NAM-CATS 65: Air Traffic Service Personnel Licensing

CONTENTS

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 65 (Standards Relating to Air Traffic Service Personnel Licensing) to be known as Document NAM-CATS-65.

1.3 Document NAM-CATS-65 comprises the standards, rules, requirements, methods, specifications, characteristics and procedures which are applicable in respect of the licensing of Air Traffic Service personnel.

1.4 Each reference to a technical standard in this document, is a reference to the corresponding regulation in the Namibian 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.

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 standardisation;

(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.

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

65.01.3 CONVERSION OF LICENCE OR RATING ISSUED BY APPROPRIATE AUTHORITY

1. Application for conversion of licence and rating issued by an appropriate authority

The application form FSS PEL 65-04 must be completed for the issuing of the conversion of an air traffic service licence.

2. Requirements and conditions for the issue of a conversion

Any valid foreign air traffic service licence and rating may be converted by the Executive Director subject to the following conditions –

(1) the applicant must pass an examination in air law conducted by the holder of an aviation training organization approval, issued in terms of Part 141;

(2) the applicant must pass a competency assessment conducted by a rating examiner designated by the Executive Director;

(3) the applicant must have held a valid foreign rating in the position for which the conversion is sought for at least one year; and

(4) the rating referred to in (3) above must have been valid within the 24 months immediately prior to application.

3. Conversion of a Foreign License

(1) Once all requirements have been met, the foreign air traffic service licence and rating may be converted to a Namibian Air Traffic Service License and Rating by the Executive Director.

4. Compliance

The reference to Document NAM-CATS 65 in CAR 65.01.3 means the appropriate standards, rules, requirements, methods, specifications, characteristics and procedures contained in the Act, the Regulations and this Document.

65.01.5 MAXIMUM HOURS OF DUTY

1. Maximum hours of duty

(1) The maximum hours of duty of air traffic service personnel are governed by the Labour Act of 2007, as amended, and by the latest international best practice to manage fatigue effectively within air traffic service provision. An air traffic service personnel member may only work -

(a) a maximum of 8 hours in a shift or duty period, and not more than 2 discretionary hours in addition, in exceptional circumstances;

(b) a maximum of 6 hours in position

(c) a maximum of 6 consecutive work days; and

(d) a maximum of 160 hours per month.

(2) An air traffic service personnel member must have a break of minimum 30 minutes during any duty period with at least one break of one hour per shift.

(3) The following minimum non-duty or rest periods are required to be implemented:

(a) a minimum of 12 hours of rest between shifts when day shifts are worked;

(b) a minimum of 24 hours of rest after working a night shift, with a maximum of 2 consecutive night shifts worked in any 9 days cycle;

(c) a minimum of 3 working days off in every 9 days cycle; and

(d) at least 9 days off per month.

65.01.6 RECENCY

1. Recency

1.1 In order to maintain recency, an air traffic service personnel member must work at least 60 hours per sector for which they hold a validation, in every 90 day rolling cycle, of which at least 16 hours must have been completed in the previous 30 days.

2. Currency

2.1 The following requirements must be adhered to, to ensure air traffic service personnel currency.

Absence in weeks	Currency / requirement	Type of training required	Minimum experience required	Authorising Officer
<2	Current	None	None	-
2 - 15	Familiarisation	Pre-briefing + OJTI	1hour	Part 65 Subpart 13/14
16 - 25 (6 Months)	Familiarisation and a Proficiency Assessment	Pre-briefing + OJTI + Proficiency check	5 Full Shifts	Part 65 Subpart 13
26 - 52 (1 Year)	Revalidate and a Validation Assessment	OJTI + Assessment	25% Validation of CAR Part 65	Part 65 Subpart 13

53 - 104 (2 Years)	Revalidate and a Validation Assessment	OJTI + Assessment	50% Validation CAR Part 65	Part 65 Subpart 13
105+ (2 Years – 4 Years)	Rating Assessment if unsuccessful Recourse + full Validation CAR Part 65 and a Validation Assessment			Part 65 Subpart 15

65.01.10LANGUAGE

1. Certification

English Language Proficiency Certification is a requirement for all air traffic service personnel licensed in terms of Part 65.

2. English Language requirements

(1) In accordance with ICAO requirements (Chapter 1.2.9 of Annex 1) air traffic service personnel must demonstrate a minimum proficiency of at least Operational Level '4' of both ICAO Standard Phraseology and plain language.

(2) Air traffic service personnel who have not been rated at Level 6 proficiency must be tested for English Language Proficiency at the intervals stated below to ensure that they remain proficient at the required level.

PROFICIENCY LEVEL	PROFICIENCY TESTING INTERVAL
Level 6: Expert	Retesting not required
Level 5: Extended	Retesting required every six years
Level 4: Operational (Minimum level)	Retesting required every three years
Level 3: Pre-operational	Licence not issued/maintained
Level 2: Elementary	Licence not issued/maintained
Level 1: Pre-elementary	Licence not issued/maintained

(3) Language Proficiency Requirement applies to speaking and listening proficiency only and does not address the ability to read or write in the English Language.

3. Certificate of English Language Proficiency

(4) No person may be issued or re-issued with a licence referred to in Part 65 unless that person is in possession of a certificate of proficiency in the English Language issued by a Designated Language Examiner pursuant to these technical standards.

(5) A person who wishes to obtain the certificate of proficiency referred to in item (1) above must demonstrate compliance with -

(a) the holistic descriptors described in Annexure A; and

(b) at least operational level 4 of the language proficiency rating standard set out in the attached Annexure B.

4. Designated Language Examiners for the issue of English Language Proficiency Certificates

(1) General:

a. If the Executive Director is satisfied that any person is capable of providing testing in the English language to the level of proficiency which meets the ICAO requirements specified in ICAO document 9835 the Executive Director may designate that person as a Designated Language Examiner for the purpose of English Language proficiency testing.

b. A Designated Language Examiner referred to in item (1) above is authorized to conduct approved tests in English language proficiency and to issue certificates of proficiency in the English language.

c. A Designated Language Examiner must design the English Language Proficiency test in accordance with the Designated Examiner Guidance PEL G001 and PEL DLE001.

(2) Requirements for designation:

a. A person may only be considered for designation as an English Language Examiner if
   i. they are English proficient at level 6
   ii. have successfully completed an English Language Proficiency Rater's course, and
   iii. have successfully completed training on the Namibian English Language Proficiency Requirements and test material.

b. Once the documentation has been submitted to support the completion of the abovementioned requirements, the Chief of Personnel Licensing must recommend designation to the Executive Director.

c. An examiner must, upon appointment, receive a stamp from the Authority that reflects the following:
   a. Name of examiner
   b. Designation reference number.

(3) Requirements for re-designation:

a. A designated examiner may be considered for re-designation as an English Language Examiner if
   i. He/she has at least completed 12 English Proficiency tests per year, and
   ii. He/she has completed at least two standardization workshops, or
   iii. He/she has completed a refresher English Proficiency Rater's course.

b. Once documentation has been submitted to support the completion of the abovementioned requirements, the Chief of Personnel Licensing must recommend designation to the Executive Director.

(4) Examiner duties:

Designated Language examiners are required to:

a. ensure that the original form and audio recording for each test conducted, whether such test was successful or not, is submitted to the Executive Director;

b. record each test carried out with suitable notes explaining the outcome of the test;
c. submit an annual report of tests conducted within 60 days preceding the anniversary date of the designation or within 60 days preceding expiry of the designation;
d. have access to the current CAR, CATS and the current DLE Guidance Material including applicable test standards and test material;
e. administer all language tests in accordance with the test standards and material;
f. sign and stamp all test forms, clearly indicating the DLE reference number and date of the test;
g. sign and stamp the English Language Proficiency certificate;
h. notify the candidate of the outcome of the test; and
i. comply with the code of Ethics for designated examiners.

(5) Examiner Oversight:
a. The designation of examiner status is a privilege and may at any time be withdrawn by the Executive Director.
b. The Personnel Licensing inspectors must from time to time conduct safety oversight on Designated Language Examiners.

Note: Additional guidance material for English Language training and test development is available in the Manual on Implementation of ICAO Language Proficiency Requirements Document.

5. Issue of English Language Proficiency certificate

(6) Any person who wishes to obtain a certificate of proficiency referred to in item 3 above must contact the Personnel Licensing office on the telephone numbers published on the website to set up an appointment for a test.

(7) The Designated Language Proficiency Examiner must conduct an approved language proficiency test and if satisfied that the applicant meets the requirements for the issue of a certificate, issue such certificate to the applicant at operational level 4, expert level 5 or extended level 6 of the language proficiency rating standard set out in Annexure B.

(8) A person who is issued with a certificate of proficiency which is below Expert Level 6 must be re-evaluated at the intervals set out in 2.(2) above.

(9) A person who does not meet the ICAO level 4 proficiency requirement, may not be authorised to operate as an air traffic services personnel member and is required to undergo English Language training and to wait for a period of 30 days before being re-tested.

(10) The certificate issued must contain the following –
i. Name of the Certificate, i.e. English Language Proficiency Certificate;
ii. Name of Designated Language Examiner;
iii. Full Names and date of birth of the person tested;
iv. Identity Number/Passport Number of the person tested;
v. Licence number of the person tested;
vi. Licence type of the person tested;
vii. Colour ID photograph of the person tested;
viii. The overall Language Proficiency Rating.

