



NAMIBIA CIVIL AVIATION AUTHORITY

Advisory Pamphlet (AP)

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**INTERNAL QUALITY ASSURANCE -
AERODROMES**

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1. INTRODUCTION AND BACKGROUND

1.1. Introduction

The NAMCARs, Part 139 requires an operator of a certified and licensed aerodrome to establish a quality assurance system for the control and supervision of the aerodrome services and facilities. NAMCARs, Part 139 also requires an aerodrome operator to establish and maintain a Quality Management System (QMS) with appropriate internal quality assurance procedures in order to comply with the certification or licensing requirements. This Advisory Pamphlet (AP) provides information and guidance to enable certified or licensed aerodromes to develop appropriate procedures to meet the requirements of NAMCARs, Part 139.

The establishment of a quality system should enable an aerodrome operator to monitor compliance with relevant regulations and standards specified under NAMCARs, Part 139. The quality system should also enable the aerodrome operator to monitor its compliance with the quality standards and its own procedures specified in its aerodrome manual.

The aerodrome operator may use the International Organization for Standardization (ISO) 9000 series of quality assurance standards as a basic framework for the development of a quality assurance system. While not mandatory, an ISO 9001 certification issued by an appropriately accredited organization, should be considered a sufficient means of demonstrating compliance with quality assurance requirements. The ISO 9001 standards provide a sound basis upon which ISO certification with its attendant benefits may be achieved. The development, implementation, and maintenance of the elements of the ISO standard is a means of promoting and improving aviation safety and therefore provides a safe environment for aviation operations.

A successfully implemented quality system will ensure that processes in place provide for personnel to possess the necessary competencies required to perform specific assigned functions. The aerodrome operator should ensure that within the context of the established

quality management system the competencies and the associated knowledge, skills and abilities required for each function is identified, and personnel assigned to perform those functions are appropriately trained. An aerodrome operator must be able to demonstrate through initial and periodic assessments, the qualifications and competency of personnel and have documented records of such assessments.

Within the context of a quality system, policies, processes, and procedures must be in place to ensure that the results of periodic assessments of personnel can be used by the aerodrome operator as a means to detect and correct shortfalls. Implementation of the quality management system will provide the aerodrome operator with the necessary mechanisms to monitor its internal processes and procedures and identify any anomalies and their root causes.

An established quality management system should provide the aerodrome users with the necessary confidence that the services being received meet the required level of safety and that information received is consistent with standards of accuracy and integrity. To this end, an aerodrome operator must put in place appropriate measures to monitor compliance with applicable standards and take necessary steps to ensure that where nonconformities are identified, corrective action is taken to address the root causes.

The aerodrome operator's quality management system should be integrated with the established Safety Management System (SMS). While the Quality Management System (QMS) focuses on assuring product/service quality, and the means to achieve it, safety management focuses on the identification of hazards and the mitigation of risks associated with those hazards.

SMS must therefore utilise and integrate quality management techniques, risk management and human factor principles into the processes and procedures of the operator to ensure safety objectives are realised.

1.2. Background

The NAMCARs, Part 139.08.4 requires an operator of a certified or licensed aerodrome to establish a quality assurance system for the control and supervision of the aerodrome services and facilities.

NAMCATS-AH, Part 139.08.4 requires an aerodrome operator to establish and maintain a Quality Management System (QMS) with appropriate internal quality assurance procedures in order to comply with the certification and licensing requirements.

1.3. Purpose

This Advisory Pamphlet (AP) provides information and guidance relating to the establishment of an internal quality assurance system that is acceptable to the NCAA to meet the requirements of the NAMCARs, Part 139 and the associated technical standards.

1.4. Applicability

This advisory pamphlet is applicable to all aerodromes in Category A, Category B and Category C. However, this advisory pamphlet is also recommended for implementation by aerodromes under Category D and E in the interest of aviation safety.

1.5. Description of Amendments

There are no amendments.

2. REQUIREMENTS AND REFERENCES

2.1. Regulatory reference

- NAMCARs, PART 139.08.4, NAMCARs, PART 139.08.6 and NAMCARs, PART 140

2.2. Reference documents

- Namibia Civil Aviation Regulations (NAMCARs) 2018

3. GENERAL INFORMATION

The following key terms and phrases are defined to ensure a standard interpretation and understanding of the Quality Management System and internal quality assurance procedures.

