Advisory Circular
AC-FSS-003
May 2018

SUBJECT: EVALUATE AN OPERATOR QUALITY SYSTEM

1. OBJECTIVE

1.1.1 This chapter provides guidance and directions on the evaluation of an operator quality system.

2. BACKGROUND

2.1.1 GCAR 9 requires each AOC holder to establish a quality system. An operator's quality system is described in its Quality Manual. This circular contains information, direction, and guidance intended to facilitate Inspector's evaluation of an operator's Quality Manual. The operator's Quality Manual is part of its general manual system.

3. QUALITY MANUAL REVIEW

The inspector must review the operator's submission to determine that it is complete and technically correct. The inspector's review and analysis should confirm that the operator's submission is consistent with the appropriate GCARs, the criteria and guidance in this chapter and the criteria and guidance in circular on Quality Assurance System.

4. CONTENT OF A QUALITY MANUAL

4.1.1 Requirements for all policy and procedures manuals. GCAR 9 prescribes construction requirements for all policy and procedures manuals submitted to the Authority for review. In accordance with GCAR 9, the inspector shall confirm that the operator's Quality Manual:

(1) Contains instructions and information to allow the personnel concerned to perform their duties with a high degree of safety;

(2) Is easy to revise;

(3) Allow personnel to determine its current revision status;

(4) Has the date of the last revision on each page;

(5) Is not contrary to any applicable civil aviation regulation or the operator's specific operating provisions;

(6) References appropriate GCARs.

4.1.2 AOC holder's Quality Manual. The regulation requires that each AOC establish a quality system and that each AOC designates a Quality Manager. The Quality Manager shall monitor the operator's compliance with, and the adequacy of, procedures necessary to ensure safe operational aircraft and airworthy aircraft. Compliance monitoring shall include a feedback system to the Accountable Manager to ensure that corrective action is taken, as necessary. The regulation also requires the AOC holder to establish a quality assurance programme. This is to verify that operations are being conducted in accordance with all applicable requirements, standards and procedures, and must be described in relevant documentation (the quality manual). The regulation states the Quality Manager and the quality system shall be acceptable to the Authority. Finally the rule provides for more than one Quality Manager, one for operations and one for maintenance provided they both serve in the same quality management unit. In accordance with GCAR 9, the inspector shall confirm that:

(1) The Quality Manual submitted identifies the Quality Manager;

(2) The Quality Manager's duties involve monitoring the operator's compliance with, and the adequacy of, procedures necessary to ensure safe operations and airworthy aircraft;

(3) The compliance monitoring process includes an information feedback system to the Accountable Manager;

(4) The Quality Manual includes a Quality Assurance Programme designed to verify that all operations are being conducted in accordance with all applicable standards, requirements and procedures;

(5) The airworthiness and operations Quality Managers are assigned to the same quality unit when two Quality Managers are used.

4.1.3 GCAR 9 and Annex A specify the topics that should be included in an Air Operator Certificate (AOC) holder's Quality Manual. In addition, the following paragraphs provides additional guidance:

(1) Terminology. Is the terminology, such as that listed in Circular on Quality Assurance System included in the operator's proposed Quality Manual?;

(2) Quality Policy;

(a) Is the operator's policy statement, or a mission statement a commitment by the Accountable Manager as to what the quality system is intended to achieve?;

(b) Does the operator's quality policy reflect a desire for achievement and continued compliance with GCARs?;

(c) Is the operator's quality policy:

(i) Easy to understand?;

(ii) Ambitious, yet achievable?;

(iii) Does the operator's policy:

(iv) (i) Relate objectives to performance?;

(v) (ii) Emphasise prevention of the causes of non-conformance?;

(vi) (iii) Indicate the method to be used?;

(vii) (iv) State that it is periodically reviewed for continuing suitability?;

(d) Does the operator's quality policy state that the Accountable Manager has overall responsibility for the AOC holder's quality system?

(3) Purpose of the Quality System. Does the operator's proposed quality system enable it to monitor compliance with:

(a) Relevant GCARs?;

(b) The operations manual?;

(c) The Maintenance Control Manual?

(4) Quality Manager:

(a) Does the operator propose using one maintenance and one operations Quality Manager?;

(b) If so, are they assigned to the same quality unit?;

(c) Does the operator's proposed manual assign the following duties to the Quality Manager:

(i) Verifying through monitoring in the fields of flight and ground operations that GCAA standards and the operator's own standards are being carried out under the supervision of the relevant manager?;

(ii) Ensuring that the quality assurance programme is properly established, implemented and maintained?

(d) Does the Quality Manager have direct access to the Accountable Manager?;

(e) Does the operator's quality system ensure the Quality Manager is not a line manager?;

(f) Does the Quality Manager have access to all parts of the operator's, and as necessary, any subcontractor's organisation?;

(g) Are the positions of Quality Manager and Accountable Manager combined as is acceptable for small or very small operators?

