

**MTAI RA**

**ATCO**



(IR , AMC & GM)



Հավելված Annex

Հայաստանի Հանրապետության of Օrder N 10-N of the

տարածքային կառավարման և Minister of Territorial

ենթակառուցվածքների նախարարի Administration and Infrastructure

2025 թվականի մարտի 24-ի of the Republic of Armenia

թիվ 10-Ն հրամանի dated 24 March 2025

**Հավելված ANNEX**

**Հայաստանի Հանրապետության of Order \_\_\_\_\_\_\_ of the**

**Տարածքային Կառավարման և Minister of Teritorial**

**Ենթակառուցվածքների նախարարի Administration and Infrastructure**

**2025 թվականի « »-ի of the Republic of Armenia**

**Թիվ հրամանի Dated « » 2025**

**MINISTRY OF TERRITORIAL ADMINISTRATION AND INFRASTRUCTURE OF THE REPUBLIC OF ARMENIA**

**Rules for Air Traffic Controllers’ Licensing and Certification**

# Disclaimer

This document has been published by the Ministry of Territorial Administration and Infrastructure of the Republic of Armenia (hereinafter referred to as "MTAI") to provide the Civil Aviation Committee of the Republic of Armenia (hereinafter referred to as "COMMITTEE") with a comprehensive and easily readable publication. It has been prepared in accordance with certification specifications (CS), acceptable means of compliance (AMC), and guidance material (GM).

# Note from the editor

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| The content of this document is arranged as follows: the implementing rule (IR), then the IR annex points, followed by the related acceptable means of compliance (AMC) and guidance material (GM).  In case of certification specifications (CSs), a CS is followed by the related GM.  All elements (i.e. articles, IRs, CSs, AMC, and GM) are colour-coded and can be identified according to the illustration below.  Cover regulation article  Implementing rule annex  Acceptable means of compliance  Guidance material |

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# Cover Regulation

MINISTRY OF TERRITORIAL ADMINISTRATION AND INFRASTRUCTURE OF THE REPUBLIC OF ARMENIA, REGULATION №

of «\_\_\_ »\_\_\_\_\_\_ 20\_\_\_  
**laying down technical requirements and administrative procedures relating to air traffic controllers' licences and certificates pursuant to “Law on Aviation of the Republic of Armenia”**

Powers and recital

The Ministry of Territorial Administration and Infrastructure(hereinafter MTAI) of the Republic of Armenia, taking into account the requirements of the Law on Aviation of the Republic of Armenia and repealing Order No. 41-N dated 13.03.2005 of the Head of General Department of Civil Aviation under the Government of the Republic of Armenia,

Whereas:

1. This Regulation lays down the technical requirements and administrative procedures

relating to air traffic controllers’ licences and certificates.

1. With the aviation industry rapidly evolving, it is necessary to implement this regulation to ensure its fitness for purpose, cost-effectiveness and alignment with globally applicable standards and practices. It is important to establish a simplified system of qualifications without any overlaps. The update of initial training syllabi should ensure appropriate alignment with the regulatory framework and operational needs.
2. The requirements applicable to COMMITTEE set out in this Regulation should be updated in light of technical progress.
3. The measures provided for in this Regulation are in accordance with the Law on Aviation of the Republic of Armenia,

***Article 1 - Subject matter and scope***

1. This Regulation lays down detailed rules for:
2. the rules and procedures for issuing, maintaining, amending, limiting, suspending or revoking air traffic controller and student air traffic controller licences and associated ratings and endorsements;
3. 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;
4. the certification of aero-medical examiners and aero-medical centres for air traffic controllers and student air traffic controllers;
5. This Regulation shall apply to:
6. student air traffic controllers and air traffic controllers exercising their functions within the scope Law on Aviation of the Republic of Armenia;
7. persons and organisations involved in the licensing, training, testing, checking and medical examination and assessment of applicants in accordance with this Regulation.

Article 2 - Compliance with requirements and procedures

1. 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 [Article 1](#_DxCrossRefBm1379192329)(2)(a) and (b) shall be qualified and licensed in accordance with the provisions of Annexes I, III and IV by the competent authority referred to in [Article 6](#_DxCrossRefBm1379192331).

2. The organisations referred to in [Article 1](#_DxCrossRefBm1379192329)(2)(b) shall be qualified in accordance with the technical requirements and administrative procedures laid down in Annexes I, III and IV and shall be certified by the competent authority referred to in [Article 6](#_DxCrossRefBm1379192331).

3. The medical certification of the persons referred to in [Article 1](#_DxCrossRefBm1379192329)(2)(a) and (b) shall be compliant with the technical requirements and administrative procedures laid down in Annexes III and IV.

GM1 Article 1(2) Compliance with the requirements and procedures

AIR TRAFFIC CONTROLLER TRAINING ORGANISATION CERTIFICATION

For the purpose of ensuring that all organisations referred to in [Article 1](#_DxCrossRefBm1379192329)(2) comply with the technical requirements and administrative procedures of [Article 2](#_DxCrossRefBm1379192330), air navigation service providers providing training to air traffic controllers according to Annex I, Part ATCO, Subpart D, are subject to the requirements applicable to air traffic controller training organisations set out in this Regulation.

Article 3 - Provision of air traffic control services

1. Air traffic control services shall only be provided by air traffic controllers qualified and licensed in accordance with this Regulation.

Article 4 - 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 MTAI to illustrate means by which to establish compliance with Law on Aviation of the Republic of Armenia and its delegated and implementing acts;

(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 Law on Aviation of the Republic of Armenia and its delegated and implementing acts for which no associated AMC have been adopted by the MTAI;

(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;

(7a) ‘credit’ means the recognition of the training undertaken by an air traffic controller during their military service for the purpose of applying for a student air traffic controller licence to be issued in accordance with this Regulation;

(8) ‘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;

(9) ‘emergency situation’ means a serious and dangerous situation requiring immediate actions;

(10) ‘examination’ means a formalised test evaluating the person's knowledge and understanding;

(11) ‘guidance material (GM)’ means a non-binding material issued by the MTAI, which helps to illustrate the meaning of delegated or implementing acts;

(12) ‘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;

(13) ‘language proficiency endorsement’ means the statement entered on and forming part of a licence, indicating the language proficiency of the holder;

(14) ‘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;

(14a) ‘licence endorsement’ means the authorisation entered on and forming part of the licence, indicating a specific qualification of the licence holder. It is a generic term used to describe the inclusion of on-the-job training instructor, synthetic training device instructor, assessor and language proficiency endorsements.

(15) ‘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;

(16) ‘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;

(17) ‘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;

(18) ‘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;

(19) ‘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 or her medical certificate are valid;

(20) ‘psychoactive substance’ means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas caffeine and tobacco are excluded;

(20a) ‘rating’ means the authorisation entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence;

(21) ‘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;

(22) ‘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;

(23) ‘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;

(24) ‘sector’ means a part of a control area and/or part of a flight information region or upper region;

(25) ‘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;

(26) ‘synthetic training device’ means any type of device by which operational conditions are simulated, including simulators and part-task trainers;

(27) ‘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;

(28) ‘training course’ means theoretical and/or practical instruction developed within a structured framework and delivered within a defined duration;

(29) ‘training organisation’ means an organisation which has been certified by the competent authority to provide one or more types of training;

(30) ‘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;

(31) ‘validation’ means a process by which, through the successful completion of a unit endorsement course associated with a rating or a rating endorsement, the holder may start exercising the privileges of that rating or rating endorsement.

AMC1 Article 3(1) Definitions

ABNORMAL SITUATION

Abnormal situations may include:

(a) circumstances arising from human error or violation of rules both within the ATC and aircraft operation;

(b) serious weather or volcanic perturbations; and

(c) technical system failures or malfunctions of aircraft and/or ATC ground-based systems.

GM1 Article 3(6) Definitions

ASSESSMENT

The formative evaluation of practical skills during training should not be considered as an assessment.

GM1 Article 3(30) Definitions

ICAO LOCATION INDICATOR

The ICAO location indicator used in the unit endorsement identifies the ATS unit that manages the maintenance of the air traffic controller competence.

Article 5 - Competent authority

1. According to the Law on Aviation of the Republic of Armenia, the Civil Aviation Committee (hereinafter referred to as the Committee) serves as the competent authority with responsibilities for certification and oversight of persons and organizations subject to this regulation.

2․ In the case of a functional airspace block or cross-border service provision, the competent authorities shall be designated by agreement between the respective member states.

3. The Ministry of Territorial Administration and Infrastructure of the Republic of Armenia (hereinafter referred to as MTAI) shall ensure that the Committee has the necessary capabilities to carry out the certification and oversight activities provided for in its certification and oversight programs, including sufficient resources to meet the requirements of Annex II.

4․ The MTAI shall ensure that there is no direct or indirect conflict of interest with respect to the Committee's personnel carrying out oversight and certification activities under this regulation, particularly in relation to family or financial interests of the relevant personnel.

Article 6 - Competent authority for the purposes   
of Annexes I, III and IV

1. For the purpose of Annex I, the Committee shall be the authority nominated by the Government Republic of Armenia to whom the person applies for the issue of a licence.
2. For the purpose of Annex III and for the oversight of the requirements of Annex I regarding air navigation service providers, the competent authority shall be:
   1. the Committee nominated by the Government Republic of Armenia as its competent authority for oversight where the applicant has its principal place of operation;
3. For the purpose of Annex IV, the Committee shall be:
   1. for aero-medical centres:
      1. the authority designated by the Government Republic of Armenia in which the aero-medical centre has its principal place of business;
   2. for aero-medical examiners:
      1. the authority designated by the Government Republic of Armenia in which the aero-medical examiner has his or her principal place of practice;

Article 7 - Transitional provisions

1. Licences, ratings and endorsements issued in accordance with the Law on Aviation of the Republic of Armenia shall be deemed to have been issued in accordance with this Regulation.
2. Holders of the Aerodrome Control Visual (ADV) rating, who do not hold an Aerodrome Control Instrument (ADI) rating, shall continue to be authorised to provide air traffic control service to aerodrome traffic at an aerodrome that has no published instrument approach or departure procedures, provided that the validity of the unit endorsement related to the ADV rating is maintained.

AMC1 Article 7(2) Transitional provisions

PRIVILEGES OF AERODROME CONTROL VISUAL (ADV) RATING HOLDERS

Air traffic controllers who have obtained the aerodrome control visual (ADV) rating at an aerodrome that publishes instrument approach and departure procedures, or air traffic controllers who move to an aerodrome with published instrument approach and departure procedures, should undergo a specific rating training at a certified initial training organisation to acquire competence equivalent to the aerodrome control (ADC) rating. The specific rating training should address the differences between ADV and ADC. For those air traffic controllers, the licence will contain the ADC rating following the successful completion of the specific rating training.

Article 8 - Replacement of licences, adaptations of privileges, training courses and unit competence schemes

1. The Committee shall change the name of the Aerodrome Control Instrument (ADI) rating into Aerodrome Control (ADC) no later than 4 August 2027 in a manner established by the COMMITTEE.
2. The Committee shall not issue licences including Aerodrome Control Visual (ADV) rating except for those air traffic controllers referred to in paragraph 2 of [Article 6.](#bookmark21)
3. The privileges of the Air Control (AIR), Ground Movement Control (GMC) and Tower Control (TWR) rating endorsements issued before shall become part of the privileges of an Aerodrome Control (ADC) rating. If the exercise of the privileges of the holder is limited to air control or ground control only, this shall be indicated in the unit endorsement, in accordance with point [ATCO.B.020](#bookmark50)(d) of Annex I, at the time of the change of name of the Aerodrome Control Instrument (ADI) rating into Aerodrome Control (ADC) in accordance with paragraph 1 of this Article.
4. The privileges of the Ground Movement Surveillance (GMS) rating endorsement issued before shall become part of the privileges of the unit endorsement associated with the Aerodrome Control rating.
5. The Committee shall change the name of the Aerodrome Radar Control (RAD) rating endorsement issued before into the Aerodrome Control Surveillance (SUR) rating endorsement at the time of the change of name of the Aerodrome Control Instrument (ADI) rating into Aerodrome Control (ADC) in accordance with paragraph 1 of this Article.
6. The privileges of the Terminal Control (TCL) rating endorsement issued before shall become part of the privileges of the unit endorsement associated with the Approach Control Surveillance (APS) or the Area Control Surveillance (ACS) rating.

AMC1 Article 8 Conversion of rating and rating endorsements

CONVERSION OF RATING AND RATING ENDORSEMENTS

When converting the privileges, the Committee should include, in item IX of the licence, the aerodrome control (ADC) rating with the date of first issue of the aerodrome control instrument (ADI) rating, and the aerodrome control surveillance (SUR) rating endorsement with the date of first issue of the aerodrome radar (RAD) rating endorsement. At the same time, the ADI rating and the RAD rating endorsement should be removed from the licence.

The aerodrome control visual (ADV) rating should be removed from item IX, except for those air traffic controllers that hold a valid unit endorsement attached to the ADV rating.

The ground movement control (GMC), air control (AIR), tower control (TWR) and ground movement surveillance (GMS) rating endorsements should be removed from item IX at the time of conversion of ADI to ADC.

The terminal control (TCL) rating endorsement should be removed from item IX upon revalidation or renewal of the unit endorsement.

GM1 Article 8 Conversion of rating and rating endorsements

CONVERSION OF RATING AND RATING ENDORSEMENTS

The table below provides explanations on the possible combinations of ratings and rating endorsements resulting from the implementation of this Regulation. The explanations are related to the entries in item XIIa in the licence document template as provided in [Appendix 1](#bookmark146) ‘Format for licence — AIR TRAFFIC CONTROLLER LICENCE’ to Annex II.

|  |  |  |
| --- | --- | --- |
| Possible combinations of ratings and rating endorsements that may be issued until dd.mm.yyyy (date of applicability) | Possible combinations of ratings and rating endorsements that may be issued after dd.mm.yyyy (date of applicability) | |
| Rating / Rating endorsement | Rating / Rating endorsement | Sector/Position |
| ADV | — | — |
| ADI/AIR | ADC | Sector/Position (AIR) to be indicated when the exercise of the privileges is limited to air control only. |
| ADI/AIR/RAD | ADC/SUR | Sector/Position (AIR) to be indicated when the exercise of the privileges is limited to air control only. |
|  |  |  |
| ADI/GMC | ADC | Sector/Position (GMC) to be indicated when the exercise of the privileges is limited to ground control only. |
| ADI/GMC/GMS | ADC | Sector/Position (GMC) to be indicated when the exercise of the privileges is limited to ground control only. |
|  |  |  |
| ADI/TWR | ADC | Sector/Position, if specified. |
| ADI/TWR/RAD | ADC/SUR | Sector/Position, if specified. |
| ADI/TWR/GMS | ADC | Sector/Position (GMC) to be indicated when the exercise of the privileges is limited to ground control only. |
|  |  |  |
| APP | APP | Sector/Position, if specified. |
|  |  |  |
| APS | APS | Sector/Position, if specified. |
| APS/PAR | APS/PAR | Sector/Position, if specified. |
| APS/SRA | APS/SRA | Sector/Position, if specified. |
| APS/TCL | APS | Sector/Position (e.g. TCL), if specified, when services are provided to aircraft that operate in a specified terminal area and/or adjacent sectors. |
|  |  |  |
| ACP | ACP | Sector/Position, if specified. |
|  |  |  |
| ACS | ACS | Sector/Position, if specified. |
| ACS/TCL | ACS | Sector/Position (e.g. TCL), if specified, when services are provided to aircraft that operate in a specified terminal area and/or adjacent sectors. |
|  |  |  |

GM1 Article 8(1) Conversion of rating and rating endorsements

AERODROME CONTROL INSTRUMENT (ADI) RATING

The ADI rating, issued before, indicates that the licence holder is competent to provide air traffic control services to aerodrome traffic at an aerodrome that has published instrument approach or departure procedures.

GM1 Article 8(2) Conversion of rating and rating endorsements

AERODROME CONTROL VISUAL (ADV) RATING

The ADV rating, issued before, indicates that the licence holder is competent to provide air traffic control services to aerodrome traffic at an aerodrome that has no published instrument approach or departure procedures.

GM1 Article 8(4) Conversion of rating and rating endorsements

AIR CONTROL (AIR), GROUND MOVEMENT CONTROL (GMC) AND TOWER CONTROL (TWR) RATING ENDORSEMENTS

The AIR rating endorsement, issued before, indicates that the licence holder is competent to provide air control to traffic that flies in the vicinity of an aerodrome and on the runway.

The GMC rating endorsement, issued before, indicates that the licence holder is competent to provide ground movement control.

The TWR rating endorsement, issued before, indicates that the licence holder is competent to provide aerodrome control services. The TWR rating endorsement includes the privileges of the AIR and GMC rating endorsements.

GM1 Article 8(5) Conversion of rating and rating endorsements

GROUND MOVEMENT SURVEILLANCE (GMS) CONTROL RATING ENDORSEMENT

The GMS rating endorsement, granted in addition to the ground movement control (GMC) rating endorsement or the tower control (TWR) rating endorsement, issued before, indicates that the licence holder is competent to provide ground movement control with the help of aerodrome surface movement guidance systems.

GM1 Article 8(6) Conversion of rating and rating endorsements

AERODROME RADAR (RAD) RATING ENDORSEMENT

The RAD rating endorsement, granted in addition to the air control (AIR) rating endorsement or tower control (TWR) rating endorsement, issued before, indicates that the licence holder is competent to provide aerodrome control with the help of surveillance radar equipment.

GM1 Article 8(7) Conversion of rating and rating endorsements

TERMINAL CONTROL (TCL) RATING ENDORSEMENT

The TCL rating endorsement, issued before, indicates that the licence holder is competent to provide air traffic control services with the use of any surveillance equipment to aircraft that operate in a specified terminal area and/or adjacent sectors.

Article 9 - Repeal

Order No. 41-N dated 13.03.2005 of the Head of General Department of Civil Aviation under the Government of the Republic of Armeniais repealed.

Article 10 - Entry into force and application

1․ This regulation shall enter into force thirty days after its publication on the official website of legal acts of the Republic of Armenia ([arlis.am](file:///D:\Artyom%20Simonyan\Desktop\arlis.am)).

A period of 24 months is established for the full implementation of this regulation after its publication on the official website of legal acts of the Republic of Armenia.

# ANNEX I – PART ATCO – REQUIREMENTS FOR THE LICENSING OF AIR TRAFFIC CONTROLLERS

## SUBPART A – GENERAL REQUIREMENTS

ATCO.A.001 Scope

This Part, set out in this Annex, establishes the requirements for the issue, revocation and suspension of student air traffic controller licences and air traffic controller licences, their associated ratings and endorsements, and the conditions of their validity and use.

ATCO.A.005 Application for the issue of licences, ratings and endorsements

1. An application for the issue of licences, ratings and endorsements shall be submitted to the Committee in accordance with the procedure established by the Committee.
2. 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 Committee which issued that licence.
3. The licence shall remain the property of the person to whom it is issued, unless it is revoked by the Committee. The licence holder shall sign the licence.
4. The licence shall specify all relevant information related to the privileges that are granted by the licence and shall comply with the requirements in [Appendix 1 of Annex II](#_DxCrossRefBm1379192347)

ATCO.A.010 Application for change of competent authority

**RESERVED.**

GM1 ATCO.A.010 Application for change of competent authority

**RESERVED.**

GM1 ATCO.A.010(a) Application for change of competent authority

**RESERVED.**

GM1 ATCO.A.010(b) Application for change of competent authority

**RESERVED.**

AMC1 ATCO.A.010(b);(c) Application for change of competent authority

**RESERVED.**

ATCO.A.015 Exercise of the privileges of licences and provisional inability

(a) The exercise of the privileges granted by a licence shall be dependent on the ratings and rating endorsements, validity of the unit and licence endorsements, and of the medical certificate, unless the medical certificate is not required in accordance with point (b).

(b) The medical certificate is not required when exercising instructor or assessor privileges in a synthetic training device environment.

(c) Licence holders shall not exercise the privileges of their licence when having doubts about 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.

(d) 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.

(e) 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 (c), to declare the provisional inability of the licence holder in accordance with point (d), and to inform the competent authority as defined in that procedure.

(f) The procedures referred to in point (e) shall be included in the unit competence scheme according to point [ATCO.B.025](#_DxCrossRefBm1379192374)(a)(13).

GM1 ATCO.A.015(b);(c) Exercise of the privileges of licences and provisional inability

GROUNDS FOR PROVISIONAL INABILITY

(a) Examples of grounds for doubting the ability to safely exercise the privileges of the licence may be that the licence holder is:

(1) under the influence of psychoactive substances;

(2) unable to perform the duties due to injury, fatigue, sickness, stress, including critical incident stress or other similar causes;

(3) not meeting all the competence-related requirements set out in the unit competence scheme.

(b) Provisional inability based on the grounds referred to in points (a)(1) and (a)(2) is meant to cover only short periods of time (for example: generally before the next scheduled duty period, but no longer than 7 days) with the aim of allowing the affected air traffic controller to consult an aero-medical examiner regarding the doubts about being able to safely exercise the privileges of their licence.

In such cases, the provisional inability may only remain applicable until a medical review is performed by an aero-medical examiner.

GM1 ATCO.A.015(c) Exercise of the privileges of licences and provisional inability

In case of doubt about the medical condition of the air traffic controller, the provisions of [ATCO.MED.A.020](#_DxCrossRefBm1379192377) should apply.

GM1 ATCO.A.015(d) Exercise of the privileges of licences and provisional inability

PROCEDURES

The procedures developed and implemented to enable licence holders declaring provisional inability to exercise the privileges of their licence and to inform the Committee should include but are not limited to:

(a) the processes to declare and terminate provisional inability;

(b) an indicative list of cases when the Committee shall be informed of the declaration or termination of the provisional inability; and

(c) the processes to inform the Committee․

ATCO.A.020 Revocation and suspension of licences, ratings and endorsements

(a) Licences, ratings and endorsements may be suspended or revoked by the Committee according to [ATCO.AR.D.005](#_DxCrossRefBm1379192380) 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 Committee according to the administrative procedures established by Committee.

(c) With the issue of the air traffic controller licence the student air traffic controller licence is revoked and shall be returned to the Committee.

## SUBPART B – LICENCES, RATINGS AND ENDORSEMENTS

ATCO.B.001 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 additional rating endorsement(s) and unit endorsement(s).

(b) Applicants for a student air traffic controller licence shall:

(1) be at least 21 years old;

(2) within the 12 months preceding the application, have successfully completed initial training at a training organisation satisfying the requirements laid down in [Annex III](#_DxCrossRefBm1379192355) (Part ATCO.OR) relevant to the rating, and if applicable, to the rating endorsement, as set out in [Part ATCO, Subpart D, Section 2](#_DxCrossRefBm1379192382);

(3) hold a valid medical certificate;

(4) have demonstrated an adequate level of language proficiency in accordance with the requirements set out in point [ATCO.B.030](#_DxCrossRefBm1379192365).

(c) The student air traffic controller licence shall contain the language proficiency 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 1 year from the date of its issuance or has interrupted exercising those privileges for a period of more than 1 year may only start or continue on-the-job training in that rating:

(1) if a training organisation satisfying the requirements laid down in [Annex III](#_DxCrossRefBm1379192355) (Part ATCO.OR) and certified to provide initial training relevant to the rating has conducted an assessment of previous competence as to whether the holder of a student air traffic controller licence continues to satisfy the requirements relevant to that rating, and

(2) after satisfying any training requirements resulting from the assessment referred to point (d)(1) above.

GM1 ATCO.B.001(a);(d) Student air traffic controller licence

PRIVILEGES OF A STUDENT AIR TRAFFIC CONTROLLER LICENCE

The privileges of a student air traffic controller licence are exercised when providing air traffic control services in live traffic under the supervision of an on-the-job training instructor. A student air traffic controller licence is required for on-the-job training and not necessarily for the transitional and pre-on-the-job phases of unit training.

GM1 ATCO.B.001(b) Student air traffic controller licence

MATURITY OF AIR TRAFFIC CONTROLLERS

Persons who wish to undertake air traffic controller training at a training organisation satisfying the requirements laid down in Annex III (Part ATCO.OR) should be educationally, physically and mentally sufficiently mature. In order to assess their ability to complete air traffic controller training, training organisations may conduct aptitude assessments and/or set out educational or similar requirements which could serve as a prerequisite for commencing air traffic controller training.

AMC1 ATCO.B.001(d) Student air traffic controller licence

ASSESSMENT OF PREVIOUS COMPETENCE

When establishing previous competence in a rating, the assessment should be based on the requirements set out in Part ATCO, Subpart D, Section 2.

GM1 ATCO.B.001(d) Student air traffic controller licence

ASSESSMENT OF PREVIOUS COMPETENCE

The assessment of previous competence includes an assessment of the practical skills demonstrated by the person being assessed as well as an examination of the person’s knowledge and understanding․

ATCO.B.005 Air traffic controller licence

1. 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.
2. The privileges of an air traffic controller licence shall include the privileges of a student air traffic controller licence as set out in [ATCO.B.001(a)](#bookmark46).
3. 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 Part ATCO, Subpart D, Section 3;
   3. hold a valid medical certificate;
   4. have demonstrated an adequate level of language proficiency in accordance with the requirements set out in [ATCO.B.030.](#bookmark52)
4. 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 a rating within 1 year from the date of its issuance may only start on-the-job training in that rating:

(1) if a training organisation satisfying the requirements laid down in [Annex III](#_DxCrossRefBm1379192355) (Part ATCO.OR) and certified to provide initial training relevant to the rating has conducted an assessment of previous competence as to whether the previous competence of the holder of an air traffic controller licence continues to satisfy the requirements relevant to that rating, and

(2) after satisfying any training requirements resulting from the assessment referred to in point (e)(1) above․

GM1 ATCO.B.005(e) Air traffic controller licence

ASSESSMENT OF PREVIOUS COMPETENCE

The assessment of previous competence includes an assessment of the practical skills demonstrated by the person being assessed as well as an examination of the person’s knowledge and understanding․

ATCO.B.010 Air traffic controller ratings

(a) 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 (ADC) rating, indicating that the licence holder is competent to provide an air traffic control service to aerodrome traffic;

(2) 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;

(3) 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.

(b) The holder of a rating who has interrupted exercising the privileges associated with that rating for a period of 4 or more immediately preceding consecutive years may only start on-the-job training in that rating:

(1) if a training organisation satisfying the requirements laid down in Annex III (Part ATCO.OR) and certified to provide training relevant to the rating, has conducted an assessment of previous competence as to whether that the holder of a rating continues to satisfy the conditions of that rating, and;

(2) after satisfying any training requirements resulting from the assessment referred to in point (b)(1) above․

AMC1 ATCO.B.010(a)(2);(3) Air traffic controller ratings

SURVEILLANCE FALLBACK AND CONTINGENCY MEASURES

The approach control procedural (APP) rating is not required for approach control surveillance (APS) rating holders when applying surveillance fallback and contingency measures. However, with reference to points [ATCO.D.045](#_DxCrossRefBm1379192393)(c)(3) and [ATCO.D.080](#_DxCrossRefBm1379192392)(b)(2), specific training related to surveillance fallback and contingency procedures should be included in the unit and refresher training to prepare air traffic controllers to deal with such situations.

If contingency plans also include procedures for service continuity by means of providing procedural air traffic control services, a procedural rating should be held and maintained․

AMC1 ATCO.B.010(a)(4);(5) Air traffic controller ratings

SURVEILLANCE FALLBACK AND CONTINGENCY MEASURES

The area control procedural (ACP) rating is not required for area control surveillance (ACS) rating holders when applying surveillance fallback and contingency measures. However, with reference to points [ATCO.D.045](#_DxCrossRefBm1379192393)(c)(3) and [ATCO.D.080](#_DxCrossRefBm1379192392)(b)(2), specific training related to surveillance fallback and contingency procedures should be included in the unit and refresher training to prepare air traffic controllers to deal with such situations.

If contingency plans also include procedures for service continuity by means of providing procedural air traffic control services, a procedural rating should be held and maintained․

AMC1 ATCO.B.010(b) Air traffic controller ratings

ASSESSMENT OF PREVIOUS COMPETENCE

When establishing previous competence in a rating, the assessment should be based on the requirements set out in Part ATCO, Subpart D, Section 2.