3.1. Quality management system

A quality management system is the documented internal activities and management functions of an organisation that determines the quality policy, objectives, responsibilities and their implementation through quality planning, quality control, quality assurance and quality improvement.

3.2. Quality manual

This is the document that describes the organisation's quality system and states the organisation's policy on, and commitment to quality. It serves as the reference point for reviewing and evaluating an organisation's quality system during audits.

3.3. Quality policy

A formal written statement that commits the Senior Accountable Manager on behalf of the organisation to what the quality system is intended to achieve. The quality statement should reflect the intended achievement and continued compliance with the Civil Aviation Regulations.

3.4. Quality assurance programme

This is a programme that includes all planned and systematic actions necessary to provide confidence that all operations and maintenance are conducted in accordance with all applicable requirements, standards and operational procedures. Quality inspections, quality audits and management evaluations are the principle components of a quality assurance programme.

An aerodrome operator should establish a schedule of audits to be completed during a specific calendar period. All aspects of the operation should be reviewed within every period of 12 months in accordance with the programme. The aerodrome operator may increase the frequency of audits if so desired.

3.5. Quality Controls

Quality controls are management and operational techniques, activities, and procedures that monitor the satisfactory performance of the internal quality assurance procedures, including the organisation's operating processes and procedures. Reviews, in process tests, checklists, spot checks, inspections and audits are all examples of quality controls.

As part of an internal quality audit or review, the quality controls of the area being evaluated should be verified and tested. Sometimes, personnel performing the internal quality audit or review may have to first determine the features of a quality control.

3.6. Evidence

A documented statement of facts that is based on observations, measurements, or tests that can be verified. For an internal audit, evidence should generally be written documentation or reports that support the Internal Quality Assurance procedures. This data is necessary to provide findings or concerns, to provide proof that findings and concerns are addressed, and to enable management, staff, or auditors to determine the root causes of any reported findings.

Objective evidence generally comes from the following four elements—

- a) Documents or manuals reviewed;
- b) Equipment examined;
- c) Activities observed;
- d) Interview data provided this data can be substantiated by one or more of the above elements.

3.7. Finding

A finding is a conclusion, supported by objective evidence that demonstrates non-compliance with a specific standard. A finding will generate a Corrective or Preventive Action. An internal audit or review may also produce a conclusion that is considered a finding by the operator but is not a non-compliance with the regulations.

3.8. Concern

A concern is a conclusion, supported by objective evidence, that does not demonstrate a finding, but rather a condition that may become a finding. A concern may generate a Corrective or Preventive Action.

3.9. Root cause

The root cause is the underlying organisational cause, or causes, of any finding or concern. A root cause is always identified with a process, a procedure, methodology, or an organisation's structure or practices.

In the analysis of safety, quality, or operational problems, the root cause, or causes, should be determined before any corrective action is planned.

Often the root cause is not obvious. Consequently, a careful and considered analysis of all processes, activities, records, reports, and other evidence associated with a failure or complaint needs to be made to ensure the corrective action(s) address not only the immediate cause but any latent or organisational problems.

3.10. Inspection

Inspection is the act of observing, measuring, testing, or gauging one or more characteristics of a particular event or action. This is to ensure that correct procedures and requirements are followed during the accomplishment of that event, or action. The primary purpose of an inspection is to verify that:

- a) established standards are followed during an observed event or action; and
- b) the end result conforms with the specified requirements of the event or action.

3.11. Audit

An audit is a methodical, planned, review used to determine how activities are being conducted, and compares results with how the activities should have been conducted according to established procedures. Audits are conducted for different purposes and have distinct identities that are defined for the purposes of this AP as:

First party audits are those audits conducted internally by the organisation, using its own trained staff, to evaluate the organisation's, or parts of the organisation's, performance. The results are used by management to confirm compliance with the documented standards and procedures to initiate corrective action when the standard is not met or preventive actions where there is potential for non-conformance or non-compliance. The auditor must be independent of the function, operation or group being audited. For small operators it may be necessary to engage an outside agency. The outside agency could be:

another small operator;

a sub-contractor; or

a business associates.

Second party audits are carried out by an organisation on its suppliers or subcontractors. These audits are intended to satisfy the contracting organisation that the subcontractor meets the agreed quality requirements.