(5) The Operator's Quality System:

(a) Provision of Instructions and Information. The operator's quality system should ensure compliance with and adequacy of operational and maintenance activities requirements, standards and operational procedures. The operator should specify the structure of the quality system, as it is applicable to its operation. The quality system should be structured according to the size and complexity of the operation to be monitored. Information documented in an operator's Quality Manual reflects its quality system. Included are descriptions, procedural references and other information needed by the certificate holder

to affect the quality and compliance of its operation. Operators must take into account compliance with GCAR requirements during construction of their Quality Manual, and where appropriate, incorporate the following safety attributes into the text of policies, procedures and processes:

(i) Authority (Is there a clearly identifiable, qualified and knowledgeable person with authority to establish or modify a process?);

(ii) Responsibility (Is there a clearly identifiable, qualified and knowledgeable person who is accountable for the quality of a process?);

(iii) Procedures (Are methods for accomplishing processes documented?);

(iv) Controls (Are there checks and restraints designed into the operator's processes that assure the desired result?);

(v) Process Measurements (Are methods identified that compel the operator to measure and assess its processes for the purpose of identifying and correcting problems or potential problems?);

(vi) Interfaces (Do the operator's policies and procedures identify how it manages the interactions between processes?);

(b) Scope of the Operator's Quality System. GCAR 9 requires AOC holders to describe their Quality System in relevant documentation. Operators develop a Quality Manual for this purpose. The inspector should determine that the Quality Manual, which describes the scope of the operator's Quality System, addresses at least the following areas:

(i) Terminology. See paragraph 16.3.3 (1);

(ii) A description of the organisation including the operator's organisational structure. An organisation chart showing the independence of the quality unit within the organisation should be included;

(iii) Relevant provisions of The Gambia Civil Aviation Regulations. Operators may choose to include a Statement of Compliance in the Quality Manual to satisfy this requirement;

(iv) The operator's standards and operating procedures in addition to those required by regulation. Inspectors should ensure that the operator's standards and operating procedures are referenced in the Quality Manual and they do not conflict with relevant regulatory requirements or the operator's Operations Specifications;

(v) The operator's quality policy (Mission Statement). See paragraph 16.3.3 (2) above;

(vi) The operator's quality procedures. These are clear concise instructions documenting how operator personnel should carry out quality policies;

(vii) Identification of those persons responsible for the development, establishment and management of the Quality System, including a description of their duties and responsibilities;

(viii) Relevant operations and maintenance manuals, reports and records, which contain operational procedures for ensuring regulatory compliance, including a

distribution list of all controlled copies. An operator may choose to include a table in its Quality Manual that lists its manuals reports and records, identifies their subject area and purpose, and includes a distribution list;

(ix) Accident Prevention and Flight Safety Programme quality procedures;

(x) The Quality Assurance Programme (See paragraph 16.3.4) reflecting:

(A) Scheduling of the monitoring process;

(B) Audit procedures;

(C) Reporting procedures;

(D) Follow-up and corrective action procedures;

(E) Recording system.

(xi) The required financial, material, and human resources. Inspectors should determine that the operator's Quality Manual references its financial, material and human resources;

(xii) The training syllabus. The operator's Quality Manual should include training requirements for employees. Training may be developed by the operator or contracted out. (See Section 16.5);

(xiii) Document control.

(c) The operator's feedback system. The Quality Manual should document a feedback system to the Accountable Manager who will use the information to ensure that corrective actions are identified and addressed. Inspectors must also determine that the feedback system specifies who is required to rectify discrepancies and non-compliance, and that the system provides procedures to be followed if corrective action is not completed within specified time limits;

(d) Records. The inspector must determine that the operator's Quality Manual contains document control procedures to ensure documents are:

(i) Authorised;

(ii) Adequate;

(iii) Security classified;

(iv) In a standardised form when completed;

(v) Revised and amended when required;

(vi) Appropriately distributed;

(vii) Stored;

(viii) Periodically reviewed;

(ix) Appropriately disposed.

4.1.4 Quality assurance programme. Quality Inspections, audits and management evaluations are the principal components of a quality assurance programme:

(1) Quality inspections. Inspectors should check that the operator's Quality Assurance Programme provides for quality inspections. These inspections verify whether established operational procedures and requirements are followed during the accomplishment of an event, and whether the required standard is achieved. Check-Pilots, Check-Airman, Maintenance Inspectors and Supervisors are examples of personnel that maintain quality control by conducting quality inspections during the performance of their duties. Typical subject areas for quality inspections are:

(a) Actual Flight Operations. Does the operator's quality assurance programme include the operator's check airman/check pilot programme that?;

(b) Ground De-icing/Anti-icing. Does the operator's quality assurance programme include ground personnel evaluations in this area?;

(c) Flight Support Services. Does the operator's quality assurance programme include ground personnel evaluations in this area?;

(d) Load Control. Does the operator's quality assurance programme include ground personnel evaluations in this area?;

(e) Maintenance. Does the operator's Quality Assurance Programme include the operator's Maintenance Inspection Programme?;

(f) Technical Standards. What type of inspections does the operator perform to determine its compliance with regulatory requirements?;

(g) Training Standards. What types of inspections are performed to ensure maintenance of training standards?