6. Endorsement on Licence

Upon submission by any licence holder of a certificate of language proficiency issued in terms of 5(2) above the Executive Director must endorse on the licence of the certificate holder with the appropriate level of proficiency indicated on the certificate.

7. Level 6 Proficiency

(1) A person who can provide evidence of Expert English Proficiency (Level 6) by means of submission of one or more of the following types of evidence, may be considered for Level 6 Language Proficiency certification –

a. Certified copy of school leavers certificate from a State where English is the first or official language, showing a pass symbol for English; or
b. Certified copy of school leavers certificate from a State where English is the second language, showing a pass symbol for English as a minimum, including proof of residence in an English speaking country; or
c. Proof of having completed a college or university degree (at least 3 year degree) in the English language with at least 2 years current English language exposure socially or at work; or
d. Proof of long periods of residence in an English speaking country (at least 5 years) where the applicant was working in the English Language; or
e. Proof of very high scores in English Language spoken and written tests.

(2) Upon submission of supporting evidence for Level 6 Proficiency to the Personnel Licensing Office, an appointment must be scheduled for a Designated Language Examiner to complete a Level 6 Proficiency test with the Candidate to assess whether the candidate is indeed proficient at Level 6.

(3) If found not to be proficient at Level 6 during Part 1 of the test, the candidate must be so informed and the designated examiners must continue the rest of the test assessing the candidates ability to speak at levels 5 to 4.

8. Alternative Language Proficiency Certification

(11) For the purposes of paragraph 6. above, the Executive Director may accept a certificate of language proficiency issued by a competent authority of another Contracting State if the Executive Director is satisfied that the standards in that state meets the requirements set out in Chapter 1.2.9 of Annex 1 to the Convention.

(12) All persons submitting evidence for alternative language certification must be evaluated by the Executive Director and/or a delegated Personnel Licensing Inspector and may be required to complete an interview.

(13) The English Language Proficiency testing system of the country of issue of the certificate must be verified by the Executive Director, before the Language Certificate may be accepted.

65.01.11 DESIGNATION OF VALIDATION EXAMINERS AND RATING ASSESSMENT EXAMINERS

1. Conditions, rules, requirements, procedures or standards for designation of validation examiner (operational)

(a) The appointee must hold a Namibian ATS licence with the appropriate valid rating(s) and a Namibian ATS Instructor rating.

(b) Such an appointee must have validated the rating(s) referred to in (a) at a Namibian ATSU, and have exercised the privileges of such rating(s) for a period of not less than two years per rating.

(c) Application must be made to the Executive Director on form FSS PEL 65-03.

(d) The appointee must be found suitable, and be appointed by the Executive Director for Civil Aviation, in accordance with regulation 65.01.9 (1) (a).

2. Conditions, rules, requirements, procedures or standards for designation of rating assessment examiner (training organisation)

(a) The appointee must hold or have held an ATS licence with the rating(s) and an instructor certificate.

(b) Such an appointee must have validated the rating (s) referred to in (a) at a Namibian ATSU or at an ATSU recognised by the Executive Director, and have exercised the privileges of such rating(s) for a period of not less than two years per rating.

(c) Application must be made to the Executive Director on form FSS PEL 65-03.

(d) The appointee must be found suitable, and be appointed by the Executive Director for Civil Aviation, in accordance with regulation 65.01.9 (1) (b).

65.01.12 DESIGNATION OF AIR TRAFFIC SERVICE PERSONNEL

The Executive Director may designate any air traffic service personnel member to conduct training and tests under the following conditions:

1. When a new air navigation service unit is opened within Namibia, the Executive Director may designate an air traffic service personnel member to provide training to another air traffic service personnel member, when –
    a. the air traffic service personnel member has a valid rating at a unit which delivers the same or higher service than the unit being established, with at least 5 years of experience, and
    b. a valid instructor rating (operational).

65.01.16 CREDIT FOR MILITARY SERVICE

1. Recognition of Prior Learning and Experience by NDF air traffic controllers

Namibian Defence Force air traffic controllers may be exempted from all or some of the requirement to attend a ground school for an ATS licence but are required to write the examinations reflected below except where credit is given for prior learning.

(i) This exemption is applicable to all applicants who held an ATS qualification in the NDF within the 36 months preceding the date of application.

(ii) Applicants are to include in their exemption request a *Curriculum Vitae* describing his/her Namibian Defence Force Career and details of his/her ATS experience. Applicants must also include the following documents:

(a) Letter from Officer Commanding from the squadron or unit where the applicant has served/serving confirm employment or date that applicant left the Air Force and position held. This is necessary to confirm if the applicant complies with the 36 month requirement;

(b) Confirmation of positions and time worked in the NDF. This requirement determines if the applicant is eligible for an exemption;

(c) Certified copy of ID document or DCA licence, if applicable;

(iii) *Exemption at ATC level*.

Depending on the applicant's prior experience in the NDF, the applicant may be exempted from all technical examinations except Air Law. The applicant must attend a bridging course with an approved Part 141 aviation training organisation prior to entry for the examination.

(b) The applicant must work under the supervision of a qualified licence holder for at least 40 hours and must pass a competency assessment with a validation examiner.

65.01.18 CHANGE OF NAME OR ADDRESS

The notification of change of Name or Address must be made on form FSS PEL-G01.

65.01.19 DUPLICATE AIR TRAFFIC SERVICE LICENCE

The application for a duplicate licence must be made on the respective licence application form for the initial issue of the licence.

65.02.1 REQUIREMENTS

1. English Language Proficiency

The English Language proficiency requirements are those contained in TS 65.01.8.

65.02.2 TRAINING

1. Applicability

The following training standards apply to the issuing of –

(a) an air traffic service licence;

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2. Entry level requirements

(1) Age: minimum 17 years on commencing training.

(2) Educational qualifications –

(a) Grade 12/senior Certificate with a minimum of 22 admission points from 5 subjects or equivalent senior schooling rating.

(b) Mathematics, English, Science and Geography recommended.

(3) Language

The candidate must have sufficient ability in, speaking and understanding the English language.

3. Course aim

The aim of ab initio training for air traffic service personnel is to provide the candidate with the necessary knowledge, skills and attitudes to enable him/her to undertake ATS Assistant and Flight Data Operational duties in support of Air Traffic Control, and technical officers and to obtain an ATS licence with an Air Traffic Service Assistant rating

4. Course outcome

On completion of the ab initio training for air traffic service personnel, the candidate must have the necessary knowledge and skills to commence operational and clerical ATS Assistant and Flight Data Operational duties in support of Air Traffic Control, and technical officers and to obtain an ATS licence with an Air Traffic Service Assistant rating

5. Licensing

On successful completion of all training pertaining to an air traffic service licence the Executive Director may issue an ATS licence with the rating. Endorsement of the validation pertaining to the specific rating may only be done on successful completion of such validation training.

6. Theoretical training

The ab initio training course for air traffic service personnel must consist of the following theoretical modules –

(a) Aerodynamics

On completion of this module, the candidate must have a basic knowledge of aerodynamics to enable him/her to understand the operations and performance of aircraft and those factors influencing such performance and operations.

(b) Aircraft instruments, navigation and approach aids

On completion of this module the candidate must have the necessary knowledge of the principles that are applicable to the functioning of aircraft instruments, navigation and approach aids.

(c) Air law

On completion of this module the candidate must have the necessary knowledge of national air law and its application relating to personnel licensing, aerodromes and aircraft operations.

(d) ATM general procedures

On completion of this module the candidate must have the necessary knowledge of the specific documentation pertaining to ATM in order to effectively assist in the provision of ATM.

(e) ATS theory and procedures

On completion of this module the candidate must have an extensive knowledge of all the theoretical aspects and procedures pertaining to the provision of ATS in order to apply them in the execution of the operational and clerical duties as an Air Traffic Assistant and Flight Data Operator..

(f) ATC theory and procedures

On completion of this module the candidate must be able to display the necessary knowledge on all aspects relating to the practices and procedures in the provision of air traffic services.

(g) International Civil Aviation Organisation (ICAO) procedures and documents

On completion of this module the candidate must have a basic knowledge of the ICAO and selected operating mechanisms.

(h) Meteorology

On completion of this module the candidate must have a sound knowledge of various aspects of meteorology affecting aircraft operations and must be able to observe weather, interpret, assess and relay information provided by meteorological offices or other authorised sources.

(i) Navigation and maps

On completion of this module the candidate must have the necessary knowledge in order to –

(aa) explain the use of maps and charts in the provision of flight navigation assistance; and

(bb) explain and apply variation of selected positions on an aeronautical chart.

(j) Radio technical

On completion of this module the candidate must have the necessary knowledge of the operation, limitations and uses of radio and other electronic aids in the provision of air traffic services.

(k) Search and rescue

On completion of this module the candidate must have extensive knowledge of the search and rescue practices and procedures and alerting services in order to apply them efficiently while undertaking operational training; and when assisting in the provision of search and rescue and alerting services.

(m) Human factors

On completion of this module the candidate must have a basic knowledge of and understanding of the importance of human factors in the ATS workplace.

