UGANDA

OPERATOR'S QUALITY SYSTEM

1.0   PURPOSE

This Advisory Circular (AC) is issued to provide information and guidance to an air operator on how to develop, document and apply for approval of an Organisation Quality System and implement it in accordance with the requirements of the Regulations.

2.0   REFERENCES

2.1   Regulations on quality system and quality system:maintenance of the Civil Aviation (Air Operators Certification and Administration) require an air operator certificate (AOC) holder to establish a quality system and designate a quality manager to monitor compliance with, and adequacy of, procedures required to ensure safe operational practices and airworthy aircraft.

2.2   Regulation on independent quality system of the Civil Aviation (Approved Maintenance Organisation) Regulations requires an AMO to establish an independent quality system, acceptable to the Authority, to monitor compliance with and adequacy of the procedures and by providing a system of inspection to ensure that all maintenance is properly performed.

2.3   Regulation on quality system of the Civil Aviation (Approved Training Organisation) Regulations requires an approved training organisation (ATO) to establish a quality system acceptable to the Authority.

3.0   GUIDANCE AND PROCEDURES

3.1   General Information:

3.1.1   Operators shall use appropriate civil aviation regulations and this Advisory Circular for guidance on Quality System development.

3.1.2   Quality Management System – is the documented internal activities and management functions of an operator's that determines the quality policy, objectives, responsibilities and their implementation through quality planning, quality control, quality assurance and quality improvement.

3.1.3   Quality Manual – it is the document that describes the operator's quality system it states the certificate holder's policy on, and commitment to, quality. It is the reference Manual that serves as a reference point in reviewing and evaluating an operator's quality system by both the internal and Authority quality audits.

3.1.4   The Quality Policy – An operator should establish a formal written Quality Policy Statement; this is a commitment by the Accountable Manager on behalf of the organisation to what the Quality System is intended to achieve. The Quality Policy should reflect achievement and continued compliance with Civil Aviation Regulations.

3.1.5   Purpose Of An Operator's Quality System – The Quality System required by the Civil Aviation Regulations enables the operator to monitor compliance with relevant Civil Aviation Regulations, the Operations Manual, the Operator's Maintenance Control Manual, and any other standards specified by that operator, or the Authority, to ensure safe operations and airworthy aircraft. And it is a function of the Quality Manager monitor and to ensure the organisation maintains compliance with the established quality standards.

3.1.6   The Quality Assurance Programme – Shall 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. Quality Inspections, Quality Audits and Management Evaluations are the principal components of a Quality Assurance Programme.

3.1.7   Quality Inspections – 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. Check-Pilots, Check-Airman, Maintenance Inspectors are examples of personnel that conduct quality inspections in the performance of their duties. Quality Inspections are referred to as Quality Control processes.

3.1.8   Quality Audits –

a)   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. Quality Audits are referred to as Quality Assurance processes.

b)   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. The operator's Quality Assurance Programme should identify the persons within the company who have the experience, responsibility and authority to perform the audit functions and report to the Manager Quality Assurance.

c)   Small organisations that may find it difficult to engage full-time dedicated audit personnel belonging to a separate quality department, may undertake the monitoring of specific areas or activities by the use of authorised part-time auditors.

d)   Where external auditors are used, it is essential that the external specialist is acceptable to the Authority and is familiar with the type of operation and/or maintenance conducted by the operator.

e)   Whatever the case, the responsibilities of the auditors should be clearly defined in the relevant documentation.

3.1.9   Feedback System –

a)   The quality system should include a feedback system to the Accountable Manager, as required by regulation 60 (b)(2)(6) of the Civil Aviation (Air Operators Certification and Administration) Regulation, 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 specified time limits.

b) Any non-compliance 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 *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.

3.1.10 Internal Audit Scheduling – 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. An operator may increase the frequency of audits at his discretion but should not decrease the frequency without the agreement of the Authority.

3.1.11 Quality System

a) The Quality System should be structured according to the size and complexity of the operation to be monitored, and it shall incorporate the following safety attributes into the organisation policies, procedures and processes:

(i) *Authority* – There should be a clearly identifiable, qualified and knowledgeable person with the authority to establish and modify processes.

(ii) *Responsibility* – There should be a clearly identifiable, qualified and knowledgeable person who is accountable for the quality of the processes.