GM1 ATCO.B.010(b) Air traffic controller ratings

ASSESSMENT OF PREVIOUS COMPETENCE

The assessment of previous competence includes an assessment of the practical skills demonstrated by the person being assessed as well as an examination of the person’s knowledge and understanding․

ATCO.B.015 Rating endorsements

(a) The Aerodrome Control (ADC) rating may bear the Aerodrome Control Surveillance (SUR) endorsement, indicating that the licence holder is competent to provide aerodrome control with the help of surveillance systems.

(b) The Approach Control Surveillance (APS) rating may bear one or more of the following endorsements:

(1) the Precision Approach Radar (PAR) endorsement, indicating that the licence holder is competent to provide ground-controlled precision approaches with the use of precision approach radar equipment to aircraft on the final approach to the runway;

(2) the Surveillance Radar Approach (SRA) endorsement, indicating that the licence holder is competent to provide ground-controlled non-precision approaches with the use of surveillance equipment to aircraft on the final approach to the runway.

(c) The Area Control Surveillance (ACS) rating indicating that the licence holder is competent to provide air traffic control services to aircraft operating in an Oceanic Control Area․

AMC1 ATCO.B.015(a) Air traffic controller rating endorsements

AERODROME CONTROL SURVEILANCE (SUR) ENDORSEMENT PRIVILEGES

The SUR endorsement indicates that the holder has the skills to use ATS surveillance systems for the provision of aerodrome control․

ATCO.B.020 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 Part ATCO, Subpart D, Section 3.

(c) As an exception to point (b), the on-the-job training phase in Part ATCO, Subpart D, Section 3 may not be required when the unit endorsement is issued in connection with the issue of a temporary OJTI authorisation for the same unit.

(d) Limitations on the exercise of the privileges of the Aerodrome Control (ADC) rating shall be indicated in the unit endorsement.

(e) For air traffic controllers providing air traffic control services to aircraft carrying out flight tests, the Committee may, in addition to the requirements set out in point (b), set out additional requirements to be met.

(f) Unit endorsements shall be valid for a period defined in the unit competence scheme. This period shall not exceed ATCO.B.005.

(g) 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.

(h) 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 3 months prior to the expiry date of the unit endorsement.

(i) Unit endorsements shall be revalidated provided that the requirements set out in point (h) 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.

(j) If the unit endorsement is revalidated before the period provided for in point (i), 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 (h)(1) and (2) are also met.

(k) 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 Part ATCO, Subpart D, Section 3 in order to renew the endorsement․

AMC1 ATCO.B.020(a) Unit endorsements

RESERVED

GM1 to AMC1 ATCO.B.020(a) Unit endorsements

RESEVED.

GM1 ATCO.B.020(c) Unit endorsements

ISSUE OF A UNIT ENDORSEMENT IN CONNECTION WITH THE ISSUE OF A TEMPORARY ON-THE-JOB TRAINING INSTRUCTOR (OJTI) AUTHORISATION

It is recognised that the completion of a unit endorsement course in accordance with the requirements set out in Section 3 of Subpart D of Part ATCO as regards the on-the-job training (OJT) phase may not be possible in cases where a new ATC unit or sector is established, a new rating or rating endorsement is established at an ATC unit, or when a temporary ATC unit reopens․

AMC1 ATCO.B.020(d) Unit endorsements

LIMITATION IN RELATION TO THE EXERCISE OF THE AERODROME CONTROL RATING PRIVILEGES

If a unit endorsement course contains operational procedures only for air control or ground control, the unit endorsement should reflect the limitation in relation to the rating privileges․

AMC1 ATCO.B.001(d)) Unit endorsements

VALIDITY OF THE UNIT ENDORSEMENT

When establishing the validity of a unit endorsement, the specificities of the unit and seasonal variations should be taken into account.

Appropriate means should be in place to monitor the competence of the air traffic controllers. The means should be proportionate to the validity time.

If the proposed validity time of the unit endorsement exceeds 12 months, additional means should be in place to monitor and ensure the continuous competence of the air traffic controllers.

If the ATC unit is proposing to increase the validity time of the unit endorsement, a safety assessment should be conducted. The safety assessment may cover several units.

AMC1 ATCO.B.020(i)(3) Unit endorsements

PRACTICAL SKILLS ASSESSMENT FOR THE REVALIDATION OF EACH UNIT ENDORSEMENT

(a) If the assessment of practical skills is taking the form of a dedicated assessment consisting of a single assessment or a series of assessments, the last assessment declaring the licence holder competent should take place within the 3-month period immediately preceding the unit endorsement expiry date.

(b) If the assessment of practical skills is taking the form of a continuous assessment by which the air traffic controller’s competence is assessed along a defined period of time, the end of that defined period and the formal conclusion on declaring the licence holder competent should take place within the 3-month period immediately preceding the unit endorsement expiry date․

GM1 ATCO.B.020(k) Unit endorsements

COMMENCEMENT OF THE UNIT ENDORSEMENT VALIDITY IN CASE OF EARLY REVALIDATION

For the purpose of establishing the validity period of the unit endorsement in case of early revalidation, the date of the assessment should be the date of the:

(a) last assessment declaring the licence holder competent in case of a dedicated assessment; and

(b) formal conclusion of declaring the licence holder competent in case of continuous assessment, provided that the formal conclusion takes place immediately after the period during which the air traffic controller’s competence has been assessed․

ATCO.B.025 Unit competence scheme

(a) Unit competence scheme(s) shall be established by the air navigation service provider and approved by the Committee. A unit competence scheme shall include at least the following elements:

(1) the validity of the unit endorsement(s) in accordance with point [ATCO.B.020](#_DxCrossRefBm1379192344)(g);

(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 or, in the case of SRA and PAR rating endorsements, the minimum number of approaches, for exercising the privileges of the unit endorsement within a defined period of time, which shall not exceed 12 months, for the purpose of point [ATCO.B.020](#_DxCrossRefBm1379192344)(i)(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 points (a)(2) and (3);

(5) processes for assessing competence, including assessment of the refresher training subjects according to point [ATCO.D.080](#_DxCrossRefBm1379192392)(b);

(6) processes for the examination of theoretical knowledge and understanding necessary to exercise the 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) a procedure to ensure that practical instructors have practised instructional techniques in the procedures in which instruction is provided in accordance with point [ATCO.C.010](#_DxCrossRefBm1379192412)(b)(3) and point [ATCO.C.030](#_DxCrossRefBm1379192411)(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 Committee in accordance with point [ATCO.A.015](#_DxCrossRefBm1379192373)(e);

(14) identification of records to be kept specific to continuation training and assessments, in accordance with point [ATCO.OR.C.020](#_DxCrossRefBm1379192410);

(15) a process and reasons for reviewing and amending the unit competence scheme and its submission to the Committee. The review of the unit competence scheme shall take place at least once every 3 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 or her unit endorsement(s) 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 points (a)(4) and (a)(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.

AMC1 ATCO.B.025(a)(3) Unit competence scheme

MINIMUM NUMBER OF HOURS

The minimum number of hours should be defined for each unit endorsement associated to a rating, and it should be identical for each unit endorsement holder within the same unit.

For licence holders holding more than one unit endorsement in the same ATC unit, the minimum number of hours may be defined as a combined value based on the assessment provided by the air navigation service provider.

Nevertheless, maintaining competence should be appropriately ensured for all valid unit endorsements, as well as for all sectors and/or working positions covered by a unit endorsement.

AMC1 ATCO.B.025(a)(5);(6) Unit competence scheme

PROCESSES FOR ASSESSING COMPETENCE AND EXAMINING THEORETICAL KNOWLEGDE AND UNDERSTANDING

(a) The practical performance and skills should be assessed in live traffic situations.

(b) Theoretical competence should be examined to ascertain the knowledge and understanding of air traffic controllers.

(c) Subjects taught during refresher training such as standard practices and procedures, abnormal and emergency situations and human factors should be assessed on STD or in other simulated environments and/or examined.

GM1 ATCO.B.025(a)(5) Unit competence scheme

ASSESSMENTS

(a) Assessments may have one or more components.

(b) One component should be the assessment of practical skills; other components may be oral and/or written examinations.

(c) Practical skills assessments should be conducted as continuous assessment or dedicated practical assessment(s).

(d) Continuous assessment

Continuous assessment should be achieved by the assessor assessing, during normal operational duties, the operational performance compared to the standard of the air traffic control service expected.

Where the assessor has not been able to adequately assess the air traffic controller by continuous assessment, he/she should not certify the air traffic controller’s competence until a dedicated practical assessment has been conducted.

(e) Dedicated practical assessment

A dedicated practical assessment may consist of a single assessment or a series of assessments.

To conduct a dedicated practical assessment, the assessor(s) should sit with the air traffic controller with the purpose of assessing, under normal operational conditions, the operational performance compared to the standard of the air traffic control service expected.

The air traffic controller concerned should be advised that a dedicated practical assessment is to be conducted and be briefed on the conduct of the assessment.

For those situations where an applicant’s performance cannot be observed at the time of the assessment (e.g. low visibility operations, snow clearing, military activity, etc.), the assessment may be supplemented by synthetic training device sessions and/or an oral examination.

(f) The performance objectives’ topics to be assessed should be determined in detail by the air navigation service provider. Examples of performance objectives’ topics are as follows:

* application of unit regulations and procedures (e.g. minimum separation standards, letters of agreement, Aeronautical Information Publications);
* traffic analysis and planning;
* task priority setting;
* communication, including phraseology;
* capacity and expedition;
* accuracy;
* initiative, adaptability and decision-making;
* air traffic control techniques;
* teamwork and other human factors skills;
* the level of risk associated with the tasks performed (e.g. attitudes to risk).

(g) Procedures when failing

Notwithstanding [ATCO.B.025(a)(10)](#_DxCrossRefBm1379192374), when an air traffic controller fails in one or more of the components of the assessment, he/she should not be allowed to exercise the privilege of this unit endorsement, and provisional inability in accordance with [ATCO.A.015(b)](#_DxCrossRefBm1379192373) may be declared until a successful competence assessment has been performed. Resitting the full competence assessment or the failed part only may be required.

(h) Record keeping

The results of all assessments, including those of the continuous assessment, and examinations should be documented and stored confidentially, accessible to the assessor and the person being assessed.

GM2 ATCO.B.025(a)(5) Unit competence scheme

ASSESSMENTS

Assessments should be adapted to the validity time of the unit endorsement of the ATC unit.

The assessment of air traffic controllers at ATC units with seasonal variations should reflect the higher volume and complexity situations.

GM3 ATCO.B.025(a)(5) Unit competence scheme

ASSESSMENTS OF REFRESHER TRAINING SUBJECTS

(a) Assessments should be conducted primarily on a synthetic training device or offline environments.

(b) Assessments should be conducted by appropriately qualified personnel having detailed knowledge of:

(1) the training objectives; and

(2) the subjects, topics and subtopics being examined or assessed.

GM1 ATCO.B.025(a)(6) Unit competence scheme

ORAL EXAMINATIONS

Oral examinations should be used to test understanding of applicable techniques and the rules governing them, particularly of unit and national air traffic control procedures. Scenario-type questioning allows the assessor to gather additional evidence of how an air traffic controller would react in circumstances that are not observable but are nevertheless considered important to the overall operation at that ATC unit.

The oral examination should give a clear indication that the air traffic controller knows not only what he/she should be doing, but why he/she should be doing it. The oral examination requires considerable skills and it should be undertaken in a way to ensure consistency among individual assessors.

GM1 ATCO.B.025(a)(9) Unit competence scheme

EXAMINATIONS AND ASSESSMENTS DURING CONVERSION TRAINING

(a) Assessments should be conducted primarily on a synthetic training device or offline environments.

(b) Examinations and assessments should be conducted by appropriately qualified personnel having detailed knowledge of:

(1) the training objectives; and

(2) the subjects, topics and subtopics being examined or assessed.

ATCO.B.030 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 and, if applicable, in the language(s) imposed by the Committee for reasons of safety at the ATC unit as published in the Aeronautical Information Publications. The language proficiency endorsement shall indicate the language(s), the level(s) of proficiency and the expiry date(s).

(b) The language proficiency level shall be determined in accordance with the rating scale set out in [Appendix 1 of Annex I](#_DxCrossRefBm1379192422).

(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 Annex I](#_DxCrossRefBm1379192422) 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 competent authority.

(e) Language proficiency shall be demonstrated by a certificate attesting the result of the assessment.

ATCO.B.035 Validity of language proficiency endorsement

(a) The validity of the language proficiency endorsement, depending on the level determined in accordance with Appendix 1 of 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), unlimited.

(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.

ATCO.B.040 Assessment of language proficiency

(a) The demonstration of language proficiency shall be done through a method of assessment approved by any Committee, which shall contain:

(1) the process by which an assessment is done;

(2) the qualification of the assessors;

(3) the appeal procedure.

(b) Language assessment bodies shall comply with the requirements established by the Committee according to [ATCO.AR.A.010](#_DxCrossRefBm1379192426).

AMC1 ATCO.B.040 Assessment of language proficiency

GENERAL

(a) The language proficiency assessment should be designed to reflect the tasks undertaken by air traffic controllers, but with specific focus on language rather than operational procedures and knowledge.

(b) The assessment should determine the applicant’s ability to communicate effectively using visual and non-visual communication in both routine and non-routine situations.

AMC2 ATCO.B.040 Assessment of language proficiency

ASSESSMENT

(a) The assessment should comprise the following three elements:

(1) listening — assessment of comprehension;

(2) speaking — assessment of pronunciation, fluency, structure and vocabulary;

(3) interaction.

(b) The switch between phraseology and plain language should be assessed for listening and speaking proficiency.

(c) When the assessment is not conducted in a face-to-face situation, it should use appropriate technologies for the assessment of the applicant’s abilities in listening and speaking, and for enabling interactions.

(d) In case of revalidation of the language proficiency endorsement, the assessment may be conducted during training activities or on operational position, with prior notification to the air traffic controller to be assessed.

(e) Irrespective of the way the assessment is organised, the requirements listed in (a) and (b) as well as the relevant provisions for language proficiency assessors should be met.

AMC3 ATCO.B.040 Assessment of language proficiency

LANGUAGE PROFICIENCY ASSESSORS

(a) Persons responsible for language proficiency assessment should be suitably trained and qualified.

(b) Language proficiency assessors should undergo regular refresher training on language assessment skills.

(c) Language proficiency assessors should not conduct language proficiency assessments whenever their objectivity may be affected.

AMC4 ATCO.B.040 Assessment of language proficiency

CRITERIA FOR THE ACCEPTABILITY OF LANGUAGE ASSESSMENT BODIES

(a) A language assessment body should provide clear information about its organisation and its relationships with other organisations.

(b) If a language assessment body is also an air traffic controller training organisation, there should be a clear and documented separation between the two activities.

(c) The language assessment body should employ a sufficient number of qualified interlocutors and language proficiency assessors to administer the required tests.

(d) The assessment documentation should include at least the following:

(1) assessment objectives;

(2) assessment layout, timescale, technologies used, assessment samples, voice samples;

(3) assessment criteria and standards (at least for the operational, extended and expert levels of the rating scale in [Appendix 1 to Annex I](https://dxweb.easa.europa.eu/dx4/Topics/atco173.docx) to this Regulation;

(4) documentation demonstrating the assessment validity, relevance and reliability for the operational, extended and expert levels;

(5) procedures to ensure that language assessments are standardised within the language assessment body and in the ATC community;

(6) assessment procedures and responsibilities, such as:

* preparation of individual assessment;
* administration: location(s), identity check and invigilation, assessment discipline, confidentiality/security;
* reporting and documentation provided to the Committee and/or to the applicant, including sample certificate; and
* retention of documents and records.

(7) The assessment documentation and records should be kept for a period of time determined by the Committee and made available to the Committee upon request.

GM1 ATCO.B.040 Assessment of language proficiency

LANGUAGE PROFICIENCY ASSESSORS

(a) Persons responsible for language proficiency assessment should be either aviation specialists (e.g. current or former air traffic controllers) or language specialists with additional aviation-related training. The preferred approach for an assessment would be to form a team consisting of an operational expert and a language expert.

(b) Language proficiency assessors should be trained in the requirements specific to the language proficiency assessment, and assessment and interlocution techniques.

GM2 ATCO.B.040 Assessment of language proficiency

Further information can be found in the ‘Manual on the Implementation of ICAO Language Proficiency Requirements’ (ICAO Doc 9835) and the ‘Language Testing Criteria for Global Harmonization’ (ICAO Cir 318 AN/180).

ATCO.B.045 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.

AMC1 ATCO.B.045 Language training

(a) Language training should contain communication in a job-related context particularly to handle abnormal and emergency situations and conduct non-routine coordination with colleagues, crews and technical staff.

(b) Emphasis should be placed on listening comprehension, speaking interaction and vocabulary building.

GM1 ATCO.B.045 Language training

While it is true that many licence holders regularly have prolonged and extensive opportunities to practise — and so to maintain — their language proficiency, it is also true that a purely routine use of the language through phraseology, standard procedures and limited social contact only maintains a restricted core usage of the language which might be quite inadequate for managing unexpected and abnormal situations.

Research shows that language proficiency erosion (language attrition) occurs rapidly over time; the lower the initial level, the faster the rate of erosion unless systematic strategies and a high degree of motivation counter this trend.

It is very well documented that one’s language and communicative proficiency, even in one’s native language, deteriorates sharply under stress, therefore, it is recommended that licence holders participate in available language training.

GM2 ATCO.B.045 Language training

Training for language proficiency skills may be delegated to language training organisations with knowledge in the field of aviation.

## SUBPART C – REQUIREMENTS FOR INSTRUCTORS AND ASSESSORS

### SECTION 1 – Instructors

ATCO.C.001 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.

GM1 ATCO.C.001(b)(1) Theoretical instructors

QUALIFICATION OF THEORETICAL INSTRUCTORS

Professional qualification appropriate to the subject should ensure sufficient level of current knowledge, which is relevant to the subject and its application in air traffic control.

AMC1 ATCO.C.001(b)(2) Theoretical instructors

INSTRUCTIONAL SKILLS FOR THEORETICAL INSTRUCTORS

A satisfactory demonstration of instructional skills for theoretical instructors should establish competence at least in the following areas:

(a) lesson objectives are defined and communicated;

(b) subject questions are fully answered;

(c) visual aids are used appropriately;

(d) language is unambiguous;

(e) the lesson is correctly summarised; and

(f) lesson objectives are fulfilled.

ATCO.C.005 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.

ATCO.C.010 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) practised 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 competent authority when requested by the training organisation.

GM1 ATCO.C.010(c) On-the-job training instructor (OJTI) privileges

SHORTENING OF THE RATING EXPERIENCE REQUIREMENT FOR OJTI

When assessing the training organisations’ request for the shortening of the rating experience requirement for OJTIs, the Committee should take into account the complexity of the traffic in the unit where the on-the-job instruction is provided, as well as the impact on the continuity and safety aspects of the service.

ATCO.C.015 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 2 years immediately preceding the application. This period may be shortened to not less than 1 year by the Committee when requested by the training organisation; and

(c) within the 12 months 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.

GM1 ATCO.C.015(b) Application for on-the-job training instructor endorsement

SHORTENING OF THE LICENCE EXPERIENCE REQUIREMENT FOR OJTI

When assessing the training organisations’ request for the shortening of the licence experience requirement for OJTIs, the Committee should take into account the complexity of the traffic in the unit where the on-the-job instruction is provided, as well as the impact on the continuity and safety aspects of the service.

ATCO.C.020 Validity of on-the-job training instructor endorsement

(a) The OJTI endorsement shall be valid for a period of 3 years.

(b) The OJTI endorsement may be revalidated by successfully completing refresher training on practical instructional skills during its validity, provided that the requirement of point [ATCO.C.015](#_DxCrossRefBm1379192443)(a) is met.

(c) If the OJTI endorsement has expired, provided that the requirement of point [ATCO.C.015](#_DxCrossRefBm1379192443)(a) is met, it may be renewed if, within the 12 months preceding the application for renewal, the OJTI endorsement holder has:

(1) received refresher training on practical instructional skills; and

(2) successfully passed a practical instructor competence assessment.

(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 requirement of point [ATCO.C.015](#_DxCrossRefBm1379192443)(a) is not met, the OJTI endorsement may be exchanged for an STDI endorsement, provided that compliance with the requirements of point [ATCO.C.040](#_DxCrossRefBm1379192446) (b) and (c) is ensured.

GM1 ATCO.C.020(b) Validity of on-the-job training instructor endorsement

REVALIDATION

(a) Successful completion of the refresher training in practical instructional skills may be verified by several means, for example by:

(1) dedicated or continuous assessment;

(2) peer assessment; or

(3) demonstration of the practical instructional skills.

(b) The verification should be undertaken following the completion of the refresher training.

ATCO.C.025 Temporary OJTI authorisation

(a) When compliance with the requirements provided for in [ATCO.C.010(b)(2)](#_DxCrossRefBm1379192412) is not possible, the Committee 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 [ATCO.C.015](#_DxCrossRefBm1379192443).

(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 [ATCO.C.015](#_DxCrossRefBm1379192443), whichever occurs sooner.

AMC1 ATCO.C.025(a) Temporary OJTI authorisation

SAFETY ANALYSIS

The safety analysis should specify the reasons for which the relevant unit endorsement requirement provided for in [ATCO.C.010(b)(2)](#_DxCrossRefBm1379192412) cannot be met and how the equivalent level of safety will be ensured by other means.

GM1 ATCO.C.025(a) Temporary OJTI authorisation

EXCEPTIONAL SITUATIONS

Exceptional situations for which it may be considered not to be possible to comply with [ATCO.C.010(b)(2)](#_DxCrossRefBm1379192412) for the purpose of the valid unit endorsement experience, and, therefore, a temporary OJTI authorisation may be granted, are the following:

(a) establishment of a new ATC unit or new sector for the air navigation service provider;

(b) the continuity of the existing service is endangered due to the non-availability of personnel as a consequence of a change in the air navigation service provider at the ATC unit;

(c) new rating or rating endorsement put into operation at an ATC unit;

(d) reopening of a temporary ATC unit.

ATCO.C.030 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 or 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 2 years’ experience in the rating they will instruct in;

(2) demonstrated knowledge of current operational practices;

(3) practised instructional techniques in those procedures in which instruction is provided.

(c) As an exception to point (b)(1),

(1) the period of 2 years may be shortened to not less than 1 year by the Committee when requested by the training organisation;

(2) for the purpose of basic training, any rating held is appropriate;

(3) 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.

GM1 ATCO.C.030(a)(1) Synthetic training device instructor (STDI) privileges

SUBJECTS OF PRACTICAL NATURE

Subjects with objectives at taxonomy level 3 or higher, related to Air Traffic Management Basic (ATMB), are considered of practical nature during initial training.

GM1 ATCO.C.030(c)(1) Synthetic training device instructor (STDI) privileges

SHORTENING OF THE RATING EXPERIENCE REQUIREMENT FOR STDIs

When assessing a training organisation’s request for the shortening of the rating experience requirement for STDIs, Committee should take into account the complexity of the training expected to be delivered by the potential STDI and the impact on the continuity of the provision of training.

GM1 ATCO.C.030(c)(3) Synthetic training device instructor (STDI) privileges

PROVISION OF TRAINING FOR SPECIFIC AND SELECTED OPERATIONAL TASKS

Some of the skills required for the two different surveillance ratings are the same or similar. Therefore, instruction not being specific for one rating or the training being for specific and selected operational tasks that do not require the learner to practise all the tasks which are normally associated with a fully operational environment, may be provided by an STDI that has at least 2 years of experience in a rating that requires similar skills.

ATCO.C.035 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 2 years. This period may be shortened to not less than 1 year by the Committee when requested by the training organisation; and

(b) within the 12 months 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.

GM1 ATCO.C.035(a) Application for synthetic training device instructor (STDI) endorsement

SHORTENING OF THE LICENCE EXPERIENCE REQUIREMENT FOR STDIs

When assessing a training organisation’s request for the shortening of the licence experience requirement for STDIs, Committee should take into account the complexity of the training expected to be delivered by the potential STDI and the impact on the continuity of the provision of training.

ATCO.C.040 Validity of synthetic training device instructor endorsement

(a) The STDI endorsement shall be valid for a period of 3 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 if, within the 12 months preceding the application for renewal, the STDI endorsement holder has:

(1) received refresher training on practical instructional skills and on current operational practices; and

(2) successfully passed a practical instructor competence assessment.

(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.

GM1 ATCO.C.040(b) Validity of synthetic training device instructor endorsement

REVALIDATION

(a) Successful completion of the refresher training in practical instructional skills and current operational practices may be verified by several means, for example by:

(1) dedicated or continuous assessment;

(2) peer assessment; or

(3) demonstration of practical instructional skills.

(b) Current operational practices may be refreshed by transitional and pre-on-the-job training.

(c) The verification should be undertaken following the completion of the refresher training.

### SECTION 2 – Assessors

ATCO.C.045 Assessor privileges

(a) A person shall only carry out assessments when he or 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 points [ATCO.B.001](#_DxCrossRefBm1379192357)(d), [ATCO.B.005](#_DxCrossRefBm1379192387)(e) and [ATCO.B.010](#_DxCrossRefBm1379192389)(b);

(3) of student air traffic controllers for the issue of a unit endorsement and rating endorsement(s), if applicable;

(4) of air traffic controllers for the issue of a unit endorsement and rating endorsement(s), 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 applicable requirements of points (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 2 years’ experience in the rating and rating endorsement(s) they will assess; 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 1 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 3 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 3 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 3 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.

AMC1 ATCO.C.045(c)(2) Assessor privileges

DEMONSTRATION OF KNOWLEDGE OF CURRENT OPERATIONAL PRACTICES

The demonstration of knowledge of current operational practices may be achieved by establishing familiarity with current environment and operational procedures.

ATCO.C.050 Vested interests

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

ATCO.C.055 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 2 years; and

(b) within the 12 months 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.

ATCO.C.060 Validity of assessor endorsement

(a) The assessor endorsement shall be valid for a period of 3 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 if, within the 12 months preceding the application for renewal, the assessor endorsement holder has:

(1) received refresher training on assessment skills and on current operational practices; and

(2) successfully passed an assessor competence assessment.

(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.

GM1 ATCO.C.060(b) Validity of assessor endorsement

REVALIDATION

(a) The successful completion of the refresher training in assessment skills and current operational practices may be verified by several means; for example, by:

(1) dedicated or continuous assessment;

(2) peer assessment; or

(3) demonstration of the assessment skills.

(b) Current operational practices may be refreshed by transitional and pre-on-the-job training.

(c) The verification should be undertaken following the completion of the refresher training.

ATCO.C.065 Temporary assessor authorisation

(a) When the requirement provided for in [ATCO.C.045(d)(1)](#_DxCrossRefBm1379192459) cannot be met, the Committee may authorise holders of an assessor endorsement issued in accordance with [ATCO.C.055](#_DxCrossRefBm1379192462) to carry out assessments referred to in [ATCO.C.045(b)(3)](#_DxCrossRefBm1379192459) 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 [ATCO.C.055](#_DxCrossRefBm1379192462), 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 Committee but shall not exceed the validity of the assessor endorsement issued in accordance with [ATCO.C.055](#_DxCrossRefBm1379192462).

(d) For issuing a temporary assessor authorisation for the reasons referred to in points (b) and (c) the Committee may require a safety analysis to be presented by the air navigation service provider.

GM1 ATCO.C.065(b) Temporary assessor authorisation

EXCEPTIONAL SITUATIONS

Exceptional situations for which it may be considered not to be possible to comply with [ATCO.C.045(d)(1)](#_DxCrossRefBm1379192459) for the purpose of the unit endorsement experience, and, therefore, a temporary assessor authorisation may be granted, are the following:

(a) establishment of a new ATC unit or new sector for the air navigation service provider;

(b) the continuity of the existing service is endangered due to the non-availability of personnel as a consequence of a change in the air navigation service provider at the ATC unit;

(c) new rating or rating endorsement put into operation at an ATC unit;

(d) reopening of a temporary ATC unit.

