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**Civil Aviation Regulatory Commission**



**Guidance material**  
**ANS Training Centers Approval**

**Issued On the Authority of the Chief Executive Officer of the Civil Aviation Regulatory Commission**

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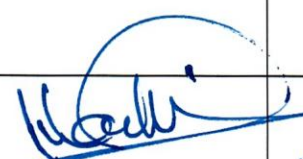
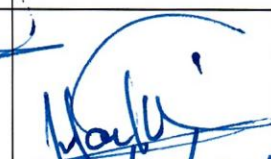
**Feb, 2019**

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## DOCUMENT APPROVAL

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## CONTENTS

<b>CHAPTER 1: INTRODUCTION.....</b>	<b>1</b>
1.1 Characteristics.....	1
1.2 Organizational Structure .....	1
1.3 Management And Staffing .....	1
<b>CHAPTER 2: PROCESS TO APPROVE AIR NAVIGATION TRAINING CENTER (ANS-TC).....</b>	<b>3</b>
2.1 Introductory Note:.....	3
2.2 Certificate Issuing Process .....	3
<b>CHAPTER 3: TRAINING AND PROCEDURES MANUAL (EXPOSITION MANUAL).....</b>	<b>7</b>
3.1 Introduction.....	7
3.2 Documentation Management .....	7
3.3 Content.....	7
3.4 Organization.....	7
3.5 Structure.....	8
3.6 Validation.....	8
3.7 Deployment And Feedback.....	8
<b>CHAPTER 4: QUALITY ASSURANCE (QA).....</b>	<b>10</b>
4.1 Objective.....	10
4.2 Elements .....	10
4.3 QA And The Quality System Of The ANS-TC.....	10
<b>APPENDIX A: CONTENT OF THE TRAINING AND OPERATION MANUALS (EXPOSITION MANUAL) .....</b>	<b>11</b>
1. General.....	11
2. Staff Training.....	12
3. Client Training Programmes .....	12
3.1 Training Plan.....	12
3.2 Syllabi For Non-Competency-Based Training Programmes .....	14
4. Records .....	15
5. Quality Assurance (QA).....	15
<b>APPENDIX B: QUALITY ASSURANCE AND THE QUALITY SYSTEM OF THE ANS-TC .....</b>	<b>16</b>
1. Quality Policy And Strategy .....	16
2. Quality Manager .....	16
3. Quality Assurance .....	16
4. Quality System For The ANS-TC.....	17
5. Qa Audit Programme .....	18
6. Quality Inspection .....	18
7. Quality Audits.....	18



## ANS-TC Approval - Guidance Material

### Chapter 1: INTRODUCTION

#### 1.1 CHARACTERISTICS

1.1.1 An ANS-TC is an organization that is approved by the CARC to deliver specific approved training programmes to ATC personnel for licensing purposes. As a prerequisite to the approval process, this organization will have demonstrated that it is staffed, equipped, financially resourced and operated in a manner conducive to achieving the required standards. Its approved programmes may from time to time take advantage of the reduced experience requirements provided in JCAR Part 65 for certain licences and ratings.

#### 1.2 ORGANIZATIONAL STRUCTURE

1.2.1 The organizational structure of an ANS-TC will vary depending upon the scope and complexity of its business model. The design and make-up of its structure should ensure that the delivery of training meets the client's needs and expectations, while maintaining compliance with the JCAR part 176 requirements. Therefore ANS-TCs need to have a management structure that is designed around best quality management practices. Chapter 4, 4.1, defines the objective of those practices.

1.2.2 In all cases, ANS-TCs require an accountable manager who is the final authority on decisions that may impact upon the continued suitability of the training center to deliver training to ANSP personnel for licensing purposes. Since accountable managers may not have a day-to-day awareness of the training activity, they must rely heavily upon the performance and advice of key personnel within the ANS-TC. As a result, the qualifications and competencies of ANS-TC personnel must be maintained to a very high standard. See 1.3.2 for additional information on ANS-TC staffing requirements.

