



TECHNICAL STANDARDS – Issue version 2.0 (2024)

NAMCATS: Part 141

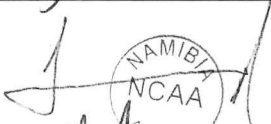
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DOCUMENT CONTROL

Approval

Edition Number	Version 2.0 of 2024	Effective Date	04 March 2024	
	Position	Name	Signature	Date
Prepared by:	Senior Inspector AME	Uendjiziri Commando		04/03/24
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Change Summary

Edition Number	Brief Description of Change	Affected page(s)	Prepared by	Effective Date
1	Initial NAMCATS	Whole document	PEL department	30 March 2004
2	Amendment of Regulations	Whole document	Uendjiziri Commando	04 March 2024
NOTE: 1. When amended, this document will be re-issued in full. Each page will indicate the edition number and the effective date. The edition number should be the same on each page. 2. When printed this document is uncontrolled. Check the Quality Office partition for the current release edition.				

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General

1. INTRODUCTORY NOTES

- 1.1 Section 227 of the Civil Aviation Act, 2016 empowers the Executive Director of Civil Aviation to issue technical standards for civil aviation. Section 227 of the Civil Aviation Act, 2016 further empowers the Executive Director of Civil Aviation to incorporate into a technical standard any international aviation standard or any amendment without publishing the text of such standard or any amendment by mere reference to the title, number and year of issue of such standard or amendment or to any other particulars by which such standard or amendment is sufficiently identified.
- 1.2 The Executive Director of Civil Aviation has, pursuant to the empowerment mentioned above, issued technical standards relating to Regulation Part 141 (Standards Relating to Aviation Training Organisations) to be known as Document NAM-CATS-141.
- 1.3 Document NAM-CATS-141 comprises the standards, rules, requirements, methods, specifications, characteristics and procedures which are applicable in respect of aviation training organisations.
- 1.4 Each reference to a technical standard in this document, is a reference to the corresponding regulation in the Namibia Civil Aviation Regulations.
- 1.5 Where there is any perceived disparity of meaning or inconsistency between these technical standards and the regulations, the provisions of the regulations will take precedence.
- 1.6 Where there is a difference between a standard or procedure prescribed in ICAO documents and the Civil Aviation Technical Standards (CATS), the CATS standard will prevail.
- 1.7 The abbreviation “CAR” is used throughout this document when referring to any civil aviation regulation.

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1.8 The abbreviations “TS” or “CATS” are used throughout this document when referring to any technical standard.

1.9 In this document the words “Executive Director” refers to the chief executive officer of the Authority appointed pursuant to section 34 of the Civil Aviation Act 2016 being the Executive Director of Civil Aviation.

2. AMENDMENTS TO THE TECHNICAL STANDARDS

2.1 The NCAA Personnel Licensing Division has responsibility for the technical content of this technical standard.

2.2 This technical standard is issued, and may only be amended, under the authority of the Executive Director of Civil Aviation.

2.3 Requests for changes to the content of this technical standard must be forwarded to the Executive Director and may come from:

- (a) technical areas within NCAA; or
- (b) aviation industry service providers or operators; or
- (c) pilots, engineers and maintenance organization staff.

2.4 The need to change the content of this technical standard may arise for any of the following reasons:

- (a) to ensure safety;
- (b) to ensure standardization;
- (c) to respond to changed NCAA regulations or standards;
- (d) to respond to changes initiated by ICAO;
- (e) to accommodate proposed initiatives or new technologies.

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2.5 The NCAA may approve trials of new procedures or technologies to develop appropriate standards.

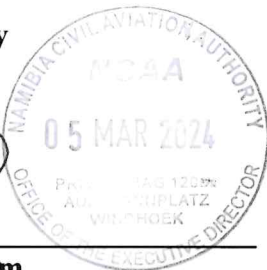
2.6 These Technical Standards apply with immediate effect.

Further access is available on NCAA website: www.ncaa.com.na/resources

Enquiries: licensing@ncaa.na

Signed by





Toska Sem
EXECUTIVE DIRECTOR

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141.01.2 APPROVAL OF AN AVIATION TRAINING ORGANISATION

1. Conditions, rules, requirements, procedures or standards

The conditions, rules, requirements, procedures and standards for the designation of a body or institution to perform the functions listed in regulation Part 141.01.2 must be documented in a written agreement between the Executive Director and the body or institution that are designated.

141.02.2 TRAINING AND PROCEDURES MANUAL

1. Information to be contained in training and procedures manual

1.1. The training and procedures manual applicable to **flight crew training** must at least contain the following divisions:

- 1.1.1 General;
- 1.1.2 Aircraft operating information;
- 1.1.3 Routes;
- 1.1.4 Staff training;
- 1.1.5 Training plan;
- 1.1.6 Training syllabus;
- 1.1.7 Simulation training syllabus;
- 1.1.8 Theoretical knowledge syllabus;
- 1.1.9 Tests and checks conducted for the issue of a licence or a rating;
- 1.1.10 Records;
- 1.1.11 Safety management system;
- 1.1.12 Quality assurance system; and
- 1.1.13 Appendices.

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1.2. The training and procedures manual applicable to aviation training **other than flight crew training** must at least contain the following divisions:

- 1.2.1 General;
- 1.2.2 Staff training;
- 1.2.3 Training plan;
- 1.2.4 Training syllabus;
- 1.2.5 Simulation training syllabus;
- 1.2.6 Theoretical knowledge syllabus;
- 1.2.7 Tests and checks conducted for the issue of a qualification;
- 1.2.8 Records;
- 1.2.9 Safety management system;
- 1.2.10 Quality assurance system; and
- 1.2.11 Appendices.

2. Purpose

- 2.1. The purpose of this technical standard is to provide information and guidance to aviation training organizations in the implementation of Internationally Recommended Best Practices (IRBP) and the movement towards substantial industry self-regulation.
- 2.2. Although some of the contents or parts of the manual may be deemed to be generic, the contents should be customized to meet the specific vision and management style of the organisation. It must be stressed that each procedure prescribed must describe the unique system appropriate to each organisation and include a quality procedure. The content of a training and procedures manual should be regarded as “industrial confidential”.
- 2.3. This technical standard when applicable to flight crew training, is to be read in conjunction with Part of 61 of the Regulations. Likewise, the technical standard, when applicable to other training for licensing purposes, is to be read in conjunction with the relevant part of the regulations, e.g. maintenance training to be aligned to Part 66, etc.

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3. Compliance

- 3.1 All aviation training organizations are to include any Parts or Subparts into the existing format of the organizations' training and procedures manual within 90 days of the coming into operation of this amendment.
- 3.2 The manual must be fully amended into the new format within 3 years in accordance with regulation 141.02.2(2).
- 3.3 All new applicants, where regulation 141.02.11 is applicable, must submit the training and procedures manual in accordance with this technical standard with the application.

4. Contents of Manual

The contents of the Training and Procedures Manual must, with the necessary changes, include the following elements as far as they are appropriate to the type of the training to be provided in the format below:

4.1 Control Pages

Details of Requirement	Page No.
-------------------------------	-----------------

Cover Page	(i)
-------------------	------------

Must contain:

Registered name of ATO, in accordance with commercial legislation, and certificate Number. It must further indicate the control copy number of the TPM.

Index/Master	(ii)
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Must contain:

Complete index (list) of every section of the Training and Procedures Manual, with paragraph numbers, headings and page numbers.

In the case where a training organisation has separate volumes in a Training and Procedures Manual (TPM) System, a Master Index must include all the applicable volumes e.g. a safety management system and quality management system. Any

information or additions to the TPM which are not included in the index, or List of Effective Pages may not be accepted as an inclusion.

