

STATE OF LIBYA
MINISTRY OF TRANSPORT
CIVIL AVIATION AUTHORITY



دولة ليبيا
وزارة المواصلات
مصلحة الطيران المدني

Libyan Civil Aviation Regulations Part Air Traffic Controllers Licensing

LYCAR – ATCL

Initial Issue – Amendment 02

August 2020

INTENTIONALLY LEFT BLANK

Foreword

1. The regulations contained herein are adopted under the provision of Article No.(5) of Libyan Civil Aviation Law No.(6) of 2005, and issued and signed up by the Director General of Civil Aviation by virtue of powers vested from the Minister of Transport under the resolution No.(130) issued on 13/02/2019.
2. The Libyan Civil Aviation Regulations - Part Air Traffic Controllers Licensing (LYCAR – Part ATCL) describes the requirement and the process of Air Traffic Controllers Licensing and the related Training Organisation and Medical certification.
3. LYCAA in development of these regulations has adapted ICAO standards and the best practices of other ICAO contracting state.
4. This version of Issue 01 contains amendment 02, all changes are highlighted in the amendment changes highlights page.
5. The information contained herein is subject to constant review in the light of changing regulations and requirements. No subscriber or other reader should act on the basis of any such information without also referring to the applicable laws and regulations and/or without taking appropriate professional advice when/as indicated/required. Although, every effort has been made to ensure accuracy, the Libyan Civil Aviation Authority, shall not be held responsible for loss or damage caused by errors, omissions, misprints or misinterpretation of the contents hereof.
6. Copies of this publication can be downloaded from: www.caa.gov.ly

Issued on 26th August 2020, and signed by



Capt. Nasereddin Shaebelain
Director General

INTENTIONALLY LEFT BLANK

TABLE OF CONTENT

SUBPART A- GENERAL (GEN) 1

ATCL.GEN.005 - SUBJECT MATTER AND SCOPE..... 1

ATCL.GEN.010 - COMPLIANCE WITH REQUIREMENTS AND PROCEDURES 1

ATCL.GEN.015 - AUTHORISED PERSONS 1

ATCL.GEN.020 - TASKS OF THE AUTHORITY 2

ATCL.GEN.025 - DEFINITIONS..... 2

ATCL.GEN.030 - APPLICATION FOR THE ISSUE OF LICENCES, RATINGS AND ENDORSEMENTS 4

ATCL.GEN.035 - EXERCISE OF THE PRIVILEGES OF LICENCES AND PROVISIONAL INABILITY 4

ATCL.GEN.040 - REVOCATION AND SUSPENSION OF LICENCES, RATINGS AND ENDORSEMENTS..... 5

SUBPART B – LICENCES (LIC) RATINGS AND ENDORSEMENTS..... 6

ATCL.LIC.005 - STUDENT AIR TRAFFIC CONTROLLER LICENCE 6

ATCL. LIC.010 - AIR TRAFFIC CONTROLLER LICENCE 6

ATCL. LIC.015 - AIR TRAFFIC CONTROLLER RATINGS..... 7

ATCL. LIC.020 - RATING ENDORSEMENTS 7

ATCL. LIC.025 - UNIT ENDORSEMENTS..... 8

ATCL. LIC.030 - UNIT COMPETENCE SCHEME 8

ATCL. LIC.035 - LANGUAGE PROFICIENCY ENDORSEMENT..... 9

ATCL. LIC.040 - VALIDITY OF LANGUAGE PROFICIENCY ENDORSEMENT 10

ATCL. LIC.045 - ASSESSMENT OF LANGUAGE PROFICIENCY..... 10

ATCL. LIC.050 - LANGUAGE TRAINING 10

SUBPART C - REQUIREMENTS FOR INSTRUCTORS (INST) AND ASSESSORS 11

ATCL.INST.005 - THEORETICAL INSTRUCTORS 11

ATCL.INST.010 - PRACTICAL INSTRUCTORS 11

ATCL.INST.015 - ON-THE-JOB TRAINING INSTRUCTOR (OJTI) PRIVILEGES..... 11

ATCL.INST.020 - APPLICATION FOR ON-THE-JOB TRAINING INSTRUCTOR ENDORSEMENT 11

ATCL.INST.025 - VALIDITY OF ON-THE-JOB TRAINING INSTRUCTOR ENDORSEMENT 11

ATCL.INST.030 - TEMPORARY OJTI AUTHORISATION..... 12

ATCL.INST.035 - SYNTHETIC TRAINING DEVICE INSTRUCTOR (STDI) PRIVILEGES 12

ATCL.INST.040 - APPLICATION FOR SYNTHETIC TRAINING DEVICE INSTRUCTOR ENDORSEMENT..... 12

ATCL.INST.045 - VALIDITY OF SYNTHETIC TRAINING DEVICE INSTRUCTOR ENDORSEMENT 12

ATCL. INST.050 - ASSESSOR PRIVILEGES 13

ATCL. INST.055 - VESTED INTERESTS 14

ATCL. INST.060 - APPLICATION FOR ASSESSOR ENDORSEMENT 14

ATCL. INST.065 - VALIDITY OF ASSESSOR ENDORSEMENT 14

ATCL. INST.070 - TEMPORARY ASSESSOR AUTHORISATION..... 14

SUBPART D - AIR TRAFFIC CONTROLLER TRAINING 15

ATCL.TRNG.005 - OBJECTIVES OF AIR TRAFFIC CONTROLLER TRAINING 15

ATCL.TRNG.010 - TYPES OF AIR TRAFFIC CONTROLLER TRAINING 15

ATCL.TRNG.015 - COMPOSITION OF INITIAL TRAINING 15

ATCL.TRNG.020 - INITIAL TRAINING PLAN 16

ATCL.TRNG.025 - BASIC AND RATING TRAINING COURSES 16

ATCL.TRNG.030 - BASIC TRAINING EXAMINATIONS AND ASSESSMENT..... 17

ATCL.TRNG.035 - BASIC TRAINING PERFORMANCE OBJECTIVES..... 17

ATCL.TRNG.040 - RATING TRAINING EXAMINATIONS AND ASSESSMENT 17

ATCL.TRNG.045 - RATING TRAINING PERFORMANCE OBJECTIVES 17

ATCL.TRNG.050 - COMPOSITION OF UNIT TRAINING 18

ATCL.TRNG.055 - PREREQUISITES OF UNIT TRAINING 18

ATCL.TRNG.060 - UNIT TRAINING PLAN 19

ATCL.TRNG.065 - UNIT ENDORSEMENT COURSE..... 19

ATCL.TRNG.070 - DEMONSTRATION OF THEORETICAL KNOWLEDGE AND UNDERSTANDING	20
ATCL.TRNG.075 - ASSESSMENTS DURING UNIT ENDORSEMENT COURSES	20
ATCL.TRNG.080 - CONTINUATION TRAINING	20
ATCL.TRNG.085 - REFRESHER TRAINING	20
ATCL.TRNG.090 - CONVERSION TRAINING.....	20
ATCL.TRNG.095 - TRAINING OF PRACTICAL INSTRUCTORS.....	20
ATCL.TRNG.100 - TRAINING OF ASSESSORS.....	21
APPENDIX 1 – OF SUBPART D - LANGUAGE PROFICIENCY RATING SCALE — REQUIREMENTS FOR PROFICIENCY IN LANGUAGES	22
APPENDIX 2 - OF SUBPART D - BASIC TRAINING	34
APPENDIX 3 - OF SUBPART D - AERODROME CONTROL TOWER RATING (TWR).....	40
APPENDIX 4 - OF SUBPART D - APPROACH CONTROL PROCEDURAL RATING (APP).....	45
APPENDIX (5) - OF SUBPART D - AREA CONTROL PROCEDURAL RATING (ACP).....	49
APPENDIX 6 - OF SUBPART D - APPROACH CONTROL SURVEILLANCE RATING (APS)	53
APPENDIX 7 - OF SUBPART D - AREA CONTROL SURVEILLANCE RATING (ACS)	58
SUBPART E - AIR TRAFFIC CONTROLLERS TRAINING ORGANISATION (ATO) CERTIFICATE TRAINING APPROVAL	62
ATCL.ATO.005 - SCOPE	62
ATCL.ATO.010 - APPLICATION FOR A TRAINING ORGANISATION CERTIFICATE.....	62
ATCL.ATO.015 – ALTERNATIVE MEANS OF COMPLIANCE	62
ATCL.ATO.020 - TERMS OF APPROVAL AND PRIVILEGES OF A TRAINING ORGANISATION CERTIFICATE	62
ATCL.ATO.025 - CHANGES TO THE TRAINING ORGANISATION	63
ATCL.ATO.030 - CONTINUED VALIDITY	63
ATCL.ATO.035 - ACCESS TO TRAINING ORGANISATIONS' FACILITIES AND DATA	63
ATCL.ATO.040 - FINDINGS.....	63
ATCL.ATO.045 - IMMEDIATE REACTION TO A SAFETY PROBLEM.....	63
ATCL.ATO.050 - OCCURRENCE REPORTING	63
ATCL.ATO.055 - MANAGEMENT SYSTEM OF TRAINING ORGANISATIONS	64
ATCL.ATO.060 - CONTRACTED ACTIVITIES.....	64
ATCL.ATO.065 - PERSONNEL REQUIREMENTS.....	64
ATCL.ATO.070 - FACILITIES AND EQUIPMENT	65
ATCL.ATO.075 - RECORD KEEPING	65
ATCL.ATO.080 - FUNDING AND INSURANCES.....	65
ATCL.ATO.085 - REQUIREMENTS FOR TRAINING COURSES AND TRAINING PLANS	65
ATCL.ATO.090 - EXAMINATION AND ASSESSMENT RESULTS AND CERTIFICATES.....	66
SUBPART F - MEDICAL REQUIREMENTS FOR AIR TRAFFIC CONTROLLERS	67
ATCL.MED.005 - SCOPE	67
ATCL.MED.010 - DEFINITIONS.....	67
ATCL.MED.015 - MEDICAL CONFIDENTIALITY.....	67
ATCL.MED.020 - DECREASE IN MEDICAL FITNESS.....	67
ATCL.MED.025 - OBLIGATIONS OF AEMC AND AME.....	68
ATCL.MED.030 - MEDICAL CERTIFICATES	68
ATCL.MED.035 - APPLICATION FOR A MEDICAL CERTIFICATE	69
ATCL.MED.040 - ISSUE, REVALIDATION AND RENEWAL OF MEDICAL CERTIFICATES.....	69
ATCL.MED.045 - VALIDITY, REVALIDATION, AND RENEWAL OF MEDICAL CERTIFICATES	69
ATCL.MED.050 - SUSPENSION OR REVOCATION OF A MEDICAL CERTIFICATE	70
ATCL.MED.055 - REFERRAL.....	70
ATCL.MED.060 - LIMITATIONS TO MEDICAL CERTIFICATES.....	70
ATCL.MED.065 - CLASS 3 MEDICAL CERTIFICATES GENERAL REQUIREMENTS.....	71

ATCL.MED.070 - CARDIOVASCULAR SYSTEM	71
ATCL.MED.075 - RESPIRATORY SYSTEM.....	73
ATCL.MED.080 - DIGESTIVE SYSTEM.....	73
ATCL.MED.085 - METABOLIC AND ENDOCRINE SYSTEMS.....	74
ATCL.MED.090 - HAEMATOLOGY.....	74
ATCL.MED.095 - GENITOURINARY SYSTEM	74
ATCL.MED.100 - INFECTIOUS DISEASE	75
ATCL.MED.105 - OBSTETRICS AND GYNAECOLOGY	75
ATCL.MED.110 - MUSCULOSKELETAL SYSTEM	75
ATCL.MED.115 - PSYCHIATRY	75
ATCL.MED.120 - PSYCHOLOGY.....	76
ATCL.MED.125 - NEUROLOGY	76
ATCL.MED.130 - VISUAL SYSTEM	76
ATCL.MED.135 - COLOUR VISION	77
ATCL.MED.140 - OTORHINOLARYNGOLOGY	77
ATCL.MED.145 - DERMATOLOGY	78
ATCL.MED.150 - ONCOLOGY	78
ATCL.MED.155 - PRIVILEGES.....	78
ATCL.MED.160 - APPLICATION.....	78
ATCL.MED.165 - REQUIREMENTS FOR THE ISSUE OF AN AME CERTIFICATE.....	79
ATCL.MED.170 - TRAINING COURSES IN AVIATION MEDICINE	79
ATCL.MED.175 - CHANGES TO THE AME CERTIFICATE	79
ATCL.MED.180 - VALIDITY OF AME CERTIFICATES	79
APPENDIX 1 - FORMAT OF AIR TRAFFIC CONTROLLER LICENCE	81

SUBPART A- GENERAL (GEN)

ATCL.GEN.005 - Subject matter and scope

- (a) This Regulation lays down detailed rules for:
 - (1) the conditions for issuing, limiting, suspending and revoking air traffic controllers and student air traffic controllers' medical certificates, and the privileges and responsibilities of those holding them;
 - (2) the certification of aero-medical examiners and aero-medical centres for air traffic controllers and student air traffic controllers;
 - (3) the certification of air traffic controller training organisations;
 - (4) the conditions for validating revalidating, renewing and using such licences, ratings, endorsements and certificates.
- (b) This Regulation shall apply to:
 - (1) student air traffic controllers and air traffic controllers exercising their functions within the scope of this Regulation;
 - (2) persons and organisations involved in the licensing, training, testing, checking and medical examination and assessment of applicants in accordance with this Regulation.

ATCL.GEN.010 - Compliance with requirements and procedures

- (a) The student air traffic controllers, the air traffic controllers and the persons involved in the licensing, training, testing, checking and medical examination and assessment of applicants referred to in ATCL.GEN.005 (b) (1) and (2) shall be qualified and licensed in accordance with the provisions of this Part by LYCAA.
- (b) The organisations referred to in ATCL.GEN.005 (b)(2) shall be qualified in accordance with the technical requirements and administrative procedures laid down in this Part and shall be certified by LYCAA.
- (c) The medical certification of the persons referred to in ATCL.GEN.005 (b) (1) and (2) shall be compliant with the technical requirements and administrative procedures laid down in this Part.
- (d) Practical instructors and assessors employed by a training organisation located outside the territory of Libya shall be deemed to have been qualified in accordance with paragraph 1, where they meet both of the following conditions:
 - (1) they hold an air traffic controller licence issued by a third country in accordance with ICAO Annex I of the Chicago Convention with a rating and, if applicable, rating endorsement corresponding to the one for which they are authorised to instruct or assess;
 - (2) they have demonstrated to the Authority that they have received training and successfully passed examinations and assessments equivalent to those required by this Part.

The privileges referred to in the subparagraph (a) shall be specified in a certificate issued by a third country and shall be limited to provide instruction and assessment for training organisations located outside Libya.

ATCL.GEN.015 - Authorised Persons

- (a) Personnel authorised by the Authority to carry out certification and/or oversight tasks shall be empowered to perform as a minimum the following tasks:
 - (1) examine documents, including licences, certificates, records, data, procedures and any other material relevant to the execution of the required task;
 - (2) take copies of or extracts from such records, data, procedures and other material;
 - (3) ask for an explanation;

- (4) enter relevant premises and operating sites;
 - (5) perform audits and inspections, including unannounced inspections;
 - (6) take or initiate enforcement measures as appropriate.
- (b) The Authority may authorise its personnel to conduct assessments leading to the issue, revalidation and renewal of a unit endorsement provided that they meet the requirements set out in ATCL.INST.050, with the exception of point (d)(1). Familiarity with the current operational practices and procedures of the unit, where the assessment is taking place, shall however be ensured.

ATCL.GEN.020 - Tasks of the Authority

The tasks of the competent authorities shall include:

- (1) the issue, suspension and revocation of licences, ratings, endorsements and of medical certificates;
- (2) the issue of temporary OJTI authorisations according to ATCL.INST.030;
- (3) the issue of temporary assessor authorisations according to ATCL.INST.070;
- (4) the revalidation and renewal of endorsements;
- (5) the revalidation, renewal and limitation of medical certificates following referral by the Authorized Medical Examiner (AME) or Aero-Medical center (AeMC);
- (6) the issue, revalidation, renewal, suspension, revocation, limitation and change of aero-medical examiner certificates;
- (7) the issue, suspension, revocation and limitation of training organisation certificates and of the certificates of aero-medical centres;
- (8) the approval of training courses, plans and unit competence schemes, as well as assessment methods;
- (9) the approval of the assessment method for the demonstration of language proficiency and the establishment of requirements applicable to language assessment bodies according to ATCL.LIC.045;
- (10) the approval of the need for the extended level (level five) language proficiency in accordance with ATCL. LIC.035 (d);
- (11) the monitoring of training organisations, including their training courses and plans;
- (12) the approval and monitoring of the unit competence schemes;
- (13) the establishment of appropriate appeal procedures and notification mechanisms;
- (14) facilitating the recognition of training organisation certificates and course approvals.

ATCL.GEN.025 - Definitions

For the purposes of this Regulation, the following definitions shall apply:

1. **'abnormal situation'** means circumstances, including degraded situations, which are neither routinely nor commonly experienced and for which an air traffic controller has not developed automatic skills;
2. **'acceptable means of compliance (AMC)'** means non-binding standards adopted by the LYCAA to illustrate means by which to establish compliance with the Regulation;
3. **'air traffic control (ATC) service'** means a service provided for the purpose of:
 - a. preventing collisions:
 - between aircraft, and
 - in the manoeuvring area between aircraft and obstructions; and
 - b. expediting and maintaining an orderly flow of air traffic;
4. **'air traffic control (ATC) unit'** means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower;

5. **‘alternative means of compliance’** means an alternative to an existing AMC or a new means to establish compliance with the Regulation and its implementing rules for which no associated AMC have been adopted by the Agency;
6. **‘assessment’** means an evaluation of the practical skills leading to the issue of the licence, rating and/or endorsement(s) and their revalidation and/or renewal, including behaviour and the practical application of knowledge and understanding being demonstrated by the person being assessed;
7. **‘assessor endorsement’** means the authorisation entered on and forming part of the licence, indicating the competence of the holder to assess the practical skills of student air traffic controller and air traffic controller;
8. **‘Authority’** means Libyan Civil Aviation Authority (LYCAA);
9. **‘critical incident stress’** means the manifestation of unusual and/or extreme emotional, physical and/or behavioural reactions in an individual following an unexpected event, an accident, an incident or serious incident;
10. **‘emergency situation’** means a serious and dangerous situation requiring immediate actions;
11. **‘examination’** means a formalised test evaluating the person's knowledge and understanding;
12. **‘guidance material (GM)’** means non-binding material developed by the Agency that helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of the Regulation, its implementing rules and AMC;
13. **‘ICAO location indicator’** means the four-letter code group formulated in accordance with the rules prescribed by ICAO in its manual 'DOC 7910' in its latest updated version and assigned to the location of an aeronautical fixed station;
14. **‘language proficiency endorsement’** means the statement entered on and forming part of a licence, indicating the language proficiency of the holder;
15. **‘licence’** means a document issued and endorsed in accordance with this Regulation and entitling its lawful holder to exercise the privileges of the ratings and endorsements contained therein;
16. **‘on-the-job training instruction’** means the phase of unit training during which previously acquired job-related routines and skills are integrated in practice under the supervision of a qualified on-the-job training instructor in a live traffic situation;
17. **‘on-the-job training instructor (OJTI) endorsement’** means the authorisation entered on and forming part of a licence, indicating the competence of the holder to give on-the-job training instruction and instruction on synthetic training devices;
18. **‘part-task trainer (PTT)’** means a synthetic training device to provide training for specific and selected operational tasks without requiring the learner to practise all of the tasks which are normally associated with a fully operational environment;
19. **‘performance objective’** means a clear and unambiguous statement of the performance expected of the person undertaking the training, the conditions under which the performance takes place and the standards that the person undertaking training should meet;
20. **‘provisional inability’** means a temporary state in which the licence holder is prevented from exercising the privileges of the licence when ratings, endorsements and his/her medical certificate are valid;
21. **‘psychoactive substance’** means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas caffeine and tobacco are excluded;
22. **‘rating endorsement’** means the authorisation entered on and forming part of a licence, indicating the specific conditions, privileges or limitations pertaining to the relevant rating;

23. **'renewal'** means the administrative act taken after a rating, endorsement or certificate has expired that renew the privileges of the rating, endorsement or certificate for a further specified period subject to the fulfilment of specified requirements;
24. **'revalidation'** means the administrative act taken within the period of validity of a rating, endorsement or certificate that allows the holder to continue to exercise the privileges of a rating, endorsement or certificate for a further specified period subject to the fulfilment of specified requirements;
25. **'sector'** means a part of a control area and/or part of a flight information region or upper region;
26. **'simulator'** means a synthetic training device that presents the important features of the real operational environment and reproduces the operational conditions under which the person undertaking training can practice real-time tasks directly;
27. **'synthetic training device'** means any type of device by which operational conditions are simulated, including simulators and part-task trainers;
28. **'synthetic training device instructor (STDI) endorsement'** means the authorisation entered on and forming part of a licence, indicating the competence of the holder to give instruction on synthetic training devices;
29. **'training course'** means theoretical and/or practical instruction developed within a structured framework and delivered within a defined duration;
30. **'training organisation'** means an organisation which has been certified by the Authority to provide one or more types of training;
31. **'unit endorsement'** means the authorisation entered on and forming part of a licence, indicating the ICAO location indicator and the sector, group of sectors or working positions where the licence holder is competent to work;
32. **'validation'** means a process by which, through the successful completion of a unit endorsement course associated to a rating or a rating endorsement, the holder may start exercising the privileges of that rating or rating endorsement.