(n) RVSM

On completion of this subject the student must be equipped with the knowledge, skills and attitudes required to provide air traffic services within the designated RVSM and transition airspaces in the AFI region, in accordance with ICAO regional agreements.

(o) PBN

On completion of this subject the student must have knowledge of the current and future satellite navigation components and basic understanding of Performance Based Navigation (PBN) including:

THE GNSS, its components and how it works

RNAV and RNP Navigation Specifications;

Containment values applicable to each navigation specification

RNP APCH approach segments, associated fixes/waypoints, protected airspace and fix/waypoint naming.

6. Practical simulator training

In order to develop the practical operational skills of the candidate to the required standard, he/she must be required to apply the following procedures and principles in a simulated operational environment as appropriate for the rating being sought –

(a) Radio telephony procedures

(b) Clearance Delivery Service Procedures for ratings issued under regulation 65.05.4

(c) Flight information service procedures for ratings issued under regulation 65.06.4

(d) Aerodrome flight information service procedures for ratings issued under regulation 65.07.4

(e) Administrative procedures

7. Examination and pass requirements

(1) In order to pass the course the candidate must successfully undertake the following examinations to the prescribed standards.

EXAMINATION	REQUIRED PASS MARK
Aerodynamics	70%
Aircraft instruments, navigation and approach aids	70%
Air law	70%
ATM general procedures	70%
ATS theory and procedures (incl RVSM and PBN)	70%
ICAO, procedures and documents	70%
Meteorology	70%
Navigation and maps	70%

Radio technical	70%
Search and rescue	70%
Human factors	70%
Simulated operational assessments	70%

(2) A once-off re-write in any two of the subjects may be permitted, provided that the candidate does not attain a mark which is more than 20% below the required pass mark on the first attempt. A failure to achieve a 50% mark in any subject results in immediate failure of the course.

(3) Re-writes must be undertaken within 14 working days of the first failed attempt.

(4) An average of 70% or more must be attained during the simulated practical assessments. A once-off re-evaluation in any two practical assessments may be allowed and must be undertaken within 14 days of the first failed attempt.

(5) Recognition of prior learning (RPL) may be accredited to a candidate who has successfully completed the examination requirement for any of the above modules as referred to in 65.02.2(5) within the preceding 24 months. Such Candidate may be exempted by a Designated Examiner (DE) from the examination requirement for that specific subject provided the candidate can demonstrate to the DE satisfactory knowledge and skills associated with the subject or credit is given for prior learning as per an ATO's approved training syllabus.

The conditions for an ATO to accredit RPL and the acceptable means for a candidate to demonstrate having satisfactory knowledge and skills to meet the requirements for exemption from the examination/assessment must be documented in the ATO's Training and Procedures Manual.

9. Syllabus

The ab initio ATS personnel training course must consist of the following as a minimum and as approved by the Executive Director:

(1) Aerodynamics

(a) Principles of flight

(b) Newton's law of motion

(c) Lift, drag, weight, thrust (forces)

(d) Factors affecting lift

(e) Wing shapes

(f) Causes of drag

(g) Angle of attack, chordline, relative airflow

(h) Stalling

(i) Aileron, elevator, rudder

(j) Stability, dihedral, sweepback

(k) Flap systems, trim, airbrake

(l) Aircraft types and identification

(m) Aircraft performances

(2) Aircraft instruments, navigation and approach aids

(a) The atmosphere

(b) Pressure instruments

(c) Gyro/mechanical instruments

(d) Non-directional beacons

(e) VHF Omni-directional radio range

(f) Distance measuring equipment

(g) Instrument landing system

(h) Decca navigation system

(i) Doppler

(j) Direction finding

(k) Global positioning system

(3) Air law

(a) Explanation of legal documents

(b) Non-application of CAR

(c) Duties, powers and functions of Executive Director

(d) Designation of authorised officers, inspectors and authorised persons

(e) Authority of authorised officers, inspectors and authorised persons

(f) Issue of licences, certificates and ratings

(g) Flights by night

(h) Meteorological reports

(i) Public transport category – rules

(j) Flying balloons

(k) Offences

(l) Categories of employment of aircraft

(m) Compliance with rules of the air

(n) Flight rules

(o) Authority of pilot-in-command

(p) Pre-flight action

(q) Airspace restrictions

(r) Negligent or reckless flying

(s) Use of liquor, narcotics or drugs

(t) Operation on and in the vicinity of aerodrome

(u) Helicopter operations

(v) Proximity and formation flying

(w) Right-of-way rules

(x) Minimum safe heights

(y) Flight over assemblies of persons

(z) Semi-circular rule

(aa) Aircraft speeds

(bb) Towing, dropping, spraying, etc.

(cc) Parachute descents

(dd) Simulated instrument flying

(ee) Flight instruction

(ff) Aerobatics flight

(gg) Flight plans

(hh) Mandatory radio – controlled/advisory airspace

(ii) Reporting positions

(jj) Fuel/oil reserves

(kk) VFR/VMC

(ll) IFR

(mm) Light to be displayed by aircraft

(nn) Search and rescue

(oo) Taxi rules

(pp) Light endangering aircraft

(qq) AFTN services

(rr) Accidents investigation

(ss) Overflight regulations

(4) AIS general

(a) General

(b) Scope of information handled by AIS

(c) Establishment of a sound organisational base

(d) Organisation of structures and resources

(e) Publication of aeronautical information

(f) Aeronautical fixed services

(g) Aeronautical broadcasting services

(h) ATS Messages

(i) Distress and urgency communication procedures

(j) Aerodrome and other landing surfaces

(k) Flight documents

(5) AIS theory and procedures

(a) Pre and post flight information

(b) Airspaces

(c) Types of flight

(d) Altimeter setting procedures

(e) Semi-circular rule

(f) Flight plans

(g) Flight progress strips

(h) Radio telephony procedures, codes and abbreviations

(6) ATC theory and procedures

(a) ATC general

(b) Altimeter setting procedures (including basic altimetry)

(c) ATC clearances and position reports

(d) Composition of ATS broadcasts

(e) Emergencies: General

(f) Aerodrome Control

(g) AFIS/CLD/FIS (as appropriate for the rating being sought)

(h) ATC responsibilities re radio failure

(i) Responsibilities and scope of FIS

(j) Administration and documentation

(7) ICAO, procedures and documents

(a) Introduction

(b) The Five Freedoms of the Air; International Air Services Transit Agreement and International Air Transport Agreement

(c) Membership of ICAO

(d) Aims and objectives of ICAO

(e) Representative bodies of ICAO

(f) ICAO publications

(g) ICAO publications relevant to AIS

(8) Meteorology

(a) Authority, organisation and responsibility for the provision of meteorological services

(b) Types of services provided and information for pre-flight briefings

(c) Meteorological codes and terminology

(d) Composition of the atmosphere

(e) Types of cloud

(f) Fronts

(g) Wind

(h) Thunderstorms

(i) Meteorological instruments

(j) The atmosphere

(k) Pressure

(l) Insulation

(m) Sublimation

(n) Visibility

(o) Winds

(p) Clouds

(q) Precipitation

(9) Navigation and maps

(a) Frequencies

(b) Navigation aids including GNSS

(c) General

(d) Computer

(10) Radio technical

(a) Characteristics

(b) Frequencies

(c) Antennae and microphones

(11) Search and rescue

Practices and procedures

(12) Separation standards

(a) Provision of standard separation

(b) Longitudinal separation

(c) Holding aircraft vertical crossing

(13) Human factors

(a) Introduction to human factors and resource management

(b) Sensory and Perceptual mechanisms

(c) Errors

(d) Human factors and team resource management within the organisational quality/safety management system

(e) Stress Management

(14) Simulated operational assessments

(a) Practical application of knowledge and skills.

(15) RVSM

(a) RVSM in the AFI region

(b) RVSM Approval process

(c) Aircraft requirements and approval

(d) Safety monitoring

(e) Flight planning

(f) Operational procedures

(g) R/T Phraseology.

(16) PBN

((a) The Global Satellite Navigation System including its components (GPS GLONASS BEIDU GALILEO)

(b) Augmentation systems (ABSA, SBAS and GBAS including components)

(c) GNSS receiver

(c) GNSS equipment operational requirement and approval

(d) Difference between RNAV and RNP

(e) Navigation Specifications and Operational Approvals required

(f) Containment values for RNAV and RNP specifications

(d) RNP APCH Approach (APV, LPV, LP)

(e) ATC separation based on PBN

(f) PBN Airspace and Air Routes

(g) Other PBN Procedures

(h) R/T Phraseology.

65.02.3 THEORETICAL KNOWLEDGE EXAMINATION

1. Written examination

The written examination referred to in CAR 65.02.3, is the written examination contained in paragraph 7 of TS 65.02.2.

65.02.4 APPLICATION FOR AIR TRAFFIC SERVICE LICENCE

1. Form of application

The application for an ATS licence must be made on form FSS PEL 65-01

2. Certificate of competency

The certificate of competency issued by the rating assessment examiner must be in the format described in Annexure C or in a similar format accepted by the Executive Director.

65.02.7 PRIVILEGES

1. Requirements and standards

The requirements and standards referred to in CAR 65.02.7(a), are the Standards and Procedures for the Procedures for the Provision of Service referred to in TS 172.03.12 in Document NAM-CATS 172.

