PERSONNEL

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ADVISORY

CIRCULAR

Barbados Civil Aviation Department

BCAD Document PLAC-041

QUALITY SYSTEM FOR AN ATO

GUIDANCE MATERIAL FOR AN ATO QUALITY SYSTEM

PURPOSE

1. (1) The purpose of this BCAD Personnel Licensing Advisory Circular (PLAC) is to provide information and guidance to an ATO applicant on how to establish a Quality System that satisfies the quality control standards required to ensure that training and instructional practices comply with all relevant requirements.

(2) A basis for quality should be established by every ATO and problem-solving techniques should be applied for the running of processes. Knowledge on how to measure, establish and ultimately achieve quality in training and education is essential.

TERMINOLOGY

2. The following terms and definitions when used in the context of this PLAC have the meanings shown:

(a) **Quality.** The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

(b) **Quality Assurance.** All those planned and systematic actions necessary to provide adequate confidence that all training activities satisfy given requirements, including the ones specified by the ATO in relevant manuals.

(c) **Quality Manual.** The document containing the relevant information pertaining to the ATO's quality system and quality assurance programme.

(d) **Quality audit.** A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

ELEMENTS OF AN ATO QUALITY SYSTEM

3. The following five elements should be clearly identifiable in the quality system of an ATO approved for the conduct of training for licences and ratings:

(a) Determination of the organization's training policy and training and flight safety standards;

(b) Determination and establishment of assignment of responsibility, resources, organization and operational processes, which will make allowance for policy and training and flight safety standards;

(c) Follow up system to ensure that policy, training and flight safety standards are complied with;

(d) Registration and documentation of deviations from policy, training and flight safety standards together with necessary analysis, evaluations and correction of such deviations; and

(e) Evaluation of experiences and trends concerning policy, training and flight safety standards.

QUALITY POLICY AND STRATEGY

4. (1)   It is of vital importance that the ATO describes how the organization formulates, deploys and reviews its policy and strategy and turns it into plans and actions. A formal written Quality Policy Statement should be established that is a commitment by the Head of Training, as to what the Quality System is intended to achieve. The Quality Policy should reflect the achievement and continued compliance with relevant parts of BCAR General Application and Personnel Licensing Regulation and ATO Regulations together with any additional standards specified by the ATO or the BCAD.

(2)   The Accountable Manager will have overall responsibility for the Quality System including the frequency, format and structure of the internal management evaluation activities.

PURPOSE OF A QUALITY SYSTEM

5. The implementation and employment of a Quality System will enable the ATO to monitor compliance with relevant parts of BCAR General Application and Personnel Licensing Regulation and ATO Regulation, the TPM, and any other standards as established by the ATO or the BCAD, to ensure safe and efficient training.

QUALITY MANAGER

6. (1)   The primary role of the Quality Manager is to verify, by monitoring activities in the field of training, that the standards required by the BCAD and any additional requirements as established by the ATO are being carried out properly under the supervision of the Head of Training, Chief Flight Instructor and Chief Ground Instructor as applicable.

(2)   The Quality Manager should be responsible for ensuring that the Quality Assurance Programme is properly implemented, maintained and continuously reviewed and improved. The Quality Manager should:

(a) Have direct access to the Head of Training;

(b) Have access to all parts of the ATO's organization.

(3)   In the case of small or very small ATO's, the posts of the Head of Training and the Quality manager may be combined. However, in this event, quality audits should be conducted by independent personnel.

QUALITY SYSTEM

7. (1)   The Quality System of the ATO should ensure compliance with and adequacy of training activities conducted.

(2)   The ATO should specify the basic structure of the Quality System applicable to all training activities conducted.

(3)   The Quality System should be structured according to the size of the ATO and the complexity of the training to be monitored.

Scope

8.   A quality System should address the following:

(a) Leadership;

(b) Policy and Strategy;

(c) Processes;

(d) The provisions of BCAR General Application and Personnel Licensing Regulation, BCAR ATO Regulations and relevant provisions of BCAR Air Operations Regulation;

(e) Additional standards and training procedures as stated by the ATO;

(f) The organizational structure of the ATO;

(g) Responsibility for the development, establishment and management of the Quality System;

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

(i) Quality Assurance Programme;

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

(k) Training requirements;

(l) Customer satisfaction.

Feedback System

9.   The quality system should include a feedback system 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.

Documentation

10. (1)   Relevant documentation includes the relevant part(s) of the Training and Procedures Manual, which may be included in a separate Quality Manual.

(2)   In addition relevant document should also include the following:

(a) Quality Policy;

(b) Terminology;

(c) Specified training standards;

(d) A description of the organization;

(e) The allocation of duties and responsibilities;

(f) Training procedures to ensure regulatory compliance.

(3)   The Quality Assurance Programme, should include:

(a) Schedule of the monitoring process;

(b) Audit procedures;

(c) Reporting procedures;

(d) Follow-up and corrective action procedures;

(e) Recording System;

(f) The training syllabus;

(g) Document control.

Quality Assurance Programme

11. The Quality Assurance Programme should include all planned and systematic actions necessary to provide confidence that all training is conducted in accordance with all applicable requirements, standards and procedures.

Quality Inspection

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

(2)   Typical subject areas for quality inspections are:

(a) Actual flight and ground training;

(b) Maintenance;

(c) Technical Standards;

(d) Training Standards.