(iii) *Procedures* – There must be documented methods for accomplishing the processes.

(iv) *Controls* – There should be checks and restraints designed into the operator's processes that assure the desired result are achieved.

(v) *Process Measurements* – Methods identified to compel the operator to measure and assess its processes for the purpose of identifying and correcting problems or potential problems.

(vi) *Interfaces* – It should be identifiable how the operator's policies and procedures interact between processes.

b) As a minimum, the Quality System should address the following:

(i) The provisions of Uganda Civil Aviation Regulations;

(ii) The operator's additional standards and operating procedures;

(iii) The operator's Quality Policy (Mission Statement);

(iv) The operator's organizational structure;

(v) Identification of those persons responsible for the development, establishment and management of the Quality System;

(vi) Documentation, including manuals, reports and records including a distribution list of controlled copies;

(vii) Quality Procedures;

(viii) The Quality Assurance Programme;

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

(x) Training requirements.

c)   **Audit Scope –** 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 as a minimum and as applicable, monitor:

(i)   Organization; Plans and Company objectives;

(ii)   Operational Procedures;

(iii)   Flight Safety;

(iv)   Operator certification (AOC/Operations specification);

(v)   Supervision;

(vi)   Aircraft Performance and All Weather Operations,

(vii)   Communications and Navigational Equipment and Practices;

(viii) Mass, Balance and Aircraft Loading;

(ix)   Instruments and Safety Equipment;

(x)   Manuals, Logs, and Records;

(xi)   Flight and Duty Time Limitations, Rest Requirements, and Scheduling;

(xii)   Aircraft Maintenance/Operations interface;

(xiii) Use of the MEL;

(xiv)   Maintenance Programmes and Continued Airworthiness;

(xv)   Airworthiness Directives management;

(xvi)   Maintenance Accomplishment;

(xvii) Defect Deferral;

(xviii) Flight Crew; and Cabin Crew,

(xix)   Dangerous Goods; and

(xx)   Training.

d)   **Corrective action –** Following the quality inspection/audit, the operator should establish:

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

(ii)   The origin of the finding;

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

(iv)   A schedule for corrective action;

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

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

e)   **Recording –**
(i)   The operator should maintain accurate, complete, and readily accessible records documenting the results of the Quality Assurance Programme, as required by regulation on quality system:maintenance of the Civil Aviation (Air Operators Certification and Administration) Regulations. 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.

(ii)   The following records should be retained for future audit purposes:

(a) Audit Schedules;
(b) Quality inspections and Audit reports;
(c) Responses to findings;
(d) Corrective action reports;
(e) Follow-up and closure reports; and
(f) Management Evaluation reports.

f) **Quality Assurance of Sub-Contracted Activities –**

(i) Operators may decide to sub-contract out certain activities to external agencies. However, the ultimate responsibility for the product or service provided by the sub-contractor 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.

(ii) The operator should ensure that the sub-contractor has the necessary authorisation/approval when required and commands the resources and competence necessary to undertake the task. If the operator requires the sub-contractor to conduct an 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.

g) **Quality System Training –**

(i) An operator should establish an effective, well-planned and resourced quality-related briefing for all personnel.

(ii) Those responsible for managing the Quality System should receive training covering the following topics:

(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.

4.0 ORGANIZATIONS WITH 20 OR LESS FULL TIME EMPLOYEES

4.1 The requirement to establish and document a Quality System, and to employ a Quality Manager applies to all operators.

4.2 **Scale of Operation –**

4.2.1 Operators who employ 5 or less full time staff are considered to be **'very small'**.

4.2.2 Operators who employ between 6 and 20 full time employees are regarded as **'small' operators.**

Note: Full-time in this context means employed for not less than 35 hours per week excluding vacation periods.

4.3   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.

4.4   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 organizations to perform the quality audits on behalf of the Quality Manager.

4.5   If external auditors are conducting the independent quality audit function, the audit schedule should be shown in the relevant documentation.