65.03.2 TRAINING

1. Training standards

The training standards for the issuing of an air traffic service assistant rating referred to in CAR 65.03.2, are the training standards contained in TS 65.02.2.

65.03.3 APPLICATION FOR AIR TRAFFIC SERVICE ASSISTANT RATING

1. Form of application

The application for an ATSA rating must be made on form FSS PEL 65-01

2. Certificate of competency

The certificate of competency issued by the rating assessment examiner must be in the format described in Annexure C or in a similar format accepted by the Executive Director.

65.03.6 APPLICATION FOR VALIDATION OF AIR TRAFFIC SERVICE ASSISTANT RATING

1. Form of application

The application for an ATSA rating must be made on form FSS PEL 65-01

2. Certificate of competency

The certificate of competency issued by the validation examiner must be in the format described in Annexure C or in a similar format accepted by the Executive Director.

65.03.8 PRIVILEGES OF AIR TRAFFIC SERVICE ASSISTANT RATING

1. Requirements and standards

The requirements and standards referred to in CAR 65.03.8(a), are the procedures for the provision of service contained in Document NAM-CATS 172.

65.03.10 DURATION OR RENEWAL OF AIR TRAFFIC SERVICE ASSISTANT RATING VALIDATION

1. Proficiency check

The proficiency check for the renewal of an ATSA validation is the annual competency assessment conducted by a validation examiner.

2. Certificate of competency

The certificate of competency is the certificate required in TS 65.03.6.

65.04.2 TRAINING

The following training standards apply to an aerodrome control rating:

1. Entry level requirements

(1) Age: minimum 20 years

(2) The candidate must hold a valid air traffic service licence.

2. Course aim

The aim of the Aerodrome Control Course is to provide the candidate with the necessary knowledge, skills and attitudes to enable him/her to obtain an aerodrome control rating.

3. Course outcome

On completion of the Aerodrome Control Course the candidate must have the necessary knowledge and skills to commence validation training for aerodrome control.

4. Licensing

On completion of the Aerodrome Control Course, the Executive Director must issue an aerodrome control rating. Endorsement of the aerodrome control validation may only be done on successful completion of aerodrome control validation training.

5. Theoretical training

The Aerodrome Control Course consists of the following theoretical modules –

(1) Aerodrome control procedures

On completion of this module, the candidate must have the necessary knowledge with respect to aerodrome control practices and procedures, in order to apply them efficiently during the practical simulator training.

(2) Air law

On completion of this module, the candidate must be able to display the necessary knowledge of national air law relating to personnel licensing, aerodromes and aircraft operations in order to provide an aerodrome control service to the required standard.

(3) Theory and procedures

On completion of this module, the candidate must be able to display the necessary knowledge on all aspects relating to the practices and procedures in the provision of air traffic services.

(4) Navigation

On completion of this module, the candidate must have the necessary knowledge in order to –

(a) effectively utilise maps and charts to provide flight navigation assistance;

(b) use advanced plotting methods to plot aircraft positions; and

(c) interpret flight plans.

(5) Meteorology

On completion of this module, the candidate must have a sound knowledge of various aspects of meteorology affecting aircraft operations in the vicinity of an aerodrome and must be able to observe weather, interpret, assess and relay information provided by meteorological offices or other authorised sources.

(6) Technical and navigation aids

On completion of this module, the candidate must have the necessary knowledge of the principles that are applicable to the operation and functioning of technical instruments, radios and electronic navigation aids used in the provision of an aerodrome control service, including those related to PBN operations.

(7) Search and rescue

On completion of this module, the candidate must have the necessary knowledge of the search and rescue practices and procedures and alerting services in order to apply them efficiently in the provision of an aerodrome control service and when assisting as a search mission coordinator.

6. Practical simulator training

In order to develop the practical controlling skills of the candidate to the required standard, he/she must be required to apply the following procedures and principles in a simulated operational environment –

(a) Radio telephony procedures

(b) Aerodrome control procedures

(c) Separation standards

(d) Emergency procedures

(e) Flight progress strip marking and management of electronic flight progress strips.

7. Examination and pass requirements

(1) In order to pass the course the candidate must successfully undertake the following examinations to the prescribed standards –

EXAMINATION	REQUIRED PASS MARK
Aerodrome control	70%
Air law	70%
ATC theory and procedures	70%
Navigation	70%
Meteorology	70%
Technical and navigation aids	70%
Search and rescue	70%
Simulated aerodrome control assessments	70%

(2) A once-off re-write in any two of the subjects may be permitted, provided that the candidate does not attain a mark which is more than 20% below the required pass mark on the first attempt.

(3) Re-writes must be undertaken within 14 days of the first failed attempt.

(4) An average of 70% or more must be attained during the simulated practical assessments. A once-off re-evaluation in any two practical assessments may be allowed and must be undertaken within 14 days of the first filed attempt.

(5) Recognition of prior learning (RPL) may be accredited to a candidate who has successfully completed the examination requirement for any of the above modules as referred to in 65.04.2(5) within the preceding 48 months and who has held a valid Air Traffic Service License with in the preceding 24 months. Such Candidate may be exempted by a Designated Examiner (DE) from the examination requirement for that specific subject provided the candidate can

demonstrate to the DE satisfactory knowledge and skills associated with the subject or credit is given for prior learning as per an ATO's approved training syllabus.

The conditions for an ATO to accredit RPL and the acceptable means for a candidate to demonstrate having satisfactory knowledge and skills to meet the requirements for exemption from the examination/assessment must be documented in the ATO's Training and Procedures Manual.

8. Validation training

(1) In order to validate the aerodrome control rating, the candidate must successfully undertake the evaluations as defined in the approved unit training plan which should include as a minima:

(a) Progressive practical standards evaluations

(b) Final practical standards evaluation

(c) Written examinations on all aspects as specified in Station Standing Instructions

(d) Satisfy the Executive Director as to his/her competency in the specific rating to be validated.

(2) In order to pass the validation training, the candidate has to be successful in all evaluations.

(3) In order to successfully validate the aerodrome control rating, the candidate has to comply with the requirements of regulation 65.04.5.

9. Syllabus

The aerodrome control course must consist of the following modules:

(1) aerodrome control rating:

a. aerodrome layout; physical characteristics and visual aids;
b. airspace structure;
c. applicable rules, procedures and source of information;
d. air navigation facilities;
e. air traffic control equipment and its use;
f. terrain and prominent landmarks;
g. characteristics of air traffic;
h. weather phenomena; and
i. emergency and search and rescue plans;

ATC theory and procedures

(a) Communications

(b) Responsibilities in respect of military aircraft

(c) Approach control

(d) Approach control procedures

(e) Separation standards used by approach

(f) Delaying actions

(g) Emergencies

(h) Liaison

(i) Instrument and approach procedures

(2) Aerodrome control

(a) General

(b) Extent of responsibility

(c) Loss of communication

(d) Runways and circuits

(e) Control of aerodrome traffic, vehicles and persons

(f) Aerodrome traffic separation

(g) Rules applicable to pilots

(h) Aerodrome and lighting serviceabilities

(i) Aerodrome physical

(j) Runway markings

(k) Taxiway markings

(l) Lighting aids

(m) Runway lighting

(n) Obstruction restriction, removal and marking

(3) Air law

(a) Rules of the air

(b) Authority of pilot-in-command of an aircraft

(c) Pre-flight action

(d) Airspace restrictions

(e) Prohibited areas

(f) Restricted areas

(g) Negligent and reckless flying

(h) Consumption of alcohol or drugs

(i) Operation on and in the vicinity of an aerodrome

(j) Helicopter operations

(k) Proximity

(l) Right-of-way

(m) Minimum safe heights

(n) Flights over open-air assemblies of persons

(o) Aircraft speed

(p) Towing objects

(q) Dropping objects, spraying or dusting

(r) Picking up objects

(s) Parachute descents

(t) Simulated instrument flights

(u) Flight instruction

(v) Acrobatic flight (including spinning)

(w) Lights to be displayed by aircraft

(x) Visual distress and urgency signals

(y) Ground and light signals for control of aerodrome traffic

(z) Taxi rules

(aa) Lights which endanger

(4) Navigation

(a) Direction

(b) Variation and deviation

(c) Units of measurement

(d) Latitude and longitude

(e) Georef system

(f) Time

(g) Sped and velocity

(h) Triangle and velocity

(i) One-in-sixty rule

(j) Scale

(k) Map construction

(l) Plotting charts

(m) Special purpose maps and charts

(n) Relief

(o) Computer

(p) Elementary plotting

(q) Vector triangles

(r) Advanced plotting (practical)

(s) GNSS

(5) Meteorology

(a) Introduction

(b) Wind

(c) Clouds

(d) Thunderstorms

(e) Visibility

(f) Ocean currents

(g) Climate of Namibia

(h) METAR/TAF decoding

(6) Search and rescue (SAR)

(a) The search and rescue organisation

(b) Types of SAR and flights to which they pertain

(c) Declaration of phases when emergency is known

(d) General Administration

(7) Technical and navigation aids

(a) Workings, advantages and disadvantages of VOR, ILS, NDB, DME, VDF, TACAN, VORTAC, GPS

(b) VDF procedure

(8) Aerodrome control practical simulator training

Practical application of knowledge and skills.

