1. AVIATION SAFETY MANAGEMENT SYSTEM TRAINING REQUIREMENT

1.1 INTRODUCTION

An SMS is a systematic approach to managing safety, including the necessary organizational structure, accountabilities, policies and processes. The new ICAO safety management requirements include provisions for an organization to establish lines of safety accountability throughout the organization, as well as at the senior management level.

Managing any aviation organization, large or small, requires the management of many business processes: financing, budgeting, communicating and allocating resources, and so forth. Managing safety has been added to the list of business processes. Managing safety is as much a part of running a business as any of the traditional business processes. Training is essential for the responsible person: safety (safety managers and/or safety officers) as well as for all other staff involved with the SMS implementation.

1.2 PURPOSE

This document explains the skills, outcomes and abilities for the responsible person: safety and safety officers, and continue to define the safety management system basic training syllabus.

The purpose of the safety management system course is to state the minimum criteria for the training of safety managers and safety officers in order to enable safety managers and/or officers to implement and maintain the Safety Management System as required by the CAR.

2. AVIATION SAFETY MANAGERS AND OFFICERS SKILL & ABILITY INVENTORY

It must be accepted that the extent and level of skills required may differ from an international scheduled airline to the one man crop sprayer or charter operation. The fundamental concept of safety management and accident causation remains the same.