Third party audits are those carried out by independent bodies such as the Civil Aviation Authority or commercial auditing companies. They are intended to give an assurance that the organisation is in control and that the organisation's quality management system and internal quality assurance procedures are working effectively. Third party audits will confirm that non-compliances are being identified and corrected through first, or second, party audit.

3.12. Audit Construction

The various elements that comprise an effective audit are as follows:

- a) Audit preparation by the auditor(s);
- b) The opening or entry meeting:
 - i) introduce the audit team and confirm the scope of the audit;
 - ii) outline the audit process to be used and the schedule;
 - iii) confirm the resources, people and facilities needed for the audit are aware and available for the audit;
- c) The examination:
 - i) interview personnel, review documents, observe and inspect operations and select samples;
 - ii) document evidence;
 - iii) document findings and concerns;
- d) The closing or exit meeting:
 - i) present findings and concerns;
 - ii) establish a programme to close-out findings;
- e) A written audit report containing:
 - i) descriptions of all the findings and observations with the supporting evidence;
 - ii) the agreed corrective and preventive actions;
 - iii) the schedule for follow up and the closure of the corrective and preventive actions.

3.13. Feedback system

The quality system should include a feedback system to the Senior Accountable Manager to ensure that corrective actions are both identified and promptly addressed. The feedback system should also specify the person required to rectify discrepancies and non-compliances in each particular case, and the procedure to be followed if corrective action is not completed within specified time limits.

Any non-compliances identified as a result of monitoring should be communicated by the quality manager to the manager responsible for taking corrective action or, if appropriate, to the Senior Accountable Manager. Such non-compliances should be recorded for the purpose of further investigation in order to determine the cause and to enable the recommendation of appropriate corrective action.

3.14. Quality Management System

To comply with the certification or licensing requirements, an aerodrome operator must develop, document, implement, and maintain a quality management system with appropriate internal quality assurance procedures. The Quality Management System comprises the structure, responsibilities, processes, and procedures of an organisation that promotes and establishes an environment and culture of continuing improvement that will enhance the safety of the operations.

The quality management system of an aerodrome operator should be structured according to the size and complexity of the operations to be monitored. The quality management system of the aerodrome should promote and establish an environment and culture of continuing improvement and enhance the safety of its operations. It is therefore essential that the quality

management system activities be integrated with the activities planned under the safety management system of the Aerodrome operator.

An aerodrome operator's internal quality assurance procedures will identify, document and correct instances of non-conformance, or non-compliance. These procedures must be put in place for all areas of the aerodrome operator activities covered under its certificate. Internal quality assurance procedures, in addition to providing confidence in the organisation and meeting regulatory compliance, can improve the organisation's commercial performance and should be of benefit to both the aerodrome operator and its customers.

Integration of aerodrome operator's QMS and Safety Management System (SMS)

An aerodrome operator will typically implement enterprise-wide management systems. Organizational safety performance will depend on the effective integration of these systems to support the delivery of products and services. In the context of the Safety Management System (SMS), the most significant aspect of integration is with the aerodrome operator's Quality Management System (QMS).

The QMS and SMS are complementary. While QMS focuses on compliance with prescriptive regulations and requirements to meet customer expectations and contractual obligations, the SMS is focuses on safety performance. The objectives of an SMS are to identify safety-related hazards, assess the associated risk and implement effective risk controls. In contrast, the QMS focuses on the consistent delivery of products and services that meet relevant specifications. Nonetheless, both the SMS and QMS:

- a) must be planned and managed;
- b) depend upon measurement and monitoring of performance indicators;
- c) involve all organizational functions related to the delivery of aviation products and services; and
- d) strive for continuous improvement.

The objective of the SMS is to identify safety-related hazards the organization must confront and to control the associated risks. SMS is designed to manage safety risk and measure safety performance during delivery of products and services. The safety risk management process eliminates hazards or provides effective controls to mitigate safety risks by maintaining an appropriate resource allocation balance between production and protection to meet safety performance requirements.

A QMS provides consistency in the delivery of products and services to meet performance standards as well as customer expectations. The QMS also has an independent assurance function that utilizes a feedback loop to assure delivery of products and services that are “fit for purpose” and free of defects or errors. The quality assurance function identifies ineffective processes and procedures that must be redesigned for efficiency and effectiveness.