Foreword

(iii)

Must contain:

The foreword, or introduction, must include a statement of compliance by the Chief Executive Officer describing the standpoint and commitment to comply with regulatory requirements as an aviation training organisation.

The foreword must explain the use of and the authority of the manual and must include reference to and authority of aircraft operations manuals, or any other manuals as required, or aircraft flight manuals in the case of certain aircraft as approved. The statement should be more than one paragraph. The statement must set out the organizations commitment to aviation safety, safety in general and to any other training standard implemented by the aviation training organisation. Management recognition of authorities or organizations, other than the NCAA, and reference material for compliance by the ATO staff, should be stated.

Distribution List

(iv)

Must contain:

Control copy No.	Name of person issued to:	Signature of recipient:	Date received:	Parts held: (If applicable)

Record of Amendments

(v)

Must contain:

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No.	Date Applicable	Date Entered	Entered by

A single amendment may include the amendment of a number of paragraphs, parts, subparts and be a new edition, but the original Record of Amendments must be continued.

List of Effective Pages

(v)

Must contain:

Amendment No.	Date	Page No.(s) affected

The list forms a checklist (quality control) for the state and currency of the controlled copies issued.

The list of effective pages must start from the first page in sequence, Part 1 or page I or cover as applicable, and include all page numbers, which continue consecutively to the Appendices, as applicable, where Appendices have their own numbering system.

Glossary

(vii)

A glossary of terms, definitions and abbreviation, relevant to the use in this manual, must be included for clarity of all personnel of the organisation. The glossary is required to be reviewed regularly and updated as required.

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4.2 General (to be separated from control pages with a Divider)

The General section of the TPM must contain at least the following:

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

4.2.1.1 various parts, sections, their contents and use; and

4.2.1.2 the paragraph numbering system.

4.2.2 Review, amendment, revision and distribution procedures of the TPM. The accountable manager must document a policy and procedure for the review, amendment, revision and distribution of the training procedures manual and appoint persons responsible for the review, amendment, revision and distribution thereof.

4.2.3 The procedure for approval to deviate from the manual. The documented procedure must describe the process for approval of additional or new key personnel, activities or operations and any other approval not provided for in the manual while amendments are in progress or for an isolated situation within the authorised scope of training.

4.2.4 Description of the scope of training authorized under the organization's terms of approval, including the following lists:

4.2.4.1 training authorised on the ATO certificate of approval; and

4.2.4.2 approved sites or airports where training may originate (including flight training).

4.2.5 Organization/Organogram chart of the organisation management posts. Examples are included in Annexure A. The charts may be customized to suit the management style of the organisation.

4.2.6 The qualifications requirements, responsibilities and succession of command of management and key operational personnel, including but not limited to:

4.2.6.1 **Accountable manager.** The responsibilities of the accountable manager must include the documentation and promulgation of policies, duties and procedures consistent with the approved training, as may be applicable, for:

4.2.6.1.1 the issue and control of the ATO training and procedures manual and distribution thereof.

- 4.2.6.1.2 the appointment and evaluation of each key member and for the ATO qualification acceptance criteria for the post, including prospective flight, flight simulator and ground instructors, and any other instructors required.
- 4.2.6.1.3 the succession of command of management and key operational personnel ensuring that an ATO has supervision by a Grade I or Grade II instructor or alternatively the Head of Training at the organisation, at all times.
- 4.2.6.1.4 each key member post.
- 4.2.6.1.5 the promulgation and maintenance of all training syllabi and curricula accredited to the organisation as in Parts 6, 7 and 8 below.
- 4.2.6.1.6 all aspects included in 1.9 below and any other part as may be required for management of the ATO.
- 4.2.6.1.7 the compliance with the OHSA.
- 4.2.6.1.8 ATO student administration, or the responsible person able to engage in a contract with each student for training and financial obligations in writing.
- 4.2.6.2 **Head of training.** In small(er) organization (Annexure A), the Chief Flight Instructor or Head of Training would normally be responsible for training. The head of training (HOT) may assume all or part of the responsibilities of the CFI or Chief Maintenance Instructor (CMI) mentioned below provided that for those responsibilities requiring such, the HOT is the holder of a valid Grade I or Grade II.
- 4.2.6.3 instructor rating as applicable to the type of training provided by the ATO. The HOT would normally be responsible for ensuring that:
 - 4.2.6.3.1 all training staff are versed in the content of the ATO training and procedures manual.
 - 4.2.6.3.2 all training is carried out in accordance with the ATO Training Plan and that relevant regulations are complied with.
 - 4.2.6.3.3 theoretical training syllabi and ATO curriculum is adhered to as described in Parts 4.6, 4.7 and 4.8 below.
 - 4.2.6.3.4 records are kept in accordance with Part 10 below.
 - 4.2.6.3.5 quality control to ensure high standards with respect to all policies and procedures affecting the training at the ATO.

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4.2.6.3.6 oversight of student training with reference to:

4.2.6.3.6.1 student progress, records (Part 10) and maintenance of student training files;

4.2.6.3.6.2 the training plan (Part 4.5);

4.2.6.3.6.3 training syllabus (Part 4.6);

4.2.6.3.6.4 simulator training syllabus (Part 4.7), if applicable;

4.2.6.3.6.5 theoretical knowledge syllabus (Part 4.8);

4.2.6.3.6.6 tests and checks (Part 4.9)

4.2.6.4 **Chief flight instructor (flight training).** The Chief flight instructor must be the holder of a valid Grade 1 or Grade II flight instructor rating in the category of aircraft operated by the ATO and is, in addition, responsible for ensuring that:

4.2.6.4.1 the flight, flight simulator and theoretical training syllabi and ATO curriculum is adhered to as described in Parts 6, 7 and 8 below.

4.2.6.4.2 the flight authorization book as required in CATS 141 is comprehensively completed and controlled in accordance with the ATO training and procedures manual.

4.2.6.4.3 a high standard of flying discipline is maintained in accordance with the policy prescribed in ATO Flight training manual.

4.2.6.4.4 oversight is carried out over Grade III instructors to uphold training standards and mentor instructors in preparation for a Grade II by:

4.2.6.4.4.1 allocation of instructors to students and training flights.

4.2.6.4.4.2 briefing of instructors on exercise to be carried out, recap on instructional techniques, common errors that may be expected from students and safety.

4.2.6.4.4.3 the regular monitoring of pre-flight and after-flight briefings

4.2.6.4.4.4 evaluate instructor progress in relation to student progress.

4.2.6.4.4.5 Monitoring and implementing the staff flight training to assess if training meets the ATO and regulatory requirements prescribed in Part 4 below.

4.2.6.5 Theoretical instructor (TI) or chief ground instructor (CGI) The theoretical or chief ground instructor may be delegated all or part of the responsibilities delegated to the HOT or CFI in respect of ground/theoretical training and is responsible to the CFI or HOT, as may be applicable.

4.2.6.6 Maintenance manager (MM). The maintenance manager (person responsible for aircraft) is responsible for:

- 4.2.6.6.1 the maintenance and safe keeping of aircraft documentation;
- 4.2.6.6.2 the correctness of, addition, alterations and unserviceability entries made;
- 4.2.6.6.3 the handing over and acceptance from the applicable contracted Air Maintenance Organisation (AMO);
- 4.2.6.6.4 regular checking of the aircraft documentation and aircraft between servicing; and
- 4.2.6.6.5 a projected maintenance schedule.