GM1 ATCO.C.065(c) Temporary assessor authorisation

INDEPENDENCE OF THE ASSESSMENT

In the case of units not having sufficient number of assessors or if the independence and objectivity of the assessment from the training process is otherwise endangered, a temporary assessor authorisation may be granted.

AMC1 ATCO.C.065(d) Temporary assessor authorisation

SAFETY ANALYSIS

The safety analysis should specify the reasons for which the relevant unit endorsement requirement provided for in [ATCO.C.045(d)(1)](#_DxCrossRefBm1379192459) cannot be met and how the equivalent level of safety will be ensured by other means.

For the purpose of ensuring the independence of the assessment for reasons of recurrent nature, the safety analysis performed could encompass the recurrent nature of the need to ensure the independence of the assessments from the training process and provide a basis for the issue of multiple temporary authorisations based on the same reason.

## SUBPART D – AIR TRAFFIC CONTROLLER TRAINING

### SECTION 1 – General requirements

ATCO.D.001 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.

ATCO.D.005 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.

AMC1 ATCO.D.005(a)(2) Types of air traffic controller training

UNIT TRAINING

Unit training should be undertaken by holders of student air traffic controllers licence or holders of air traffic controllers licence, as appropriate, for:

(a) the issue of an air traffic controller licence with a unit endorsement;

(b) the addition of a unit endorsement in an air traffic controller licence;

(c) the validation of a rating and rating endorsement, if applicable, in an existing licence;

(d) the addition of rating endorsement in an existing licence; and

(e) the renewal of an expired, suspended or revoked unit endorsement, where applicable.

GM1 ATCO.D.005(a)(2)(ii) Types of air traffic controller training

ON-THE-JOB TRAINING

(a) On-the-job training may be supplemented for pedagogical reasons by theoretical instructions and computer-based training, part-task trainers or any type of simulators aiming at increasing knowledge, understanding and application of local procedures.

(b) Hours accumulated using these training tools and methods during this phase cannot be counted towards the minimum duration of on-the-job training established in accordance with [AMC1 ATCO.D.055(b)(6)](#_DxCrossRefBm1379192473), with the exception of training for procedures unlikely to be encountered in the operational environment during the training.

### SECTION 2 – Initial training requirements

ATCO.D.010 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 to Annex I](#_DxCrossRefBm1379192480); and

(2) rating training, comprising the subjects, topics and subtopics of at least one of the following:

(i) Aerodrome Control Rating — ADC, defined in [Appendix 3 to Annex I](#_DxCrossRefBm1379192479);

(ii) Approach Control Surveillance Rating — APS, defined in [Appendix 4 to Annex I](#_DxCrossRefBm1379192476);

(iii) Area Control Surveillance Rating — ACS, defined in [Appendix 5 to Annex I](#_DxCrossRefBm1379192475).

(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 point [ATCO.B.010](#_DxCrossRefBm1379192389)(b) shall be tailored according to the result of that assessment.

(d) Training intended for a rating endorsement shall consist of subjects, topics and subtopics developed by the training organisation and approved as part of the training course.

(e) Basic and/or rating training may be complemented with subjects, topics and subtopics that are additional or specific to the functional airspace block (FAB) or to the national environment.

AMC1 ATCO.D.010(a) Composition of initial training

GENERAL

[Please find the link to the concerned AMC [here](#_DxCrossRefBm1379192483)]

AMC2 ATCO.D.010(a) Composition of initial training

LIST OF ABBREVIATIONS

[Please find the link to the concerned AMC [here](#_DxCrossRefBm1379192485)]

AMC1 ATCO.D.010(a)(1) Composition of initial training

BASIC TRAINING —TRAINING OBJECTIVES

[Please find the link to the AMC [here](#_DxCrossRefBm1379192487)]

AMC1 ATCO.D.010(a)(2)(i) Composition of initial training

AERODROME CONTROL INSTRUMENT RATING FOR TOWER ADI (TWR) TRAINING — SUBJECT OBJECTIVES AND TRAINING OBJECTIVES

AERODROME CONTROL RATING FOR ADC TRAINING —TRAINING OBJECTIVES

[Please find the link to the AMC [here](#_DxCrossRefBm1379192489)]

AMC1 ATCO.D.010(a)(2)(ii) Composition of initial training

APPROACH CONTROL PROCEDURAL RATING (APP) TRAINING — SUBJECT OBJECTIVES AND TRAINING OBJECTIVES

**RESERVED**

AMC1 ATCO.D.010(a)(2)(iii) Composition of initial training

AREA CONTROL PROCEDURAL RATING (ACP) TRAINING — TRAINING OBJECTIVES

**RESERVED**

AMC1 ATCO.D.010(a)(2)(iv) Composition of initial training

APPROACH CONTROL SURVEILLANCE RATING (APS) TRAINING —TRAINING OBJECTIVES

[Please find the link to the AMC [here](#_DxCrossRefBm1379192497)]

AMC1 ATCO.D.010(a)(2)(v) Composition of initial training

AREA CONTROL SURVEILLANCE RATING (ACS) TRAINING — TRAINING OBJECTIVES

[Please find the link to the AMC [here](#_DxCrossRefBm1379192499)]

GM1 ATCO.D.010 Composition of initial training

GENERAL

(a) Initial training consists of basic training which is common to all applicants and rating training of which there are six different rating syllabi.

(b) Rating training may be commenced before the completion of the basic training.

(c) If an applicant already holds a student air traffic controller licence or an air traffic controller licence, and there is a requirement for training to achieve an additional rating (and, if relevant, rating endorsement), the applicant should not repeat the basic training objectives; however, there is a requirement to achieve the objectives contained within the relevant rating training plus any additional objectives specific to the local or national environment.

ATCO.D.015 Initial training plan

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

(a) the composition of the initial training course provided according to [ATCO.D.010](#_DxCrossRefBm1379192382);

(b) the structure of the initial training provided according to [ATCO.D.020(b)](#_DxCrossRefBm1379192506);

(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 [ATCO.D.010(b)](#_DxCrossRefBm1379192382), 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 [ATCO.D.025](#_DxCrossRefBm1379192505) and [ATCO.D.035](#_DxCrossRefBm1379192504), as well as performance objectives according to [ATCO.D.030](#_DxCrossRefBm1379192503) and [ATCO.D.040](#_DxCrossRefBm1379192502);

(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 Committee. The review of the initial training plan shall take place at least once every 3 years.

ATCO.D.020 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 Committee.

(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.

GM1 ATCO.D.020(d) Basic and rating training courses

CERTIFICATE OF COMPLETION OF INITIAL TRAINING

The certificate of completion may take any form and title and may cover multiple candidates.

ATCO.D.025 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 a candidate achieving a minimum of 75 % of the marks allocated to that examination.

(c) Assessment(s) of performance objectives as listed in [ATCO.D.030](#_DxCrossRefBm1379192503) shall be conducted on a part-task trainer or a simulator.

(d) A pass in assessment(s) shall be awarded to a candidate who consistently demonstrates the required performance as listed in point [ATCO.D.030](#_DxCrossRefBm1379192503) and shows the behaviour required for safe provision of the air traffic control service.

ATCO.D.030 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.

ATCO.D.035 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 75 % of the marks allocated to that examination.

(c) Assessment(s) shall be based on the rating training performance objectives described in [ATCO.D.040](#_DxCrossRefBm1379192502).

(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 point [ATCO.D.040](#_DxCrossRefBm1379192502) and shows the behaviour required for safe provision of the air traffic control service.

ATCO.D.040 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 Aerodrome Control (ADC) 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 Surveillance (APS) 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.

(e) In addition to point (b), rating training performance objectives for the Area Control Surveillance (ACS) 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.

AMC1 ATCO.D.040 Rating training performance objectives

GENERAL

Training organisations should define the detailed performance objectives for each rating training course, as well as the training scenario.

GM1 ATCO.D.040 Rating training performance objectives

GENERAL

A list of performance objectives tasks can be found in Eurocontrol’s document ‘ATCO Rating Training Performance Objectives’, Edition 1.0, dated 14.12.2010.

### SECTION 3 – Unit training requirements

ATCO.D.045 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 [ATCO.D.060](#_DxCrossRefBm1379192401) and approved by the Committee.

(c) Unit training shall include training in:

(1) operational procedures;

(2) task-specific aspects;

(3) abnormal and emergency situations; and

(4) human factors.

GM1 ATCO.D.045(a) Composition of unit training

If an applicant undertakes unit endorsement training, and there is a requirement for training to achieve an additional unit endorsement, the applicant should not repeat the training objectives covered in the first unit endorsement training; however, the objectives of the additional unit endorsement course(s) should be achieved.

AMC1 ATCO.D.045(c)(3) Composition of unit training

ABNORMAL AND EMERGENCY SITUATIONS

(a) Training for all identified abnormal and emergency situations should primarily take place on synthetic training devices.

(b) Training organisations should develop performance objectives for the abnormal and emergency situation training.

(c) Where a low safety risk for the ATC service provision has been identified and agreed by the COMMITTEE, training in abnormal and emergency situations may take place by means other than synthetic training devices.

(d) If the pre-on-the-job training phase is not provided, the abnormal and emergency situation training should be scenario-based and as realistic as possible while maintaining operational safety.

(e) Checklists for abnormal and emergency situations used in operations should be made available to the applicant and be available at all times during scenario training.

AMC1 ATCO.D.045(c)(4) Composition of unit training

HUMAN FACTORS

(a) Training organisations should train applicants during unit training in team resource management, fatigue management and stress management.

(b) Training organisations should develop performance objectives for the team resource management training.

(c) The team resource management training may also make use of synthetic training devices.

(d) Training organisations should develop training objectives for the fatigue management and stress management training.

AMC2 ATCO.D.045(c)(4) Composition of unit training

HUMAN FACTORS TRAINING

Human factors training should include, as a minimum, the following topics and related objectives:

(a) Basic needs of people at work

(1) List the basic needs of people at work.

(2) Characterise the factors for work satisfaction.

(b) Human performance

(1) Describe the impact of responsibility on an air traffic controller’s actions.

(2) Recognise the different responsibilities of an air traffic controller.

(c) Work environment

(1) Explain the reasons for automation.

(2) Describe the advantages and constraints of automation.

(d) Team resource management (TRM)

(1) Explain the relevance of TRM.

(2) Describe the content of the TRM concept.

(e) Stress and fatigue management

(1) Describe the fatigue and stress management policy(ies) in force (at the ATS unit).

(2) Explain the procedure(s) in force for air traffic controllers to report stress and fatigue (at the ATS unit).

(3) Consider the benefits of critical incident stress management (CISM).

(f) Human error

(1) Describe the impact an occurrence/incident may have on an air traffic controller.

(2) Explain the causes and dangers of violation of rules becoming accepted as common practice.

ATCO.D.050 Prerequisites of unit training

Provided that the requirements set out in points [ATCO.B.001](#_DxCrossRefBm1379192357)(d), [ATCO.B.005](#_DxCrossRefBm1379192387)(e) and [ATCO.B.010](#_DxCrossRefBm1379192389)(b) are met:

(a) unit training may only be started by persons who have successfully completed initial training relevant to the rating and, if applicable, rating endorsement;

(b) the on-the-job training phase of unit training may only be started by persons who are holders of a student air traffic controller licence or an air traffic controller licence with the appropriate rating and, if applicable, rating endorsement.

ATCO.D.055 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 Committee.

(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 [ATCO.D.060](#_DxCrossRefBm1379192401);

(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 [ATCO.D.065](#_DxCrossRefBm1379192523), including the number, frequency and type of, as well as pass marks for examinations, which shall be a minimum of 75 % of the marks allocated to these examinations;

(9) processes for the assessment according to [ATCO.D.070](#_DxCrossRefBm1379192522), 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 Committee. The review of the unit training plan shall take place at least once every 3 years.

GM1 ATCO.D.055 Unit training plan

GENERAL

Guidance for the development of unit training plans can be found in EUROCONTROL’s documents ‘Guidelines for the Development of Unit Training Plans’, Edition number 1.0, dated 31.08.2005 and ‘Annex to the Guidelines for the Development of Unit Training Plans: Examples of UTP’, Edition 2.0, dated 10.06.2010.

GM1 ATCO.D.055(a) Unit training plan

UNIT TRAINING PLAN FOR A REMOTE TOWER CENTRE

RESERVED.

GM1 ATCO.D.055(b)(5) Unit training plan

TRAINING METHODS

Training organisations should consider a variety of methods when conducting training leading to a unit endorsement. Although this list is not exhaustive, such methods could be:

* on-the-job;
* lecture;
* lesson/demonstration;
* case study;
* computer-based practical exercise;
* exercise;
* facilitation;
* group work;
* hands-on;
* interactive training;
* supervised practices;
* part-task practice;
* individual simulation;
* team simulation;
* group simulation;
* briefing/debriefing;
* structured briefing;
* structured debriefing;
* virtual classroom;
* role play;
* skill acquisition;
* self-study;
* self-test;
* resilience training.

AMC1 ATCO.D.055(b)(6) Unit training plan

DURATION OF UNIT ENDORSEMENT COURSES

(a) The on-the-job training instruction as part of the unit endorsement course should be at least of the duration specified in Annex 1 to the Chicago Convention, Sections 4.5.2.2.1(b) and (c) and 4.5.2.2.3.

(b) Notwithstanding point (a), the minimum duration of the on-the-job training instruction for the surveillance radar approach rating endorsement may be partly substituted by utilising a simulator, if approved by the COMMITTEE.

(c) The approach precision radar control rating in Annex 1 to the Chicago Convention, Section 4.5.2.2.1(b), should be read in the context of this Regulation as APS-PAR rating endorsement according to point [ATCO.B.015](#_DxCrossRefBm1379192390).

(d) The inclusion of surveillance radar approach duties in the privileges of the approach control surveillance rating in Annex 1 to the Chicago Convention, Section 4.5.2.2.1(c), should be read in the context of this Regulation as APS-SRA rating endorsement according to point [ATCO.B.015](#_DxCrossRefBm1379192390).

GM1 ATCO.D.055(b)(7) Unit training plan

ADAPTING THE UNIT ENDORSEMENT COURSE(S)

When an applicant already holds the same rating for another unit, the training organisation may determine whether the unit endorsement course can be reduced, and if so, to what extent.

AMC1 ATCO.D.055(b)(14) Unit training plan

DESIRABLE BEHAVIOURS FOR ABNORMAL AND EMERGENCY SITUATIONS

(a) Training organisations should establish desirable behaviours for the identified abnormal and emergency situations and associate them with established procedures.

(b) Desirable behaviours of the applicants in case of abnormal or emergency situations may be of technical or non-technical nature.

ATCO.D.060 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 [ATCO.D.005(a)(2)](#_DxCrossRefBm1379192470).

(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 [ATCO.D.045(c)](#_DxCrossRefBm1379192393) and shall be conducted in accordance with the unit training plan.

(d) Unit endorsement courses that include training for rating endorsement(s) according to [ATCO.B.015](#_DxCrossRefBm1379192390) shall be supplemented with additional training that allows for the acquisition of the concerned rating endorsement skills.

(e) Training intended for a rating endorsement shall consist of subjects, topics and subtopics developed by the training organisation and approved as part of the training course.

AMC1 ATCO.D.060(c) Unit endorsement course

UNIT ENDORSEMENT COURSE IN UNITS THAT PROVIDE GROUND MOVEMENT SURVEILLANCE CONTROL

The training for the provision of ground movement control with the support of aerodrome surface movement guidance systems should be included in the unit endorsement course.

AMC2 ATCO.D.060(c) Unit endorsement course

UNIT ENDORSEMENT COURSE IN UNITS THAT PROVIDE TERMINAL CONTROL

The training for the provision of air traffic control (ATC) services with the use of any surveillance equipment to aircraft that operate in a specified terminal area and/or adjacent sectors should be included in the unit endorsement course. For area control surveillance (ACS) rating holders, the training should include objectives of initial training for the approach control surveillance (APS) rating related to terminal control.

GM1 ATCO.D.060(c) Unit endorsement course

PERFORMANCE OBJECTIVES FOR AIR TRAFFIC CONTROLLERS PROVIDING SERVICES TO AIRCRAFT CARRYING OUT FLIGHT TESTS

The performance objectives for air traffic controllers providing air traffic control services to aircraft carrying out flight tests should ensure that applicants manage the workload and provide air traffic services and apply specific ATC procedures to aircraft carrying out flight tests within a defined aerodrome, approach control and/or area control area of responsibility.

GM2 ATCO.D.060(c) Unit endorsement course

ADDITIONAL TRAINING FOR AIR TRAFFIC CONTROLLERS PROVIDING SERVICES TO AIRCRAFT CARRYING OUT FLIGHT TESTS

In accordance with [ATCO.B.020(d)](#_DxCrossRefBm1379192344), the unit endorsement course for air traffic controllers providing air traffic control services to aircraft carrying out flight tests may include the following subjects, subject objectives, topics and subtopics:

Subject 1: INTRODUCTION TO THE COURSE

The subject objective is:

Learners shall know and understand the training programme that they will follow and learn how to obtain the appropriate information.

TOPIC INTRO 1 — COURSE MANAGEMENT

Subtopic INTRO 1.1 — Course introduction

Subtopic INTRO 1.2 — Course administration

Subtopic INTRO 1.3 — Study material and training documentation

TOPIC INTRO 2 — INTRODUCTION TO THE ATC TRAINING COURSE

Subtopic INTR 2.1 — Course content and organisation

Subtopic INTR 2.2 — Training ethos

Subtopic INTR 2.3 — Assessment process

**Subject 2: SCOPE OF FLIGHT TESTING**

The subject objective is:

Learners shall understand the purpose of flight testing and integrate airworthiness issues in the provision of ATS to flight tests.

TOPIC FT 1 — AIRWORTHINESS REQUIREMENTS

Subtopic FT 1.1 — Airworthiness codes

Subtopic FT 1.2 — Flight test guide for CS aircrafts

Subtopic FT 1.3 — Prototypes and concept aircrafts

TOPIC FT 2 TEST AND ACCEPTANCE TRAFFIC ASPECTS

Subtopic FT 2.1 — Performance flight testing methods

Subtopic FT 2.2 — Handling qualities testing methods

Subtopic FT 2.3 — Systems, CNS and on-board safety systems testing methods

**Subject 3: REGULATIONS AND EXEMPTIONS**

The subject objective is:

Learners shall know, understand and apply the rules of the air and ATM regulations, and the principles of exemptions regarding the needs of flight test, and also take into account licensing and competence principles.

TOPIC REG 1 — ATC LICENSING/CERTIFICATE OF COMPETENCE

Subtopic REG 1.1 — Privileges and conditions

TOPIC REG 2 — EXEMPTIONS REGARDING ATM REGULATIONS

Subtopic REG 2.1 — ICAO annexes and rules of the air

Subtopic REG 2.2 — ATM regulations regarding airspace

Subtopic REG 2.3 — Airworthiness

Subtopic REG 2.4 — Flight test exemptions

**Subject 4: AIRCRAFT ENVIRONMENT**

The subject objective is:

Learners shall know the theory of flight, aircraft subsystems and integrate aircraft performances, limitations and handling qualities in the provision of ATS to flight tests.

TOPIC ACFT 1 — AIRCRAFT FLIGHT DYNAMICS

Subtopic ACFT 1.1 — Aircraft control and movement

Subtopic ACFT 1.2 — Performance testing

Subtopic ACFT 1.3 — Handling qualities

Subtopic ACFT 1.4 — Aero-elastic/Flutter stability

Subtopic ACFT 1.5 — Flight envelope

Subtopic ACFT 1.6 — Helicopter specific dynamics

TOPIC ACFT 2 — AIRCRAFT ENGINES

Subtopic ACFT 2.1 — The piston engine

Subtopic ACFT 2.2 — The turboshaft engine

Subtopic ACFT 2.3 — Jet and turbofan

TOPIC ACFT 3 — AIRCRAFT SYSTEMS

Subtopic ACFT 3.1 — Flight control systems

Subtopic ACFT 3.2 — Safety systems

Subtopic ACFT 3.3 — Communication and navigation systems

**Subject 5: FLIGHT TESTING AIR TRAFFIC MANAGEMENT**

The subject objective is:

Learners shall manage air traffic in complete safety, with methods to ensure a satisfactory rate of success regarding flight testing.

TOPIC FTATM 1 — AIR TRAFFIC SERVICES AND AIRSPACE MANAGEMENT

Subtopic FTATM 1.1 — Air traffic control (ATC) service

Subtopic FTATM 1.2 — Flight information service (FIS)

Subtopic FTATM 1.3 — Alerting service

TOPIC FTATM 2 — EXEMPTIONS DUE TO TESTING DEMONSTRATIONS

Subtopic FTATM 2.1 — Demonstration of compliance with airworthiness regulations

Subtopic FTATM 2.2 — Flight test for evaluation of an aircraft

Subtopic FTATM 2.3 — Flight test for evaluation of an aircraft subsystem

TOPIC FTATM 3 — FLIGHT TEST METHODS IN AERODROME CONTROL AREA

Subtopic FTATM 3.1 — Velocity of minimum control on ground

Subtopic FTATM 3.2 — Velocity of minimum unstick

Subtopic FTATM 3.3 — Lapse rate take-off

Subtopic FTATM 3.4 — Rejected take-off

Subtopic FTATM 3.5 — Tower fly-by method

Subtopic FTATM 3.6 — Hover manoeuvre methods

Subtopic FTATM 3.7 — Landing performances testing methods

Subtopic FTATM 3.8 — Other flight testing manoeuvres

TOPIC FTATM 4 — FLIGHT TEST METHODS IN APPROACH CONTROL AREA AND IN AREA CONTROL

Subtopic FTATM 4.1 — Velocity of minimum control in the air/Stalls

Subtopic FTATM 4.2 — Tuning of flight controls protections

Subtopic FTATM 4.3 — Autopilot tuning

Subtopic FTATM 4.4 — Wind milling/RAM air turbine/Engine relights

Subtopic FTATM 4.5 — Trailing pitot static method

Subtopic FTATM 4.6 — Lateral and longitudinal stability flights

Subtopic FTATM 4.7 — Flight in specific meteorological conditions

Subtopic FTATM 4.8 — Supersonic flights

Subtopic FTATM 4.9 — Other flight testing various manoeuvres

**Subject 6: HUMAN FACTORS**

The subject objective is:

Learners shall recognise the necessity to constantly consider the specific human factors influence on tests activity management.

TOPIC HUM 1 — CUSTOMERS RELATIONS AND ORGANISATION

Subtopic HUM 1.1 — Stress

Subtopic HUM 1.2 — Responsible behaviour

Subtopic HUM 1.3 — Violation of rules

TOPIC HUM 2 — FLIGHT TEST WORKING METHODS

Subtopic HUM 2.1 — Collaborative work within the same area of responsibility

Subtopic HUM 2.2 — Collaborative work between different areas of responsibility

Subtopic HUM 2.3 — FT-ATCO/CREW cooperation

Subtopic HUM 2.4 — Communication

TOPIC HUM 3 — FLIGHT TEST SAFETY CONSOLIDATION

Subtopic HUM 3.1 — Safety risk assessment

Subtopic HUM 3.2 — Experience feedback

Subtopic HUM 3.3 — Unusual/Degraded/Emergency situations

Subtopic HUM 3.4 — Safety Investigation Branch

**Subject 7: METEOROLOGY**

The subject objective is:

Learners shall acquire, decode and make proper use of meteorological information relevant to the airworthiness issues and the safe provision of ATS to flight tests.

TOPIC MTO 1 — METEOROLOGICAL AND AIRWORTHINESS CONCERNS

Subtopic MTO 1.1 — Airworthiness meteorological requirements

Subtopic MTO 1.2 — Demonstrator flights carrying specific test equipment

Subtopic MTO 1.3 — Phases with specific weather conditions (icing, wind, volcano, etc.)

GM3 ATCO.D.060(c) Unit endorsement course

TRAINING FOR AIR TRAFFIC CONTROLLERS PROVIDING REMOTE AERODROME AIR TRAFFIC SERVICES

RESERVED.

GM4 ATCO.D.060(c) Unit endorsement course

MULTIPLE MODE OF OPERATION

RESERVED

GM1 ATCO.D.060(d);(e) Unit endorsement course

TRAINING FOR RATING ENDORSEMENTS

Training for rating endorsement(s) as part of the unit endorsement course may be delegated to training organisations certified for initial training.

ATCO.D.065 Demonstration of theoretical knowledge and understanding

Theoretical knowledge and understanding shall be demonstrated by examinations.

GM1 ATCO.D.065 Demonstration of theoretical knowledge and understanding

METHODS OF EXAMINATION

(a) Oral examinations and/or written/computer-based examinations should be used to demonstrate the controller’s knowledge and understanding.

(1) Oral examinations

The oral examination is used to test the understanding of applicable techniques and the rules governing them, particularly of unit and national air traffic control procedures. Scenario-type questioning allows examiners to gather additional evidence of how an applicant would react in circumstances that are not observable, but are nevertheless considered important to the overall operation at that ATC unit.

Oral examinations will give a clear indication that the persons undertaking training know not only what they should be doing, but why they should be doing it. The oral examination requires considerable skills and it should be undertaken in a way to ensure consistency among individual examiners.

(2) Written examinations

The written examination is used to test theoretical knowledge and to a lesser degree the understanding of applicable techniques and the rules governing them, particularly of unit and national air traffic control procedures. It is easier to administer and to ensure the consistency of written examinations particularly when using multiple-choice questioning. Although multiple-choice questioning can test knowledge, it is not appropriate for determining what a controller would do in a particular operational situation.

Written examinations can also be computer-based.

(b) The most comprehensive method of testing the understanding of the person undertaking training, contrary to their possession of pure knowledge, would be a combination of written examinations that assess the knowledge of unit and national procedures, together with a separate oral examination which tests the understanding and reactions to operational situations.

ATCO.D.070 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.

GM1 ATCO.D.070 Assessments during unit endorsement courses

(a) DEDICATED ASSESSMENTS

(1) A dedicated assessment should be carried out for the issue or renewal of a unit endorsement.

(2) A dedicated assessment may consist of a single assessment or a series of assessments, as detailed in the unit training plan.

(3) To conduct a dedicated assessment, the assessor(s) should sit with the applicant with the purpose of observing the quality and assessing the standard of work being carried out and, if also acting as OJTI at the same time, to maintain a safe, orderly and expeditious flow of air traffic.

(4) The applicant concerned should be briefed on the conduct of the assessment.

(5) For those situations where an applicant’s performance cannot be observed at the time of the assessment (e.g. low visibility operations, snow clearing, military activity, etc.), the assessment may be supplemented by synthetic training device sessions and oral examination.

(6) Dedicated assessments may also be conducted at any stage of training as detailed in the unit training plan, where a more definitive measure of the progress is required, for example after 50 hours of practical training.

(b) CONTINUOUS ASSESSMENT

(1) Continuous assessment may be performed by the assessor observing the standard of the air traffic control service provided by those whose competence he/she will certify as he/she works with them during unit training or normal operational duties.

(2) In cases where the assessors have not had sufficient contact with the applicant to adequately assess his/her performance, they will not certify the applicant’s competence until they have conducted a dedicated practical assessment. The applicant concerned must be advised that a dedicated practical assessment is to be conducted.

(c) ORAL EXAMINATION

(1) The oral examination is used to test the understanding of applicable techniques and the rules governing them, particularly of unit and national air traffic control procedures. Scenario-type questioning allows the examiners to gather additional evidence of how an applicant would react in circumstances that are not observable, but are nevertheless considered important to the overall operation at that ATC unit.

(2) The oral examination will give a clear indication that the applicant knows not only what he/she should be doing, but why he/she should be doing it. It requires considerable skills and it should be undertaken in a way to ensure consistency among individual examiners.

### SECTION 4 – Continuation training requirements

ATCO.D.075 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 [ATCO.B.025](#_DxCrossRefBm1379192374).

ATCO.D.080 Refresher training

(a) Refresher training course(s) shall be developed and provided by training organisations and approved by the Committee.

(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.

AMC1 ATCO.D.080 Refresher training

EXAMINATIONS AND ASSESSMENTS

Refresher topics should be examined or assessed using the processes described in the unit competence scheme.