#### 1.3 MANAGEMENT AND STAFFING

1.3.1 The composition of the management team will depend on the organizational needs and the applicable JCAR part 176. Some ANS-TCs may require a complex management structure as they are approved to provide training for multiple occupations within the ANSP.

1.3.2 Each ANS-TC should have an accountable manager and key managerial personnel. Typical key positions include:

- a) accountable manager;
- b) head of training;
- c) instructional services manager;
- d) quality manager;

1.3.3 ANS-TCs shall establish separate managerial positions, directly reporting to the accountable manager, for the following areas of responsibility:



a) training or instructional services; and

b) quality management processes.

1.3.4 The ANS-TC is expected to provide the number of qualified and competent instructors and evaluators appropriate to the size and scope of the intended operations, who hold appropriate licence, certificates, qualifications and ratings or authorizations as deemed necessary by CARC.

1.3.5 Instructors will be expected to undergo initial training and recurrent training at intervals that CARC deems necessary, as well as update training relevant to the most recent technology and training methodologies appropriate to the competencies for which the students are being trained and examined.

1.3.6 The ANS-TC is expected to ensure that sufficient trained and competent personnel are available for the continued effectiveness of its quality system.



## Chapter 2: PROCESS TO APPROVE AIR NAVIGATION TRAINING CENTER (ANS-TC)

### 2.1 INTRODUCTORY NOTE:

2.1.1 This process describes the regulations used by ANSSD ANS Safety Inspectors to process applications for the issue or surrender of ANS-TC certificates. It is designed to ensure that the required standards are applied when an ANS-TC certificate is issued or surrendered.

2.1.2 This process:

- a) Defines the regulations that govern ANS-TC certification.
- b) Clearly sets out the:
  - (1) Responsibilities of ANSSD staff;
  - (2) Standards and procedures which ANSSD staff shall follow when processing the application for the issue or surrender of ANS-TC certificates; and
  - (3) Requirements for compliance and enforcement.
- c) Adherence to the standards and procedures will ensure that:
  - (1) ANS-TC certificates are issued, suspended or/and surrendered in an effective, efficient and consistent manner nationally;
  - (2) ANS-TC certificates are issued in a common legal format; and
  - (3) Effective and consistent compliance and enforcement action is taken.

### 2.2 Certificate Issuing Process

2.2.1 Purpose: To ensure that ANS-TC certificates are correctly and consistently issued using a common legal format nationally by describing the:

- a) Process for issuing ANS-TC certificates
- b) Staff responsibilities.
- c) Forms and letters used.

2.2.2 The certification process is in four phases:

- a) Dealing with expression of interest by an intending applicant for an ANS-TC certificate;
- b) Assessing the formal application;
- c) Assessing the ANS-TC facilities and equipment; and
- d) Issuing or refusing an ANS-TC certificate;



#### 2.2.2.1 Phase 1-Dealing with Expression of Interest

- a) Each applicant for an ANS training center certificate shall submit an expression of interest and formal application and in a manner acceptable by the Chief Commissioner/CEO, and submit with it:
- (1) Two hard copies of exposition manual and one soft copy (for new ANS-TC); and
  - (2) A payment of the appropriate study fees as set forth in Civil Aviation Charges Regulation (for new ANS-TC);
- b) CEO forwards to ANSSD for processing;
- c) ANSSD Director Assigns an inspector as an Audit Team Leader, who holds a Team to a particular Certification task. (The Director may nominate himself)
- d) The Audit Team Leader opens a file for archiving;
- e) The Audit Team carries out initial site assessment to ensure that the ANS-TC meet the requirements in accordance of JCAR part176 (176.5) paragraph 5;
- f) The Audit Team leader forwards the assessment result to ANSSD Director;
- g) If the result of the evaluation is negative, the applicant will be notified of the deficiencies by an official letter;
- h) If the assessment is successful, ANSSD informs the applicant to consult the relevant entities in Jordan to obtain other required approval e.g. Civil Defense;
- i) If the applicant satisfies the requirement of phase 1, Audit Team holds a certification meeting with the applicant's representatives in order to familiarize the applicant with the rest of the process.

