of AHRB Minutes is to include DFSB (refer DASM Part 3 Chap 3 – Continuous Improvement of the SMS).

Aviation Safety Committee Meetings

ASC meetings are an integral part of a commander's ASMS and are the regular vehicle for ensuring all aviation safety issues confronting the organisation are discussed and actions for mitigating hazards established and implemented. To ensure the best outcomes, adequate time should be allowed for the meeting to discuss all agenda items, and all necessary members should attend.

One of the most valuable assets for a commander's ASMS is the combined knowledge and experience of personnel. Personnel who are working at the coalface are often better able to identify hazards and trends, suggest practical improvements, and provide solutions. The ASC is a management tool that brings those people together to assist commanders in the management of their ASMS.

ASC meetings are required to be held twice a year. Meeting Minutes should be promulgated to all personnel within the unit and distribution is to include parent command, headquarters and DFSB. 'Top five' aviation safety issues and key actions/outcomes of the ASC should be communicated to all staff and the chain of command. Commanders should ensure 'closed loop' processes are in place to track actions/recommendations from the ASC to completion.

Noting the other safety management systems that some commanders must implement, should such systems also require the conduct of periodic safety committee meetings, it may be beneficial (and more efficient) to hold a combined meeting. If meetings are to be combined, then sufficient time and resources are to be applied to ensure that meeting success and effectiveness is not compromised.

Suggested minimum membership and suggested agenda items for Wing ASC (WASC), Unit ASC (UASC) and Base ASC (BASC) are provided in the DASM (Part 3 Chap 3 – Continuous Improvement of the SMS).

Aviation Safety Stand-downs

Unit commanders are required to conduct twice-yearly aviation safety stand-downs. All available personnel should attend and aviation activities on the stand-down day should be minimised. The UASO is responsible for coordinating safety stand-downs.

Aviation safety stand-downs are an important tool for commanders to update all personnel on topical and important safety issues. There is no set program, format or structure for a safety stand-down. Commanders should tailor the stand-down to their unique organisational structure, requirements and most important safety issues.

Some suggestions for safety stand-down activities include:

- Review unit ASRs for the previous period including trends and any safety issues raised.
- Presentations from the unit ASO or MASO/SLO/Ground Safety Adviser on relevant aviation safety topics.
- Review of Non-Technical Skills (NTS) principles by unit NTS Trainers.
- Review of aviation RM principles and status of integration in the unit.
- Review and/or practice use of unit-specific emergency aircrew life support equipment and other equipment.
- Review and/or practice use of unit emergency response equipment and personal protective equipment (PPE).
- Presentations from invited experts on aviation safety issues.

Personnel organising safety stand-downs should consider contacting other units to source ideas/suggested presenters for formulating an effective safety stand-down. When utilising the services of presenters outside the organisation, organisers should endeavour to get a clear understanding of what will be presented to ensure the presentation is relevant and appropriate to the stand-down (refer DASM Part 4 Chap 1 – Training and Education).

Reporting Requirements

DFSB is required to investigate all Defence Aviation accidents wherever they may occur. Accordingly, DFSB is staffed by specialist Aviation Safety Investigators (ASI) who are on a permanent short notice-to-move to rapidly respond to an investigation requirement.

DFSB ASI may also be called upon to investigate other aviation safety events where the circumstances require specialist investigative skills.

CAF, in the capacity of the Defence Aviation Authority (Defence AA), has a direct link to the Director of DFSB to be informed of aviation safety events and issues needing to be quickly brought to their attention.

The DFSB Duty Officer is the first point of contact for any Defence Aviation safety related Immediate Safety Reports and is the coordinating body for any subsequent DFSB actions. The DFSB Duty Officer is available 24 hours, 7 days a week on the following number: (02) 6144 9199

The DFSB Duty Officer must be called as soon as possible for the following Defence Aviation safety event types and circumstances:

- Class A and Class B aviation safety events
- Impacts public safety
- May attract media exposure
- Has or may have serious implications regarding the operational or technical airworthiness of a particular aircraft type or the reliability of flight-critical aircraft systems
- Involves a breakdown in air traffic separation standards where avoiding action was necessary
- Involves an aircraft transporting a VIP.

