ABOUT THE CIVIL AVIATION AUTHORITY

The Civil Aviation Authority of New Zealand (CAA) exists to promote safety and security in civil aviation. In New Zealand’s civil aviation system, every participant shares a responsibility for safety and security. Aviation organisations, pilots, engineers, air traffic controllers and aircraft owners are each responsible for meeting the statutory safety and security standards.

OUR VISION
Safe and secure civil aviation.

OUR MISSION
To manage safety and security risks in New Zealand civil aviation through the implementation of efficient oversight, regulatory and promotional action.

OUR STRATEGIC DIRECTION
The core functions and outputs of the Authority are linked to the government’s overall goal for transport sector outcomes through three key areas of focus:

- Increasing overall system effectiveness
- Improving sector safety performance
- Being a more responsive and results driven organisation.
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The New Zealand aviation industry is no stranger to systemically managing quality and safety; indeed many organisations have established mature and effective quality and safety management systems. This SMS Implementation Strategy has been launched to communicate our proposed methods for achieving further positive change, both within industry and the CAA. The CAA ‘Strategic Directions’ report outlines this as one of the key objectives in the coming five years. We believe that implementing a Safety Management System (SMS) has numerous benefits for New Zealand (NZ) aviation, and we are looking forward to helping facilitate this change.

The State Safety Program (SSP) provides the framework for implementing SMS in New Zealand. The key to the SSP is an implementation strategy which consists of a 7 Point Plan. This outlines the way we plan to introduce and enhance SMS throughout industry and the CAA in a way that suits the NZ context. We’re striving to achieve a positive outcome in a unique way; including initiatives such as educating our own CAA staff before and during the official launch of SMS which strangely seems to be an essential step that other regulators neglected.

An SMS builds on a past emphasis on compliance to a focus on safety performance. Organisations that embrace SMS as an operating philosophy, with its associated processes and practices, will reap both safety and business benefits. Therefore, your proactive implementation of SMS ahead of associated Rules is strongly encouraged. The Advisory Circular AC 00-4 ‘Safety Management Systems’ provides detailed guidance about the ‘who, what, when, where and how’ of implementing a best practice SMS in a NZ context.

So where do we want to end up in the next five years? Ultimately, these initiatives come down to influencing individual behaviour and attitudes. Examples of good safety practice can sometimes be as simple as the staff and crew of a small operation taking the time to sit down and discuss key safety issues together, or individual pilots or engineers having the confidence to submit a report about a safety risk that they’ve spotted.

I encourage you to move to the next stage in the evolution of aviation safety systems.

GRAEME HARRIS
Director of Civil Aviation
June 2013
BACKGROUND AND OVERVIEW

‘...THE CAA HAS CONTINUED TO PROMOTE BEST-PRACTICE CONCEPTS WITHIN THE INDUSTRY, PAVING THE WAY FOR AVIATION ORGANISATIONS TO PROACTIVELY IMPLEMENT FORMAL SAFETY MANAGEMENT SYSTEMS.’

New Zealand was at the forefront of adopting formal management systems in the aviation industry over twenty years ago. The concept of a ‘management system’ was introduced as part of the New Zealand Civil Aviation Act 1990 and this development was fundamental to what we now know as quality management. A few years after this introduction, the concept of risk management was promoted through the release of the original risk management standard in 1995. For almost twenty years, many parts of New Zealand government and industry have placed a high priority on the adoption of proactive risk management processes and practices. Since then the CAA has continued to promote best-practice concepts in the area of governance, risk management and safety within the industry.

With an increased focus on safety oversight this early foundation has paved the way for aviation organisations to extend their existing management system to incorporate safety through SMS. At the international level, there has been a recognition that national aviation authorities also gain great benefit from the use of SMS, and as such the CAA has committed to developing a State Safety Program in accordance with the relevant International Civil Aviation Organization (ICAO) Annex Standards and Recommended Practices.
NEW ZEALAND’S STATE SAFETY PROGRAM

ICAO requires an SMS for the management of safety risk within aviation organisations. Member states, through the introduction of a State Safety Program (SSP), are obliged to implement the requirement for operators to have an SMS which at least:

• Identifies safety hazards
• Ensures that remedial action necessary to maintain an acceptable level of safety is implemented
• Provides for continual monitoring and regular assessment of the safety level achieved
• Aims to continually improve the overall level of safety.