ATCL.GEN.030 - Application for the issue of licences, ratings and endorsements

- (a) An application for the issue of licences, ratings and endorsements shall be submitted to the Authority in accordance with the procedure established by that authority.
- (b) An application for the issue of further ratings or endorsements, for the revalidation or renewal of endorsements and for the reissue of the licence shall be submitted to the Authority which issued that licence.
- (c) The licence shall remain the property of the person to whom it is issued, unless it is revoked by the Authority. The licence holder shall sign the licence.
- (d) The licence shall specify all relevant information related to the privileges that are granted by the licence, and shall comply with the specification of Appendix 1.

ATCL.GEN.035 - Exercise of the privileges of licences and provisional inability

- (a) The exercise of the privileges granted by a licence shall be dependent on the validity of the ratings, endorsements and of the medical certificate.
- (b) Licence holders shall not exercise the privileges of their licence when having doubts of being able to safely exercise the privileges of the licence and shall in such cases immediately notify the relevant air navigation service provider of the provisional inability to exercise the privileges of their licence.
- (c) Air navigation service providers may declare the provisional inability of the licence holder if they become aware of any doubt concerning the ability of the licence holder to safely exercise the privileges of the licence.

- (d) Air navigation service providers shall develop and implement objective, transparent and non-discriminatory procedures to enable licence holders declaring provisional inability to exercise the privileges of their licence in accordance with point (b), to declare the provisional inability of the licence holder in accordance with point (c), to manage the operational impact of provisional inability cases and to inform the Authority as defined in that procedure.
- (e) The procedures referred to in point (d) shall be included in the unit competence scheme according to ATCL. LIC.030 (a)(13).

ATCL.GEN.040 - Revocation and suspension of licences, ratings and endorsements

- (a) Licences, ratings and endorsements may be suspended or revoked by the LYCAA when the licence holder does not comply with the requirements of this Part.
- (b) When the licence holder has his/her licence revoked, he/she shall immediately return the licence to the Authority according to the administrative procedures established by that authority.
- (c) With the issue of the air traffic controller licence, the student air traffic controller licence is revoked and shall be returned to the Authority which is issuing the air traffic controller licence.

SUBPART B – LICENCES (LIC) RATINGS AND ENDORSEMENTS

ATCL.LIC.005 - Student air traffic controller licence

- (a) Holders of a student air traffic controller licence shall be authorised to provide air traffic control services in accordance with the rating(s) and rating endorsement(s) contained in their licence under the supervision of an on- the-job training instructor and to undertake training for rating endorsement(s).
- (b) Applicants for the issue of a student air traffic controller licence shall:
 - (1) be at least 18 years old;
 - (2) have successfully completed initial training at a training organisation satisfying the requirements laid down in Subpart E relevant to the rating, and if applicable, to the rating endorsement, as set out in Subpart D;
 - (3) hold a valid medical certificate;
 - (4) have demonstrated an adequate level of language proficiency in accordance with the requirements set out in ATCL.LIC.035.
- (c) The student air traffic controller licence shall contain the language endorsement(s) and at least one rating and, if applicable, one rating endorsement.
- (d) The holder of a student air traffic controller licence who has not started exercising the privileges of that licence within one year from the date of its issue or has interrupted exercising those privileges for a period of more than one year may only start or continue unit training in that rating after an assessment of his/her previous competence, conducted by a training organisation satisfying the requirements laid down in Subpart E and certified to provide initial training relevant to the rating, as to whether he/she continues to satisfy the requirements relevant to that rating, and after satisfying any training requirements resulting from this assessment.

ATCL. LIC.010 - Air traffic controller licence

- (a) Holders of an air traffic controller licence shall be authorised to provide air traffic control services in accordance with the ratings and rating endorsements of their licence, and to exercise the privileges of the endorsements contained therein.
- (b) The privileges of an air traffic controller licence shall include the privileges of a student air traffic controller licence as set out in ATCL.LIC.005 (a).
- (c) Applicants for the first issue of an air traffic controller licence shall:
 - (1) hold a student air traffic controller licence;
 - (2) have completed a unit endorsement course and successfully passed the appropriate examinations and assessments in accordance with the requirements set out in Subpart D;
 - (3) hold a valid medical certificate;
 - (4) have demonstrated an adequate level of language proficiency in accordance with the requirements set out in ATCL.LIC.035.
- (d) The air traffic controller licence shall be validated by the inclusion of one or more ratings and the relevant rating, unit and language proficiency endorsements for which the training was successful.
- (e) The holder of an air traffic controller licence who has not started exercising the privileges of any rating within one year from the date of its issue may only start unit training in that rating after an assessment of his/her previous competence, conducted by a training organisation satisfying the requirements laid down in Subpart E and certified to provide initial training relevant to the rating, as to whether he/she continues to satisfy the requirements relevant to that rating, and after satisfying any training requirements resulting from this assessment.

ATCL. LIC.015 - Air traffic controller ratings

- (a) An applicant for an air traffic controller rating shall have provided satisfactorily, under the supervision of an on-the-job training instructor, the control service at the unit for the rating is sought. The experience requirements shall be a period of:
 - (1) Not less than 180 hours or two month, whichever is greater, for an aerodrome control rating; and
 - (2) Not less than 360 hours or six months, whichever is greater, for an approach control procedural, approach control surveillance, area control procedural or area control surveillance rating.
 - (3) The applicant shall have demonstrated, at a level appropriate to the privileges being granted, the skill judgement and performance required to provide a safe, orderly and expeditious control service.
- (b) Licences shall contain one or more of the following ratings in order to indicate the type of service which the licence holder is authorised to provide:
 - (1) the Aerodrome Control Tower (TWR) rating, indicating that the licence holder is competent to provide an air traffic control service to aerodrome traffic at an aerodrome for which the licence holder is rated;
 - (2) the Approach Control Procedural (APP) rating, indicating that the licence holder is competent to provide an air traffic control service to arriving, departing or transiting aircraft without the use of surveillance equipment;
 - (3) the Approach Control Surveillance (APS) rating, indicating that the licence holder is competent to provide an air traffic control service to arriving, departing or transiting aircraft with the use of surveillance equipment;
 - (4) the Area Control Procedural (ACP) rating, indicating that the licence holder is competent to provide an air traffic control service to aircraft without the use of surveillance equipment;
 - (5) the Area Control Surveillance (ACS) rating, indicating that the licence holder is competent to provide an air traffic control service to aircraft with the use of surveillance equipment.
- (c) The applicant for an APS and/or ACS rating(s) shall have APP and/or ACP rating(s) endorsed in his/her licence.
- (d) The holder of a rating who has interrupted exercising the privileges associated with that rating for a period of more than six months. The holder of a rating may only commence unit training in that rating, and after appropriate assessment as to whether he/she continues to satisfy the conditions of that rating, and after satisfying any training requirements that result from this assessment.

ATCL. LIC.020 - Rating endorsements

- (a) The Aerodrome Control rating shall bear the Tower Control (TWR) endorsement, indicating that the licence holder is competent to provide aerodrome control service. The TWR endorsement includes the privileges of the Air Control (AIR) and Ground Movement Control (GMC) endorsements;
- (b) Approach control procedural endorsement (APP): to provide the provision of approach control service for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service.
- (c) Approach control service (APS) endorsement: to provide the provision of approach control service with the use of applicable ATS surveillance systems for the aerodrome or aerodromes for which the licence holder is rated, within the airspace or portion thereof, under the jurisdiction of the unit providing approach control service.

- (d) Area control procedure (ACP) endorsement: to provide the provision of area control service within the control area or portion thereof, for which the licence holder is rated.
- (e) Area control surveillance (ACS) endorsement: to provide the provision of area control service with the use of an ATS surveillance system, within the control area or portion thereof, for which the licence holder is rated.

ATCL. LIC.025 - Unit endorsements

- (a) The unit endorsement shall authorise the licence holder to provide air traffic control services for a specific sector, group of sectors and/or working positions under the responsibility of an air traffic services unit.
- (b) Applicants for a unit endorsement shall have successfully completed a unit endorsement course in accordance with the requirements set out in Subpart D.
- (c) For air traffic controllers providing air traffic control services to aircraft carrying out flight tests, the Authority may, in addition to the requirements set out in point (b), set out additional requirements to be met.
- (d) Unit endorsements shall be valid for a period defined in the unit competence scheme. This period shall not exceed three years.
- (e) The validity period of unit endorsements for initial issue and renewal shall start not later than 30 days from the date on which the assessment has been successfully completed.
- (f) Unit endorsements shall be revalidated if:
 - (1) the applicant has been exercising the privileges of the licence for a minimum number of hours as defined in the unit competence scheme;
 - (2) the applicant has undertaken refresher training within the validity period of the unit endorsement according to the unit competence scheme;
 - (3) the applicant's competence has been assessed in accordance with the unit competence scheme not earlier than three months prior to the expiry date of the unit endorsement.
- (g) Unit endorsements shall be revalidated, provided that the requirements set out in point (F) are met, within the 3-month period immediately preceding their expiry date. In such cases the validity period shall be counted from that expiry date.
- (h) If the unit endorsement is revalidated before the period provided for in point (g), its validity period shall start not later than 30 days from the date on which the assessment has been successfully completed, provided that the requirements in point (f) (1) and (2) are also met.
- (i) If the validity of a unit endorsement expires, the licence holder shall successfully complete the unit endorsement course in accordance with the requirements set out in Subpart D in order to renew the endorsement.

ATCL. LIC.030 - Unit competence scheme

- (a) Unit competence schemes shall be established by the air navigation service provider and approved by the LYCAA. It shall include at least the following elements:
 - (1) the validity of the unit endorsement in accordance with ATCL.LIC.025 (d) ;
 - (2) the maximum continuous period when the privileges of a unit endorsement are not exercised during its validity. This period shall not exceed 90 calendar days;
 - (3) the minimum number of hours for exercising the privileges of the unit endorsement within a defined period of time, which shall not exceed 12 months, for the purpose of ATCL.LIC.025 (f) (1). For on-the-job training instructors exercising the privileges of the OJTI endorsement the time spent instructing shall be counted for the maximum of 50 % of the hours required for revalidation of the unit endorsement.
 - (4) procedures for the cases where the licence holder does not meet the requirements set out in point (a)(2) and (3);
 - (5) processes for assessing competence, including assessment of the refresher training subjects according to ATCL.TRNG.085 (b);

- (6) processes for the examination of theoretical knowledge and understanding necessary to exercise privileges of the ratings and endorsements;
 - (7) processes to identify the topics and subtopics, objectives and training methods for continuation training;
 - (8) the minimum duration and frequency of the refresher training;
 - (9) processes for the examination of theoretical knowledge and/or the assessment of practical skills acquired during conversion training, including pass marks for examinations;
 - (10) processes in case of failure of an examination or assessment, including the appeal processes;
 - (11) training personnel qualifications, roles and responsibilities;
 - (12) procedure to ensure that practical instructors have practiced instructional techniques in the procedures in which it is intended to provide instruction in accordance with ATCL.INST.015 (b)(3) and ATCL.INST.035 (b)(3);
 - (13) procedures for the declaration and the management of cases of provisional inability to exercise the privileges of a licence, as well as for informing the Authority in accordance with ATCL.GEN.035 (d);
 - (14) identification of records to be kept specific to continuation training and assessments;
 - (15) process and reasons for reviewing and amending the unit competence scheme and its submission to the Authority. The review of the unit competence scheme shall take place at least once every three years.
- (b) In order to comply with the requirement set out in point (a)(3), air navigation service providers shall keep records of the hours, during which each licence holder exercises the privileges of his/her unit endorsement working in sectors, group of sectors and/or working positions in the ATC unit and shall provide that data to the competent authorities and to the licence holder upon request.
- (c) When establishing the procedures referred to in point (a)(4) and (13) air navigation service providers shall ensure that mechanisms are applied to guarantee fair treatment of licence holders where the validity of their endorsements cannot be extended.

ATCL. LIC.035 - Language proficiency endorsement

- (a) Air traffic controllers and student air traffic controllers shall not exercise the privileges of their licences unless they have a valid language proficiency endorsement in English. The language proficiency endorsement shall indicate the level of proficiency and the expiry date.
- (b) The language proficiency level shall be determined in accordance with the rating scale set out in Appendix 1. of ICAO Annex I.
- (c) The applicant for any language proficiency endorsement. shall demonstrate, in accordance with the rating scale referred to in point (b), at least an operational level (level four) of language proficiency.

To do so, the applicant shall:

- (1) communicate effectively in voice only (telephone/radiotelephone) and in face-to-face situations;
- (2) communicate on common, concrete and work-related topics with accuracy and clarity;
- (3) use appropriate communicative strategies to exchange messages and to recognise and resolve misunderstandings in a general or work-related context;
- (4) handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occur within the context of a routine work situation or communicative task with which they are otherwise familiar; and

- (5) use a dialect or accent which is intelligible to the aeronautical community.
- (d) Notwithstanding point (c), extended level (level five) of the language proficiency rating scale set out in Appendix 1 of ICAO Annex I may be required by the air navigation service provider, where the operational circumstances of the particular rating or endorsement warrant a higher level of language proficiency for imperative reasons of safety. Such a requirement shall be non-discriminatory, proportionate, transparent, and objectively justified by the air navigation service provider wishing to apply the higher level of proficiency and shall be approved by the LYCAA.
- (e) Language proficiency shall be demonstrated by a certificate attesting the result of the assessment.

ATCL. LIC.040 - Validity of language proficiency endorsement

- (a) The validity of the language proficiency endorsement, depending on the level determined in accordance with Appendix 1 of ICAO Annex I, shall be:
 - (1) for operational level (level four), three years from the date of assessment; or
 - (2) for extended level (level five), six years from the date of assessment;
 - (3) for expert level (level six), nine years from the date of assessment.
- (b) The validity period of the language proficiency endorsements for initial issue and renewal shall start not later than 30 days from the date on which the language proficiency assessment has been successfully completed.
- (c) Language proficiency endorsements shall be revalidated following successful completion of the language proficiency assessment taking place within three months immediately preceding their expiry date. In such cases the new validity period shall be counted from that expiry date.
- (d) If the language proficiency endorsement is revalidated before the period provided for in point (c), its validity period shall start not later than 30 days from the date on which the language proficiency assessment has been successfully completed.
- (e) When the validity of a language proficiency endorsement expires, the licence holder shall successfully complete a language proficiency assessment in order to have his/her endorsement renewed.

ATCL. LIC.045 - Assessment of language proficiency

- (a) The demonstration of language proficiency shall be done through a method of assessment approved by the Authority, which shall contain:
 - (1) the process by which an assessment is done;
 - (2) the qualification of the assessors;
 - (3) the appeals procedure.
- (b) Language assessment bodies shall comply with the requirements established by LYCAA.

ATCL. LIC.050 - Language training

- (a) Air navigation service providers shall make available language training to maintain the required level of language proficiency of air traffic controllers to:
 - (1) holders of language proficiency endorsement at operational level (level four);
 - (2) licence holders without the opportunity to apply their skills on a regular basis in order to maintain their language skills.
- (b) Language training may also be made available in the form of continuous training.

SUBPART C - REQUIREMENTS FOR INSTRUCTORS (INST) AND ASSESSORS

ATCL.INST.005 - Theoretical instructors

- (a) Theoretical training shall only be carried out by appropriately qualified instructors.
- (b) A theoretical instructor is appropriately qualified if he/she:
 - (1) holds an air traffic controller licence and/or holds a professional qualification appropriate to the subject being taught and/or has demonstrated adequate knowledge and experience to the training organisation;
 - (2) has demonstrated instructional skills to the training organisation.

ATCL.INST.010 - Practical instructors

A person shall only carry out practical training when he/she holds an air traffic controller licence with an on-the-job training instructor (OJTI) endorsement or a synthetic training device instructor (STDI) endorsement.

ATCL.INST.015 - On-the-job training instructor (OJTI) privileges

- (a) Holders of an OJTI endorsement are authorised to provide practical training and supervision on operational working positions for which a valid unit endorsement is held and on synthetic training devices in the ratings held.
- (b) Holders of an OJTI endorsement shall only exercise the privileges of the endorsement if they have:
 - (1) exercised for at least two years the privilege of the rating they will instruct in;
 - (2) exercised for an immediately preceding period of at least six months the privilege of the valid unit endorsement, in which instruction will be given;
 - (3) practiced instructional skills in those procedures in which it is intended to provide instruction.
- (c) The period of two years referred to in point (b)(1) can be shortened to not less than one year by the Authority when requested by the training organisation.

ATCL.INST.020 - Application for on-the-job training instructor endorsement

Applicants for the issue of an OJTI endorsement shall:

- (a) hold an air traffic controller licence with a valid unit endorsement;
- (b) have exercised the privileges of an air traffic controller licence for a period of at least two years immediately preceding the application. This period can be shortened to not less than one year by the Authority when requested by the training organisation; and
- (c) within the year preceding the application, have successfully completed a practical instructional techniques course during which the required knowledge and pedagogical skills are taught and have been appropriately assessed.

ATCL.INST.025 - Validity of on-the-job training instructor endorsement

- (a) The OJTI endorsement shall be valid for a period of three years.
- (b) The OJTI endorsement may be revalidated by successfully completing refresher training on practical instructional skills during its validity period, provided that the requirements of ATCL.INST.020 (a) and (b) are met.
- (c) If the OJTI endorsement has expired, it may be renewed by:
 - (1) receiving refresher training on practical instructional skills; and
 - (2) successfully passing a practical instructor competence assessment;within the year preceding the application for renewal, provided that the requirements of ATCL.INST.020 (a) and (b) are met.

- (d) In the case of first issue and renewal the period of validity of the OJTI endorsement shall start not later than 30 days from the date on which the assessment has been successfully completed.
- (e) If the requirements of ATCL.INST.020 (a) and (b) are not met the OJTI endorsement may be exchanged for an STDI endorsement, provided that compliance with the requirements of ATCL.INST.045 (b) and (c) is ensured.

ATCL.INST.030 - Temporary OJTI authorisation

- (a) When compliance with the requirements provided for in ATCL.INST.015 (b)(2) is not possible, the Authority may grant temporary OJTI authorisation based on a safety analysis presented by the air navigation service provider.
- (b) The temporary OJTI authorisation referred to in point (a) may be issued to holders of a valid OJTI endorsement issued in accordance with ATCL.INST.020.
- (c) The temporary OJTI authorisation referred to in point (a) shall be limited to the instruction necessary to cover exceptional situations and its validity shall not exceed one year or the expiration of the validity of the OJTI endorsement issued in accordance with ATCL.INST.020, whichever occurs sooner.

ATCL.INST.035 - Synthetic training device instructor (STDI) privileges

- (a) Holders of an STDI endorsement are authorised to provide practical training on synthetic training devices:
 - (1) for subjects of practical nature during initial training;
 - (2) for unit training other than OJT; and
 - (3) for continuation training.

Where the STDI is providing pre-OJT, he/she shall hold or have held the relevant unit endorsement.

- (b) Holders of an STDI endorsement shall only exercise the privileges of the endorsement if they have:
 - (1) at least two years' experience in the rating they will instruct in;
 - (2) demonstrated knowledge of current operational practices;
 - (3) practiced instructional techniques in those procedures in which it is intended to provide instruction.
- (c) Notwithstanding point (b)(1)
 - (1) for the purpose of basic training any rating held is appropriate;
 - (2) for the purpose of rating training, training may be provided for specific and selected operational tasks by an STDI holding a rating that is relevant for that specific and selected operational task.

ATCL.INST.040 - Application for synthetic training device instructor endorsement

Applicants for the issue of an STDI endorsement shall:

- (a) have exercised the privileges of an air traffic controller licence in any rating for at least two years; and
- (b) within the year preceding the application have successfully completed a practical instructional techniques course during which the required knowledge and pedagogical skills are taught using theoretical and practical methods and have been appropriately assessed.

ATCL.INST.045 - Validity of synthetic training device instructor endorsement

- (a) The STDI endorsement shall be valid for a period of three years.

- (b) The STDI endorsement may be revalidated by successfully completing refresher training on practical instructional skills and on current operational practices during its validity period.
- (c) If the STDI endorsement has expired, it may be renewed by:
 - (1) receiving refresher training on practical instructional skills and on current operational practices; and
 - (2) successfully passing a practical instructor competence assessment; within the year preceding the application for renewal.
- (d) In the case of first issue and renewal the period of validity of the STDI endorsement shall start not later than 30 days from the date on which the assessment has been successfully completed.

ATCL. INST.050 - Assessor privileges

- (a) A person shall only carry out assessments when he/she holds an assessor endorsement.
- (b) Holders of an assessor endorsement are authorised to carry out assessments:
 - (1) during initial training for the issue of a student air traffic controller licence or for the issue of a new rating and/or rating endorsement, if applicable;
 - (2) of previous competence for the purpose of ATCL.LIC.005 (d) and ATCL.LIC.015 (d);
 - (3) of student air traffic controllers for the issue of a unit endorsement and rating endorsements, if applicable;
 - (4) of air traffic controllers for the issue of a unit endorsement and rating endorsements, if applicable, as well as for revalidation and renewal of a unit endorsement;
 - (5) of applicant practical instructors or applicant assessors when compliance with the requirements of point (d)(2) to (4) is ensured.
- (c) Holders of an assessor endorsement shall only exercise the privileges of the endorsement if they have:
 - (1) at least two years' experience in the rating and rating endorsement(s) they will assess in; and
 - (2) demonstrated knowledge of current operational practices.
- (d) In addition to the requirements set out in point (c), holders of an assessor endorsement shall only exercise the privileges of the endorsement:
 - (1) for assessments leading to the issue, revalidation, and renewal of a unit endorsement, if they also hold the unit endorsement associated with the assessment for an immediately preceding period of at least one year;
 - (2) for assessing the competence of an applicant for the issue or renewal of an STDI endorsement, if they hold an STDI or OJTI endorsement and have exercised the privileges of that endorsement for at least three years;
 - (3) for assessing the competence of an applicant for the issue or renewal of an OJTI endorsement, if they hold an OJTI endorsement and have exercised the privileges of that endorsement for at least three years;
 - (4) for assessing the competence of an applicant for the issue or renewal of an assessor endorsement, if they have exercised the privileges of the assessor endorsement for at least three years.
- (e) When assessing for the purpose of issue and renewal of a unit endorsement, and for ensuring supervision on the operational working position, the assessor shall also hold an OJTI endorsement or an OJTI holding the valid unit endorsement associated with the assessment shall be present.