4.2.6.7 Safety manager (SM). The safety manager is directly responsible to the Accountable Manager for:

- 4.2.6.7.1 the co-ordination, implementation, and management of a Safety Management System in accordance with Part 140, when required; and
- 4.2.6.7.2 the monitoring and implementation of the annual safety plan.

4.2.6.8 Quality manager(QM). The quality manager is directly responsible to the Accountable Manager for managing the quality management system as prescribed in regulation 141.02.3.

4.2.6.9 Instructors. The instructors (theoretical, ground, flight, practical and simulation training devices) must carry out training for which they have been evaluated and delegated. They may assist the HOT, CFI, CMI, and TI/CGI with the execution of his/her duties provided that the duties are formally documented and delegated with procedures to be followed under direct supervision of the person who delegated the duties.

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4.2.6.10 **Accountant and/or auditing agency.** To prevent irregularities in accounting practices:

4.2.6.10.1 all sole proprietors must appoint an accounting agency to administer returns to the Receiver of Revenue.

4.2.6.10.2 All ATO accounting agencies are to pay special attention to financial contractual obligations between the students and the school and the fulfillment thereof.

4.2.6.10.3 In the event of irregularities being reported, the NCAA may request from the ATO accounting agency any information in respect of the reported irregularity.

4.2.6.10.4 A signed statement by all key personnel above accepting the responsibilities of the post and acknowledging the authority of the training and procedures manual, must be included in this part of the manual.

4.2.7 A list of key personnel by appointment and name.

4.2.8 A list of instructors with licence, rating, name and position appointed in.

4.2.9 A list of aircraft, equipment and simulator(s) operated, as applicable.

4.2.10 Policies and procedures required for governing the ATO.

4.2.10.1 for flight training,

4.2.10.2 regarding approval of flights and flight authorization, the following:

4.2.10.2.1 A student may not fly unless authority is granted in writing in his/her presence for each flight separately in accordance with Subpart 2 of Part 61 and related technical standards and the instructor is competent and qualified to carry out the intended flight.

4.2.10.2.2 The flight must be authorised in an authorization book or authorization sheet as described in Subpart 2 of Part 61 and related technical standards.

4.2.10.2.3 The authorization book or sheet in paragraph (ii) above must be limited to the prescribed format and may not include any accounting information.

- 4.2.10.2.4 Should an ATO wish to make use of an electronic system, the onus is on the ATO to provide documentary proof that the integrity of the system is such that the system legally meets the requirement of signatories and audit practice.
- 4.2.10.2.5 the responsibilities of the pilot-in-command;
- 4.2.10.2.6 flight planning— general;
- 4.2.10.3 regarding carriage of passengers;
- 4.2.10.4 Regarding an operational control system, which must include but not be limited to:
- 4.2.10.4.1 availability, access and control of the ATO training and procedures manual, Air Information Circulars, Air Information Publications and Supplements.
 - 4.2.10.4.2 control and positioning of the authorization book, aircraft documentation notice boards, and emergency response plan.
 - 4.2.10.4.3 the method of attaining meteorological reports before flight and the display of information.
 - 4.2.10.4.4 completion and submission of flight plans and reference to NOTAMs.
 - 4.2.10.4.5 feedback to flying personnel on all relevant management, environmental, safety or operational information.
 - 4.2.10.4.6 notice boards, student/instructor status boards, aircraft status boards and the information that is to be displayed.
 - 4.2.10.4.7 the control of log books, student and instructor files
 - 4.2.10.4.8 flying duty period and flight time limitations for flying staff and students;
 - 4.2.10.4.9 rest periods for flying staff and students;
 - 4.2.10.4.10 for weight and balance calculations before flight:
 - 4.2.10.4.10.1 as an ATO is a training organisation and in order to instill good practice habits, a weight and balance calculation is to be documented in accordance

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with the respective flight operations manual and/or as approved by the NCAA for each flight.

- 4.2.10.4.10.2 no flight may be authorised without a weight and balance documents being completed and checked by an instructor.
- 4.2.10.4.10.3 the weight and balance sheets must be kept for a period of 6 months and made available during NCAA audits.
- 4.2.10.4.10.4 a scale(s) suitable for the purpose of the ATO approved training must be available.
- 4.2.10.5 for all other training, as applicable, regarding the following:
 - 4.2.10.5.1 student management, including financial policies and student enrolment, progress, assessment and certification;
 - 4.2.10.5.2 course management, including lesson plans, curriculum development, instructor assignment, course arrangements, examinations and tests etc.
- 4.2.10.6 for the safety management system, including hazards, accidents and incidents which is to include an annual safety plan and risk assessment procedure. The information gathered must be conveyed to students through the feedback system.
- 4.2.10.7 for review and amendment of controlled or official publications relevant to the training provided, for example, Aeronautical Information Circulars (AIC), the Aeronautical Information Publication (AIP) and Supplements (AIP SUPP), and other externally and internally controlled documents.
- 4.2.10.8 feedback system which must include all information requiring the attention of training personnel and students, especially elements of safety. For quality assurance purposes, the process should include feedback to management as to when and how the information has been disturbed.
- 4.2.10.9 for any other procedure identified by the NCAA for compliance by an ATO. Where during an audit, NCAA personnel identify an element of safety management not being adequately addressed by the ATO, or where an ATO has a unique operation, additional policies and procedures not included in this document may be required to be included.

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4.2.10.10 for maintenance of discipline during course as required.

4.2.10.11 description of the facilities available, including:

- 4.2.10.11.1 the number and size of classrooms;
- 4.2.10.11.2 training aids provided;
- 4.2.10.11.3 flight simulation training devices and training aircraft; and
- 4.2.10.11.4 the OHSA requirements that includes but are not limited to:
 - 4.2.10.11.4.1 fire extinguisher positioning, first aid kits, first aid kit positioning, first aid personnel, and personnel requirements; and
 - 4.2.10.11.4.2 emergency evacuation plans, etc.

4.3 Aircraft Operating Information (flight training schools only)

- 4.3.1 Certification and operating limitations.
- 4.3.2 Aircraft handling, including:
 - 4.3.2.1 performance limitations.
 - 4.3.2.2 use of checklists; and
 - 4.3.2.3 aircraft maintenance procedures.
- 4.3.3 Instructions for aircraft loading, weight and balance calculations and securing of load. The processes, which are aligned with the policy referred to in the weight and balance section of these CATS above for aircraft loading, weight and balance calculations and securing of load must be described.
- 4.3.4 Fueling procedures, including non-standard refueling as may be applicable.
 - 4.3.4.1 A full description of the correct refueling procedure with regard to checking fuel before and after refueling, static grounding of the fuel tanker and aircraft, and best practices in refueling is required.

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4.3.4.2 Where other means of refueling are in use or envisaged, such as refueling from drums, the procedures for checking the fuel, grounding, storage of drums for a long period, and drum fuel best practices are to be described.

4.3.5 Emergency procedures

4.4 Routes (flight training only)

4.4.1 Performance criteria, e.g.: take-off, route, landing, etc.

4.4.2 Flight planning procedures including:

4.4.2.1 fuel and oil requirements;

4.4.2.2 minimum safe altitudes; and

4.4.2.3 navigation equipment

4.4.3 Weather minima for all instructional training flights during day, night, VFR and IFR operations.

4.4.4 Weather minima for all student training flights at various stages of training.

4.4.5 Training routes, general flying areas (FAD) and practice areas. Flight training areas are coded as Danger Areas (FAD) to advise airmen of flying activities.

4.4.5.1 All ATOs must restrict flying to FADs or areas where the necessary permission have been granted from the appropriate authorities and the appropriate NOTAMs have been issued.

4.4.5.2 Training areas and routing to the areas must be displayed on an aeronautical map accessible to all flying personnel.