There are widespread global initiatives for the implementation of SMS. Because of the diverse relationships between organisations and the global nature of the aviation system, it is important that the functions of an SMS are standardised so that there is a common understanding of the meaning of SMS both domestically and internationally.

DEFINING SAFETY MANAGEMENT SYSTEMS

The management and reduction of safety-related risk should be the goal of all aviation organisations. This will contribute to the reduction of accidents and serious incidents. SMS provides a structured approach and framework for managing safety-related risk and achieving optimum safety performance. SMS has been defined by the CAA (and originally ICAO) as ‘a systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures’. A SMS defines how the organisation intends to manage aviation safety [including aviation operations related risks, and health and safety risks in the operational workplace] as an integral part of organisational management activities. Developing a positive safety culture is an important overall goal in any organisation.

CURRENT STATUS

The CAA is committed to the concept of adopting ‘risk-based’ regulation which, if accepted, will pave the way for the introduction of associated SMS Rules. In the interim the CAA has committed to both taking and encouraging a voluntary approach to the implementation of SMS. This strategy document provides a clear focus for SMS implementation through outlining a 7 Point Plan to encourage a proactive approach which is independent of the rulemaking process.

BENEFITS TO INDUSTRY

There are significant benefits to the introduction of SMS. The proactive identification of hazards and the management of associated risks will contribute to the improvement of safety performance and help avoid the negative consequence of serious events. This forward-looking approach provides for continual safety and business improvement. The establishment of an SMS is a unique opportunity for aviation organisations to build, through their exposition and practice, a system that reflects their organisational needs and operating environment. SMS takes us from the narrowly focused traditional view of safety compliance to a holistic approach where all elements of the organisation contribute to desired safety outcomes and continual business improvements.

OUTCOMES

The outcomes expected after the implementation of all SMS implementation strategy activities include:

• CAA has assurance that civil aviation in New Zealand is safe owing to the comprehensive management of safety-related risk using a systems approach, thereby delivering an outcome aligned with public expectation.
• Aviation organisations use risk management increasingly in their decision making and shift focus from compliance to safety performance.
• The number and severity of accidents and incidents is reduced.
• There is ongoing and sustainable risk reduction in the risk profile of sectors and sub-sectors.
• Industry knowledge about SMS is enhanced, including effective application and continual improvement.
• The number of aviation organisations that proactively implement an SMS is increased.
• The likelihood that SMS expositions will be accurate, timely and sufficiently comprehensive is increased.
• There is greater overall readiness for the proposed SMS rulemaking outcomes.
THE SAFETY MANAGEMENT SYSTEMS IMPLEMENTATION STRATEGY 2013–2018

The SMS Implementation Strategy spans the next five years and is a demonstration of CAA’s commitment to the enhancement of safety management throughout the New Zealand aviation industry. Additionally, it illustrates the structured process under which the rollout of SMS within industry will occur. This is particularly important due to the following factors:

• Regulatory changes that will facilitate the implementation of SMS are ongoing. Therefore, the concept of proactive implementation ahead of regulatory change will be encouraged and facilitated.

• The New Zealand Government has moved towards a risk-based approach to all legislation, providing excellent opportunities in the future to shape legislation in a more effective manner.

• Existing Civil Aviation Rules already require many organisations to have a quality management system (QMS). The introduction of an SMS can be viewed as the evolution of QMS, as it builds on many of the fundamentals already in place. However there is a need to describe the nature of this transition so that organisations can move forward to SMS with confidence.

This SMS Implementation Strategy has been developed using a 7 Point Plan covering the period from 2013 to 2018. The broad strategic objectives of this plan are to communicate the CAA’s approach towards the implementation of SMS in order to gain industry assurance; to provide CAA staff with ongoing clarity and transparency regarding their roles and responsibilities; and to drive a spirit of proactive implementation among aviation organisations.

The purpose of the strategy is to provide the CAA and industry with:

• Direction and a central focus for all SMS implementation activities in the next five years
• A risk-based approach to SMS implementation throughout industry
• Consistency and visibility of the CAA’s methodology and actions.

By detailing the CAA’s vision, this strategy provides a framework for the CAA and industry to focus their safety efforts.
### The 7 Point Plan

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New Zealand Regulators must now apply a risk-based approach to their responsibilities and activities.