GM1 ATCO.D.080 Refresher training

REFRESHER TRAINING SUBJECTS

Topics for refresher training subjects may include rarely used procedures and practices, such as seasonally dependent procedures, trends and observations from occurrence reports and results of normal operations safety surveys.

GM2 ATCO.D.080 Refresher training

REFRESHER TRAINING STRUCTURE

Refresher training may be developed and structured in accordance with the established duration of the unit endorsement it refreshes. This may mean structuring the refresher training in modular fashion. For instance, training in standard practices and procedures, abnormal and emergency situations and human factors may be given separately or integrated into any other modules.

GM3 ATCO.D.080 Refresher training

GENERAL

Guidance for the development of refresher training courses can be found in EUROCONTROL’s document ‘ATC Refresher Training Manual’, Edition 1.0., dated 06.03.2015.

GM1 ATCO.D.080(b) Refresher training

REFRESHER TRAINING FOR AIR TRAFFIC CONTROLLERS PROVIDING REMOTE AERODROME AIR TRAFFIC SERVICES

RESERVED

AMC1 ATCO.D.080(b)(1);(2) Refresher training

PHRASEOLOGY TRAINING

Training organisations should develop objectives for phraseology.

AMC2 ATCO.D.080(b)(2) Refresher training

ABNORMAL SITUATION AND EMERGENCY TRAINING

Abnormal situation and emergency training should be designed to expose air traffic controllers to circumstances and situations which they do not habitually or commonly experience.

The essential difference from an emergency situation is that the element of danger or serious risk is not necessarily present in an abnormal situation.

GM1 ATCO.D.080(b)(1);(2) Refresher training

EFFECTIVE COMMUNICATION

Communication misunderstanding is present in many air traffic occurrences and the consistent use of approved phraseology is designed to mitigate such occurrences.

For the purpose of refresher training, emphasis is, therefore, put on effective communication, including the use of approved phraseology, both for the use of standard practices and procedures and for abnormal and emergency situations training.

Effective communication should make use of a variety of communication modes, including the use of appropriate phraseology and radio communication.

Phraseology and radio communication training is part of the linguistic training according to ICAO; radio communication phraseology samples offer learning opportunities and foster harmonisation.

AMC1 ATCO.D.080(b)(3) Refresher training

HUMAN FACTORS

(a) Training organisations should train air traffic controllers at least in team resource management, fatigue management and stress management.

(b) The team resource management training may also make use of STD and/or occurrence case studies.

GM1 ATCO.D.080(b)(3) Refresher training

TRAINING IN TEAM RESOURCE MANAGEMENT (TRM)

Guidance on team resource management can be found in the Network Manager document ‘[Team Resource Management — Guidelines for the Implementation and Enhancement of TRM](https://skybrary.aero/bookshelf/team-resource-management-guidelines-implementation-and-enhancement-trm)’, edition 1.0 of 26 April 2021, and associated [Annex A to TRM Guidance Material - TRM Modules | SKYbrary Aviation Safety](https://skybrary.aero/bookshelf/annex-trm-guidance-material-trm-modules) and [Annex B to TRM Guidance Material - Facilitator Competence and Training | SKYbrary Aviation Safety](https://skybrary.aero/bookshelf/annex-b-trm-guidance-material-facilitator-competence-and-training)).

ATCO.D.085 Conversion training

(a) Conversion training course(s) shall be developed and provided by training organisations and approved by the Committee.

(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 examination and/or 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.

GM1 ATCO.D.085 Conversion training

CONVERSION TRAINING FOR AIR TRAFFIC CONTROLLERS PROVIDING REMOTE AERODROME AIR TRAFFIC SERVICES

RESERVED

### SECTION 5 – Training of instructors and assessors

ATCO.D.090 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 Committee.

AMC1 ATCO.D.090(a)(1) Training of practical instructors

SYNTHETIC TRAINING DEVICES USED FOR OJTI TRAINING

For the training of on-the-job training instructors, a part-task trainer or a simulator should be used.

If the synthetic training environment does not correspond to the rating of the intended instructional environment, the applicant should practise the instructional skills in those procedures in which it is intended to provide instruction for at least one day before being assessed.

AMC2 ATCO.D.090(a)(1) Training of practical instructors

ASSESSMENT OF INSTRUCTIONAL TECHNIQUES FOR PRACTICAL INSTRUCTORS

A successful assessment of instructional techniques for practical instructors should establish competence at least in the following areas:

(a) regulatory impact on air traffic controller training;

(b) human factors impact on air traffic controller training;

(c) determination of the background and experience of the person undertaking training;

(d) determination of the current level of ability of the person undertaking training;

(e) conduct of a pre-session briefing;

(f) planning and conduct of the training session;

(g) demonstration and explanation of the tasks;

(h) monitoring of the training session;

(i) management of interventions correctly, including error correction;

(j) evaluation of the performance of the person undertaking training;

(k) debrief of the person undertaking training;

(l) furnishing of written reports on the performance of the person undertaking training;

(m) taking appropriate follow-up action towards resolving training problems;

(n) techniques of pausing clocks; and

(o) knowledge of technical facilities/environment.

AMC1 ATCO.D.090(a)(2) Training of practical instructors

REFRESHER TRAINING IN PRACTICAL INSTRUCTIONAL SKILLS

Refresher training in practical instructional skills should prevent knowledge and skills erosion, and, for the training of STDIs, it should be designed to maintain awareness of the current operational practices.

AMC1 ATCO.D.090(a)(3) Training of practical instructors

PRACTICAL INSTRUCTOR COMPETENCE ASSESSMENT

The practical instructor competence assessment for an OJTI may be undertaken either in live operations or on a synthetic training device.

The practical instructor competence assessment for an STDI should be undertaken on a synthetic training device.

GM1 ATCO.D.090 Training of practical instructors

PRACTICAL INSTRUCTIONAL TECHNIQUES COURSE FOR OJTIS

Further information regarding the practical instructional techniques course for OJTIs can be found in EUROCONTROL’s document ‘Guidelines for ATCO Development Training — OJTI Course Syllabus’, Edition 2.0, dated 27.08.2009.

ATCO.D.095 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 Committee.

AMC1 ATCO.D.095(a)(1) Training of assessors

ASSESSOR TRAINING COURSE

A successful assessment for the purpose of the assessor training course should establish competence at least in the following areas of assessment knowledge and techniques:

(a) regulatory environment and legal obligations;

(b) types of assessment and their application;

(c) performance objectives constituting air traffic controller competence;

(d) conditions of assessments to create reliable results;

(e) processing of assessments and administrative procedures;

(f) giving verbal feedback and writing assessment reports;

(g) vested interests and code of conduct;

(h) accurately assessing competence against the performance objectives;

(i) developing a good questioning technique and designing questions appropriate to the assessment.

AMC2 ATCO.D.095(a)(1) Training of assessors

ASSESSMENT OF ASSESSOR COMPETENCE

The assessment of assessor competence should focus on the application of the skills of an assessor. The skills should represent at least a subset of the competences taught during the assessor training course.

AMC1 ATCO.D.095(a)(2) Training of assessors

REFRESHER TRAINING IN ASSESSMENT SKILLS

Refresher training in assessment skills should prevent knowledge and skills erosion and it should be designed to maintain skills in assessment techniques and awareness of the regulatory environment.

GM1 ATCO.D.095(a)(3) Training of assessors

ASSESSMENT OF ASSESSOR COMPETENCE

The level of harmonisation on competence assessment is low as a result of the variety of methods. Any assessment of assessor competence should be realistic and it could take place during live traffic situations or during training.

APPENDIX 1 OF ANNEX I

LANGUAGE PROFICIENCY RATING SCALE – REQUIREMENTS FOR PROFICIENCY IN LANGUAGES

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Language proficiency rating scale: expert, extended and operational 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 understanding. | Both basic and complex grammatical structures and sentence patterns are consistently well controlled. | Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register. | Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to 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. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 |
| 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 with ease of understanding. | 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 TO ANNEX I

**BASIC TRAINING**

(Reference: Annex I (Part ATCO), Subpart D, Section 2, point [ATCO.D.010](#_DxCrossRefBm1379192382)(a)(1))

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**AERODROME CONTROL RATING (ADC)**

(Reference: Annex I (PART ATCO), Subpart D, Section 2, point [ATCO.D.010](#_DxCrossRefBm1379192382)(a)(2)(i))

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(Reference: Annex I (PART ATCO), Subpart D, Section 2, point [ATCO.D.010](#_DxCrossRefBm1379192382)(a)(2)(iv))

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(Reference: Annex I (PART ATCO), Subpart D, Section 2, point [ATCO.D.010](#_DxCrossRefBm1379192382)(a)(2)(v))

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TOPIC INTR 2 - INTRODUCTION TO THE ATC TRAINING COURSE

Subtopic INTR 2.1 - Course content and organisation

Subtopic INTR 2.2 - Training ethos

Subtopic INTR 2.3 - Assessment process

**SUBJECT 2: AVIATION LAW**

TOPIC LAW 1 - ATCO LICENSING/CERTIFICATE OF COMPETENCE

Subtopic LAW 1.1 - Privileges and conditions

TOPIC LAW 2 - RULES AND REGULATIONS

Subtopic LAW 2.1 - Reports

Subtopic LAW 2.2 - Airspace

TOPIC LAW 3 - ATS SAFETY MANAGEMENT

Subtopic LAW 3.1 - Feedback process

Subtopic LAW 3.2 - Safety investigation

**SUBJECT 3: AIR TRAFFIC MANAGEMENT**

TOPIC ATM 1 - PROVISION OF SERVICES

Subtopic ATM 1.1 - Air traffic control (ATC) service

Subtopic ATM 1.2 - Flight information service (FIS)

Subtopic ATM 1.3 - Alerting service (ALRS)

Subtopic ATM 1.4 - ATS system capacity and air traffic flow management

Subtopic ATM 1.5 - Airspace management (ASM)

TOPIC ATM 2 - COMMUNICATION

Subtopic ATM 2.1 - Effective communication

TOPIC ATM 3 - ATC CLEARANCES AND ATC INSTRUCTIONS

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 - Wake turbulence distance-based separation

Subtopic ATM 6.4 - Separation based on ATS surveillance systems

TOPIC ATM 7 - AIRBORNE AND GROUND-BASED SAFETY NETS

Subtopic ATM 7.1 - Airborne safety nets

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 - Holding 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

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 – INFORMATION PROCESSING

Subtopic HUM 1.1 – Cognition and factors influencing it

Subtopic HUM 1.2 – Situational awareness

Subtopic HUM 1.3 – Decision-making

TOPIC HUM 2 - FACTORS AFFECTING HEALTH AND WELL-BEING

Subtopic HUM 2.1 - Fatigue

Subtopic HUM 2.2 – Stress

TOPIC HUM 3 – THREAT AND ERROR MANAGEMENT

Subtopic HUM 3.1 – Threat and error management framework

Subtopic HUM 3.2 – Applied threat and error management

TOPIC HUM 4 – TEAMWORK

Subtopic HUM 4.1 – Benefits of teamwork

Subtopic HUM 4.2 – Conflict management

TOPIC HUM 5 – SYSTEM

Subtopic HUM 5.1 – Concept of systems in ATM/ANS

TOPIC HUM 6 – COMMUNICATION

Subtopic HUM 6.1 – Effective communication

Subtopic HUM 6.2 – Effective feedback

**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 an 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

Subtopic ABES 3.7 – Interception of civil aircraft

# ANNEX II – PART ATCO.AR – REQUIREMENTS FOR CIVIL AVIATION COMMITTEE

## SUBPART A – GENERAL REQUIREMENTS

ATCO.AR.A.001 Scope

This Part, set out in this Annex, establishes the administrative requirements applicable to the Committee with responsibility for the issue, maintenance, suspension or revocation of licences, ratings, endorsements and medical certificates for air traffic controllers and certification and oversight of training organisations and aero-medical centres.

ATCO.AR.A.005 Personnel

(a) Committee shall produce and update every 1 year an assessment of the human resources needed to perform their oversight functions, based on the analysis of the processes required by this Regulation.

(b) Personnel authorised by the Committee to carry out certification or oversight tasks, or both, 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.

ATCO.AR.A.010 Tasks of the Committee

The tasks of the Committee:

(a) the issue, suspension and revocation of licences, ratings, endorsements and of medical certificates;

(b) the issue of temporary OJTI authorisations according to point [ATCO.C.025](#_DxCrossRefBm1379192448);

(c) the issue of temporary assessor authorisations according to point [ATCO.C.065](#_DxCrossRefBm1379192465);

(d) the revalidation and renewal of endorsements;

(e) the revalidation, renewal and limitation of medical certificates following referral by the aero-medical examiner (AME) or aero-medical centre (AeMC);

(f) the issue, revalidation, renewal, suspension, revocation, limitation and change of aero-medical examiner certificates;

(g) the issue, suspension, revocation and limitation of training organisation certificates and of the certificates of aero-medical centres;

(h) the approval of training courses, training plans and unit competence schemes, as well as assessment methods;

(i) the approval of the assessment method for the demonstration of language proficiency and the establishment of requirements applicable to language assessment bodies according to point [ATCO.B.040](#_DxCrossRefBm1379192425);

(j) the approval of the need for the extended level (level five) language proficiency in accordance with point [ATCO.B.030](#_DxCrossRefBm1379192365)(d);

(k) the oversight of training organisations, including their training courses and plans;

(l) the approval and oversight of the unit competence schemes;

(m) the establishment of appropriate appeal procedures and notification mechanisms;

(n) facilitating the recognition of training organisation certificates and course approvals, as well as the approval of the assessment method for the demonstration of language proficiency․

ATCO.AR.A.015 Means of compliance

(a) The Committee shall develop and implement Acceptable Means of Compliance (AMC) that may be used to establish compliance with the Law on Aviation of the Republic of Armenia and delegated and implementing acts adopted on the basis thereof..

(b) Alternative means of compliance may be used to establish compliance with the delegated and implementing acts.

AMC1 ATCO.AR.A.015(d)(3) Means of compliance

GENERAL

The information to be provided to MTAI following approval of an alternative means of compliance should contain a reference to the Acceptable Means of Compliance (AMC) to which such means of compliance provides an alternative, as well as a reference to the corresponding Implementing Rule of Low on Aviation indicating as applicable the subparagraph(s) covered by the alternative means of compliance.

GM1 ATCO.AR.A.015(b) Means of compliance

ALTERNATIVE MEANS OF COMPLIANCE — GENERAL

(a) A Committee may establish means to comply with this Regulation which are different from the acceptable means of compliance (AMC) established by ICAO.

(b) In that case, the Committee is responsible for demonstrating how those alternative means of compliance (AltMoC) assist it to establish compliance with this Regulation

(c) AltMoC that are used by a Committee, or by an organisation under its oversight, may be used by other organisations, only if they are processed by those authorities in accordance with point [ATCO.AR.A.015](#_DxCrossRefBm1379192579), and by those organisations in accordance with point [ATCO.OR.B.005](#_DxCrossRefBm1379192580).

(d) AltMoC that are issued by the Committee may cover the following cases:

(1) AltMoC to be used by organisations under the oversight of the Committee, and which are made available to those organisations; and

(2) AltMoC to be used by the Committee itself to discharge its responsibilities.

AMC1 ATCO.AR.A.015(b);(c) Means of compliance

PROCESSING OF ALTERNATIVE MEANS OF COMPLIANCE (AltMoC)

To meet the objectives of points (b) and (c) of point [ATCO.AR.A.015](#_DxCrossRefBm1379192579):

(a) the Committee should establish the means to consistently evaluate over time that all the AltMoC that are used by itself or by organisations under its oversight allow for the establishment of compliance with this Regulation;

(b) if the Committee issues AltMoC for itself or for the organisations under its oversight, it should:

(1) make them available to all relevant organisations; and

(2) notify MTAI of the AltMoC as soon as it is / they are issued, including the information that is described in point (d);

(c) the Committee should evaluate the AltMoC that is/are proposed by an organisation by analysing the documentation provided and, if considered necessary, by inspecting the organisation; when the Committee finds that the AltMoC is/are in accordance with this Regulation, it should:

(1) notify the applicant that the AltMoC is/are approved;

(2) indicate that this/those AltMoC may be implemented, and agree when the organisation documents are to be amended accordingly; and

(d) All these elements that describe the AltMoC are an integral part of the records to be kept, which are managed in accordance with point [ATCO.AR.A.015](#_DxCrossRefBm1379192579).

GM1 ATCO.AR.A.015(b);(c) Means of compliance

CASES FOR WHICH THERE IS NO CORRESPONDING INTERNATIONAL AVIATION REGULATORY ORGANIZATIONS AMC

When there is no international aviation regulatory organizations AMC to a certain requirement in this Regulation, the Committee may choose to develop national guides or other types of documents to assist the organisations under its oversight to demonstrate compliance.

ATCO.AR.A.020 Information to the Ministy of Territorial

Administation and Infrastructure

(a) The Committee shall notify the MTAI in case of any significant problems with the implementation of Low on Aviation and its delegated and implementing acts within 30 days from the time the competent authority has become aware of the problems.

(b) Without prejudice to the "Regulation on Reporting, Analysis and Follow-up of Occurrences in Civil Aviation" in force in the Republic of Armenia and its delegated and implementing acts, the Committee shall provide MTAI with safety-significant information stemming from occurrence reports as soon as possible.

AMC1 ATCO.AR.A.020(b) Information to the MTAI

PROVISION OF SAFETY-SIGNIFICANT INFORMATION TO THE MTAI

The Committee should appoint a coordinator to act as the point of contact for the provision of safety-significant information to the MTAI.

GM1 ATCO.AR.A.020(b) Information to the MTAI

MEANING OF SAFETY-SIGNIFICANT INFORMATION STEMMING FROM OCCURRENCE REPORTS

Safety-significant information stemming from occurrence reports means a conclusive safety analysis that summarises individual occurrence data and provides an in-depth analysis of a safety issue, which may be relevant for the MTAI’s safety action planning.

GM2 ATCO.AR.A.020(b) Information to the MTAI

SAFETY-SIGNIFICANT INFORMATION STEMMING FROM OCCURRENCE REPORTS

The conclusive safety analysis based on occurrence reports should contain the following:

(a) a detailed description of the safety issue, including the scenario in which the safety issue takes place; and

(b) an indication of the stakeholders affected by the safety issue, including types of operations and organisations;

and, as appropriate:

(c) a risk assessment establishing the severity and probability of all the possible consequences of the safety issue;

(d) information about the existing safety barriers that the aviation system has in place to prevent the likely safety-issue-related consequences from occurring;

(e) any mitigating actions already in place or developed to address the safety issue;

(f) recommendations for future actions to control the risk; and

(g) any other element(s) the Committee considers essential for the MTAI to properly assess the safety issue.

ATCO.AR.A.025 Immediate reaction to a safety problem

(a) Without prejudice to the "Regulation on Reporting, Analysis and Follow-up of Occurrences in Civil Aviation" in force in the Republic of Armenia and its delegated and implementing acts, the Committee shall implement a system for effectively collecting, analyzing and disseminating safety information.

(b) MTAI shall implement a system to appropriately analyze the safety information received and provide without undue delay to relevant authorities any information, including recommendations or corrective actions to be taken, necessary for them to react in a timely manner to a safety problem involving products, parts, appliances, persons or organisations.

(c) Upon receiving the information referred to in points (a) and (b), the Committee shall take appropriate measures to address the safety issue.

(d) The measures taken in accordance with point (c) shall be immediately notified to all persons or organisations that need to comply with them․

ATCO.AR.A.025A Immediate reaction to an information security incident or vulnerability with an impact on aviation safety

(a) The Committee shall implement a system to appropriately collect, analyse, and disseminate information related to information security incidents and vulnerabilities with a potential impact on aviation safety that are reported by organisations. This shall be done in coordination with any other relevant authorities responsible for information security or cybersecurity within the other States to increase the coordination and compatibility of reporting schemes.

(b) The MTAI shall implement a system to appropriately analyse any relevant safety-significant information received in accordance with point [ATCO.AR.A.020](#_DxCrossRefBm1379192586), and without undue delay provide the Committee, including recommendations or corrective actions to be taken, necessary for them to react in a timely manner to an information security incident or vulnerability with a potential impact on aviation safety involving products, parts, non-installed equipment, persons or organisations subject to Low on Aviation and its delegated and implementing acts.

(c) Upon receiving the information referred to in points (a) and (b), the Committee shall take adequate measures to address the potential impact on aviation safety of the information security incident or vulnerability.

(d) Measures taken in accordance with point (c) shall immediately be notified to all persons or organisations that shall comply with them under Low on Aviation.

AMC1 ATCO.AR.A.025A Immediate reaction to an information security incident or vulnerability with an impact on aviation safety

(a) To appropriately collect and analyse information related to information security incidents and vulnerabilities with a potential impact on aviation safety, the Committee should implement means that ensure the necessary confidentiality.

(b) When disseminating information related to information security incidents and vulnerabilities with a potential impact on aviation safety, the Committee should properly select the appropriate recipient(s) to prevent the content of a report from being exploited to the detriment of aviation safety, by revealing, for instance, uncorrected vulnerabilities.

GM1 ATCO.AR.A.025A Immediate reaction to an information security incident or vulnerability with an impact on aviation safety

When deemed necessary, a two-step mechanism could be used: a report alerting about the information security event or incident and the availability of additional data that would require controlled and confidential distribution. This report should only alert recipients of the urgency and the necessity for organisations and Committee to establish further communication through secure means.

Therefore, the report should consist of two parts: one limited to mostly public information and one containing the sensitive data that should be restricted to the recipients who need to know. Wherever possible, reports should be based on an agreed taxonomy.

## SUBPART B – MANAGEMENT

ATCO.AR.B.001 Management system

(a) The Committee shall establish and maintain a management system, including as a minimum:

(1) documented policies and procedures to describe its organisation, means and methods to achieve compliance with Law on Aviation of the Republic of Armenia and its delegated and implementing acts. The procedures shall be kept up to date and serve as the basic working documents within that Committee for all related tasks;

(2) a sufficient number of licensing and certification inspectors, to perform its tasks and discharge its responsibilities. Such personnel shall be qualified to perform their allocated tasks and have the necessary knowledge, experience, initial, on-the-job and recurrent training to ensure continuing competence. A system shall be in place to plan the availability of personnel in order to ensure the proper completion of all related tasks;

(3) adequate facilities and office accommodation to perform the allocated tasks;

(4) a function to monitor compliance of the management system with the relevant requirements and adequacy of the procedures, including the establishment of an internal audit process and a safety risk management process. Compliance monitoring shall include a feedback system of audit findings to the senior management of the Committee to ensure implementation of corrective actions as necessary; and

(5) a person or group of persons ultimately responsible to the senior management of the Committee for the compliance monitoring function.

(b) The Committee shall, for each field of activity included in the management system, appoint one or more persons with the overall responsibility for the management of the relevant task(s).

AMC1 ATCO.AR.B.001(a)(2) Management system

TRAINING PROGRAMME AND RECURRENT TRAINING

(a) The Committee should establish a training programme for its personnel and a plan for its implementation. The training programme should include, as appropriate to the role, current knowledge, experience and skills of the personnel, at least the following:

(1) organisation and structure of the aviation legislation;

(2) the Chicago Convention, its relevant annexes and documents, the applicable requirements of Law on Aviation of the Republic of Armenia, its delegated and implementing acts and related Acceptable Means of Compliance, Certification Specifications and Guidance Material, as well as an assessment methodology of the alternative means of compliance and the applicable national legislation;

(3) the applicable requirements and procedures; and

(4) areas of particular interest.

(b) The training programme and plan should be updated, as needed, to reflect, at least, changes in aviation legislation and industry. The training programme should also cover the specific needs of the personnel and the Committee.

(c) The Committee should ensure that its personnel, including its ATM/ANS inspectors, receive recurrent training at regular intervals as defined by the Committee or whenever deemed necessary, in order to be kept up to date.

AMC1 ATCO.AR.B.001(d) Management system

PROCEDURES AVAILABLE TO THE MTAI

(a) Copies of the procedures related to the Committee management system and their amendments to be made available to the MTAI for the purpose of standardisation should provide at least the following information:

(1) Regarding oversight functions undertaken by the Committee, the Committee’s organisational structure with description of the main processes. This information should demonstrate the allocation of responsibilities within the Committee, and that the Committee is capable of carrying out the full range of tasks regarding the size and complexity of the aviation industry. It should also consider the overall proficiency and authorisation scope of the Committee’s personnel.

(2) For personnel involved in oversight activities, the minimum professional qualification requirements as well as experience and procedures leading to appointment (e.g. assessment).

(3) How the following are carried out: assessing applications and evaluating compliance, issuing of certificates, performance of oversight, follow-up of findings, enforcement measures and resolution of safety concerns.

(4) Principles of managing exemptions and derogations.

(5) Systems used to disseminate applicable safety information for timely reaction to a safety problem.

(6) Criteria for planning oversight (oversight programme).

(7) Outline of the initial training of newly recruited oversight personnel (taking future activities into account), and the basic framework for continuation training of oversight personnel.

(b) As part of the continuous monitoring of a Committee, the MTAI may request details of the working methods used, in addition to the copy of the procedures of the Committee’s management system (and amendments thereto). These additional details are the procedures and related guidance material describing working methods for Committee personnel conducting oversight.

(c) Information related to the Committee’s management system may be submitted in electronic format.

ATCO.AR.B.005 Allocation of tasks

RESERVED

GM1 ATCO.AR.B.005 Allocation of tasks

RESERVED

ATCO.AR.B.010 Changes to the management system

(a) The Committee shall have a system in place to identify changes that affect its capability to perform its tasks and discharge its responsibilities as defined in Law on Aviation of the Republic of Armenia and its delegated and implementing acts. It shall enable it to take action, as appropriate, to ensure that the management system remains adequate and effective.

(b) The Committee shall update its management system to reflect any change to Law on Aviation of the Republic of Armenia and its delegated and implementing acts in a timely manner, so as to ensure effective implementation of its management system.

(c) The Committee shall notify the MTAI of changes affecting its capability to perform its tasks and discharge its responsibilities as defined in Law on Aviation of the Republic of Armenia and its delegated and implementing acts.

ATCO.AR.B.015 Record keeping

(a) Committee shall maintain a list of all organisation certificates and personnel licences and certificates they issue.

(b) The Committee shall establish a system of record-keeping providing for adequate storage, accessibility and reliable traceability of:

(1) the management system’s documented policies and procedures;

(2) training, qualification and authorisation of its personnel;

(3) certification processes and continuing oversight of certified organisations;

(4) details of courses provided by training organisations;

(5) processes for the issue of licences, ratings, endorsements and certificates, and for the continuing oversight of the holders of those licences, ratings, endorsements and certificates;

(6) continuous oversight of persons and organizations certified by the Committee operating in the territory of other states in accordance with the procedure agreed between those authorities;

(7) findings, corrective actions and date of action closure;

(8) enforcement measures taken;

(9) safety information and follow-up measures;

(10) the use of flexibility provisions in accordance with Low on Aviation; and

(11) the evaluation and notification to the MTAI of alternative means of compliance proposed by organisations and the assessment of alternative means of compliance used by the Committee itself.

(c) Records shall be kept for a minimum period of 5 years and with regard to personnel licences for a minimum period of 10 years after the expiry of the last endorsement on the licence, subject to applicable data protection law.

GM1 ATCO.AR.B.015 Record keeping

STORAGE

Records may be stored electronically.

GM1 ATCO.AR.B.015(b)(5) Record keeping

DETAILS OF COURSES

Details of courses provided by training organisations may consist of subjects, subject objectives, topics and subtopics, where applicable.

## SUBPART C – OVERSIGHT AND ENFORCEMENT

ATCO.AR.C.001 Oversight

(a) The Committee shall verify:

(1) compliance with requirements applicable to organisations or persons prior to the issue of an organisation certificate or personnel licence, certificate, rating or endorsement, as applicable;

(2) the continued compliance with the applicable requirements and the conditions attached to the training organisation’s certificate, as well as the applicable requirements for training courses, training plans and unit competence schemes it has approved, and requirements applicable to personnel;

(3) implementation of appropriate safety measures mandated by the Committee as defined in point [ATCO.AR.A.025](#_DxCrossRefBm1379192590) (c) and (d).