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

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 Civil Aviation Authority

Example of a compliant quality manual outline

I.   ADMINISTRATION AND CONTROL OF THE QUALITY MANUAL

A Record of Revisions
B List of Effective Pages
C Distribution
  (1) Authorised Holders
  (2) Distribution List
D Manual Structure
E Table of Contents
F Abbreviations and Acroynms

II.   GENERAL ORGANIZATION

A Foreword
B (Name of Company/Operator)
  (1) Brief History Of The Company
  (2) Company Resources[1]
    (a) Human Resources
    (b) Fleet Composition
C Company Organizational Structure
E Key Personnel Locator

III.   REGULATORY REFERENCES[2]

A Compliance Statement

IV.   DEFINITIONS AND TERMINOLOGY[3]

V.   QUALITY MANAGEMENT SYSTEM[4]

A Purpose and Scope[5]
B Quality Policy
C (Company/Operator) Management Responsibility[6]
D Quality Assurance Programme
  (1) Quality Assurance Organizational Structure
                    (2) Quality Unit
    (a) Quality Manager/s
      (1) Operations Quality Manager
      (2) Maintenance Quality Manager
      (3) Commitment to Apply Uniform Quality System
    (b) Quality Auditors

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[1] **Resource management:** A section of the ISO 9001: 2000 standard for quality.
[2] **Regulatory references:** Referred to as the *normative reference* section of the ISO 9001:2000 standard for quality.
[3] **Terms and definitions:** A section of the ISO 9001: 2000 standard for quality.
[4] **Quality management system:** A section of the ISO 9001: 2000 standard for quality.
[5] **Scope**: A section of ISO 9001: 2000 standard for quality
[6] **Management responsibility:** A section of the ISO 9001: 2000 standard for quality.

Example of a Regulations compliant quality manual outline

  (1) Auditor's Independence
  (2) Authorised Internal Quality Auditors
 (c) Quality Unit Facilities
    (3) Monitoring System
    (a) Scope Of The Monitoring System
 (b) Inspections/ Checks and Supervision
  (1) Inspections / Checking and Supervision Procedures and Techniques
  (2) Inspectors / Check Pilots/Airman and Supervisors
 (c) Quality Auditing
  (1) External Auditing
(4) Quality Audit Procedures
 (a) Quality Audit-Annual Schedule
 (b) Quality Audit Planning
  (1) Quality Audit Scope
  (2) Quality Audit Timetable
  (3) Quality Audit Team
  (4) Special Audit Requirements
 (c) Pre-Audit Briefing
 (d) Auditing
  (1) Auditing Techniques
  (2) Audit Report
 (e) Quality Audit-Corrective Action Request
  (1) Findings Analysis and Classification
  (2) Designation of Responsible Manager for Corrective Action Implementation
 (f) Post-Audit Briefing
 (g) Corrective Action
  (1) Corrective Action Plan
  (2) Time Limit Definition
 (h) Corrective Action Follow-Up and QACAR Closure
 (i) Audit Closure Report
  (1) Unscheduled Audits
  (2) Quality Audit Records

E Accident Prevention and Flight Safety Programme
 (1) Scope of the Accident Prevention and Flight Safety Programme
 (2) Accident Prevention and Flight Safety Organization
 (a) Flight Safety Officer (FSO)
  (1) FSO's Main Accident Prevention and Flight Safety Tools
 (b) Safety/Security Committee
 (c) Security Manager
 (d) Flight Security Officer
 (e) Flight Operations Quality Assurance (FOQA) Evaluation Team (For
  Operators Using A FOQA Programme)

F Operator's Security Programme
 (1) Information Promulgation System

(a) Operator's Requirements Base Structure and Hierarchy
   (b) Allocation of Editorial Responsibilities

G Document Control Procedures
  (1) Authorisation
              (2) Adequacy Check
  (3) Security Classification
  (4) Document Standard Form
    (a) Operations Documents Standard Form
    (b) Maintenance Standard Document Set-Up
    (c) Revision and Amendment Control
      (1) Record of Revisions
      (2) List of Effective Pages
      (3) Tracking of Changes
  (5) Distribution
  (6) Storage
    (a) Operations Documents Storage
    (b) Maintenance Documents Storage
  (7) Subsequent Periodic Review
  (8) Disposition of Obsolete Documents

H Operator's Management Evaluation[7]
  (1) Management Evaluation Report[8]

I Quality System Training

J Quality System Records
  (1) Records Maintenance
  (2) Storage Period

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[7] **Operator's management evaluation:** Referred to as the *measurement, analysis and improvement* section of the ISO 9001:2000 standard for quality.
[8] **Management evaluation report:** Referred to as the *product realisation* section of the ISO 9001:2000 standard for quality.