65.04.3 APPLICATION FOR AERODROME CONTROL RATING

The application for an aerodrome control rating is the application referred to in TS 65.03.3.

65.04.6 APPLICATION FOR AERODROME CONTROL RATING VALIDATION

The application for an aerodrome control rating validation is the application referred to in TS 65.03.6.

65.04.8 PRIVILEGES OF AERODROME CONTROL RATING

1. Requirements and standards

The requirements and standards referred to in CAR 65.04.8(a), are the procedures for the provision of service contained Document NAM-CATS 172.

65.04.10 DURATION OR RENEWAL OF AERODROME CONTROL RATING VALIDATION

The requirements for the renewal of an aerodrome control rating validation are the requirements referred to in TS 65.03.10.

65.05.2 TRAINING

The following training standards apply to an approach control procedural rating:

1. Entry level requirements

(1) Age: minimum 21 years

(2) The candidate must hold a valid air traffic service licence.

2. Course aim

The aim of the Approach Control procedural Course is to provide the candidate with the necessary knowledge, skills and attitudes to enable him/her to obtain an approach control procedural rating.

3. Course outcome

On completion of the Approach Control procedural Course, the candidate must have the necessary knowledge and skills to commence validation training for procedural approach control.

4. Licensing

On completion of the Approach Control procedural Course, the Executive Director must issue an approach control procedural rating. Endorsement of the Approach Control procedural validation may only be done on successful completion of approach control procedural validation training.

5. Theoretical training

The approach control procedural course consists of the following theoretical modules –

(1) General ATC procedures

On completion of this module, the candidate must be able to display the necessary knowledge of ATS relevant to approach control to enable him/her to efficiently provide the ATS required of an approach controller.

(2) Approach control

On completion of this module, the candidate must have the necessary knowledge with respect to approach control practices and procedures, in order to apply them efficiently during the practical simulator training.

(3) Separation standards

On completion of this module, the candidate must have an extensive knowledge of separation standards as applied in the provision of an approach control service, enabling him/her to provide an approach control service applying the correct separation standards.

(4) Meteorology

On completion of this module, the candidate must have a sound knowledge of various aspects of meteorology pertinent to approach control procedures and affecting aircraft operations under the jurisdiction of approach control.

6. Practical simulator training

In order to develop the practical controlling skills of the candidate to the required standard, he/she must be required to apply the following procedures and principles in a simulated operational environment –

(a) Radio telephony procedures

(b) Approach control procedures

(c) Separation standards

(d) Emergency procedures

(e) Flight progress strip marking and management of electronic flight progress strips.

7. Examination and pass requirements

(1) In order to pass the course, the candidate must successfully undertake the following examinations to the prescribed standards –

EXAMINATION	REQUIRED PASS MARK
General ATC procedures	70%
Approach control	70%
Separation standards	70%
Meteorology	70%
Simulated procedural approach assessments	70%

(2) A once-off re-write in any two of the subjects may be permitted, provided that the candidate has not attained a mark which is 20% or more below the required pass mark, on the first attempt.

(3) Re-writes must be undertaken within 14 days of the first failed attempt.

(4) An average of 70% or more must be attained during the simulated practical assessments. A once-off re- evaluation in any two practical assessments may be allowed and must be undertaken within 14 days of the first failed attempt.

(5) Recognition of prior learning (RPL) may be accredited to a candidate who has successfully completed the examination requirement for any of the above modules as referred to in 65.05.2(5) within the preceding 48 months and who has held a valid Air Traffic Service License with in the preceding 24 months. Such Candidate may be exempted by a Designated Examiner (DE) from the examination requirement for that specific subject provided the candidate can demonstrate to the DE satisfactory knowledge and skills associated with the subject or credit is given for prior learning as per an ATO's approved training syllabus.

The conditions for an ATO to accredit RPL and the acceptable means for a candidate to demonstrate having satisfactory knowledge and skills to meet the requirements for exemption from the examination/assessment must be documented in the ATO's Training and Procedures Manual.

8. Validation training

(1) In order to validate the approach control procedural rating, the candidate must successfully undertake the following evaluations –

(a) Progressive practical standards evaluations

(b) Final practical standards evaluation

(c) Written examinations of all aspects as specified in Station Standing Instructions

(2) In order to pass the validation training, the candidate has to be successful in all evaluations.

(3) In order to successfully validate any of the approach control procedural ratings, the candidate has to comply with the requirements of regulation 65.05.5.

9. Syllabus

The approach control procedural course must consist of the following modules –

1. approach control procedural and area control procedural ratings:
    a) airspace structure;
    b) applicable rules, procedures and source of information;
    c) air navigation facilities;
    d) air traffic control equipment and its use;
    e) terrain and prominent landmarks;
    f) characteristics of air traffic and traffic flow;
    g) weather phenomena; and
    h) emergency and search and rescue plans; and

(1) General ATC procedures

(a) Standard R/T procedures and inter unit phraseologies

(b) Communication failure procedures

(c) Radio failure in respect of VFR flights

(d) Interception of civilian aircraft

(e) Descents by supersonic aircraft due to solar cosmic radiation

(f) Division and classification of airspace

(g) ATC clearances

(h) Emergencies

(i) Diversion procedures

(j) Flight progress strips and management of electronic flight progress strips.

(k) SAR procedures associated with approach and aerodrome control

(2) Approach control

(a) Provision of approach control services

(b) Responsibilities of approach control

(c) Coordination with other units

(d) Expected approach time

(e) Onward clearance time

(f) Control and communications

(g) Procedures for arriving aircraft

(h) Types of approach

(i) Suspension and resumption of VFR operations

(3) Separation standards

(a) Introduction and application

(b) Vertical separation

(c) Horizontal separation

(d) Lateral separation

(e) Longitudinal separation based on time

(f) Arrival/departure separation

(g) Sector separation

(4) Meteorology

(a) General circulation

(b) Winds

(c) Synoptic meteorology

(d) Cloud and weather

(e) Meteorological flying hazards

(f) Observations and conclusions

(g) Meteorological codes

(5) Approach control procedural practical simulator training

Practical application of knowledge and skills.

65.05.3 APPLICATION FOR APPROACH CONTROL PROCEDURAL RATING

The application for an approach control procedural rating is the application referred to in TS 65.03.3.

65.05.6 APPLICATION FOR APPROACH CONTROL PROCEDURAL RATING VALIDATION

The application for an approach control procedural rating validation is the application referred to in TS 65.03.6.

65.05.8 PRIVILEGES OF APPROACH CONTROL PROCEDURAL RATING

1. Requirements and standards

The requirements and standards referred to in CAR 65.05.8(a), are the procedures for the provision of service contained Document NAM-CATS 172.

65.05.10 DURATION OR RENEWAL OF APPROACH CONTROL PROCEDURAL RATING VALIDATION

The requirements for the renewal of an approach control procedural rating validation are the requirements referred to in TS 65.03.10.

65.06.2 TRAINING

The following training standards apply to an area control procedural rating:

1. Entry level requirements

(1) Age: minimum 21 years

(2) The candidate must hold a valid air traffic service licence.

2. Course aim

The aim of the Area Control procedural Course is to provide the candidate with the necessary knowledge, skills and attitudes to enable him/her to obtain an area control procedural rating.

3. Course outcome

On completion of the Area Control procedural Course, the candidate must have the necessary knowledge and skills to commence validation training for procedural area control.

4. Licensing

On completion of the Area Control procedural Course, the Executive Director must issue an area control rating. Endorsement of the area control procedural validation may only be done on successful completion of area control procedural validation training.

5. Theoretical training

The area control procedural course consists of the following theoretical modules –

(1) General ATC procedures

On completion of this module, the candidate must be able to display the necessary knowledge of ATS relevant to procedural area control to enable him/her to efficiently provide the ATS required of an area controller.

(2) Area control

On completion of this module, the candidate must have the necessary knowledge with respect to area control procedural practices and procedures, in order to apply them efficiently during the practical simulator training.

(3) Separation standards

On completion of this module, the candidate must have an extensive knowledge of separation as applied in the provision of an area control procedural service, enabling him/her to provide an area control procedural service applying the correct separation standards.

(4) Meteorology

On completion of this module, the candidate must have a sound knowledge of various aspects of meteorology pertinent to area control and affecting aircraft operations under the jurisdiction of procedural area control.

6. Practical simulator training

In order to develop the practical controlling skills of the candidate to the required standard, he/she must be required to apply the following procedures and principles in a simulated operational environment –

(a) Radio telephony procedures

(b) Area control procedures

(c) Separation standards

(d) Emergency procedures

(e) Flight progress strip marking and management of electronic flight progress strips.

7. Examination and pass requirements

(1) In order to pass the course, the candidate must successfully undertake the following examinations to the prescribed standards –

EXAMINATION	REQUIRED PASS MARK
General ATC procedures	70%
Area control	70%
Separation standards	70%

Meteorology	70%
Simulated operational assessments	70%

(2) A once-off re-write in any two of the subjects may be permitted, provided that the candidate has not attained a mark which is 20% or more below the required pass mark on the first attempt.

(3) Re-writes must be undertaken within 14 days of the first failed attempt.

(4) An average of 70% or more must be attained during the simulated practical assessments. A once-off re- evaluation in any two practical assessments may be allowed and must be undertaken within 14 days of the first failed attempt.