#### 2.2.2.2 Phase II-Assessing the Formal Application (renewal certificate)

- a) Upon payment of the issuance renewal application form fees as set forth in Civil Aviation Charges Regulation, the Audit Team leader issues the stamped standard application form (JCAR part 176 appendix F);
- b) The completed application form is then received from the applicant for processing by the Audit Team;
- c) In addition to the requirements listed above, the additional following information must be submitted as applicable:
- Confirmation of legal entity;
  - Key post-holder nomination forms with CVs detailing relevant experience JCAR Part 176 paragraph 176.53 "Personnel requirements";
  - CARC checklist for Operations Manuals (CARC Form No 20/1050);





- CARC checklist for Training Manuals (CARC Forms 20/1051-1055);
  - Proof of availability of ATC Simulators facilities “176.25 (c)” and a payment of the appropriate fees as set forth in Civil Aviation Charges Regulation;
  - Training materials (176. 23 General Curriculum requirements);
  - Copies of instructors’ qualification certificates for the approved courses In accordance to paragraph 176.29 “Instructor requirements”;
  - Theoretical knowledge instructor / subject allocation (primary and secondary subjects); and
  - All manuals should have an effectual means of document control.
- d) The Audit Team assesses the exposition manual and ensures that the manual complies with the requirement of the regulation and the quality management system indicates that the applicant will be able to operate and maintain the ANS-TC properly before moving to the next phase. All verifications that can be completed or initiated in the office should be carried out.

#### 2.2.2.3 Phase III-Assessing the ANS-TC Facilities and Equipment

- a) The Audit Team undertakes a site visit for the purpose of assessing the ANS-TC facilities, services and equipment by using compliance checklist 20 CL-0301 to verify and ensure that they comply with the specified standards and practices. The assessment shall include the following areas:
- (1) Verification of ANS-TC data.
  - (2) The checking of ANS-TC facilities and equipment in accordance to JCAR Part 176 paragraph 176.25 “Space and instructional equipment requirements” and paragraph 176.27 “Materials and special tools requirements”.
- b) After the field verification, the audit team shall document and communicate deficiencies identified during the audit to the applicant in writing and also request a corrective action plan from the applicant. The audit team shall monitor and ensure satisfactory implementation of the corrective action plan.

#### 2.2.2.4 Phase IV- Issuing or Refusing an ANS-TC Certificate

- a) If after being advised of the additional steps that must be taken to rectify the deficiencies in the corrective action plan (CAP), the applicant is still not able to satisfy the requirements of the regulations, CARC may refuse to grant a certificate.
- b) If the corrective action plan is satisfactorily implemented by the applicant, the Audit Team will forward its report and recommendation for the issuance of an ANS-TC certificate by using form 20 OF-0302 to CEO thru ANSSD Director for approval.



- c) After CEO approval, the audit team leader will Issue financial claim to pay the issuance certificate fees as set forth in Civil Aviation Charges Regulation, and prepare the ANS-TC certificate, assign a certificate number and endorse the conditions for the type of use of the ANS-TC on the certificate.
- d) The audit team leader updates the ANS-TC certificate register file and issues the ANS-TC certificate after signature by CEO.



## **Chapter 3: TRAINING AND PROCEDURES MANUAL (exposition manual)**

### **3.1 INTRODUCTION**

3.1.1 The training and procedures manual describes the training programmes being offered and the way in which the training organization conducts its activities. It is an essential document for the training organization because it provides the management and line personnel with clear guidance on the policy of the training organization as well as the procedures and processes which are used to provide training. It is also an essential document for CARC. During the approval process, it allows the Authority to assess whether the way in which a training organization is planning to operate is in line with existing requirements and accepted practices.