The DFSB Duty Officer is also to be advised when there is any Defence reporting to the ATSB (ATSB Duty Officer available on 1800 011 034) of any immediate or routinely reportable incident involving civil aircraft. The DFSB Duty Officer will guide the caller through the provision of required information. The format of an Immediate Safety Report is provided on the next page.

Aviation Accident Notification

24hrs, 7 DAYS A WEEK

Civil Aircraft:
ATSB Duty Officer
Australian Transport Safety Bureau

1800 011 034

Military Aircraft:
DFSB Duty Officer
Defence Fligh Safety Bureau

02 6144 9199

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DFSB NOTIFICATION REPORT

Type and reference

Occurrence type and reporting reference

Aviation   ASR in Sentinel No: _____

WHS   Sentinel No: _____

The event

Classification (if known):
○ Class A   ○ Class B   ○ Class C   ○ Class D   or   ○ Unknown

Unit(s) involved: _____

Aircraft/ equipment involved
Types/tail numbers/ callsigns/explosive ordnance /dangerous cargo: _____

Date and time of event: _____ Local
_____ Zulu

Location of event: _____

Description of event: _____

Weather: _____

Flight details: _____

Persons on board/involved:

Crew	PAX	VIP	Other

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Consequences

	Crew	PAX	VIP	Other
Injured:				
Missing:				
Deceased:				

Aircraft/ equipment damage: _____

Notification

UNIT POC

Rank and name: _____

Telephone: _____

Email: _____

Time of notification: _____

	Notification required	Notification completed	(If not) to be done by
DDSI:	○ YES ○ NO	○ YES ○ NO	
DIR DSFB:	○ YES ○ NO	○ YES ○ NO	
ATSB:	○ YES ○ NO	○ YES ○ NO	
COMCARE:	○ YES ○ NO	○ YES ○ NO	
DWHSB:	○ YES ○ NO	○ YES ○ NO	
ARPANSA:	○ YES ○ NO	○ YES ○ NO	

Actions

Actions taken: _____

Intended actions: _____

REPORT COMPILED BY: _____

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Aviation Safety Event Reporting Timeframes

Event Classification	Report To	Timeframe (calendar days)	Format	Mechanism	Number
Class A	DFSB[1]	ASAP	Immediate Safety Report	Telephone	02 6144 9199 (Duty Officer)
	Command Chain	ASAP	Immediate Safety Report	Telephone	
		ASAP	Hot Issues Brief	As required	
		7 days	ASR	Sentinel	DRN
	Appointing Authority	Unspecified	Aviation Safety Investigation Report	Formal report	

Event Classification	Report To	Timeframe (calendar days)	Format	Mechanism	Number
Class B	DFSB[1]	ASAP	Immediate Safety Report	Telephone	02 6144 9199 (Duty Officer)
	Command Chain	ASAP	Immediate Safety Report	Telephone	
			Hot Issues Brief (if required)	As required	
		7 days	ASR	Sentinel	DRN
		One calendar month	ASR (if required)	Sentinel	DRN
	Appointing Authority[2]	Unspecified	ASR or if required/ directed Aviation Safety Investigation Report	Sentinel or formal report	DRN

Event Classification	Report To	Timeframe (calendar days)	Format	Mechanism	Number
Class C and Class D	Command Chain	7 days	ASR	Sentinel	DRN
		One calendar month	ASR (if required)	Sentinel	DRN

For all ASR, where applicable

Event Classification	Report To	Timeframe (calendar days)	Format	Mechanism	Number
WHS notifiable events[3]	Comcare[4]	Immediate	Telephone report	Telephone	1300 366 979
		48 hours	Initial Sentinel report[5]	Sentinel	DRN
All WHS events[6]	WHS Branch	24 hours /28 days[7]	Initial Sentinel Report	Sentinel	DRN
		28 days	Full Sentinel Report	Sentinel	DRN

Event Classification	Report To	Timeframe (calendar days)	Format	Mechanism	Number
Radiation accidents[8]	ARPANSA and DRSE	24 hours	Telephone report	Telephone	03 9432 5384
	DRSE	ASAP	Quick assessment	Email	See note 9
	WHS Branch	14 days	Full Sentinel Report	Sentinel	DRN

