



Civil Aviation Safety Authority
of Papua New Guinea

Advisory Circular

AC100-1D

Safety Management Systems (SMS) Component 4 - Safety Promotion: A Practical Guide

Initial Issue

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GENERAL

Civil Aviation Authority Advisory Circulars (AC) contain information about standards, practices and procedures that the Director has found to be an Acceptable Means of Compliance (AMC) with the associated rule.

An AMC is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director. When new standards, practices or procedures are found to be acceptable, they will be added to the appropriate Advisory Circular.

This Advisory Circular also includes Explanatory Material (EM) where it has been shown that further explanation is required. Explanatory Material must not be regarded as an acceptable means of compliance.

PURPOSE

This Advisory Circular provides methods, acceptable to the Director, for showing compliance with the Safety Management System requirements of Part 100 and explanatory material to assist in showing compliance.

RELATED CAR

This AC relates specifically to Civil Aviation Rule 100 Subpart B – Safety Management Systems.

CHANGE NOTICE

There was no previous issue of this AC, consequently no change is in effect.

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1. EM100.67 SAFETY PROMOTION

1.1 EM 100.67 Safety Promotion

- 1.1.1 Safety promotion is an important part of an SMS, setting the tone for the organisation, building, and encouraging a robust positive safety culture and helping to achieve safety objectives.
- 1.1.2 Effective safety management cannot be achieved solely by management mandate or strict adherence by personnel to documented policies and procedures. Through effective safety promotion you can influence both individual and organisational safety behaviours, enhance shared knowledge and provide a valuable system that openly and actively supports and promotes safety efforts.
- 1.1.3 Safety promotion helps to foster improved safety performance through the combination of technical competence being enhanced through safety training and education, effective communication and information sharing on lessons learned, broader safety information and the distribution of the SMS manual and safety procedures in the organisation.
- 1.1.4 Safety promotion encourages a positive safety culture and helps achieve the service provider's safety objectives through the combination of technical competence that is continually enhanced through training and education, effective communication, and information-sharing. Senior management provides the leadership to promote the safety culture throughout an organization.
- 1.1.5 Effective safety management cannot be achieved solely by mandate or strict adherence to policies and procedures. Safety promotion affects both individual and organizational behaviour, and supplements the organization's policies, procedures and processes, providing a value system that supports safety efforts.
- 1.1.6 The service provider should establish and implement processes and procedures that facilitate effective two-way communication throughout all levels of the organization. This should include clear strategic direction from the top of the organization and the enabling of "bottom-up" communication that encourages open and constructive feedback from all personnel.
- 1.1.7 Under the ICAO Annex 19 Appendix 2 SMS framework, safety promotion is divided into **two** elements:

SMS Component	SMS Element
Safety Promotion	1.Safety Training and Education
	2.Safety Communication

- 1.1.8 Aviation organisations need trained and competent personnel. Competency goes beyond the simple completion of a course or even a skills check. It includes confirmation that the practiced behaviours match the intended outcomes of the initial training. It is also fair to say that one size does not fit all, so training programs should meet the needs and complexity of your organisation. How much safety training each employee receives should depend on their involvement in the SMS. PNG Advisory Circular AC 100-1E provides further guidance on SMS Inspector competency and Training Programme outline.
- 1.1.9 You also need to establish processes and procedures that facilitate effective two-way communication throughout all levels of your organisation. This includes a clear strategic safety management direction from the top of the organisation and the enabling of bottom-up communication which encourages open constructive feedback from all personnel.

2. EM100.73 SAFETY TRAINING

2.1 EM100.73 Safety Training and Education

- 2.1.1 Providing appropriate training to all personnel, regardless of their level or role in the organisation, gives them a better understanding of your SMS and helps to make them part of your safety goals. The level of safety training each employee receives should be tailored to their involvement within the SMS. The quality and effectiveness of training significantly influence the attitude and professionalism your employees will demonstrate every day. It also shows management's commitment to an effective SMS.
- 2.1.2 It is important wherever possible, to include third-party contractors and service providers in your safety training program. Third-party contractors can then add to the organisation's SMS by reporting any hazards or incidents through your safety reporting system. This training is required whenever you have

third party contractors performing any operationally safety-critical roles within or on behalf of your organisation.

- 2.1.3 Organisations also need to establish a process to measure the effectiveness of their safety training program and to take appropriate action to improve subsequent training activities. It should be clearly understood that competency is not proven simply by issuing a certificate that training has been completed. Achieving appropriate levels of competency for personnel and enabling the consistent application of their skills and correct safety behaviours, is critical to an improved standard of safety performance.