2.1 EXPECTED SKILLS AND OUTCOMES AND ABILITIES

Definition: This skill group applies to the responsible person: safety (individual who is responsible for implementing the SMS, whether the safety manager or safety officer)
<table>
<thead>
<tr>
<th>Skill</th>
<th>Outcomes Required</th>
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<tbody>
<tr>
<td>Strategic Safety Management</td>
<td>1. Understanding of the concept, science and philosophy of strategic management.</td>
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<td>2. Understanding the various models of strategic management to strategic safety management</td>
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<td>3. Understanding and promotion of the factors affecting strategic management.</td>
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<td>4. Ability to provide strategic aviation safety input in strategic corporate planning process including the setting of safety objectives and safety performance targets</td>
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<td>5. The ability to develop safety cases or preliminary hazard analysis and understand change management, new ventures, routes, fleet changes</td>
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<td>6. Ability to produce an aviation safety plan to support the corporate business plan</td>
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<td>7. The ability to produce monthly and annual aviation safety reports</td>
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<td>Skill</td>
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<tr>
<td>Safety Management</td>
<td>1. Understanding of the basics of safety concepts, science and philosophy.</td>
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<td>2. Understanding the safety principles and practices</td>
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<td>3. Ability to develop the understanding of interrelationship of the associated fields in the various disciplines with others.</td>
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<td>4. The ability to develop, implement and maintain an integrated aviation safety management system that will coordinate the flight safety, cabin safety,</td>
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<td>ground safety, technical safety and emergency response disciplines, including all support disciplines impacting the deliverables of these disciplines.</td>
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<td>5. Knowledge of the role and functions of the different role players in safety</td>
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<td>6. Understanding of behavior based safety.</td>
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<td>7. Ability to advise on safety compliance and application of requirements</td>
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<td>8. Competence in implementing the functions of a safety manager in an organization</td>
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<td>9. Knowledge of coordinating the application of safety legislation</td>
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<td>10. Ability to review the safety management system for effectiveness</td>
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<td>11. Aptitude to monitor contractor safety program management</td>
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<td>12. Facilitate the monitoring of standards and criteria for safety processes</td>
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<td>13. Ability to make recommendations regarding safety policies, procedures, regulations and Acts</td>
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<td>14. Aptitude for development of Safety rules, instructions, and procedures for safety management</td>
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<td>15. Ability to develop safety performance indicators and targets.</td>
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<td>16. Ability to manage the company SMM for the organization</td>
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<td>Safety Legislation</td>
<td>1. Knowledge to implement, apply and monitor the compliance of the aviation acts and regulations as well as safety acts and regulations</td>
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<td>2. Competence in advising on safety policies, procedures, regulations and Acts</td>
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<td>3. Ability to interact with the legislator on aviation safety legislation matters</td>
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<td>4. Ability to facilitate and monitor the compliance to aviation legislation</td>
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<td>Skill</td>
<td>Outcomes Required</td>
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<tr>
<td>Safety Structure and</td>
<td>1. The ability to interact on behalf of the safety department with other organization positions</td>
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<td>Responsibilities</td>
<td>2. Ability to advise on the safety responsibilities of the various positions within the Organizational structure</td>
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<td>3. Competence in developing and implementing an effective aviation safety Organizational structure</td>
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<td>4. Understand and define the aviation safety responsibilities to the relevant persons within the Organization</td>
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<td>5. Ability to monitor safety performance against targets set</td>
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<td>6. The ability to measure the effectiveness of the safety department performance</td>
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<td>Quality Auditing</td>
<td>1. Knowledge to develop, produce and monitor an audit schedule</td>
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<td>2. Competence in planning and preparing for a safety audit</td>
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<td>3. Ability in conducting pre-audit orientation, forecast and agreement</td>
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<td>4. Understand and able to conduct compliance audits</td>
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<td>5. The ability to evaluate safety audit findings</td>
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<td>6. Ability to ensure and provide safety audit feedback</td>
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<td>7. Knowledge and understanding of determining deficiencies</td>
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<td>8. Ability to formulate effective corrective measures to correct deficiencies</td>
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<td>9. Competence in producing audit reports</td>
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<td>10. The aptitude to monitor effective implementation of corrective measures</td>
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<tr>
<td>Skill</td>
<td>Outcomes Required</td>
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</table>
| Safety Risk Management    | 1. Understanding and application of various risk management models  
2. Knowledge of identifying hazards  
3. Competence in valuating risk and loss exposures  
4. Knowledge of implementing methods for controlling risk including elimination, substitution, engineering, management, work practices, training, and protective equipment  
5. Competence in recommending and implementing risk intervention and prevention strategies  
6. Aptitude to communicate hazard control information  
7. Ability to:  
    a. Identify, develop and maintain a risk assessment system  
    b. Interpret risk profile data, producing and presenting recommendations  
    c. define Safety hazards  
    d. analyze hazard information from all sources available  
    e. Understand and determine the probability, frequency and severity of risk occurrence  
    f. Ensuring that defenses (counter measures) are used effectively  
    g. Ensuring that risk exposures are prioritized  
    h. identify and describe methods for evaluation risk  
    i. Identify and recommend safe work practices for work tasks and preventative control measures  
    j. formulate effective preventative measures  
    k. Ensure and monitor effective implementation of risk control measures |
| Accident / Incident Investigation | 1. Understanding of Annex 13  
2. Knowledge of accident / incident reporting  
3. Ability to investigate occurrences not required to be investigated by the Accident and Investigation Authority. |
| Safety Awareness           | 1. The ability to identify a target population for safety awareness  
2. The aptitude in identifying the characteristics of a safety awareness project target group  
3. Ability to identify specific media applicable for the target group and content of a safety awareness project  
4. Knowledge of planning a schedule for delivery of a safety awareness project |
<table>
<thead>
<tr>
<th>Skill</th>
<th>Outcomes Required</th>
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</table>
| Safety Research               | 1. The ability to review and implement the process of safety research  
2. The ability to access and utilize relevant sources of information for application in safety research  
3. The ability to source information including journals, books, technical manuals and other publications, reference libraries, electronic databases, resource providers and practitioners  
4. Knowledge of extracting information systems including journals, books, technical manuals and other publications, reference libraries, electronic databases, resource providers, and practitioners are available  
5. The aptitude to interpret trends including unexpected variances after interventions  
6. Ability to conduct information analysis systematically  
7. Understanding the application of information to develop or identify solutions to a problem.  
8. Understanding and being able to apply data management techniques. |
| Aviation Safety Management Information | 1. Understand, develop and maintain an aviation safety management system  
2. Ability to capture the safety data  
3. The ability to generate the safety information  
4. Aptitude to analyze safety data and information  
5. Understand and determine safety trends and tendencies  
6. Knowledge of measuring safety information in relation to safety objectives  
7. Ability to communicate and present safety information |
| Communication                 | 1. **Written**: The ability to draft and present written reports, motivations documents and statistics in a clear, concise and accurate manner required at all the levels in the Organization  
2. **Verbal**: The ability to communicate reports, motivations documents and statistics through effective verbal presentations and discussions |
| Aviation Safety Administration | 1. The ability to develop, implement and maintain an affective aviation safety administration system |
| Financial Management          | 1. Knowledge of and understanding the fundamentals of financial management  
2. The ability to formulate the aviation safety department budget  
3. Monitor the budget regularly  
4. Clear understanding of the cost basis for safety. |
| Project Management            | 1. The basic project creation and control skills |
EMERGENCY RESPONSE PLANNING