(b) This verification shall:

(1) be supported by documentation specifically intended to provide guidance to the personnel responsible for safety oversight in order to perform their functions;

(2) provide persons and organisations concerned with the results of the safety oversight activity;

(3) be based on audits and inspections including, as appropriate, unannounced inspections; and

(4) provide the Committee with the evidence needed in case further action is required, including the measures foreseen in [ATCO.AR.C.010](#_DxCrossRefBm1379192608) and [ATCO.AR.E.015](#_DxCrossRefBm1379192607).

(c) The scope of oversight shall be determined on the basis of the scope and results of past oversight activities and safety priorities.

(d) Where the activity of a person or organisation involves more than one State, in accordance with points (a), the Committee may agree with that competent authority on specific alternative oversight arrangements. Any person or organisation subject to such agreement shall be informed of its existence and its scope.

(e) With regard to the certification and oversight of the organisation’s compliance with point [ATCO.OR.C.001A](#_DxCrossRefBm1379192600), in addition to complying with points (a), the Committee shall review any approval following the applicable oversight audit cycle and whenever changes are implemented in the scope of work of the organization.

ATCO.AR.C.005 Oversight programme

(a) The Committee shall establish and maintain an oversight programme covering the oversight activities required by [ATCO.AR.C.001](#_DxCrossRefBm1379192606).

(b) For organisations certified by the Committee the oversight programme shall be developed taking into account the specific nature of the organisation, the complexity of its activities and past certification and/or oversight activities. It shall include within each oversight planning cycle:

(1) audits and inspections, if needed, including unannounced inspections as appropriate; and

(2) meetings convened between the management of the training organisation and the COMMITTEE to ensure that both remain informed of significant issues.

(c) For organisations certified by the C Committee an oversight planning cycle not exceeding 24 months shall be applied.

The oversight planning cycle may be reduced if there is evidence that the safety performance of the organisation has decreased.

The oversight planning cycle may be extended to a maximum of 36 months if the Committee has established that during the previous 24 months:

(1) the organisation has demonstrated an effective identification of aviation safety hazards and management of associated risks; and

(2) the organisation has continuously demonstrated under [ATCO.OR.B.015](#_DxCrossRefBm1379192610) that it has full control over all changes; and

(3) no level 1 findings have been issued; and

(4) all corrective actions have been implemented within the time period accepted or extended by the Committee as defined in [ATCO.AR.E.015](#_DxCrossRefBm1379192607).

The oversight planning cycle may be further extended to a maximum of 48 months if, in addition to the above, the organisation has established, and the Committee has approved, an effective continuous reporting system to the Committee on the safety performance and regulatory compliance of the organisation itself.

(d) The oversight programme for training organisations shall include the monitoring of training standards including the sampling of training delivery if appropriate.

(e) For persons holding a licence, rating or endorsement issued by the Committee the oversight programme shall include inspections, including unannounced inspections, if appropriate.

AMC1 ATCO.AR.C.005 Oversight programme

AUDIT AND INSPECTION

(a) The audit and inspection of a certified training organisation should be conducted through checking of the facility for compliance, interviewing personnel and sampling relevant training courses to assess their conduct and standard.

(b) Such audit and inspection should focus in addition to the items of [AMC1 ATCO.AR.E.001(a)](#_DxCrossRefBm1379192612) on:

(1) information on the competence of instructors and assessors;

(2) evidence of sufficient funding;

(3) adequacy of the facilities to the courses being conducted and to the number of persons undertaking training;

(4) synthetic training devices;

(5) documentation, in particular documents related to courses, information on the updating system, training and operations manual;

(6) training records and forms.

ATCO.AR.C.010 Findings and enforcement measures for personnel

(a) If during oversight or by any other means evidence is found by the Committee in accordance with [ATCO.AR.C.001](#_DxCrossRefBm1379192606) that shows non-compliance with the applicable requirements by a person holding a licence issued in accordance with this Regulation, the Committee shall raise a finding, record it and communicate it in writing to the licence holder, as well as communicate the finding to the employing organisation, if applicable.

(b) When the Committee has raised a finding:

(1) it may suspend or revoke the licence, rating or endorsement, as applicable, when a safety issue has been identified; and

(2) it shall take any further enforcement measures necessary to prevent the continuation of the non-compliance.

## SUBPART D – ISSUE, REVALIDATION, RENEWAL, SUSPENSION AND REVOCATION OF LICENCES, RATINGS,ENDORSEMENTS AND AUTHORISATIONS

ATCO.AR.D.001 Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

(a) The Committee shall establish procedures for the application, issue and exchange of licences, issue of ratings and endorsements, as well as the revalidation and renewal of endorsements. These procedures may include:

(1) the issue of temporary OJTI authorisation and temporary assessor authorisation; and

(2) if applicable, the authorisation for assessors to revalidate and renew unit endorsements in which case assessors shall submit all records, reports and any other information to the Committee as defined in such procedures.

(b) Upon receiving an application and, if relevant, any supporting documentation, the Committee shall verify the application completeness and whether the applicant meets the requirements set out in Annex I.

(c) If the applicant meets the applicable requirements, the Committee shall issue, revalidate or renew, when appropriate, the relevant licence, rating(s) and endorsement(s) using the format for licences established in Appendix 1 of Annex II. The temporary OJTI authorisation referred to in [ATCO.C.025](#_DxCrossRefBm1379192448) and the temporary assessor authorisation referred to in [ATCO.C.065](#_DxCrossRefBm1379192465) shall be issued as a separate document wherein the privileges of the holder as well as the validity of the authorisation shall be specified.

(d) For the purpose of reducing unnecessary administrative burden, the Committee may establish procedures for establishing a unique date of validity for several endorsements. In any case, the validity periods of the endorsements concerned shall not be extended.

(e) The Committee shall replace the air traffic controller licence if necessary for administrative reasons and when point (XIIa) of the licence is completed and no further space remains. The date of the first issue of the ratings and rating endorsements shall be transferred to the new licence.

AMC1 ATCO.AR.D.001(a) Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

PROCEDURES

The Committee may develop procedures to allow privileges to be exercised by the licence holder for a maximum period of eight weeks after successful completion of the applicable examination(s) and assessment(s), pending the issue of the licence, rating or endorsement.

Such procedures may cover licences, ratings and endorsements, but not the temporary authorisations.

GM1 ATCO.AR.D.001(a) Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

APPLICATION FORM FOR THE ISSUE, REVALIDATION AND RENEWAL OF LICENCES, RATINGS AND ENDORSEMENTS

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **APPLICATION FOR THE ISSUE/REVALIDATION/RENEWAL OF (STUDENT) AIR TRAFFIC**  **CONTROLLER (ATCO) LICENCES, RATINGS AND ENDORSEMENTS** | | | | | | | | | | | | | | | |
| Part A: APPLICANT’S DETAILS | | | | | | | | | | | | | | | |
| Name: ………………………………………………………………………………  Permanent address:…………………………………………………………………………………………………………………  Tel.:……………………………………… Mobile:………………… E-mail address:…………………………………………  Nationality: ………………  Date (dd/mm/yyyy) and place of birth:……………………………………………………………………………. | | | | | | | | | | | | | | | |
| (STUDENT) ATCO LICENCE DETAILS (if applicable):  Licence serial number:……………………………………  Date of issue (dd/mm/yyyy): ……………………………… | | | | | | | | | | | | | | | |
| EMPLOYER’S DETAILS (if applicable):  Name: | | | | | | | | | | | | | | | |
| Part B: APPLICATION FOR (Tick the relevant boxes) | | | | | | | | | | | | | | | |
| Issue of Student ATCO licence, rating(s) and rating endorsement(s) (Part C, E and F of this form) | | | | | | | | | | | | | | | |
| Language proficiency endorsement(s) (Part C, E and F of this form) | | | | | | | | | | | | | | | |
| Issue of ATCO licence, rating(s) and rating endorsement(s) (Part C, E and F of this form) | | | | | | | | | | | | | | | |
| Revalidation of ATCO licence rating(s) and rating endorsement(s) (Part C, D, E and F of this form) | | | | | | | | | | | | | | | |
| Renewal of ATCO licence rating(s) and rating endorsement(s) (Part C, D, E and F of this form) | | | | | | | | | | | | | | | |
| Part C: RATING/RATING ENDORSEMENT/ATC UNIT/Sector | | | | | | | | | | | | | | | |
| ADC | | (Unit, sector, working position) | | | | |  |  | |  | | |  | | SUR |
| APS | | (Unit, sector, working position) | | | | | PAR | SRA | |  | | |  | | |
| ACS | | (Unit, sector, working position) | | | | |  |  | |  | | |  | | |
| ACP | | (Unit, sector, working position) | | | | |  |  | |  | | |  | |  |
| ADV | | (Unit, sector, working position) | | | | |  |  | |  | | |  | |  |
| APP | | (Unit, sector, working position) | | | | |  |  | |  | | |  | |  |
| Licence endorsements | | | | | | | | | | | | | | | |
| OJTI | STDI | | Assessor | | Language proficiency endorsement  - level 4  - level 5  - level 6 | | | | | | Local (specify language): \_\_\_ language proficiency endorsement\*  - level 4  - level 5  - level 6  \* As published in the AIP. | | | | |
| Part D: Unit endorsement revalidation/renewal | | | | | | | | | | | | | | | | |
| The applicant meets the requirements of Regulation (MTAI) …………../……….. and of the …………… unit competence scheme.  The unit endorsements annotated below are revalidated/renewed (insert as appropriate). | | | | | | | | | | | | | | | | |
| Unit endorsement: | | | |  | | | | | | | | Valid until: | |  | | |
| Unit endorsement: | | | |  | | | | | | | | Valid until: | |  | | |
| Unit endorsement: | | | |  | | | | | | | | Valid until: | |  | | |
| Unit endorsement: | | | |  | | | | | | | | Valid until: | |  | | |
| Unit endorsement: | | | |  | | | | | | | | Valid until: | |  | | |
| Unit endorsement: | | | |  | | | | | | | | Valid until: | |  | | |
| I certify that the data is complete and true.  Authorised assessor: | | | | | | Name: | | | Assessor’s licence number: | | | | | Signature: | | |
| Part E: Declaration | | | | | | | | | | | | | | | | |
| I hereby:  1. apply for the issue/revalidation/renewal of (Student) ATCO licence, ratings and/or endorsements, as indicated;  2. confirm that the information contained herein is correct at the time of the application;  3. confirm that I do not hold any (Student) ATCO licence issued in another State;  4. confirm that I have not applied for any (Student) ATCO licence in another State; and  5. confirm that I have never held a (Student) ATCO licence issued in another State which has been revoked or suspended in any other State.  I understand that any incorrect information provided herein could prohibit me from holding a (Student) ATCO licence.  Signature: . . . . . . . . . . . . . . . . . . . . Name: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .  Date (dd/mm/yyyy): . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | | | | | | | | | | | | | | | | |
| Part F: Certificates/Documents | | | | | | | | | | | | | | | | |
| Please enclose all relevant certificates and/or documents:  1. Copy of Student ATCO licence, if applicable  2. Copy of passport or other national ID  3. Copy of medical certificate  4. Copy of relevant training certificate/documents proving the successful completion of:  (a) Initial training (integrated)  (b) Basic training  (c) Rating training  (d) Unit training  (e) Practical instructor training  (f) Assessor training  (g) Refresher training  5. Copy of language proficiency certificate(s): language(s)  6. Certificate by ATC provider  proving that the licence holder has fulfilled the requirements in accordance with the approved unit competence scheme  7. Copy of the competence assessment form  8. Any other copy(ies), as necessary | | | | | | | | | | | | | | | | |

GM2 ATCO.AR.D.001(a) Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

APPLICATION FOR THE ISSUE, REVALIDATION AND RENEWAL OF LICENCES, RATINGS, ENDORSEMENTS AND AUTHORISATIONS

Application for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations together with all relevant certificates and/or documents supporting the application might be submitted by secure electronic means.

GM1 ATCO.AR.D.001(b) Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

DATE OF SUCCESSFUL COMPLETION OF THE TRAINING

The date of successful completion of the training relevant to the rating and/or rating endorsement to be included in the (Student) ATCO Licence should be the date indicated in the certificate of successful completion of the relevant training issued by the training organisation.

GM1 ATCO.AR.D.001(c) Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

FORMAT FOR LICENCES (APPENDIX I TO ANNEX II)

The Committee may enter into point (XIII) of the licence format all additional licensing information, such as national licence endorsements or holding a radio telephony (R/T) licence.

GM1 ATCO.AR.D.001(d) Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

UNIQUE DATE OF VALIDITY FOR ENDORSEMENTS

The procedure for establishing a unique date of validity for several endorsements should be applied when requested by the air navigation service provider or the applicant.

GM1 ATCO.AR.D.001(e) Procedure for the issue, revalidation and renewal of licences, ratings, endorsements and authorisations

ADMINISTRATIVE REASONS

For the purpose of issuing a new licence, administrative reasons may be the following but are not limited to:

(a) loss;

(b) theft;

(c) significant damage leading to illegibility.

ATCO.AR.D.003 Change of competent authority

RESERVED

AMC1 ATCO.AR.D.003(a)(2) Change of competent authority

RESERVED

ATCO.AR.D.005 Revocation and suspension of licences, ratings and endorsements

(a) For the purpose of point [ATCO.A.020](#_DxCrossRefBm1379192379), the Committee shall establish administrative procedures for the revocation and suspension of licences, ratings and endorsements.

(b) The Committee may suspend the licence in the case of provisional inability not being terminated according to the procedures referred to in point [ATCO.A.015](#_DxCrossRefBm1379192373)(e).

(c) The Committee shall suspend or revoke a licence, rating or endorsement in accordance with point [ATCO.AR.C.010](#_DxCrossRefBm1379192608) in particular in the following circumstances:

(1) exercising the privileges of the licence when the licence holder no longer complies with the applicable requirements of this Regulation;

(2) obtaining a student air traffic controller or an air traffic controller licence, rating, endorsement or certificate by falsification of submitted documentary evidence;

(3) falsification of the licence or certificate records;

(4) exercising the privileges of the licence, rating(s) or endorsement(s) under the influence of psychoactive substances.

(d) In cases of suspension or revocation of licences, ratings and endorsements, the Committee shall notify in writing the licence holder and the relevant air navigation service provider of this decision, and inform the licence holder of his or her right of appeal in accordance with the procedures established in point [ATCO.AR.A.010](#_DxCrossRefBm1379192426)(m).

(e) The Committee shall also suspend or revoke a licence, rating or endorsement upon written request of the licence holder.

GM1 ATCO.AR.D.005 Revocation and suspension of licences, ratings and endorsements

EXAMINATIONS AND ASSESSMENTS

Examinations and assessments conducted by an assessor, during suspension or after the revocation of his/her assessor endorsement or by an OJTI or an STDI during suspension or after revocation of his/her OJTI or STDI endorsement respectively, should be invalid.

## SUBPART E – CERTIFICATION PROCEDURE FOR AIR TRAFFIC CONTROLLER TRAINING ORGANISATIONS

ATCO.AR.E.001 Certification procedure for training organisations and issue of certificate

(a) Upon receiving an application for the issue of a training organisation certificate, the Committee shall verify the training organisation's compliance with the applicable requirements of this Regulation.

(b) The Committee may require any audits, inspections or assessments of the training organisation it finds necessary before issuing the certificate.

(c) If the applicant training organisation fulfils the applicable requirements, the Committee shall issue a certificate using the format established in Appendix 2 to Annex II.

(d) The certificate shall be issued for an unlimited duration. The activities that the training organisation is approved to conduct shall be specified in the attachment to the certificate.

(e) The certificate shall not be issued where a level 1 finding remains open. In exceptional circumstances, finding(s), other than level 1, shall be assessed and mitigated as necessary by the training organisation and a corrective action plan for closing the finding(s) shall be approved by the Committee prior to the certificate being issued.

(f) To enable an organisation to implement changes without prior Committee’s approval in accordance with points [ATCO.OR.B.015](#_DxCrossRefBm1379192610) and [ATCO.AR.E.010](#_DxCrossRefBm1379192632)(c), the Committee shall approve the procedure submitted by the training organisation defining the scope of such changes and describing how such changes will be managed and notified.

AMC1 ATCO.AR.E.001(a);(b) Certification procedure for training organisations and issue of certificates

VERIFICATION OF COMPLIANCE

(a) The Committee should verify the applicant’s compliance through an audit of the organisation, including interviews of personnel and inspections carried out at the organisation’s facilities.

(b) The Committee should only conduct such audit after being satisfied that the application for a certificate complies with the applicable requirements.

(c) The audit should include but should not be limited to the following areas:

(1) detailed management structure, including names and qualifications of personnel required by point [ATCO.OR.C.010](#_DxCrossRefBm1379192635), adequacy of the organisation and management structure;

(2) adequacy of number and qualifications of personnel;

(3) safety management and compliance monitoring with applicable requirements;

(4) adequacy of the facilities with regard to the organisation’s scope of training;

(5) documentation on the basis of which the certificate shall be granted (organisation documentation as required by Annex III (Part ATCO.OR), including manuals, training plans and course documentation).

(d) In case of non-compliance, the applicant should be informed in writing of the corrections required.

GM1 ATCO.AR.E.001(e) Certification procedure for training organisations and issue of certificates

REMARKS TO THE CERTIFICATE

Remarks in the attachment to the ATCO training organisation certificates may, as appropriate, be related to:

(a) sites where the initial training is to be provided, if different from the principal place of the operation;

(b) provision of information reasonably required for the verification of the continuous compliance with the applicable requirements;

(c) contracts, agreements or other arrangements concluded between the training organisation and a third party, and which concern the training to be provided;

(d) any possible (legal) conditions, which are not specific to the training to be provided, etc.

ATCO.AR.E.005 Approval of training courses and training plans

(a) The Committee shall approve training courses and training plans developed in accordance with the requirements laid down in [ATCO.OR.D.001](#_DxCrossRefBm1379192639).

ATCO.AR.E.010 Changes to the training organisations

(a) Upon receiving an application for a change that requires prior approval in accordance with [ATCO.OR.B.015](#_DxCrossRefBm1379192610), the Committee shall verify the training organisation's compliance with the requirements set out in Annex III before the issue of the approval.

The Committee shall approve the conditions under which the organisation may operate during the change, unless the Committee determines that the change cannot be implemented.

After having verified that the training organisation complies with the applicable requirements, the CA Committee shall approve the change.

(b) Without prejudice to any additional enforcement measures in accordance with [ATCO.AR.E.015](#_DxCrossRefBm1379192607), when the organisation implements changes requiring prior approval without having received the Committee's approval as defined in point (a), the Committee shall take immediate and adequate action.

(c) For changes not requiring prior approval, the Committee shall approve a procedure developed by the training organisation in accordance with [ATCO.OR.B.015](#_DxCrossRefBm1379192610) defining the scope of such changes and its management and notification mechanism. In the continuous oversight process the Committee shall assess the information provided in the notification to verify whether actions taken comply with the approved procedures and applicable requirements.

AMC1 ATCO.AR.E.010 Changes to the training organisations

GENERAL

(a) The Committee should be informed of any changes to personnel specified in Annex III (Part ATCO.OR) that may affect the certificate or the training approval attached to it.

(b) A simple management system documentation system status sheet should be maintained, which contains information on when an amendment was received by the Committee and when it was approved.

(c) The Committee should receive from the organisation each management system documentation amendment, including amendments that do not require prior approval by the Committee.

(1) Where the amendment requires the Committee’s approval, the Committee, when satisfied, should approve in writing.

(2) Where the amendment does not require prior approval, the Committee should acknowledge receipt of the notification in writing within 10 working days from receipt.

AMC1 ATCO.AR.E.010(a) Changes to the training organisations

CHANGES REQUIRING PRIOR APPROVAL

(a) Upon receipt of an application for a proposed change that requires prior approval, the Committee should, in due time:

(1) assess the proposed change in relation to the training organisation’s certificate or the training approval attached or the management system of it, and the applicable requirements of Part ATCO.OR, as well as any other applicable requirements;

(2) assess the actions proposed by the training organisation in order to show compliance; and

(3) notify the training organisation of its approval/rejection without delay.

(b) The Committee should, in due time, verify the compliance of the training organisation and, depending on the change, examine the need for prescribing any condition for the operation of it during the change.

(c) For changes requiring prior approval, the Committee may conduct an audit of the organisation in order to verify the training organisation’s compliance with the applicable requirements.

(d) When notifying the training organisation, the Committee should also inform the organisation of the right to appeal, as provided for under the applicable legislation.

GM1 ATCO.AR.E.010 Changes to the training organisations

CHANGE OF NAME OF THE TRAINING ORGANISATION

(a) Upon receipt of the application and the relevant parts of the organisation’s documentation as required by Annex III (Part ATCO.OR), the Committee should reissue the certificate.

(b) A name change alone does not require the Committee to audit the organisation unless there is evidence that other aspects of the organisation have changed.

GM1 ATCO.AR.E.010(b) Changes to the training organisations

ADEQUATE ACTION

Adequate action by the Committee may include suspension, limitation or revocation of the training organisation’s certificate.

ATCO.AR.E.010A Changes to the information security management system

(a) With regard to changes managed and notified to the Committee, the Committee shall include the review of such changes in its continuing oversight in accordance with the principles laid down in point ATCO.AR.C.001. If any non-compliance is found, the Committee shall notify the organisation thereof, request further changes and act in accordance with point [ATCO.AR.C.010](#_DxCrossRefBm1379192608).

(b) With regard to other changes requiring an application for approval:

(1) upon receiving the application for the change, the Committee shall check the organisation’s compliance with the applicable requirements before issuing the approval;

(2) the Committee shall establish the conditions under which the organisation may operate during the implementation of the change;

(3) if it is satisfied that the organisation complies with the applicable requirements, the Committee.

ATCO.AR.E.015 Findings, corrective actions and enforcement measures

(a) The Committee shall have a system to analyse findings for their safety significance and decide on enforcement measures on the basis of the risk posed by the training organisation’s non-compliance.

(b) A level 1 finding shall be issued by the Committee when any significant non-compliance is detected with the applicable requirements of this Regulation, with the certificate and/or its terms of approval and privileges, which poses a significant risk to flight safety and/or otherwise calls into question the training organisation’s capability to continue the training provision.

A level 1 finding shall include, but shall not be limited to:

(1) providing training in a way which introduces a significant risk to flight safety;

(2) failure to give the Committee access to the training organisation’s facilities as defined in point [ATCO.OR.B.025](#_DxCrossRefBm1379192647) during normal operating hours and after two written requests;

(3) obtaining or maintaining the validity of the training organisation certificate by falsification of submitted documentary evidence;

(4) evidence of malpractice or fraudulent use of the training organisation certificate; and

(5) the lack of an accountable manager.

(c) A level 2 finding shall be issued by the Committee when any other non-compliance is detected with the applicable requirements of this Regulation, with the training organisation’s procedures and manuals or with the type(s) of training provided or certificate(s).

(d) When a finding is detected during oversight or by any other means, the Committee shall, without prejudice to any additional action required by this Regulation, communicate the finding to the training organisation in writing and request corrective action to address the non-compliance(s) identified.

(1) In the case of level 1 findings, the Committee shall take immediate and appropriate action to prohibit or limit activities, and if appropriate, it shall take action to revoke the certificate or to limit or suspend it in whole or in part, depending upon the extent of the finding, until successful corrective action has been taken by the training organisation.

(2) In the case of level 2 findings, the Committee shall:

(i) grant the training organisation a corrective action implementation period included in an action plan appropriate to the nature of the finding; and

(ii) assess the corrective action and implementation plan proposed by the training organisation and, if the assessment concludes that they are sufficient to address the non-compliance(s), accept these.

(3) Where a training organisation fails to submit an acceptable corrective action plan, or to perform the corrective action within the time period accepted or extended by the COMMITTEE, the finding shall be raised to a level 1 finding, and action shall be taken as laid down in point (d)(1).

(e) The Committee shall record all findings it has raised and, where applicable, the enforcement measures it has applied, as well as all corrective actions and the date of action closure for findings.

(f) For cases not requiring the issue of level 1 and 2 findings, the Committee may issue observations.

GM1 ATCO.AR.E.015 Findings and corrective actions

LEVEL 1

For a level 1 finding, it may be necessary for the Committee to ensure that further training by the organisation is carried out and audited by the COMMITTEE before the activity is resumed, dependent upon the nature of the finding.

Only the Committee may take action on the certificate.

## SUBPART F – SPECIFIC REQUIREMENTS RELATING TO AERO-MEDICAL CERTIFICATION

### SECTION 1 – General requirements

ATCO.AR.F.001 Aero-medical centres and aero-medical certification

By way of derogation from Subparts A, B and C, with regard to aero-medical centres (AeMCs) and aero-medical certification, the Committee shall apply the following provisions of Annex VI to Order N 3-N of February 2, 2022 of the Minister of Territorial Administration and Infrastructure of the Republic of Armenia (the Aircrew Regulation), with the exclusion of all references to general medical practitioners (GMPs):

* Subpart ARA.GEN,
* Subpart ARA.AeMC,
* ARA.MED.120 Medical assessors,
* ARA.MED.125 Referral to the licensing authority,
* ARA.MED.150 Record keeping,
* ARA.MED.200 Procedure for the issue, revalidation, renewal or change of an AME certificate,
* ARA.MED.245 Continuing oversight,
* ARA.MED.250 Limitation, suspension or revocation of an AME certificate,
* ARA.MED.255 Enforcement measures,
* ARA.MED.315 Review of examination reports, and
* ARA.MED.325 Review procedure.

### SECTION 2 – Documentation

ATCO.AR.F.005 Medical certificate

The medical certificate shall conform to the following specifications:

(a) Content:

(1) State in which the ATCO licence has been issued or applied for (I);

(2) Class of medical certificate (II);

(3) Certificate number commencing with the UN country code of the state in which the ATCO licence has been issued or applied for and followed by a code of numbers and/or letters in Arabic numerals and Latin script (III);

(4) Name of the holder (IV);

(5) Nationality of the holder (VI);

(6) Date of birth of the holder (XIV);

(7) Signature of the holder (VII);

(8) Limitation(s) (XIII);

(9) Expiry date of the class 3 medical certificate (IX);

(10) Date of examination;

(11) Date of last electrocardiogram;

(12) Date of last audiogram;

(13) Date of issue and signature of AME or medical assessor that issued the medical certificate (X);

(14) Seal or stamp.

(b) Material: The paper or other material used shall prevent or readily show any alterations or erasures. Any entries or deletions to the form shall be clearly authorised by the competent authority.

(c) Language: Medical certificates shall be written in the Armenian language and in English.

(d) All dates on the medical certificate shall be written in a dd/mm/yyyy format.

AMC1 ATCO.AR.F.005 Medical certificate

STANDARD MEDICAL CERTIFICATE FORMAT

|  |  |
| --- | --- |
| ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ  ՔԱՂԱՔԱՑԻԱԿԱՆ ԱՎԻԱՑԻԱՅԻ  ԿՈՄԻՏԵ  CIVIL AVIATION COMMITTEE OF THE REPUBLIC OF ARMENIA  **ԴԱՍ 3**  **ԲԺՇԿԱԿԱՆ ՎԿԱՅԱԿԱՆ**  **Class 3**  **MEDICAL CERTIFICATE**  Վերաբերում է ՕԵԿ Կարգավարի վկայականին  Տրված է համաձայն ATCO.MED մասի  Pertaining to a Part ATCO licence  Issued in accordance with Part ATCO.MED  Սույն բժշկական վկայականը համապատասխանում է ԻԿԱՕ-ի ստանդարտներին  This medical certificate complies with the ICAO Standards | Requirements:  The size of each page should be one eighth A4.  English and any language(s) determined by the COMMITTEE. |

|  |  |
| --- | --- |
| IAuthority that issued or is to issue the ATCO licence:  III Certificate number:  IV Last and first name of holder:  XIV Date of birth: (dd/mm/yyyy)  VI Nationality:  VII Signature of holder: | XIII Limitations:  Code:  Description:  X Date of issue\*:  Signature of issuing AME/medical assessor:  XI Stamp: |
| 2 | 3 |

|  |  |  |
| --- | --- | --- |
| IX Expiry date of this certificate: | | dd/mm/yyyy |
| Examination date: (dd/mm/yyyy) | | |
|  |  | |
|  |  | |
|  |  | |
|  | | |
| 4 | | |

\* Date of issue is the date when the certificate is issued and signed.