The SMS and QMS utilize similar tools. Safety and quality essentially focus on the same goal of providing safe and reliable products and services to customers. Both quality and safety utilize analysis methods including root-cause analysis and statistical trending analysis.

The relationship between SMS and QMS can be summarized as follows:

- a) an SMS is supported by QMS processes such as auditing, inspection, investigation, root cause analysis, process design, statistical analysis and preventive measures;
- b) a QMS may anticipate safety issues that exist despite the organization’s compliance with standards and specifications; and
- c) quality principles, policies and practices are linked to the objectives of safety management.

A summary comparison of the two systems is provided in the Table below:

Table 3.1: summary comparison of Quality Management System and Safety Management System

QMS	SMS
Quality	Safety
Quality assurance	Safety assurance
Quality control	Hazard identification and risk control
Quality culture	Safety culture
Compliance with requirements	Acceptable level of safety performance
Prescriptive	Performance-based
Standards and specifications	Organizational and human factors
Reactive > Proactive	Proactive > Predictive

3.15. Internal Quality Assurance Procedures

The procedures described in this AP are intended to help certified or licensed aerodrome operators to develop a Quality Management System and their internal quality assurance procedures. Appendix 1, 2, and 3 of this AP provide sample outlines of key quality assurance procedures for further guidance to the aerodrome operators.

The NAMCARs, Part 139 requires an aerodrome operator to be issued with an aerodrome certificate or license if it meets the requirements of the regulations. The Executive Director must before issuing an aerodrome certificate or license, be satisfied that an applicant can conduct its proposed activities safely. The Quality Management System and associated quality assurance procedures will facilitate approval of the aerodrome operator's safety policy and programmes.

3.16. NCAA Oversight, Monitoring and Intervention

The Namibia Civil Aviation Authority (NCAA) carries out oversight and monitors the industry by carrying out inspections and audits to verify that operators are providing their services in accordance with approved standards and requirements. Internal quality assurance procedures are intended to supplement the NCAA oversight and monitoring process by identifying and resolving safety related issues. The internal quality assurance documentation and records provide a convenient point of entry to the organisation for auditing purposes.

The Quality Management System and internal quality assurance procedures established by an aerodrome operator, will enable the aerodrome operator to carry out internal monitoring of its processes and procedures to supplement the external oversight and monitoring conducted by the NCAA.

The results of the NCAA audits act as a barometer of an aerodrome operator's performance. The performance of the aerodrome operator will dictate the level of NCAA intervention that is necessary. It should be apparent from the level of findings and resolutions in the internal quality assurance documentation and records whether the Quality Management System and the safety policy are functioning satisfactorily. If the aerodrome operator performs well, the NCAA will have less need to monitor its compliance. As confidence is built up, the level and frequency of audits can be reduced.

3.17. Basis of the Quality Management System

The Quality Management System supports the safety requirement for aerodrome operators to be responsible for continuously monitoring and ensuring that their operations are safe and in compliance with the regulations. A certificated or licensed aerodrome is required to establish a Quality Management System that embraces the following principles:

- a) A continual process that incorporates the techniques of inspections, audits, and reviews to assess the adequacy of managerial controls in key programmes and systems;
- b) An ongoing process that identifies deficiencies, develops corrective action plans to correct these deficiencies, and performs follow-up reviews;
- c) An independent process that, organisationally, has straight-line reporting responsibility to top management.

Aerodrome operators are encouraged to extend their internal quality assurance procedures beyond regulatory compliance to determine the causes of other deficiencies in aerodrome operations. From these determinations, the necessary enhancements to aerodrome operating practices can be made before deficiencies occur.

The quality policy developed by an aerodrome operator must stress the self-audit responsibilities of the aerodrome management as well as individual employees. Each employee has an equal responsibility to ensure that the organisation policies and procedures provide for safety compliance and allows individuals to perform work properly.

The internal quality assurance procedures should not be misunderstood as a process that will replace the existing third party audit requirements that are carried out by the NCAA.