- 2.1.4 Your safety training program needs to specify responsibilities for development of training content and scheduling as well as training and competency records management.

- 2.1.5 Smaller organisations might prefer to contract external trainers for their SMS training. However, it is still valuable to understand what process these external providers should follow, and what you require, while ensuring that they have tailored the training to be relevant to your organisation. Ask:

What training do we need?

And how much of this needs to be tailored to our organisation?

Who needs to be trained?

Who can we get to develop and deliver this training?

If you are a larger organisation, you may do your own training in-house, or chose to include safety training within your training and checking organisation.

- 2.1.6 ***The Importance of Safety Training*** - Safety training is as vital as safety itself. Training enables management to ensure all workers are aware of the required safety standards for their role. Training assists personnel to recognise safety hazards and how to report them and enables an understanding of best safety practises and the organisation's expectations of them in relation to safety behaviours. One way to identify hazards is through voluntary reporting. Information collected through such reporting systems may be supplemented by observations or findings recorded during routine site inspections or organizational audits.

Beyond compliance, safety training is just a good idea and is essential if you want to increase your organisation's safety performance. Think of safety training like any other technical training needs. You wouldn't expect someone who has been a passenger on an aircraft to just know how to operate the plane – so why would you expect your personnel would just know your safety procedures.

It's often argued safety training is unnecessary because employees have many years of experience, either within the organisation or from previous aviation roles. However, years of experience will mean they most likely know how to perform their tasks, but do they know how to ensure they are performed safely? Do they know what the organisation expects of them if they identify a hazard? How can you expect personnel to report hazards and demonstrate safety behaviours if you don't train them on your SMS processes, procedures, and acceptable safety behaviours?

Effective safety training is also another element that demonstrates management commitment to safety. To promote your SMS and safety performance you need to allocate adequate resources and time to the development and delivery of safety training. You cannot expect personnel to take the time to be involved in your SMS if you don't take the time to effectively train them on it.

The need for safety training is continuous, as circumstances within the organisation and the broader industry change you need to ask: How do these changes affect safety? How do I keep my personnel engaged in the SMS and demonstrating acceptable safety behaviours?

Recurrent or refresher safety training is also important as it continues to demonstrate management commitment to safety, ensuring personnel remain aware of the SMS and their role within it, while ensuring they are aware of any changes to SMS procedures since their last training. Refresher training also provides you with an opportunity to demonstrate the effectiveness of your SMS and to ensure personnel can see what safety performance improvements have been made since they were last trained.

Like all elements of your SMS, safety training cannot be a set and forget function. You need to ensure your training is relevant and kept up to date. When you implement new risk controls in response to personnel hazard and safety reports it's important all employees can see this has occurred. Your safety training is a prime opportunity to promote why employee engagement within the SMS is critical and how their hazard and safety reporting aids in improving safety performance.

2.1.7 **SMS Training Programme**

Annex 19 requires that “the service provider shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform their SMS duties.” It also requires that “the scope of the safety training programme be appropriate to each individual’s involvement in the SMS.” The safety manager is responsible for ensuring there is a suitable safety training programme in place. This includes providing appropriate safety information relevant to specific safety issues met by the organization. Personnel who are trained and competent to perform their SMS duties, regardless of their level in the organization, is an indication of management’s commitment to an effective SMS.

The training programme should include initial and recurrent training requirements to maintain competencies.

Initial safety training should consider, **as a minimum**, the following:

- (a) organizational safety policies and safety objectives;
- (b) organizational roles and responsibilities related to safety;
- (c) basic SRM principles;
- (d) safety reporting systems;
- (e) the organization’s SMS processes and procedures; and
- (f) human factors.

Recurrent safety training should focus on changes to the SMS policies, processes and procedures, and should highlight any specific safety issues relevant to the organization or lessons learned.

The training programme should be tailored to the needs of the individual’s role within the SMS. For example, the level and depth of training for managers involved in the organization’s safety committees will be more extensive than for personnel directly involved with delivery of the organization’s product or services. Personnel not directly involved in the operations may require only a high level overview of the organization’s SMS. PNG AC 100-1E provides further guidance on SMS training programmes.

2.1.8 **Training Needs Analysis**

For most organizations, a formal training needs analysis (TNA) is necessary to ensure there is a clear understanding of the operation, the safety duties of the personnel and the available training.