The CAA has an approach to aviation oversight and surveillance that is driven by prioritising their actions based on risk. This includes Sector Risk Profiling, and associated safety initiatives.

For several years aviation organisations under rules Parts 119, 139, and 140-series and 170-series have required a QMS. It is proposed that this requirement will be replaced by the need to implement an SMS.

The evolution of QMS to SMS is expected to change the industry focus from compliance to safety performance.

The CAA has included the concept of a risk-based approach to SMS. The aim is to provide organisations with the ability to identify key safety risks and prioritise actions according to the level of risk and measure the results of their actions.

The performance of SMS can be measured by setting appropriate safety targets. Safety performance targets define the required level of safety performance of the organisation.

Having these specific safety targets across a wide range of an organisation's activities will better facilitate implementation and promote continual improvement of those activities which have an impact on safety.

One of the key principles of SMS is that no single approach to SMS fits all organisations; each organisation has unique requirements and an SMS should be designed to suit these unique factors.

A key component of New Zealand's approach to SMS implementation will therefore be the concept of 'scalability'.

The CAA will be facilitating this approach through the AC 00-4, targeted promotional material and support leading up to and after the submission of expositions (after the rulemaking process is introduced).

One of the initiatives as part of SMS implementation is the acquisition of suitable qualifications in safety, depending on one’s level of involvement.

A senior person responsible for safety management needs to be appointed (which will replace the need for a senior person in QMS). It is expected that this person maintains suitable qualifications for the role.

The organisation will need to ensure that personnel are competent in risk management and SMS appropriate to their role within the organisation. The AC 00-4 supports this approach with the provision of further guidance.

While SMS rulemaking is in progress it is important to maintain momentum on the implementation of SMS, which has numerous significant benefits for organisations.

The CAA plans to achieve this through the provision of material and interactive support to industry, including sector-targeted resource kits, the conduct of a national SMS Forum (at five locations) and the provision of web resources.

The development of the Advisory Circular, 'Safety Management Systems' (AC 00-4) has been fundamental to this goal.
POINT 1: REGULATION FOCUSED ON RISK

PURPOSE

The purpose of regulators taking a risk-based approach is to coordinate the more effective use of resources and ultimately reduce the risk profile of aviation to as low as reasonably practicable. The aviation industry is dynamic and safety-risk factors also change. Without on-going effort there is potential for risks to increase due to factors such as increasing air traffic, introduction of technology and commercial pressures. Therefore, both the regulator and aviation organisations must employ a risk-based approach to safety management to ensure that safety performance targets are achieved.

OBJECTIVES

THE OBJECTIVES OF TAKING A RISK-BASED APPROACH TO REGULATION INCLUDE:

• To provide assurance that the New Zealand aviation industry is safe
• To have a structured means to allocate resources in a manner that ensures the highest risks in industry are being managed first
• To prioritise regulatory activities including inspection and enforcement based on the assessment of these risks
• To transition from a prescriptive compliance-based model to a risk-informed and a performance or outcome-based model of regulation
• To meet the expectations of ICAO as outlined within the SSP.

EXPECTED OUTCOMES

THE FOLLOWING OUTCOMES ARE KEY TO THE SUCCESSFUL ACHIEVEMENT OF POINT 1:

• Reduction in the risk of accidents and incidents occurring that affect New Zealand and its public and visitors
• Industry-wide understanding of the benefits of a risk-based approach and their role in this
• Application of risk-management philosophies processes and practices that are consistent with ICAO SSP intentions.
## POINT 1: REGULATION FOCUSED ON RISK

### TASKS – INCREASED CAA CAPABILITY

- Apply the Regulatory Operating Model (ROM) and Regulatory Tools Policy
- Commence Sector Risk Profiling, starting with agricultural aviation then moving to other critical sectors
- Utilise Sector Risk Profiling information to allocate resources to where they are most required
- Develop promotional and educational material to facilitate consistent understanding of the risk-based approach to regulation, both within CAA and industry
- Continue initiatives to implement and enhance a risk-based approach throughout CAA functions (such as auditing and investigation)
- Review CAA’s risk management processes and practices in alignment with the SSP requirements