4.4.6 In flight procedures must include:

4.4.6.1 Navigation log, including time keeping, fuel log, and updating

4.4.6.2 Radio procedures and best practices

4.4.6.3 Map reading

4.4.6.4 Joining procedures

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4.5 Staff training

- 4.5.1 Persons responsible for standards and competency of instructional personnel.
- 4.5.2 Details of the procedures to determine competency of instructional personnel as required by regulation 141.02.4(3).
- 4.5.3 Details of the training program for instructional personnel as required by regulation 141.02.4(4).
- 4.5.4 Procedures for proficiency checks and upgrade training.

4.6 Training plan

- 4.6.1 Aim of the course in the form of a statement of what the student is expected to do as a result of the training, the level of performance, and the training constraints observed.
- 4.6.2 Pre-entry requirements, including:
 - 4.6.2.1 minimum age;
 - 4.6.2.2 education requirements;
 - 4.6.2.3 medical requirements; and
 - 4.6.2.4 linguistic requirements.
- 4.6.3 Credits for previous experience, for which approval should be obtained from the NCAA before the training commences.
- 4.6.4 Training curricula, with an aim, expected result and performance level including the:
 - 4.6.4.1 flying curriculum (single engine or multi-engine for flight training);
 - 4.6.4.2 practical training curriculum ;
 - 4.6.4.3 theoretical knowledge curriculum and
 - 4.6.4.4 simulation training curriculum.
- 4.6.5 The general arrangements of daily and weekly programs for practical training, theoretical training and simulation training.

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4.6.6 Training policies in terms of:

- 4.6.6.1 bad weather or other constraints;
- 4.6.6.2 maximum student training times, practical, theoretical knowledge and simulation training, per day/week/month;
- 4.6.6.3 restrictions in respect of training periods for students;
- 4.6.6.4 duration of training at various stages, including for flights for flight training;
- 4.6.6.5 maximum student flying hours in any day or night period for flight training;
- 4.6.6.6 maximum number of student training flights in any day or night period for flight training; and
- 4.6.6.7 minimum rest periods between training periods.

4.6.7 Policy for the conduct of student evaluation, including:

- 4.6.7.1 procedures for practical progress checks and practical skill tests;
- 4.6.7.2 procedures for knowledge progress tests and knowledge tests;
- 4.6.7.3 procedures for authorization for tests;
- 4.6.7.4 procedures for refresher training before retest;
- 4.6.7.5 test reports and records;
- 4.6.7.6 procedures for knowledge test preparation, type of questions and assessments, standards required for a pass;
- 4.6.7.7 procedures for question analysis and review and issuing replacement exams; and
- 4.6.7.8 knowledge test re-write procedures.

4.6.8 Policy regarding training effectiveness, including:

- 4.6.8.1 individual student responsibilities;
- 4.6.8.2 liaison procedures between training departments;

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- 4.6.8.3 procedures to correct unsatisfactory progress;
- 4.6.8.4 procedures for changing instructors;
- 4.6.8.5 maximum number of instructor changes per student;
- 4.6.8.6 internal feedback system for detecting training deficiencies;
- 4.6.8.7 procedures for suspending a student from training;
- 4.6.8.8 requirements for reporting and documentation; and
- 4.6.8.9 completion standards at various stages of training to ensure standardization.

4.7 Training syllabus

- 4.7.1 Detailed statement of the content specifications of all training exercises to be taught, arranged in sequence to be trained with main and sub-titles.
- 4.7.2 In the case of flight training, flight lesson reference list in the form of an abbreviated list of the above exercises giving only main and sub-titles for quick reference in a form to facilitate daily use by instructors.
- 4.7.3 Statement of how the course will be divided into phases, indicating how they will be arranged to ensure completion in the most suitable learning sequences and that essential or emergency training exercises are repeated at the proper frequency.
- 4.7.4 Syllabus hours for each phase of training and for groups of lessons within each phase and when progress tests are to be conducted.
- 4.7.5 Statement of what a student is expected to be able to do and the standard of proficiency required before progressing from one phase of training to the next. Include minimum experience requirements in terms of hours, where applicable and satisfactory exercise completion before undertaking significant lessons (such as night flying in the case of flight training).
- 4.7.6 Requirements for instructional methods, particularly with respect to briefings, adherence to syllabi and training specifications, and authorization of solo flights in the case of flight training or sign-off on competence for other training.
- 4.7.7 Instruction in respect to the conduct and documentation of all progress checks.

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4.7.8 Instruction, where applicable, given to all examining staff in respect to the conduct of tests.

4.8 Simulation training syllabus

Syllabus for simulation training must be structured generally as in paragraph 4.7 above.

4.9 Theoretical knowledge syllabus

- 4.9.1 The syllabus for theoretical knowledge instruction must be structured generally as in paragraph 7 above but with a training outcome specification and objective for each subject. Ground or theoretical training and flight or practical training should be included, where appropriate.
- 4.9.2 As for flight or practical training the theoretical knowledge for each subject must be divided into modules that are to be completed before the respective flight or theoretical training may be conducted.
- 4.9.3 Each module must be divided into lessons which make up the programme, and together with other same subject modules, make up the lesson time prescribe in the CAR for the course, if applicable.
- 4.9.4 An attendance register in accordance with the ATO training programme/plan is to be kept for inclusion in each individual student's training file, signed by the student, as proof of attendance. Without proof of attendance, licences may not be issued. In the event of an accident or incident investigation, these records will have to be produced as proof that the school carried out the training required at the stage of the student training.
- 4.9.5 A procedure for the liaison with the NCAA with regard to examination results in order to improve training material and quality of instruction should be developed.

4.10 Tests and checks conducted for the issuance of a licence or a rating

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4.10.1 Should a training organisation be approved by the Executive Director to conduct the testing or examining required for the issuance of a licence or rating in accordance with Parts 61, 62, 63, 64, 65, or 66 the training and procedures manual must include-:

- 4.10.1.1 the name/s of the personnel with testing authority and scope of the authority;
- 4.10.1.2 the role and duties of the authorized personnel;
- 4.10.1.3 if the school has been given authority to appoint personnel to conduct the testing or examination required for the issuance of a licence or rating, the minimum requirement for appointment as well as the selection and appointment procedure; and
- 4.10.1.4 applicable requirements established by the NCAA such as:
 - 4.10.1.4.1 procedures to be followed in the conduct of checks and tests and examinations; and
 - 4.10.1.4.2 methods for completion and retention of testing records for the authorized personnel and students, as required by the NCAA.

4.11 Records

4.11.1 Policy and Procedures regarding:

- 4.11.1.1 Attendance records;
- 4.11.1.2 Student training records;
- 4.11.1.3 Staff training and qualification records;
- 4.11.1.4 Person responsible for checking records and student personal logs;
- 4.11.1.5 Nature and frequency of record checks;
- 4.11.1.6 Standardization of record entries;
- 4.11.1.7 Personal log entries;
- 4.11.1.8 Security of records and documents;
- 4.11.1.9 Retention of records; and
- 4.11.1.10 Records management.

4.12 Safety management system

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Provide a description of the safety management system with reference to a separate safety management manual or include the full safety management system in this part of the training and procedures manual. (see Part 140 for SMS requirements)

4.13 Quality Management system

Provide a description of the quality management system, as required by regulation 141.02.3, with reference to a separate quality assurance manual or, include the full quality assurance system in this part of the training and procedures manual.

4.14 Appendices

Sample progress test forms, navigation logs, test reports and records, a copy of the approved training organization approval document, as required

141.02.3 QUALITY MANAGEMENT SYSTEM

1. Requirements for a quality management system

1.1. General

The training organization must establish a quality assurance system, acceptable to the Executive Director, which ensures that training and instructional practices comply with all relevant requirements.