ATCL. INST.055 - Vested interests

Assessors shall not conduct assessments whenever their objectivity may be affected.

ATCL. INST.060 - Application for assessor endorsement

Applicants for the issue of an assessor endorsement shall:

- (a) have exercised the privileges of an air traffic controller licence for at least two years; and
- (b) within the year preceding the application have successfully completed an assessor course during which the required knowledge and skills are taught using theoretical and practical methods, and have been appropriately assessed.

ATCL. INST.065 - Validity of assessor endorsement

- (a) The assessor endorsement shall be valid for a period of three years.
- (b) The assessor endorsement may be revalidated by successfully completing refresher training on assessment skills and on current operational practices during its validity period.
- (c) If the assessor endorsement has expired, it may be renewed by:
 - (1) receiving refresher training on assessment skills and on current operational practices; and
 - (2) successfully passing an assessor competence assessment; within the year preceding the application for renewal.
- (d) In the case of first issue and renewal the period of validity of the assessor endorsement shall start not later than 30 days from the date on which the assessment has been successfully completed.

ATCL. INST.070 - Temporary assessor authorisation

- (a) When the requirement provided for in ATCL. INST.050 (d)(1) cannot be met, the Authority may authorise holders of an assessor endorsement issued in accordance with ATCL. INST.060 to carry out assessments referred to in ATCL. INST.050 (b)(3) and (4) to cover exceptional situations or to ensure the independence of the assessment, provided that the requirements set out in points (b) and (c) are met.
- (b) For the purpose of covering exceptional situations the holder of the assessor endorsement shall also hold a unit endorsement with the associated rating and, if applicable, rating endorsement, relevant to the assessment for an immediately preceding period of at least one year. The authorisation shall be limited to the assessments necessary to cover exceptional situations and shall not exceed one year or the validity of the assessor endorsement issued in accordance with ATCL. INST.060, whichever occurs sooner.
- (c) For the purpose of ensuring the independence of the assessment for reasons of recurrent nature the holder of the assessor endorsement shall also hold a unit endorsement with the associated rating and, if applicable, rating endorsement, relevant to the assessment for an immediately preceding period of at least one year. The validity of the authorisation shall be determined by the Authority but shall not exceed the validity of the assessor endorsement issued in accordance with ATCL. INST.060.
- (d) For issuing a temporary assessor authorisation for the reasons referred to in points (b) and (c) the Authority may require a safety analysis to be presented by the air navigation service provider.

SUBPART D - AIR TRAFFIC CONTROLLER TRAINING

ATCL.TRNG.005 - Objectives of air traffic controller training

Air traffic controller training shall cover the entirety of theoretical courses, practical exercises, including simulation, and on-the-job training required in order to acquire and maintain the skills to deliver safe, orderly and expeditious air traffic control services.

ATCL.TRNG.010 - Types of air traffic controller training

- (a) Air traffic controller training shall consist of the following types:
- (1) initial training, leading to the issue of a student air traffic controller licence or to the issue of an additional rating and, if applicable, rating endorsement, providing:
 - (i) 'basic training': theoretical and practical training designed to impart fundamental knowledge and practical skills related to basic operational procedures;
 - (ii) 'rating training': theoretical and practical training designed to impart knowledge and practical skills related to a specific rating and, if applicable, to rating endorsement;
 - (2) unit training, leading to the issue of an air traffic controller licence, the issue of a rating endorsement, the validation of rating(s) or rating endorsement(s) and/or the issue or renewal of a unit endorsement. It comprises the following phases:
 - (i) transitional training phase, designed primarily to impart knowledge and understanding of site-specific operational procedures and task-specific aspects; and
 - (ii) on-the-job training phase, which is the final phase of unit training during which previously acquired job-related routines and skills are integrated in practice under the supervision of a qualified on-the-job training instructor in a live traffic situation.
 - (iii) In addition to points (i) and (ii), for unit endorsement(s) that require the handling of complex and dense traffic situations, a pre-on-the-job training phase is required to enhance the previously acquired rating routines and skills and to prepare for live traffic situations which may be encountered in that unit;
 - (3) continuation training, designed to maintain the validity of the endorsements of the licence, consisting of:
 - (i) refresher training;
 - (ii) conversion training, when relevant.
- (b) In addition to the types of training referred to in point (a), air traffic controllers may undertake the following types:
- (1) practical instructors' training, leading to the issue, revalidation or renewal of an OJTI or STDI endorsement;
 - (2) assessor training, leading to the issue, revalidation or renewal of an assessor endorsement.

ATCL.TRNG.015 - Composition of initial training

- (a) Initial training, intended for an applicant for a student air traffic controller licence or for the issue of an additional rating and/or, if applicable, rating endorsement, shall consist of:
- (1) basic training, comprising all the subjects, topics and subtopics contained in Appendix 2 - of Subpart D; and
 - (2) rating training, comprising the subjects, topics and subtopics of at least one of the following:

- (i) Aerodrome Control Tower Rating —TWR, defined in Appendix 3 of Subpart D;
 - (ii) Approach Control Procedural Rating — APP, defined in Appendix 4 of Subpart D;
 - (iii) Area Control Procedural Rating — ACP, defined in Appendix 5 of Subpart D;
 - (iv) Approach Control Surveillance Rating — APS, defined in Appendix 6 of Subpart D;
 - (v) Area Control Surveillance Rating — ACS, defined in Appendix 7 of Subpart D.
- (b) Training intended for an additional rating shall consist of the subjects, topics and subtopics applicable to at least one of the ratings established in point (a)(2).
 - (c) Training intended for the reactivation of a rating following a not successful assessment of previous competence according to ATCL. LIC.015 (b) shall be tailored according to the result of that assessment.
 - (d) Training intended for a rating endorsement other than ATCL. LIC.020 (a)(3) shall consist of subjects, topics and subtopics developed by the training organisation and approved as part of the training course.

ATCL.TRNG.020 - Initial training plan

An initial training plan shall be established by the training organisation and approved by the Authority. It shall contain at least:

- (a) the composition of the initial training course provided according to ATCL.TRNG.015;
- (b) the structure of the initial training provided according to ATCL.TRNG.025 (b);
- (c) the process for the conduct of the initial training course(s);
- (d) the training methods;
- (e) minimum and maximum duration of the initial training course(s);
- (f) with regard to ATCL.TRNG.015 (b), process for adapting the initial training course(s) to take due account of a successfully completed basic training course;
- (g) processes for examinations and assessments according to ATCL.TRNG.030 and ATCL.TRNG.040, as well as performance objectives according to ATCL.TRNG.035 and ATCL.TRNG.045;
- (h) training personnel qualifications, roles and responsibilities;
- (i) process for early termination of training;
- (j) the appeal process;
- (k) identification of records to be kept specific to initial training;
- (l) process and reasons for reviewing and amending the initial training plan and its submission to the Authority. The review of the initial training plan shall take place at least once every three years.

ATCL.TRNG.025 - Basic and rating training courses

- (a) Basic and rating training shall be provided as separate or integrated courses.
- (b) Basic and rating training courses or an integrated initial training course shall be developed and provided by training organisations and approved by the Authority.
- (c) When initial training is provided as an integrated course, a clear distinction shall be made between the examinations and assessments for:
 - (1) basic training; and
 - (2) each rating training.
- (d) The successful completion of initial training, or of rating training for the issue of an additional rating, shall be demonstrated by a certificate issued by the training organisation.

- (e) The successful completion of basic training shall be demonstrated by a certificate issued by the training organisation upon request of the applicant.

ATCL.TRNG.030 - Basic training examinations and assessment

- (a) Basic training courses shall include theoretical examination(s) and assessment(s).
- (b) A pass in theoretical examination(s) shall be awarded to an applicant achieving a minimum of 70 % of the marks allocated to that examination.
- (c) Assessment(s) of performance objectives as listed in ATCL.TRNG.035 shall be conducted on a part-task trainer or a simulator.
- (d) A pass in assessment(s) shall be awarded to an applicant who consistently demonstrates the required performance as listed in ATCL.TRNG.035 and shows the behaviour required for safe operations within the air traffic control service.

ATCL.TRNG.035 - Basic training performance objectives

Assessment(s) shall include evaluation of the following performance objectives:

- (a) checking and using the working position equipment;
- (b) developing and maintaining situational awareness by monitoring traffic and identifying aircraft when applicable;
- (c) monitoring and updating flight data display(s);
- (d) maintaining a continuous listening watch on the appropriate frequency;
- (e) issuing appropriate clearances, instructions and information to traffic;
- (f) using approved phraseology;
- (g) communicating effectively;
- (h) applying separation;
- (i) applying coordination as necessary;
- (j) applying the prescribed procedures for the simulated airspace;
- (k) detecting potential conflicts between aircraft;
- (l) appreciating priority of actions;
- (m) choosing appropriate separation methods.

ATCL.TRNG.040 - Rating training examinations and assessment

- (a) Rating training courses shall include theoretical examination(s) and assessment(s).
- (b) A pass in theoretical examination(s) shall be awarded to an applicant achieving a minimum of 70 % of the marks allocated to that examination.
- (c) Assessment(s) shall be based on the rating training performance objectives described in ATCL.TRNG.045.
- (d) Assessment(s) shall be conducted on a simulator.
- (e) A pass in assessment(s) shall be awarded to an applicant who consistently demonstrates the required performance described in ATCL.TRNG.045 and shows the behaviour required for safe operations within the air traffic control service.

ATCL.TRNG.045 - Rating training performance objectives

- (a) Rating training performance objectives and performance objective tasks shall be defined for each rating training course.
- (b) Rating training performance objectives shall require an applicant to:
 - (1) demonstrate the ability to manage air traffic in a manner that ensures safe, orderly and expeditious services; and
 - (2) handle complex and dense traffic situations.

- (c) In addition to point (b), rating training performance objectives for the Aerodrome Control Tower (TWR) rating shall ensure that applicants:
 - (1) manage the workload and provide air traffic services within a defined aerodrome area of responsibility; and
 - (2) apply aerodrome control techniques and operational procedures to aerodrome traffic.
- (d) In addition to point (b), rating training performance objectives for the Approach Control Procedural rating shall ensure that applicants:
 - (1) manage the workload and provide air traffic services within a defined approach control area of responsibility; and
 - (2) apply procedural approach control, planning techniques and operational procedures to arriving, holding, departing and transiting traffic.
- (e) In addition to point (b), rating training performance objectives for the Approach Control Surveillance rating shall ensure that applicants:
 - (1) manage the workload and provide air traffic services within a defined approach control area of responsibility; and
 - (2) apply approach surveillance control, planning techniques and operational procedures to arriving, holding, departing and transiting traffic.
- (f) In addition to point (b), rating training performance objectives for the Area Control Procedural rating shall ensure that applicants:
 - (1) manage the workload and provide air traffic services within a defined area control area of responsibility; and
 - (2) apply procedural area control, planning techniques and operational procedures to area traffic.
- (g) In addition to point (b), rating training performance objectives for the Area Control Surveillance rating shall ensure that applicants:
 - (1) manage the workload and provide air traffic services within a defined area control area of responsibility; and
 - (2) apply area surveillance control, planning techniques and operational procedures to area traffic.

ATCL.TRNG.050 - Composition of unit training

- (a) Unit training shall consist of training course(s) for each unit endorsement established at the ATC unit as defined in the unit training plan.
- (b) The unit endorsement course(s) shall be developed and provided by training organisations according to ATCL.TRNG.065 and approved by the Authority.
- (c) Unit training shall include training in:
 - (1) operational procedures;
 - (2) task-specific aspects;
 - (3) abnormal and emergency situations; and
 - (4) human factors.

ATCL.TRNG.055 - Prerequisites of unit training

Unit training may only be started by persons who are holders of:

- (a) a student air traffic controller licence with the appropriate rating and, if applicable, rating endorsement; or
- (b) an air traffic controller licence with the appropriate rating and, if applicable, rating endorsement; provided that the requirements set out in ATCL.LIC.005 (d) and ATCL.LIC.015 (d) are met.

ATCL.TRNG.060 - Unit training plan

- (a) A unit training plan shall be established by the training organisation for each ATC unit and shall be approved by the LYCAA.
- (b) The unit training plan shall contain at least:
 - (1) ratings and endorsements for which the training is conducted;
 - (2) the structure of the unit training;
 - (3) the list of unit endorsement course(s) according to ATCL.TRNG.065;
 - (4) the process for the conduct of a unit endorsement course;
 - (5) the training methods;
 - (6) the minimum duration of the unit endorsement course(s);
 - (7) process for adapting the unit endorsement course(s) to take due account of the acquired ratings and/or rating endorsements and experience of applicants, when relevant;
 - (8) processes for demonstrating theoretical knowledge and understanding according to ATCL.TRNG.070, including the number, frequency and type of, as well as pass marks for examinations, which shall be a minimum of 70% of the marks allocated to these examinations;
 - (9) processes for the assessment according to ATCL.TRNG.075, including the number and frequency of assessments;
 - (10) training personnel qualifications, roles and responsibilities;
 - (11) process for early termination of training;
 - (12) the appeal process;
 - (13) identification of records to be kept specific to the unit training;
 - (14) a list of identified abnormal and emergency situations specific for each unit endorsement;
 - (15) process and reasons for reviewing and amending the unit training plan and its submission to the Authority. The review of the unit training plan shall take place at least once every three years.

ATCL.TRNG.065 - Unit endorsement course

- (a) A unit endorsement course shall be the combination of the relevant unit training phases for the issue or renewal of a unit endorsement in the licence. Each course shall contain:
 - (1) a transitional training phase;
 - (2) an on-the-job training phase.A pre-on-the-job training phase shall be included, if required, according to ATCL.TRNG.010(a)(2).
- (b) The unit training phases referred to in paragraph (a) shall be provided separately or in an integrated manner.
- (c) Unit endorsement courses shall define the syllabus and the performance objectives in accordance with ATCL.TRNG.050 (c) and shall be conducted in accordance with the unit training plan.
- (d) Unit endorsement courses that include training for rating endorsement(s) according to ATCL.LIC.020 shall be supplemented with additional training that allows for the acquisition of the concerned rating endorsement skills.
- (e) Training intended for a rating endorsement other than ATCL.LIC.020 (a)(3) shall consist of subjects, subject objectives, topics and subtopics developed by the training organisation and approved as part of the training course.

- (f) Unit endorsement courses undertaken following an exchange of a licence shall be adapted to include elements of initial training that are specific to the Functional Airspace Block or to the national environment.

ATCL.TRNG.070 - Demonstration of theoretical knowledge and understanding

Theoretical knowledge and understanding shall be demonstrated by examinations.

ATCL.TRNG.075 - Assessments during unit endorsement courses

- (a) The applicant's assessment shall be conducted in the operational environment under normal operational conditions at least once at the end of the on-the-job training.
- (b) When the unit endorsement course contains a pre-on-the-job training phase, the applicant's skills shall be assessed on a synthetic training device at least at the end of this phase.
- (c) Notwithstanding point (a), a synthetic training device may be used during a unit endorsement assessment to demonstrate the application of trained procedures not encountered in the operational environment during the assessment.

ATCL.TRNG.080 - Continuation training

Continuation training shall consist of refresher and conversion training courses and shall be provided according to the requirements contained in the unit competence scheme according to ATCL.LIC.030.

ATCL.TRNG.085 - Refresher training

- (a) Refresher training course(s) shall be developed and provided by training organisations and approved by the LYCAA.
- (b) Refresher training shall be designed to review, reinforce, or enhance the existing knowledge and skills of air traffic controllers to provide a safe, orderly, and expeditious flow of air traffic and shall contain at least:
 - (1) standard practices and procedures training, using approved phraseology and effective communication;
 - (2) abnormal and emergency situations training, using approved phraseology and effective communication; and
 - (3) human factors training.
- (c) A syllabus for the refresher training course shall be defined, and where a subject refreshes skills of air traffic controllers, performance objectives shall also be developed.

ATCL.TRNG.090 - Conversion training

- (a) Conversion training course(s) shall be developed and provided by training organisations and approved by the LYCAA.
- (b) Conversion training shall be designed to provide knowledge and skills appropriate to a change in the operational environment and shall be provided by training organisations when the safety assessment of the change concludes the need for such training.
- (c) Conversion training courses shall include the determination of:
 - (1) the appropriate training method for and duration of the course, taking into account the nature and extent of the change; and
 - (2) the assessment methods for the conversion training.
- (d) Conversion training shall be provided before air traffic controllers exercise the privileges of their licence in the changed operational environment.

ATCL.TRNG.095 - Training of practical instructors

- (a) Training of practical instructors shall be developed and provided by training organisations and shall consist of:

- (1) a practical instructional techniques course for OJTI and/or STDI, including an assessment;
 - (2) a refresher training course on practical instructional skills;
 - (3) a method(s) for assessing the competence of practical instructors.
- (b) The training courses and assessment methods referred to in point (a) shall be approved by the Authority.

ATCL.TRNG.100 - Training of assessors

- (a) Training of assessors shall be developed and provided by training organisations and shall consist of:
- (1) an assessor training course, including an assessment;
 - (2) a refresher training course on assessment skills;
 - (3) a method(s) for assessing the competence of assessors.
- (b) The training courses and the assessment method referred to in point (a) shall be approved by the Authority.

Appendix 1 – of Subpart D - Language Proficiency Rating Scale — Requirements For Proficiency In Languages

Language proficiency rating scale: expert, extended and operational levels

Language proficiency rating scale: pre-operational, elementary, and pre-elementary levels

Level	Pronunciation Uses 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	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 emphasise 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.
Pre-operational 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	Shows only limited control of a few simple memorised grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorised phrases.	Can produce very short, isolated, memorised 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, memorised 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.

Appendix 2 - of Subpart D - BASIC TRAINING

(Reference: ATCL.TRNG.015 (a)(1))

TABLE OF CONTENTS

- SUBJECT 1: INTRODUCTION TO THE COURSE
- SUBJECT 2: AVIATION LAW
- SUBJECT 3: AIR TRAFFIC MANAGEMENT
- SUBJECT 4: METEOROLOGY
- SUBJECT 5: NAVIGATION
- SUBJECT 6: AIRCRAFT
- SUBJECT 7: HUMAN FACTORS
- SUBJECT 8: EQUIPMENT AND SYSTEMS
- SUBJECT 9: PROFESSIONAL ENVIRONMENT

SUBJECT 1: INTRODUCTION TO THE COURSE

- TOPIC INTRB 1 — COURSE MANAGEMENT
 - o Subtopic INTRB 1.1 — Course introduction
 - o Subtopic INTRB 1.2 — Course administration
 - o Subtopic INTRB 1.3 — Study material and training documentation
 - o TOPIC INTRB 2 — INTRODUCTION TO THE ATC TRAINING COURSE
 - o Subtopic INTRB 2.1 — Course content and organisation
 - o Subtopic INTRB 2.2 — Training ethos
 - o Subtopic INTRB 2.3 — Assessment process
- TOPIC INTRB 3 — INTRODUCTION TO THE ATCO'S FUTURE
 - o Subtopic INTRB 3.1 — Job prospect

SUBJECT 2: AVIATION LAW

- TOPIC LAWB 1 — INTRODUCTION TO AVIATION LAW
 - o Subtopic LAWB 1.1 — Relevance of aviation law
- TOPIC LAWB 2 — INTERNATIONAL ORGANISATIONS
 - o Subtopic LAWB 2.1 — ICAO
 - o Subtopic LAWB 2.2 — other agencies
 - o Subtopic LAWB 2.3 — Aviation associations
- TOPIC LAWB 3 — NATIONAL ORGANISATIONS
 - o Subtopic LAWB 3.1 — Purpose and function
 - o Subtopic LAWB 3.2 — National legislative procedures
 - o Subtopic LAWB 3.3 — Authority
 - o Subtopic LAWB 3.4 — National aviation associations
- TOPIC LAWB 4 — ATS SAFETY MANAGEMENT
 - o Subtopic LAWB 4.1 — Safety regulation
 - o Subtopic LAWB 4.2 — Safety management system
- TOPIC LAWB 5 — RULES AND REGULATIONS
 - o Subtopic LAWB 5.1 — Units of measurement
 - o Subtopic LAWB 5.2 — ATCO licensing/certification
 - o Subtopic LAWB 5.3 — Overview of ANS and ATS
 - o Subtopic LAWB 5.4 — Rules of the air

- Subtopic LAWB 5.5 — Airspace and ATS routes
- Subtopic LAWB 5.6 — Flight plan
- Subtopic LAWB 5.7 — Aerodromes
- Subtopic LAWB 5.8 — Holding procedures for IFR flights
- Subtopic LAWB 5.9 — Holding procedures for VFR flights