A typical TNA will normally start by conducting an audience analysis, which usually includes the following steps:

- (a) Every one of the service provider’s staff will be affected by the implementation of the SMS, but not in the same ways or to the same degree. Identify each staff grouping and in what ways they will interact with the safety management processes, inputs and outputs - in particular with safety duties. This information should be available from the position/role descriptions. Normally groupings of individuals will start to emerge that have similar learning needs. The service provider should consider whether it is valuable to extend the analysis to staff in external interfacing organizations;
- (b) Identify the knowledge and competencies needed to perform each safety duty and required by each staff grouping.
- (c) Conduct an analysis to identify the gap between the current safety skill and knowledge across the workforce and those needed to effectively perform the allocated safety duties.
- (d) Identify the most appropriate skills and knowledge development approach for each group with the aim of developing a training programme appropriate to each individual or group’s involvement in safety management. The training programme should also consider the staff’s ongoing safety knowledge and competency needs; these needs will typically be met through a recurrent training programme.

It is also important to identify the appropriate method for training delivery. The main objective is that, on completion of the training, personnel are competent to perform their SMS duties.

Competent trainers are usually the single most important consideration; their commitment, teaching skills and safety management expertise will have a significant impact on the effectiveness of the training delivered.

The safety training programme should also specify responsibilities for development of training content and scheduling as well as training and competency records management.

The organization should determine who should be trained and to what depth, and this will depend on their involvement in the SMS. Most people working in the organization have some direct or indirect

relationship with aviation safety, and therefore have some SMS duties. This applies to any personnel directly involved in the delivery of products and services, and personnel involved in the organization's safety committees. Some administrative and support personnel will have limited SMS duties and will need some SMS training, as their work may still have an indirect impact on aviation safety.

The service provider should identify the SMS duties of personnel and use the information to examine the safety training programme and ensure each individual receives training aligned with their involvement with SMS. The safety training programme should specify the content of safety training for support staff, operational personnel, managers and supervisors, senior managers and the accountable executive.

There should be specific safety training for the Chief Executive and senior managers that includes the following topics:

- (a) specific awareness training for new accountable executives and post holders on their SMS accountabilities and responsibilities;
- (b) importance of compliance with national and organizational safety requirements;
- (c) management commitment;
- (d) allocation of resources;
- (e) promotion of the safety policy and the SMS;
- (f) promotion of a positive safety culture;
- (g) effective interdepartmental safety communication;
- (h) safety objective, SPTs and alert levels; and
- (i) disciplinary policy.

The main purpose of the safety training programme is to ensure that personnel, at all levels of the organization, maintain their competence to fulfil their safety roles; therefore, competencies of personnel should be reviewed on a regular basis.

2.1.9 **Documenting the SMS Training Plan**

After having conducted a TNA, you should use the results to develop a training plan and associated documents.

Your SMS training plan documents will include:

- a list of your personnel requiring SMS training, including third-party personnel
- a training syllabus for each safety training course by role and type
- the timing and type of each personnel member's specific safety training courses
- safety induction courses for personnel with no previous SMS training
- SMS induction training for all third-party service providers
- recurrent safety courses for all operational safety-critical personnel
- a method for determining when each employee is due to undergo specific safety training
- courses a method of determining training having been provided or completed for each
- employee a means of evaluation of your safety training effectiveness.

You should also establish and maintain an SMS training register. This includes individual training records so you can track who has been trained, what your personnel have been trained in, what they have yet to complete, and when they are due for their next training. In some organisations, this may be part of an established training or personnel records system, while, in others, this may be a previously unrealised need.

2.1.10 **Training Delivery Methods:**

Within your safety training plan, it's important to identify the appropriate method for training delivery.

You do not always have to deliver training lecture-style, face-to-face in a classroom, there are other options.

However, **small organisations** have the advantage that face-to-face training is often easier to organise and deliver.

Personnel are on site, and rosters may not be as complex, making logistics easier.

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

- an intranet system for online computer based training;
- or virtual videoconferencing classrooms self-paced workbooks or learning modules additional knowledge based educational materials or libraries.

The main objective is that on completion of training personnel are competent to perform their SMS duties.

- 2.1.11 **Safety Training Content:** The safety training program should specify the content of safety training for support personnel, operational safety-critical personnel, managers and supervisors, senior managers, and the accountable executive.

Initial safety training content should, at a minimum, cover the following topics:

- your organisation's safety policies and objectives
- roles and responsibilities related to safety
- basic safety risk management principles, including hazard identification and risk assessment procedures
- organisational hazard and safety reporting systems
- the organisation's SMS processes and procedure
- human factors and safety behaviours.