(5) Recognition of prior learning (RPL) may be accredited to a candidate who has successfully completed the examination requirement for any of the above modules as referred to in 65.06.2 (5) within the preceding 48 months and who has held a valid Air Traffic Service License with in the preceding 24 months. Such Candidate may be exempted by a Designated Examiner (DE) from the examination requirement for that specific subject provided the candidate can demonstrate to the DE satisfactory knowledge and skills associated with the subject or credit is given for prior learning as per an ATO's approved training syllabus.

The conditions for an ATO to accredit RPL and the acceptable means for a candidate to demonstrate having satisfactory knowledge and skills to meet the requirements for exemption from the examination/assessment must be documented in the ATO's Training and Procedures Manual.

8. Validation training

(1) In order to validate the area control procedural rating, the candidate must successfully undertake the following evaluations –

(a) Progressive practical standards evaluations

(b) Final practical standards evaluation

(c) Written examinations on all aspects as specified in Station Standing Instructions

(2) In order to pass the validation training, the candidate has to be successful in all evaluations.

(3) In order to successfully validate the area control procedural rating, the candidate has to comply with the requirements of regulation 65.06.5.

9. Syllabus

The area control procedural course must consist of the following modules –

(1) General ATC procedures

(a) Standard R/T procedures and inter unit phraseologies

(b) Communication failure procedures

(c) Radio failure in respect of VFR flights

(d) Interception of civilian aircraft

(e) Descents by supersonic aircraft due to solar cosmic radiation

(f) Division and classification of airspace

(g) ATC clearances

(h) Emergencies

(i) Diversion procedures

(j) Flight progress strips and management of electronic flight progress strips.

(k) SAR procedures associated with approach and aerodrome control

(2) Area control

(a) Introduction

(b) Coordination

(c) Coordination between area control and approach

(d) Release and transfer of control and communication

(e) Procedures for overflying flights, flying through remote TMAs and CTRs (IFR and VFR)

(f) Information to be given to aircraft on first contact

(g) Air traffic advisory service

(3) Separation standards

(a) Introduction and application

(b) Vertical separation

(c) Horizontal separation

(d) Lateral separation

(e) Longitudinal separation based on time

(4) Meteorology

(a) General circulation

(b) Winds

(c) Synoptic meteorology

(d) Cloud and weather

(e) Meteorological flying hazards

(f) Observations and conclusions

(g) Meteorological codes

(5) Area control practical simulator training

Practical application of knowledge and skills.

65.06.3 APPLICATION FOR AREA CONTROL PROCEDURAL RATING

The application for an area control procedural rating is the application referred to in TS 65.03.3.

65.06.6 APPLICATION FOR AREA CONTROL PROCEDURAL RATING VALIDATION

The application for an area control procedural rating validation is be the application referred to in TS 65.03.6.

65.06.8 PRIVILEGES OF AREA CONTROL PROCEDURAL RATING

1. Requirements and standards

The requirements and standards referred to in CAR 65.06.8(a), are the procedures for the provision of services contained in Document NAM-CATS 172.

65.06.10 DURATION OR RENEWAL OF AREA CONTROL PROCEDURAL RATING VALIDATION

The requirements for the renewal of an area control procedural rating validation are the requirements referred to in TS 65.03.10.

65.07.2 TRAINING

The following training standards apply to an approach control surveillance rating:

1. Entry level requirements

(1) Age: minimum 21 years

(2) The candidate must hold a valid air traffic service licence.

2. Course aim

The aim of the Approach Control Surveillance Course is to provide the candidate with the necessary knowledge, skills and attitudes to enable him/her to obtain an approach control surveillance rating.

3. Course outcome

On completion of the Approach Control Surveillance Course, the candidate must have the necessary knowledge and skills to commence validation training for approach control surveillance.

4. Licensing

On completion of the Approach Control Surveillance Course, the Executive Director must issue an Approach Control Surveillance Rating. Endorsement of the Approach Control Surveillance validation may only be done on successful completion of approach control surveillance validation training.

5. Theoretical training

The approach control surveillance course consists of the following theoretical modules –

(1) General ATC procedures

On completion of this module, the candidate must be able to display the necessary knowledge of ATS relevant to approach control to enable him/her to efficiently provide the ATS required of an approach controller.

(2) Approach control

On completion of this module, the candidate must have the necessary knowledge with respect to approach control practices and procedures, in order to apply them efficiently during the practical simulator training.

(3) Surveillance theory and procedures

On completion of this module, the candidate must have an extensive knowledge of procedures and practices applied in the provision of an approach control surveillance service, enabling him/her to provide an approach control surveillance service applying the correct procedures and practices.

(4) Surveillance technical

On completion of this module, the candidate must have a sound knowledge of the operations and limitations of surveillance equipment and its application to air traffic control, including SSR.

(5) Meteorology

On completion of this module, the candidate must have a sound knowledge of various aspects of meteorology pertinent to approach control and affecting aircraft operations under the jurisdiction of approach control.

6. Practical simulator training

In order to develop the practical controlling skills of the candidate to the required standard, he/she must apply the following procedure and principles in a simulated operational environment –

(a) Radio telephony procedures

(b) Approach control surveillance procedures

(c) Separation standards

(d) Emergency procedures

(e) Flight progress strip marking and management of electronic flight progress strips.

7. Examination and pass requirements

(1) In order to pass the course, the candidate must successfully undertake the following examinations to the prescribed standards –

EXAMINATION	REQUIRED PASS MARK
General ATC procedures	70%
Approach control	70%
Surveillance theory and procedures	70%
Surveillance technical	70%
Meteorology	70%
Simulated approach assessments	70%

(2) A once-off re-write in any two of the subjects may be permitted, provided that the candidate has not attained a mark which is 20% or more below the required pass mark on the first attempt.

(3) Re-writes must be undertaken within 14 days of the first failed attempt.

(4) An average of 70% or more must be attained during the simulated practical assessments. A once-off re- evaluation in any two practical assessments may be allowed and must be undertaken within 14 days of the first failed attempt.

(5) Recognition of prior learning (RPL) may be accredited to a candidate who has successfully completed the examination requirement for any of the above modules as referred to in 65.07.2(5) within the preceding 48 months and who has held a valid Air Traffic Service License with in the preceding 24 months. Such Candidate may be exempted by a Designated Examiner (DE) from the examination requirement for that specific subject provided the candidate can demonstrate to the DE satisfactory knowledge and skills associated with the subject or credit is given for prior learning as per an ATO's approved training syllabus.

The conditions for an ATO to accredit RPL and the acceptable means for a candidate to demonstrate having satisfactory knowledge and skills to meet the requirements for exemption from the examination/assessment must be documented in the ATO's Training and Procedures Manual.

8. Validation training

(1) In order to validate the approach control surveillance rating, the candidate must successfully undertake the following evaluations –

(a) Progressive practical standards evaluations

(b) Final practical standards evaluation

(c) Written examinations on all aspects as specified in Station Standing Instructions

(2) In order to pass the validation training, the candidate has to be successful in all evaluations.

(3) In order to successfully validate the approach control surveillance rating, the candidate has to comply with the requirements of regulation 65.07.5.

9. Syllabus

The approach control surveillance course must consist of the following modules –

(1) General ATC procedures

(a) Standard R/T procedures and inter unit phraseologies

(b) Communication failure procedures

(c) Radio failure in respect of VFR flights

(d) Interception of civilian aircraft

(e) Descents by supersonic aircraft due to solar cosmic radiation

(f) Division and classification of airspace

(g) ATC clearances

(h) Emergencies

(i) Diversion procedures

(j) Flight progress strips and management of electronic flight progress strips.

(k) SAR procedures associated with approach and aerodrome control

(2) Approach control

(a) Provision of approach control services

(b) Responsibilities of approach control

(c) Coordination with other units

(d) Expected approach time

(e) Onward clearance time

(f) Control and communications

(g) Procedures for arriving aircraft

(h) Types of approach

(i) Suspension and resumption of VFR operations

(3) Surveillance theory and procedures

(a) Use of surveillance in the air traffic control service

(b) Surveillance separation minima

(c) SSR operations

(d) Identification, vectoring and transfer of aircraft

(e) Terrain clearance and emergencies

(f) Failure of airborne equipment

(g) Combined surveillance -procedural

(h) Use of surveillance in the approach control service

(i) General surveillance approach procedures

(j) Final approach procedures

(k) Surveillance phraseologies

(4) Meteorology

(a) General circulation

(b) Winds

(c) Synoptic meteorology

(d) Cloud and weather

(e) Meteorological flying hazards

(f) Observations and conclusions

(g) Meteorological codes

(5) Surveillance technical

(a) Surveillance – How does it work?

(b) Prefix summary

(c) Frequency bands

(d) Radiated power in free space

(e) Primary surveillance system

(f) SSR development

(g) Circular polarisation

(h) MTI-Radar

(i) Doppler effect

(j) Tangential fade

(6) Approach control surveillance practical simulator training

Practical application of knowledge and skills.

65.07.3 APPLICATION FOR APPROACH CONTROL SURVEILLANCE RATING

The application for an approach control surveillance rating is the application referred to in TS 65.03.3.

65.07.6 APPLICATION FOR APPROACH CONTROL SURVEILLANCE RATING VALIDATION

The application for an approach control surveillance rating validation is the application referred to in TS 65.03.6.