SUBJECT 3: AIR TRAFFIC MANAGEMENT

- TOPIC ATMB 1 — AIR TRAFFIC MANAGEMENT
 - Subtopic ATMB 1.1 — Application of units of measurement
 - Subtopic ATMB 1.2 — Air traffic control (ATC) service
 - Subtopic ATMB 1.3 — Flight information service (FIS)
 - Subtopic ATMB 1.4 — Alerting service
 - Subtopic ATMB 1.5 — Air traffic advisory service
 - Subtopic ATMB 1.6 — ATS system capacity and air traffic flow management
 - Subtopic ATMB 1.7 — Airspace management (ASM)
- TOPIC ATMB 2 — ALTIMETRY AND LEVEL ALLOCATION
 - Subtopic ATMB 2.1 — Altimetry
 - Subtopic ATMB 2.2 — Transition level
 - Subtopic ATMB 2.3 — Level allocation
- TOPIC ATMB 3 — RADIOTELEPHONY (RTF)
 - Subtopic ATMB 3.1 — RTF general operating procedures
- TOPIC ATMB 4 — ATC CLEARANCES AND ATC INSTRUCTIONS
 - Subtopic ATMB 4.1 — Type and content of ATC clearances
 - Subtopic ATMB 4.2 — ATC instructions
- TOPIC ATMB 5 — COORDINATION
 - Subtopic ATMB 5.1 — Principles, types and content of coordination
 - Subtopic ATMB 5.2 — Necessity for coordination
 - Subtopic ATMB 5.3 — Means of coordination
- TOPIC ATMB 6 — DATA DISPLAY
 - Subtopic ATMB 6.1 — Data extraction
 - Subtopic ATMB 6.2 — Data management
- TOPIC ATMB 7 — SEPARATIONS
 - Subtopic ATMB 7.1 — Vertical separation and procedures
 - Subtopic ATMB 7.2 — Horizontal separation and procedures
 - Subtopic ATMB 7.3 — Visual separation
 - Subtopic ATMB 7.4 — Aerodrome separation and procedures
 - Subtopic ATMB 7.5 — Separation based on ATS surveillance systems
 - Subtopic ATMB 7.6 — Wake turbulence separation
- TOPIC ATMB 8 — AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS
 - Subtopic ATMB 8.1 — Airborne collision avoidance systems
 - Subtopic ATMB 8.2 — Ground-based safety nets
- TOPIC ATMB 9 — BASIC PRACTICAL SKILLS
 - Subtopic ATMB 9.1 — Traffic management process
 - Subtopic ATMB 9.2 — Basic practical skills applicable to all ratings
 - Subtopic ATMB 9.3 — Basic practical skills applicable to aerodrome

- Subtopic ATMB 9.4 — Basic practical skills applicable to surveillance

SUBJECT 4: METEOROLOGY

- TOPIC METB 1 — INTRODUCTION TO METEOROLOGY
 - Subtopic METB 1.1 — Application of units of measurement
 - Subtopic METB 1.2 — Aviation and meteorology
 - Subtopic METB 1.3 — Organisation of meteorological service
- TOPIC METB 2 — ATMOSPHERE
 - Subtopic METB 2.1 — Composition and structure
 - Subtopic METB 2.2 — Standard atmosphere
 - Subtopic METB 2.3 — Heat and temperature
 - Subtopic METB 2.4 — Water in the atmosphere
 - Subtopic METB 2.5 — Air pressure
- TOPIC METB 3 — ATMOSPHERIC CIRCULATION
 - Subtopic METB 3.1 — General air circulation
 - Subtopic METB 3.2 — Air masses and frontal systems
 - Subtopic METB 3.3 — Mesoscale systems
 - Subtopic METB 3.4 — Wind
- TOPIC METB 4 — METEOROLOGICAL PHENOMENA
 - Subtopic METB 4.1 — Clouds
 - Subtopic METB 4.2 — Types of precipitation
 - Subtopic METB 4.3 — Visibility
 - Subtopic METB 4.4 — Meteorological hazards
- TOPIC METB 5 — METEOROLOGICAL INFORMATION FOR AVIATION
 - Subtopic METB 5.1 — Messages and reports

SUBJECT 5: NAVIGATION

- TOPIC NAVB 1 — INTRODUCTION TO NAVIGATION
 - Subtopic NAVB 1.1 — Application of units of measurement
 - Subtopic NAVB 1.2 — Purpose and use of navigation
- TOPIC NAVB 2 — THE EARTH
 - Subtopic NAVB 2.1 — Place and movement of the Earth
 - Subtopic NAVB 2.2 — System of coordinates, direction and distance
 - Subtopic NAVB 2.3 — Magnetism
- TOPIC NAVB 3 — MAPS AND AERONAUTICAL CHARTS
 - Subtopic NAVB 3.1 — Map making and projections
 - Subtopic NAVB 3.2 — Maps and charts used in aviation
- TOPIC NAVB 4 — NAVIGATIONAL BASICS
 - Subtopic NAVB 4.1 — Influence of wind
 - Subtopic NAVB 4.2 — Speed
 - Subtopic NAVB 4.3 — Visual navigation
 - Subtopic NAVB 4.4 — Navigational aspects of flight planning
- TOPIC NAVB 5 — INSTRUMENT NAVIGATION
 - Subtopic NAVB 5.1 — Ground-based systems
 - Subtopic NAVB 5.2 — Inertial navigation systems
 - Subtopic NAVB 5.3 — Satellite-based systems
 - Subtopic NAVB 5.4 — Instrument approach procedures

- TOPIC NAVB 6 — PERFORMANCE BASED NAVIGATION
 - o Subtopic NAVB 6.1 — Principles and benefits of area navigation
 - o Subtopic NAVB 6.2 — Introduction to PBN
 - o Subtopic NAVB 6.3 — PBN applications
- TOPIC NAVB 7 — DEVELOPMENTS IN NAVIGATION
 - o Subtopic NAVB 7.1 — Future developments

SUBJECT 6: AIRCRAFT

- TOPIC ACFTB 1 — INTRODUCTION TO AIRCRAFT
 - o Subtopic ACFTB 1.1 — Application of units of measurement
 - o Subtopic ACFTB 1.2 — Aviation and aircraft
- TOPIC ACFTB 2 — PRINCIPLES OF FLIGHT
 - o Subtopic ACFTB 2.1 — Forces acting on aircraft
 - o Subtopic ACFTB 2.2 — Structural components and control of an aircraft
 - o Subtopic ACFTB 2.3 — Flight envelope
- TOPIC ACFTB 3 — AIRCRAFT CATEGORIES
 - o Subtopic ACFTB 3.1 — Aircraft categories
 - o Subtopic ACFTB 3.2 — Wake turbulence categories
 - o Subtopic ACFTB 3.3 — ICAO approach categories
 - o Subtopic ACFTB 3.4 — Environmental categories
- TOPIC ACFTB 4 — AIRCRAFT DATA
 - o Subtopic ACFTB 4.1 — Recognition
 - o Subtopic ACFTB 4.2 — Performance data
- TOPIC ACFTB 5 — AIRCRAFT ENGINES
 - o Subtopic ACFTB 5.1 — Piston engines
 - o Subtopic ACFTB 5.2 — Jet engines
 - o Subtopic ACFTB 5.3 — Turboprop engines
 - o Subtopic ACFTB 5.4 — Aviation fuels
- TOPIC ACFTB 6 — AIRCRAFT SYSTEMS AND INSTRUMENTS
 - o Subtopic ACFTB 6.1 — Flight instruments
 - o Subtopic ACFTB 6.2 — Navigational instruments
 - o Subtopic ACFTB 6.3 — Engine instruments
 - o Subtopic ACFTB 6.4 — Aircraft systems
- TOPIC ACFTB 7 — FACTORS AFFECTING AIRCRAFT PERFORMANCE
 - o Subtopic ACFTB 7.1 — Take-off factors
 - o Subtopic ACFTB 7.2 — Climb factors
 - o Subtopic ACFTB 7.3 — Cruise factors
 - o Subtopic ACFTB 7.4 — Descent and initial approach factors
 - o Subtopic ACFTB 7.5 — Final approach and landing factors
 - o Subtopic ACFTB 7.6 — Economic factors
 - o Subtopic ACFTB 7.7 — Environmental factors

SUBJECT 7: HUMAN FACTORS

- TOPIC HUMB 1 — INTRODUCTION TO HUMAN FACTORS
 - o Subtopic HUMB 1.1 — Learning techniques
 - o Subtopic HUMB 1.2 — Relevance of human factors for ATC

- Subtopic HUMB 1.3 — Human factors and ATC
- TOPIC HUMB 2 — HUMAN PERFORMANCE
 - Subtopic HUMB 2.1 — Individual behaviour
 - Subtopic HUMB 2.2 — Safety culture and professional conduct
 - Subtopic HUMB 2.3 — Health and well-being
 - Subtopic HUMB 2.4 — Teamwork
 - Subtopic HUMB 2.5 — Basic needs of people at work
 - Subtopic HUMB 2.6 — Stress
- TOPIC HUMB 3 — HUMAN ERROR
 - Subtopic HUMB 3.1 — Dangers of error
 - Subtopic HUMB 3.2 — Definition of human error
 - Subtopic HUMB 3.3 — Classification of human error
 - Subtopic HUMB 3.4 — Risk analysis and risk management
- TOPIC HUMB 4 — COMMUNICATION
 - Subtopic HUMB 4.1 — Importance of good communications in ATC
 - Subtopic HUMB 4.2 — Communication process
 - Subtopic HUMB 4.3 — Communication modes
- TOPIC HUMB 5 — THE WORK ENVIRONMENT
 - Subtopic HUMB 5.1 — Ergonomics and the need for good design
 - Subtopic HUMB 5.2 — Equipment and tools
 - Subtopic HUMB 5.3 — Automation

SUBJECT 8: EQUIPMENT AND SYSTEMS

- TOPIC EQPSB 1 — ATC EQUIPMENT
 - Subtopic EQPSB 1.1 — Main types of ATC equipment
- TOPIC EQPSB 2 — RADIO
 - Subtopic EQPSB 2.1 — Radio theory
 - Subtopic EQPSB 2.2 — Direction finding
- TOPIC EQPSB 3 — COMMUNICATION EQUIPMENT
 - Subtopic EQPSB 3.1 — Radio communications
 - Subtopic EQPSB 3.2 — Voice communication between ATS units/positions
 - Subtopic EQPSB 3.3 — Data link communications
 - Subtopic EQPSB 3.4 — Airline communications
- TOPIC EQPSB 4 — INTRODUCTION TO SURVEILLANCE
 - Subtopic EQPSB 4.1 — Surveillance concept in ATS
- TOPIC EQPSB 5 — RADAR
 - Subtopic EQPSB 5.1 — Principles of radar
 - Subtopic EQPSB 5.2 — Primary radar
 - Subtopic EQPSB 5.3 — Secondary radar
 - Subtopic EQPSB 5.4 — Use of radars
 - Subtopic EQPSB 5.5 — Mode S
- TOPIC EQPSB 6 — AUTOMATIC DEPENDENT SURVEILLANCE
 - Subtopic EQPSB 6.1 — Principles of automatic dependent surveillance
 - Subtopic EQPSB 6.2 — Use of automatic dependent surveillance
- TOPIC EQPSB 7 — MULTILATERATION

- Subtopic EQPSB 7.1 — Principles of multilateration
- Subtopic EQPSB 7.2 — Use of multilateration
- TOPIC EQPSB 8 — SURVEILLANCE DATA PROCESSING
 - Subtopic EQPSB 8.1 — Surveillance data networking
 - Subtopic EQPSB 8.2 — Working principles of surveillance data networking
- TOPIC EQPSB 9 — FUTURE EQUIPMENT
 - Subtopic EQPSB 9.1 — New developments
- TOPIC EQPSB 10 — AUTOMATION IN ATS
 - Subtopic EQPSB 10.1 — Principles of automation
 - Subtopic EQPSB 10.2 — Aeronautical fixed telecommunication network (AFTN)
 - Subtopic EQPSB 10.3 — On-line data interchange
 - Subtopic EQPSB 10.4 — Systems used for the automatic dissemination of information
- TOPIC EQPSB 11 — WORKING POSITIONS
 - Subtopic EQPSB 11.1 — Working position equipment
 - Subtopic EQPSB 11.2 — Aerodrome control
 - Subtopic EQPSB 11.3 — Approach control
 - Subtopic EQPSB 11.4 — Area control

SUBJECT 9: PROFESSIONAL ENVIRONMENT

- TOPIC PENB 1 — FAMILIARISATION
 - Subtopic PENB 1.1 — ATS and aerodrome facilities
- TOPIC PENB 2 — AIRSPACE USERS
 - Subtopic PENB 2.1 — Civil aviation
 - Subtopic PENB 2.2 — Military
 - Subtopic PENB 2.3 — Expectations and requirements of pilots
- TOPIC PENB 3 — CUSTOMER RELATIONS
 - Subtopic PENB 3.1 — Customer relations
- TOPIC PENB 4 — ENVIRONMENTAL PROTECTION
 - Subtopic PENB 4.1 — Environmental protection

Appendix 3 - of Subpart D - Aerodrome Control Tower Rating (TWR)

(Reference: ATCL.TRNG.015 (a)(2)(i))

TABLE OF CONTENTS

- SUBJECT 1: INTRODUCTION TO THE COURSE
- SUBJECT 2: AVIATION LAW
- SUBJECT 3: AIR TRAFFIC MANAGEMENT
- SUBJECT 4: METEOROLOGY
- SUBJECT 5: NAVIGATION
- SUBJECT 6: AIRCRAFT SUBJECT 7: HUMAN FACTORS
- SUBJECT 8: EQUIPMENT AND SYSTEMS SUBJECT 9: PROFESSIONAL ENVIRONMENT
- SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS
- SUBJECT 11: AERODROMES

SUBJECT 1: INTRODUCTION TO THE COURSE

- TOPIC INTR 1 — COURSE MANAGEMENT
 - o Subtopic INTR 1.1 — Course introduction Subtopic INTR 1.2 — Course administration
 - o Subtopic INTR 1.3 — Study material and training documentation
- TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE
 - o Subtopic INTR 2.1 — Course content and organisation
 - o Subtopic INTR 2.2 — Training ethos
 - o Subtopic INTR 2.3 — Assessment process

SUBJECT 2: AVIATION LAW

- TOPIC LAW 1 — ATCO LICENSING/CERTIFICATE OF COMPETENCE
 - o Subtopic LAW 1.1 — Privileges and conditions
- TOPIC LAW 2 — RULES AND REGULATIONS
 - o Subtopic LAW 2.1 — Reports
 - o Subtopic LAW 2.2 — Airspace
- TOPIC LAW 3 — ATC SAFETY MANAGEMENT
 - o Subtopic LAW 3.1 — Feedback process
 - o Subtopic LAW 3.2 — Safety Investigation

SUBJECT 3: AIR TRAFFIC MANAGEMENT

- TOPIC ATM 1 — PROVISION OF SERVICES
 - o Subtopic ATM 1.1 — Aerodrome control service
 - o Subtopic ATM 1.2 — Flight information service (FIS)
 - o Subtopic ATM 1.3 — Alerting service (ALRS)
 - o Subtopic ATM 1.4 — ATS system capacity and air traffic flow management
- TOPIC ATM 2 — COMMUNICATION
 - o Subtopic ATM 2.1 — Effective communication
- TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS
 - o Subtopic ATM 3.1 — ATC clearances
 - o Subtopic ATM 3.2 — ATC instructions
- TOPIC ATM 4 — COORDINATION

- Subtopic ATM 4.1 — Necessity for coordination
- Subtopic ATM 4.2 — Tools and methods for coordination
- Subtopic ATM 4.3 — Coordination procedures
- TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION
 - Subtopic ATM 5.1 — Altimetry
 - Subtopic ATM 5.2 — Terrain clearance
- TOPIC ATM 6 — SEPARATIONS
 - Subtopic ATM 6.1 — Separation between departing aircraft
 - Subtopic ATM 6.2 — Separation of departing aircraft from arriving aircraft
 - Subtopic ATM 6.3 — Separation of landing aircraft and preceding landing or departing aircraft
 - Subtopic ATM 6.4 — Time-based wake turbulence longitudinal separation
 - Subtopic ATM 6.5 — Reduced separation minima
- TOPIC ATM 7 — AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS
 - Subtopic ATM 7.1 — Airborne collision avoidance systems
 - Subtopic ATM 7.2 — Ground-based safety nets
- TOPIC ATM 8 — DATA DISPLAY
 - Subtopic ATM 8.1 — Data management
- TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED)
 - Subtopic ATM 9.1 — Integrity of the operational environment
 - Subtopic ATM 9.2 — Verification of the currency of operational procedures
 - Subtopic ATM 9.3 — Handover-takeover
- TOPIC ATM 10 — PROVISION OF AN AERODROME CONTROL SERVICE
 - Subtopic ATM 10.1 — Responsibility for the provision
 - Subtopic ATM 10.2 — Functions of aerodrome control tower
 - Subtopic ATM 10.3 — Traffic management process
 - Subtopic ATM 10.4 — Aeronautical ground lights
 - Subtopic ATM 10.5 — Information to aircraft by aerodrome control tower
 - Subtopic ATM 10.6 — Control of aerodrome traffic
 - Subtopic ATM 10.7 — Control of traffic in the traffic circuit
 - Subtopic ATM 10.8 — Runway in use
- TOPIC ATM 11 — PROVISION OF AERODROME CONTROL — INSTRUMENT
 - Subtopic ATM 11.1 — Low visibility operations and special VFR
 - Subtopic ATM 11.2 — Departing traffic
 - Subtopic ATM 11.3 — Arriving traffic
 - Subtopic ATM 11.4 — Aerodrome control service with advanced system support

SUBJECT 4: METEOROLOGY

- TOPIC MET 1 — METEOROLOGICAL PHENOMENA
 - Subtopic MET 1.1 — Meteorological phenomena
- TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA
 - Subtopic MET 2.1 — Meteorological instruments
 - Subtopic MET 2.2 — Other sources of meteorological data

SUBJECT 5: NAVIGATION

- TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS

- Subtopic NAV 1.1 — Maps and charts
- TOPIC NAV 2 — INSTRUMENT NAVIGATION
 - Subtopic NAV 2.1 — Navigational systems
 - Subtopic NAV 2.2 — Stabilised approach
 - Subtopic NAV 2.3 — Instrument departures and arrivals
 - Subtopic NAV 2.4 — Satellite-based systems
 - Subtopic NAV 2.5 — PBN applications

SUBJECT 6: AIRCRAFT

- TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS
 - Subtopic ACFT 1.1 — Aircraft instruments
- TOPIC ACFT 2 — AIRCRAFT CATEGORIES
 - Subtopic ACFT 2.1 — Wake turbulence
 - Subtopic ACFT 2.2 — Application of ICAO approach categories
- TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE
 - Subtopic ACFT 3.1 — Take-off factors
 - Subtopic ACFT 3.2 — Climb factors
 - Subtopic ACFT 3.3 — Final approach and landing factors
 - Subtopic ACFT 3.4 — Economic factors
 - Subtopic ACFT 3.5 — Environmental factors
- TOPIC ACFT 4 — AIRCRAFT DATA
 - Subtopic ACFT 4.1 — Recognition of aircraft types
 - Subtopic ACFT 4.2 — Performance data

SUBJECT 7: HUMAN FACTORS

- TOPIC HUM 1 — PSYCHOLOGICAL FACTORS
 - Subtopic HUM 1.1 — Cognitive
- TOPIC HUM 2 — MEDICAL AND PHYSIOLOGICAL FACTORS
 - Subtopic HUM 2.1 — Fatigue
 - Subtopic HUM 2.2 — Fitness
- TOPIC HUM 3 — SOCIAL AND ORGANISATIONAL FACTORS
 - Subtopic HUM 3.1 — Team resource management (TRM)
 - Subtopic HUM 3.2 — Teamwork and team roles
 - Subtopic HUM 3.3 — Responsible behaviour
- TOPIC HUM 4 — STRESS
 - Subtopic HUM 4.1 — Stress
 - Subtopic HUM 4.2 — Stress management
- TOPIC HUM 5 — HUMAN ERROR
 - Subtopic HUM 5.1 — Human error
 - Subtopic HUM 5.2 — Violation of rules
- TOPIC HUM 6 — COLLABORATIVE WORK
 - Subtopic HUM 6.1 — Communication
 - Subtopic HUM 6.2 — Collaborative work within the same area of responsibility
 - Subtopic HUM 6.3 — Collaborative work between different areas of responsibility
 - Subtopic HUM 6.4 — Controller/pilot cooperation

SUBJECT 8: EQUIPMENT AND SYSTEMS

- TOPIC EQPS 1 — VOICE COMMUNICATIONS
 - o Subtopic EQPS 1.1 — Radio communications
 - o Subtopic EQPS 1.2 — Other voice communications
- TOPIC EQPS 2 — AUTOMATION IN ATS
 - o Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN)
 - o Subtopic EQPS 2.2 — Automatic data interchange
- TOPIC EQPS 3 — CONTROLLER WORKING POSITION
 - o Subtopic EQPS 3.1 — Operation and monitoring of equipment
 - o Subtopic EQPS 3.2 — Situation displays and information systems
 - o Subtopic EQPS 3.3 — Flight data systems
- TOPIC EQPS 4 — FUTURE EQUIPMENT
 - o Subtopic EQPS 4.1 — New developments
- TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION
 - o Subtopic EQPS 5.1 — Reaction to limitations
 - o Subtopic EQPS 5.2 — Communication equipment degradation
 - o Subtopic EQPS 5.3 — Navigational equipment degradation

SUBJECT 9: PROFESSIONAL ENVIRONMENT

- TOPIC PEN 1 — FAMILIARISATION
 - o Subtopic PEN 1.1 — Study visit to aerodrome
- TOPIC PEN 2 — AIRSPACE USERS
 - o Subtopic PEN 2.1 — Contributors to civil ATS operations
 - o Subtopic PEN 2.2 — Contributors to military ATS operations
- TOPIC PEN 3 — CUSTOMER RELATIONS
 - o Subtopic PEN 3.1 — Provision of services and user requirements
- TOPIC PEN 4 — ENVIRONMENTAL PROTECTION
 - o Subtopic PEN 4.1 — Environmental protection

SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

- TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES)
 - o Subtopic ABES 1.1 — Overview of ABES
- TOPIC ABES 2 — SKILLS IMPROVEMENT
 - o Subtopic ABES 2.1 — Communication effectiveness
 - o Subtopic ABES 2.2 — Avoidance of mental overload
 - o Subtopic ABES 2.3 — Air/ground cooperation
- TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS
 - o Subtopic ABES 3.1 — Application of procedures for ABES
 - o Subtopic ABES 3.2 — Radio failure
 - o Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat
 - o Subtopic ABES 3.4 — Strayed or unidentified aircraft
 - o Subtopic ABES 3.5 — Runway incursion