<table>
<thead>
<tr>
<th>Skill</th>
<th>Outcomes Required</th>
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<tbody>
<tr>
<td>Emergency Response Planning</td>
<td>1. Understanding the concept of emergency response as complimentary to business continuity management</td>
</tr>
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<td>2. Understanding the basic concept of emergency response planning</td>
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<tr>
<td></td>
<td>3. The ability to applying emergency response principles and practices</td>
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<td></td>
<td>4. Understanding the role, functions and responsibilities of the different role players in emergency response</td>
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<td>5. Understanding the role and functions of the different centers in emergency response</td>
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<td>6. Ability to design and manage emergency response exercises</td>
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<td></td>
<td>7. Competence in developing and implementing of emergency response procedures</td>
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</tbody>
</table>

3. AVIATION SAFETY MANAGEMENT SYSTEM TRAINING COURSE SYLLABUS

3.1 AIM OF THE TRAINING COURSE

The aim of the Aviation Safety Management System training course is to provide the student with the necessary knowledge, skills and attitude in developing, implementing and managing a Safety Management System, as well as measuring its performance in a medium to large aviation company.

3.2 COURSE GOALS

The goals of the Course are to:

a) Develop the student’s knowledge of safety management concepts and ICAO Standards and Recommended Practices (SARPs) on safety management in Annexes 6, 11, and 14, and related guidance material. Develop the student’s knowledge to certify and oversee the implementation of key components of a basic SMS, in compliance with relevant Civil Aviation Regulations.

The SMS Course should address the following four general requirements of SMS:

a. Safety policy and objectives
b. Safety risk management
c. Safety assurance
d. Safety promotion
3.3 COURSE CONTENT

The course content is contained in fifteen modules. The modules, together with their purpose, learning outcomes and assessment methods are defined under 3.5. The following training reference material is required as a minimum. Any addition to training reference material is left to the discretion of the training organization and will be audited by the SACAA.

3.4 TRAINING REFERENCE MATERIAL

Minimum required: CAR, CATS and ICAO Doc 9859

3.5 COURSE MODULES

3.5.1 MODULE ONE – INTRODUCTION TO SMS

Module Rationale

The purpose of this module is to introduce the student to the history and development of SMS. The student should have an understanding of the business and regulatory case for employing Safety Management Systems and that Safety Management Systems are appropriate in the current commercial and regulatory environment.

Learning Objectives

The student will be able to:

a. Review and identify aviation stakeholders

b. Examine their needs for proactive safety management

c. Demonstrate how an SMS meets not just the operational needs of a company, but also the business and regulatory needs.

d. Describe the history of safety and the concepts of safety, safety management and safety management systems.

e. Understand and explain how human behavior influences safety and how humans interact with their environment.

f. Describe how that accident prevention is based on current understanding of accident causation.

g. Describe how safety management systems have evolved because of an enhanced understanding of accident causation.

h. Demonstrate how to inform and update senior manager’s knowledge of an organization’s SMS.
Assessment Methods

The student should be assessed by:

a. Knowledge based questions
b. Problem based questions
c. Demonstration of techniques for communicating with senior management
d. Practical exercises

3.5.2 MODULE TWO – SENIOR MANAGEMENT COMMITMENT

Module Rationale

The purpose of this module is to educate the student on the importance of top management commitment to, providing initiative to, and application of an SMS and how to achieve the SMS management objectives.

Learning Objectives

The student will be able to:

a. Describe the concept of ‘commitment’ and explain the various means of achieving commitment.

b. Assist senior management to demonstrate commitment to the SMS to employees by a variety of techniques including leading by example

c. Inform and update senior managers’ knowledge of an organization’s SMS

Assessment Methods

The student should be assessed by:

a. Knowledge based questions
b. Problem based questions
c. Reviewing techniques for communicating with senior management
d. Practical exercises
3.5.3 MODULE THREE – RESPONSIBILITY FOR THE SMS

Module Rationale

It is important that safety managers/officers are aware of their role and how they should interact with the other people and groups within the Organization. This includes understanding how to simultaneously perform the functions of a safety manager/officer alongside other responsibilities when required. Safety managers/officers who understand their own responsibilities may then implement a system in which everyone in the Organization can perform their role in the SMS.