(2) Quality audits. An audit differs from a quality inspection in that it is a systematic, and independent comparison of the way in which an operation is being conducted against the way in which the published operational procedures say it should be conducted:

(a) The inspector shall ensure that the operator's audit process includes at least the following quality procedures and processes:

(i) A statement explaining the scope of the audit;

(ii) Planning and preparation;

(iii) Gathering and recording evidence; and

(iv) Analysis of the evidence.

(b) Audit Techniques. The Inspector should check that the operator's audit process includes the following techniques, where appropriate:

(i) A review of published documents;

(ii) Interviews or discussions with personnel;

(iii) The examination of an adequate sample of records;

(iv) The witnessing of the activities that make up the operation;

(v) The preservation of documents and the recording of observations.

(3) Auditors. An operator should decide, depending on the complexity of its operation, whether to make use of a dedicated audit team or a single auditor. The operator's documentation should specify that the auditor or audit team have appropriate operational and/or maintenance experience. The inspector should check that the auditor's responsibilities are clearly defined in relevant documentation.

(4) Auditor's independence. Unlike quality inspectors, auditors should not have any day-to-day involvement in the area of the operation and/or maintenance activity that is to be audited. An operator may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities by the use of part-time auditors. An operator, whose structure and size does not justify the establishment of full-time auditors, may undertake the audit function through use of part-time personnel from within its organisation or from an external source under the terms of an agreement acceptable to the Authority. The inspector shall determine that the operator's procedures ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are to be used, the inspector shall determine if the operator's procedures provide a means for the external specialist to become familiar with the type of operation and/or maintenance conducted by the operator. The inspector should check that the operator's quality assurance programme identifies persons within the company who have the experience, responsibility and authority to:

(a) Perform quality inspections, and to perform audits, as part of ongoing quality assurance;

(b) Identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific timescales;

(e) Report directly to the Quality Manager.

(5) Scope of the operator's audit process. Operators are required to monitor compliance with the operational procedures they have designed to ensure safe operations, airworthy aircraft and the serviceability of both operational and safety equipment. In doing so they should at a minimum, and where appropriate, monitor:

(a) Organisation;

(b) Plans and company objectives;

(c) Operational Procedures;

(d) Flight safety;

(e) Safety management system;

(f) Operator certification (AOC/Operations Specifications);

(g) Supervision;

(h) Aircraft performance;

(i) All weather operations;

(j) Communications and navigational equipment and practices;

(k) Mass, balance and aircraft loading;

(l) Instruments and safety equipment;

(m) Manuals, logs, and records;

(n) Flight and duty time limitations, rest requirements, and scheduling;

(o) Aircraft maintenance/operations interface;

(p) Use of the MEL;

(q) Maintenance programmes and continued airworthiness;

(r) Airworthiness directives management;

(s) Maintenance accomplishment;

(t) Defect deferral;

(u) Flight crew;

(v) Cabin crew;

(w) Dangerous goods;

(x) Security;

(y) Training.

(6) Audit scheduling.

(a) Inspectors should ensure that the operator's quality assurance programme includes a defined audit schedule and a periodic review cycle area by area. The schedule should be flexible, and allow for unscheduled audits when trends are identified. Follow-up audits should be scheduled when necessary to verify that corrective action was carried out and that it was effective.

(b) An operator should establish a schedule of audits to be completed during a specified calendar period. All aspects of the operation should be reviewed within every period of 12 months in accordance with the programme unless the Authority accepts an extension to the audit period. An operator may increase the frequency of audits at its discretion but should not decrease the frequency without the agreement of the Authority. Inspectors should not consider periods between audits of greater than 24 months acceptable for any audit topic.

4.1.5 Monitoring and corrective action.

(1) The aim of monitoring within the quality system is to investigate and judge the Quality System's effectiveness and thereby to ensure that defined policy, operational, and maintenance standards are continuously complied with. Monitoring and corrective action functions fall under the responsibility of the Quality Manager/s. Monitoring activity is based upon quality inspections, audits, corrective action and follow-up. Inspectors should ensure that operators establish and publish procedures in their Quality Manual to monitor irregularities on an ongoing basis. Irregularities could be classified as findings (non-compliance), concerns (could lead to noncompliance), safety hazard (immediate action required), or observation (recommendation for improvement. This monitoring activity should be aimed at eliminating the causes of unsatisfactory performance.