ATCO.AR.F.010 AME certificate

After having verified that the AME is in compliance with the applicable requirements, the Committee shall issue, revalidate, renew or change the AME certificate using the form established in [Appendix 3 of Annex II](#_DxCrossRefBm1379192655).

ATCO.AR.F.015 AeMC certificate

After having verified that the AeMC is in compliance with the applicable requirements, the Committee shall issue or change the AeMC certificate, using the form established in [Appendix 4 of Annex II](#_DxCrossRefBm1379192657).

ATCO.AR.F.020 Aero-medical forms

The Committee shall provide AMEs and AeMCs with the forms to be used for:

(a) the application form for a medical certificate; and

(b) the examination report form for class 3 applicants.

AMC1 ATCO.AR.F.020 Aero-medical forms

AERO-MEDICAL FORMS

The forms referred to in [ATCO.AR.F.020](#_DxCrossRefBm1379192658) should reflect the information indicated in the following forms and corresponding instructions for completion.

CIVIL AVIATION COMMITTEE OF THE REPUBLIC OF ARMENIA

**APPLICATION FORM FOR A MEDICAL CERTIFICATE**

MEDICAL IN CONFIDENCE

Complete this page fully and in block capitals — Refer to instructions for completion.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| (1) State of licence issue: | (2) Medical certificate applied for:  Class 1 🞏 Class 2 🞏 Class 3 🞏 | | | | |
| (3) Surname: | (4) Previous surname(s): | | | (12) Application:  Initial 🞏 Revalidation/Renewal 🞏 | |
| (5) Forename(s): | (6) Date of birth (dd/mm/yyyy): | | (7) Sex:  Male 🞏 Female 🞏 | (13) Reference number: | |
| (8) Place and country of birth: | (9) Nationality: | | | (14) Type of licence applied for: | |
| (10) Permanent address:  Country:  Telephone No:  Mobile No:  E-mail: | (11) Postal address (if different):  Country:  Telephone No: | | |
| (15) Occupation (principal): | |
| (16) Employer: | |
| (17) Last aero-medical examination:  Date:  Place: | |
| (18) Licence(s) held (type):  Licence(s) number(s): | | (19) Any limitations on licence(s)/medical certificate held:  No 🞏  Yes 🞏 Details: | | | |
| (20) Have you ever had a medical certificate denied, suspended or revoked?  No 🞏  Yes 🞏 Date: Country:  Details: | | (21) Flight time total:  Hrs n/a 🞏 | | | (22) Flight time since last aero-medical examination: Hrs n/a 🞏 |
| (23) Aircraft class/type(s) currently flown: n/a 🞏 | | | |
| (24) Any aviation accident or reported incident since last aero-medical examination?  No 🞏 n/a 🞏  Yes 🞏 Date: Place:  Details: | | (25) Type of flying intended: n/a 🞏 | | | |
| (26) Current pilot activity: Single pilot 🞏 Multi-pilot 🞏  Current ATCO activity: ADI 🞏 APS 🞏 ACS 🞏 | | | |
| (27) Do you drink alcohol?  No 🞏 Yes 🞏 If yes, amount | | (28) Do you currently use any medication?  No 🞏  Yes 🞏 state medication, dose, date started and why: | | | |
| (29) Do you smoke tobacco?  No, never 🞏  No, stopped 🞏 state date:  Yes 🞏 state type and amount: | |

**General and medical history: Do you have, or have you ever had, any of the following? (Please tick). If yes, give details in the remarks section (30).**

Yes No Yes No Yes No Family history of: Yes No

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 101 Eye trouble/eye operation |  |  | 112 Nose, throat or speech disorder |  |  | 123 Malaria or other tropical disease |  |  | 170 Heart disease |  |  |
| 102 Spectacles and/or contact lenses ever worn |  |  | 113 Head injury or concussion |  |  | 124 A positive HIV test |  |  | 171 High blood pressure |  |  |
| 114 Frequent or severe headaches |  |  | 125 Sexually transmitted disease |  |  | 172 High cholesterol level |  |  |
| 103 Spectacle/contact lens prescriptions change since last medical exam. |  |  | 115 Dizziness or fainting spells |  |  | 126 Sleep disorder/apnoea syndrome |  |  | 173 Epilepsy |  |  |
| 116 Unconsciousness for any reason |  |  | 127 Musculoskeletal illness/impairment |  |  | 174 Mental illness |  |  |
| 104 Hay fever, other allergy |  |  | 117 Neurological disorders: stroke, epilepsy, seizure, paralysis, etc. |  |  | 128 Any other illness or injury |  |  | 175 Diabetes |  |  |
| 105 Asthma, lung disease |  |  | 129 Admission to hospital |  |  | 176 Tuberculosis |  |  |
| 106 Heart or vascular trouble |  |  | 118 Psychological/ psychiatric trouble of any sort |  |  | 130 Visit to medical practitioner since last aero-medical examination |  |  | 177 Allergy/ asthma/eczema |  |  |
| 107 High or low blood pressure |  |  | 178 Inherited disorders |  |  |
| 108 Kidney stone or blood in urine |  |  | 119 Alcohol/drug/ substance abuse |  |  | 131 Refusal of life insurance |  |  | 179 Glaucoma |  |  |
| 109 Diabetes, hormone disorder |  |  | 120 Attempted suicide |  |  | 132 Refusal of pilot/ATCO licence |  |  | Females only: | | |
| 110 Stomach, liver or intestinal trouble |  |  | 121 Motion sickness requiring medication |  |  | 133 Medical rejection from or for military service |  |  |
| 150 Gynaecological, menstrual problems |  |  |
| 111 Deafness, ear disorder |  |  | 122 Anaemia/sickle cell trait/other blood disorders |  |  | 134 Award of pension or compensation for injury or illness |  |  | 151 Are you pregnant? |  |  |
| (30) Remarks: If previously reported and no change since, so state. | | | | | | | | | | | |
| (31) Declaration: I hereby declare that I have carefully considered the statements made above and to the best of my belief they are complete and correct and that I have not withheld any relevant information or made any misleading statements. I understand that if I have made any false or misleading statements in connection with this application, or fail to release the supporting medical information, the licensing authority may refuse to grant me a medical certificate or may withdraw any medical certificate granted, without prejudice to any other action applicable under national law.  CONSENT TO RELEASE OF MEDICAL INFORMATION: I hereby authorise the release of all information contained in this report and any or all attachments to the AME and, where necessary, to the medical assessor of the licensing authority, recognising that these documents or electronically stored data are to be used for completion of a medical assessment and will become and remain the property of the licensing authority, providing that I or my physician may have access to them according to national law. Medical confidentiality will be respected at all times.    ------------------------------------ -------------------------------------------- --------------------------------------------  Date Signature of applicant Signature of AME/(medical assessor) | | | | | | | | | | | |

INSTRUCTIONS FOR COMPLETION OF THE APPLICATION FORM FOR A MEDICAL CERTIFICATE

This application form and all attached report forms will be transmitted to the licensing authority. Medical confidentiality shall be respected at all times.

The applicant should personally complete, in full, all questions (sections) on the application form. Writing should be legible and in block capitals, using a ball-point pen. Completion of this form by typing/printing is also acceptable. If more space is required to answer any questions, a plain sheet of paper should be used, bearing the applicant’s name and signature, and the date of signing. The following numbered instructions apply to the numbered headings on the application form for a medical certificate.

Failure to complete the application form in full, or to write legibly, may result in non-acceptance of the application form. The making of false or misleading statements or the withholding of relevant information in respect of this application may result in criminal prosecution, denial of this application and/or withdrawal of any medical certificate(s) granted

|  |  |
| --- | --- |
| 1. LICENSING AUTHORITY:  State name of country this application is to be forwarded to. | 17. LAST APPLICATION FOR A MEDICAL CERTIFICATE:  State date (day, month, year) and place (town, country). Initial applicants state ‘NONE’. |
| 2. MEDICAL CERTIFICATE APPLIED FOR:  Tick appropriate box.  Class 1: Professional Pilot  Class 2: Private Pilot  Class 3: Air Traffic Controller | 18. LICENCE(S) HELD (TYPE):  State type of licence(s) held.  Enter licence number and State of issue.  If no licences are held, state ‘NONE’. |
| 3. SURNAME:  State surname/family name. | 19. ANY LIMITATIONS ON THE LICENCE(S)/MEDICAL CERTIFICATE:  Tick appropriate box and give details of any limitations on your licence(s)/medical certificate, e.g. vision, colour vision, safety pilot, etc. |
| 4. PREVIOUS SURNAME(S):  If your surname or family name has changed for any reason, state previous name(s). | 20. MEDICAL CERTIFICATE DENIAL, SUSPENSION OR REVOCATION:  Tick ‘YES’ box if you have ever had a medical certificate denied, suspended or revoked, even if only temporary.  If ‘YES’, state date (dd/mm/yyyy) and country where it occurred. |
| 5. FORENAME(S):  State first and middle names (maximum three). | 21. FLIGHT TIME TOTAL:  State total number of hours flown or, for ATCO’s tick n/a box. |
| 6. DATE OF BIRTH:  Specify in order dd/mm/yyyy. | 22. FLIGHT TIME SINCE LAST MEDICAL:  State number of hours flown since your last aero-medical examination or, for ATCO’s tick n/a box. |
| 7. SEX:  Tick appropriate box. | 23. AIRCRAFT CLASS/TYPE(S) CURRENTLY FLOWN:  State name of principal aircraft flown, e.g. Boeing 737, Cessna 150, etc. or, for ATCO’s tick n/a box. |
| 8. PLACE AND COUNTRY OF BIRTH:  State town and country of birth. | 24. ANY AVIATION ACCIDENT OR REPORTED INCIDENT SINCE LAST AERO-MEDICAL EXAMINATION:  If ‘YES’ box ticked, state date (dd/mm/yyyy) and country of accident/incident. |
| 9. NATIONALITY:  State name of country of citizenship. | 25. TYPE OF FLYING INTENDED:  State whether airline, charter, single pilot, commercial air transport, carrying passengers, agriculture, pleasure, etc., or, for ATCO’s tick n/a box. |
| 10. PERMANENT ADDRESS:  State permanent postal address and country. Enter telephone area code as well as telephone number. | 26. CURRENT PILOT/ATCO ACTIVITY:  Tick appropriate box to indicate whether you fly as the SOLE pilot or not or, for ATCO’s whether you operate as tower, radar or other. |
| 11. POSTAL ADDRESS (IF DIFFERENT):  If different from permanent address, state full current postal address including telephone number and area code. If the same, enter ‘SAME’. | 27. DO YOU DRINK ALCOHOL?  Tick applicable box. If yes, state weekly alcohol consumption, e.g. 2 litres beer. |
| 12. APPLICATION:  Tick appropriate box. | 28. DO YOU CURRENTLY USE ANY MEDICATION?  If ‘YES’, give full details — name, how much you take and when, etc.  Include any non-prescription medication. |
| 13. REFERENCE NUMBER:  State reference number allocated to you by the licensing authority.  Initial applicants enter ‘NONE’. | 29. DO YOU SMOKE TOBACCO?  Tick applicable box. Current smokers state type (cigarettes, cigars, pipe) and amount (e.g. 2 cigars daily; pipe — 1 oz. weekly). |
| 14. TYPE OF LICENCE APPLIED FOR:  State type of licence applied for from the following list:   * Aeroplane Transport Pilot Licence * Multi-Pilot Licence * Commercial Pilot Licence/Instrument Rating * Commercial Pilot Licence * Air Traffic Controller Licence * Private Pilot Licence/Instrument Rating * Private Pilot Licence * Sailplane Pilot Licence * Balloon Pilot Licence * and whether Fixed Wing/Rotary Wing/Both | GENERAL AND MEDICAL HISTORY  All items under this heading from number 101 to 179 inclusive should have the answer ‘YES’ or ‘NO’ ticked. You should tick ‘YES’ if you have ever had the condition in your life and describe the condition and approximate date in the (30) remarks section. All questions asked are medically important even though this may not be readily apparent.  Items numbered 170 to 179 relate to immediate family history, whereas items numbered 150 to 151 should be answered by female applicants only.  If information has been reported on a previous application form for a medical certificate and there has been no change in your condition, you may state ‘Previously reported; no change since’. However, you should still tick ‘YES’ to the condition.  Do not report occasional common illnesses such as colds. |
| 31. DECLARATION AND CONSENT TO OBTAINING AND RELEASING INFORMATION:  Do not sign or date these declarations until indicated to do so by the AME who will act as witness and sign accordingly. |
| 15. OCCUPATION (PRINCIPAL):  Indicate your principal employment. |
| 16. EMPLOYER:  If principal occupation is pilot/ATCO, then state employer’s name or if self-employed as a pilot, state ‘self’. |

AERO-MEDICAL EXAMINATION REPORT FORM FOR CLASS 1, CLASS 2 & CLASS 3 APPLICANTS

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (201) Examination category  Initial 🞏  Revalidation 🞏 Renewal 🞏 | (202) Height  (cm) | (203) Weight  (kg) | (204) Colour eye | (205) Colour hair | (206) Blood pressure — seated (mmHg) | | (207) Pulse — resting | |
| Rate (bpm) | Rhythm:  regular    🞏  irregular   🞏 |
| Referral 🞏 |  |  |  |  | Systolic | Diastolic |

Clinical exam: Check each item Normal Abnormal Normal Abnormal

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| (208) Head, face, neck, scalp |  |  | (218) Abdomen, hernia, liver, spleen |  |  |
| (209) Mouth, throat, teeth, voice, speech |  |  | (219) Anus, rectum |  |  |
| (210) Nose, sinuses |  |  | (220) Genito-urinary system |  |  |
| (211) Ears, drums, eardrum motility |  |  | (221) Endocrine system |  |  |
| (212) Eyes — orbit & adnexa; visual fields |  |  | (222) Upper & lower limbs, joints |  |  |
| (213) Eyes — pupils and optic fundi |  |  | (223) Spine, other musculoskeletal |  |  |
| (214) Eyes — ocular motility; nystagmus |  |  | (224) Neurologic — reflexes, etc. |  |  |
| (215) Lungs, chest, breasts |  |  | (225) Psychiatric |  |  |
| (216) Heart |  |  | (226) Skin, identifying marks and lymphatics |  |  |
| (217) Vascular system |  |  | (227) General systemic |  |  |
| (228) Notes: Describe every abnormal finding. Enter applicable item number before each comment. | | | | | |

Visual acuity

(229) Distant vision (236) Pulmonary function (237) Haemoglobin

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Uncorrected | | |  | | | | | | Spectacles | | | | | | Contact lenses |  | FEV1/FVC   \_\_\_\_\_\_\_\_\_\_    % | | | | | \_\_\_\_\_\_\_\_\_\_\_\_       \_\_\_\_\_\_ (unit) | | |
| Right eye | |  | | | Corr. to | | | | | |  | | | | | |  |  |  | | | | |  | | |
| Left eye | |  | | | Corr. to | | | | | |  | | | | | |  |  | Normal    🞏          Abnormal   🞏 | | | | | Normal      🞏             Abnormal   🞏 | | |
| Both eyes | |  | | | Corr. to | | | | | |  | | | | | |  |
|  | | | | | | | | | | |  | | | | | | |  | (235) Urinalysis       Normal   🞏          Abnormal 🞏 | | | | | | | |
| (230) Intermediate vision | | | Uncorrected | | | | | | | | Corrected | | | | | | |  | Glucose | Protein | | Blood | | | Other | |
|  | | | Yes | | | No | | | | | Yes | | | | No | | |  |  |  | |  | | |  | |
| Right eye | | |  | | |  | | | | |  | | | |  | | |  | Accompanying reports | | | | | | | |
| Left eye | | |  | | |  | | | | |  | | | |  | | |  |  | | Not performed | | Normal | | | Abnormal/Comment |
| Both eyes | | |  | | |  | | | | |  | | | |  | | |  | (238) ECG | |  | |  | | |  |
|  | | |  | | | | | | | |  | | | | | | |  | (239) Audiogram | |  | |  | | |  |
| (231) Near vision | | | Uncorrected | | | | | | | | Corrected | | | | | | |  | (240) Ophthalmology | |  | |  | | |  |
|  | | | Yes | | | No | | | | | Yes | | | | No | | |  | (241) ORL (ENT) | |  | |  | | |  |
| Right eye | | |  | | |  | | | | |  | | | |  | | |  | (242) Blood lipids | |  | |  | | |  |
| Left eye | | |  | | |  | | | | |  | | | |  | | |  | (243) Pulmonary function | |  | |  | | |  |
| Both eyes | | |  | | |  | | | | |  | | | |  | | |  | (244) Other (what?) | |  | |  | | |  |
| (232) Spectacles | | | | | | | | (233) Contact lenses | | | | | | | | | |  |
| Yes   🞏             No 🞏 | | | | | | | | Yes 🞏          No 🞏 | | | | | | | | | |  |  | | | | | | | |
| Type: | | | | | | | | Type: | | | | | | | | | |  | (247) AME recommendation: | | | | | | | |
| Refraction | | | Sph | | | | Cyl | | | | | Axis | | | | Add | |  | Name of applicant: Date of birth: Reference number: | | | | | | | |
| Right eye | | |  | | | |  | | | | |  | | | |  | |  | -------------------------- ----------------- --------------------------- | | | | | | | |
| Left eye | | |  | | | |  | | | | |  | | | |  | |  | 🞏   Fit for class: -------------------- | | | | | | | |
| (313) Colour vision | | | | | | | | Normal 🞏   Abnormal 🞏 | | | | | | | | | |  | 🞏 Medical certificate issued by undersigned (copy attached) for class: ------------------------------- | | | | | | | |
| Colour vision testing method/s: | | | | | | | | | | |  | | | | | | |  | 🞏   Unfit for class: -------------------- | | | | | | | |
| Results: | | | | | | | | | | |  | | | | | | |  | 🞏   Deferred for further evaluation. If yes, why and to whom? | | | | | | | |
| (234) Hearing  (when 239/241 not performed) | | | | | | | | | Right ear | | | | Left ear | | | | |  | (248) Comments, limitations | | | | | | | |
| Conversational voice test (2m) with back turned to examiner | | | | | | | | | Yes   🞏  No    🞏 | | | | Yes   🞏  No    🞏 | | | | |  |  | | | | | | | |
|  | | | |  | | | | |  |  | | | | | | | |
| Audiometry | | | | | | | | | | | | | | | | | |
| Hz | 500 | | | 1000 | | | | | | 2000 | | | | 3000 | | | |
| Right |  | | |  | | | | | |  | | | |  | | | |
| Left |  | | |  | | | | | |  | | | |  | | | |

(249) AME declaration:

|  |  |  |
| --- | --- | --- |
| I hereby certify that I/my AME group have personally examined the applicant named on this aero-medical examination report and that this report with any attachment embodies my findings completely and correctly. | | |
| (250) Place and date: | AME name and address: | AME certificate No: |
| AME signature: | E-mail: |  |
|  | Telephone No:  Telefax No: |  |

INSTRUCTIONS FOR COMPLETION OF THE AERO-MEDICAL EXAMINATION REPORT FORMS

The AME performing the aero-medical examination should verify the identity of the applicant.

All questions (sections) on the aero-medical examination report form should be completed in full. If an otorhinolaryngology examination report form is attached, then questions 209, 210, 211, and 234 may be omitted. If an ophthalmology examination report form is attached, then questions 212, 213, 214, 229, 230, 231, 232, and 233 may be omitted.

Writing should be legible and in block capitals using a ball-point pen. Completion of this form by typing/printing is also acceptable. If more space is required to answer any question, a plain sheet of paper should be used, bearing the applicant’s name, the AME’s name and signature, and the date of signing. The following numbered instructions apply to the numbered headings on the aero-medical examination report form.

Failure to complete the aero-medical examination report form in full, as required, or to write legibly, may result in non-acceptance of the application in total and may lead to withdrawal of any medical certificate issued. The making of false or misleading statements or the withholding of relevant information by an AME may result in criminal prosecution, denial of an application or withdrawal of any medical certificate(s) granted.

201 EXAMINATION CATEGORY — Tick appropriate box.

Initial — Initial examination for either class 1, 2 or 3; also initial examination for upgrading from class 2 to 1 (notate ‘upgrading’ in box 248).

Renewal/Revalidation —Subsequent ROUTINE examinations.

202 HEIGHT — Measure height, without shoes, in centimetres to nearest cm.

203 WEIGHT — Measure weight, in indoor clothes, in kilograms to nearest kg.

204 COLOUR EYE — State colour of applicant’s eyes from the following list: brown, blue, green, hazel, grey, multi.

205 COLOUR HAIR — State colour of applicant’s hair from the following list: brown, black, red, fair, bald.

206 BLOOD PRESSURE — Blood pressure readings should be recorded as Phase 1 for systolic pressure and Phase 5 for diastolic pressure. The applicant should be seated and rested. Recordings in mm Hg.

207 PULSE (RESTING) — The pulse rate should be recorded in beats per minute and the rhythm should be recorded as regular or irregular. Further comments if necessary may be written in section 228, 248 or separately.

208 to 227 inclusive constitute the general clinical examination, and each of the boxes should be marked (with a tick) as normal or abnormal.

208 HEAD, FACE, NECK, SCALP — To include appearance, range of neck and facial movements, symmetry, etc.

209 MOUTH, THROAT, TEETH, VOICE, SPEECH — To include voice and speech quality and appearance of buccal cavity, palate motility, tonsillar area, pharynx and also gums, teeth and tongue.

210 NOSE, SINUSES — To include appearance and any evidence of nasal obstruction or sinus tenderness on palpation.

211 EARS, DRUMS, EARDRUM MOTILITY — To include otoscopy of external ear, canal, tympanic membrane. Eardrum motility by valsalva manoeuvre or by pneumatic otoscopy.

212 EYES — ORBIT AND ADNEXA; VISUAL FIELDS — To include appearance, position and movement of eyes and their surrounding structures in general, including eyelids and conjunctiva. Visual fields check by campimetry, perimetry or confrontation.

213 EYES — PUPILS AND OPTIC FUNDI — To include appearance, size, reflexes, red reflex and fundoscopy. Special note of corneal scars.

214 EYES — OCULAR MOTILITY, NYSTAGMUS — To include range of movement of eyes in all directions; symmetry of movement of both eyes; ocular muscle balance; convergence; accommodation; signs of nystagmus.

215 LUNGS, CHEST, BREASTS — To include inspection of chest for deformities, operation scars, abnormality of respiratory movement, auscultation of breath sounds. Physical examination of female applicant’s breasts should only be performed with informed consent.

216 HEART — To include apical heartbeat, position, auscultation for murmurs, carotid bruits, palpation for trills.

217 VASCULAR SYSTEM — To include examination for varicose veins, character and feel of pulse, peripheral pulses, evidence of peripheral circulatory disease.

218 ABDOMEN, HERNIA, LIVER, SPLEEN — To include inspection of abdomen; palpation of internal organs; check for inquinal hernias in particular.

219 ANUS, RECTUM — Examination only with informed consent.

220 GENITO-URINARY SYSTEM — To include renal palpation; inspection palpation male/female reproductive organs only with informed consent.

221 ENDOCRINE SYSTEM — To include inspection, palpation for evidence of hormonal abnormalities/imbalance; thyroid gland.

222 UPPER AND LOWER LIMBS, JOINTS — To include full range of movements of joints and limbs, any deformities, weakness or loss. Evidence of arthritis.

223 SPINE, OTHER MUSCULOSKELETAL — To include range of movements, abnormalities of joints.

224 NEUROLOGIC — REFLEXES, ETC. To include reflexes, sensation, power, vestibular system — balance, romberg test, etc.

225 PSYCHIATRIC — To include appearance, appropriate mood/thought, unusual behaviour.

226 SKIN, IDENTIFYING MARKS AND LYMPHATICS — To include inspection of skin; inspection, palpation for lymphadenopathy, etc. Briefly describe scars, tattoos, birthmarks, etc., which could be used for identification purposes.

227 GENERAL SYSTEMIC — All other areas, systems and nutritional status.

228 NOTES — Any notes, comments or abnormalities to be described — extra notes if required on separate sheet of paper, signed and dated.

229 DISTANT VISION — Each eye to be examined separately and then both together. First without correction, then with spectacles (if used) and lastly with contact lenses, if used. Record visual acuity in appropriate boxes. Visual acuity to be tested with the appropriate chart for the distance.

230 INTERMEDIATE VISION — Each eye to be examined separately and then both together. First without correction, then with spectacles, if used, and lastly with contact lenses, if used. Record visual acuity in appropriate boxes (Yes/No).

231 NEAR VISION — Each eye to be examined separately and then both together. First without correction, then with spectacles if used and lastly with contact lenses, if used. Record visual acuity in appropriate boxes (Yes/No).

Note: Bifocal contact lenses and contact lenses correcting for near vision only are not acceptable.

232 SPECTACLES — Tick appropriate box signifying if spectacles are or are not worn by applicant. If used, state type of lens and frame and use-distance.

233 CONTACT LENSES — Tick appropriate box signifying if contact lenses are or are not worn. If worn, state type from the following list; hard, soft, gas-permeable or disposable.

313 COLOUR VISION — Tick appropriate box signifying if applicant is a normal trichromat or not. Indicate the colour vision testing methodology used and provide the results.

234 HEARING — Tick appropriate box to indicate hearing level ability as tested separately in each ear at 2 m.

235 URINALYSIS — State whether result of urinalysis is normal or not by ticking appropriate box. If no abnormal constituents, state NIL in each appropriate box.

236 PULMONARY FUNCTION — When required or on indication, state actual FEV1/FVC value obtained in % and state if normal or not with reference to height, age, sex and race.

237 HAEMOGLOBIN — Enter actual haemoglobin test result and state units used. Then state whether normal value or not, by ticking appropriate box.

238 to 244 inclusive: ACCOMPANYING REPORTS — One box opposite each of these sections must be ticked. If the test is not required and has not been performed, then tick the NOT PERFORMED box. If the test has been performed (whether required or on indication) complete the normal or abnormal box as appropriate. In the case of question 244, the number of other accompanying reports must be stated.

247 AME RECOMMENDATION — The applicant’s name, date of birth and reference number, should be entered here in block capitals. The applicable class of medical certificate should be indicated by a tick in the appropriate box. If a fit assessment is recommended and a medical certificate has been issued, this should be indicated in the appropriate box. An applicant may be recommended as fit for a lower class of medical certificate (e.g. class 2), but also be deferred or recommended as unfit for a higher class of medical certificate (e.g. class 1). If an unfit recommendation is made, applicable Part MED/Part ATCO.MED paragraph references should be entered. If an applicant is deferred for further evaluation, the reason and the specialist or licensing authority to whom the applicant is referred should be indicated.

248 COMMENTS, LIMITATIONS, ETC. — The AME’s findings and assessment of any abnormality in the history or examination, should be entered here. The AME should also state any limitation required.

249 AME DETAILS — The AME should sign the declaration, complete his/her name and address in block capitals, contact details and lastly stamp the relevant section with his/her designated AME stamp incorporating his/her AME number.

250 PLACE AND DATE — The place (town or city) and the date of the aero-medical examination should be entered here. The date of examination is the date of the general examination and not the date of finalisation of the form. If the aero-medical examination report is finalised on a different date, the date of finalisation should be entered in section 248 as ‘Report finalised on ...’.

OPHTHALMOLOGY EXAMINATION REPORT FORM

Complete this page fully and in block capitals — Refer to instructions for completion.