### MEASURES OF SUCCESS

Success may be observed through:

- A reduction in the overall number and severity of accidents and incidents. This is to be measured using a number of data sources including safety reports, audit and investigation results, repetition of Sector Risk Profiling to see a ‘before and after’ picture, and general observations
- Measurable risk reductions in the risk profile for various sectors and sub-sectors
- The increased use of consistent, risk-based phraseology throughout industry (demonstrating an alignment in understanding)

### TASKS – SUPPORT TO INDUSTRY

- Participate and engage in Sector Risk Profiling activities
- Development of a Qualifications Suite including National Diploma in Risk Management
- Actively participate in industry sector safety initiatives
- Release risk management educational material (Booklet FOUR – Aviation Risk Management: an introduction)

### TASKS – PARTICIPANT ACTIVITIES

- Participate and engage in Sector Risk Profiling activities
- Actively utilise profiling results to ascertain optimal internal risk-based activities
- Establish risk-based SMS from a proactive implementation point of view
POINT 2: BEYOND QUALITY MANAGEMENT SYSTEMS

PURPOSE
Aviation organisations under Parts 119, 139, the 140-series and 170-series are required to implement a quality management system (QMS). This is intended to be superseded by the requirement to implement an SMS. The need to mature beyond QMS is not only regulatory, but is predominantly because SMS incorporates a wider scope of philosophies, processes and practices. An effective SMS incorporates all of the elements of a QMS, but through a risk-based approach it can increase the degree of control and oversight on safety matters.

OBJECTIVES
THE OBJECTIVES OF MATURING BEYOND QMS INCLUDE:
- To facilitate a more effective approach to identifying hazards and managing safety risks within an organisation
- To allow for a risk-based approach to be taken
- To facilitate the proposed change in Rules from requiring a QMS to requiring a SMS.

EXPECTED OUTCOMES
THE FOLLOWING OUTCOMES ARE KEY TO THE SUCCESSFUL ACHIEVEMENT OF POINT 2:
- Implementation by aviation organisations of more effective systems for managing safety risks at all levels
- More accurate and comprehensive expositions submitted to CAA once the rulemaking process has been completed.
**POINT 2: BEYOND QUALITY MANAGEMENT SYSTEMS**

**TASKS – INCREASED CAA CAPABILITY**

- Deliver a CAA staff resource kit including specific advice about how to advise, support and audit organisations transitioning from a QMS to a SMS
- Conduct staff information and education sessions — this transition will be one of the key topics addressed
- Conduct SMS training for specified personnel

**TASKS – SUPPORT TO INDUSTRY**

- Involvement in National SMS Forums
- Utilise the SMS industry resource kit — distribute a booklet specifically addressing a transition from quality management systems to safety management systems
- Introduce the opportunity for key personnel to be trained in SMS skills and knowledge

**TASKS – PARTICIPANT ACTIVITIES**

- Employ active measures to transition from QMS to SMS in a logical and systematic manner (recognising key differences)
- Commit to education for key SMS staff within aviation organisations

**MEASURES OF SUCCESS**

The ultimate measure of success will be an effective transition from a QMS to a SMS that is demonstrable to the CAA and successful in reducing the consequence and likelihood of negative occurrences in industry.

**Signs of success include:**

- The QMS capability of aviation organisations is enhanced, not lost, demonstrated through improved processes such as auditing and documentation management
- Aviation organisations’ reporting systems are used for wider safety applications rather than as quality improvement recording tools
- Internal audit activities with a wider scope than compliance/conformance that also include evaluation of effectiveness
- Demonstrable formal, risk-based approach to safety management
- Improvements to safety culture realised and measured by organisations that have implemented an SMS
- A shift in the use of QMS-based phraseology to that of SMS phraseology
POINT 3: RISK MANAGEMENT

PURPOSE

The purpose of introducing risk-management principles and processes within an SMS model is to facilitate a more effective approach towards managing safety-related risks within aviation organisations. This is one of the differentiating factors from the traditional QMS model and it provides the opportunity for organisations to identify, assess and control their safety risks. This approach also aligns the CAA’s approach to SMS with that of international regulatory bodies and the State Safety Program.