(2) Inspectors should ensure the operator's documentation requires that any non-compliance identified as a result of monitoring is communicated by the Quality Manager to the manager responsible for taking corrective action or, if appropriate, the Accountable Manager. Inspectors should check for procedures developed by the operator for recording findings of non-compliance for the purpose of further investigation, to determine the root-cause, and to enable a recommendation of appropriate corrective action.

(3) The Quality Assurance Programme should include procedures to ensure that corrective actions are taken in response to issues. These quality procedures should monitor such actions to verify their effectiveness and those that have been completed. Organisational responsibility and accountability for the implementation of corrective action resides with the department cited in the report identifying the issue. The Accountable Manager will have the ultimate responsibility for resourcing the corrective action and ensuring, through the Quality Manager, that the corrective action has re-established compliance with the standard required by the Authority, and any additional requirements defined by the operator.

(4) Corrective action. The operator's quality system should have post-quality inspection/quality audit procedures that establish:

(a) The seriousness, or risk level 1 of any findings and any need for immediate corrective action;

(b) The origin of the finding;

(c) What corrective actions are required to ensure that the noncompliance does not recur;

(d) A schedule for corrective action;

(e) The identification of individuals or departments responsible for implementing corrective action;

(f) Allocation of resources by the Accountable Manager, where appropriate.

Note: Risk is the projected consequence of a hazardous condition in terms of severity and likelihood of occurrence. Establishing risk level means to evaluate the impact of risks against an acceptability criterion, the extremes of which are usually defined as "acceptable" or "unacceptable".

(5) The Quality Manager should:

(a) Verify that the responsible manager in reply to any finding of noncompliance takes corrective action;

(b) Verify that corrective action includes the elements outlined in 16.3.5 (4), a) through f) above;

(c) Monitor the implementation and completion of corrective action;

(d) Provide management with an independent assessment report of corrective action, implementation and completion;

(e) Evaluate the effectiveness of corrective action through the follow-up process.

4.1.6 Management review and evaluation. A management evaluation is a comprehensive, systematic, documented review by top management of operational policies and procedures. It should consider the results of quality inspections, audits and any other indicators as well as the overall effectiveness of the management organisation in achieving stated quality objectives. Top management is a person or a group of people who direct and control an organisation at the highest level. For example: President, Chief Executive Officer, Managing Directors, etc:

(1) Inspectors should ensure that the operator's management evaluation procedures require identification and correction of trends, and prevent, where possible, future non-conformities. Inspectors should check that documentation requires that conclusions and recommendations made as a result of this evaluation by top management are be submitted in writing to the responsible manager for action. The responsible manager is an individual who has authority to resolve issues and take action;

(2) The operator's procedures should specify that the Accountable Manager decide upon the frequency, format, and structure of the management review and evaluation. Documentation must state that this review shall include assessing opportunities for improvement and the need for changes to the quality system, including quality policy and quality objectives.

4.1.7 Recording. The operator's quality system should provide for accurate, complete, and readily accessible records that document the results of the Quality Assurance Programme. Records are essential data to enable an operator to analyse and determine the root causes of non-conformity, so that areas of non-compliance can be identified and addressed. The following records should be retained for a period of 5 years:

(1) Audit Schedules;

(2) Quality inspections and Audit reports;

(3) Responses to findings;

(4) Corrective action reports;

(5) Follow-up and closure reports; and

(6) Management Evaluation reports.

4.1.8 QUALITY ASSURANCE RESPONSIBILITIES FOR SUBCONTRACTORS.

4.1.8.1 Sub-contractors:

(1) Operators may decide to sub-contract out certain activities to external agencies for the provision of services related to areas such as:

(a) Ground de-icing/anti-icing;

(b) Maintenance;

(c) Ground handling;

(d) Flight Support, including performance calculations, flight planning, navigation database and dispatch;

(e) Training;

(f) Manual preparation.

(2) The ultimate responsibility for the product or service provided by the subcontractor always remains with the operator. Inspectors should ensure that a valid written agreement exists between the operator and the subcontractor clearly defining the safety related services and quality to be provided. The sub-contractor's safety related activities relevant to the agreement should be included in the operator's Quality Assurance Programme;

(3) The operator should ensure that the sub-contractor has the necessary authorisation/approval when required and commands the resources and competence to undertake the task. If the operator requires the subcontractor to conduct activity that exceeds the sub-contractor's authorisation/approval, the operator is responsible for ensuring that the sub-contractor's quality assurance takes account of such additional requirements.