1.2. Quality policy and strategy

- 1.2.1. The ATO must describe how the organization formulates, deploys, and reviews its policy and strategy and turns it into plans and actions applicable to all levels of the organization. A formal written quality policy statement should be established that is a commitment by the head of the training organization (CEO) who is deemed to be the accountable manager, as to what the quality assurance system is intended to achieve. The quality policy must reflect the achievement and continued compliance with relevant parts of Part 141, together with any other Parts that applies or any additional standards specified by the ATO.
- 1.2.2. The accountable manager of the training organization will have overall responsibility for the quality assurance system including the frequency, format and structure of the internal management review and analysis activities and may delegate the

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responsibility for the tasks, defined under paragraph 3 below, to a quality manager.

1.3. Quality manager

- 1.3.1. 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 ATO and any additional requirements of the Executive Director are being carried out properly.
- 1.3.2. The quality manager is responsible for ensuring that the quality assurance system is properly implemented, maintained and continuously reviewed and improved.
- 1.3.3. The quality manager must:
 - 1.3.3.1. have direct access to the accountable manager; and
 - 1.3.3.2. have access to all parts of the ATO's organization.
- 1.3.4. The quality manager is responsible for ensuring that personnel training relating to the quality assurance system is conducted.

1.4 Quality management system

- 1.4.1 The quality assurance system of the ATO must ensure compliance with requirements, conformance to standards and adequacy of training activities conducted.
- 1.4.2 Every process that assists the ATO to achieve its results should be identified and the activities and procedures documented.
- 1.4.3 The ATO must specify the basic structure of the quality assurance system applicable to all training activities conducted.

1.5 Feedback System

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

1.6 Documentation

- 1.6.1 Relevant documentation includes the relevant part(s) of the Training and Procedures Manual, which may be included in a separate quality manual.

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1.6.2 In addition, relevant documentation must also include the following:

- 1.6.2.1 quality policy;
- 1.6.2.2 terminology;
- 1.6.2.3 specified training standards;
- 1.6.2.4 a description of the organization;
- 1.6.2.5 the allocation of duties and responsibilities; and
- 1.6.2.6 training procedures to ensure regulatory compliance.

1.6.3 The quality assurance audit programme, reflecting:

- 1.6.3.1 schedule of the monitoring process;
- 1.6.3.2 audit procedures;
- 1.6.3.3 reporting procedures;
- 1.6.3.4 follow-up and corrective action procedures;
- 1.6.3.5 recording system; and
- 1.6.3.6 document control.

1.7 Quality management audit programme

The quality management audit programme must include all planned and systematic actions necessary to provide confidence that all training are conducted in accordance with all applicable requirements, standards and procedures.

1.8 Quality inspection

1.8.1 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.

1.8.2 Subject areas for quality inspections must include:

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- 1.8.2.1 actual flight and ground training;
 - 1.8.2.2 maintenance;
 - 1.8.2.3 technical standards; and
 - 1.8.2.4 training standards.
- 1.8.3 all procedures included in the training and procedures manual to ensure the processes instituted meet the aviation training organisation intended goal and facilitate improvement in the processes.

1.9 Audit

- 1.9.1 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 must be conducted. It includes a comparison of how the procedures comply with the regulatory and other requirements.
- 1.9.2 Audits must include at least the following quality procedures and processes:
- 1.9.2.1 an explanation of the scope of the audit;
 - 1.9.2.2 planning and preparation;
 - 1.9.2.3 gathering and recording evidence; and
 - 1.9.2.4 analysis of the evidence.
- 1.9.3 The various techniques that make up an effective audit are:
- 1.9.3.1 interviews or discussions with personnel;
 - 1.9.3.2 a review of published documents;
 - 1.9.3.3 the examination of an adequate sample of records (normally to a defined level, of confidence (e.g. 95% or 80% confidence) that the sample is representative of the population audited);

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1.9.3.4 the witnessing of the activities which make up the training; and

1.9.3.5 the preservation of documents and the recording of observations.

1.10 Auditors

1.10.1 The ATO must 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 must have relevant training and/or operational experience.

1.10.2 The responsibilities of the auditors must be clearly defined in the relevant documentation. The auditor/s used may not in any way be involved in any of the activities relating to the safety management system.

1.11 Auditor's independence

1.11.1 Auditors may not have any day-to-day involvement in the area of the operation or maintenance activity that 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.

1.11.2 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 in terms of an agreement acceptable to the NCAA.

1.11.3 In all cases, the ATO must 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 or has extensive overall experience in the aviation industry.

1.11.4 The quality assurance audit programme of the ATO must identify the persons within the company who have the experience, responsibility and authority to:

1.11.4.1 perform quality inspections and audits as part of ongoing quality assurance;

1.11.4.2 identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings;

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- 1.11.4.3 initiate or recommend solutions to concerns or findings through designated reporting channels;
- 1.11.4.4 verify the implementation of solutions within specific time scales; and
- 1.11.4.5 report directly to the quality manager.

1.12 Audit scheduling

- 1.12.1 A quality assurance audit programme must 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.
- 1.12.2 An ATO must establish a schedule of audits to be completed during a specific calendar period. All aspects of the training must be reviewed within a period of twelve months in accordance with the programme.
- 1.12.3 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 standards and requirements.

1.13 Monitoring and corrective action

- 1.13.1 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 compliance with requirements and conformance to standards on a continuing basis. This monitoring activity should be aimed at eliminating the causes of unsatisfactory performance.
- 1.13.2 Any non-conformance identified must be communicated to the manager responsible for taking corrective action or, if appropriate, the head of the training organization. Such non-conformance must be recorded, for the purpose of further investigation, in order to determine the cause and to enable the recommendation of appropriate corrective and preventive action.
- 1.13.3 The quality assurance audit programme must include procedures to ensure that corrective and preventive actions are developed in response to findings. These quality

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procedures must 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 where the finding was identified. The accountable manager (CEO) will have the ultimate responsibility for ensuring, through the quality manager(s), that corrective action has re-established conformance with the standard required by the ATO and any additional requirements established by the NCAA or the ATO.

- 1.13.4 The ATO should identify internal and external customers, and monitor their satisfaction by measuring and analysis of customer feedback.

1.14 Management review and analysis

- 1.14.1 Management must accomplish a comprehensive, systematic documented review and analysis of the quality assurance system, training policies, and procedures, and should consider:

1.14.1.1 the results of quality inspections, audits and any other indicators;

1.14.1.2 the overall effectiveness of the management organization in achieving stated objectives; and

1.14.1.3 correcting trends, and preventing, where applicable, future non-conformities.

- 1.14.2 Conclusions and recommendations made as a result of the review and analysis must be submitted in writing to the responsible manager for action. The responsible manager must be an individual who has the authority to resolve issues and take action. The head of the training organization must decide upon the frequency, format, and structure of internal review and critical analysis meetings.

1.15 Recording

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

- 1.15.2 The following records must be retained at least for the period that may be required by national requirement. In the absence of such requirements, a period of five years is recommended:

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- 1.15.2.1 audit schedules;
- 1.15.2.2 quality inspection and audit reports;
- 1.15.2.3 responses to findings;
- 1.15.2.4 corrective and preventive action reports;
- 1.15.2.5 follow-up and closure reports; and
- 1.15.2.6 management review and analysis reports.