Learning Objectives

The student will be able to:

a. Determine an organization’s structure for Safety Management including lines of communication and authority.

b. Define safety accountabilities for all involved with the safety management function.

c. Define the responsibilities for managing the safety management system and determine the hierarchical levels where the responsibilities would have to be carried out within the organisation.

d. Design systems for the maintenance and revision of the SMS, within a wide range of Organizational structures, including inputs, outputs and feedback from all staff.

Assessment Methods

The student should be assessed by:

a. Problem based questions

b. Observations

c. Demonstration of the ability to formally report on an organization’s management structure (flow charts, etc.)

3.5.4 MODULE FOUR – SAFETY MANAGEMENT

Module Rationale

Safety management is the core concept of a safety management system. The safety manager/officer has to understand what it is, how it works, what it entails and the tools available to do this.
Learning Objectives

The student will be able to:

a. Define and explain the terms “Accident, Incident, Occurrence, Hazard and Risk”

b. Confirm the different terms: Safety, Safety Management, Safety Management System

c. Describe the James Reason accident causation model

d. Describe the accident ratio triangle (1:600 rule), the iceberg model and how to identify hazards

e. Describe how safety awareness is affected by an accident

f. Explain the goal of safety management and the balance between production and protection.

g. Explain why safety is a core management function and must be managed to ensure success and achievement of goals.

h. Describe how leadership attitudes affect a safety management system

i. Describe what the hidden costs of an accident are.

Assessment Methods

The student should be assessed by means of a written quiz on the above learning objectives.

3.5.5 MODULE FIVE – SAFETY MANAGEMENT SYSTEM

Module Rationale

Safety management does not occur in a vacuum and must be part of the organization systems. The safety manager/officer has to understand the components and elements that the safety management system it made up of to meet the requirements.

Learning Objectives

The student will be able to:

a. List the components and elements of a safety management system.

b. Explain, implement and maintain the components and elements of a safety management system.

c. State and promote the goal of an SMS to internal and external stakeholders.
Assessment Methods

The student should be assessed by means of a written quiz on the above learning objectives.

3.5.6 MODULE SIX – HAZARD IDENTIFICATION AND RISK MANAGEMENT

Module Rationale

Hazard Identification and Risk Management are crucial to understanding the practical threats to safety in an organization. It is essential that these two processes are a vital part of an organization’s SMS.

Learning Objectives

The student will be able to:

a. Define ‘safety hazard’ and ‘safety risk’, as well as risk mitigation (control) and risk management.

b. Identify hazards and risks using a variety of tested methods.

c. Describe the pro-active, predictive and reactive methods to identify hazards.

d. Identify who to include in discussion groups to identify, prioritize and manage hazards, to assess its risk and be aware of methods to assist these groups in their decision making processes.

e. Define and implement a risk matrix that meets the legal requirements.

f. Perform risk assessments based on the matrix and prioritise action based on the highest risk factors.

g. Identify and apply methods to control (mitigate) risk to an acceptable level.

h. Enlist the assistance of an employee or manager or group or committee to assist in mitigating a particular hazard and its risk of occurring.

i. Demonstrate the ability to develop and utilize an effective Risk Management Tool.
Assessment Methods

The student should be assessed by:

a. Problem based questions

b. A report submitted on a method for hazard identification and hazard management that identifies the method’s strengths and weaknesses

c. Observation

d. Practical exercises

3.5.7 MODULE SEVEN – ESTABLISHMENT OF A SAFETY ACTION GROUP

Module Rationale

It is important for an Organization to understand the role of a Safety Action Group and its benefits to assist in managing safety effectively within the organisation. It is important that the Student understands that a Safety Action Group is not a ‘paper tiger’. A safety action decision function would be required to effectively implement the safety management system.