3.18. Internal Quality Assurance Procedure Guidelines

The Quality Management System (QMS) of an aerodrome operator must include the internal quality assurance procedures. The procedures should include the following essential elements:

- a) definition of the aerodrome operator's management commitment and responsibilities to the quality plan and procedures. It is required that the aerodrome operator nominate a Senior Person, known in this AP as the Management Representative, to establish an independent and focused Quality Management System (see appendix 4); and
- b) a documented, approved, safety policy and plan to identify, implement, and maintain safety policy procedures that:
 - i) meet the requirements of NAMCARs, Part 139;
 - ii) are relevant to the aerodrome operator's organisational and business goals, and;
 - iii) meets the expectations and needs of its customers; and
- c) a procedure for:
 - (i) corrective action to ensure existing problems that have been identified within the system are corrected, and;
 - (ii) for preventive action to ensure that potential causes of problems that have been identified within the system are remedied; and

- d) establish a procedure to ensure the Quality Management System and the internal quality assurance procedures are subjected to continual, regular and structured review; and
- e) an internal audit programme to audit the aerodrome operator's organisation for conformity with the procedures in its exposition and achievement of the goals set in its safety policy; and
- f) a procedure to ensure quality indicators, including defect and incident reports, and personnel and customer feedback, are monitored to identify existing problems or potential causes of problems within the system; and
- g) a records system that clearly documents what has taken place, allowing statistical analysis to monitor the continuing suitability and effectiveness of the Quality Management System and the aerodrome's operation. The records will be used to indicate trends to allow the aerodrome operator to:
 - i) raise preventive actions to avoid potential problems, and;
 - ii) determine the best goals to set for the future; and
- h) a document control procedure to manage, develop, document, change, and distribute the aerodrome operator's quality and operational procedures.

Sections 4 to 12 of this AP describe in detail the procedures listed above.

4. The Quality Assurance team or Management Representative

(MR)

An aerodrome operator's internal quality assurance procedures should identify a person referred to as the Management Representative (MR) or a group of persons, referred to as the Quality Assurance Team, within the organisation, that has the responsibility and authority to:

- a) develop, implement and maintain the Quality Management System;
- b) manage the organisation's internal audit programme;
- c) identify and record any findings or concerns, and the evidence necessary to confirm findings or concerns;
- d) initiate, recommend, or provide solutions to findings or concerns through consultation with the management owning the non-conforming process or activity;
- e) communicate and co-ordinate activities with external auditors;
- f) analyse the root causes of concerns and findings for presentation to management for a review of trends and potential areas of concern;
- g) conduct and record regular Management Reviews to ensure corrective and preventive actions are addressed and closed out within a specific time.

The Management Representative or the Quality Assurance Team must have the delegated authority and responsibilities to allow them to work within the organisation to implement and maintain the internal quality assurance procedures. The MR or the Quality Assurance Team will have a direct reporting line to the highest level of management necessary to sustain the management commitment to the organisation's Safety policy and plan.

For some aerodromes, operating size may justify the costs associated with having full-time, dedicated resources and personnel in a separate Quality Assurance Department or group. However, when full-time, dedicated, resources and personnel are not practical, the aerodrome operator should develop procedures that preclude persons directly responsible for the areas to be evaluated from participating in the selection of the audit team.

For very small aerodromes, an appropriate internal quality assurance procedure should consist of developing check-lists and a schedule for accomplishing the check-list items. Each checklist must be signed. The operator must schedule an occasional independent review of the check-lists and the checklist items.

5. Safety Policy

The aerodrome operator should establish a clear policy that safety is part of its business. It should develop procedures that reflect a commitment to safety and which will promote and demonstrate a clear corporate safety culture. The policy should define a set of beliefs, norms, attitudes, roles, and social and technical practices concerned with minimising exposure of employees, managers, customers, and members of the general public to conditions considered dangerous or hazardous. The characteristics that define a safety culture and that decision-makers should observe when modelling the corporate safety culture include:

- a) senior management places strong emphasis on safety as part of the strategy of controlling risks;
- b) decision-makers and operational personnel hold a realistic view of short and long-term hazards involved in the aerodrome operator's activities;
- c) those in top positions do not use their influence to force their views or to avoid criticism;
- d) those in top positions foster a climate in which there is a positive attitude towards criticisms, comments, and feedback from lower levels of the organisation;
- e) there is an awareness of the importance of communicating relevant safety information at all levels of the organisation – both within it and with outside entities;
- f) there is promotion of appropriate, realistic, and workable rules relating to hazards, to safety, and to potential sources of damage, with such rules being supported and endorsed throughout the organisation; and
- g) personnel are well trained and well educated and fully understand the consequences of unsafe acts.