Event Classification	Report To	Timeframe (calendar days)	Format	Mechanism	Number
Radiation incidents[10]	WHS Branch	24 hours	Kiosk Level Sentinel Report	Sentinel	DRN
		14 days	Full Sentinel Report	Sentinel	DRN

Event Classification	Report To	Timeframe (calendar days)	Format	Mechanism	Number
Civil aircraft involved[11]	ATSB	24 hours (immediately reportable matters)	Telephone report	Telephone	1800 011 034
		72 hours (routine reportable matters)			

Notes:

1. Aviation safety events that have the potential to be classified Class A or Class B are to be reported immediately to the DFSB Duty Officer. Where there is any doubt as to whether an event may be classified as Class A or Class B, then it should be reported to the DFSB Duty Officer — the classification may be downgraded later if appropriate; involves loss of life or serious injury; impacts public safety; may attract media exposure; has or may have serious implications regarding the operational or technical airworthiness of a particular aircraft type or the reliability of flight-critical aircraft systems; involves a breakdown in air traffic separation standards where avoiding action was necessary; or involves an aircraft transporting a VIP.
2. Only if ASIT appointed. ASR is preferred reporting mechanism.
3. WHS Notifiable Events are fatality, serious injury or illness, and dangerous incident.
4. Written reports are provided through WHS Branch using Sentinel.
5. Initial Report with 'Event Additional Questions' section completed by supervisor. Completion of this part is essential in order for report to be despatched to Comcare.
6. Other WHS Events are exposure, minor injury and near miss.
7. Minor injury and near miss initial reports required within 28 days.
8. Radiation events are classified by Defence Radiation Safety and Environment (DRSE) differently from the safety events classifications used in DASM. See Chap 3 Defence Radiation Safety Manual (DRSM) for details.
9. DRSE can be contacted by group email radiation.safety@defence.gov.au
10. Radiation incidents include those involving, or potentially involving, exposure to harmful radioactive material, harmful radio frequency, X-ray, Class 3B and 4 lasers, and the like. Radiation incident reporting requirements are detailed in the DRSM, Chapter 3 "Notification and Reporting Requirements".
11. ATSB requires notification for events involving civil aircraft and (or observed by) ADF members. An ASR should also be raised if an ADF ATC officer was involved in controlling the aircraft or witnessed that aircraft in a violation of controlled airspace, or an ADF member was actively involved in the events, or the ADF can learn safety lessons from the events. (DFSB Duty Officer also to be notified of all ATSB notifications provided by Defence personnel.)

DASM STRUCTURE

DASR SMS

Part 1 Safety Policy and Objectives

- Ch 1 – Management Commitment
- Ch 2 – A Generative Safety Culture
- Ch 3 – Safety Accountability and Responsibilities
- Ch 4 – Appointment of Key Safety Personnel
- Ch 5 – Coordination of Emergency Response Planning
- Ch 6 – SMS Documentation

Component 1 – Safety Policy and Objectives

- 1.1 – Management Commitment
- 1.2 – Safety Accountability and Responsibilities
- 1.3 – Appointment of Key Safety Personnel
- 1.4 – Coordination of Emergency Response Planning
- 1.5 – SMS Documentation

Part 2 – Safety Risk Management

- Ch 1 – Hazard Identification
- Ch 2 – Safety Risk Assessment and Mitigation
- Ch 3 – Investigation
- Ch 4 – Medical Aspects to Aviation Safety Investigations

Component 2 – Safety Risk Management

- 2.1 – Hazard Identification
- 2.2 – Safety Risk Assessment and Mitigation

Part 3 – Safety Oversight and Improvement

- Ch 1 – Safety Performance Monitoring & Measurement
- Ch 2 – The Management of Change
- Ch 3 – Continuous Improvement of the SMS

Component 3 – Safety Oversight and Improvement

- 3.1 – Safety Performance Monitoring & Measurement
- 3.2 – The Management of Change
- 3.3 – Continuous Improvement of the SMS

Part 4 – Safety Promotion

- Ch 1 – Training & Education
- Ch 2 – Safety Communication

Component 4 – Safety Promotion

- 4.1 – Training & Education
- 4.2 – Safety Communication

Cross reference between the DASM and DASR SMS