Learning Objectives

The student will be able to:

a. Understand and explain the link between the SMS, the Safety Action Group and an organization’s safety culture (including the effects of a poorly functioning safety action group)

b. Understand the role and importance of a safety action group or a safety action function within the organization.

c. Determine if the organization’s structure is such that a formalized Safety Action Group is appropriate.

d. Identify those in an Organization who should constitute the Safety Action Group.

e. Develop a process to implement a Safety Action Group’s decisions and monitor that implementation takes place.

f. Be aware of methods to encourage the flow of information to and from the Safety Action Group including the implications of blame free reporting of unsafe behavior (covered in more detail in Module 8)
Assessment Methods

The student should be assessed by:

a. Preparing sample documentation for reporting, etc.

b. Designing systems to support safety action groups.

c. Questioning

d. Observations

e. Practical exercises

3.5.8 MODULE EIGHT – ESTABLISHING & MAINTAINING A POSITIVE ORGANISATIONAL SAFETY CULTURE

Module Rationale

It is important that a student understands what a safety culture is and the various approaches to establishing and enhancing a safety culture. It is important to understand the importance of a positive safety culture for the success of the safety management system. Further, the student should understand how an effective operational SMS can alter an organization’s safety culture.

Learning Objectives

The student will be able to:

a. Define the concept of culture and its impact on individuals, groups and organizations.

b. Describe the various cultures that impact individuals, such as national, professional and organizational culture and explain the difference between them.

c. Understand and explain the importance of a positive organizational culture for the success of the safety management system.

d. Explain the concept of a ‘non-punitive’ or ‘just’ culture and its implications for the organization.

e. Provide examples of policies that govern how the organization protects sources of safety information.

f. Provide examples of policies that govern how the organization will deal with behavior (actions or inactions) of individuals as reported in the safety management system or as identified during safety investigations.
Assessment Methods

The student should be assessed by:

a. Problem based questions on methods of cultural change

b. Questioning

c. Practical exercises

3.5.9 MODULE NINE – OPERATION OF THE SAFETY MANAGEMENT SYSTEM

Module Rationale

A pro-active safety management system is heavily reliant on safety information and data being available. It is therefore important to maximize the volume, quality and flow of safety information. An important strategy, though one which is difficult to implement, is to deal with reports of unsafe behaviors (actions or inactions) in a way which does not discourage further reporting.

Learning Objectives

The student will be able to:

a. Understand and explain what is required to manage the safety management system on a daily basis.

b. Implement processes to ensure the implementation and continued daily operation of the safety management system.

c. Take advantage of existing reporting systems and develop further improvements to suite new situations, as appropriate

d. Determine what needs to be reported and by whom

e. Establish systems to ensure that reports are disseminated and acted upon

f. Avoid ‘shooting the messenger’ to promote future reporting

g. Develop and implement Data Management and Analysis processes

h. Understand the importance of confidentiality (protecting the source of information) and the difference from unanimity.

i. Conduct investigations into areas of safety concern to determine the root causes of these concerns.

j. Conduct investigations into occurrences to determine the root causes of these occurrences and to prevent a re-urrence.
Assessment Methods

The student should be assessed by:

a. Problem based written questions
b. Observation
c. Practical exercises

3.5.10 MODULE TEN – SAFETY INDUCTION AND RECURRENT TRAINING

Module Rationale

It is crucial to promote the SMS to all employees and for every employee involved, to be trained according to their role in the system. It is further important to conduct awareness training to all employees and to regularly communicate safety information and feedback to all.

Learning Objectives

The student will be able to:

a. Record and review the current level of training, achievements and acceptance of SMS by every employee. (Needs analysis)
b. Realize that the form and content of safety training will have an impact on safety culture and focus training efforts accordingly.
c. Develop a training programme and a training plan for the delivery of safety training.
d. Train all employees according to their role in the safety management system and to work on managing their own safety actively.
e. Develop awareness training material sharing the core concepts and safety management system processes or the organization with all employees.
f. Recognize and use informal opportunities to instruct employees and management on safety.
**Assessment Methods**

The student should be assessed by:

a. Problem based questions

b. Observations

c. Demonstration of technique

### 3.5.11 MODULE ELEVEN – SAFETY ASSESSMENT

**Module Rationale**

Safety assessments are an important part of an SMS. It is important for Students to remain conscious of the overall objectives of the assessment so that they are focused on identifying safety improvements. Assessments are required to ensure that any third party or supplier that is contracted by the organization is aware of and meets the safety requirements of the organization.