3.1.2 It is important that the contents of the training and procedures manual be consistent with other operational documents, regulations and manufacturer's requirements. The manual should also be user-friendly. It is also necessary to ensure that the manual is used consistently across all departments within the ANS-TC. This can be achieved through an integrated approach that recognizes operational documents as a complete system.

3.1.3 This chapter explains how the training and procedures manual should be developed, implemented and managed.

### **3.2 DOCUMENTATION MANAGEMENT**

3.2.1 Appendix B to this manual details the elements of an effective quality system, a system that requires robust policies, processes and procedures for documentation management and record keeping. Since shortcomings in documentation management eventually lead to poor standardization and a diminished quality of training.

### **3.3 CONTENT**

3.3.1 Appendix A to this manual provides detailed breakdown of the content of the manual and includes additional requirements for ANS-TCs that are engaged in ANSP training. Depending on the size, complexity and scope of the training provided by the ANS-TC, some of the elements contained in the list can be reduced, combined or expanded further.

### **3.4 ORGANIZATION**

3.4.1 The training and procedures manual should be organized according to criteria relating to the information, its importance and use. The information should be structured and sequenced so that operational personnel can access it easily. This principle will help determine whether to issue the manual as a single document or in separate parts. When the training and procedures manual is organized into separate parts, it should include a master index to help users locate information included in more than one part. The master index should be placed in the front of each part.

3.4.2 The manual should describe accurately the ANS-TC's philosophies, policies, processes and procedures.



### **3.5 STRUCTURE**

- 3.5.1 The structure of the manual should be easy to understand, appropriate for the information and clearly identified through headings and other formatting devices. An explanation of the organizational elements such as the headings, numbering scheme, main parts of the document and other sources of coding or groupings should be provided at the beginning of the manual.
- 3.5.2 Precise language should be used wherever possible. Terms for common items and actions should be consistent throughout the manual and must be clear and easily understood.
- 3.5.3 Writing style, terminology, formatting and use of graphics and symbols should be consistent throughout the document, including the location of specific types of information and use of units of measurement and codes.
- 3.5.4 The manual should contain a glossary of definitions and significant terms including a list of acronyms and/or abbreviations. The glossary should be updated on a regular basis to ensure access to the most recent terminology.
- 3.5.5 For ease of amendment and distribution, an appropriate revision process should be defined and established when designing the manual.
- 3.5.6 The training and procedures manual should comply with the requirements of the ANS-TC's quality assurance practices.

### **3.6 VALIDATION**

- 3.6.1 The training and procedures manual should be reviewed and tested under realistic conditions before its operational release. The validation process should include using the critical aspects of the information contained in the manual to verify its effectiveness. Routine interaction among groups within the ANS-TC should be included in the validation process.
- 3.6.2 A final review of the manual should ensure that all required topics have been addressed with an appropriate level of detail for users. The final review should also confirm compliance with safety regulations, manufacturers' recommendations and the ANS-TC's philosophy, policies, procedures and processes.

### **3.7 DEPLOYMENT AND FEEDBACK**

- 3.7.1 The ANS-TC should maintain and update as necessary the training and procedures manual after its initial release. This will ensure appropriate and realistic use of the manual, based on the current operational environment, in a way that is operationally relevant and appropriate for the users for whom it is intended.
- 3.7.2 In order to gather information for updates of the manual, a formal feedback system should be established to obtain input from principal users and others who would be affected by a new or revised policy, procedure or process.



### 3.8 AMENDMENT

3.8.1 The ANS-TC should develop an effective information gathering and review system to process information obtained from all sources relevant to the organization, such as the Licensing Authority and safety regulators, training clients, manufacturers and equipment vendors, as well as a distribution and revision control system.