1.16 Quality assurance responsibility for satellite ATOs

- 1.16.1 An ATO may decide to sub-contract certain activities to external organizations subject to the approval of the NCAA.
- 1.16.2 The ultimate responsibility for the training provided by the satellite ATO always remains with the ATO. A written agreement must 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 must be included in the ATO's quality assurance audit programme.
- 1.16.3 The ATO must 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 that 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.

1.17 Quality insurance system training

- 1.17.1 Correct and thorough training is essential to optimize quality in every organization. In order to achieve significant outcomes of such training the ATO must ensure that all staff understands the objectives as laid down in the training and procedures or quality manual, as may be applicable.
- 1.17.2 Those responsible for managing the quality assurance system must receive training covering:
 - 1.17.2.1 an introduction to the concept of quality assurance system;

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- 1.17.2.2 quality management;
- 1.17.2.3 concept of quality assurance;
- 1.17.2.4 quality manuals;
- 1.17.2.5 audit techniques; and
- 1.17.2.6 reporting and recording.

1.18 The way in which the quality system will function in the ATO

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

1.19 Sources of personnel training

Quality assurance courses are available from various national or international standards institutions, and an ATO should consider whether to offer such courses to those likely to be involved in the management of the Quality Assurance System. Organizations with sufficient appropriately qualified staff should consider whether to carry out in-house training.

141.02.6 ACCOMMODATION, FACILITIES & EQUIPMENT

1. Information, equipment, material and device requirements

1.1 Flight Training

1.1.1 Facilities

An applicant for, and holder of an ATO certificate conducting flight training must have facilities, appropriate for the maximum number of students expected to be taught at any time, but it must include at least the following:

1.1.1.1 Flight operations facilities:

1.1.1.1.1 An operations room

1.1.1.1.2 A flight planning room

1.1.1.1.3 Adequate briefing rooms;

1.1.1.1.4 Offices for the instructors.

1.1.1.2 Knowledge instruction facilities, including –

1.1.1.2.1 Classroom accommodation;

1.1.1.2.2 Suitable demonstration equipment;

1.1.1.2.3 An RT training and testing facility;

1.1.1.2.4 A library;

1.1.1.2.5 Offices for instructors.

1.1.2 Training Aircraft

1.1.2.1 An applicant for, or holder of, an ATO certificate must ensure that each aircraft used for flight instruction and solo flights is listed on the ATO Operations Specification form and meets the following requirements:

1.1.2.1.1 The aircraft must have an airworthiness certificate or a foreign equivalent certificate acceptable to the NCAA. In cases where the ATO is requested to provide training on an aircraft which is not owned or leased by the ATO, the ATO must apply to the NCAA for the approval of the use of such an aircraft.

1.1.2.1.2 The aircraft must be equipped as provided in the training specifications for the approved course for which it is used.

1.1.2.1.3 Each aircraft used in flight training must have at least two pilot stations with engine power controls that can be easily reached and operated in a normal manner from both pilot stations;

1.1.2.1.4 Aero-planes with controls such as nosewheel steering, switches, fuel selectors, and engine air flow controls that are not easily reached and operated in a conventional manner by both pilots may be used for flight instruction if the NCAA determines that the flight instruction can be conducted in a safe manner considering the location of controls and their nonconventional operation, or both.

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- 1.1.2.1.5 Each aircraft used in a course involving instrument flight rule and en-route operations and instrument approaches must be equipped and maintained for instrument flight rule operations. For maneuvering of an aircraft by reference to instruments, the aircraft may be equipped as provided in the approved course of training.
- 1.1.2.1.6 Training aircraft to be used by an applicant for or the holder of an ATO certificate must be maintained and inspected under an approved maintenance program as appropriate to the aircraft take off mass, type of power plants and aircraft category.
- 1.1.2.1.7 Each ATO conducting aircraft maintenance under its own Approved Maintenance Organization (AMO) certificate must conduct maintenance in accordance with approved maintenance procedures that may be included in the training and procedures manual or in a separate manual. If the ATO chooses to use a separate manual it must be entitled: Maintenance Procedures Manual.
- 1.1.2.1.8 Each ATO having aircraft maintenance performed under the AMO certificate of a separate organization must provide maintenance control procedures approved by the Authority and included in the training and procedures manual or in a separate manual. If the ATO chooses to use a separate manual it must be entitled: Maintenance Control Manual.

1.1.3 Aerodromes and Sites

- 1.1.3.1 Each applicant for, and holder of, an ATO certificate must show that it has continuous use of each airport and sites (for training) at which training flights originate, and that the airport has an adequate runway and the necessary equipment.
- 1.1.3.2 The base aerodrome, and any alternative base aerodrome, at which flying training is being conducted must have at least one runway or take-off area that allows training aircraft to make a normal take-off or landing at the maximum certificated take-off or maximum certificated landing mass, under the following conditions:
 - 1.1.3.2.1 Under calm wind (not more than four knots) conditions;
 - 1.1.3.2.2 At temperatures equal to the mean high temperature for the hottest month of the year in the operating area;
 - 1.1.3.2.3 If applicable, with the powerplant operation, and landing gear and flap operation recommended by the manufacturer; and

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1.1.3.2.4 In the case of a takeoff —

1.1.3.2.4.1 Clearing all obstacles in the take-off flight path by at least 50 feet;

1.1.3.2.4.2 With a smooth transition from lift-off to the best rate of climb speed without exceptional piloting skills or techniques;

1.1.3.2.5 Each airport must have a wind direction indicator that is visible at ground level from the ends of each runway;

1.1.3.2.6 Have adequate runway electrical lighting if used for night training; and

1.1.3.2.7 Have a traffic direction indicator when:

1.1.3.2.7.1 The airport does not have an operating control tower; and

1.1.3.2.7.2 Traffic and wind advisories are not available.

1.1.3.2.8 Except as specified in the next bullet below, each airport used for night training flights must have permanent runway lights

1.1.3.2.9 An airport or seaplane base used for night training flights in seaplanes may be approved by the NCAA to use adequate, non-permanent lighting or shoreline lighting.

1.1.3.2.10 Sites must be available for:

1.1.3.2.10.1 Confined area operation training.

1.1.3.2.10.2 Simulated engine off autorotation;

1.1.3.2.10.3 Sloping ground operation.

1.2 Maintenance training

1.2.1 Facilities

1.2.1.1 An applicant for or holder of an ATO certificate must have facilities and working environment, appropriate to the task to be performed, acceptable to the NCAA and appropriate for the maximum number of students expected to be taught at any time, as follows:

1.2.1.1.1 An enclosed classroom.

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- 1.2.1.1.2 Suitable facilities arranged to assure proper separation from the working space, for parts, tools, materials and similar articles.
- 1.2.1.1.3 Suitable area for application of finishing materials, including paint spraying.
- 1.2.1.1.4 Suitable areas equipped with wash tank and degreasing equipment with air pressure or other adequate cleaning equipment.
- 1.2.1.1.5 Suitable facilities for running engines.
- 1.2.1.1.6 Suitable area with adequate equipment, including benches, tables, and test equipment, to disassemble, service and inspect:
 - 1.2.1.1.6.1 Ignition systems, electrical equipment and appliances;
 - 1.2.1.1.6.2 Carburetors and fuel systems; and
 - 1.2.1.1.6.3 Hydraulic and vacuum systems for aircraft, aircraft engines, and their appliances.
- 1.2.1.1.7 Suitable space with adequate equipment, including tables, benches, stands and jacks for disassembling, inspecting and rigging aircraft.
- 1.2.1.1.8 Suitable space with adequate equipment for disassembling, inspecting, assembling, troubleshooting and timing engines.