**Learning Objectives**

The student will be able to:

a. Plan, prepare a checklist and conduct the assessment, by reviewing the contractor against the organizations safety requirements.

b. Compile the assessment report.

c. Evaluate the success of the assessment.

d. Conduct a formal Opening Meeting

e. Conduct a formal Closing Meeting

f. Conduct assessment in a way that identifies successes as well as deficiencies

i. Ensure that any actions to resolve deficiencies are taken.

j. Realize the potential of the assessment to impact upon safety culture and to ensure the contractor is aligned to the processes of the SMS.

k. Manage the SMS administrative processes and apply audit data to improve safety within the SMS.
Assessment Methods

The student should be assessed by:

a. Provided with exercise manuals, forms and documents, to demonstrate safety assessment skills;

b. Ability to:
   (i) Conduct a practical exercise
   (ii) Conduct a simulated Opening Meeting
   (iii) Conduct a simulated Closing Meeting
   (iv) Develop assessment checklist
   (v) Solve problems arising out of sample safety assessment data

3.5.12 MODULE TWELVE – SMS REVIEW AND EVALUATION

Module Rationale

It is essential to continually review and evaluate an SMS for the purpose of sustaining and improving it. It is important that the safety manager/officer works on helping all members of an Organization to maintain interest in and commitment to the SMS. An objective review of the SMS can be achieved through audits or surveys. Audits represent an opportunity to demonstrate management commitment to the SMS and to identify any shortcomings with the system implementation and operation. Regular monitoring of all SMS activities can be performed by the safety manager/officer to verify its validity and effectiveness.

Learning Objectives

The student will be able to:

a. To critically evaluate SMS to determine its effectiveness (through audits, surveys, etc.)

b. Plan and prepare the audit schedule and ensure that objective audits of the SMS are carried out.

c. Plan and prepare surveys of the SMS to obtain feedback on its effectiveness.

   a. Seek out constructive criticism internally or from external sources as required.

   b. Facilitate the formal management review of the SMS with the Executive Management of the Company, and
Promote the SMS using appropriate techniques and to analyse the impact of these techniques on the safety culture (for example, rewards for a reduction in incidents may simply stifle reporting).

**Assessment Methods**

The student should be assessed by:

a. Critical evaluation of sample SMS scenarios and development of solutions.

b. Problem based questions

c. Role play in facilitating a review of a SMS.

### 3.5.13 MODULE THIRTEEN – EMERGENCY RESPONSE PLAN

**Module Rationale**

It is important that all employees know their role in an emergency. Safety managers/officers should have the skills to develop an emergency response plan and to define the coordination requirements for the successful implementation of the plan.

**Learning Objectives**

The student will be able to:

a. Develop a plan and support it with appropriate education, signs and appropriate contacts with emergency services, including defining coordination requirements.

b. Recognize the psychological impact of disasters on employees, their families and the public, and know what to do

c. Be aware of how to deal with the media

**Assessment Methods**

The student should be assessed by:

a. Develop a selected component of an emergency response plan

b. Problem based questions

c. Practical exercises
3.5.14 MODULE FOURTEEN – SMS DOCUMENTATION AND RECORDS

Module Rationale

SMS documentation and records are good evidence of safety practices and it is an excellent source of data for reviews and comparisons with past performance. The SMS documentation and records must be relevant to all employees and management, and therefore the SMS documentation and records must be clearly expressed and readily accessible.

Learning Objectives

The student will be able to:

a. Identify, prepare, update and maintain SMS documentation and records.

b. Record and retain (in a way which renders them useful) all safety related reports and management actions.

c. Establish database systems or direct and advise experts to establish them.

Assessment Methods

The student should be assessed by:

a. Written quiz based on the above Learning Objectives

b. Problem based questions

c. Observations

d. Preparation of sample documentation

3.5.15 MODULE FIFTEEN – AVIATION SAFETY PERFORMANCE MEASUREMENT

Module Rationale

The effectiveness of a SMS cannot be determined if it is not measured. The Safety Measurement must be able to define, develop and implement a process determine and measure safety performance indicators. Safety measurement is an essential component of an SMS, and the most important indicators are leading indicators. It is further important that the safety manager/officer assist to establish safety performance indicators and targets and to ensure the achievement of these performance targets.
Learning Objectives

The student will be able to:

a. Describe the weaknesses in traditional safety measures
b. Describe the role of measurement in an SMS
c. List the performance data and its characteristics
d. Discuss SMS and measurement tools
e. Describe and develop safety performance indicators and targets for the organization.
f. Assess the achievement of the safety performance targets for report back to the executive management on performance.
g. Understand and align safety performance targets to safety and business objectives of the organization.