OBJECTIVES

THE OBJECTIVES OF TAKING A RISK-BASED APPROACH TO SMS INCLUDE:

• To facilitate a best-practice approach to managing safety with organisations targeting areas that will have the greatest benefit in safety improvements with corresponding business value
• To provide a framework by which all risks within an organisation can be effectively managed including both reactive and proactive risk management
• To align the CAA and industry approach to broader legislative changes and international regulatory developments.

EXPECTED OUTCOMES

THE FOLLOWING OUTCOMES ARE KEY TO THE SUCCESSFUL ACHIEVEMENT OF POINT 3:

• Common approach across aviation organisations to risk management based on the principles expressed in the ISO 31000:2009 Risk Management Standard
• Demonstrated reduction in high-risk incidents and occurrences after SMS implementation has commenced
• Increased proactive reporting of hazards, in addition to normal occurrence reporting
• Employment of risk management by aviation organisations in their day-to-day operational decision making
• Implementation of change management and adoption of triggers which lead to comprehensive risk assessments
• Increased sharing of safety information and data to help identify risks across industry.
POINT 3: RISK MANAGEMENT

TASKS – INCREASED CAA CAPABILITY

- Provide staff training in risk management and human factors
- Progressively introduce rules and guidance material related to fatigue risk management systems and human factors
- Establish forums to share safety information with aviation participants and sector representatives
- Review the Act and Rules regarding use of safety information
- Develop and release an industry guidance Booklet FOUR: Aviation Risk Management: an introduction

TASKS – SUPPORT TO INDUSTRY

- Provide opportunities to train key personnel in hazard identification and risk management
- Encourage and help facilitate ongoing improvements to safety philosophies, processes and practices throughout industry

TASKS – PARTICIPANT ACTIVITIES

- Read and apply Advisory Circular AC 00-4
- Utilise the SMS resource kit (A booklet specifically addressing aviation risk management will be distributed to actively support organisations during SMS rollout)
- Regularly access the CAA SMS webpage for information and resources on a risk-based approach
- Utilise safety data and information to assess whether risk controls are having the desired effect

MEASURES OF SUCCESS

The ultimate measure of success for having taken a risk-based approach to SMS is a reduction in high-risk accidents, incidents and hazards.

Success can be measured by:

- Reduction in the accident and serious incident rate in those sectors where risk management has been taken up by the majority of participants
- Implementation (or more effective utilisation) by aviation organisations of risk-management tools including risk registers and risk assessments at all levels of the organisation (ie, strategic through to operational)
- Evidence that safety risks are identified, assessed and controlled according to their risk priority
- Increasing use of common phraseology to discuss safety risks among aviation organisations
- Successful implementation of risk management throughout CAA functions
POINT 4: SAFETY PERFORMANCE

OBJECTIVES

THE OBJECTIVES OF TAKING A ‘SAFETY-PERFORMANCE’ APPROACH TO SMS IMPLEMENTATION INCLUDE:

- To encourage aviation organisations to see the implementation of SMS as a means of seeking positive safety outcomes and shifting focus from compliance to performance
- To use reporting, investigation and analysis to inform performance measurement
- To enhance the effectiveness of current SMS processes and provide a means of measuring SMS effectiveness
- To facilitate an evolution within CAA to a performance-based approach to certifying and evaluating an SMS.

EXPECTED OUTCOMES

THE FOLLOWING OUTCOMES ARE KEY TO THE SUCCESSFUL ACHIEVEMENT OF POINT 4:

- Aviation organisations with a clear focus on achieving effective SMS performance by managing to targets
- Robust reporting of hazards and occurrences supported by good sharing of safety information
- Development of a means of certification based on evaluating the effectiveness of systems and processes, rather than one focused only on auditing practice.

PURPOSE

The purpose of developing and monitoring safety performance targets is to remain focused on actions designed to effectively reduce safety risks, and to assess whether an organisation’s actions have been successful in achieving this. Monitoring and measuring safety performance will assist organisations to make decisions about the greatest safety ‘need’ and investment of resources. Safety targets can also provide information on the overall effectiveness of the organisation’s SMS. Similarly, the process for SMS certification needs to reflect this and take a more evaluative approach.
POINT 4: SAFETY PERFORMANCE