6. Corrective and Preventive Actions

6.1. Corrective Actions

Internal quality assurance procedures should include a procedure to ensure that corrective actions are developed in response to findings or concerns.

The procedure should include:

- a) recording the corrective action;
- b) the allocation and acceptance of ownership of corrective actions;
- c) monitoring each corrective action to verify timely and effective implementation and completion;
- d) testing that the corrective action is long-term and ensuring the issue does not recur;
- e) regular reviewing of root causes of all corrective actions.

6.2. Preventive Actions

The preventive action procedure is identical to the corrective action procedure. The only difference is that preventive action anticipates and corrects potential failures. Often a corrective action will generate one or more, associated, preventive actions to ensure a complete and long-term fix.

7. Management Review

Management must, at regular intervals, review:

- a) the internal quality assurance procedures, the quality indicators, and inspection and test results to verify the Quality Management System is working;
- b) that the corrective and preventive actions have been recorded, implemented, and closed out;
- c) that the operation and quality assurance programmes are under constant review and improvement.

The aerodrome operator must prepare and conduct a programme to regularly review all its policies, processes, and procedures. The review should be carried out by dedicated staff. It will encompass all the activities, procedures, and processes of the organisation. The programme should be a comprehensive and continual process that considers the following:

- a) The overall effectiveness of the organisation in achieving its stated objectives;
- b) The ability of the internal quality assurance and the operational procedures to respond to new technologies, to market strategies, to legislative or regulatory changes, and to social or environmental conditions;
- c) Are the current processes and procedures up-to-date, effective, and relevant?

For the purposes of this procedure, the term management means the team or person who has the authority to resolve issues and take action.

The management reviews with supporting documents will be recorded. The aerodrome operator will determine and document, as a quality assurance procedure, the frequency, format, and structure for informing management of internal quality assurance plans, trends, results, and follow-up actions. The procedure will define the responsibilities and the independence of personnel who perform or supervise the management reviews.

8. The Audit Programme

The audit programme is mandatory element of the Quality Management System of an organisation. The Audit of internal quality assurance procedure should:

- a) define the audit types and associated procedures;
- b) maintain and manage a cyclic schedule of audits;
- c) manage the review, reporting, and close-out of findings and concerns;
- d) identify the personnel to conduct the audit;
- e) provide for the training of the audit personnel.

8.1. Planned Audits

Planned Audits is an audit that will be performed during a set calendar period.

To facilitate and ensure the audit is thorough, divide the organisation into audit components based on the organisation's operational or functional structure. Dependant on the size of the organisation the audit cycle might be greater than one year; however, eighteen months is the maximum.

Schedule the audit within each component to allow enough flexibility for resources to be committed.

8.2. Special Audits or Spot Checks

Procedures for conducting special audits, or spot checks, based on concerns or priorities identified by the aerodrome operator, external audits, or customer complaints should be in place. The special audits, or spot checks, should be scheduled based on a review of the organisation or industry, trends.

8.3. External Audits

External audits are initiated and conducted by agencies with a regulatory interest in the operation of the aerodrome. For example, but not limited to, the Civil Aviation Authority, Occupational Safety and Health, etc. The content and focus of an aerodrome operator's internal and special audits will be largely determined by the need to anticipate or respond to the requirements and findings of the external audits.

8.4. Quality Indicators

Each aerodrome operator should develop, measure and monitor their own quality indicators. Some examples of typical quality indicators are:

- a) Reports derived from the analysis of operational logs and records kept of incidents, occurrences, accidents, and other safety indicators;
- b) Root cause analysis from corrective and preventive action records;
- c) Performance measurements of both the Quality Management System and the aerodrome operator's operation;
- d) Customer complaints;
- e) Customer surveys, external and internal.

8.5. Records

Records documenting the performance and results of carrying out the internal quality assurance procedures will be maintained by the aerodrome operator. Records are the principal form of evidence. Documented evidence is essential in analysing and determining the root cause of findings or concerns so that potential areas of non-compliance or non-conformance can be identified by the aerodrome operator. The record must be accurate, complete, reliable, and accessible.