MEDICAL IN CONFIDENCE

Applicant’s details

|  |  |  |  |
| --- | --- | --- | --- |
| (1) Licensing authority: | (2) Medical certificate applied for: Class 1 🞏 Class 2 🞏 Class 3 🞏 | | |
| (3) Surname: | (4) Previous surname(s): | | (12) Application: Initial 🞏  Revalidation/Renewal 🞏 |
| (5) Forename(s): | (6) Date of birth: | (7) Sex:  Male 🞏  Female 🞏 | (13) Reference number: |
| (301) Consent to release of medical information: I hereby authorise the release of all information contained in this report and any or all attachments to the AME and, where necessary, to the medical assessor of the licensing authority, recognising that these documents or electronically stored data, are to be used for completion of a medical assessment and will become and remain the property of the licensing authority, providing that I or my physician may have access to them according to national law. Medical confidentiality will be respected at all times.  --------------------------------------- -------------------------------------------------- ---------------------------------------------------  Date Signature of applicant Signature of AME | | | |

|  |  |
| --- | --- |
| (302) Examination category: | (303) Ophthalmological history: |
| Initial 🞏 |  |
| Revalidation 🞏 |  |
| Renewal 🞏 |  |
| Referral 🞏 |  |

Clinical examination Visual acuity

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Check each item | | | | Normal | Abnormal |  | (314) Distant vision  Uncorrected | | | | | Spectacles  Contact lenses | | | |
| (304) Eyes, external & eyelids | | | |  |  |  | Right eye |  | Corrected to | | |  | |  | |
| (305) Eyes, Exterior  (slit lamp, ophth.) | | | |  |  |  | Left eye |  | Corrected to | | |  | |  | |
|  | Both eyes |  | Corrected to | | |  | |  | |
| (306) Eye position and motility | | | |  |  |  | (315) Intermediate vision  Uncorrected | | | | | Spectacles  Contact lenses | | | |
| (307) Visual fields | | | |  |  |  | Right eye |  | Corrected to | | |  | |  | |
| (308) Pupillary reflexes | | | |  |  |  | Left eye |  | Corrected to | | |  | |  | |
| (309) Fundi (Ophthalmoscopy) | | | |  |  |  | Both eyes |  | Corrected to | | |  | |  | |
| (310) Convergence | cm | | |  |  |  | (316) Near vision  Uncorrected | | | | | Spectacle  Contact lenses | | | |
| (311) Accommodation | D | | |  |  |  | Right eye |  | Corrected to | | |  | |  | |
|  | | | |  |  |  | Left eye |  | Corrected to | | |  | |  | |
| (312) Ocular muscle balance (in prisme dioptres) | | | | | |  | Both eyes |  | Corrected to | | |  | |  | |
| Distant at 5m/6m | | Near at 30–50 cm | | | |  |  | |  | | |  | |  | |
| Ortho | | Ortho | | | |  | (317) Refraction | | Sph | Cylinder | | | Axis | | Near (add) |
| Eso | | Eso | | | |  | Right eye | |  | | | |  | |  |
| Exo | | Exo | | | |  | Left eye | |  | | | |  | |  |
| Hyper | | Hyper | | | |  | Actual refraction examined  Spectacles prescription based | | | | | | | | |
| Cyclo | | Cyclo | | | |  |  | |  | | |  | |  | |
| Tropia    Yes    No Phoria         Yes       No | | | | | |  | (318) Spectacles | | | | (319) Contact lenses | | | | |
| Fusional reserve testing  Not performed  Normal Abnormal | | | | | |  | Yes 🞏      No 🞏 | | | | Yes 🞏No 🞏 | | | | |
| (313) Colour vision | | | | | |  | Type: | | | | Type: | | | | |
| Colour vision testing method/s: | | |  | | |  |  | | | |  | | | | |
| Results: | | |  | |  |  | (320) Intra-ocular pressure | | | | | | | | |
| Normal trichromat Yes 🞏 No 🞏 | | | | | |  | Right (mmHg) | | | | Left (mmHg) | | | | |
|  | | | | | |  |  | | | |  | | | | |
|  | | | | | |  | Method | | | | Normal 🞏 Abnormal 🞏 | | | | |

(321) Ophthalmological remarks and recommendation:

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  | | |
|  | | |

(322) Examiner’s declaration:

|  |  |  |
| --- | --- | --- |
| I hereby certify that I/my AME group have personally examined the applicant named on this medical examination report and that this report with any attachment embodies my findings completely and correctly. | | |
| (323) Place and date: | Ophth. examiner’s name and address: (block capitals) | AME or specialist stamp with No: |
| AME or specialist signature: | E-mail:  Telephone No:  Telefax No: |  |

INSTRUCTIONS FOR COMPLETION OF THE OPHTHALMOLOGY EXAMINATION REPORT FORM

Writing should be legible and in block capitals using a ball-point pen. Completion of this form by typing or printing is also acceptable. If more space is required to answer any question, a plain sheet of paper should be used, bearing the applicant’s name, the name and signature of the AME or ophthalmology specialist performing the examination and the date of signing. The following numbered instructions apply to the numbered headings on the ophthalmology examination report form.

Failure to complete the medical examination report form in full, as required, or to write legibly may result in non-acceptance of the application in total and may lead to withdrawal of any medical certificate issued. The making of false or misleading statements or the withholding of relevant information by an examiner may result in criminal prosecution, denial of an application or withdrawal of any medical certificate granted.

The AME or ophthalmology specialist performing the examination should verify the identity of the applicant. The applicant should then be requested to complete the sections 1, 2, 3, 4, 5, 6, 7, 12 and 13 on the form and then sign and date the consent to release of medical information (section 301) with the examiner countersigning as witness.

302 EXAMINATION CATEGORY — Tick appropriate box.

Initial — Initial examination for either class 1 or 2 or 3; also initial examination for upgrading from class 2 to 1 (notate ‘upgrading’ in section 303).

Renewal/Revalidation — Subsequent comprehensive ophthalmological examinations (due to refractive error).

Special referral — NON-ROUTINE examination for assessment of an ophthalmological symptom or finding.

303 OPHTHALMOLOGICAL HISTORY — Detail here any history of note or reasons for special referral.

304 to 309 inclusive: CLINICAL EXAMINATION — These sections together cover the general clinical examination and each of the sections should be marked (with a tick) as normal or abnormal. Any abnormal findings or comments on findings should be entered in section 321.

310 CONVERGENCE — Enter near point of convergence in cm, as measured using RAF near point rule or equivalent. Tick whether normal or abnormal. Any abnormal findings or comments on findings should be entered in section 321.

311 ACCOMMODATION — Enter measurement recorded in dioptres using RAF near point rule or equivalent. Tick whether normal or abnormal. Any abnormal findings or comments on findings should be entered in section 321.

312 OCULAR MUSCLE BALANCE — Ocular muscle balance is tested at distant 5 or 6 m and near at 30–50 cm and results recorded. Presence of tropia or phoria must be entered accordingly and also whether fusional reserve testing was NOT performed and if performed whether normal or not.

313 COLOUR VISION —Tick appropriate box signifying if applicant is a normal trichromat or not. Indicate the colour vision testing methodology used and provide results.

314–316 VISUAL ACUITY TESTING AT 5 m/6m, 1m and 30–50cm — Record actual visual acuity obtained in appropriate boxes. If correction not worn nor required, put line through corrected vision boxes. Distant visual acuity to be tested at either 5 m or 6 m with the appropriate chart for that distance.

317 REFRACTION — Record results of refraction. Indicate also whether for class 2 applicants, refraction details are based upon spectacle prescription.

318 SPECTACLES — Tick appropriate box signifying if spectacles are or are not worn by applicant. If used, state whether unifocal, bifocal, varifocal or look-over.

319 CONTACT LENSES — Tick appropriate box signifying if contact lenses are or are not worn. If worn, state type from the following list; hard, soft, gas-permeable, disposable.

320 INTRA-OCULAR PRESSURE — Enter intra-ocular pressure recorded for right and left eyes and indicate whether normal or not. Also indicate method used —applanation, air, etc.

321 OPHTHALMOLOGICAL REMARKS AND RECOMMENDATION — Enter here all remarks, abnormal findings and assessment results. Also enter any limitations recommended. If there is any doubt about findings or recommendations, the examiner may contact the medical assessor for advice before finalising the report form.

322 OPHTHALMOLOGY EXAMINER’S DETAILS — The ophthalmology examiner must sign the declaration, complete his/her name and address in block capitals, contact details and lastly stamp the report with his/her designated stamp incorporating his/her AME or specialist number.

323 PLACE AND DATE — Enter the place (town or city) and the date of examination. The date of examination is the date of the clinical examination and not the date of finalisation of form. If the ophthalmology examination report is finalised on a different date, enter date of finalisation on section 321 as ‘Report finalised on...’.

OTORHINOLARYNGOLOGY EXAMINATION REPORT FORM

Complete this page fully and in block capitals — Refer to instructions for completion.

MEDICAL IN CONFIDENCE

Applicant’s details

|  |  |  |  |
| --- | --- | --- | --- |
| (1) Licensing authority: | (2) Medical certificate applied for: class 1 🞏 class 2 🞏 class 3 🞏 | | |
| (3) Surname: | (4) Previous surname(s): | | (12) Application: Initial 🞏  Revalidation/Renewal 🞏 |
| (5) Forename(s): | (6) Date of birth: | (7) Sex:  Male 🞏  Female 🞏 | (13) Reference number: |
| (401) Consent to release of medical information: I hereby authorise the release of all information contained in this report and any or all attachments to the AME and, where necessary, to the medical assessor of the licensing authority, recognising that these documents, or any electronically stored data, are to be used for completion of a medical assessment and will become and remain the property of the licensing authority, providing that I or my physician may have access to them according to national law. Medical confidentiality will be respected at all times.  ------------------------------------ ----------------------------------------------------- --------------------------------------------------  Date Signature of applicant Signature of AME | | | |

|  |  |
| --- | --- |
| (402) Examination category: | (403) Otorhinolaryngological history: |
|  |  |
| Initial 🞏  Revalidation/renewal 🞏 |  |
| Referral 🞏 |  |

Clinical examination

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Check each item | | | Normal | | Abnormal |  | (419) Pure tone audiometry | | | | | | | | | | |
| (404) Head, face, neck, scalp | | |  | |  |  | dB HL (hearing level) | | | | | | | | | | |
| (405) Buccal cavity, teeth | | |  | |  |  | Hz | Right ear | | | | | Left ear | | | | |
| (406) Pharynx | | |  | |  |  | 250 |  | | | | |  | | | | |
| (407) Nasal passages and naso-pharynx | | |  | |  |  | 500 |  | | | | |  | | | | |
| (incl. anterior rhinoscopy) | | |  | |  |  | 1000 |  | | | | |  | | | | |
| (408) Vestibular system incl. Romberg test | | |  | |  |  | 2000 |  | | | | |  | | | | |
| (409) Speech/voice | | |  | |  |  | 3000 |  | | | | |  | | | | |
| (410) Sinuses | | |  | |  |  | 4000 |  | | | | |  | | | | |
| (411) Ext. acoustic meati, tympanic membranes | | |  | |  |  | 6000 |  | | | | |  | | | | |
| (412) Pneumatic otoscopy | | |  | |  |  | 8000 |  | | | | |  | | | | |
| (413) Impedance tympanometry including | | |  | |  |  |  |  | | | | |  | | | | |
| Valsalva manoeuvre (initial only) | | |  | |  |  | (420) Audiogram | | | | | | | | | | |
|  | | |  |  |  |  |  |  | | o = Right      – – – = Air x = Left       .......... = Bone | | | | | | | |
|  |  | |  | |  |  |  |  |  | |  |  | |  |  |  |  |
| Additional testing  (if indicated) | Not  performed | | Normal | | Abnormal |  | dB/HL |  |  | |  |  | |  |  |  |  |
|  | |  |  | –10 |  |  | |  |  | |  |  |  |  |
| (414) Speech audiometry |  | |  | |  |  | 0 |  |  | |  |  | |  |  |  |  |
| (415) Posterior rhinoscopy |  | |  | |  |  | 10 |  |  | |  |  | |  |  |  |  |
| (416) EOG; spontaneous and positional nystagmus |  | | | | |  | 20 |  |  | |  |  | |  |  |  |  |
|  | 30 |  |  | |  |  | |  |  |  |  |
| (417) Differential caloric test or |  | | | | |  | 40 |  |  | |  |  | |  |  |  |  |
| vestibular autorotation test |  | 50 |  |  | |  |  | |  |  |  |  |
| (418) Mirror or fibre laryngoscopy |  | | | | |  | 60 |  |  | |  |  | |  |  |  |  |
|  | 70 |  |  | |  |  | |  |  |  |  |
|  |  | |  | | |  | 80 |  |  | |  |  | |  |  |  |  |
| (421) Otorhinolaryngology remarks and recommendation: | | | | | |  | 90 |  |  | |  |  | |  |  |  |  |
|  | | | | | |  | 100 |  |  | |  |  | |  |  |  |  |
|  | 110 |  |  | |  |  | |  |  |  |  |
|  | 120 |  |  | |  |  | |  |  |  |  |
|  | Hz    250  500  1000  2000  3000  4000  6000 8000 | | | | | | | | | | |
| (422) Examiner’s declaration: | | | | | | | | | | | | | | | | | |
| I hereby certify that I/my AME group have personally examined the applicant named on this medical examination report and that this report with any attachment embodies my findings completely and correctly. | | | | | | | | | | | | | | | | | |
| (423) Place and date: | | ORL examiner’s name and address: (block capitals) | | | | | | | AME or specialist stamp with No: | | | | | | | | |
|  | |  | | | | | | |  | | | | | | | | |
| AME or specialist signature: | |  | | | | | | |  | | | | | | | | |
|  | | E-mail:  Telephone No:  Telefax No: | | | | | | |  | | | | | | | | |

INSTRUCTIONS FOR COMPLETION OF THE OTORHINOLARYNGOLOGY EXAMINATION REPORT FORM

Writing should be legible and in block capitals using a ball-point pen. Completion of this form by typing or printing is also acceptable. If more space is required to answer any question, a plain sheet of paper should be used, bearing the applicant’s name, the name and signature of the AME or otorhinolaryngology specialist performing the examination and the date of signing. The following numbered instructions apply to the numbered headings on the otorhinolaryngology examination report form.

Failure to complete the medical examination report form in full, as required, or to write legibly may result in non-acceptance of the application in total and may lead to withdrawal of any medical certificate issued. The making of false or misleading statements or the withholding of relevant information by an examiner may result in criminal prosecution, denial of an application or withdrawal of any medical certificate granted.

The AME or otorhinolaryngology specialist performing the examination should verify the identity of the applicant. The applicant should then be requested to complete the sections 1, 2, 3, 4, 5, 6, 7, 12 and 13 on the form and then sign and date the consent to release of medical information (section 401) with the examiner countersigning as witness.

402 EXAMINATION CATEGORY — Tick appropriate box.

Initial — Initial examination for class 1 or class 3; also initial examination for upgrading from class 2 to 1 or 3 (notate ‘upgrading’ in section 403).

Referral — NON-ROUTINE examination for assessment of an ORL symptom or finding.

403 OTORHINOLARYNGOLOGICAL HISTORY — Detail here any history of note or reasons for referral.

404–413 inclusive: CLINICAL EXAMINATION — These sections together cover the general clinical examination and each of the sections should be marked (with a tick) as normal or abnormal. Any abnormal findings or comments on findings should be entered in section 421.

414–418 inclusive: ADDITIONAL TESTING — These tests are only required to be performed if indicated by history or clinical findings and are not routinely required. For each test one of the boxes must be completed — if the test is not performed then tick that box — if the test has been performed then tick the appropriate box for a normal or abnormal result. All remarks and abnormal findings should be entered in section 421.

419 PURE TONE AUDIOMETRY — Complete figures for dB HL (hearing level) in each ear at all listed frequencies.

420 AUDIOGRAM — Complete audiogram from figures as listed in section 419.

421 OTORHINOLARYNGOLOGY REMARKS AND RECOMMENDATION — Enter here all remarks, abnormal findings and assessment results. Also enter any limitations recommended. If there is any doubt about findings or recommendations the examiner may contact the medical assessor for advice before finalising the report form.

422 OTORHINOLARYNGOLOGY EXAMINER’S DETAILS — The otorhinolaryngology examiner must sign the declaration, complete his/her name and address in block capitals, contact details and lastly stamp the report with his/her designated stamp incorporating his/her AME or specialist number.

423 PLACE AND DATE — Enter the place (town or city) and the date of examination. The date of examination is the date of the clinical examination and not the date of finalisation of form. If the ORL examination report is finalised on a different date, enter date of finalisation in section 421 as ‘Report finalised on...’.

## APPENDICES TO ANNEX II

APPENDIX 1 TO ANNEX II – Format for licence

(STUDENT) AIR TRAFFIC CONTROLLER LICENCE

The (student) air traffic controller licence issued in accordance with this Regulation 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 may appear on a separate or detachable part of the main form as prescribed below. Any separate or detachable part shall be clearly identifiable as part of the licence.

1. Permanent items:

(I) State of licence issue;

(II) title of licence;

(III) serial number of the licence with the United Nations (UN) country code of the State of licence issue and followed by ‘(Student) ATCO Licence’ and a code of numbers and/or letters in Arabic numerals and in Latin script;

(IV) name of holder in full (in Latin script, even if the script of the national language(s) is other than Latin);

(IVa) date of birth;

(V) holder’s address, if required by the competent authority;

(VI) nationality of holder;

(VII) signature of holder;

(VIII) competent authority;

(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 competent authority.

2. Variable items:

(XII) ratings and endorsements with expiry dates;

(XIII) remarks: language proficiency endorsements; and

(XIV) any other details required by the competent authority.

(b) The licence shall be accompanied by a valid medical certificate, except when instructor or assessor privileges are exercised in a synthetic training device environment.

(c) Material. First-quality paper and/or other suitable material, including plastic cards, shall be used to prevent or readily show any alterations or erasures. Any entries or deletions in the form will be clearly authorised by the Committee.

(d) Language. Licences shall be written in English and in Armenian languages languages.

|  |  |
| --- | --- |
| ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅՈՒՆ  REPUBLIC OF ARMENIA    ՕԴԱՅԻՆ ԵՐԹԵՎԵԿՈՒԹՅԱՆ ԿԱՌԱՎԱՐՄԱՆ (ՈՒՍԱՆՈՂ) ԿԱՐԳԱՎԱՐԻ ՎԿԱՅԱԿԱՆ  (STUDENT) AIR TRAFFIC CONTROLLER LICENCE  ՔԱՂԱՔԱՑԻԱԿԱՆ ԱՎԻԱՑԻԱՅԻ ԿՈՄԻՏԵ  CIVIL AVIATION COMMITTEE  Տրված է ՕԵԿ Կարգավարների լիցենզավորման կարգի համաձայն  Issued in accordance with Air Traffic Controllers' Licensing Regulation  Սույն վկայականը համապատասխանում է ԻԿԱՕ-ի ստսնդարտներին  This licence complies with the ICAO Standards  AM.ATCO. XXXXX | Requirements[[1]](#footnote-1)  .  The size of each page shall be one-eighth A4. |

|  |  |  |
| --- | --- | --- |
| I | State of issue: | Requirements: |
| **II** | **Title of licence:** |  |
| **III** | **Serial number of the licence:** | The serial number of the licence will always start with the UN country code of the State of the licence issue followed by ‘(Student) ATCO Licence’. |
| **IV** | **Name of the holder in full:** |  |
| **IVa** | **Date of birth:** | Standard date format is to be used, i.e. day/month/year in full (e.g. 31.01.2010) |
| **XIV** | **Place of birth:** |  |
| **V** | **Holder’s address, if required by the competent authority:**  **Street, town, area, postal code** |  |
| **VI** | **Nationality of holder:** | Indicated by the UN country code of the State |
| **VII** | **Signature of holder:** |  |
| **VIII** | **Competent Authority:** |  |
| X | Signature of officer issuing the licence and date of issue |  |
| XI | Seal or stamp of issuing competent authority |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **IX** | **Validity of privileges:**  *The holder is entitled to exercise the privileges of the following rating(s) and rating endorsement(s), when validated:*   |  |  | | --- | --- | | Rating(s) | Date of first issue | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  |  |  |  | | --- | --- | | Rating endorsement(s) | Date of first issue | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | Requirements:  English and any language(s) determined by the COMMITTEE.  The date of first issue of a rating and/or rating endorsement shall be the date of successful completion of the training relevant to that rating and/or rating endorsement. |

**XIIa Ratings and endorsements with expiry dates**

*The holder is entitled to exercise the privileges of the following rating(s) and rating endorsement(s) at the air traffic service unit(s) for which current unit endorsement(s) is (are) held as detailed below, only if the holder has a valid medical certificate:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Unit (ICAO indicator)(\*) | Sector/ Position(\*) | Rating/ Endorsement | Expiry date(\*) | Signature/stamp of the authority or signature of the inspector |
|  |  |  |  |  |
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|  |  |  |  |  |
| \* Not applicable for Student ATCO Licence | | | | |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **XIIb** | **Other endorsements:**  *The holder is entitled to exercise the privileges of the following endorsement(s)*   |  |  | | --- | --- | | OJTI /STDI /Assessor endorsement | Expiry date | |  |  | |  |  | |  |  | | Requirements: N/A |

|  |  |  |
| --- | --- | --- |
| **XIII** | **Remarks:**  Language proficiency endorsement(s):  [language(s)/level/expiry date] | Language proficiency endorsement(s), level and expiry date shall be included.  All additional licensing information to be entered here. |

Abbreviations

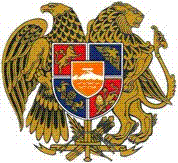
|  |  |  |
| --- | --- | --- |
| Air traffic controller ratings | | Requirements: N/A’. |
| **ADV** | Aerodrome Control Visual |
| **ADC** | Aerodrome Control |
| **APS** | Approach Control Surveillance |
| **ACS** | Area Control Surveillance |
| **Rating endorsements** | Area Control Surveillance |
| **SUR** | |
| **PAR** | Precision Approach Radar |
| **SRA** | Surveillance Radar Approach |
|  |  |
| **Licence endorsements** |  |
| **OJTI** | |
| **STDI** | Synthetic training device instructor |
| **Assessor** | Assessor |
|  |  |

GM1 APPENDIX 1 TO ANNEX II — Format for licence ((a)2(XII))

SIGNATURE/STAMP IN ITEM XIIa

The signature/stamp of the authority or the signature of the inspector are required in item XIIa of the licence when entries are made after the date the licence has been signed and sealed or stamped in items X and XI. Other case(s) where the signature/stamp of the authority or the signature of the inspector is to be included in item XIIa may be detailed in the procedure referred to in point [ATCO.AR.D.001](#_DxCrossRefBm1379192615)(a)(2).

APPENDIX 2 OF ANNEX II



ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ՔԱՂԱՔԱՑԻԱԿԱՆ ԱՎԻԱՑԻԱՅԻ ԿՈՄԻՏԵ

CIVIL AVIATION COMMITTEE OF THE REPUBLIC OF ARMENIA

ՕԴԱՅԻՆ ԵՐԹԵՎԵԿՈՒԹՅՆ ԿԱՐԳԱՎԱՐՆԵՐԻ ՈՒՍՈՒՄՆԱԿԱՆ ԿԵՆՏՐՈՆԻ ՎԿԱՅԱԿԱՆ

AIR TRAFFIC CONTROLLERS TRAINING CENTER CERTIFICATE

Համաձայն ՀՀ Տարածքային կառավարման և ենթակառուցվածքների նախարարի 20\_\_\_թ․ № հրամանի և ստորև նշված պայմանների, ՀՀ Քաղաքացիական ավիացիայի կոմիտեն սույնով հավաստում է

Pursuant to Order № of the Minister of Territorial Administration and Infrastructure of the RA and subject to the conditions specified below, the Civil aviation committee of the RA hereby certifies

[ ՈՒսումնական կազմակերպության անունը ]

[ Name of Training Organization ]

[ՈՒՍՈՒՄՆԱԿԱՆ ԿԱԶՄԱԿԵՐՊՈՒԹՅԱՆ ՀԱՍՑԵՆ]

[ADDRESS OF THE TRAINING ORGANISATION]

Որպես Part ATCO.OR սերտիֆիկացված ուսումնական կազմակերպություն՝ կից հաստատված ցանկում նշված Part ATCO ուսուցում իրականացնելու իրավունքով։

As a Part ATCO.OR certified training organisation with the privilege to provide Part ATCO training, as listed in the attached training approval.

Հաստատման պայմաններ և արտոնություններ՝

Terms of approval and privileges:

Այս վկայականը սահմանափակվում է կից հաստատված ցանկում նշված ուսուցում տրամադրելու արտոնություններով և շրջանակով:

This certificate is limited to the privileges and the scope of providing training as listed in the attached training approval.

Այս վկայականը վավեր է, քանի դեռ սերտիֆիկացված կազմակերպությունը պահպանում է համապատասխանությունը Part ATCO.OR-ին, Part ATCO-ին և այլ կիրառելի կանոնակարգերին:

This certificate is valid whilst the certified organisation remains in compliance with Part ATCO.OR, Part ATCO and other applicable regulations.

Պայմանով, որ պահպանվում է վերոնշյալ հաստատման պայմանների և արտոնությունների համապատասխանությունը, այս վկայականը մնում է վավեր, եթե այն չի հանձնվել, փոխարինվել, սահմանափակվել, կասեցվել կամ չեղյալ հայտարարվել:

Subject to compliance with the foregoing terms of approval and privileges, this certificate shall remain valid unless the certificate has been surrendered, superseded, limited, suspended or revoked.

Տրման ամսաթիվը՝

Ստորագրված՝

ՕԴԱՅԻՆ ԵՐԹԵՎԵԿՈՒԹՅԱՆ ԿԱՌԱՎԱՐՄԱՆ ԿԱՐԳԱՎԱՐՆԵՐԻ ՊԱՏՐԱՍՏՄԱՆ

ՈՒՍՈՒՄՆԱԿԱԲ ԿԱԶՄԱԿԵՐՊՈՒԹՅԱՆ ՎԿԱՅԱԿԱՆ

AIR TRAFFIC CONTROLLERS TRAINING ORGANIZATION CERTIFICATE

ՈՒՍՈՒՑՄԱՆ ՀԱՍՏԱՏՈՒՄ

TRAINING APPROVAL

Հավելում ՕԵԿԿ ՈՒԿ վկայականի համար՝

Attachment to ATCO TO certificate number:

[ՎԿԱՅԱԿԱՆԻ ՀԱՄԱՐ/ՀՂՈՒՄ]

[ՈՒՍՈՒՄՆԱԿԱՆ ԿԱԶՄԱԿԵՐՊՈՒԹՅԱՆ ԱՆՎԱՆՈՒՄ]

[CERTIFICATE NUMBER/REFERENCE]

[NAME OF THE TRAINING ORGANISATION]

Ստացել է հետևյալ ուսուցումն իրականացնելու արտոնություններ՝ համաձայն Part ATCO-ի:

Has obtained the privileges to provide and conduct the following training in accordance with Part ATCO.

|  |  |  |  |
| --- | --- | --- | --- |
| TYPE(S) OF TRAINING | | | |
| Type of training | Course | Rating endorsements | Remarks |
| □ ATCO Initial training | □ Basic training | n/a |  |
| □ Rating training  ————————————————————————---------- |  |  |
| □ ATCO Unit training | -----------------------------  ------------------------------ |  |  |
| □ ATCO Continuation | □ ATCO Refresher | n/a |  |
| □ATCO Conversion training | n/a |  |
| □ Practical instructor training | n/a | n/a |  |
| n/a |  |
| □ Assessor training | n/a | n/a |  |
| n/a |  |

Այս ուսուցման հաստատումը վավեր է քանի դեռ՝

(ա) ՕԵԿԿ ՈՒԿ վկայականը չի հանձնվել, փոխարինվել, սահմանափակվել, կասեցվել կամ չեղյալ հայտարարվել,

(բ) բոլոր գործողությունները իրականացվում են համաձայն Part ATCO.OR, Part ATCO, այլ կիրառելի կանոնակարգերի, և, երբ համապատասխան է, կազմակերպության փաստաթղթերում նշված ընթացակարգերի՝ ինչպես պահանջվում է Part ATCO.OR-ով:

This training course approval is valid as long as:

(a) the ATCO TO certificate has not been surrendered, superseded, limited, suspended or revoked; and

(b) all operations are conducted in compliance with Part ATCO.OR, Part ATCO, other applicable regulations, and, when relevant, with the procedures in the organisation's documentation as required by Part ATCO.OR.