### TASKS – INCREASED CAA CAPABILITY

- Establish targets by sector/sub-sector updated to reflect international benchmarking
- Provide guidance, and metrics where possible, regarding participant safety performance targets
- Initiate work regarding accident precursor events
- Progressively roll out Sector Risk Profile work to all aviation sectors
- Upgrade business systems to enhance analysis of safety information for sharing with industry
- Undertake targeted and timely interventions based on a risk approach to ensure effectiveness of actions
- Develop certification tools, guidelines and educational packages for CAA staff

### TASKS – SUPPORT TO INDUSTRY

- Conduct industry-wide promotion and communication about a performance-based approach and how to apply it
- Develop guidelines and educational tools to facilitate wider knowledge and competency in taking a performance-based approach

### TASKS – PARTICIPANT ACTIVITIES

- Develop internal safety performance targets and measures, and ensure that performance is regularly compared with these targets
- Establish systems to escalate performance information to management to aid decision making

### MEASURES OF SUCCESS

The greatest measure of success will be an industry-wide acceptance of SMS as a means of identifying, assessing and controlling safety-related risks throughout an organisation. A shift away from processes and practices without value will demonstrate this success.

This may be observed by:

- Evidence of continual improvements to safety by organisations that have implemented SMS (as reflected in reduction in serious incidents, findings etc)
- Utilisation of a variety of methods of achieving effective SMS outcomes (ie, different methods of safety reporting that achieve a similar goal) throughout industry (ie, a reduction in the trend of implementing the practice of another organisation without appropriate tailoring or ascertaining suitability)
- SMS goals and objectives set by organisations and then measured for their achievement
- Certification tools and processes utilised in a consistent and effective manner
POINT 5: SCALABILITY

PURPOSE
The purpose of adapting an SMS to the size and complexity of an organisation is to ensure it is appropriate for the organisation's needs. This is a critical part of any successful SMS implementation to ensure that organisational changes yield the greatest possible improvements to safety for the effort and resources expended. In addition to a focus on internal SMS practices, the CAA will be implementing an integrated risk-based approach to their functions within industry. Additionally, a series of Sector Risk Profiles will be conducted that aim to capture the key industry risks and provide clarity about which of them need to remain the focus of both the CAA and industry alike.

OBJECTIVES
THE OBJECTIVES FOR ADAPTING AN SMS FOR ORGANISATIONAL SIZE AND COMPLEXITY INCLUDE:

• To ensure CAA SMS certification requirements are aligned with the organisation’s size and scope
• To facilitate organisations in selecting how to implement the various elements of an SMS in a manner that suits their organisation
• To allow the CAA to evaluate aviation organisations on the basis of their SMS outcomes and risk-based approach rather than their process
• To facilitate the development of Sector Risk Profiles across industry.

EXPECTED OUTCOMES
THE FOLLOWING OUTCOMES ARE KEY TO THE SUCCESSFUL ACHIEVEMENT OF POINT 5:

• Organisations more enthusiastic about implementing SMS because they can shape and adapt it for their organisation
• Successful implementation of Acceptable Means of Compliance, as outlined in Advisory Circular AC 00-4, 'Safety Management Systems'
• Overall implementation and use of SMS activities are more effective and accepted throughout an organisation, are sustainable and fit for the purpose.
TASKS — INCREASED CAA CAPABILITY

- Shape the contents of the CAA SMS staff resource kit – emphasise guidelines and knowledge to facilitate the evaluation of organisations’ SMS and how to review systems that will differ in their approach across organisations
- Develop and promulgate CAA intranet resources
- Focus Loop magazine articles on information about positive case studies, ‘tips and traps’ for certification and provision of industry guidance
- Conduct regular staff information sessions
- Provide widespread internal training for inspectors, investigators, safety promotions staff etc

TASKS — SUPPORT TO INDUSTRY

- Develop and communicate a SMS resource map – to outline all possible resources that would facilitate an adaptable SMS implementation process
- Present and share best-practice case studies from NZ aviation organisations

TASKS — PARTICIPANT ACTIVITIES

- Identify how elements of the SMS can be scaled for your organisation without resorting to a ‘copy and paste’ approach with similar organisations
- Develop the contents of future expositions to reflect a fit-for-purpose SMS and then ensure that implementation follows after this
- Regularly utilise the CAA SMS webpage to identify relevant courses and material on SMS Implementation
- Actively utilise the industry resource kit, Booklet THREE – Implementing Safety Management Systems: guidelines for small aviation organisations

MEASURES OF SUCCESS

The overall measure of success of a SMS model that has been adapted for an organisation’s size and complexity will be the effective implementation of SMS throughout all Part 119, 139, 145 and 172 organisations.