Recurrent training should focus on any changes to SMS policies, processes and procedures, while also highlighting any specific safety issues or risks relevant to the organisation and lessons learned.

Training content should be tailored to the needs of individual roles within the SMS and developed in line with risk-management principles. Greater detailed content in the following topic areas should also be provided dependant on the role:

- the use and application of specific SMS processes
- hazard identification and risk management procedures
- change risk management
- operational risk management.

For example, the level and depth of training for managers involved in safety committees will be more extensive than for line operational personnel such as engineers, pilots, or cabin crew. While personnel not directly involved in the operations may require only a high-level overview of the organisation's SMS.

- 2.1.12 **Chief Executive and Senior Persons:** You should develop specific safety training for your accountable executive and senior managers that clearly highlights their SMS accountabilities and responsibilities. The training should also ensure they understand the importance of the SMS and maintaining a positive safety culture supported by management, for the enhancement of safety performance.

Your chief executive and senior management safety training would ideally cover the following topics:

- SMS accountabilities and responsibilities
- the importance of compliance with the organisation's safety requirements and any legislative requirements (i.e., CASA and workplace health and safety)
- the importance of management commitment in the SMS
- the allocation of resourcing, for both implementation and maintenance of the SMS
- the promotion of safety policies, a positive safety culture and the SMS
- effective interdepartmental safety communications
- the organisation's safety objectives, safety performance indicators and targets
- acceptable and unacceptable safety behaviours
- positive safety culture and just culture elements, including identifying human error for remedial actions

- and system learnings comparative to safety violations for disciplinary actions.

2.1.13 **Specialised safety functions:** There will be several specialised safety-related tasks or functions within your SMS that will require specifically trained personnel. It's important personnel enacting these functions have received adequate training in the specific methods and techniques involved in those safety functions. This specialised safety function training would be seen as beyond the basics of your SMS safety training program and may require your specialist safety personnel to undertake externally provided training qualifications.

These functions and tasks include:

- investigating safety events or incidents
- monitoring and analysis of safety performance
- conducting risk assessments
- managing and maintaining safety databases
- conducting safety audits
- developing safety training programs.

Depending on the depth of specialised training required and the level of existing expertise in safety management within your organisation, it may be necessary to obtain assistance from external experts or specialists to achieve these functions until your specialist safety personnel have undergone specialised training.

2.1.14 **Safety Training Assessments:** Safety training programs within an effective SMS should be competency based and not compliance based. In a competency-based training program, individuals gain the knowledge and skills that they need to be able to perform their work. The training is based on what employees at work are expected to do and the standard of performance expected in the workplace. Knowledge is important in a competency-based program, however equally important is being able to apply that knowledge and the skills at work. These skills must also be matched with the enduring safety behaviours that your training is designed to achieve.

To ensure learning has taken place as a result of safety training you need to assess each individual who has undertaken the training. To assess individuals, you need evidence of their level of basic safety knowledge as well as expected on the job or performance skills relating to safety. Safety training is only effective if each individual can not only show knowledge about your SMS and its processes but can demonstrate they have the skills required to perform their safety related functions within the SMS. An example of this would be demonstrating knowledge of what a hazard or safety report is used for and being able to demonstrate how to submit a report.

This means your safety training program needs to have a process in place that evaluates the individual's competence and takes appropriate remedial action when necessary if they are unable to demonstrate appropriate competencies.

The main purpose of the safety training program is to ensure all personnel develop and maintain their competence to fulfil their safety roles. Therefore, competencies of your organisation's personnel should be assessed and reviewed on a regular basis.

Any safety training assessment of personnel should focus on finding evidence that the individual:

- understands how they contribute to system performance within their role and the operational implications of safety behaviours in performing their day-to-day duties
- demonstrates that they can use this safety knowledge to monitor and adjust their own behaviours to improve safety outcomes.

Any assessment method used should allow you to identify both achievements of required safety awareness, knowledge, and skills development, as well as identify areas of deficiencies in the uptake of training competencies. This allows for both confirmation of achievement of learning outcomes as well as areas for improvement to address any identified deficiencies for each person undertaking safety training.

Individual training assessments can occur during or shortly after training to encourage consolidation and retention of knowledge.

Assessments can be carried out using various methods including:

- short answer or forced choice (multiple choice) exams
- observation of tasks (this may form part of a competency assessment)

- demonstrations during practical exercises within class
- informal assessment of participation and behaviours by the instructor.