SUBJECT 11: AERODROMES

- TOPIC AGA 1 — AERODROME DATA, LAYOUT AND COORDINATION
 - o Subtopic AGA 1.1 — Definitions
 - o Subtopic AGA 1.2 — Coordination
- TOPIC AGA 2 — MOVEMENT AREA
 - o Subtopic AGA 2.1 — Movement area

- Subtopic AGA 2.2 — Manoeuvring area
- Subtopic AGA 2.3 — Runways
- TOPIC AGA 3 — OBSTACLES
 - Subtopic AGA 3.1 — Obstacle-free airspace around aerodromes
- TOPIC AGA 4 — MISCELLANEOUS EQUIPMENT
 - Subtopic AGA 4.1 — Location

Appendix 4 - of Subpart D - Approach Control Procedural Rating (APP)

(Reference: ATCL.TRNG.015 (a)(2) (ii))

TABLE OF CONTENTS

- SUBJECT 1: INTRODUCTION TO THE COURSE
- SUBJECT 2: AVIATION LAW
- SUBJECT 3: AIR TRAFFIC MANAGEMENT
- SUBJECT 4: METEOROLOGY
- SUBJECT 5: NAVIGATION
- SUBJECT 6: AIRCRAFT SUBJECT 7: HUMAN FACTORS
- SUBJECT 8: EQUIPMENT AND SYSTEMS
- SUBJECT 9: PROFESSIONAL ENVIRONMENT
- SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS
- SUBJECT 11: AERODROMES

SUBJECT 1: INTRODUCTION TO THE COURSE

- TOPIC INTR 1 — COURSE MANAGEMENT
 - o Subtopic INTR 1.1 — Course introduction
 - o Subtopic INTR 1.2 — Course administration
 - o Subtopic INTR 1.3 — Study material and training documentation
- TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE
 - o Subtopic INTR 2.1 — Course content and organisation
 - o Subtopic INTR 2.2 — Training ethos
 - o Subtopic INTR 2.3 — Assessment process

SUBJECT 2: AVIATION LAW

- TOPIC LAW 1 — ATCO LICENSING/CERTIFICATE OF COMPETENCE
 - o Subtopic LAW 1.1 — Privileges and conditions
- TOPIC LAW 2 — RULES AND REGULATIONS
 - o Subtopic LAW 2.1 — Reports
 - o Subtopic LAW 2.2 — Airspace
- TOPIC LAW 3 — ATC SAFETY MANAGEMENT
 - o Subtopic LAW 3.1 — Feedback process
 - o Subtopic LAW 3.2 — Safety Investigation

SUBJECT 3: AIR TRAFFIC MANAGEMENT

- TOPIC ATM 1 — PROVISION OF SERVICES
 - o Subtopic ATM 1.1 — Air traffic control (ATC) service
 - o Subtopic ATM 1.2 — Flight information service (FIS)
 - o Subtopic ATM 1.3 — Alerting service (ALRS)
 - o Subtopic ATM 1.4 — ATS system capacity and air traffic flow management
 - o Subtopic ATM 1.5 — Airspace management (ASM)
- TOPIC ATM 2 — COMMUNICATION
 - o Subtopic ATM 2.1 — Effective communication
- TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS
 - o Subtopic ATM 3.1 — ATC clearances
 - o Subtopic ATM 3.2 — ATC instructions

- TOPIC ATM 4 — COORDINATION
 - o Subtopic ATM 4.1 — Necessity for coordination
 - o Subtopic ATM 4.2 — Tools and methods for coordination
 - o Subtopic ATM 4.3 — Coordination procedures
- TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION
 - o Subtopic ATM 5.1 — Altimetry
 - o Subtopic ATM 5.2 — Terrain clearance
- TOPIC ATM 6 — SEPARATIONS
 - o Subtopic ATM 6.1 — Vertical separation
 - o Subtopic ATM 6.2 — Horizontal separation
 - o Subtopic ATM 6.3 — Delegation of separation
- TOPIC ATM 7 — AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS
 - o Subtopic ATM 7.1 — Airborne collision avoidance systems
- TOPIC ATM 8 — DATA DISPLAY
 - o Subtopic ATM 8.1 — Data management
- TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED)
 - o Subtopic ATM 9.1 — Integrity of the operational environment
 - o Subtopic ATM 9.2 — Verification of the currency of operational procedures
 - o Subtopic ATM 9.3 — Handover-takeover
- TOPIC ATM 10 — PROVISION OF CONTROL SERVICE
 - o Subtopic ATM 10.1 — Responsibility and processing of information
 - o Subtopic ATM 10.2 — Approach control
 - o Subtopic ATM 10.3 — Traffic management process
 - o Subtopic ATM 10.4 — Handling traffic
- TOPIC ATM 11 — HOLDING
 - o Subtopic ATM 11.1 — General holding procedures
 - o Subtopic ATM 11.2 — Approaching aircraft

SUBJECT 4: METEOROLOGY

- TOPIC MET 1 — METEOROLOGICAL PHENOMENA
 - o Subtopic MET 1.1 — Meteorological phenomena
- TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA
 - o Subtopic MET 2.1 — Sources of meteorological information

SUBJECT 5: NAVIGATION

- TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS
 - o Subtopic NAV 1.1 — Maps and charts
- TOPIC NAV 2 — INSTRUMENT NAVIGATION
 - o Subtopic NAV 2.1 — Navigational systems
 - o Subtopic NAV 2.2 — Stabilised approach
 - o Subtopic NAV 2.3 — Instrument departures and arrivals
 - o Subtopic NAV 2.4 — Navigational assistance
 - o Subtopic NAV 2.5 — Satellite-based systems
 - o Subtopic NAV 2.6 — PBN applications

SUBJECT 6: AIRCRAFT

- TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS
 - o Subtopic ACFT 1.1 — Aircraft instruments
- TOPIC ACFT 2 — AIRCRAFT CATEGORIES
 - o Subtopic ACFT 2.1 — Wake turbulence
 - o Subtopic ACFT 2.2 — Application of ICAO approach categories
- TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE
 - o Subtopic ACFT 3.1 — Climb factors
 - o Subtopic ACFT 3.2 — Cruise factors
 - o Subtopic ACFT 3.3 — Descent and initial approach factors
 - o Subtopic ACFT 3.4 — Final approach and landing factors
 - o Subtopic ACFT 3.5 — Economic factors
 - o Subtopic ACFT 3.6 — Environmental factors
- TOPIC ACFT 4 — AIRCRAFT DATA
 - o Subtopic ACFT 4.1 — Performance data

SUBJECT 7: HUMAN FACTORS

- TOPIC HUM 1 — PSYCHOLOGICAL FACTORS
 - o Subtopic HUM 1.1 — Cognitive
- TOPIC HUM 2 — MEDICAL AND PHYSIOLOGICAL FACTORS
 - o Subtopic HUM 2.1 — Fatigue
 - o Subtopic HUM 2.2 — Fitness
- TOPIC HUM 3 — SOCIAL AND ORGANISATIONAL FACTORS
 - o Subtopic HUM 3.1 — Team resource management (TRM)
 - o Subtopic HUM 3.2 — Teamwork and team roles
 - o Subtopic HUM 3.3 — Responsible behaviour
- TOPIC HUM 4 — STRESS
 - o Subtopic HUM 4.1 — Stress
 - o Subtopic HUM 4.2 — Stress management
- TOPIC HUM 5 — HUMAN ERROR
 - o Subtopic HUM 5.1 — Human error
 - o Subtopic HUM 5.2 — Violation of rules
- TOPIC HUM 6 — COLLABORATIVE WORK
 - o Subtopic HUM 6.1 — Communication
 - o Subtopic HUM 6.2 — Collaborative work within the same area of responsibility
 - o Subtopic HUM 6.3 — Collaborative work between different areas of responsibility
 - o Subtopic HUM 6.4 — Controller/pilot cooperation

SUBJECT 8: EQUIPMENT AND SYSTEMS

- TOPIC EQPS 1 — VOICE COMMUNICATIONS
 - o Subtopic EQPS 1.1 — Radio communications
 - o Subtopic EQPS 1.2 — Other voice communications
- TOPIC EQPS 2 — AUTOMATION IN ATS
 - o Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN)
 - o Subtopic EQPS 2.2 — Automatic data interchange
- TOPIC EQPS 3 — CONTROLLER WORKING POSITION
 - o Subtopic EQPS 3.1 — Operation and monitoring of equipment

- Subtopic EQPS 3.2 — Situation displays and information systems
- Subtopic EQPS 3.3 — Flight data systems
- TOPIC EQPS 4 — FUTURE EQUIPMENT
 - Subtopic EQPS 4.1 — New developments
- TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION
 - Subtopic EQPS 5.1 — Reaction to limitations
 - Subtopic EQPS 5.2 — Communication equipment degradation
 - Subtopic EQPS 5.3 — Navigational equipment degradation

SUBJECT 9: PROFESSIONAL ENVIRONMENT

- TOPIC PEN 1 — FAMILIARISATION
 - Subtopic PEN 1.1 — Study visit to approach control unit
- TOPIC PEN 2 — AIRSPACE USERS
 - Subtopic PEN 2.1 — Contributors to civil ATS operations
 - Subtopic PEN 2.2 — Contributors to military ATS operations
- TOPIC PEN 3 — CUSTOMER RELATIONS
 - Subtopic PEN 3.1 — Provision of services and user requirements
- TOPIC PEN 4 — ENVIRONMENTAL PROTECTION
 - Subtopic PEN 4.1 — Environmental protection

SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

- TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES)
 - Subtopic ABES 1.1 — Overview of ABES
- TOPIC ABES 2 — SKILLS IMPROVEMENT
 - Subtopic ABES 2.1 — Communication effectiveness
 - Subtopic ABES 2.2 — Avoidance of mental overload
 - Subtopic ABES 2.3 — Air/ground cooperation
- TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS
 - Subtopic ABES 3.1 — Application of procedures for ABES
 - Subtopic ABES 3.2 — Radio failure
 - Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat
 - Subtopic ABES 3.4 — Strayed or unidentified aircraft
 - Subtopic ABES 3.5 — Diversions

SUBJECT 11: AERODROMES

- TOPIC AGA 1 — AERODROME DATA, LAYOUT AND COORDINATION
 - Subtopic AGA 1.1 — Definitions
 - Subtopic AGA 1.2 — Coordination
- TOPIC AGA 2 — MOVEMENT AREA
 - Subtopic AGA 2.1 — Movement area
 - Subtopic AGA 2.2 — manoeuvring area
 - Subtopic AGA 2.3 — Runways
- TOPIC AGA 3 — OBSTACLES
 - Subtopic AGA 3.1 — Obstacle-free airspace around aerodromes
- TOPIC AGA 4 — MISCELLANEOUS EQUIPMENT
 - Subtopic AGA 4.1 — Location

Appendix (5) - of Subpart D - Area Control Procedural Rating (ACP)

(Reference: ATCL.TRNG.015 (a)(2) (iii))

TABLE OF CONTENTS

- SUBJECT 1: INTRODUCTION TO THE COURSE
- SUBJECT 2: AVIATION LAW
- SUBJECT 3: AIR TRAFFIC MANAGEMENT
- SUBJECT 4: METEOROLOGY
- SUBJECT 5: NAVIGATION
- SUBJECT 6: AIRCRAFT
- SUBJECT 7: HUMAN FACTORS
- SUBJECT 8: EQUIPMENT AND SYSTEMS
- SUBJECT 9: PROFESSIONAL ENVIRONMENT
- SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

SUBJECT 1: INTRODUCTION TO THE COURSE

- TOPIC INTR 1 — COURSE MANAGEMENT
 - o Subtopic INTR 1.1 — Course introduction
 - o Subtopic INTR 1.2 — Course administration
 - o Subtopic INTR 1.3 — Study material and training documentation
- TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE
 - o Subtopic INTR 2.1 — Course content and organisation
 - o Subtopic INTR 2.2 — Training ethos
 - o Subtopic INTR 2.3 — Assessment process

SUBJECT 2: AVIATION LAW

- TOPIC LAW 1 — ATCO LICENSING/CERTIFICATE OF COMPETENCE
 - o Subtopic LAW 1.1 — Privileges and conditions
- TOPIC LAW 2 — RULES AND REGULATIONS
 - o Subtopic LAW 2.1 — Reports
 - o Subtopic LAW 2.2 — Airspace
- TOPIC LAW 3 — ATC SAFETY MANAGEMENT
 - o Subtopic LAW 3.1 — Feedback process
 - o Subtopic LAW 3.2 — Safety Investigation

SUBJECT 3: AIR TRAFFIC MANAGEMENT

- TOPIC ATM 1 — PROVISION OF SERVICES
 - o Subtopic ATM 1.1 — Air traffic control (ATC) service
 - o Subtopic ATM 1.2 — Flight information service (FIS)
 - o Subtopic ATM 1.3 — Alerting service (ALRS)
 - o Subtopic ATM 1.4 — ATS system capacity and air traffic flow management
 - o Subtopic ATM 1.5 — Airspace management (ASM)
- TOPIC ATM 2 — COMMUNICATION
 - o Subtopic ATM 2.1 — Effective communication
- TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS
 - o Subtopic ATM 3.1 — ATC clearances

- Subtopic ATM 3.2 — ATC instructions
- TOPIC ATM 4 — COORDINATION
 - Subtopic ATM 4.1 — Necessity for coordination
 - Subtopic ATM 4.2 — Tools and methods for coordination
 - Subtopic ATM 4.3 — Coordination procedures
- TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION
 - Subtopic ATM 5.1 — Altimetry
 - Subtopic ATM 5.2 — Terrain clearance
- TOPIC ATM 6 — SEPARATIONS
 - Subtopic ATM 6.1 — Vertical separation
 - Subtopic ATM 6.2 — Horizontal separation
- TOPIC ATM 7 — AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS
 - Subtopic ATM 7.1 — Airborne collision avoidance systems
- TOPIC ATM 8 — DATA DISPLAY
 - Subtopic ATM 8.1 — Data management
- TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED)
 - Subtopic ATM 9.1 — Integrity of the operational environment
 - Subtopic ATM 9.2 — Verification of the currency of operational procedures
 - Subtopic ATM 9.3 — Handover-takeover
- TOPIC ATM 10 — PROVISION OF CONTROL SERVICE
 - Subtopic ATM 10.1 — Responsibility and processing of information
 - Subtopic ATM 10.2 — Area control
 - Subtopic ATM 10.3 — Traffic management process
 - Subtopic ATM 10.4 — Handling traffic
- TOPIC ATM 11 — HOLDING
 - Subtopic ATM 11.1 — General holding procedures
 - Subtopic ATM 11.2 — Holding aircraft

SUBJECT 4: METEOROLOGY

- TOPIC MET 1 — METEOROLOGICAL PHENOMENA
 - Subtopic MET 1.1 — Meteorological phenomena
- TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA
 - Subtopic MET 2.1 — Sources of meteorological information

SUBJECT 5: NAVIGATION

- TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS
 - Subtopic NAV 1.1 — Maps and charts
- TOPIC NAV 2 — INSTRUMENT NAVIGATION
 - Subtopic NAV 2.1 — Navigational systems
 - Subtopic NAV 2.2 — Navigational assistance
 - Subtopic NAV 2.3 — PBN applications

SUBJECT 6: AIRCRAFT

- TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS
 - Subtopic ACFT 1.1 — Aircraft instruments
- TOPIC ACFT 2 — AIRCRAFT CATEGORIES

- Subtopic ACFT 2.1 — Wake turbulence
- TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE
 - Subtopic ACFT 3.1 — Climb factors
 - Subtopic ACFT 3.2 — Cruise factors
 - Subtopic ACFT 3.3 — Descent factors
 - Subtopic ACFT 3.4 — Economic factors
 - Subtopic ACFT 3.5 — Environmental factors
- TOPIC ACFT 4 — AIRCRAFT DATA
 - Subtopic ACFT 4.1 — Performance data

SUBJECT 7: HUMAN FACTORS

- TOPIC HUM 1 — PSYCHOLOGICAL FACTORS
 - Subtopic HUM 1.1 — Cognitive
- TOPIC HUM 2 — MEDICAL AND PHYSIOLOGICAL FACTORS
 - Subtopic HUM 2.1 — Fatigue
 - Subtopic HUM 2.2 — Fitness
- TOPIC HUM 3 — SOCIAL AND ORGANISATIONAL FACTORS
 - Subtopic HUM 3.1 — Team resource management (TRM)
 - Subtopic HUM 3.2 — Teamwork and team roles
 - Subtopic HUM 3.3 — Responsible behaviour
- TOPIC HUM 4 — STRESS
 - Subtopic HUM 4.1 — Stress
 - Subtopic HUM 4.2 — Stress management
- TOPIC HUM 5 — HUMAN ERROR
 - Subtopic HUM 5.1 — Human error
 - Subtopic HUM 5.2 — Violation of rules
- TOPIC HUM 6 — COLLABORATIVE WORK
 - Subtopic HUM 6.1 — Communication
 - Subtopic HUM 6.2 — Collaborative work within the same area of responsibility
 - Subtopic HUM 6.3 — Collaborative work between different areas of responsibility
 - Subtopic HUM 6.4 — Controller/pilot cooperation

SUBJECT 8: EQUIPMENT AND SYSTEMS

- TOPIC EQPS 1 — VOICE COMMUNICATIONS
 - Subtopic EQPS 1.1 — Radio communications
 - Subtopic EQPS 1.2 — Other voice communications
- TOPIC EQPS 2 — AUTOMATION IN ATS
 - Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN)
 - Subtopic EQPS 2.2 — Automatic data interchange
- TOPIC EQPS 3 — CONTROLLER WORKING POSITION
 - Subtopic EQPS 3.1 — Operation and monitoring of equipment
 - Subtopic EQPS 3.2 — Situation displays and information systems
 - Subtopic EQPS 3.3 — Flight data systems
- TOPIC EQPS 4 — FUTURE EQUIPMENT
 - Subtopic EQPS 4.1 — New developments
- TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION

- Subtopic EQPS 5.1 — Reaction to limitations
- Subtopic EQPS 5.2 — Communication equipment degradation
- Subtopic EQPS 5.3 — Navigational equipment degradation

SUBJECT 9: PROFESSIONAL ENVIRONMENT

- TOPIC PEN 1 — FAMILIARISATION
 - Subtopic PEN 1.1 — Study visit to area control centre
- TOPIC PEN 2 — AIRSPACE USERS
 - Subtopic PEN 2.1 — Contributors to civil ATS operations
 - Subtopic PEN 2.2 — Contributors to military ATS operations
- TOPIC PEN 3 — CUSTOMER RELATIONS
 - Subtopic PEN 3.1 — Provision of services and user requirements
- TOPIC PEN 4 — ENVIRONMENTAL PROTECTION
 - Subtopic PEN 4.1 — Environmental protection

SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

- TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES)
 - Subtopic ABES 1.1 — Overview of ABES
- TOPIC ABES 2 — SKILLS IMPROVEMENT
 - Subtopic ABES 2.1 — Communication effectiveness
 - Subtopic ABES 2.2 — Avoidance of mental overload
 - Subtopic ABES 2.3 — Air/ground cooperation
- TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS
 - Subtopic ABES 3.1 — Application of procedures for ABES
 - Subtopic ABES 3.2 — Radio failure
 - Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat
 - Subtopic ABES 3.4 — Strayed or unidentified aircraft
 - Subtopic ABES 3.5 — Diversions

Appendix 6 - of Subpart D - APPROACH CONTROL SURVEILLANCE RATING (APS)

(Reference: ATCL.TRNG.015 (a)(2) (iv)

TABLE OF CONTENTS

- **Subject 1: introduction to the course**
- **Subject 2: aviation law**
- **Subject 3: air traffic management**
- **Subject 4: meteorology**
- **Subject 5: navigation**
- **Subject 6: aircraft subject 7: human factors**
- **Subject 8: equipment and systems**
- **Subject 9: professional environment**
- **Subject 10: abnormal and emergency situations**
- **Subject 11: aerodromes**

SUBJECT 1: INTRODUCTION TO THE COURSE

- TOPIC INTR 1 — COURSE MANAGEMENT
 - o Subtopic INTR 1.1 — Course introduction
 - o Subtopic INTR 1.2 — Course administration
 - o Subtopic INTR 1.3 — Study material and training documentation
- TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE
 - o Subtopic INTR 2.1 — Course content and organisation
 - o Subtopic INTR 2.2 — Training ethos
 - o Subtopic INTR 2.3 — Assessment process

SUBJECT 2: AVIATION LAW

- TOPIC LAW 1 — ATCO LICENSING/CERTIFICATE OF COMPETENCE
 - o Subtopic LAW 1.1 — Privileges and conditions
- TOPIC LAW 2 — RULES AND REGULATIONS
 - o Subtopic LAW 2.1 — Reports
 - o Subtopic LAW 2.2 — Airspace
- TOPIC LAW 3 — ATC SAFETY MANAGEMENT
 - o Subtopic LAW 3.1 — Feedback process
 - o Subtopic LAW 3.2 — Safety Investigation

SUBJECT 3: AIR TRAFFIC MANAGEMENT

- TOPIC ATM 1 — PROVISION OF SERVICES
 - o Subtopic ATM 1.1 — Air traffic control (ATC) service
 - o Subtopic ATM 1.2 — Flight information service (FIS)
 - o Subtopic ATM 1.3 — Alerting service (ALRS)
 - o Subtopic ATM 1.4 — ATS system capacity and air traffic flow management
 - o Subtopic ATM 1.5 — Airspace management (ASM)
- TOPIC ATM 2 — COMMUNICATION
 - o Subtopic ATM 2.1 — Effective communication
- TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS
 - o Subtopic ATM 3.1 — ATC clearances