This will be demonstrated by:

- Evidence of effective implementation such as an active safety reporting system, meaningful safety policies, regular internal training and education initiatives
- Positive attitude towards safety philosophies, processes and practices throughout an organisation (which could, for example, be demonstrated through the results of a safety culture survey)
- Different methods of achieving the same safety outcomes across industry
- Utilisation of the Sector Risk Profile results as a means to focus on key risk areas (both within industry and the CAA)
- Noticeable improvement in safety culture by organisations that have implemented a SMS
OBJECTIVES

The objectives of requiring aviation organisations to undertake training for the acquisition of a qualification include:

- To increase the likelihood that SMS are developed and implemented by qualified persons, are tailored for the size and complexity of the organisation, and are fit for purpose
- To develop evidence that skills and knowledge acquisition has taken place during a training activity or activities
- To provide organisations with the ability to independently maintain and improve their SMS
- To ensure aviation organisations and their personnel understand the value of reporting hazards and occurrences.

EXPECTED OUTCOMES

The following outcomes are expected from an organisation with personnel qualified in SMS:

- Shorter implementation and maturation time for an organisation’s SMS
- More effective SMS that is well supported internally and is embraced by the whole organisation in their day-to-day activities, not just by the personnel who have defined safety roles
- Sharing by aviation participants of safety critical information with their employees in a timely and interactive manner.
POINT 6: TRAINING AND EDUCATION

TASKS – INCREASED CAA CAPABILITY

• Active involvement in the development and sponsorship of a National Diploma Series co-sponsored by CAA, AIA, Service IQ and Aerosafe Risk Management
  • Diploma in Regulatory Oversight and Governance
  • Diploma in Risk Management
  • Diploma in Safety Management Systems
• Develop and manage internal staff qualification. Undertake regular staff information sessions to inform staff about the expectations of industry
• Provide qualification-based training to CAA staff

TASKS – SUPPORT TO INDUSTRY

• Promote the National SMS Forum – an opportunity to learn more about the training options that may be suitable for SMS implementation, maintenance, skill and knowledge development

TASKS – PARTICIPANT ACTIVITIES

• Ensure executives and the senior person responsible for safety management have the appropriate qualifications and competence
• Engage with other industry leadership in enhancing skills and qualifications
• Provide training to safety critical personnel (ensuring it includes relevant human factor topics) to ensure performance improvements through the integration of technical and non-technical skills

MEASURES OF SUCCESS

The measure of success in this instance is aviation organisations that have the ability to independently develop, implement and maintain an effective SMS (i.e., are not dependent on external assistance).

Signs that this is in place include:

• An organisation can demonstrate that one or more staff have a strong knowledge of SMS principles, practices and processes
• Staff with demonstrated qualifications in SMS, preferably aviation SMS
• CAA monitoring of organisations who have implemented SMS shows their personnel have a good understanding of SMS and its practical application with well-coordinated safety activities and processes in place
POINT 7:
PROACTIVE IMPLEMENTATION

PURPOSE

The purpose of encouraging proactive implementation of SMS outside of the regulatory requirement alone is to ensure that aviation organisations realise the benefits of introducing an SMS without delay. As the rulemaking process is still in progress, there is little value anticipating its completion especially as Advisory Circular AC 00-4, ‘Safety Management Systems’ currently provides the CAA’s viewpoint on implementation.

It is important for the CAA to continue encouraging aviation organisations to implement SMS so that improvements in safety and business performance are realised.

OBJECTIVES

THE OBJECTIVES OF ENCOURAGING PROACTIVE IMPLEMENTATION OF SMS INCLUDE:

• To prompt aviation organisations to implement an SMS in a timely manner (rather than waiting for rulemaking processes to conclude)
• To engender a more proactive culture among organisations that are more focused on compliance than the benefits of an SMS
• To ensure that once the rulemaking process is completed and the internal capability of the CAA is well positioned to facilitate this transition.