Individual training assessments should be focused on learning and building expertise, rather than on rote memorisation of facts, rules, or procedures. Your training assessment should assist in clarifying individuals' roles and responsibilities in ensuring they continue to reflect best safety practices and behaviours based on lessons learned, and to build engagement with the SMS.

2.1.15 Evaluating training programme effectiveness: Not only do you need to evaluate individuals' learning and competence within the safety training program, but you need to evaluate how effective your overall training program is.

Training should always be provided with an intended purpose or outcome. Just as safety objectives have associated safety performance indicators, so too should training have some way of assessing achievements against the desired outcomes, ultimately measuring the effectiveness of your training.

This can be a relatively simple process, such as asking participants what they thought, or may require more time and resources to gather the information.

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

Level 1: what participants thought of the training (individual reactions and engagement)

Level 2: what participants learned (knowledge learning uptake)

Level 3: how the learning applies to operational tasks (competencies or knowledge application)

Level 4: measurable benefits for the organisation (organisational safety benefits or results).

When first implementing your safety training program you should start with level one and two evaluations. However, as your SMS and training program matures, and time and resources allow, you should move to levels three, and four in that order.

Level 1: participants complete brief surveys or questionnaires at the end of their training course. They give feedback on whether the training was useful and relevant, and the content interesting and practical. This allows you to evaluate individual reactions to the training as well as their level of engagement.

Level 2: involves assessing the individual learning or knowledge uptake from the training content delivered. This is your individual safety training assessment. These can be designed to be as simple as a quiz or exam completed at the end of training to evaluate a pass or fail knowledge assessment.

This assessment can be more complex and have participant's complete specific attitude and knowledge questionnaires before and after training to measure what impact the training has had.

The results of the pre-training survey give a baseline for comparison with the after-training survey, ideally

completed six months after the training. You can then use this information to highlight broad operational problems or issues and to identify training needs.

Level 3: this level takes the evaluation process one step further. It measures the change in participants' on-the-job behaviour and safety competencies resulting from attending the training program.

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

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

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

Level 4: this level identifies tangible organisational benefits that come from a training program. This level is the most important as it determines whether a program has achieved material results and demonstrates how valuable the program is to the business, identifying benefits such as improved

safety, increased productivity, or quality, decreased operating costs, and higher return on investment.

The best approach is to use several separate levels of program evaluation. All organisations should be able to use level 1 (participant questionnaires) and level 2 (knowledge evaluations) with minimal difficulty and cost. While you need significantly more effort and resources for level 3 and 4 evaluations, they can bring substantial added benefits for your organisation.

Safety Training Checklist (Please tick)

1. All operational safety-critical personnel, including third-party contractors, have been identified as requiring safety training.	
2. A training needs analysis (TNA) has been undertaken for all personnel in the organisation.	
3. Documentation has been developed to support the SMS training plan including an SMS training register showing what training everyone has had, and their current level of competence.	
4. An appropriate safety induction course has been developed for all personnel, ensuring new personnel are trained within a short time frame of joining the organisation. This course is tailored and relevant to your operations.	
5. There is a refresher training course, and all training courses are regularly updated and improved.	
6. There is a chief executive and senior management specific training course covering the principles on which the SMS is based and their responsibilities in supporting it.	
7. Specialist safety training is documented and made available for personnel undertaking specific safety-related functions (e.g., investigations, audits etc.)	
8. Adequate time and resources are allocated for safety training and to implement what was learned in training afterwards.	
9. Individuals are assessed after training to see if the training has been successful in meeting its objectives.	
10. Third-party contractors, temporary workers and part-timers are given the training they need depending on the roles they perform within your organisation.	
11. Feedback is obtained from attendees and suggestions for improvement incorporated into training programs as appropriate.	

2.2 EM100.73 SMS Self-Evaluation Tool: SMS Training and Education

2.2.1 To help service providers, self-check the maturity and effectiveness of their SMS *Training and Education* systems, CASA has provided you with the below Guidance and Checklist using the PSOE acronym from guidance material developed by the Safety Management International Collaboration Group (SM-ICG) and summarized below:

Present (P)	There is evidence that the indicator is clearly visible at all levels of the organisation and is documented within the organisation's SMS manual.
Suitable (S)	There is evidence that the indicator is suitable based on the nature, size and complexity of the organisation and/or the inherent risk in the activity.
Operating (O)	There is evidence that the indicator is in use and an output is being produced
Effective (E)	There is evidence that the indicator is effective and is achieving the desired outcome
Best Practice	Organisations striving to continuously improve their SMS, <u>may</u> use the Best Practice indicators to achieve a higher level of safety performance.