1.2.2 Equipment

- 1.2.2.1 An applicant for, or holder of an ATO certificate with approved AME courses must have and maintain the following instructional equipment as is appropriate to the rating sought:
 - 1.2.2.1.1 Various kinds of airframe structures, airframe systems and components, powerplants and powerplant system and components (including propellers) of a quantity and type suitable to complete the practical projects required by its approved training program;
 - 1.2.2.1.2 At least one aircraft of a type acceptable to the NCAA;
- 1.2.2.2 An applicant for, or holder of an ATO certificate with an AME rating must have airframes, powerplants, propellers, appliances and components thereof, to be used for instruction and from which students will gain practical working experience and must ensure that the airframes, powerplants, propellers, appliances and components thereof be sufficiently diversified as to show the different methods of construction, assembly, inspection and operation when installed in an aircraft for use.

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- 1.2.2.3 An applicant for an ATO certificate with an AME rating, or an applicant seeking an additional AME rating, must have at least the facilities, equipment and materials appropriate to the rating sought.
- 1.2.2.4 An applicant for, or holder of, an ATO certificate with an AME rating must maintain, on the premises and under the full control of the ATO, an adequate supply of material, special tools and shop equipment used in constructing and maintaining aircraft as is appropriate to the approved training program of the ATO, in order to assure that each student will be properly instructed.
- 1.2.2.5 A certificate holder may not make a substantial change in facilities, equipment or material that have been approved for a particular training program, unless that change is approved by the NCAA in advance.

1.3 Cabin Crew training

1.3.1 Facilities

- 1.3.1.1 An applicant for, and holder of an ATO certificate conducting cabin crew training must have facilities, appropriate for the maximum number of students expected to be taught at any time, but it must include at least the following:

1.3.1.2 Flight Operations facilities:

- 1.3.1.2.1 An operations room
- 1.3.1.2.2 Adequate briefing rooms;
- 1.3.1.2.3 Offices for the instructors.

1.3.1.3 Knowledge instruction facilities, including—

- 1.3.1.3.1 Classroom accommodation;
- 1.3.1.3.2 Suitable demonstration equipment;
- 1.3.1.3.3 A library;
- 1.3.1.3.4 Offices for instructors.

1.3.2 Training Aircraft/simulation device:

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1.3.2.1 An applicant for, or holder of, an ATO certificate must ensure that each aircraft/simulation device used for cabin crew instruction meets the following requirements:

1.3.2.1.1 The aircraft must be equipped as provided in the training specifications for the approved course for which it is used.

1.3.2.1.2 Training aircraft/simulation devices to be used by an applicant for or the holder of an ATO certificate must be qualified, maintained and inspected as appropriate.

1.3.3 Equipment

1.3.3.1 Training equipment used, specifically for emergency, first aid and safety training must be adequate for theoretical and practical training to be presented by the ATO.

1.4 Air Traffic Service Personnel Training

1.4.1 Facilities

1.4.1.1 An applicant for, and holder of an ATO certificate conducting ATS training must have facilities, appropriate for the maximum number of students expected to be taught at any time, but it must include at least the following Knowledge instruction facilities:

1.4.1.1.1 Classroom accommodation;

1.4.1.1.2 Suitable demonstration equipment;

1.4.1.1.3 A radio telephony training and testing facility;

1.4.1.1.4 A library;

1.4.1.1.5 Offices for instructors.

1.4.2 Equipment

1.4.2.1 The applicant for an ATO certificate conducting ATS training must have at least the equipment required to suitably demonstrate at a practical level the ability of the student to perform functions related to aerodrome, approach, and area control and/or ATSA ratings, as applicable.

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1.4.2.2 Where simulated training devices are used, it must be approved by the Executive Director.

1.5 Test/Examination Centers

1.5.1 Facilities

1.5.1.1 The Testing Area must be large enough to accommodate the maximum number of envisaged students for any single examination sitting.

1.5.1.2 Desks must be suitable, min 0.91 meters long , wide enough and more than 1.52meter apart if not partitioned.

1.5.1.3 Chairs must be comfortable and/or suitable.

1.5.1.4 The examination venue must have adequate lighting

1.5.1.5 If a computer test, the computer screens must be free of glare.

1.5.1.6 The center must have proper temperatures and ventilation control and be free of excessive acoustics and noise distractions or disturbances.

1.5.1.7 If non test activities are conducted in the same area, there must be a procedure to ensure non test activities are not conducted in the venue simultaneously with testing.

1.5.2 Personnel

1.5.2.1 Examination/test invigilators must be appointed and must be familiar with invigilation rules as published by NCAA.

1.5.2.2 Personnel used for invigilation must be familiar with the rules pertaining to examinations and must follow these diligently, including suspension or revocation of testing privileges.

1.5.2.3 Personnel used must at least 21 years of age,

1.5.2.4 Testing personnel must be knowledgeable and receive initial training in the requirements for tests/examinations, as well as refresher training as and when required, to be defined by the ATO.

1.5.2.5 Examiners must be appointed for test development. Instructors may be used for test development, but this must be reflected on their job descriptions.

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1.5.2.6 All tests must be reviewed and approved by the Chief Flight Instructor or the Head of Training before it may be used.

1.5.3 Reference & Testing material

1.5.3.1 A copy of the NCAA Test Centre Certificate must be displayed in a prominent place.

1.5.3.2 The ATO must develop procedures for examinations as required in their TPM. (see TS 141.02.2 (10)).

1.5.3.3 Test center records must be retained for at least 5 years.

1.5.3.4 Any supplementary manuals or reference books must be checked after use for markings or missing pages and any outdated or damaged manuals or books must be discarded.

1.5.4 Test procedures

1.5.4.1 The identity of the applicant must be verified and recorded in the attendance register before commencement of the test/examination.

1.5.4.2 The attendance register must be co-initialed by the invigilator and maintained.

1.5.4.3 Applicants that leave the room without invigilator supervision during the course of the test, the test will be nullified.

1.5.4.4 Reference material must be free of marks and must contain all pages.

1.5.4.5 Applicants must be supplied with a controlled number of rough work paper for the test/examination and may not use their own.

1.5.4.6 Invigilators must inspect each candidate's aids and ensure that test candidates do not use any means to cheat.

1.5.4.7 During the test/examination a suitable sign must be displayed to indicate that testing is in process.

1.5.4.8 The invigilator must ensure that all handouts and rough work paper is handed in.

1.5.4.9 The invigilator must erase or destroy all printed or recorded test material from the candidate's personal aids such as calculators.

1.5.5 Security & Surveillance

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- 1.5.5.1 Test venues have sufficient space between desks to enable constant walk through by invigilators or alternatively they must be fitted with CCTV cameras for monitoring of students.
- 1.5.5.2 Access to the test/examination venue during examinations by any unauthorized personnel is strictly prohibited.
- 1.5.5.3 Personnel must be familiar with emergency and safety procedures.
- 1.5.5.4 The ATO must ensure that test/examination preparation is only carried out by appointed examiners.
- 1.5.5.5 Applicants may only take a restroom break during the test/examination under the supervision of an examiner.
- 1.5.5.6 If CCTV monitoring is used, the ATO must display a sign in a prominent place informing candidates of this.
- 1.5.5.7 Any misconduct by candidates must be managed by the invigilator, informing the candidate that the test/examination session is discontinued immediately. (All evidence of misconduct must be retained). The test/examination will be nullified and in case of cheating, the candidate must be barred from examinations for a period defined in the TPM.
- 1.5.5.8 Questions regarding examination papers must be recorded in writing for the attention of the examiner. Invigilators are not allowed to answer any questions regarding the content of the test/examination.

2. Qualification of synthetic flight training devices

The qualification and approval process for synthetic flight training devices must be in accordance with Part 60.