3.8.2 The ANS-TC should also develop an information review, distribution and revision control system to process information resulting from changes that originate within the ANS-TC. This includes changes to:

- a) the ANS-TC's policies, processes, procedures and practices;
- b) respond to operating experience;
- c) the scope of training provided;
- d) the content of training programmes;
- e) results stemming from the installation of new equipment;
- f) an approval document or certificate requested by the ANS-TC and issued by CARC; and
- g) maintain standardization of training delivery and performance criteria.

3.8.3 The manual should be reviewed in association with other operational documents that form the ANS-TC's document control system:

- a) on a regular basis (at least once a year);
- b) after major events such as mergers, acquisitions, rapid growth or downsizing;
- c) after technology changes, e.g. the introduction of new equipment;
- d) after changes to applicable regulations;
- e) after changes to key operational personnel (e.g. Head of Training); and
- f) after changes to the scope of training provided.

3.8.4 Permanent changes to the training and procedures manual should be communicated through a formal amendment process.

3.8.5 Distribution of amendments and revisions should have a tracking system. The tracking system should include some form of log combined with a procedure to ensure that all amendments are furnished promptly to all organizations or persons to whom the manual has been issued.

## Chapter 4: QUALITY ASSURANCE (QA)

### 4.1 OBJECTIVE

4.1.1 The objective of QA, is to ensure the achievement of results that conform to the standards set out in the ANS-TC's manuals and in requirements and documents issued by the CARC. The effective application of QA principles will aid the ANS-TC in meeting all regulatory requirements.

4.1.2 Quality is an outcome of a number of processes: establishing standards; planning activities and documenting procedures to support such activities and standards; training the personnel involved before implementing the documented procedures; and measuring the outcomes of the activities to ensure that they meet the standards and expected results. If any non-conformities are found, corrective actions are taken to improve processes and procedures. It is to be emphasized that, to be truly effective in delivering the very best possible products and services, ANS-TCs need to implement proactive as well as reactive processes. Appendix B describes proactive processes and provides guidance on how to institutionalize a quality system that incorporates QA and assists ANS-TCs in reaching their full potential.

### 4.2 ELEMENTS

4.2.1 The following QA elements should be clearly identifiable in the training and procedures manual:

- a) the ANS-TC's training policy (for clients as well as for its own personnel);
- b) training standards;
- c) allocation of responsibility;
- d) resources, organization and operational processes;
- e) procedures to ensure conformity of training with the training policy;
- f) procedures for identifying deviations from training policy and standards, and for taking corrective action, as necessary; and
- g) the evaluation and analysis of experiences and trends concerning policy and training standards, in order to provide feedback into the system for the continual improvement of the quality of training.

### 4.3 QA AND THE QUALITY SYSTEM OF THE ANS-TC

Details on the requirements for QA and the development of an overarching quality system for an ANS-TC can be found in Appendix B.

## **Appendix A: CONTENT OF THE TRAINING AND OPERATION MANUALS (EXPOSITION MANUAL)**

This appendix covers the content requirements for the training and Operation manuals of all ANS-TCs.

The training and Operation manuals should include the elements in paragraphs 1 to 8 of this appendix as far as they are appropriate to the type of training to be provided.

### **1. GENERAL**

1.1 Preamble relating to the use and applicability of the manual.

1.2 Table of contents.

1.3 Amendment, revision and distribution of the manual:

- a) procedures for amendment;
- b) record of amendments page;
- c) distribution list; and
- d) list of effective pages.

1.4 Glossary of definitions and significant terms, including a list of acronyms and/or abbreviations.

1.5 Description of the structure and layout of the manual, including:

- a) the various parts and sections, as well as their contents and use; and
- b) the numbering system for headings and paragraphs.