2.2.2 Self-Evaluation Checklist for **Training and Education** (Required for CASA SMS Acceptance)

Indicators of compliance and performance		P	S	O	E	How it is achieved	Verification Evidence
Evaluation	4.1.1	There is a training programme for SMS in place that includes initial and recurrent training. The training covers individual safety duties (including roles, responsibilities, and accountabilities) and how the organisation's SMS operates.					
	4.1.2	There is a process in place to measure the effectiveness of training and to take appropriate action to improve subsequent training.					
	4.1.3	Training includes human and organisational factors including just culture and non-technical skills with the intent of reducing human error.					
Guidance	What to look for						
	- Review the SMS training programme including course content and delivery method. - Check training records against the training programme. - Review how the competence of the trainers is being assessed and maintained. - Training considers feedback from external occurrences, investigation reports, safety meetings, hazard reports, audits, safety data analysis, training, course evaluations, etc. - Review how training is assessed for new staff and changes in position. - Review any training evaluation. - Check that the training includes human and organisational factors. - Ask staff about their own understanding of their role in the organisation's SMS and their safety duties. - Check that all staff are briefed on compliance.						
	Present	Suitable			Operating		Effective
	There is an SMS training programme in place that includes initial and recurrent training.	The training covers individual safety duties (including roles, responsibilities, and accountabilities) and how the organisation's SMS operates. Training material and methodology are adapted to the audience and include human factors. All staff requiring training are identified			The SMS training programme is delivering appropriate training to the different staff in the organisation and is being delivered by competent personnel.		SMS training is evaluated for all aspects (learning objectives, content, teaching methods and styles, tests, etc.) and is linked to the competency assessment. Training is routinely reviewed to take feedback from different sources into consideration.

Evaluation	Indicators of compliance and performance		P	S	O	E	How it is achieved	Verification Evidence
	4.1.4	There is a process that evaluates the individual's competence and takes appropriate remedial action when necessary.						
	4.1.5	The competence of trainers is defined and assessed and appropriate remedial action taken when necessary.						
Guidance	What to look for							
	- Review how competence assessment is carried out on initial recruitment and recurrently. - Check it includes safety duties and responsibilities, as well as compliance management.							
	Present		Suitable		Operating		Effective	
	A competency framework is defined for all personnel, including trainers.		There is a process in place to periodically assess the actual competency of personnel against the framework.		There is evidence of the process being used and being recorded.		The competence assessment programme and process is routinely reviewed and improved. The competence assessment takes appropriate remedial action when necessary and feeds into the training programme.	

3. EM100.67 SAFETY COMMUNICATION

3.1 EM100.67 Safety Communication

- 3.1.1 The service provider should communicate the organization's SMS objectives and procedures to all appropriate personnel. There should be a communication strategy that enables safety communication to be delivered by the most appropriate method based on the individual's role and need to receive safety related information. This may be done through safety newsletters, notices, bulletins, briefings or training courses. The safety manager should also ensure that lessons learned from investigations and case histories or experiences, both internally and from other organizations, are distributed widely.
- 3.1.2 **Safety communication** therefore aims to:
- ensure that staff are fully aware of the SMS;** this is a good way of promoting the organization's safety policy and safety objectives.
 - convey safety-critical information;** Safety critical information is specific information related to safety issues and safety risks that could expose the organization to safety risk. This could be from safety information gathered from internal or external sources such as lessons learned or related to safety risk controls. The service provider determines what information is considered safety critical and the timeliness of its communication.
 - raise awareness of new safety risk controls and corrective actions;** The safety risks faced by the service provider will change over time, and whether this is a new safety risk that has been identified or changes to safety risk controls, these changes will need to be communicated to the appropriate personnel.
 - provide information on new or amended safety procedures;** when safety procedures are updated it is important that the appropriate people are made aware of these changes.
 - promote a positive safety culture and encourage personnel to identify and report hazards;** safety communication is two-way. It is important that all personnel communicate safety issues to the organization through the safety reporting system.
 - provide feedback;** provide feedback to personnel submitting reports on what actions have been taken to address any concerns identified.
- 3.1.3 Service providers should consider whether any of the safety information listed above needs to be communicated to external organizations.
- 3.1.4 Service providers should assess the effectiveness of their safety communication by checking personnel have received and understood any safety critical information that has been distributed. This can be done as part of the internal audit activities or when assessing the SMS effectiveness.
- 3.1.5 Safety promotion activities should be carried out throughout the life cycle of the SMS, not only at the beginning.
- 3.1.6 Safety promotion through communication is essential for building and maintaining the effectiveness of your SMS. Two-way communication is required ensuring you inform personnel fully about your SMS and capture and act upon their feedback where appropriate. This is vital to the success of your SMS. If personnel report safety issues and do not receive timely feedback or see no evidence that their reporting is making a difference, they will soon stop reporting. Like every complete communication cycle, feedback is vital to keep communication lines open.