- Subtopic ATM 3.2 — ATC instructions
- TOPIC ATM 4 — COORDINATION
 - Subtopic ATM 4.1 — Necessity for coordination
 - Subtopic ATM 4.2 — Tools and methods for coordination
 - Subtopic ATM 4.3 — Coordination procedures
- TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION
 - Subtopic ATM 5.1 — Altimetry
 - Subtopic ATM 5.2 — Terrain clearance
- TOPIC ATM 6 — SEPARATIONS
 - Subtopic ATM 6.1 — Vertical separation
 - Subtopic ATM 6.2 — Longitudinal separation in a surveillance environment
 - Subtopic ATM 6.3 — Delegation of separation
 - Subtopic ATM 6.4 — Wake turbulence distance-based separation
 - Subtopic ATM 6.5 — Separation based on ATS surveillance systems
- TOPIC ATM 7 — AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS
 - Subtopic ATM 7.1 — Airborne collision avoidance systems
 - Subtopic ATM 7.2 — Ground-based safety nets
- TOPIC ATM 8 — DATA DISPLAY
 - Subtopic ATM 8.1 — Data management
- TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED)
 - Subtopic ATM 9.1 — Integrity of the operational environment
 - Subtopic ATM 9.2 — Verification of the currency of operational procedures
 - Subtopic ATM 9.3 — Handover-takeover
- TOPIC ATM 10 — PROVISION OF CONTROL SERVICE
 - Subtopic ATM 10.1 — Responsibility and processing of information
 - Subtopic ATM 10.2 — ATS surveillance service
 - Subtopic ATM 10.3 — Traffic management process
 - Subtopic ATM 10.4 — Handling traffic
 - Subtopic ATM 10.5 — Control service with advanced system support
- TOPIC ATM 11 — HOLDING
 - Subtopic ATM 11.1 — General holding procedures
 - Subtopic ATM 11.2 — Approaching aircraft
 - Subtopic ATM 11.3 — Holding in a surveillance environment
- TOPIC ATM 12 — IDENTIFICATION
 - Subtopic ATM 12.1 — Establishment of identification
 - Subtopic ATM 12.2 — Maintenance of identification
 - Subtopic ATM 12.3 — Loss of identity
 - Subtopic ATM 12.4 — Position Information
 - Subtopic ATM 12.5 — Transfer of identity

SUBJECT 4: METEOROLOGY

- TOPIC MET 1 — METEOROLOGICAL PHENOMENA
 - Subtopic MET 1.1 — Meteorological phenomena
- TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA
 - Subtopic MET 2.1 — Sources of meteorological information

SUBJECT 5: NAVIGATION

- TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS
 - o Subtopic NAV 1.1 — Maps and charts
- TOPIC NAV 2 — INSTRUMENT NAVIGATION
 - o Subtopic NAV 2.1 — Navigational systems
 - o Subtopic NAV 2.2 — Stabilised approach
 - o Subtopic NAV 2.3 — Instrument departures and arrivals
 - o Subtopic NAV 2.4 — Navigational assistance
 - o Subtopic NAV 2.5 — Satellite-based systems
 - o Subtopic NAV 2.6 — PBN applications

SUBJECT 6: AIRCRAFT

- TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS
 - o Subtopic ACFT 1.1 — Aircraft instruments
- TOPIC ACFT 2 — AIRCRAFT CATEGORIES
 - o Subtopic ACFT 2.1 — Wake turbulence
 - o Subtopic ACFT 2.2 — Application of ICAO approach categories
- TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE
 - o Subtopic ACFT 3.1 — Climb factors
 - o Subtopic ACFT 3.2 — Cruise factors
 - o Subtopic ACFT 3.3 — Descent and initial approach factors
 - o Subtopic ACFT 3.4 — Final approach and landing factors
 - o Subtopic ACFT 3.5 — Economic factors
 - o Subtopic ACFT 3.6 — Environmental factors
- TOPIC ACFT 4 — AIRCRAFT DATA
 - o Subtopic ACFT 4.1 — Performance data

SUBJECT 7: HUMAN FACTORS

- TOPIC HUM 1 — PSYCHOLOGICAL FACTORS
 - o Subtopic HUM 1.1 — Cognitive
- TOPIC HUM 2 — MEDICAL AND PHYSIOLOGICAL FACTORS
 - o Subtopic HUM 2.1 — Fatigue
 - o Subtopic HUM 2.2 — Fitness
- TOPIC HUM 3 — SOCIAL AND ORGANISATIONAL FACTORS
 - o Subtopic HUM 3.1 — Team resource management (TRM)
 - o Subtopic HUM 3.2 — Teamwork and team roles
 - o Subtopic HUM 3.3 — Responsible behaviour
- TOPIC HUM 4 — STRESS
 - o Subtopic HUM 4.1 — Stress
 - o Subtopic HUM 4.2 — Stress management
- TOPIC HUM 5 — HUMAN ERROR
 - o Subtopic HUM 5.1 — Human error
 - o Subtopic HUM 5.2 — Violation of rules
- TOPIC HUM 6 — COLLABORATIVE WORK
 - o Subtopic HUM 6.1 — Communication
 - o Subtopic HUM 6.2 — Collaborative work within the same area of responsibility

- Subtopic HUM 6.3 — Collaborative work between different areas of responsibility
- Subtopic HUM 6.4 — Controller/pilot cooperation

SUBJECT 8: EQUIPMENT AND SYSTEMS

- TOPIC EQPS 1 — VOICE COMMUNICATIONS
 - Subtopic EQPS 1.1 — Radio communications
 - Subtopic EQPS 1.2 — Other voice communications
- TOPIC EQPS 2 — AUTOMATION IN ATS
 - Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN)
 - Subtopic EQPS 2.2 — Automatic data interchange
- TOPIC EQPS 3 — CONTROLLER WORKING POSITION
 - Subtopic EQPS 3.1 — Operation and monitoring of equipment
 - Subtopic EQPS 3.2 — Situation displays and information systems
 - Subtopic EQPS 3.3 — Flight data systems
 - Subtopic EQPS 3.4 — Use of ATS surveillance system
 - Subtopic EQPS 3.5 — Advanced systems
- TOPIC EQPS 4 — FUTURE EQUIPMENT
 - Subtopic EQPS 4.1 — New developments
- TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION
 - Subtopic EQPS 5.1 — Reaction to limitations
 - Subtopic EQPS 5.2 — Communication equipment degradation
 - Subtopic EQPS 5.3 — Navigational equipment degradation
 - Subtopic EQPS 5.4 — Surveillance equipment degradation
 - Subtopic EQPS 5.5 — ATC processing system degradation

SUBJECT 9: PROFESSIONAL ENVIRONMENT

- TOPIC PEN 1 — FAMILIARISATION
 - Subtopic PEN 1.1 — Study visit to approach control unit
- TOPIC PEN 2 — AIRSPACE USERS
 - Subtopic PEN 2.1 — Contributors to civil ATS operations
 - Subtopic PEN 2.2 — Contributors to military ATS operations
- TOPIC PEN 3 — CUSTOMER RELATIONS
 - Subtopic PEN 3.1 — Provision of services and user requirements
- TOPIC PEN 4 — ENVIRONMENTAL PROTECTION
 - Subtopic PEN 4.1 — Environmental protection

SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

- TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES)
 - Subtopic ABES 1.1 — Overview of ABES
- TOPIC ABES 2 — SKILLS IMPROVEMENT
 - Subtopic ABES 2.1 — Communication effectiveness
 - Subtopic ABES 2.2 — Avoidance of mental overload
 - Subtopic ABES 2.3 — Air/ground cooperation
- TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS
 - Subtopic ABES 3.1 — Application of procedures for ABES
 - Subtopic ABES 3.2 — Radio failure
 - Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat

- Subtopic ABES 3.4 — Strayed or unidentified aircraft
- Subtopic ABES 3.5 — Diversions
- Subtopic ABES 3.6 — Transponder failure

SUBJECT 11: AERODROMES

- TOPIC AGA 1 — AERODROME DATA, LAYOUT AND COORDINATION
 - Subtopic AGA 1.1 — Definitions
 - Subtopic AGA 1.2 — Coordination
- TOPIC AGA 2 — MOVEMENT AREA
 - Subtopic AGA 2.1 — Movement area
 - Subtopic AGA 2.2 — Manoeuvring area
 - Subtopic AGA 2.3 — Runways
- TOPIC AGA 3 — OBSTACLES
 - Subtopic AGA 3.1 — Obstacle-free airspace around aerodromes
- TOPIC AGA 4 — MISCELLANEOUS EQUIPMENT
 - Subtopic AGA 4.1 — Location

Appendix 7 - of Subpart D - Area Control Surveillance Rating (ACS)

(Reference: ATCL.TRNG.015 (a)(2)(v))

TABLE OF CONTENTS

- **SUBJECT 1: INTRODUCTION TO THE COURSE**
- **SUBJECT 2: AVIATION LAW**
- **SUBJECT 3: AIR TRAFFIC MANAGEMENT**
- **SUBJECT 4: METEOROLOGY**
- **SUBJECT 5: NAVIGATION**
- **SUBJECT 6: AIRCRAFT**
- **SUBJECT 7: HUMAN FACTORS**
- **SUBJECT 8: EQUIPMENT AND SYSTEMS**
- **SUBJECT 9: PROFESSIONAL ENVIRONMENT**
- **SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS**

SUBJECT 1: INTRODUCTION TO THE COURSE

- TOPIC INTR 1 — COURSE MANAGEMENT
 - o Subtopic INTR 1.1 — Course introduction
 - o Subtopic INTR 1.2 — Course administration
 - o Subtopic INTR 1.3 — Study material and training documentation
- TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE
 - o Subtopic INTR 2.1 — Course content and organisation
 - o Subtopic INTR 2.2 — Training ethos
 - o Subtopic INTR 2.3 — Assessment process

SUBJECT 2: AVIATION LAW

- TOPIC LAW 1 — ATCO LICENSING/CERTIFICATE OF COMPETENCE
 - o Subtopic LAW 1.1 — Privileges and conditions
- TOPIC LAW 2 — RULES AND REGULATIONS
 - o Subtopic LAW 2.1 — Reports
 - o Subtopic LAW 2.2 — Airspace
- TOPIC LAW 3 — ATC SAFETY MANAGEMENT
 - o Subtopic LAW 3.1 — Feedback process
 - o Subtopic LAW 3.2 — Safety Investigation

SUBJECT 3: AIR TRAFFIC MANAGEMENT

- TOPIC ATM 1 — PROVISION OF SERVICES
 - o Subtopic ATM 1.1 — Air traffic control (ATC) service
 - o Subtopic ATM 1.2 — Flight information service (FIS)
 - o Subtopic ATM 1.3 — Alerting service (ALRS)
 - o Subtopic ATM 1.4 — ATS system capacity and air traffic flow management
 - o Subtopic ATM 1.5 — Airspace management (ASM)
- TOPIC ATM 2 — COMMUNICATION
 - o Subtopic ATM 2.1 — Effective communication
- TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS
 - o Subtopic ATM 3.1 — ATC clearances
 - o Subtopic ATM 3.2 — ATC instructions

- TOPIC ATM 4 — COORDINATION
 - o Subtopic ATM 4.1 — Necessity for coordination
 - o Subtopic ATM 4.2 — Tools and methods for coordination
 - o Subtopic ATM 4.3 — Coordination procedures
- TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION
 - o Subtopic ATM 5.1 — Altimetry
 - o Subtopic ATM 5.2 — Terrain clearance
- TOPIC ATM 6 — SEPARATIONS
 - o Subtopic ATM 6.1 — Vertical separation
 - o Subtopic ATM 6.2 — Longitudinal separation in a surveillance environment
 - o Subtopic ATM 6.3 — Wake turbulence distance-based separation
 - o Subtopic ATM 6.4 — Separation based on ATS surveillance systems
- TOPIC ATM 7 — AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS
 - o Subtopic ATM 7.1 — Airborne collision avoidance systems
 - o Subtopic ATM 7.2 — Ground-based safety nets
- TOPIC ATM 8 — DATA DISPLAY
 - o Subtopic ATM 8.1 — Data management
- TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED)
 - o Subtopic ATM 9.1 — Integrity of the operational environment
 - o Subtopic ATM 9.2 — Verification of the currency of operational procedures
 - o Subtopic ATM 9.3 — Handover-takeover
- TOPIC ATM 10 — PROVISION OF CONTROL SERVICE
 - o Subtopic ATM 10.1 — Responsibility and processing of information
 - o Subtopic ATM 10.2 — ATS surveillance service
 - o Subtopic ATM 10.3 — Traffic management process
 - o Subtopic ATM 10.4 — Handling traffic
 - o Subtopic ATM 10.5 — Control service with advanced system support
- TOPIC ATM 11 — HOLDING
 - o Subtopic ATM 11.1 — General holding procedures
 - o Subtopic ATM 11.2 — Holding aircraft
 - o Subtopic ATM 11.3 — Holding in a surveillance environment
- TOPIC ATM 12 — IDENTIFICATION
 - o Subtopic ATM 12.1 — Establishment of identification
 - o Subtopic ATM 12.2 — Maintenance of identification
 - o Subtopic ATM 12.3 — Loss of identity
 - o Subtopic ATM 12.4 — Position Information
 - o Subtopic ATM 12.5 — Transfer of identity

SUBJECT 4: METEOROLOGY

- TOPIC MET 1 — METEOROLOGICAL PHENOMENA
 - o Subtopic MET 1.1 — Meteorological phenomena
- TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA
 - o Subtopic MET 2.1 — Sources of meteorological information

SUBJECT 5: NAVIGATION

- TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS

- Subtopic NAV 1.1 — Maps and charts
- TOPIC NAV 2 — INSTRUMENT NAVIGATION
 - Subtopic NAV 2.1 — Navigational systems
 - Subtopic NAV 2.2 — Navigational assistance
 - Subtopic NAV 2.3 — PBN applications

SUBJECT 6: AIRCRAFT

- TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS
 - Subtopic ACFT 1.1 — Aircraft instruments
- TOPIC ACFT 2 — AIRCRAFT CATEGORIES
 - Subtopic ACFT 2.1 — Wake turbulence
- TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE
 - Subtopic ACFT 3.1 — Climb factors
 - Subtopic ACFT 3.2 — Cruise factors
 - Subtopic ACFT 3.3 — Descent factors
 - Subtopic ACFT 3.4 — Economic factors
 - Subtopic ACFT 3.5 — Environmental factors
- TOPIC ACFT 4 — AIRCRAFT DATA
 - Subtopic ACFT 4.1 — Performance data

SUBJECT 7: HUMAN FACTORS

- TOPIC HUM 1 — PSYCHOLOGICAL FACTORS
 - Subtopic HUM 1.1 — Cognitive
- TOPIC HUM 2 — MEDICAL AND PHYSIOLOGICAL FACTORS
 - Subtopic HUM 2.1 — Fatigue
 - Subtopic HUM 2.2 — Fitness
- TOPIC HUM 3 — SOCIAL AND ORGANISATIONAL FACTORS
 - Subtopic HUM 3.1 — Team resource management (TRM)
 - Subtopic HUM 3.2 — Teamwork and team roles
 - Subtopic HUM 3.3 — Responsible behaviour
- TOPIC HUM 4 — STRESS
 - Subtopic HUM 4.1 — Stress
 - Subtopic HUM 4.2 — Stress management
- TOPIC HUM 5 — HUMAN ERROR
 - Subtopic HUM 5.1 — Human error
 - Subtopic HUM 5.2 — Violation of rules
- TOPIC HUM 6 — COLLABORATIVE WORK
 - Subtopic HUM 6.1 — Communication
 - Subtopic HUM 6.2 — Collaborative work within the same area of responsibility
 - Subtopic HUM 6.3 — Collaborative work between different areas of responsibility
 - Subtopic HUM 6.4 — Controller/pilot cooperation

SUBJECT 8: EQUIPMENT AND SYSTEMS

- TOPIC EQPS 1 — VOICE COMMUNICATIONS
 - Subtopic EQPS 1.1 — Radio communications
 - Subtopic EQPS 1.2 — Other voice communications
- TOPIC EQPS 2 — AUTOMATION IN ATS

- Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN)
- Subtopic EQPS 2.2 — Automatic data interchange
- TOPIC EQPS 3 — CONTROLLER WORKING POSITION
 - Subtopic EQPS 3.1 — Operation and monitoring of equipment
 - Subtopic EQPS 3.2 — Situation displays and information systems
 - Subtopic EQPS 3.3 — Flight data systems
 - Subtopic EQPS 3.4 — Use of ATS surveillance system
 - Subtopic EQPS 3.5 — Advanced systems
- TOPIC EQPS 4 — FUTURE EQUIPMENT
 - Subtopic EQPS 4.1 — New developments
- TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION
 - Subtopic EQPS 5.1 — Reaction to limitations
 - Subtopic EQPS 5.2 — Communication equipment degradation
 - Subtopic EQPS 5.3 — Navigational equipment degradation
 - Subtopic EQPS 5.4 — Surveillance equipment degradation
 - Subtopic EQPS 5.5 — ATC processing system degradation

SUBJECT 9: PROFESSIONAL ENVIRONMENT

- TOPIC PEN 1 — FAMILIARISATION
 - Subtopic PEN 1.1 — Study visit to area control centre
- TOPIC PEN 2 — AIRSPACE USERS
 - Subtopic PEN 2.1 — Contributors to civil ATS operations
 - Subtopic PEN 2.2 — Contributors to military ATS operations
- TOPIC PEN 3 — CUSTOMER RELATIONS
 - Subtopic PEN 3.1 — Provision of services and user requirements
- TOPIC PEN 4 — ENVIRONMENTAL PROTECTION
 - Subtopic PEN 4.1 — Environmental protection

SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

- TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES)
 - Subtopic ABES 1.1 — Overview of ABES
- TOPIC ABES 2 — SKILLS IMPROVEMENT
 - Subtopic ABES 2.1 — Communication effectiveness
 - Subtopic ABES 2.2 — Avoidance of mental overload
 - Subtopic ABES 2.3 — Air/ground cooperation
- TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS
 - Subtopic ABES 3.1 — Application of procedures for ABES
 - Subtopic ABES 3.2 — Radio failure
 - Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat
 - Subtopic ABES 3.4 — Strayed or unidentified aircraft
 - Subtopic ABES 3.5 — Diversions
 - Subtopic ABES 3.6 — Transponder failure

Subpart E - Air Traffic Controllers Training Organisation (ATO) Certificate Training Approval

ATCL.ATO.005 - Scope

This Subpart, establishes the requirements applicable to air traffic controller training organisations in order to obtain and maintain a certificate in accordance with this Regulation.

ATCL.ATO.010 - Application for a training organisation certificate

- (a) Applications for a training organisation certificate shall be submitted to the LYCAA in due time to allow the Authority to evaluate the application. The application shall be submitted in accordance with the procedure established by that Authority.
- (b) Applicants for an initial certificate shall demonstrate to LYCAA how they will comply with the requirements established in this Regulation.
- (c) An application for a training organisation certificate shall include the following information:
 - (1) the applicant's name and address;
 - (2) the address(es) of the place(s) of operation (including, where relevant, the list of ATC units) if different from the applicant's address in point (a);
 - (3) the names and contact details of:
 - (i) the accountable manager;
 - (ii) the head of the training organisation, if different from point (i);
 - (iii) the person(s) nominated by the training organisation as the focal point(s) for communication with the Authority;
 - (4) date of intended start of activity or change;
 - (5) a list of types of training to be provided and at least one training course from each type of training that is intended to be provided;
 - (6) the declaration of compliance with the applicable requirements shall be signed by the accountable manager, stating the training organisation's compliance with the requirements at all times;
 - (7) the management system processes; and
 - (8) the date of application.

ATCL.ATO.015 – Alternative means of compliance

- (a) Alternative means of compliance may be used by an organisation to establish compliance with this Regulation.
- (b) When an organisation wishes to use an alternative means of compliance, it shall, prior to implementing it, provide the Authority with a full description of the alternative means of compliance. The description shall include any revisions to manuals or procedures that may be relevant, as well as an assessment demonstrating compliance with this Part.
- (c) The organisation may implement these alternative means of compliance subject to prior approval by LYCAA.

ATCL.ATO.020 - Terms of approval and privileges of a training organisation certificate

- (a) Training organisations shall comply with the scope and privileges defined in the terms of approval attached to the organisation's certificate.
- (b) In order to ensure that the applicable requirements in Subpart D are fulfilled, the privilege to provide unit and continuation training shall only be granted to training organisations which:
 - (1) hold a certificate for the provision of the air traffic control service; or
 - (2) have concluded a specific agreement with the ATC provider.

ATCL.ATO.025 - Changes to the training organisation

- (a) Changes to the organisation that affect the certificate or the terms of approval of the training organisation or any relevant element of the training organisation's management systems shall require prior approval by the LYCAA.
- (b) Training organisations shall agree with their Authority on the changes that require prior approval in addition to those specified in point (a).
- (c) For any changes requiring prior approval in accordance with points (a) and (b), the training organisation shall apply for and obtain an approval issued by the Authority. The application shall be submitted before any such change takes place in order to enable the it to determine continued compliance with this Regulation and to amend, if necessary, the training organisation certificate and related terms of approval attached to it.
Training organisations shall provide the Authority with all relevant documentation.
The change shall only be implemented upon receipt of formal approval by LYCAA.
Training organisations shall operate under the conditions prescribed by the competent authority during such changes, as applicable.
- (d) Changes to the elements referred to in point (a) due to unforeseen circumstances shall be notified to the Authority without delay in order to obtain approval as necessary.
- (e) All changes not requiring prior approval shall be managed and notified to LYCAA as defined in the procedure approved by LYCAA.
- (f) Training organisations shall notify the LYCAA when they cease their activities.