1.6 Description of the scope of training authorized under the ANS-TC's terms of approval.

1.7 Organization (chart of the ANS-TC's management organization).

1.8 Qualifications, responsibilities and succession of command of management and key operational personnel, including but not limited to:

- a) accountable manager;
- b) head of training;
- c) instructional services manager, if applicable;
- d) quality manager;
- e) maintenance manager, if applicable;
- f) instructors; and
- g) evaluators, including those with examiner functions, and auditors.

1.9 Policies dealing with:



- a) the ANS-TC's objectives, including ethics and values;
- b) the selection of ANS-TC personnel and the maintenance of their qualifications;
- c) the training programme design and development, including the need for programme validation and review in accordance with Chapter 3, 3.6 and 3.8 of this manual, as well as the outsourcing of training programme development to third-party providers in accordance with JCAR Part 176 Paragraph 176.63;
- d) the evaluation, selection and maintenance of training material and devices;
- e) the maintenance of the training facilities and equipment;
- f) the development and maintenance of a quality system (QS) governance model (see Appendix B); and

1.10 Description of the facilities and equipment available, including:

- a) general-use facilities, including offices, stores and archives, and library or reference areas);
- b) the number and size of classrooms, including installed equipment; and
- c) the type and number of training devices, including their location if other than at the main training site.

## 2. STAFF TRAINING

- 2.1 Identification of persons or positions responsible for the maintenance of the standards and performance criteria of the training, and for ensuring the competency of personnel.
- 2.2 Details of the procedures to validate the qualifications and determine the competency of instructional personnel as required by JCAR Part 176 paragraph 176.31.
- 2.3 Details of the initial and recurrent training programmes for all personnel, including awareness training with respect to their responsibilities within the ANS-TC's system.
- 2.4 Procedures for proficiency checks and upgrade training.

## 3. CLIENT TRAINING PROGRAMMES

Client training programmes cover each individual training programme conducted by the ANS-TC for its clients and consist of a training plan, a practical training syllabus and, if applicable, a theoretical knowledge syllabus as described below.

### 3.1 Training plan

3.1.1 The aim of the course in the form of a statement of what the student is expected to be able to do as a result of the training, the level of performance and the training constraints to be observed.

3.1.2 Pre-entry requirements, including (as applicable):

- a) minimum age;
- b) education or qualification requirements;



c) medical requirements; and

d) linguistic requirements.

3.1.3 Credit for previous knowledge, experience or other qualifications, proof of which should be obtained from CARC before the training commences.

3.1.4 Training curricula, including:

a) theoretical training (knowledge);

b) practical training (skills);

c) training in the domain of human factors;

d) assessment and examinations; and

e) monitoring of the training process, including assessment and examination activities.

3.1.5 Training policies in terms of:

a) restrictions regarding the duration of training periods for students and instructors; and

b) if applicable, minimum rest periods.

3.1.6 Procedures for the conduct of student evaluation, including for:

a) conditions to be met before tests;

b) procedures for remediation training before retest and for re-writing knowledge tests;

c) test reports and records;

d) skill progress checks and skill tests;

e) knowledge progress tests and knowledge tests, including knowledge test preparation, types of questions and assessments, and standards required for a pass; and

f) question analysis and review and issuing of replacement exams (applicable to knowledge tests).

3.1.7 Policy and procedures regarding training effectiveness, including for:

a) coordination between training services;

b) requirements for reporting and documentation;

c) internal feedback for detecting training deficiencies;

d) interim performance or competency standards at various stages of training to ensure standardization;

e) individual student duties;

- f) correcting unsatisfactory progress;
- g) changing instructors;
- h) the maximum number of instructor changes per student; and
- i) suspending a student from training.