The following quality records should be maintained:

- a) audit reports;
- b) management reviews and associated minutes, reports and programmes;
- c) corrective and preventive action with supporting documentation;
- d) analysis of root causes and the ensuing trends and management reports;
- e) customer feedback, being:
 - i) customer complaints;
 - ii) customer surveys;
 - iii) industry news sheets;
 - iv) observations through day-to-day contact;
 - v) comment during audit.
- f) training plans and records; and
- g) the master copy of all policy and procedures.

8.6. Documenting Quality Assurance Procedures

Controlled documented internal quality assurance and operational procedures are a mandatory element and requirement of a Quality Management System and for all aviation document holders.

Each aerodrome shall review the size and complexity of their operation to determine the scale of processes and procedures that will maximise the benefits of their Quality Management System and their operations. Consequently, they will improve their safety level and the business results.

Each aerodrome will require several, possibly many, processes to sustain their operation. Each process will consist of one or more procedures.

The Quality Management System is a process. The internal quality assurance procedures that are mandatory for an effective Quality Management System are defined in section 7 of this Advisory Pamphlet.

Each internal quality assurance procedure should:

- a) be concise and complete enough to be a useful guide for a user with the appropriate skills to perform the task(s) within the procedure;
- b) state specifically how the aerodrome operator will address and meet the requirements of the regulations and the standards or document initiating the procedure. (e.g. a procedure will not pass an audit if it simply states: *the aerodrome operator will comply with regulation xyz*);
- c) be current and meet the requirements of referenced document(s);
- d) be accessible to all users of the process;

e) comply with a defined (by the aerodrome operator) standard format, for example:

1. Title *
2. Purpose * (outline the objective of the procedure);
3. Scope (what the procedure applies to);
4. Responsibility (who is responsible for what?);
5. References (what other documents, (Rules, Acts, standards, other procedures) affect or are related to this procedure?);
6. Definitions (definitions of terminology introduced by this procedure, or statements that may lead to misinterpretation)
7. Procedure * (Who, What, When and How);
8. Flowchart(s) (to support or clarify the procedure);
9. Records (what records? For example but not limited to, checklists, reports, reviews, measurements.)

Note: *Each heading must be considered. This list is not definitive. However, the headings denoted by an asterisk are mandatory.*

9. CONCLUSION

The development, implementation, and conscientious application and maintenance of a Quality Management System and the associated internal quality assurance procedures, as discussed in this AP, will ensure that a certificated or licensed aerodrome is responsive to growth and change, and the aerodrome continually complies with appropriate safety and regulatory requirements.

Furthermore, it is strongly recommended that aerodrome operators make the Quality Management System an integral part of their everyday management process. Aviation safety is best served by procedures that allow organisations to identify and correct their own instances of non-compliance and invest more resources in efforts to preclude their recurrence.

10. CONTACT OFFICE

Namibia Civil Aviation Authority (NCAA) Head office

2nd Floor, West Wing

Aerodrome and Ground Aid (AGA) Offices

12 Rudolf Hertzog Street

Windhoek, Namibia

APPENDIX 1: Document Control

Purpose

Document control procedures will establish processes that:

- (a) define manual standards;
- (b) identify documents to be controlled;
- (c) control the amendments and distribution of amendments and documents;
- (d) remove obsolete documents from use; and
- (e) periodically review and revise procedures.

Manual Standards

Manual standards should include:

- (a) Title Page;
- (b) Contents Page(s);
- (c) Authority for Issuing and Amending the Manual; and
- (d) Record of Amendments.

Consideration should be given to including the following standards:

- (a) List of effective pages;
- (b) Every page to be identified as belonging to the organisation by including the title of the organisation in the document header or footer;
- (c) Every policy, procedure or work instruction to be written as a standalone document, and will be uniquely identified by a subject code in the document header or footer;
- (d) Every page within a policy, or procedure or work instruction to be identified in the document header or footer as Page x of y; and
- (e) Following an amendment, a policy, procedure or work instruction should be issued as an entity.

Procedures

1. Identification and Authorisation of Controlled Documents

Documents to be controlled will be identified by reviewing the content of the document against the following criteria:

- (a) Any document that provides instruction or guidance to the organisation's personnel to support them in achieving the planned quality and business objectives;
- (b) Any document containing legislative requirements that the organisation is responsible for administering or required to conform with; and
- (c) Any document containing standards, recommended practices, or guidance material that has been adopted, and used when undertaking the functions and activities of the organisation.