EXPECTED OUTCOMES

THE FOLLOWING OUTCOMES ARE KEY TO THE SUCCESSFUL ACHIEVEMENT OF POINT 7:

• Evidence of aviation organisations preparing for and completing their implementation of SMS (i.e., through CAA inspector observations during audits, aviation safety advisor observations during interaction with industry, and incorporation into exposition)
• Evidence that aviation organisations that have proactively implemented a SMS have a reduction in severity of incidents, a reduced number of audit non-conformances and a lower safety-risk profile when compared to aviation organisation that have not implemented an SMS
• Improved access to foreign markets due to alignment with ICAO’s approach to safety management.
POINT 7: PROACTIVE IMPLEMENTATION

TASKS – INCREASED CAA CAPABILITY

- Develop a tailored certification programme for SMS that is fit for purpose and promoted the intent of SMS
- Engage in an internal mentoring programme to continually develop skills in evaluating SMS philosophies, processes and practices
- Develop a quick reference guide series for CAA inspectors and other industry-facing staff
- Undertake staff information sessions to provide awareness of initiatives taking place

TASKS – SUPPORT TO INDUSTRY

- Develop an SMS resource map outlining the numerous resources that can facilitate a proactive approach
- Actively review Vector magazine articles
- Promote Advisory Circular AC 00-4 as a ‘must-read’ publication
- Benchmark like organisations to identify and implement ‘quick wins’

TASKS – PARTICIPANT ACTIVITIES

- Commence work on an exposition that includes the provision of SMS within your organisation and engage with CAA about the best way to do this
- Access the CAA internet SMS webpage for resources and regular advice
- Use resource kits for various organisation types (depending on industry sector and size or complexity)
- Attend the national SMS forums that promote the message of proactive implementation

MEASURES OF SUCCESS

One of the key measures of success will be evidence of the commencement and/or continuation of SMS implementation among aviation organisations.

This may be observed in through:

- Increasing number of participants with SMS fully implemented; also a greater number of proponents of SMS creating a ‘groundswell’ of change within industry
- Participant risk profiles show improvement; sectors where a majority of participants have incorporated SMS are reflected in Sector Risk Profiles that reduce over time
- CAA certification burden will be reduced if and when SMS Rules come into force because last minute change by participants will be avoided
- Increase in industry consultation with CAA staff (ie, inspectors, aviation safety advisors) requesting information and assistance in the implementation of a SMS
- Increase in the number of SMS-related documentation and practices observed by inspectors during routine and non-routine audits
- Strong registration and attendance for the SMS Forums
- Increasing number of visits to the CAA SMS webpage
# IMPLEMENTATION PHASES

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| **PHASE 1:**  
Development of SMS definitions and requirements | This phase focused on the following key activities:  
- Development and publication of the Advisory Circular AC 00-4 ‘Safety Management Systems’  
- Establishment of the SMS Implementation Project which includes SSP related action items  
- Project planning for rollout  
- SMS Implementation Strategy development and documentation  
This phase is complete with the publication of this document. |
| **PHASE 2:**  
Formal introduction of SMS to industry | This phase will involve a significant number of touch points with industry, as well as a progression of the CAA’s own process development:  
- Release of the SMS Implementation Strategy  
- Conduct of a National SMS Forum series to promote and communicate SMS concepts and resources  
- Release of a CAA staff resource kit  
- Release of an industry resource pack containing guidelines for the implementation of SMS across different industry sectors and business sizes  
- Commencement of CAA internal training qualifications |
| **PHASE 3:**  
SMS Rules implementation and ongoing promotion | With the introduction of the risk-based approach to regulation it will be possible for the CAA to roll out amendments to existing Rules in a way that permits the requirement for an SMS to be added without significant delay.  
The CAA will be focusing on the development of certification tools and guidelines, and encouraging the submission of expositions.  
This phase also includes refinement of CAA certification and surveillance policies and procedures, training of CAA personnel in these new procedures, and communication with industry about how these changes will affect CAA-participant regulatory interaction. |
| **PHASE 4:**  
Embedding SMS practices into industry and regulatory oversight | After organisations have implemented SMS, the CAA will conduct ongoing monitoring and certification/recertification with SMS oversight elements being included in these ‘business as usual’ processes. The CAA will need assurance that SMS has been effective in managing safety risk. The CAA will also implement improvements consistent with its quality management systems policy. |
CONTACTS

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