### **3.2 Syllabi for non-competency-based training programmes**

#### **3.2.1 Practical training syllabus**

- 3.2.1.1 A statement of the phases of the course and how the phases will be arranged to ensure completion in the most suitable learning sequence, and that exercises will be repeated at the appropriate frequency.
- 3.2.1.2 The syllabus hours for each phase and for groups of lessons within each phase, and when progress tests are to be conducted.
- 3.2.1.3 A statement of the interim competency standards required before progressing from one phase to the next to include minimum experience requirements and satisfactory exercise demonstration.
- 3.2.1.4 Requirements for instructional methods, particularly with respect to adherence to syllabi and training specifications.
- 3.2.1.5 Instruction for the conduct and documentation of all progress checks.
- 3.2.1.6 Instruction, where applicable, given to all examining staff regarding the conduct of examinations and tests.

#### **3.2.2 Theoretical knowledge syllabus**

The syllabus for theoretical knowledge instruction should be structured generally as outlined in this section but with a training specification and objective for each subject.

### **3.3 Syllabus for competency-based training programmes**

- 3.3.1 Ideally, training programmes should be competency-based.
- 3.3.2 Competency-based training programmes are based upon a training needs analysis to define the competencies required to perform a job, an activity or a task. Such programmes use an integrated approach in which the training in the underlying knowledge to perform a task is followed by practice of the task so that the trainee acquires the competencies and the underlying knowledge, skills and attitudes related to the task in a holistic way. At the end of the course, trainees must demonstrate that they have acquired the competencies necessary to perform a task and met the performance criteria identified for the job.

3.3.3 As a result, the syllabus is structured as a single document that is organized around milestones and subdivided into modules containing a training objective and the same information as in 3.2.1, but applied to both the theoretical knowledge and practical training delivered by the module.

#### 4. RECORDS

Procedures regarding:

- a) attendance records;
- b) student training records;
- c) staff training and qualification records;
- d) persons responsible for checking records and student personal logs;
- e) nature and frequency of record checks;
- f) standardization of record entries;
- g) personal log entries; and
- h) security of records and documents.

#### 5. QUALITY ASSURANCE (QA)

Provide a brief description of the QA practices, by reference to a separate quality manual or including the QA practices in the training and procedures manual.

#### 7. APPENDICES

As required:

- a) sample progress test forms;
- b) sample logs, test reports and records; and
- c) a copy of the ANS-TC's approval document.



## **Appendix B: QUALITY ASSURANCE AND THE QUALITY SYSTEM OF THE ANS-TC**

### **1. QUALITY POLICY AND STRATEGY**

- 1.1 The ANS-TC needs to describe how it performs the organization and management of its training operations in order to ensure it operates in conformity with the training and procedures manual and as approved by CARC. A formal, written quality policy should be prepared, establishing a commitment by the accountable manager of the ANS-TC to achieve and maintain the highest possible standards of training.
- 1.2 The accountable manager of the ANS-TC will have the overall responsibility for the standard of quality including the frequency, format and structure of the internal management review and analysis activities and may delegate to a quality manager the responsibilities described in Section 2 of this appendix.

### **2. QUALITY MANAGER**

- 2.1 The primary role of the quality manager is to verify, by monitoring activities in the field of training, that the standards as established by the ANS-TC and any additional requirements by CARC are being carried out properly.
- 2.2 The quality manager should be responsible for ensuring that the quality system (QS) is properly documented, implemented, maintained and continuously reviewed and improved.
- 2.3 The quality manager should:
- a) report directly to the accountable manager; and
  - b) have unencumbered access to all parts of the ANS-TC.
- 2.4 The quality manager should be responsible for ensuring that personnel training related to the QS is conducted.

### **3. QUALITY ASSURANCE**

- 3.1 The term “quality assurance” (QA) is frequently misunderstood to mean the testing and checking of products and services. ANS-TCs that only do checking and testing activities are merely applying “quality control” measures, which are designed to catch product and service defects but not necessarily prevent them. For example, an ANS-TC that administers exams at the end of the training syllabus, only to discover that a large proportion of the students have failed to meet the required standard, has only identified a deficiency in expected results. The implication could be that there is a problem with the training programme or the instructor or even the student selection criteria. In this instance the ANS-TC has no idea what the real problem is or what to do about it. Quality control, by itself, provides limited value without the suite of complementary activities that comprise QA.
- 3.2 QA, on the other hand, attempts to improve and stabilize the training process and to identify and avoid, or at least minimize, issues that lead to problems in the first place. It continuously verifies that standards are adhered to throughout the training process by introducing various checkpoints and controls. It further introduces a



system of audits to ensure that documented policies, processes and procedures are consistently followed. It is the “assurance” part of quality management.