Audit

13. (1)   An audit is a systematic and independent comparison of the way in which a training is being conducted against the way in which the published training procedures say it should be conducted.

(2)   Audits should include at least the following quality procedures and processes:

(a) An explanation of the scope of the audit;

(b) Planning and preparation;

(c) Gathering and recording evidence;

(d) Analysis of the evidence.

(3)   The various techniques that make up 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 which make up the training;

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

Auditors

14. (1)   The ATO should decide, depending on the complexity of the training, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team should have relevant training and/or operational experience.

(2)   The responsibilities of the auditors should be clearly defined in the relevant documentation.

Auditor's Independence

15. (1)   Auditors should not have any day-to-day involvement in the area of the operation or maintenance activity which is to be audited. An ATO 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.

(2)   An ATO 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 organization or from an external source under the terms of an agreement acceptable to the BCAD.

(3)   In all cases the ATO 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 training conducted by the ATO.

(4)   The Quality Assurance Programme of the ATO 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;

Audit Scope

16. ATOs are required to monitor compliance with the Training and Procedures Manuals they have designed to ensure safe and efficient training. In doing so they should as a minimum, and where appropriate, monitor:

- (a) Organization;
- (b) Plans and objectives;
- (c) Training Procedures;
- (d) Flight Safety;
- (e) Manuals, Logs and Records;
- (f) Flight and Duty Time limitations;
- (g) Rest requirements and scheduling;
- (h) Aircraft Maintenance/Operations interface;

(i) Maintenance programmes and continued airworthiness;

(j) Maintenance accomplishment;

Audit Scheduling

17. (1) A Quality Assurance Programme should include a defined audit schedule and a periodic review cycle. 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.

(2) An ATO should establish a schedule of audits to be completed during a specific calendar period. All aspects of the training should be reviewed within a period of 12 months in accordance with the programme unless an extension to the audit period is accepted as explained below.

(3) An ATO may increase the frequency of their audits at their discretion but should not decrease the frequency without the acceptance of the BCAD. It is considered unlikely that a period of greater than 24 months would be acceptable for any audit topic.

(4) When an ATO defines the audit schedule, significant changes to the management, organization, training, or technologies should be considered, as well as changes to the regulatory requirements.

Monitoring and corrective action

18. (1) The aim of monitoring within the Quality System is primarily to investigate and judge its effectiveness and thereby to ensure that defined policy and training standards are continuously complied with. Monitoring activity is based upon quality inspections, audits, corrective action and follow-up. The ATO 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.

(2) Any non-compliance identified 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) The Quality Assurance Programme should include procedures to ensure that corrective actions are developed 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 ensuring, through the Quality Manager, that corrective action has re-established compliance with the standard required by the BCAD and any additional requirements established by the ATO.

Corrective Action

19. (1) Subsequent to the quality inspection/audit, the ATO 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.

(2) The Quality Manager should:

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

     (b) Verify that corrective action includes the elements outlined in paragraph (16) above;

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

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

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

Management Evaluation

20. (1) A management evaluation is a comprehensive, systematic documented review by the management of the quality system, and should -

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

     (b) Consider the overall effectiveness of the management organization in achieving stated objectives;

     (c) Identify and correct trends; and

     (d) Prevent, where possible, future non-conformities.

(2) 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. The Accountable Manager should decide upon the frequency, format, and structure of internal management evaluation activities.

Recording

21. (1) Accurate, complete and readily accessible records documenting the result of the Quality Assurance Programme should be maintained by the ATO. Records are essential data to enable an ATO to analyse and determine the root causes of non-conformity, so that areas of non-compliance can be identified and subsequently addressed.

(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;

     (f) Management evaluation reports.

Quality Assurance Responsibility for Satellite ATOs

22. (1)   An ATO may decide to sub-contract out certain activities to external organizations subject to the approval of the BCAD.

(2)   The ultimate responsibility for the training provided by the satellite ATO always remains with the ATO. A written agreement should exist between the ATO and the satellite ATO clearly defining the safety related services and quality to be provided. The satellite ATO's safety related activities relevant to the agreement should be included in the ATO's Quality Assurance Programme.

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

Quality System Training

23. (1)   Correct and thorough training is essential to optimize quality in every organization. In order to achieve significant outcomes of such training the ATO should ensure that all staff understand the objectives as laid down in the Quality Manual.

(2)   Those responsible for managing the Quality System should receive training covering:

(a) An introduction to the concept of Quality System;

(b) Quality management;

(c) Concept of Quality Assurance;

(d) Quality manuals;

(e) Audit techniques;

(f) Reporting and recording;

(g) The way in which the Quality System will function in the ATO.

(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.

Sources of Training

24. Quality management courses are available from National Institutions or International Standards Institutions, and an ATO should consider whether to offer such courses to those likely to be involved in the management of Quality Systems. Organizations with sufficient appropriately qualified staff should consider whether to carry out in-house training.

Quality Systems For Small/Very Small Organizations

25. (1)   The requirement to establish and document a Quality System and to designate a Quality Manager applies to all ATOs. However it is recognised that a small organization may encounter difficulties attempting to duplicate the quality structure of a large organization which may ensure complete quality systems.

(2)   Complex quality systems could be inappropriate for small or very small ATOs 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 ATOs should tailor their quality systems to suit the size and complexity of their training and allocate resources accordingly.

(3)   For small and very small ATOs 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)   The small ATO 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 Manger.

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

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

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