65.07.8 PRIVILEGES OF APPROACH CONTROL SURVEILLANCE RATING

1. Requirements and standards

The requirements and standards referred to in CAR 65.07.8(a), are the procedures for the provision of service contained Document NAM-CATS 172.

65.07.10 DURATION OR RENEWAL OF APPROACH CONTROL SURVEILLANCE RATING VALIDATION

The requirements for the renewal of an approach control surveillance rating validation are the requirements referred to in TS 65.03.10.

65.08.2 TRAINING

The following training standards apply to an area control surveillance rating:

1. Entry level requirements

(1) Age: minimum 21 years

(2) The candidate must hold a valid air traffic service licence

2. Course aim

The aim of the Area Control Surveillance Course is to provide the candidate with the necessary knowledge, skills and attitudes to enable him/her to obtain an Area control Surveillance Rating.

3. Course outcome

On completion of the Area Control Surveillance Course, the candidate must have the necessary knowledge and skills to commence validation training for Area Control Surveillance.

4. Licensing

On completion of the Area Control Surveillance Course, the Executive Director must issue an Area Control Surveillance Rating. Endorsement of the Area Control Surveillance validation may only be done on successful completion of area control Surveillance validation training

5. Theoretical training

The area control surveillance course consists of the following theoretical modules –

(1) General AT procedures

On completion of this module, the candidate must be able to display the necessary knowledge of ATS relevant to area control to enable him/her to efficiently provide the ATS required of an area controller.

(2) Area control

On completion of this module, the candidate must have the necessary knowledge with respect to approach control practices and procedures, in order to apply them efficiently during the practical simulator training.

(3) Surveillance theory and procedures

On completion of this module, the candidate must have an extensive knowledge of procedures and practices applied in the provision of an area control surveillance service, enabling him/her to provide an area control surveillance service applying the correct procedures and practices.

(4) Radar technical

On completion of this module, the candidate must have a sound knowledge of the operations and limitations of surveillance equipment and its application to air traffic control, including SSR.

(5) Meteorology

On completion of this module, the candidate must have a sound knowledge of various aspects of meteorology pertinent to area control and affecting aircraft operations under the jurisdiction of area control.

6. Practical simulator training

In order to develop the practical controlling skills of the candidate to the required standard, he/she must apply the following procedures and principles in a simulated operational environment –

(a) Radio telephony procedures

(b) Area control surveillance procedures

(c) Separation standards

(d) Emergency procedures

(e) Flight progress

7. Examination and pass requirements

(1) In order to pass the course, the candidate must successfully undertake the following examinations to the prescribed standards –

EXAMINATION	REQUIRED PASS MARK
General ATC procedures	70%
Area control	70%
Surveillance theory and procedures	70%
Surveillance technical	70%
Meteorology	70%
Simulated surveillance area assessments	70%

(2) A once-off re-write in any two of the subjects may be permitted, provided that the candidate has not attained a mark which is 20% or more below the required pass mark on the first attempt.

(3) Re-writes must be undertaken within 14 days of the first failed attempt.

(4) An average of 70% or more must be attained during the simulated practical assessments. A once-off re- evaluation in any two practical assessments may be allowed and must be undertaken within 14 days of the first failed attempt.

(5) Recognition of prior learning (RPL) may be accredited to a candidate who has successfully completed the examination requirement for any of the above modules as referred to in 65.12.2(5) within the preceding 48 months and who has held a valid Air Traffic Service License with in the preceding 24 months. Such Candidate may be exempted by a Designated Examiner (DE) from the examination requirement for that specific subject provided the candidate can

demonstrate to the DE satisfactory knowledge and skills associated with the subject or credit is given for prior learning as per an ATO's approved training syllabus.

The conditions for an ATO to accredit RPL and the acceptable means for a candidate to demonstrate having satisfactory knowledge and skills to meet the requirements for exemption from the examination/assessment must be documented in the ATO's Training and Procedures Manual.

8. Validation training

(1) In order to validate the area control surveillance rating, the candidate must successfully undertake the following evaluations –

(a) Progressive practical standards evaluations

(b) Final practical standards evaluation

(c) Written examinations on all aspects as specified in Station Standing Instructions

(2) In order to pass the validation training, the candidate has to be successful in all evaluations.

(3) In order to successfully validate the area control surveillance rating, the candidate has to comply with the requirements of regulation 65.08.5.

9. Syllabus

The area control surveillance course must consist of the following modules:

(1) General ATC procedures

(a) Standard R/T procedures and inter unit phraseologies

(b) Communication failure procedures

(c) Radio failure in respect of VFR flights

(d) Interception of civilian aircraft

(e) Descents by supersonic aircraft due to solar cosmic radiation

(f) Division and classification of airspace

(g) ATC clearances

(h) Emergencies

(i) Diversion procedures

(j) Flight progress strips

(k) SAR procedures associated with approach and aerodrome control

(2) Area control

(a) Introduction

(b) Coordination

(c) Coordination between area control and approach

(d) Release and transfer of control and communication

(e) Procedures for overflying flights, flying through remote TMAs and CTRs (IFR and VFR)

(f) Information to be given to aircraft on first contact

(g) Air traffic advisory service

(3) Surveillance theory and procedures

(a) Use of surveillance in the air traffic control service

(b) Surveillance separation minima

(c) SSR operations

(d) Identification, vectoring and transfer of aircraft

(e) Terrain clearance and emergencies

(f) Failure of airborne equipment

(g) Combined radar-procedural

(h) Use of surveillance in the approach control service

(i) General surveillance approach procedures

(j) Final approach procedures

(k) Surveillance phraseologies

(4) Meteorology

(a) General circulation

(b) Winds

(c) Synoptic meteorology

(d) Cloud and weather

(e) Meteorological flying hazards

(f) Observations and conclusions

(g) Meteorological codes

(5) Surveillance technical

(a) Surveillance – How does it work?

(b) Prefix summary

(c) Frequency bands

(d) Radiated power in free space

(e) Primary surveillance system

(f) SSR development

(g) Circular polarisation

(h) MTI-Radar

(i) Doppler effect

(j) Tangential fade

(6) Area control surveillance practical simulator training

Practical application of knowledge and skills.

65.08.3 APPLICATION FOR AREA CONTROL SURVEILLANCE RATING

The application for an area control surveillance rating is the application referred to in TS 65.03.3.

65.08.6 APPLICATION FOR AREA CONTROL SURVEILLANCE RATING VALIDATION

The application for an area control surveillance rating validation is the application referred to in TS 65.03.6.

65.08.8 PRIVILEGES OF AREA CONTROL SURVEILLANCE RATING

1. Requirements and standards

The requirements and standards referred to in CAR 65.08.8(a), are the procedures for the provision of services contained Document NAM-CATS 172.

65.08.10 DURATION OR RENEWAL OF AREA CONTROL SURVEILLANCE RATING VALIDATION

The requirements for the renewal of an area control surveillance rating validation are the requirements referred to in TS 65.03.10.

65.09.2 TRAINING

1. Training standards

1. Training standards

(1) The training course should be designed for the applicant to be given adequate training in instructional techniques based upon established teaching methods.

(2) On successful completion of the training course and final test, the applicant must be issued with an ATS instructor (operational) rating permitting the holder to give training and instruction in any valid ratings held by the instructor.

(3) The training course should stress the role of the individual in relation to the importance of human factors in the man-machine environment. Special attention should be paid to the applicant's maturity and judgement, including an understanding of adults, their behavioural attitudes and variable levels of education.

(4) All the subject detail contained in the instructor training syllabus must be based on the training courses described in TS 65.03 to 65.8, whichever is applicable. The purpose of the course is to –

(a) refresh and bring up to date the technical knowledge of the student instructor;

(b) train the student instructor to teach the subjects;

(c) ensure that the student instructor's own operational performance is of a sufficiently high standard; and

(d) teach the student instructor the principles of basic instruction and to apply them at the air traffic service level.

(5) During the training course, the student instructor must be made aware of his or her attitude to the importance of aviation safety. The student instructor is the critical link in the training process and his or her attitude towards safety has a major impact upon student air traffic service personnel. Improving safety awareness and the importance of safety cultures is therefore a fundamental objective throughout the training course. It is of major importance for the training course to aim at giving the student instructor knowledge, skills and attitudes relevant to an air traffic service instructor's task.

2. Teaching and learning

(1) The learning process

(a) Motivation;

(b) perception and understanding;

(c) memory and its application;

(d) habits and transfer;

(e) obstacles to learning;

(f) incentives to learning;

(g) learning methods; and

(h) rates of learning.

(2) The teaching process

(a) Elements of effective teaching;

(b) planning of instructional activity;

(c) teaching methods;

(d) teaching from the “known” to the “unknown”; and

(e) use of “lesson plans”.

(3) Training philosophies

(a) Value of a structured training course;

(b) importance of a planned syllabus; and

(c) integration of theoretical and practical training.

(4) Techniques of applied instruction

(a) Classroom instruction techniques –

(i) Use of training aids;

(ii) group lectures;

(iii) individual briefings; and

(iv) student participation/discussion.

(b) Simulator instruction techniques –

(i) The work environment;

(ii) techniques of applied instruction; and

(iii) judgement and decision making.