4.1.9 QUALITY SYSTEM TRAINING

4.1.9.1 General. An operator should establish an effective, well planned and resourced quality related briefing for all personnel:

(1) Inspectors should ensure that personnel responsible for managing the operator's quality system receive training covering:

(a) An introduction to the concept of the quality system;

(b) Quality management;

(c) The concept of quality assurance;

(d) Quality manuals;

(e) Audit techniques;

(f) Recording and reporting;

(g) The way in which the quality system will function in the company.

(2) The operator's quality system training should provide for at least a briefing for the remainder of the employees. The allocation of time and resources for training should be appropriate to the size and complexity of the operation concerned;

(3) Sources of Training. Quality management courses are available from the various National or International Standards Institutions, and an operator should consider whether to offer such courses to those likely to be involved in the management of quality systems. When an operator elects to use a quality management course provided by an institution, the inspector should determine the acceptability of the institution's training syllabus. Operators with sufficient and appropriately qualified staff may consider whether to carry out in-house training.

4.1.10 ORGANISATIONS WITH 20 OR LESS FULL TIME EMPLOYEES

4.1.10.1 Introduction. The requirement to establish and document a quality system, and to employ a Quality Manager applies to all operators. In the context of quality systems, operators should be categorized according to the number of full time staff employees:

(1) Scale of Operation. Operators who employ 5 or less full time staff are considered to be 'very small' while those employing between 6 and 20 full time employees are regarded as 'small' operators as far as quality systems are concerned. Full-time, in this context, means employed for not less than 35 hours per week excluding vacation periods;

(2) Complex quality systems may be inappropriate for small or very small operators and the clerical effort required to draw-up manuals and quality procedures for a complex system may stretch their resources. It is therefore accepted that such operators should tailor their quality systems to suit the size and complexity of their operation and allocate resources accordingly.

4.1.10.2 Quality systems for small/very small operators:

(1) For small and very small operators it may be appropriate to develop a quality assurance programme that employs a checklist. The checklist should have a supporting schedule that requires completion of all checklist items within a specified timescale, together with a statement acknowledging completion of a periodic review by top management. An occasional independent overview of the checklist content and achievement of the quality assurance should be undertaken;

(2) The 'small' operator may decide to use internal or external auditors or a combination of the two. In these circumstances it would be acceptable for external specialists and or qualified organisations to perform the quality audits on behalf of the Quality Manager;

(3) If external auditors are conducting the independent quality audit function, the audit schedule should be shown in the relevant documentation;

(4) Whatever arrangements are made, the operator retains the ultimate responsibility for the quality system and especially the completion and follow-up of corrective actions.

5. AAC ACCEPTANCE

5.1.1 Acceptance of the proposed operator's Quality Manual, and the Quality Manager/s is the last stage of evaluating the applicant's quality system. Because the Quality Manager is specifically identified in each certificate holder's Quality Manual, acceptance of an operator's quality system includes acceptance of the Quality Manager/s.

5.1.2 Notification of acceptance. GCAA acceptance of a quality system shall be documented in the operator's Quality Manual on the list of effective pages. Along with the inspector's signature and date, the reviewing inspector shall include the annotation "GCAA Accepted". The inspector shall repeat this process on the Authority's copy of the operator's Quality Manual. Returning the operator's Quality Manual under a cover letter is recommended (See Annex A).

5.1.3 Terminating the review process. The coordination, revision, and editing activities that take place throughout all stages of the review process should eventually result in products suitable for acceptance. Under certain circumstances, however, it may be appropriate for the inspector to terminate the process. For example, the operator may not take action on deficiencies as provided on a revised schedule of events. To terminate the review process, the project manager shall return the entire submission to the operator with a letter stating that the Authority is unable to accept the proposed operator's quality system, along with the reasons for why it cannot be accepted.

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Abdoulie Jammeh
Director General

ANNEX A – QUALITY MANUAL CONTENT

1.0. General

1.1 Terminology

(a) The terms used in the context of the requirement for an AOC's quality system have the following meaning:

(1) Accountable Manager. The person acceptable to the Authority who has corporate authority for ensuring that all operations and maintenance activities can be financed and carried out to the standard required by the Authority, and any additional requirements defined by the operator.

(2) Quality assurance. Quality assurance, as distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systemic actions which are required to provide adequate confidence that a product or service satisfies quality requirements.

1.2 Quality Policy

1.2.1 An operator shall establish a formal, written quality policy statement that is a commitment by the accountable manager as to what the quality system is intended to achieve. The quality policy should reflect the achievement and continued compliance with the GCAR together with any additional standards specified by the operator.

1.2.2 The accountable manager is an essential part of the operator's management organization. With regard to the text in 9.2.2.2 (a), the term "accountable manager" is intended to mean the Chief Executive/President/Managing Director/ General Manager, etc. of the operator's organization, who by virtue of his or her position has overall responsibility (including financial) for managing the organization.