3.3 A QA plan for an ANS-TC should encompass well-designed and documented policies, processes and procedures for at least the following activities:

- a) monitoring of training services and process controls;
- b) monitoring of assessment and testing methods;
- c) monitoring of personnel qualifications and training;
- d) monitoring of training devices and equipment qualification, calibration and functionality, as applicable;
- e) conduct of internal and external audits;
- f) development, implementation and monitoring of corrective and preventive actions and associated reporting systems; and
- g) utilize appropriate statistical analysis to identify and respond appropriately to trends.

3.4 An effective QA plan will aid significantly in the ANS-TC’s compliance with requirements, its conformity with the standards and the adequacy of its training activities. To take the ANS-TC’s performance to a higher level requires a structure that ensures that the combined QA effort of the employees reaches its full potential.

3.5 QA plans by themselves are subject to breakdowns in human performance and therefore are in need of robust organizational structures that underpin the QA efforts of individuals.

#### **4. QUALITY SYSTEM FOR THE ANS-TC**

4.1 A QS is the aggregate of all the ANS-TC’s activities, plans, policies, processes, procedures, resources, incentives and infrastructure working in unison towards a total quality management approach. It requires an organizational construct complete with policies, processes, procedures and resources that underpins a commitment to achieve excellence in product and service delivery through the implementation of best practices in quality management.

4.2 An ANS-TC that supports its QA plan with a well-designed, implemented and maintained QS structure should be able to easily and repeatedly achieve results that exceed both the requirements of the applicable national regulations and the expectations of the ANS-TC’s clients.

4.3 The basic attributes of effective QS should include, but are not necessarily limited to:

- a) a managerial structure that facilitates and encourages clear and unencumbered access to the decision makers;
- b) an overarching company commitment to achieving excellence in the delivery of training services, rather than meeting minimum requirements;

- c) quality policies, processes and procedures that are well-designed, consistently applied and subject to formalized review and refinement processes;
- d) an employee training plan that instils and promotes best practices in quality management efforts; and
- e) a strategic review of policies and procedures which measures the ANS-TC's current assumptions, objectives and plans by applying a relevance test matched to evolving trends in the industry or changes occurring within the ANS-TC.

## 5. QA AUDIT PROGRAMME

5.1 The QA audit programme should include all planned and systematic actions necessary to provide confidence that every training activity is being conducted in accordance with all applicable requirements, standards and procedures.

## 6. QUALITY INSPECTION

6.1 A quality inspection is an activity in support of QA and quality audits (see Section 12). The primary purpose of a quality inspection is to review a document or observe a particular event, action, etc., in order to verify whether established training procedures and requirements were followed during the conduct of the inspection and whether the required standard was achieved.

6.2 Examples of typical subject areas for quality inspections are:

- a) actual training sessions;
- b) maintenance, if applicable;
- c) technical standards; and
- d) training standards.

## 7. QUALITY AUDITS

7.1 An audit is a systematic and independent comparison between the way in which training is being conducted and the way in which it should be conducted according to the published training procedures.

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

- a) a description of the scope of the audit, which should be explained to the personnel to be audited;
- b) planning and preparation;
- c) gathering and recording evidence; and
- d) analysis of the evidence.

7.3 The various techniques that make up an effective audit are:

- a) a review of published documents;

- b) interviews or discussions with personnel;
- c) the examination of an adequate sample of records;
- d) the witnessing of the activities which make up the training; and
- e) the preservation of documents and the recording of observations.