If one or more of the above criteria apply, the document must be controlled.

2. Amendment of Controlled Documents

Document a procedure that defines an amendment process that:

- (a) allows any member of the organisation to initiate a manual amendment;
- (b) ensures amendments to a document are shown on the actual document;
- (c) details the documentation to be raised when requesting an amendment;
- (d) advises who is to check and approve amendment requests;
- (e) describes what records are to be retained for future reference.

3. Document Distribution

Controlled documents are to be physically identified as controlled documents, with consideration given to numbering each controlled document.

Obsolete pages are to be promptly removed from all points of issue or use. In most cases these documents will be destroyed to ensure they cannot be used in the workplace. However, a hard copy of an obsolete document may be archived, provided each page is identified as obsolete.

4. Document Review

All documents originating within the organisation need to be reviewed at least annually to ensure they are current and continue to meet the organisation's needs. The organisation must establish and maintain a programme to complete these reviews.

Define the number of amendments a document may have before it will be reviewed against current documentation and editorial standards and if necessary re-write and re-issue the document to conform to current standards and practices.

5. External Document Review

Documents that are written, amended and distributed by external agencies and are used operationally by the organisation, should be reviewed twice yearly to ensure they are current.

External documents used for day-to-day activities must be current. Any person using these documents for day-to-day activities must check and maintain the currency of the documents each time the document is used.

APPENDIX 2: Corrective and Preventive Actions

1. Purpose:

To document a procedure that defines the corrective and preventive action processes that ensure existing issues and potential problems are identified, recorded, corrected and followed up to ensure they do not re-occur.

2. Definitions:

Corrective and Preventive actions are raised as a result of:

- (a) in-process verification by individuals, or a team, performing their tasks;
- (b) any review process performed by management;
- (c) customer feedback;
- (d) statistical and survey methodologies; and
- (e) internal and external audit findings.

3. Procedures:

Reporting

The following details must be recorded for every corrective and preventive action raised:

- (a) name of person who raised the action;
- (b) reason action raised;
- (c) a recommended solution(s)
- (d) root cause of issue or problem;
- (e) approved action to be taken;
- (f) name of person assigned to take action;
- (g) date action to be taken by;
- (h) outcome of action taken; and
- (i) measurement applied to ensure action taken was effective and permanent.

Review

All corrective and preventive actions should be reviewed by the management representative responsible for quality.

The root causes of all actions raised over a set period of time will be reviewed to determine any significant trends. This process is designed to identify potential issues and problems. A preventive action should be raised for any action to be taken as a result of the review. The results of reviews are to be recorded and retained for future reference.

APPENDIX 3: Management Reviews

Purpose

To define the procedure establishing a management review process, that test and confirm the suitability and effectiveness of the quality system.

Procedure

A Review Meeting will be held regularly (once a month), with minutes, action plans and documents kept to support the observations, conclusions and recommendations reached. These records will be retained for future reference and analysis. The Manager and Management Representative will nominate the attendees.

The agenda should include the review of the following items:

- (a) corrective and preventive actions;
- (b) internal and external audit program and results;
- (c) training and development;
- (d) document control;
- (e) operational and managerial performance measurements;
- (f) customer surveys; and
- (g) customer complaints

APPENDIX 4: Management Representative

Purpose

To define the role and responsibilities of the Management Representative.

Definition

Management representative - The Management Representative is delegated by the Senior Management to facilitate and maintain the organisation's quality system.

Responsibilities of the Management Representative

- (a) Initiate and record monthly management review meetings for the Manager. Chair the review meeting in the absence of the Manager.

- (b) Manage the Corrective and Preventive action process
 - (i) Maintain the Corrective and Preventive action registers;
 - (ii) Follow up the Corrective and Preventive actions;
 - (iii) Review progress with the owners;
 - (iv) Review close-off.

- (c) Co-ordinate the implementation new quality system procedures or changes to current procedures;

- (d) Initiate in-house reviews of processes and procedures;

- (e) Review external documents for currency;
- (f) Represent Group or Unit for internal or external audits;
- (g) Review root causes of all corrective and preventive actions and provide management and Group with a report on trends with recommended actions;
- (h) The preparation and distribution to the Manager and the team, statistical information and survey results that measure and test: the current processes and the organisation's performance.