1.2.3 The accountable manager will have overall responsibility for the operator's quality system, including the frequency, format and structure of the internal management evaluation activities as prescribed in paragraph 3.9 below.

1.3 Purpose of the Quality System

1.3.1 The quality system should enable the operator to monitor compliance with the GCARs, the operator's manual system, and any other standards specified by the operator, or the Authority, to ensure safe operations and airworthy aircraft.

1.4 Quality Manager

1.4.1 The function of the quality manager to monitor compliance with, and the adequacy of, procedures required to ensure safe operational practices and airworthy aircraft as required by the GCARs may be carried out by more than one person by means of different, but complementary, quality assurance programmes.

1.4.2 The primary role of the quality manager is to verify, by monitoring activity in the fields of flight operations, maintenance, crew training and ground operations, that the standards required by the Authority, and any additional requirements defined by the operator, are being carried out under the supervision of the relevant required management personnel.

1.4.3 The quality manager should be responsible for ensuring that the quality assurance programme is properly established, implemented and maintained.

1.4.4 The quality manager should:

(a) report to the accountable manager;

(b) not be one of the required management personnel; and

(c) have access to all parts of the operator's, and as necessary, any sub-contractor's organization.

1.4.5 In the case of small/very small operators, the posts of the Accountable Manager and quality manager may be combined.

2.0 Quality System

2.1 Introduction

2.1.1 The operator's quality system should ensure compliance with and adequacy of operational and maintenance activities requirements, standards, and operational procedures.

2.1.2 The operator should specify the basic structure of the quality system applicable to the operation.

2.1.3 The quality system should be structured according to the size and complexity of the operation to be monitored.

2.2 Scope

2.1.4 As a minimum, the quality system should address the following:

(a) The provisions of GCAR;

(b) The operator's additional standards and operating practices;

(c) The operator's quality policy;

(d) The operator's organizational structure;

(e) Responsibility for the development, establishment and management of the quality system;

(f) Documentation, including manuals, reports and records;

(g) Quality procedures;

(h) Quality assurance programme;

(i) The required financial, material and human resources;

(j) Training requirements.

2.2.2 The quality system should include a feedback system to the accountable manager to ensure that corrective actions are both identified and promptly addressed. The feedback system should also specify who is required to rectify discrepancies and non-compliance in each particular case, and the procedure to be followed if corrective action is not completed within an appropriate timescale.

2.3 Relevant Documentation

2.3.1 Relevant documentation includes the relevant part of the operator's manual system.

2.3.2 In addition, relevant document should include the following:

(a) Quality policy;

(b) Terminology;

(c) Specified operational standards;

(d) A description of the organization;

(e) The allocation of duties and responsibilities;

(f) Operational procedures to ensure regulatory compliance;

(g) Accident prevention and flight safety programme;

(h) The quality assurance programme, reflecting:

(i) Schedule of the monitoring process;

(j) Audit procedures;

(k) Reporting procedures;

(l) Follow-up and corrective action procedures;

(m) Recording system;

(n) The training syllabus; and

(o) Document control

3.0 Quality Assurance Programme

3.1 Introduction

3.1.1 The quality assurance programme should include 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.

3.1.2 When establishing a quality assurance programme, consideration should be given to at least the following:

(a) Quality inspection;

(b) Audit;

(c) Auditors;

(d) Auditor's independence

(e) Audit scope;

(f) Audit scheduling;

(g) Monitoring and corrective action;

(h) Management evaluation.

3.2 Quality Inspection

3.2.1 The primary purpose of a quality inspection is to observe a particular event/action/document, etc. in order to verify whether established operational procedures and requirements are followed during the accomplishment of that event and whether the required standard is achieved.

3.2.2 Typical subject areas for quality inspections are:

(a) Actual flight operations;

(b) Ground deicing/anti-icing;

(c) Flight support services;

(d) Load control;

(e) Maintenance;

(f) Technical standards; and

(g) Training standards.

3.2.3 Typical methods for quality inspections for maintenance include:

(a) Product sampling - the part inspection of a representative sample of the aircraft fleet;

(b) Defect sampling - the monitoring of defect rectification performance;

(c) Concession sampling - the monitoring of any concession to not carry out maintenance on time;

(d) On time maintenance sampling - the monitoring of when (flying hours/calendar time/flight cycles, etc.) aircraft and their components are brought in for maintenance;

(e) Sample reports of unairworthy conditions and maintenance errors on aircraft and components.

3.3 Audit

3.3.1 An audit is a systematic, and independent comparison of the way in which an operation is being conducted against the way in which the published operational procedures say it should be conducted.

3.3.2 Audits should include at least the following quality procedures and processes:

(a) A statement explaining the scope of the audit;

(b) Planning and preparation;

(c) Gathering and recording evidence; and

(d) Analysis of the evidence.