ATCL.ATO.030 - Continued validity

- (a) A training organisation's certification shall remain valid subject to the certificate not being surrendered or revoked and subject to the training organisation remaining in compliance with the requirements of this Part and this Regulation, taking into account the provisions related to the handling of findings in accordance with ATCL.ATO.040.
- (b) The certificate shall be returned to the LYCAA without delay upon its revocation or the cease of all activities.

ATCL.ATO.035 - Access to training organisations' facilities and data

Training organisations and applicants for training organisation certificates shall grant access to any person authorised by or acting on behalf of the Authority to the relevant premises in order to examine the required records, data, procedures and any other material pertinent to the execution of the tasks of the Authority.

ATCL.ATO.040 - Findings

After receipt of notification of findings issued by LYCAA, the training organisation shall:

- (a) identify the root cause of the finding;
- (b) define a corrective action plan; and
- (c) demonstrate the corrective action implementation to the satisfaction of the Authority within the period agreed with LYCAA.

ATCL.ATO.045 - Immediate reaction to a safety problem

The training organisation shall implement any safety measures mandated by LYCAA for the training organisation activities.

ATCL.ATO.050 - Occurrence reporting

- (a) Training organisations providing on-the-job training shall report to LYCAA any accident, serious incident, and occurrence, resulting from their training activity.

- (b) Reports shall be made as soon as practicable, but in any case within 72 hours of the training organisation identifying the condition to which the report relates, unless exceptional circumstances prevent this.
- (c) Where relevant, training organisations shall produce a follow-up report to provide details of actions it intends to take to prevent similar occurrences in the future, as soon as these actions have been identified.
- (d) the reports referred to in points (a), (b) and (c) shall be made in a form and manner established by LYCAA and contain all pertinent information about the condition known to the training organisation.

ATCL.ATO.055 - Management system of training organisations

Training organisations shall establish, implement and maintain a management system that includes:

- (a) clearly defined lines of responsibility and accountability throughout the organisation, including direct safety accountability of the accountable manager;
- (b) a description of the overall principles of the organisation with regard to safety, referred to as the safety policy;
- (c) the identification of aviation safety hazards entailed by the activities of the training organisation, their evaluation and the management of associated risks, including actions to mitigate the risk and verify their effectiveness;
- (d) maintaining personnel trained and competent to perform their tasks;
- (e) documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation;
- (f) a function to monitor compliance of the organisation with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure effective implementation of corrective actions as necessary;
- (g) the management system shall be proportionate to the size of the organisation and its activities, taking into account the hazards and associated risks inherent in those activities.

ATCL.ATO.060 - Contracted activities

- (a) Training organisations shall ensure that when contracting or purchasing any parts of their activities, the contracted or purchased activity or part of activity conform to the applicable requirements.
- (b) When a training organisation contracts any part of its activity to an organisation that is not itself certified in accordance with this Regulation to carry out such activity, the contracted organisation shall work under the terms of approval contained in the certificate issued to the contracting training organisation. The contracting training organisation shall ensure that LYCAA is given access to the contracted organisation to determine continued compliance with the applicable requirements.

ATCL.ATO.065 - Personnel requirements

- (a) Training organisations shall appoint an accountable manager.
- (b) A person or persons shall be nominated by the training organisation with the responsibility for training. Such person or persons shall be ultimately responsible to the accountable manager.
- (c) Training organisations shall have sufficient qualified personnel for the planned tasks and activities to be performed in accordance with the applicable requirements.

- (d) Training organisations shall maintain a record of theoretical instructors with their relevant professional qualifications, adequate knowledge and experience and their demonstration, instructional techniques assessment and subjects they are entitled to teach.
- (e) Training organisations shall establish a procedure to maintain competence of the theoretical instructors.
- (f) Training organisations shall ensure that practical instructors and assessors successfully complete refresher training in order to revalidate the respective endorsement.
- (g) Training organisations shall maintain a record of persons qualified for assessing practical instructors' competence and assessors' competence, in accordance with ATCL.INST.050, with their relevant endorsements.

ATCL.ATO.070 - Facilities and equipment

- (a) Training organisations shall have facilities allowing the performance and management of all planned tasks and activities in accordance with this Regulation.
- (b) The training organisation shall ensure that the synthetic training devices comply with the applicable specifications and requirements appropriate to the task.
- (c) During on-the-job training instruction, the training organisation shall ensure that the instructor has exactly the same information as the person undertaking OJT and the means to intervene immediately.

ATCL.ATO.075 - Record keeping

- (a) Training organisations shall retain detailed records of persons undertaking or having undertaken training to show that all requirements of the training courses have been met.
- (b) Training organisations shall establish and maintain a system for recording the professional qualifications and instructional techniques assessments of instructors and assessors, as well as the subjects they are entitled to teach, where appropriate.
- (c) The records required in points (a) and (b) shall be retained for a minimum period of five years subject to the applicable national data protection law:
 - (1) after the person undertaking training has completed the course; and
 - (2) after the instructor or assessor ceases to perform a function for the training organisation, as applicable.
- (d) The archiving process including the format of the records shall be specified in the training organisation's management system.
- (e) Records shall be stored in a secure manner.

ATCL.ATO.080 - Funding and insurances

Training organisations shall demonstrate that sufficient funding is available to conduct the training according to this Regulation and that the activities have sufficient insurance cover in accordance with the nature of the training provided and all activities can be carried out in accordance with this Regulation.

ATCL.ATO.085 - Requirements for training courses and training plans

Training organisations shall develop:

- (a) training plans and training courses associated to the type(s) of training provided in accordance with the requirements set out in Subpart D;
- (b) subjects, subject objectives, topics and subtopics for rating endorsements in accordance with the requirements laid down in this Part;
- (c) methods of assessments in accordance with ATCL.TRNG.095 (a)(3) and ATCL.TRNG.100 (a)(3).

ATCL.ATO.090 - Examination and assessment results and certificates

- (a) The training organisation shall make available to the applicant his/her results of examinations and assessments and, upon applicant's request, issue a certificate with his/her result of examinations and assessments.
- (b) Upon successful completion of initial training, or of rating training for the issue of an additional rating, the training organisation shall issue a certificate.
- (c) A certificate of completion of the basic training shall only be issued upon request of the applicant if all subjects, topics and subtopics contained in Appendix 2 of Subpart D have been completed and the applicant has successfully passed the associated examinations and assessments.

Subpart F - Medical Requirements for Air Traffic Controllers

ATCL.MED.005 - Scope

This Subpart establishes the requirements for:

- (a) the issue, validity, revalidation, and renewal of the medical certificate required for exercising the privileges of an air traffic controller Licence or of a student air traffic controller licence with the exception of synthetic training device instructor; and
- (b) the certification of an aero-medical examiners (AMEs) to issue class 3 medical certificates.

ATCL.MED.010 - Definitions

For the purpose of this Part, the following definitions apply:

- (a) **‘Accredited medical conclusion’** means the conclusion reached by one or more medical experts acceptable to the Authority, on the basis of objective and non-discriminatory criteria, for the purposes of the case concerned, in consultation with operational experts or other experts as necessary and including an operational risk assessment;
- (b) **‘Aero-medical assessment’** means the conclusion on the medical fitness of an applicant based on the evaluation of the applicant’s medical history and aero-medical examinations as required in this Part and further examinations and medical tests as necessary;
- (c) **‘Aero-medical examination’** means inspection, palpation, percussion, auscultation or any other means of investigation especially for determining the medical fitness to exercise the privileges of the licence;
- (d) **‘Eye specialist’** means an ophthalmologist or a vision care specialist qualified in optometry and trained to recognise pathological conditions;
- (e) **‘Investigation’** means the assessment of a suspected pathological condition of an applicant by means of examinations and tests to verify the presence or absence of a medical condition;
- (f) **‘Limitation’** means a condition placed on the medical certificate that shall be complied with whilst exercising the privileges of the licence;
- (g) **‘Refractive error’** means the deviation from emmetropia measured in dioptres in the most ametropic meridian, measured by standard methods;
- (h) **‘Significant’** means a degree of a medical condition, the effect of which would prevent the safe exercise of the privileges of the licence.

ATCL.MED.015 - Medical confidentiality

All persons involved in aero-medical examination, aero-medical assessment and certification shall ensure that medical confidentiality is respected at all times.

ATCL.MED.020 - Decrease in medical fitness

- (a) Licence holders shall not exercise the privileges of their licence at any time when they:
 - (1) are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges;
 - (2) take or use any prescribed or non-prescribed medication which is likely to interfere with the safe exercise of the privileges of the licence;
 - (3) receive any medical, surgical or other treatment that is likely to interfere with the safe exercise of the privileges of the licence.
- (b) In addition, holders of a class 3 medical certificate shall, without undue delay and before exercising the privileges of their licence, seek aero-medical advice when they:
 - (1) have undergone a surgical operation or invasive procedure;

- (2) have commenced the regular use of any medication;
- (3) have suffered any significant personal injury involving any incapacity to exercise the privileges of the licence;
- (4) have been suffering from any significant illness involving any incapacity to exercise the privileges of the licence;
- (5) are pregnant;
- (6) have been admitted to hospital or medical clinic;
- (7) first require correcting lenses.

In these cases the Aero-medical center (AeMC) or AME shall assess the medical fitness of the licence holder or student air traffic controller and decide whether they are fit to resume the exercise of their privileges.

ATCL.MED.025 - Obligations of AeMC and AME

- (a) When conducting aero-medical examinations and assessments as required in this Subpart, the AeMC or AME shall:
 - (1) ensure that communication with the applicant can be established without language barriers;
 - (2) make the applicant aware of the consequences of providing incomplete, inaccurate or false statements on their medical history;
 - (3) notify the Authority if the applicant provides incomplete, inaccurate or false statements on their medical history;
 - (4) notify the Authority if the applicant withdraws the application for a medical certificate at any stage of the process.
- (b) After completion of the aero-medical examinations and assessments, the AeMC and AME shall:
 - (1) advise the applicant whether fit, unfit or referred to the Authority;
 - (2) inform the applicant of any limitation placed on the medical certificate; and
 - (3) if the applicant has been assessed as unfit, inform him/her of his/her right of a review of the decision; and
 - (4) submit without delay to the Authority a signed, or electronically authenticated, report containing the detailed results of the aero-medical examination and assessment for the medical certificate and a copy of the application form, the examination form and the medical certificate; and
 - (5) inform the applicant of their responsibility in the case of decrease in medical fitness as specified in ATCL.MED.020.
- (c) AeMCs and AMEs shall maintain records with details of aero-medical examinations and assessments performed in accordance with this Part and their results for a minimum period of 10 years, or for a period as determined by national legislation if this is longer.
- (d) AeMCs and AMEs shall submit to the medical assessor of the Authority, upon request, all aero-medical records and reports, and any other relevant information when required for:
 - (1) medical certification;
 - (2) oversight functions.

ATCL.MED.030 - Medical certificates

- (a) Applicants for and holders of an air traffic controller licence, or student air traffic controller licence, shall hold a class 3 medical certificate.
- (b) A licence holder shall not at any time hold more than one medical certificate issued in accordance with this Part.

ATCL.MED.035 - Application for a medical certificate

- (a) Applications for a medical certificate shall be made in a format established by the Authority.
- (b) Applicants for a medical certificate shall provide the AeMC or AME with:
 - (1) proof of their identity;
 - (2) a signed declaration:
 - (i) of medical facts concerning their medical history;
 - (ii) as to whether they have previously applied for a medical certificate or have undergone an aero-medical examination for a medical certificate and, if so, by whom and with what result;
 - (iii) as to whether they have ever been assessed as unfit or had a medical certificate suspended or revoked.
- (c) When applying for a revalidation or renewal of the medical certificate, applicants shall present the most recent medical certificate to the AeMC or AME prior to the relevant aero-medical examinations.

ATCL.MED.040 - Issue, revalidation and renewal of medical certificates

- (a) A medical certificate shall only be issued, revalidated or renewed once the required aero-medical examinations and assessments have been completed and the applicant has been assessed as fit.
- (b) Initial issue:
Initial class 3 medical certificates shall be issued by an AeMC.
- (c) Revalidation and renewal:
Class 3 medical certificates shall be revalidated or renewed by an AeMC or an AME.
- (d) The AeMC or AME shall only issue, revalidate or renew a medical certificate if:
 - (1) the applicant has provided them with a complete medical history and, if required by the AeMC or AME, results of aero-medical examinations and tests conducted by the applicant's physician or any medical specialists; and
 - (2) the AeMC or AME has conducted the aero-medical assessment based on the aero-medical examinations and tests as required to verify that the applicant complies with all the relevant requirements of this Part.
- (e) The AME, AeMC or, in the case of referral, the Authority may require the applicant to undergo additional medical examinations and investigations when clinically indicated before the medical certificate is issued, revalidated or renewed.
- (f) The Authority may issue or reissue a medical certificate, as applicable, if:
 - (1) a case is referred;
 - (2) it has identified that corrections to the information on the certificate are necessary, in which case the incorrect medical certificate shall be revoked.

ATCL.MED.045 - Validity, revalidation, and renewal of medical certificates

- (a) Validity:
 - (1) Class 3 medical certificates shall be valid for a period of 24 months
 - (2) The period of validity of class 3 medical certificates shall be reduced to 12 months for licence holders who have reached the age of 40. A medical certificate issued prior to reaching the age of 40 shall cease to be valid when the licence holder reaches the age of 41.
 - (3) The validity period of a medical certificate, including any associated examination or special investigation, shall be:

- (i) determined by the age of the applicant at the date when the aero-medical examination takes place; and
 - (ii) calculated from the date of the aero-medical examination in the case of initial issue and renewal, and from the expiry date of the previous medical certificate in the case of revalidation.
- (b) Revalidation:
Aero-medical examinations and assessments for the revalidation of a medical certificate may be undertaken up to 45 days prior to the expiry date of the medical certificate.
- (c) Renewal:
- (1) If the holder of a medical certificate does not comply with point (b), a renewal aero-medical examination and assessment shall be required.
 - (2) If the medical certificate has expired for:
 - (i) less than 2 years, a routine revalidation aero-medical examination shall be performed;
 - (ii) more than 2 years, the AeMC or AME shall only conduct the renewal aero-medical examination after assessment of the aero-medical records of the applicant;
 - (iii) more than 5 years, the aero-medical examination requirements for initial issue shall apply and the assessment shall be based on the revalidation requirements.

ATCL.MED.050 - Suspension or revocation of a medical certificate

- (a) Upon revocation of the medical certificate, the holder shall immediately return the medical certificate to the Authority.
- (b) Upon suspension of the medical certificate, the holder shall return the medical certificate to the Authority on request of the authority.

ATCL.MED.055 - Referral

If an applicant for a class 3 medical certificate is referred to the Authority in accordance with ATCL.MED.060, the AeMC or AME shall transfer the relevant medical documentation to the Authority.

ATCL.MED.060 - Limitations to medical certificates

- (a) Limitations to class 3 medical certificates:
 - (1) If the applicant does not fully comply with the requirements for a class 3 medical certificate but, is considered to be not likely to jeopardies the safe exercise of the privileges of the licence, the AeMC or AME shall:
 - (i) refer the decision on fitness of the applicant to the Authority as indicated in this Subpart; or
 - (ii) in cases where a referral to the Authority is not indicated in this Subpart, evaluate whether the applicant is able to perform their duties safely when complying with one or more limitations endorsed on the medical certificate, and issue the medical certificate with limitation(s) as necessary.
 - (2) The AeMC or AME may revalidate or renew a medical certificate with the same limitation without referring the applicant to the Authority.
- (b) When assessing whether a limitation is necessary consideration shall be given to:
 - (1) whether accredited medical conclusion indicates that in special circumstances the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence is not likely to jeopardies the safe exercise of the privileges of the licence;
 - (2) the applicant's experience relevant to the operation to be performed.

- (c) Operational limitations
 - (1) The Authority, in conjunction with the air navigation service provider, shall determine the operational limitations applicable in the specific operational environment concerned.
 - (2) Appropriate operational limitations shall only be placed on the medical certificate by the Authority.
- (d) Any other limitation may be imposed on the holder of a medical certificate if required to ensure the safe exercise of the privileges of the licence.
- (e) Any limitation imposed on the holder of a medical certificate shall be specified therein.

ATCL.MED.065 - class 3 medical certificates general Requirements

- (a) Applicants shall be free from any of the following that would entail a degree of functional incapacity which is likely to interfere with the safe performance of duties or could render the applicant likely to become suddenly unable to exercise the privileges of the licence safely:
 - (1) abnormality, congenital or acquired;
 - (2) active, latent, acute, or chronic disease or disability;
 - (3) wound, injury or sequelae from operation;
 - (4) effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic, or preventive medication taken.

ATCL.MED.070 - Cardiovascular system

- (a) Examination:
 - (1) A standard 12-lead resting electrocardiogram (ECG) and report shall be completed at the examination for the initial issue of a medical certificate and then:
 - (i) every 4 years until the age of 30;
 - (ii) at all revalidation or renewal examinations thereafter; and
 - (iii) when clinically indicated.
 - (2) An extended cardiovascular assessment shall be completed:
 - (i) every 4 years thereafter; and
 - (ii) when clinically indicated.
 - (3) Estimation of serum lipids, including cholesterol, shall be required at the examination for the initial issue of a medical certificate, at the first examination after having reached the age of 40, and when clinically indicated.
- (b) Cardiovascular system — General:
 - (1) Applicants with any of the following conditions shall be assessed as unfit:
 - (i) aneurysm of the thoracic or supra-renal abdominal aorta before surgery;
 - (ii) significant functional or symptomatic abnormality of any of the heart valves;
 - (iii) heart or heart/lung transplantation.
 - (2) Applicants with an established history or diagnosis of any of the following conditions shall be referred to the Authority before a fit assessment may be considered:
 - (i) peripheral arterial disease before or after surgery;
 - (ii) aneurysm of the thoracic or supra-renal abdominal aorta after surgery;
 - (iii) aneurysm of the infra-renal abdominal aorta before or after surgery;
 - (iv) functionally insignificant cardiac valvular abnormalities;
 - (v) after cardiac valve surgery;
 - (vi) abnormality of the pericardium, myocardium, or endocardium;

- (vii) congenital abnormality of the heart, before or after corrective surgery;
 - (viii) recurrent vasovagal syncope;
 - (ix) arterial or venous thrombosis;
 - (x) pulmonary embolism;
 - (xi) cardiovascular condition requiring systemic anticoagulant therapy.
- (c) Blood pressure:
- (1) Blood pressure shall be recorded at each examination.
 - (2) The applicant's blood pressure shall be within normal limits.
 - (3) Applicants shall be assessed as unfit when:
 - (i) they have symptomatic hypotension; or
 - (ii) when their blood pressure at examination consistently exceeds 160 mmHg systolic and/or 95 mmHg diastolic, with or without treatment.
 - (4) The initiation of medication for the control of blood pressure shall require a period of temporary unfit assessment to establish the absence of significant side effects.
- (d) Coronary artery disease:
- (1) Applicants with any of the following conditions shall be assessed as unfit:
 - (i) symptomatic coronary artery disease;
 - (ii) symptoms of coronary artery disease controlled by medication.
 - (2) Applicants with any of the following conditions shall be referred to the Authority and undergo cardio- logical evaluation to exclude myocardial ischaemia before a fit assessment may be considered:
 - (i) suspected myocardial ischaemia;
 - (ii) asymptomatic minor coronary artery disease requiring no anti-anginal treatment.
 - (3) Applicants with a history or diagnosis of any of the following conditions shall be referred to the Authority and undergo a cardiological evaluation before a fit assessment may be considered:
 - (i) myocardial ischemia;
 - (ii) myocardial infarction;
 - (iii) revascularization and stenting for coronary artery disease.
- (e) Rhythm/Conduction disturbances:
- (1) Applicants for a class 3 medical certificate with any significant disturbance of cardiac conduction or rhythm, intermittent or established shall be referred to the Authority and undergo cardiological evaluation with satisfactory results before a fit assessment may be considered. These disturbances shall include any of the following:
 - (i) disturbance of supraventricular rhythm, including intermittent or established sinoatrial dysfunction, atrial fibrillation and/or flutter and asymptomatic sinus pauses;
 - (ii) complete left bundle branch block;
 - (iii) Mobitz type 2 atrioventricular block;
 - (iv) broad and/or narrow complex tachycardia;
 - (v) ventricular pre-excitation;
 - (vi) asymptomatic QT prolongation;
 - (vii) Brugada pattern on electrocardiography.

- (2) Applicants with any of the conditions listed in points (i) to (viii) may be assessed as fit in the absence of any other abnormality and subject to satisfactory cardiological evaluation:
- (i) incomplete bundle branch block;
 - (ii) complete right bundle branch block;
 - (iii) stable left axis deviation;
 - (iv) asymptomatic sinus bradycardia;
 - (v) asymptomatic sinus tachycardia;
 - (vi) asymptomatic isolated uniform supra-ventricular or ventricular ectopic complexes;
 - (vii) first degree atrioventricular block;
 - (viii) Mobitz type 1 atrioventricular block.
- (3) Applicants with a history of any of the following conditions shall be referred to the Authority and undergo cardiological evaluation with satisfactory results before a fit assessment may be considered:
- (i) ablation therapy;
 - (ii) pacemaker implantation.
- (4) Applicants with any of the following conditions shall be assessed as unfit:
- (i) symptomatic sinoatrial disease;
 - (ii) complete atrioventricular block;
 - (iii) symptomatic QT prolongation;
 - (iv) an automatic implantable defibrillating system;
 - (v) a ventricular anti-tachycardia pacemaker.