141.02.7 APPLICATION FOR CERTIFICATE TO CONDUCT AVIATION TRAINING AND AMENDMENT OF TRAINING PROGRAMME

1. ATO Certificate approval or amendment thereof

1.1 General

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1.1.1 The application for the issuing or amendment of an ATO approval certificate including training operations specifications where applicable, must follow the following five phase certification process:

- 1.1.1.1 pre-application phase;
- 1.1.1.2 formal application phase;
- 1.1.1.3 document evaluation phase;
- 1.1.1.4 demonstration and inspection phase; and
- 1.1.1.5 certification phase.

1.2 Pre-application phase

- 1.2.1 In this step, a prospective ATO who intends to apply for an ATO approval certificate enters into preliminary discussions with the NCAA. NCAA must provide the applicant with complete information concerning the type of training which may be authorized, the data to be provided by the applicant during the next phase and the procedures which will be followed in the processing of the application, including the time frame involved for certification. It is essential that the applicant has a clear understanding of the form, content and documents required for the formal application.
- 1.2.2 A thorough and careful preliminary assessment of the application will be undertaken. The more thoroughly the applicant's competence is established at this stage, the less likelihood there will be of having serious problems in the document evaluation and the demonstration and inspection phases.
- 1.2.3 The pre-application phase must include a parallel assessment of the financial, economic and legal status of the applicant and the proposed training operation/s intended.
- 1.2.4 Upon completion of the assessment concerning the financial, economic and legal aspects of the application and after any preliminary deficiencies have been corrected, a provisional determination are be made regarding the general feasibility of the intended training operations. If the operations are found to be provisionally acceptable, the second phase of the certification process, the formal application phase, can be undertaken.
- 1.2.5 Form FSS PEL 141-01 – Prospective Aviation Training Organisation Pre-application Statement (PATOPS) must be submitted with attachments (See FSS PEL 141-03).

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1.3 Formal application phase

- 1.3.1 The formal application for an ATO approval certificate, accompanied by the required documentation, must be submitted to the NCAA, accompanied by the following forms:

FSS PEL 141-02a	Application for ATO Certificate – General
FSS PEL 141-02b	Application for ATO Certificate – Aerodromes
FSS PEL 141-02c	Application for ATO Certificate – Aircraft
FSS PEL 141-02d	Application for ATO Certificate – Training Facilities
FSS PEL 141-04	List of documents to be submitted with formal application

- 1.3.2 The submission of a formal application means that the applicant is aware of the regulations and rules applicable to the proposed aviation training operation/s, and is prepared to show the method of compliance. It further confirms that the applicant is prepared for an in-depth evaluation, demonstration and inspection related to the required training operations, including the functioning of the administrative and organizational aspects.

1.4 Document evaluation phase

- 1.4.1 During the document evaluation phase, the NCAA inspectors will conduct a detailed examination of all documentation and manuals provided by the applicant to establish that every aspect required by the regulations is included and adequately complied with.
- 1.4.2 In order to facilitate this phase of the ATO certification process, the applicant is expected to coordinate all aspects of the development of the required documentation with the NCAA inspector responsible for the certification process.

1.5 Demonstration and inspection phase

- 1.5.1 In this phase the ATO has to demonstrate during an inspection and audit, its ability to carry out the training operation/s applied for. Inspections and audits in this phase will involve training base and satellite training facilities inspections and audits, inspection of the organization and supervision of the training operations, inspection of training

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programmes and equipment, monitoring of instructors and designated examiners and evaluation of training, testing and assessment procedures.

- 1.5.2 Demonstrations will involve amongst others, the demonstration of the training delivery, simulated training, practical training, emergency procedures (in the case of flight training, evacuation and ditching demonstrations, and demonstration flights), and OHS and security procedures in place.

1.6 Certification phase

- 1.6.1 The certification phase is the conclusion of the certification process when the NCAA inspector has confirmed that all certification requirements, both operational and economic, have been completed in a satisfactory manner, and that the ATO will comply with the applicable regulations and is fully capable of fulfilling its responsibilities and conducting a safe and efficient training operation/s.
- 1.6.2 The ATO Approval certificate is issued in the phase and if flight training is conducted, the associated training operations specifications will be issued.
- 1.6.3 Once the ATO approval certificate has been issued, the NCAA must carry out surveillance and periodic inspections and audits to ensure the ATO continues to compliance with regulations, authorizations, limitations and provisions of its ATO approval certificate.

2. Training Programme Approval

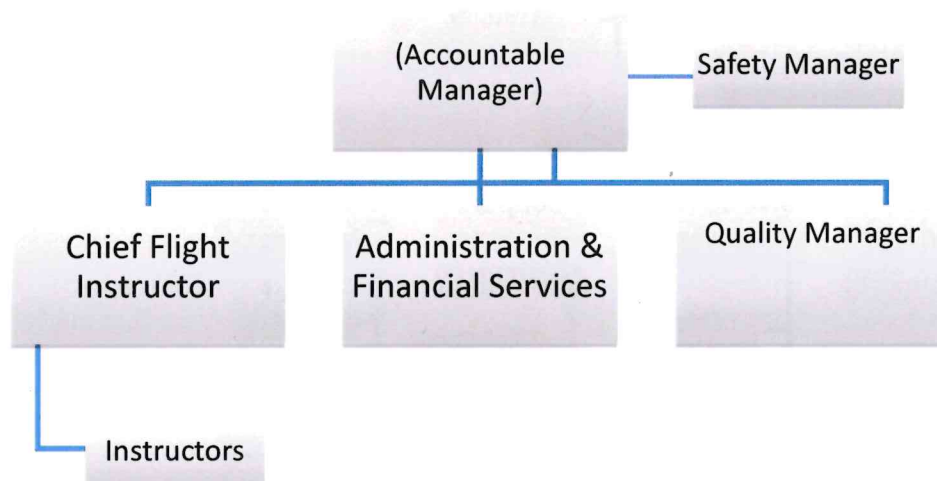
- 2.1 An applicant for or the holder of an ATO certificate must apply to the NCAA for the approval of any training programme to be delivered by them.
- 2.2 An applicant for or the holder of an ATO certificate must develop a training program for each type of course offered. This program must include -
 - 2.2.1 A breakdown of practical and theoretical knowledge instruction or training in either a week by week or phase-by-phase breakdown.
 - 2.2.2 A list of standard exercises and a summary of the curriculum, including the duration of each course module.
 - 2.2.3 The subjects and items to be covered and the level of proficiency to be met;
 - 2.2.4 Synthetic or practical training and theoretical knowledge instruction or training must be phased in such a manner as to ensure that students must be able to apply the knowledge gained during theoretical training sessions or lessons;

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- 2.2.5 A list and description of the mastery or progress tests to be completed;
- 2.2.6 Minimum training equipment requirements for each proposed phase or course;
- 2.2.7 Minimum instructor qualifications for each proposed phase or course; and
- 2.2.8 A program for initial training and continuing training of each instructor employed to instruct in a proposed course.
- 2.2.9 The content and sequence of the training program for each type of course must be submitted to the NCAA for acceptance.

ANNEXURE A: EXAMPLE ORGANISATION CHARTS

Example 1: Very Small Generic training organisation



Example 2 - Small/medium (complex) generic training organization

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This example depicts a training organization that is part of a much larger company, which oversees it as a business unit.



Example 3 - Large (complex) multi-faceted training organization

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This flight training ATO has an AMO certificate for maintenance of aircraft. The AMO may also be involved in on-the-job training for the aircraft maintenance students. In this instance, the ATO has an SMS programme covering both aircraft flight operations and maintenance activities.