3.3.3 Techniques that contribute to an effective audit are:

(a) Interviews or discussions with personnel;

(b) A review of published documents;

(c) The examination of an adequate sample of records;

(d) The witnessing of the activities that make up the operation; and

(e) The preservation of documents and the recording of observations.

3.4. Auditors

3.4.1 An operator should decide, depending upon the complexity of the operations, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team should have relevant operational and/or maintenance experience.

3.4.2 The responsibilities of the auditors should be clearly defined in the relevant documentation.

3.5 Auditor's Independence

3.5.1 Auditors should not have any day-to-day involvement in the area of the operation and/or maintenance activity that is to be audited. An operator may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities by the use of part-time auditors. An operator whose structure and size does not justify the establishment of full-time auditors, may undertake the audit function by the use of part-time personnel from within its own organisation or from an external source under the terms of an agreement acceptable to the Authority. In all cases the operator should develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist is familiar with the type of operation and/or maintenance conducted by the operator.

3.5.2 The operator's quality assurance programme should identify the persons within the company who have the experience, responsibility and authority to:

(a) Perform quality inspections and audits as part of ongoing quality assurance;

(b) Identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings;

(c) Initiate or recommend solutions to concerns or findings through designated reporting channels;

(d) Verify the implementation of solutions within specific timescales;

(e) Report directly to the quality manager.

3.6 Audit Scope

3.6.1 Operators are required to monitor compliance with the operational and maintenance procedures they have designed to ensure safe operations, airworthy aircraft and the serviceability of both operational and safety equipment. In doing so they should as a minimum, and where appropriate, monitor:

(a) Organization;

(b) Plans and company objectives;

(c) Operational procedures;

(d) Flight safety;

(e) Operator certification (AOC/Operations specifications)

(f) Supervision;

(g) Aircraft performance;

(h) All weather operations;

(i) Communications and navigational equipment and practices;

(j) Mass, balance and aircraft loading;

(k) Instruments and safety equipment;

(l) Manuals, logs, and records;

(m) Flight and duty time limitations, rest requirements, and scheduling;

(n) Aircraft maintenance/operations interface;

(o) Use of the MEL;

(p) Maintenance programmes and continued airworthiness;

(q) Airworthiness directives management;

(r) Maintenance accomplishment;

(s) Defect deferral;

(t) Flight crew;

(u) Cabin crew;

(v) Dangerous goods;

(w) Security;

(x) Training.

3.7 Audit Scheduling

3.7.1 A quality assurance programme should include a defined audit schedule and a periodic review cycle area by area. The schedule should be flexible, and allow unscheduled audits when trends are identified. Follow-up audits should be scheduled when necessary to verify that corrective action was carried out and that it was effective.

3.7.2 An operator should establish a schedule of audits to be completed during a specified calendar period. All aspects of the operation should be reviewed within every 12 month period in accordance with the programme unless an extension to the audit period is accepted as explained below. An operator may increase the frequency of audits at its discretion but should not decrease the frequency without the agreement of the Authority. Audit frequency should not be decreased beyond a 24 month period interval.

3.7.3 When an operator defines the audit schedule, significant changes to the management, organization, operation, or technologies should be considered as well as changes to the regulatory requirements.

3.8 Monitoring and Corrective Action

3.8.1 The aim of monitoring within the quality system is primarily to investigate and judge its effectiveness and thereby to ensure that defined policy, operational, and maintenance standards are continuously complied with. Monitoring activity is based upon quality inspections, audits, corrective action and follow-up. The operator should establish and publish a quality procedure to monitor regulatory compliance on a continuing basis. This monitoring activity should be aimed at eliminating the causes of unsatisfactory performance.

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

3.8.3 The quality assurance programme should include procedures to ensure that corrective actions are taken in response to findings. These quality procedures should monitor such actions to verify their effectiveness and that they have been completed. Organizational responsibility and accountability for the implementation of corrective action resides with the department cited in the report identifying the finding. The accountable manager will have the ultimate responsibility for resourcing the corrective active action and ensuring, through the quality manager, that the corrective action has re-established compliance with the standard required by the Authority, and any additional requirements defined by the operator.

3.8.4 Corrective action. Subsequent to the quality inspection/audit, the operator should establish:

(a) The seriousness of any findings and any need for immediate corrective action;

(b) The origin of the finding;

(c) What corrective actions are required to ensure that the non-compliance does not recur;

(d) A schedule for corrective action;

(e) The identification of individuals or departments responsible for implementing corrective action;

(f) Allocation of resources by the accountable manager, where appropriate.

3.8.5 The quality manager should:

(a) Verify that corrective action is taken by the manager responsible in response to any finding of non-compliance;

(a) Verify the corrective action includes the elements outlined in paragraph 3.8.4 above;

(b) Monitor the implementation and completion of corrective action

(c) Provide management with an independent assessment of corrective action; implementation and completion;

(d) Evaluate the effectiveness of corrective action through follow-up process.