3.1.7 Communication needs to be from management towards front-line employees (top-down) but also from employees to management (bottom-up). Lateral (side-ways) communication is also important, encouraging the exchange of information amongst colleagues at the same level within the organisation or in similar roles.

3.1.8 At a minimum, your safety communication should:

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

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

3.1.9 The 4 key elements to effective safety communication are:

- (1) **Interactivity:** safety communications flow both ways. You speak about safety, and you listen to employee's concerns and suggestions.
- (2) **Informative messaging:** it tells employees what they need to know to work safely under all conditions and ensures they understand their safety obligations.
- (3) **Positivity:** communications focus on the exchange of ideas and information to improve safety and prevent accidents and incidents. Your messages don't just focus on what has gone wrong when there have been incidents but on how to prevent future occurrences.
- (4) **Productive:** your communication method allows you to interact successfully with all employees and spread your safety message to all who need to hear it. This may mean you need to use multiple communication methods for the same message to ensure personnel across all work locations and roles receive it.

3.1.10 Communication methods can vary, and a good SMS will utilise several methods and diverse means to communicate safety information according to the importance and urgency of the message. Internal safety communication methods can be either active or passive, as indicated in the below table.

Active communication methods	Passive communication methods
• regular safety-related meetings • safety seminars and workshops • senior management conveying strategic safety information, goals, and objectives • general personnel informing management of safety issues in their department areas • team briefings or toolbox talks.	• safety magazines, newsletters, or posters • safety bulletins and notices • videos or short electronically recorded messages • web-based presentations e.g., an intranet safety page • emails or memos.

3.1.11 Your refresher safety training is another method for delivering safety information, allowing two-way communication if it is face-to-face training or more passive communication of information if conducted online. Depending on the size of your organisation, some of the ways of communicating safety information will be more relevant than others. Keep in mind the location and roles you are communicating to, there is no point in sending out a safety communication email about baggage loading if your baggage handlers are not routinely in front of a computer to receive it and the email gets lost in a sea of unread emails.

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

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

- 3.1.13 Safety lessons learned external to your organisation are as important as those learned firsthand. Given this, don't forget to find ways to source and disseminate external safety information, this could be from PNG AIC investigation reports, industry safety notices and safety publications, such as the CASA PNG Safety & Security Quarterly Newsletter.
- 3.1.14 Continuous flows of safety information to personnel will ensure your SMS is not an afterthought – but a proactive, visible, and tangible part of daily business. The goal of safety communication is to foster a learning culture through the sharing and exchanging of information. This motivates personnel, encourages a reporting culture, and enhances engagement with the SMS.

3.1.15 Managing Communication:

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

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

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

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

Effective safety communication is vital in motivating employees so that they both understand, and act upon, safety messages. Propaganda which merely tells individuals to avoid making mistakes and errors, or to take more care, the 'bumper sticker' approach to safety, does not work. Individuals do not want to make mistakes, they like to be professional, and to be treated as such. Communication is about explaining and understating, as such it must be robust, create a sense of involvement and interest, and be relevant to management and employees alike.

You should be sharing safety information with all personnel in a targeted way and tailoring this to suit the audience. For example, sharing a safety report purely to raise awareness when that report hasn't yet been analysed to identify risks or any potential risk controls does not provide any meaningful safety education.

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

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

- 3.1.16 In smaller organisations, where gathering of data can be an issue, topics for safety promotion could be based on relevant PNG AIC reports, or safety issues common to your area of aviation operations or even other safety critical industries.

3.1.17 Distributing Safety Information

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

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

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

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

The delivery method must be appropriate to the needs of both the sender and receiver.

The content of the message must resonate and connect, on some level, with the receiver's already-held beliefs.

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

What messages are you communicating? eg. 'At Samaritan Aviation and Training, we're committed to safety', or 'Report all incidents'.

Who is your audience? Pilots, engineers, cabin crew, or ground handling personnel? What you are saying needs to be appropriate to your audience, expressed in plain English and using terms relevant to their knowledge and culture.