Assessment Methods

The student should be assessed by:

Presented with a case study the student shall establish lead and lag indicators by means of a presentation:

a. Problem based questions
b. Observations
c. Preparation of sample documentation

3.5.16 MODULE SIXTEEN – AVIATION LEGISLATION

Module Rationale

The student must understand the concept of aviation legislation and its framework and significance, including the role of ICAO Standards and Recommended Practices. The minimum standards for Safety Management Systems is defined in the SACAA CAR and CATS based on the ICAO SARPS and the student must be able to interpret and implement the requirements as published.
Learning Objectives

The student will be able to:

a. Name the applicable aviation legislation, SACAA CAR and CATS and ICAO Annexes.

b. Explain the legal requirements for a safety management system and to implement these within the organization.

c. Understand the ICAO requirements and refer to the ICAO and SACAA guidance for implementing their SMS.

Assessment Methods

Written quiz based on the applicable aviation legislation, SACAA CAR and CATS and ICAO Annexes (overview). The focus must include safety related regulations.

Note: This module may be conducted as part of the SMS course or the student could write this as part of the SACAA examinations. Evidence of completion of their licenses would be acceptable.

3.6 ASSESSMENT

Any course is aimed at adding proficiency of competency to a student to be able to conduct a certain skill. The means of assessment in the SMS course as reflected above should be as indicated in the respective training modules. The minimum pass mark should not be less than 70% per module.

3.7 SUPPLEMENTARY SMS TRAINING

It might be required as a result of the interaction with other fields, for the safety manager/officer to also do the same supplementary training as required for those fields. The following supplementary training could for example be done as parts of the SMS training and continual development.

a. Dangerous Goods

b. CRM

c. Safety and Emergency Procedures Training

d. TCAS / ACAS Training

e. RVSM

The recurrent training of the above supplementary training should be the same as required for pilots.
3.8 SMS COURSE DELIVERY REQUIREMENT

3.8.1 Course duration: Initial (5) Five Days  
Recurrent Annual (2) Two Days

3.8.2 Organizations entitled to provide training:

Aviation Training Organizations approved by the SACAA in terms of Part 141 of the CAR with SMS included as part of their scope of training.

International Training Organizations that are accepted by the SACAA, e.g. ICAO and IATA, etc.

3.8.3 Required Pass Mark:

A Pass mark of 70% is required.

3.8.4 Course layout and methodology for delivery

Left to the discretion of the organization but will be subject to SACAA approval in terms of Part 141.

3.9 SMS RECURRENT TRAINING

In line with the practice in other professions and as is the practice safety practitioners in other industries, it is important that safety managers stay in touch and abreast with developments of technology developments as well as safety management tools and practices within the safety management field. This is especially valid for a safety manager that has not occupied a full-time safety management position for some time.

3.10 DEFINITIONS

The following definitions are applicable in this document:

Approved: Accepted by the competent authority as complying with Civil Aviation Authority’s requirements.

Assessment: The process of measuring the achievement of the student against specified standards or qualifications.

Course: A series of lectures or presentation on a specific topic

Criteria: A standard against which performance is measures
Lesson Plan: A lesson plan is an instructional prescription, a blueprint describing the activities the instructor and the student may engage in to reach the objectives of the course.

Objectives: Objectives are measurable statements of intent.

Outcome: Contextually demonstrated end precuts of the learning process.

Proficiency Checks: Demonstrations of skill to revalidate or renew ratings, and include such oral examination as the examiner may require.

Safety Management System (SMS): means a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Skill: The efficiency with which a person can perform physical and intellectual tasks.

Skill Tests: Skills tests are demonstrations of skill for the issue of initial licenses, renewals, re-qualifications and ratings, including such oral examination as the examiner may require.

Syllabus: A brief description of the essence of a subject or course.

Training: Training can be described as the transfer or gaining of technical knowledge, related skills, values and attitudes in order to develop proficiency and to develop a person’s natural aptitudes and other abilities to improve his capabilities as a worker.

Training Objectives: A clear statement of:

(a) What a student should be able to do after training

(b) The facilities and limitations under which the performance is to be carried out

(c) The level of performance in terms of time, accuracy and thoroughness of the tasks to be done.

Training Standard: A training standard can be described as a set standard, based on job requirements, and is an indication of the extent, quantity, complexity, involvement and applicability of the training process or system.