ATCL.MED.075 - Respiratory system

- (a) Applicants with significant impairment of pulmonary function shall be referred to the Authority for the aero-medical assessment. A fit assessment may be considered once pulmonary function has recovered and is satisfactory.
- (b) Examination:
Pulmonary function tests are required at the initial examination and on clinical indication.
- (c) Applicants with a history or established diagnosis of asthma requiring medication shall undergo a satisfactory respiratory evaluation. A fit assessment may be considered if the applicant is asymptomatic and treatment does not affect safety.
- (d) Applicants with a history or established diagnosis in any of the following shall be referred to the Authority and undergo respiratory evaluation with a satisfactory result before a fit assessment may be considered:
- (1) active inflammatory disease of the respiratory system;
 - (2) active sarcoidosis;
 - (3) pneumothorax;
 - (4) sleep apnoea syndrome;
 - (5) major thoracic surgery;
 - (6) chronic obstructive pulmonary disease;
 - (7) lung transplantation.

ATCL.MED.080 - Digestive system

- (a) Applicants with any sequelae of disease or surgical intervention in any part of the digestive tract or its adnexa likely to cause incapacitation, in particular any obstruction due to stricture or compression, shall be assessed as unfit.

- (b) Applicants shall be free from herniae that might give rise to incapacitating symptoms.
- (c) Applicants with disorders of the gastrointestinal system, including those in points (1) to (5) may be assessed as fit subject to a satisfactory gastroenterological evaluation after successful treatment or full recovery after surgery:
 - (1) recurrent dyspeptic disorder requiring medication;
 - (2) pancreatitis;
 - (3) symptomatic gallstones;
 - (4) an established diagnosis or history of chronic inflammatory bowel disease;
 - (5) after surgical operation on the digestive tract or its adnexa, including surgery involving total or partial excision or a diversion of any of these organs.

ATCL.MED.085 - Metabolic and endocrine systems

- (a) Applicants with metabolic, nutritional, or endocrine dysfunction may be assessed as fit subject to demonstrated stability of the condition and satisfactory aero-medical evaluation.
- (b) Diabetes mellitus:
 - (1) Applicants with diabetes mellitus requiring insulin shall be assessed as unfit.
 - (2) Applicants with diabetes mellitus requiring medication other than insulin for blood sugar control shall be referred to the licensing authority. A fit assessment may be considered if it can be demonstrated that blood sugar control has been achieved and is stable.

ATCL.MED.090 - Haematology

- (a) Blood testing, if any, shall be determined by the AME or AeMC taking into account the medical history and following the physical examination.
- (b) Applicants with a haematological condition, such as:
 - (1) coagulation, haemorrhagic, or thrombotic disorder;
 - (2) chronic leukaemia;
 - (3) abnormal haemoglobin, including, but not limited to, anaemia, erythrocytosis or haemoglobinopathy;
 - (4) significant lymphatic enlargement;
 - (5) enlargement of the spleen;shall be referred to the licensing authority. A fit assessment may be considered subject to satisfactory aero-medical evaluation.
- (c) Applicants suffering from acute leukaemia shall be assessed as unfit.

ATCL.MED.095 - Genitourinary system

- (a) Urinalysis shall form part of every aeromedical examination. The urine shall contain no abnormal element considered to be of pathological significance.
- (b) Applicants with any sequelae of disease or surgical procedures on the genitourinary system or its adnexa likely to cause incapacitation, in any obstruction due to stricture or compression, shall be assessed as unfit.
- (c) Applicants with a genitourinary disorder, such as:
 - (1) renal disease;
 - (2) one or more urinary calculi;may be assessed as fit subject to satisfactory renal/urological evaluation.
- (d) Applicants who have undergone:
 - (1) a major surgical operation in the genitourinary system or its adnexa involving a total or partial excision or a diversion of its organs; or

- (2) major urological surgery;
shall be referred to the Authority for an aero-medical assessment after full recovery before a fit assessment may be considered.

ATCL.MED.100 - Infectious disease

- (a) Applicants who are HIV positive shall be referred to the Authority and may be assessed as fit subject to satisfactory specialist evaluation and provided the Authority has sufficient evidence that the therapy does not compromise the safe exercise of the privileges of the licence.
- (b) Applicants diagnosed with or presenting symptoms of infectious disease such as:
 - (1) acute syphilis;
 - (2) active tuberculosis;
 - (3) infectious hepatitis;
 - (4) tropical diseases;

shall be referred to the Authority for an aero-medical assessment. A fit assessment may be considered after full recovery and specialist evaluation provided the Authority has sufficient evidence that the therapy does not compromise the safe exercise of the privileges of the licence.

ATCL.MED.105 - Obstetrics and Gynaecology

- (a) Applicants who have undergone a major gynaecological operation shall be assessed as unfit until full recovery.
- (b) Pregnancy:

In the case of pregnancy, if the AeMC or AME considers that the licence holder is fit to exercise her privileges, he/ she shall limit the validity period of the medical certificate to the end of the 34th week of gestation. The licence holder shall undergo a revalidation aero-medical examination and assessment after full recovery following the end of the pregnancy.

ATCL.MED.110 - Musculoskeletal system

- (a) Applicants shall have satisfactory functional use of the musculoskeletal system to enable them to safely exercise the privileges of the licence.
- (b) Applicants with static or progressive musculoskeletal or rheumatologic conditions likely to interfere with the safe exercise of the licence privileges shall be referred to the licensing authority. A fit assessment may be considered after satisfactory specialist evaluation.

ATCL.MED.115 - Psychiatry

- (a) Applicants with a mental or behavioral disorder due to alcohol or other use or misuse of psychoactive substances, including recreational substances with or without dependency, shall be assessed as unfit until after a period of documented sobriety or freedom from psychoactive substance use or misuse and subject to satisfactory psychiatric evaluation after successful treatment. Applicants shall be referred to the licensing authority.
- (b) Applicants with a psychiatric condition such as:
 - (1) mood disorder;
 - (2) neurotic disorder;
 - (3) personality disorder;
 - (4) mental or behavioral disorder;

shall undergo satisfactory psychiatric evaluation before a fit assessment may be considered. Applicants shall be referred to the Authority for the assessment of their medical fitness.

- (c) Applicants with a history of a single, or repeated acts of deliberate self-harm shall be assessed as unfit. Applicants shall be referred to the Authority and shall undergo satisfactory psychiatric evaluation before a fit assessment may be considered.
- (d) Applicants with an established history or clinical diagnosis of schizophrenia, schizotypal, delusional disorder or mania shall be assessed as unfit.

ATCL.MED.120 - Psychology

- (a) Applicants who present with stress-related symptoms that are likely to interfere with their ability to exercise the privileges of the licence safely shall be referred to the licensing authority. A fit assessment may only be considered after a psychological and/or psychiatric evaluation has demonstrated that the applicant has recovered from stress-related symptoms.
- (b) A psychological evaluation may be required as part of, or complementary to, a specialist psychiatric or neurological examination.

ATCL.MED.125 - Neurology

- (a) Applicants with an established history or clinical diagnosis of the following shall be assessed as unfit:
 - (1) epilepsy except in cases in point (b)(1) and (2);
 - (2) recurring episodes of disturbance of consciousness of uncertain cause;
 - (3) conditions with a high propensity for cerebral dysfunction.
- (b) Applicants with an established history or clinical diagnosis of the following conditions shall be referred to the Authority and undergo further evaluation before a fit assessment may be considered:
 - (1) epilepsy without recurrence after the age of 5;
 - (2) epilepsy without recurrence and off all treatment for more than 10 years;
 - (3) epileptiform EEG abnormalities and focal slow waves;
 - (4) progressive or non-progressive disease of the nervous system;
 - (5) a single episode of disturbances or loss of consciousness;
 - (6) brain injury;
 - (7) spinal or peripheral nerve injury;
 - (8) disorders of the nervous system due to vascular deficiencies including haemorrhagic and ischaemic events.

ATCL.MED.130 - Visual system

- (a) Examination:
 - (1) A comprehensive eye examination shall form part of the initial examination and be undertaken periodically depending on the refraction and the functional performance of the eye.
 - (2) A routine eye examination shall form part of all revalidation and renewal examinations.
 - (3) Applicants shall undergo tonometry at the first revalidation examination after the age of 40, on clinical indication and if indicated considering the family history.
 - (4) Applicants shall supply the AeMC or AME with an ophthalmic examination report in cases where:
 - (i) the functional performance shows significant changes;
 - (ii) the distant visual standards can only be reached with corrective lenses.
 - (5) Applicants with a high refractive error shall be referred to the licensing authority.
- (b) Distant visual acuity, with or without optimal correction, shall be 6/9 (0,7) or better in each eye separately, and visual acuity with both eyes shall be 6/6 (1,0) or better.

- (c) Initial applicants having monocular or functional monocular vision, including eye muscle balance problems, shall be assessed as unfit. At revalidation or renewal examinations the applicant may be assessed as fit provided that an ophthalmological examination is satisfactory. The applicant shall be referred to the licensing authority.
- (d) Initial applicants with acquired substandard vision in one eye shall be assessed as unfit. At revalidation or renewal examinations the applicant shall be referred to the Authority and may be assessed as fit provided that an ophthalmological examination is satisfactory.
- (e) Applicants shall be able to read an N5 chart or equivalent at 30 – 50 cm and an N14 chart or equivalent at 60 – 100 cm distance, if necessary, with the aid of correction.
- (f) Applicants shall have normal fields of vision and normal binocular function.
- (g) Applicants who have undergone eye surgery shall be assessed as unfit until full recovery of the visual function. A fit assessment may be considered by the Authority subject to satisfactory ophthalmic evaluation.
- (h) Applicants with a clinical diagnosis of keratoconus shall be referred to the Authority and may be assessed as fit subject to a satisfactory examination by an ophthalmologist.
- (i) Applicants with diplopia shall be assessed as unfit.
- (j) Spectacles and contact lenses
 - (1) If satisfactory visual function for the rated duties is achieved only with the use of correction, the spectacles or contact lenses must provide optimal visual function, be well tolerated, and suitable for air traffic control purposes.
 - (2) No more than one pair of spectacles, when worn during the exercise of licensed privileges, shall be used to meet the visual requirements at all distances.
 - (3) A spare set of similarly correcting spectacles shall be readily available when exercising the privileges of the licence(s).
 - (4) Contact lenses, when are worn during the exercise of licensed privileges, shall be mono-focal, non-tinted and not Orthokeratological, Monovision contact lenses shall not be used.
 - (5) Applicants with a large refractive error shall use contact lenses or high index spectacle lenses.

ATCL.MED.135 - Colour vision

Applicants shall be normal trichromats.

ATCL.MED.140 - Otorhinolaryngology

- (a) Examination:
 - (1) A routine otorhinolaryngological examination shall form part of all initial, revalidation and renewal examinations.
 - (2) Hearing shall be tested at all examinations. The applicant shall understand correctly conversational speech when tested with each ear at distance of 2 metres from and with his/her back turned towards the AME.
 - (3) Hearing shall be tested with pure tone audiometry at the initial examination and at subsequent revalidation or renewal examinations every 4 years until the age of 40 and every 2 years thereafter.
 - (4) Pure-tone audiometry:
 - (i) Applicants for a class 3 medical certificate shall not have a hearing loss of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz, in either ear separately.

- (ii) Applicants who do not meet the hearing criteria above shall be referred to the Authority and undergo a specialist assessment before a fit assessment may be considered. Initial applicants shall undergo a speech discrimination test. Applicants for a revalidation or renewal of a class 3 medical certificate shall undergo a functional hearing test in the operational environment.
- (5) Hearing aids:
 - (i) Initial examination: the need of hearing aids to comply with the hearing requirements entails unfitness.
 - (ii) Revalidation and renewal examinations: a fit assessment may be considered if the use of hearing aid(s) or of an appropriate prosthetic aid improves the hearing to achieve a normal standard as assessed by fully functional testing in the operational environment.
 - (iii) If a prosthetic aid is needed to achieve the normal hearing standard, a spare set of the equipment and accessories, such as batteries, shall be available when exercising the privileges of the licence.
- (b) Applicants with:
 - (1) an active chronic pathological process of the internal or middle ear;
 - (2) unhealed perforation or dysfunction of the tympanic membrane(s);
 - (3) disturbance of vestibular function;
 - (4) significant malformation or significant chronic infection of the oral cavity or upper respiratory tract;
 - (5) significant disorder of speech or voice reducing intelligibility;shall be referred to the Authority and undergo further ORL examination and assessment to establish that the condition does not interfere with the safe exercise of the privileges of the licence.

ATCL.MED.145 - Dermatology

Applicants shall have no established dermatological condition likely to interfere with the safe exercise of the privileges of the licence held.

ATCL.MED.150 - Oncology

- (a) After diagnosis of primary or secondary malignant disease, applicants shall be referred to the Authority and shall undergo satisfactory oncological evaluation before a fit assessment may be considered.
- (b) Applicants with an established history or clinical diagnosis of an intracerebral malignant tumor shall be assessed as unfit.

ATCL.MED.155 - Privileges

- (a) In accordance with this Part, the privileges of an AME are to revalidate and renew class 3 medical certificates, and to conduct the relevant aero-medical examinations and assessments.
- (b) The scope of the privileges of the AME, and any condition thereof, shall be specified in the certificate.

ATCL.MED.160 - Application

- (a) The application for an AME certificate shall be submitted in accordance with the procedure established by the Authority.
- (b) Applicants for an AME certificate shall provide the Authority with:
 - (1) personal details and professional address;

- (2) documentation demonstrating that they comply with the requirements established in ATCL.MED.165, including the certificate of completion of the training courses in aviation medicine appropriate to the privileges they apply for;
 - (3) a written declaration that the AME will issue medical certificates on the basis of the requirements of this Part.
- (c) When the AME undertakes aero-medical examinations in more than one location, they shall provide the Authority with relevant information regarding all practice locations and practice facilities.

ATCL.MED.165 - Requirements for the issue of an AME certificate

Applicants for an AME certificate with the privileges for the revalidation and renewal of class 3 medical certificates shall:

- (a) be fully qualified and licensed for the practice of medicine and hold a Certificate of Completion, or have evidence of, specialist medical training;
- (b) have successfully completed basic and advanced training courses in aviation medicine, including specific modules for the aero-medical assessment of air traffic controllers and the specific environment in air traffic control;
- (c) demonstrate to the Authority that they:
 - (1) have adequate facilities, procedures, documentation, and functioning equipment suitable for aero-medical examinations; and
 - (2) have in place the necessary procedures and conditions to ensure medical confidentiality.

ATCL.MED.170 - Training courses in aviation medicine

- (a) Training courses in aviation medicine shall be approved by the Authority where the training provider has its principal place of business. The training provider shall demonstrate that the course syllabus contains the learning objectives to acquire the necessary competencies and that the persons in charge of providing the training have adequate knowledge and experience.
- (b) Except in the case of refresher training, the courses shall be concluded by a written examination on the subjects included in the course content.
- (c) The training provider shall issue a certificate of completion to the applicants when they have obtained a pass in the examination.

ATCL.MED.175 - Changes to the AME certificate

- (a) AMEs shall notify the Authority of the following circumstances which could affect their certificate:
 - (1) the AME is subject to disciplinary proceedings or investigation by a medical regulatory body;
 - (2) there are any changes to the conditions on which the certificate was granted, including the content of the statements provided with the application;
 - (3) the requirements for the issue of an AME certificate are no longer met;
 - (4) there is a change to the aero-medical examiner's practice location(s) or correspondence address.
- (b) Failure to inform the Authority shall result in the suspension or revocation of the privileges of the AME certificate, based on the decision of the Authority that suspends or revokes the certificate.

ATCL.MED.180 - Validity of AME certificates

An AME certificate shall be issued for a period not exceeding 3 years. It shall be revalidated provided the holder:


- (a) continues to fulfil the general conditions required for medical practice and maintains registration as a medical practitioner;
- (b) has undertaken refresher training in aviation medicine and in the working environments of air traffic controllers within the last 3 years;
- (c) has performed at least 10 aero-medical examinations every year. This number of examinations may only be reduced by the Authority in duly justified circumstances;
- (d) remains in compliance with the terms of their AME certificate; and
- (e) exercises the AME privileges in accordance with this Part.

Appendix 1 - Format of Air Traffic Controller Licence

The air traffic controller licence issued in accordance with this Part shall conform to the following specifications:

- (a) Content. The item number shall always be printed in association with the item heading. Items I to XI are the 'permanent' items, and items XII to XIV are the 'variable' items which appear on a detachable part of the main form as prescribed below. the detachable part shall be clearly identifiable as part of the licence.
 1. Permanent items:
 - (I) Name of the State issuing the licence; **(Bold type)**
 - (II) title of licence; **(Bold type)**
 - (III) serial number of the licence, in Arabic numerals, given by the Authority issuing the licence;
 - (IV) name of holder in full (in English script, and in Arabic script);
 - (IVa) date of birth (dd/mm/yyyy);
 - (V) holder's address;
 - (VI) nationality of holder;
 - (VII) signature of holder;
 - (VIII) Authority, and where necessary the conditions under which the licence is issued;
 - (IX) certification of validity and authorisation for the privileges granted, including the dates when they were first issued;
 - (X) signature of officer issuing the licence and the date of such issue;
 - (XI) seal or stamp of the Authority.
 2. Variable items:
 - (XII) ratings and endorsements with expiry dates;
 - (XIII) remarks: language proficiency endorsements; and
 - (XIV) any other details required by the Authority.
- (b) The licence shall be accompanied by valid medical certificate, except when only STDI privileges are exercised.
- (c) The licence shall include a personal photo;
- (d) Language. Licences shall written in English Language, and Arabic Language as appared.
- (e) Material. First quality paper and/or other suitable material shall used to prevent or readily show any alterations or erasures. Any entries or deletions in the form will be clearly authorised by the Authority.


Sample of Air Traffic Controller Licence

<p>I. LIBYA</p>  <p>II. Air Traffic Controller Licence</p> <p>Issued in accordance with ICAO standards and LYCAR-ATCL</p>	<p>III. Lic No. xxxx</p>	<p>Personal Photo</p>	<p>VIII LIBYAN CIVIL AVIATION AUTHORITY</p> <p>The holder of this licence is hereby authorised, subject to any conditions or limitations specified herein, to act as an Air Traffic Controller and to exercise the privileges appropriate to any rating and places included herein provided it includes a valid medical certificate</p>	<p>XII RATINGS</p>	
	<p>IV. Name:</p>			<p>Rating</p> <p>TWR</p> <p>APP</p> <p>APS</p> <p>ACP</p> <p>ACS</p>	<p>Date of First Issue</p> <p>dd/mm/yyyy</p> <p>dd/mm/yyyy</p> <p>dd/mm/yyyy</p> <p>dd/mm/yyyy</p> <p>dd/mm/yyyy</p>
	<p>IVa Date of Birth dd/mm/yyyy</p>	<p>V. Address:</p>	<p>XIV Medical Expire Date; dd/mm/yyyy</p>	<p>Licence Endorsement</p> <p>OJTI</p> <p>EXM</p>	<p>Date of first issue</p> <p>dd/mm/yyyy</p> <p>dd/mm/yyyy</p>
	<p>VI. Nationality</p>		<p>X Signature of Issuing Officer:</p> <p>Date: / /</p>	<p>XIII. Remarks</p> <p>ELP: Level X</p> <p>Validity: dd/mm/yyyy</p>	
	<p>VII. Signature of the Holder</p>	<p>XI Seal or Stamp of Issuing Authority</p>			
<p>Licence No. XXX Page 1</p>	<p>Licence No. XXX Page 2</p>	<p>Licence No. XXX Page 3</p>	<p>Licence No. XXX Page 4</p>		

XIII. Remarks					
Current Ratings/Endorsements					
Unit (ICAO Indicator)	Sector Position	Rating / Endorsement(s)	Date of assessment	Valid Until	Examiner Signature
Licence No. XXX	Page 5	Licence No. XXX	Page 6	Licence No. XXX	Page 7

DECODES	
Rating Abbreviations	
Aerodrome Control Tower	TWR
Approach Control Procedure	APP
Approach Control Surveillance	APS
Area Control Procedural	ACP
Area Control Surveillance	ACS
Rating/Licence Endorsement Abbreviations	
Tower	TWR
Automatic Dependent Surveillance Broadcast	ADS-B
Automatic Dependent Surveillance Contract	ADS-C
Precision Approach Radar	PAR
Radar	RAD
Licence No. XXX	Page 8

Sample of Student Air Traffic Controller Licence

<p>I. LIBYA</p>  <p>II. Student Air Traffic Controller Licence</p> <p>Issued in accordance with ICAO standards and LYCAR-ATCL</p>	<p>III. Lic No. xxxx</p>	<p>Personal Photo</p>	<p>VIII LIBYAN CIVIL AVIATION AUTHORITY</p> <p>1.This licence is subject to the inclusion of a valid medical certificate and to any other specified conditions. The holder of this licence is entitled to exercise the functions of a Student Air Traffic Controller for the purpose of becoming qualified for the grant of an Air Traffic Controller Licence in the rating(s) in XII on page 4, as dated.</p> <p>2.This licence is only valid for the purpose of authorizing the holder to provide an air traffic control service under the supervision of an On-the-job Training Instructor or rated Air Traffic Controller who is present at the time.</p>	<p>XII. RATINGS</p>	
	<p>IV. Name:</p>			<p>Ratings</p>	<p>Initial Training Completion Date</p>
	<p>IVa Date of Birth dd/mm/yyyy</p>	<p>TWR</p>		<p>dd/mm/yyyy</p>	
	<p>V. ADDRESS:</p>	<p>APP</p>		<p>dd/mm/yyyy</p>	
	<p>VI. NATIONALITY:</p>	<p>RATING ABBREVIATION DECODE</p>			
	<p>SIGNATURE OF HOLDER:</p>	<p>IX. This Licence is valid up to: dd/mm/yyyy</p> <p>Medical Expire Date: dd/mm/yyyy</p>		<p>Aerodrome Control tower TWR</p>	
<p>Licence No. XXX Page 1</p>	<p>X. Signature of Issuing Officer:</p> <p>Date: / /</p>	<p>Approach Control APP Procedural</p>			
<p>Licence No. XXX Page 2</p>	<p>XI. Seal or Stamp of Issuing Authority</p>	<p>Licence No. XXX Page 4</p>			