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

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

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

- 3.1.19 Effective communication will use both verbal and visual elements (words and pictures), working together to attract attention and highlight your messages. Often, less is more, especially in an era when we are all bombarded by information. Make your communication simple, direct, inclusive, and relevant to your audience.

3.1.20 **Communication Barriers:**

Watch out for communication barriers, as unfortunately there are numerous obstacles that cause safety communications to break down.

For example:

- If too much information is being communicated all at once, it can be hard for individuals to absorb all those different messages at the one time.
- If your message lacks clarity, is confusing or ambiguous, then what someone hears may be quite different from the message you intended to send.
- If expectations are not clearly defined, you may be unpleasantly surprised by the results. It is important to know and express what you expect to happen because of your communication.
- If you communicate a safety message without taking the time to listen to employee's responses carefully then your communication is incomplete, and you are just talking at them and not with them. Remember you have to speak and listen for communication to be successful.
- If you don't take employees safety concerns and priorities into account, they may not listen to what you have to say. Why would you listen to someone when they clearly don't want to listen to you?

3.1.21 Safety Communication Checklist:

1. You have a forward planned safety communication strategy that allows for safety-related information to be actively and routinely communicated.	
2. There is a set standard for safety communication based on risk potential, allowing for planned safety messages to be targeted to greatest risk areas.	
3. Safety communication is actively and routinely promoted through various active and passive methods, such as a safety newsletter, web site, safety briefings, posters, videos etc.	
4. Various mediums are used to convey key information, e.g., written, oral and visual communication, which are all tailored and appropriate for the audience.	
5. Sufficient time is allocated for communication, particularly at shift handovers.	
6. There is a clear two-way communication strategy that's encouraged and supported, with both the giver and recipient of the information taking responsibility for accurate communication.	
7. The organisation freely and openly shares safety-related information with employees, with lessons learned from both internal and external sources incorporated. This information is shared fully and accurately, and in a timely fashion.	
8. There are concerted efforts to continually raise awareness of potential hazards and risk issues in the workforce.	
9. Feedback is provided to safety reporting in a timely fashion and changes made in response to safety reporting is openly communicated.	

3.2 EM100.67 SMS Self-Evaluation Tool: Safety Communication

3.2.1 To help service providers, self-check the maturity and effectiveness of their *Safety Communication systems*, CASA has provided you with the below Guidance and Checklist using the PSOE acronym from guidance material developed by the Safety Management International Collaboration Group (SM-ICG) and summarized below:

Present (P)	There is evidence that the indicator is clearly visible at all levels of the organisation and is documented within the organisation's SMS manual.
Suitable (S)	There is evidence that the indicator is suitable based on the nature, size and complexity of the organisation and/or the inherent risk in the activity.
Operating (O)	There is evidence that the indicator is in use and an output is being produced
Effective (E)	There is evidence that the indicator is effective and is achieving the desired outcome
Best Practice	Organisations striving to continuously improve their SMS, <u>may</u> use the Best Practice indicators to achieve a higher level of safety performance.

3.2.2 Self-Evaluation Checklist for **Safety Communication** (Required for CASA SMS Acceptance)

Evaluation	Indicators of compliance and performance		P	S	O	E	How it is achieved	Verification Evidence
	4.2.1	There is a process to determine what safety critical information needs to be communicated and how it is communicated throughout the organisation to all personnel, as relevant. This includes contracted organisations and personnel where appropriate.						
Guidance	What to look for - Review the sources of information used for safety communication. - Review the methods used to communicate safety information (e.g., meetings, presentations, emails, website access, newsletters, bulletins, posters, etc.). - Assess whether the means of communication is appropriate. - The means for safety communication is reviewed for effectiveness and material used to update relevant training. - Significant events, changes, and investigation outcomes are being communicated. - Check accessibility to safety information. - Ask staff about any recent safety communication. - Review whether information from occurrences are timely communicated to all relevant personnel (internal and external) and has been appropriately disidentified.							
	Present	Suitable	Operating			Effective		
	There is a process to communicate safety critical information.	The process determined <i>what, when, and how</i> safety information needs to be communicated. The process includes contracted organisations and personnel where appropriate. The means of communication are adapted to the audience and the significance of what is being communicated.	Safety critical information is being identified and communicated throughout the organisation to all personnel, as relevant, including contracted organisations and personnel where appropriate.			The organization analyses and communicates safety critical information effectively through a variety of methods as appropriate to maximise it being understood. Safety communication is assessed to determine how it is being used and understood and to improve it where appropriate.		