(5) Student evaluation and testing

(a) Assessment of student performance –

(i) The function of progress tests;

(ii) recall of knowledge;

(iii) translation of knowledge into understanding;

(iv) development of understanding into actions; and

(v) the need to evaluate rate of progress.

(b) Analysis of student errors –

(i) Establish the reason for errors;

(ii) tackle major faults first, minor faults second;

(iii) avoidance of over criticism; and

(iv) the need for clear concise communication.

(6) Training programme development

(a) Lesson planning;

(b) preparation;

(c) explanation and demonstration;

(d) student participation and practice; and

(e) evaluation.

(7) Human performance and limitations relevant to instruction

(a) Physiological factors;

(b) psychological factors;

(c) human information procession;

(d) behavioural attitudes; and

(e) development of judgement and decision making.

(8) Hazards involved in simulating systems failures and malfunctions

(9) Training administration

(a) Training records;

(b) the training curriculum;

(d) study material;

(e) official forms;

(f) manuals and standard procedures; and

(i) the regulations applicable to an air traffic service licence and ratings and air traffic service instructor rating (both operational and ATO).

(10) Classroom training

The classroom training consists of the training course delivered by a competent person, and includes classroom lectures, tutorials, briefings and directed private study.

(11) Simulator training

The student instructor must practice the standards and procedures in a simulator that adequately simulates the work environment that is approved by the Executive Director.

65.09.3 APPLICATION FOR AIR TRAFFIC SERVICE INSTRUCTOR (OPERATIONAL) RATING

1. Form of application

The application for an ATS instructor (operational) rating must be made on form FSS PEL 65-02.

2. Certificate of competency

The certificate of competency issued by the rating assessment examiner must be in the format described in Annexure C or in a similar format accepted by the Executive Director.

65.09.6 APPLICATION FOR VALIDATION OF AIR TRAFFIC SERVICE INSTRUCTOR (OPERATIONAL) RATING

1. Form of application

The application for an ATS instructor (operational) rating must be made on form FSS PEL 65-02.

2. Certificate of competency

The certificate of competency issued by the validation examiner must be in the format described in Annexure C or in a similar format accepted by the Executive Director.

65.09.10 RENEWAL OF AIR TRAFFIC SERVICE INSTRUCTOR (OPERATIONAL) RATING

1. Proficiency check

The proficiency check for the renewal of an ATS instructor rating must be conducted by a validation examiner. The check must be done in accordance with the standard operating procedures of the ATSU and in any of the valid ratings held by the instructor. The proficiency check must cover the assessment of all valid ratings over a period of 24 months.

2. Certificate of competency

The certificate of competency is the certificate required in TS 65.09.6.

65.10.2 TRAINING

1. Training standards

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(1) The training course should be designed for the applicant to be given adequate training in instructional techniques based upon established teaching methods.

(2) On successful completion of the training course and final test, the applicant is issued with an ATS instructor (ATO) certificate permitting the holder to give training and instruction towards the issuance of an ATS licence and ratings in any valid ratings held by the instructor.

(3) The training course should stress the role of the individual in relation to the importance of human factors in the man-machine environment. Special attention should be paid to the applicant's maturity and judgement, including an understanding of adults, their behavioural attitudes and variable levels of education.

(4) All the subject detail contained in the instructor training syllabus must be based on the training courses described in TS 65.03 to 65.8, whichever is applicable. The purpose of the course is to –

(a) refresh and bring up to date the technical knowledge of the student instructor;

(b) train the student instructor to teach the subjects;

(c) ensure that the student instructor's own operational performance is of a sufficiently high standard; and

(d) teach the student instructor the principles of basic instruction and to apply them at the air traffic service level.

(5) During the training course, the student instructor should be made aware of his or her attitude to the importance of aviation safety and the promotion of safety cultures. The student instructor is the critical link in the training process and his or her attitude towards safety has a major impact upon student air traffic service personnel. Improving safety awareness is therefore a fundamental objective throughout the training course. It is of major importance for the training course to aim at giving the student instructor knowledge, skills and attitudes relevant to an air traffic service instructor's task.

2. Teaching and learning

(1) The learning process

(a) Motivation;

(b) perception and understanding;

(c) memory and its application;

(d) habits and transfer;

(e) obstacles to learning;

(f) incentives to learning;

(g) learning methods; and

(h) rates of learning.

(2) The teaching process

(a) Elements of effective teaching;

(b) planning of instructional activity;

(c) teaching methods;

(d) teaching from the “known” to the “unknown”; and

(e) use of “lesson plans”.

(3) Training philosophies

(a) Value of a structured training course;

(b) importance of a planned syllabus; and

(c) integration of theoretical and practical training.

(4) Techniques of applied instruction

(a) Classroom instruction techniques –

(i) Use of training aids;

(ii) group lectures;

(iii) individual briefings; and

(iv) student participation/discussion.

(b) Simulator instruction techniques –

(i) The work environment;

(ii) techniques of applied instruction; and

(iii) judgement and decision making.

(5) Student evaluation and testing

(a) Assessment of student performance –

(i) The function of progress tests;

(ii) recall of knowledge;

(iii) translation of knowledge into understanding;

(iv) development of understanding into actions; and

(v) the need to evaluate rate of progress.

(b) Analysis of student errors –

(i) Establish the reason for errors;

(ii) tackle major faults first, minor faults second;

(iii) avoidance of over criticism; and

(iv) the need for clear concise communication.

(6) Training programme development

(a) Lesson planning;

(b) preparation;

(c) explanation and demonstration;

(d) student participation and practice; and

(e) evaluation.

(7) Human performance and limitations relevant to instruction

(a) Physiological factors;

(b) psychological factors;

(c) human information procession;

(d) behavioural attitudes; and

(e) development of judgement and decision making.

(8) Hazards involved in simulating systems failures and malfunctions

(9) Training administration

(a) Training records;

(b) the training curriculum;

(d) study material;

(e) official forms;

(f) manuals and standard procedures; and

(i) the regulations applicable to an air traffic service licence and ratings and air traffic service instructor rating (both operational and ATO).

(10) Classroom training

The classroom training consists of the training course delivered by a competent person, and includes classroom lectures, tutorials, briefings and directed private study.

(11) Simulator training

The student instructor must practice the standards and procedures in a simulator that adequately simulates the work environment that is approved by the Executive Director.

65.10.3 APPLICATION FOR AIR TRAFFIC SERVICE INSTRUCTOR (AVIATION TRAINING ORGANISATION) CERTIFICATE

1. Form of application

The application for a Grade II ATS instructor (ATO) certificate must be made on form FSS PEL 65-02.

2. Certificate of competency

The certificate of competency issued by the rating assessment examiner must be in the format described in Annexure C or in a similar format accepted by the Executive Director.

65.10.7 RENEWAL OF AIR TRAFFIC SERVICE INSTRUCTOR (AVIATION TRAINING ORGANISATION) CERTIFICATE

1. Proficiency check

The proficiency check for the renewal of an ATS instructor (ATO) certificate must be conducted by a rating assessment examiner. The check must be done in accordance with the standards required for the licensing and rating of ATS personnel in any of the valid ratings held by the instructor. The proficiency check must cover the assessment of all valid ratings over a period of 24 months.

2. Certificate of competency

The certificate of competency is the certificate required in TS 65.10.3.

ANNEXURE A: ICAO Holistic descriptors

Proficient speakers must:

a) communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations;

b) communicate on common, concrete and work-related topics with accuracy and clarity;

c) use appropriate communicative strategies to exchange messages and to recognize and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a general or work-related context;

d) handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and

e) use a dialect or accent which is intelligible to the aeronautical community.

ANNEXURE B: ENGLISH LANGUAGE PROFICIENCY RATING SCALE

LEVEL	PRONUNCIATION **Assumes a dialect and/or accent intelligible to the aeronautical community.**	**STRUCTURE** **Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.**	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Expert **6**	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.
Extended **5**	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.
Operational **4**	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.

LEVEL	PRONUNCIATION Assumes a dialect and/or accent intelligible to the aeronautical community.	STRUCTURE Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Preoperational **3**	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
Elementary **2**	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.	Shows only limited control of a few simple memorized grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorized phrases.	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.	Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
Pre-elementary **1**	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.

ANNEXURE C: CERTIFICATE OF COMPETENCY

Name of person tested:		Licence/ Certificate no.:	
Name of Examiner		Examiner Licence/ Certificate no.	
Examiner capacity:	☐ Rating assessment ☐ Validation	Date of test/ assessment:	
Type of proficiency test/ assessment conducted: ☐ ATSA ☐ Aero C ☐ AppCP ☐ Area C ☐ AppS ☐ AreaS ☐ Inst			
ATS unit:			
Examiner declaration: I herewith declare that the abovementioned ATS licence or certificate holder has been tested/ assessed by me for the puspose indicated and that he/she is found competent / not competent to perform the privileges of the licence.			
The validity of this assessment expires on:			
Signature of examiner:			
Signature of person tested:			
Proficiency/Competency assessment types: Inst = Instructor rating/certificate proficiency, AeroC = Aerodrome Control, AppCP = Approach Control Procedural, AppS = Approah Control Surveillance, AreaCP = Area Control Procedural, AreaS = Area Control Surveillance, ATSA = Air Traffic service Assistant			