3.9 Management Evaluation

3.9.1 A management evaluation is a comprehensive, systematic, documented review by the management of the quality system, operational policies and procedures, and should consider:

(a) The results of quality inspections, audits and any other indicators;

(b) The overall effectiveness of the management organization in achieving stated objectives.

3.9.2 A management should identify and correct trends, and prevent, where possible, future non-conformities. Conclusions and recommendations made as a result of an evaluation should be submitted in writing to the responsible manager for action. The responsible manager should be an individual who has the authority to resolve issues and take action.

3.9.3 The accountable manager should decide upon the frequency, format and structure of internal management evaluation activities.

3.10 Recording

3.10.1 Accurate, complete and readily accessible records documenting the results of the quality assurance programme should be maintained by the operator. Records are essential data to enable an operator to analyze and determine the root causes of non-conformity, so that areas of non-compliance can be identified and addressed.

3.10.2 The following records should be retained for a period of 5 years:

(a) Audit schedules;

(b) Quality inspection and audit reports;

(c) Responses to findings;

(d) Corrective action reports;

(e) Follow-up and closure reports; and

(f) Management evaluation reports.

4.0 Quality Assurance Responsibility for Sub-Contractors

4.1 Sub-Contractors

4.1.1 Operators may decide to sub-contract out certain activities to external agencies for the provision of services related to areas such as:

(a) Ground deicing/anti-icing;

(b) Maintenance;

(c) Ground handling;

(d) Flight support (including performance calculations, flight planning, navigation database and dispatch);

(e) Training;

(f) Manual preparation.

4.1.2 The ultimate responsibility for the product or service provided by the sub-contractor always remains with the operator. A written agreement should exist between the operator and the sub-contractor clearly defining the safety related services and quality to be provided. The sub-contractor's safety related activities relevant to the agreement should be included in the operator's quality assurance programme.

4.1.3 The operator should ensure that the sub-contractor has the necessary authorisation/approval when required and commands the resources and competence to undertake the task.

5.0. Quality System Training

5.1 General

5.1.1 An operator should establish effective, well planned and resourced quality related briefing for all personnel.

5.1.2 Those responsible for managing the quality system should receive training covering:

(a) An introduction to the concept of the quality system;

(b) Quality management;

(c) The concept of quality assurance;

(d) Quality manuals;

(e) Audit techniques;

(f) Reporting and recording; and

(g) The way in which the quality system will function in the company.

5.1.3 Time should be provided to train every individual involved in quality management and for briefing the remainder of the employees. The allocation of time and resources should be governed by the size and complexity of the operation concerned.

5.2 Sources of Training

5.2.1 Quality management courses are available from the various [National] or International Standards Institutions, and an operator should consider whether to offer such courses to those likely to be involved in the management of quality systems. Operators with sufficient appropriately qualified staff should consider whether to carry out in-house training.

6.0 Organisations with 20 or Less Full-Time Employees

6.1 Introduction

6.1.1 The requirement to establish and document a quality system, and to employ a quality manager applies to all operators. References to large and small operators elsewhere in the GCARS are governed by aircraft capacity (i.e. more or less than 20 seats) and by mass (i.e. greater or less than 10 tonnes maximum take-off mass). Such terminology is not relevant when considering the scale of an operation and the Quality system required. In the context of quality systems therefore, operators should be categorized according to the number of full time staff employees.

6.2 Scale of Operation

6.2.1 Operators who employ 5 or less full time staff are considered to be "very small" while those employing between 6 and 20 full time employees are regarded as "small" operators as far as quality systems are concerned. Full-time in this context means employed for not less than 35 hours per week excluding vacation periods.

6.2.2 Complex quality systems could be inappropriate for small or very small operators and the clerical effort required to draw up manuals and quality procedures for a complex system may stretch their resources. It is therefore accepted that such operators should tailor their quality systems to suit the size and complexity of their operation and allocate resources accordingly.

6.3 Quality System for Small/Very Small Operators

6.3.1 For small and very small operators it may be appropriate to develop a quality assurance programme that employs a checklist. The checklist should have a supporting schedule that requires completion of all checklist items within a specified timescale, together with a statement acknowledging completion of a periodic review by top management. An occasional independent overview of the checklist content and achievement of the quality assurance should be undertaken.

6.3.2 The "small" operator may decide to use internal or external auditors or a combination of the two. In these circumstances it would be acceptable for external specialists and or qualified organisations to perform the quality audits on behalf of the quality manager.

6.3.3 If the independent quality audit function is being conducted by external auditors, the audit schedule should be shown in the relevant documentation.

6.3.4 Whatever arrangements are made, the operator retains the ultimate responsibility for the quality system and especially the completion and follow-up of corrective actions.