Տրման ամսաթիվ՝ Ստորագրված՝ [Իրավասու մարմին]

Ծանոթագրություններ՝

(¹) Իրավասու մարմինը պետք է նշի որակավորման հավելումները համաձայն ATCO.B.015-ի, որոնց համար տրամադրվում է ուսուցումը, եթե կիրառելի է:

(²) Երբ անհրաժեշտ է:

(³) Իրավասու մարմինը պետք է նշի որակավորումները համաձայն ATCO.B.015-ի, որոնց համար տրամադրվում է ուսուցումը:

(⁴) Իրավասու մարմինը պետք է նշի ստորաբաժանման հավելում(ներ)ը, որոնց համար տրամադրվում է ուսուցումը:

Notes:

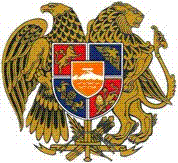
(¹) The competent authority shall specify the rating endorsements according to ATCO.B.015 for which the training is provided, if appropriate.

(²) When necessary.

(³) The competent authority shall specify the ratings according to ATCO.B.015 for which the training is provided.

(⁴) The competent authority shall specify the unit endorsement(s) for which the training is provided.

APPENDIX 3 OF ANNEX II



ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ՔԱՂԱՔԱՑԻԱԿԱՆ ԱՎԻԱՑԻԱՅԻ ԿՈՄԻՏԵ

CIVIL AVIATION COMMITTEE OF THE REPUBLIC OF ARMENIA

ՀԱՎԱՍՏԱԳԻՐ ԱՎԻԱԲԺՇԿԱԿԱՆ ՓՈՐՁԱԳԵՏՆԵՐԻ ՀԱՄԱՐ (ԱԲՓ)

ՀԱՎԱՍՏԱԳԻՐ [ՀԱՄԱՐ/ՀՂՈՒՄ]

CERTIFICATE FOR AERO-MEDICAL EXAMINERS (AMEs)

CERTIFICATE [NUMBER/REFERENCE]

Համաձայն ՀՀ Տարածքային կառավարման և ենթակառուցվածքների նախարարի 20\_\_\_թ․ № հրամանի և ստորև նշված պայմանների, ՀՀ Քաղաքացիական ավիացիայի կոմիտեն սույնով հավաստում է

Pursuant to Order № of the Minister of Territorial Administration and Infrastructure of the RA and subject to the conditions specified below, the Civil aviation committee of the RA hereby certifies

[ԱՎԻԱԲԺՇԿԱԿԱՆ ՓՈՐՁԱԳԵՏԻ ԱՆՈՒՆ]

[NAME OF THE AERO-MEDICAL EXAMINER]

[ԱՎԻԱԲԺՇԿԱԿԱՆ ՓՈՐՁԱԳԵՏԻ ՀԱՍՑԵ]

[ADDRESS OF THE AERO-MEDICAL EXAMINER]

ՈՐՊԵՍ ԱՎԻԱԲԺՇԿԱԿԱՆ ՓՈՐՁԱԳԵՏ

AS AERO-MEDICAL EXAMINER

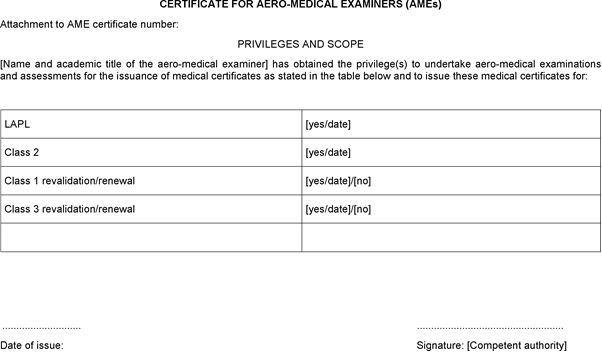
ՊԱՅՄԱՆՆԵՐ՝

1. Այս հավաստագիրը սահմանափակվում է ԱԲՓ հավաստագրի կցորդում նշված արտոնություններով;
2. Այս հավաստագիրը պահանջում է համապատասխանություն Part MED և/կամ ATCO MED-ում նշված կիրառման կանոններին և ընթացակարգերին՝ ըստ անհրաժեշտության;
3. Այս հավաստագիրը մնում է վավեր երեք տարի ժամկետով մինչև [օր/ամիս/տարի]՝ ենթակա Part MED և/կամ Part ATCO MED պահանջներին համապատասխանությանը՝ ըստ անհրաժեշտության, քանի դեռ այն չի հանձնվել, փոխարինվել, կասեցվել կամ չեղյալ հայտարարվել:

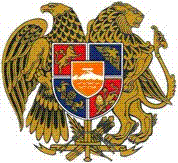
CONDITIONS:

1. This certificate is limited to the privileges specified in the attachment to this AME certificate;
2. This certificate requires compliance with the implementing rules and procedures specified in Part MED and/or ATCO MED as appropriate;
3. This certificate shall remain valid for a period of three years until [dd/mm/yyyy] subject to compliance with the requirements of Part MED and/or Part ATCO MED as appropriate unless it has been surrendered, superseded, suspended or revoked.

Տրման ամսաթիվ՝ Ստորագրություն՝ [Իրավասու մարմին]



APPENDIX 4 OF ANNEX II



ՀԱՅԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ ՔԱՂԱՔԱՑԻԱԿԱՆ ԱՎԻԱՑԻԱՅԻ ԿՈՄԻՏԵ

CIVIL AVIATION COMMITTEE OF THE REPUBLIC OF ARMENIA

ԱՎԻԱՑԻՈՆ ԲԺՇԿԱԿԱՆ ՀԱՍՏԱՏՈՒԹՅԱՆ ՎԿԱՅԱԿԱՆ

AERO-MEDICAL CENTER CERTIFICATE

Համաձայն ՀՀ Տարածքային կառավարման և ենթակառուցվածքների նախարարի 20\_\_\_թ․ № հրամանի և ստորև նշված պայմանների, ՀՀ Քաղաքացիական ավիացիայի կոմիտեն սույնով հավաստում է

Pursuant to Order № of the Minister of Territorial Administration and Infrastructure of the RA and subject to the conditions specified below, the Civil aviation committee of the RA hereby certifies

[ Բժշկական հաստատության անունը ]

[ Name of Aero-medical center]

[Բժշկական հաստատության հասցեն]

[Address of the Aero-medical center]

Որպես ՓԱՐԹ ՕՌԱ-ով հավաստագրված ավիացիոն բժշկական հաստատություն՝ հաստատման պայմաններում նշված արտոնություններով և գործունեության շրջանակով:

As a Part ORA certified aero-medical centre with the privileges and the scope of activities as listed in the attached terms of approval.

ՊԱՅՄԱՆՆԵՐ՝

(1) Այս հավաստագիրը սահմանափակվում է հաստատված կազմակերպության ձեռնարկի հաստատման բաժնի շրջանակով;

(2) Այս հավաստագիրը պահանջում է համապատասխանություն կազմակերպության փաստաթղթերում նշված ընթացակարգերին, ինչպես պահանջվում է ՓԱՐԹ ՕՌԱ-ով;

(3) Այս հավաստագիրը մնում է վավեր և ենթակա է ՓԱՐԹ ՕՌԱ-ի պահանջներին համապատասխանությանը, քանի դեռ այն չի հանձնվել, կասեցվել կամ չեղյալ հայտարարվել:

CONDITIONS:

(1) This certificate is limited to the scope of approval section of the approved organisation manual;

(2) This certificate requires compliance with the procedures specified in the organisation documentation as required by Part ORA;

(3) This certificate shall remain valid and subject to compliance with the requirements of Part ORA unless it has been surrendered, suspended or revoked.

«\_\_\_\_»\_\_\_\_\_\_\_\_\_20 \_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Տրման ամսաթիվ Ստորագրություն՝ [Իրավասու մարմին]

# ANNEX III – PART ATCO.OR – REQUIREMENTS FOR AIR TRAFFIC CONTROLLER TRAINING ORGANISATIONS AND AERO-MEDICAL CENTRES

## SUBPART A – GENERAL REQUIREMENTS

ATCO.OR.A.001 Scope

This Part, set out in this Annex, establishes the requirements applicable to air traffic controller training organisations and aero-medical centres in order to obtain and maintain a certificate in accordance with Low on Aviation RA and this Regulation.

## SUBPART B – REQUIREMENTS FOR AIR TRAFFIC CONTROLLER TRAINING ORGANISATIONS

ATCO.OR.B.001 Application for a training organisation certificate

(a) Applications for a training organisation certificate shall be submitted to the Committee in due time to allow the Committee to evaluate the application. The application shall be submitted in accordance with the procedure established by the Committee.

(b) Applicants for an initial certificate shall demonstrate to the Committee how they will comply with the requirements established in this Regulation.

(c) An application for a training organisation certificate shall include the following:

(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 (1);

(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 competent authority;

(4) the 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 which 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.

GM1 ATCO.OR.B.001(c)(2) Application for a training organisation certificate

The requirement to add the list of ATC units is not relevant in the case of training organisations which provide initial training only.

ATCO.OR.B.005 Means of compliance

(a) An organisation may use any alternative means of compliance to establish compliance with this Regulation.

(b) If an organisation wishes to use an alternative means of compliance, it shall, prior to using it, provide the Committee with a full description. The description shall include any revisions to manuals or procedures that may be relevant, as well as an explanation indicating how compliance with this Regulation is achieved.

The organisation may use those alternative means of compliance subject to prior approval from the Committee.

AMC1 ATCO.OR.B.005 Means of compliance

DEMONSTRATION OF COMPLIANCE

In order to demonstrate that the Implementing Rules are complied with, a safety (risk) assessment should be completed and documented. The result of this safety (risk) assessment should demonstrate that an equivalent level of safety to that established by the Acceptable Means of Compliance (AMC) adopted by the MTAI is reached.

ATCO.OR.B.010 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 of Annex I (Part ATCO) are fulfilled, the privilege to provide unit and/or 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.

AMC1 ATCO.OR.B.010(a) Terms of approval and privileges of a training organisation certificate

The management system documentation should contain the privileges and detailed scope of activities including the contracted ones for which the training organisation is certified, as relevant to this Regulation.

GM1 ATCO.OR.B.010(b) Terms of approval and privileges of a training organisation certificate

PROVIDING ON-THE-JOB TRAINING VIA AGREEMENT WITH THE ATC PROVIDER

The specific agreement should detail the issues of liability and insurance for the provision of air traffic control service during on-the-job training and consider the relevant provisions of [ATCO.OR.C.005](#_DxCrossRefBm1379192674) in order to ensure conformity of the contracted or purchased activity or part of activity to the applicable requirements as well as those of [ATCO.OR.B.040](#_DxCrossRefBm1379192595) on occurrence reporting and [ATCO.OR.C.025](#_DxCrossRefBm1379192673) on funding and insurances.

ATCO.OR.B.015 Changes to the training organisation

(a) The following change shall require prior approval before their implementation, unless such a change is notified and managed in accordance with a procedure approved by the Committee as laid down in point [ATCO.AR.E.010](#_DxCrossRefBm1379192632)(c):

(1) a change affecting the scope of the certificate or the terms of approval of the training organisation; or

(2) a change affecting any relevant element of the training organisation’s management systems.

(b) For any changes requiring prior approval in accordance with point (a), the training organisation shall apply for and obtain an approval issued by the Committee. The application shall be submitted before any such change takes place in order to enable the Committee 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 Committee with all relevant documentation.

The change shall only be implemented upon receipt of formal approval by the Committee in accordance with point [ATCO.AR.E.010](#_DxCrossRefBm1379192632).

Training organisations shall operate under the conditions prescribed by the Committee during such changes, as applicable.

(c) Changes to the elements referred to in point (a) due to unforeseen circumstances shall be notified to the competent authority without delay in order to obtain approval as necessary.

(d) Training organisations shall notify the competent authority when they cease their activities.

AMC1 ATCO.OR.B.015 Changes to the training organisation

GENERAL

(a) Training organisations should inform the Committee of any changes to personnel specified in Annex III (Part ATCO.OR) that may affect the certificate or the training approval attached to it.

(b) Training organisations should send to the Committee each management system documentation amendment. Where the amendment requires the Committee’s approval, the training organisation should receive it in writing.

GM1 ATCO.OR.B.015 Changes to the training organisation

GENERAL

(a) Examples of changes that may affect the certificate or the terms of approval of the training organisation or the training organisation’s management system are listed below:

(1) the name of the training organisation;

(2) change of legal entity;

(3) the training organisation’s principal place of operation;

(4) the training organisation’s type(s) of training;

(5) additional locations of the training organisation;

(6) the accountable manager;

(7) any of the persons referred to in Part ATCO.OR;

(8) the training organisation’s documentation as required by Subpart ATCO.OR.C on safety policy and procedures;

(9) the facilities.

(b) Prior approval by the Committee is required for any changes to the training organisation’s procedure describing how changes not requiring prior approval will be managed and notified to the competent authority.

GM2 ATCO.OR.B.015 Changes to the training organisation

CHANGE OF NAME

A change of name requires the training organisation to submit a new application as a matter of urgency.

Where this is the only change to report, the new application can be accompanied by a copy of the documentation previously submitted to the Committee under the previous name, as a means of demonstrating how the training organisation complies with the applicable requirements.

ATCO.OR.B.020 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 Regulation, taking into account the provisions related to the handling of findings in accordance with point [ATCO.OR.B.030](#_DxCrossRefBm1379192680).

(b) The certificate shall be returned to the Committee without delay upon its revocation or the cessation of all activities.

ATCO.OR.B.025 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 Committee 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 Committee.

ATCO.OR.B.030 Findings

After receipt of notification of findings issued by the Committee in accordance with point [ATCO.AR.E.015](#_DxCrossRefBm1379192607), the training organisation shall:

(a) identify the root cause of the finding;

(b) define a corrective action plan that meets the acceptance of the Committee; and

(c) demonstrate corrective action implementation to the satisfaction of the Committee within the period agreed with the Committee as defined in point [ATCO.AR.E.015](#_DxCrossRefBm1379192607).

AMC1 ATCO.OR.B.030(b) Findings and corrective actions

GENERAL

The corrective action plan defined by the training organisation should address the effects of any non- compliance and its root cause.

GM1 ATCO.OR.B.030(a);(b) Findings

CORRECTIVE ACTION PLAN AND ROOT CAUSE

(a) Corrective action is the action to eliminate the root cause of a non-compliance in order to prevent its recurrence.

(b) Determination of the root cause is crucial for defining effective corrective actions.

GM2 ATCO.OR.B.030(c) Findings

COMPETENT AUTHORITY

When reference is made to the competent authority, it means the competent authority that has issued the certificate and ensures oversight of activities.

For the purpose of this regulation - Civil Aviation Committee RA.

ATCO.OR.B.035 Immediate reaction to a safety problem

The training organisation shall implement any safety measures mandated by the Committee in accordance with point [ATCO.AR.A.025](#_DxCrossRefBm1379192590)(c) and (d) for the training organisation activities.

ATCO.OR.B.040 Occurrence reporting

(a) As part of their management system, training organisations providing on-the-job training shall establish and maintain an occurrence-reporting system, including mandatory and voluntary reporting.

(b) Training organisations providing on-the-job training shall report to the Committee any safety-related event or condition resulting from their training activity that endangers or, if not corrected or addressed, could endanger an aircraft, its occupants or any other person, and in particular any accident or serious incident.

(c) Reports in accordance with point (b) above shall:

(1) be made as soon as practicable, but in any case within 72 hours after the organisation became aware of the event or condition to which the report relates unless exceptional circumstances prevent this;

(2) be made in a form and manner established by the Committee;

(3) contain all pertinent information about the condition known to the organisation.

(d) For training organisations not established in the Republic of Armenia and providing on-the-job training, the initial mandatory reports shall:

(1) appropriately safeguard the confidentiality of the identity of the reporter and of the persons mentioned in the report;

(2) be made as soon as practicable, but in any case within 72 hours after the organisation became aware of the occurrence unless exceptional circumstances prevent this;

(3) be made in a form and manner established by the Committee; and

(4) contain all pertinent information about the condition known to the organisation.

(e) Where relevant, a follow-up report providing details of actions the organisation intends to take to prevent similar occurrences in the future shall be made as soon as these actions have been identified; those follow-up reports shall:

(1) be sent to relevant entities initially reported to as per points (b) and (c); and

(2) be made in a form and manner established by the Committee,

AMC1 ATCO.OR.B.040 Occurrence reporting

MANDATORY REPORTING — GENERAL

Training organisations should report all occurrences that may involve an actual or potential aviation safety risk. Point [ATCO.OR.B.040](#_DxCrossRefBm1379192595)(c) of Annex III (Part ATCO.OR) to this Regulation provide examples of what is required to be reported. Reporting should not be limited to those items listed in point [ATCO.OR.B.040](#_DxCrossRefBm1379192595)(c) of Annex III (Part ATCO.OR) to this.

GM1 ATCO.OR.B.040 Occurrence reporting

GENERAL

The training organisation’s report should focus on occurrences taking place during on-the-job training with regard to the training aspects involved.

The report may be submitted together with, or as an integral part of, the report prepared by the air navigation service provider.

AMC1 ATCO.OR.B.040(a) Occurrence reporting

GENERAL

(a) Where the training organisation holds one or more additional organisation certificates within the scope of Law on Aviation of the Republic of Armenia and its delegated and implementing acts:

(1) it may establish an integrated occurrence-reporting system covering all certificate(s) held; and

(2) single reports for occurrences should only be provided if the following conditions are met:

(i) the report includes all relevant information from the perspective of the different organisation certificates held;

(ii) the report addresses all relevant specific mandatory data fields and clearly identifies all certificate holders for which the report is made; and

(b) The training organisation should assign responsibility to one or more suitably qualified persons with clearly defined authority for coordinating actions on occurrences and for initiating any necessary further investigation and follow-up activities.

(c) If more than one person is assigned such responsibility, the training organisation should identify a single person to act as the main focal point for ensuring a single reporting channel is established to the accountable manager. This should in particular apply to training organisations that hold one or more additional organisation certificates within the scope Law on Aviation of the Republic of Armenia and its delegated and implementing acts where the occurrence-reporting system is fully integrated with that required under the additional certificate(s) held.

## SUBPART C – MANAGEMENT OF AIR TRAFFIC CONTROLLER TRAINING ORGANISATIONS

ATCO.OR.C.001 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.

GM1 ATCO.OR.C.001 Management system of training organisations

The requirements for the management system of training organisations may be satisfied if the air navigation service provider’s management system/safety management system (SMS) specifically covers the requirements of this Regulation.

AMC1 ATCO.OR.C.001(b) Management system of training organisations

SAFETY POLICY

The safety policy should:

(a) be signed by the accountable manager;

(b) reflect the organisation’s commitment regarding safety, and its proactive and systematic management;

(c) be communicated, with visible endorsement, throughout the organisation;

(d) include safety-reporting principles and procedures, if applicable;

(e) include the organisations's commitment to:

(1) improve towards the highest safety standards;

(2) comply with all applicable legal requirements, meet all applicable standards and consider best practices;

(3) provide appropriate resources;

(4) enforce safety as the primary responsibility of all managers and staff; and

(5) apply just culture principles in accordance with Low on Aviation and, in particular, not to make available or use the information on occurrences:

(i) to attribute blame or liability to someone for reporting something that would not have been otherwise detected; or

(ii) for any purpose other than the maintenance or improvement of aviation safety;

(f) clearly indicate which types of operational behaviour are unacceptable, and include the conditions under which disciplinary action would not apply, if applicable;

(g) enhance and embed safety culture and safety awareness; and

(h) be periodically reviewed to ensure it remains relevant and appropriate to the training organization.

GM1 ATCO.OR.C.001(b) Management system of training organisations

SAFETY POLICY

(a) The safety policy is the means whereby a training organisation states its intention to maintain and, where practicable, improve safety levels in all its activities and to minimise its contribution to the risk of an aircraft accident or serious incident as far as is reasonably practicable. It reflects the management’s commitment to safety, and should reflect the organisation’s philosophy as regards safety management, as well as become the foundation on which the organisation’s management system is built. It serves as a reminder of ‘how we do business here’. The establishment of a positive safety culture begins with the issuance of a clear, unequivocal direction.

(b) The commitment to apply just culture principles forms the basis for the organisation’s internal rules describing how just culture principles are guaranteed and implemented, after consulting its staff representatives.

(c) The safety policy should state that the purpose of safety reporting is to improve safety, not to apportion blame to individuals.

AMC1 ATCO.OR.C.001(c) Management system of training organisations

IDENTIFICATION OF AVIATION SAFETY HAZARDS

For training organisations not providing on-the-job training, the hazard identification process may be limited to a demonstration that there are no hazards directly identified. However, the training should be designed so as to ensure future safe operations.

AMC1 ATCO.OR.C.001(d) Management system of training organisations

PERSONNEL

A training organisation should demonstrate that:

(a) a list of activities with relevant needed competence has been established;

(b) their personnel have the relevant competence needed to fulfil the activities they are required to perform;

(c) their personnel maintain a level of competence through training as appropriate;

(d) their theoretical and practical instructors are qualified in accordance with Part ATCO, Subpart C of this Regulation;

(e) their practical instructors either hold an OJTI endorsement or an STDI endorsement;

(f) their assessors hold an assessor endorsement; and

(g) their synthetic training device instructors and assessors demonstrate knowledge of and receive refresher training in current operational practices.

AMC1 ATCO.OR.C.001(e) Management system of training organisations

PROCESSES

Training organisations should demonstrate that the management system:

(a) policies, processes and procedures are monitored to ensure they are current and subject to periodic review and amendment, when necessary, to maintain their continued accuracy and suitability;

(b) allows for the impromptu recognition and initiation of improvements to policies, processes and procedures between periodic reviews;

(c) controls, records and tracks changes to all of the management system policy, process and procedure documents;

(d) includes a master record index that lists all the policies, processes and procedures; and

(e) includes as a minimum the following:

(1) master record index;

(2) training provider certificate;

(3) management structure;

(4) staff role profiles including accountabilities and responsibilities;

(5) training manuals, plans and courses;

(6) evidence of regulatory compliance;

(7) change control process;

(8) safety management manual;

(9) course design documents;

(10) instructor/assessor qualification and competence records.

AMC1 ATCO.OR.C.001(f) Management system of training organisations

COMPLIANCE MONITORING

(a) The implementation and use of a compliance monitoring function should enable the training organisation to monitor compliance with the relevant requirements of this Regulation.

(b) Training organisations should specify the basic structure of the compliance monitoring function applicable to the activities conducted.

(c) The compliance monitoring function should be structured according to the activities of the training organisation to be monitored.

GM1 ATCO.OR.C.001(f) Management system of training organisations

EXAMPLE OF COMPLIANCE MONITORING SYSTEM

(a) Training organisations may monitor compliance with the procedures they have designed to ensure safe activities. In doing so, they may, as a minimum, and, where appropriate, monitor:

(1) the organisational structure;

(2) the plans and objectives;

(3) the privileges of the organisation;

(4) the manuals, logs and records;

(5) the training standards;

(6) the management system.

(b) Organisational set-up

(1) To ensure that the training organisation continues to meet the requirements of this Regulation, the accountable manager may designate a person responsible for the compliance monitoring function whose role is to verify, by monitoring the activities of the organisation, that the standards required by this Regulation and any additional requirements as established by the organisation are met under the supervision of the relevant head of the functional area. For small training organisations, these identified functions can be fulfilled by the same person.

(2) The person designated for the compliance monitoring function should be responsible for ensuring that the compliance monitoring programme is properly implemented, maintained and continually reviewed and improved.

(3) The designated person responsible for the compliance monitoring function should:

(i) have direct access to the accountable manager; and

(ii) have access to all parts of the training organisation and, as necessary, to any contracted organisation.

(c) Compliance monitoring documentation

(1) Relevant documentation could include the relevant part(s) of the training organisation management system documentation.

(2) In addition, relevant documentation could also include the following:

(i) terminology;

(ii) specified activity standards;

(iii) description of the organisation;

(iv) allocation of duties and responsibilities;

(v) procedures to ensure regulatory compliance;

(vi) compliance monitoring programme, reflecting:

(A) schedule of the monitoring programme;

(B) audit procedures;

(C) reporting procedures;

(D) follow-up and corrective action procedures; and

(E) recording system;

(vii) training elements referred to in paragraph 4(b)

(viii) document control.

(d) Training

(1) Correct and thorough training is essential to optimise compliance in every training organisation. In order to achieve significant outcomes of such training, the training organisation needs to ensure that all personnel understand the objectives laid down in the organisation’s manual.

(2) Those responsible for managing the compliance monitoring function should receive training in this task. Such training could cover the requirements of compliance monitoring, manuals and procedures related to the task, audit techniques, reporting and recording.

(3) Time needs to be provided to train all personnel involved in compliance management and for briefing the rest of the personnel.

(4) The allocation of time and resources needs to be governed by the activities covered by the training organisation.

AMC2 ATCO.OR.C.001(f) Management system of training organisations

COMPLIANCE MONITORING

The person designated for the compliance monitoring function should be responsible for the review and continuous improvement of the established management system’s policies, processes and procedures. The following tools are essential to the ongoing continuous improvement process:

(a) organisational risk profile;

(b) risk management plan;

(c) coherence matrix;

(d) corrective and preventive action reports; and

(e) inspection and audit reports.

GM2 ATCO.OR.C.001(f) Management system of training organisations

COMPLIANCE MONITORING

(a) These tools and processes related to the compliance monitoring function are interrelated and help define the continuous improvement efforts of the organisation. For example, any corrective or preventive action report could identify a deficiency or an opportunity for improvement. The person responsible for the compliance monitoring function would then be required to ensure the identified issue was addressed and the corrective or preventive action effectively implemented. The same would be true if the discovery of an issue was identified during an inspection or audit.

(b) The effective implementation of change and the subsequent validation that the change did result in the desired outcome is critical to the continuous improvement process. Simply introducing a well-meaning suggestion for improvement into the organisation without carefully managing that change could have undesirable consequences. It is, therefore, the responsibility of the person in charge of the compliance monitoring function to introduce, monitor and validate improvement efforts.

(c) A simple but effective process to use in managing continuous improvement is known as the plan-do-check-act, or PDCA, approach:

(1) plan — map out the implementation of the recommended change, identifying at least:

(i) those people who will be affected by the change;

(ii) the required measures necessary to mitigate risk; and

(iii) the desired outcome and its intended consequences.

(2) do — execute the implementation plan once all affected groups have accepted the proposal and understand their role in ensuring its success;

(3) check — apply sufficient quality control ‘stage’ checks throughout the implementation phase to ensure any unintended deviations in the execution are identified and addressed without delay; and

(4) act — analyse the results and take appropriate action as necessary.

AMC1 ATCO.OR.C.001(g) Management system of training organisations

SIZE, NATURE AND COMPLEXITY OF THE ACTIVITY

(a) A training organisation should be considered complex when it has a workforce of more than 20 full-time equivalents (FTEs) involved in activities.

(b) A training organisation with up to 20 FTEs involved in the activities may also be considered complex based on an assessment of the following factors:

(1) the extent and scope of contracted activities subject to the certificate, in terms of complexity; and

(2) the different types of training provided, in terms of risk criteria.

ATCO.OR.C.001A Information security management system

In addition to the management system referred to in point [ATCO.OR.C.001](#_DxCrossRefBm1379192691), the training organisation shall establish, implement and maintain an information security management system in order to ensure the proper management of information security risks which may have an impact on aviation safety.

ATCO.OR.C.005 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 the Committee is given access to the contracted organisation to determine continued compliance with the applicable requirements.

AMC1 ATCO.OR.C.005 Contracted activities

(a) Training organisations may decide to contract certain parts of their activities to external organisations.

(b) A written agreement should exist between the training organisation and the contracted organisation clearly defining the contracted activities and the applicable requirements.

(c) The contracted safety-related activities relevant to the agreement should be included in the training organisation’s compliance monitoring programme.

(d) Training organisations should ensure that the contracted organisation has the necessary authorisation or approval when required, and commands the resources and competence to undertake the task.

GM1 ATCO.OR.C.005 Contracted activities

RESPONSIBILITY WHEN CONTRACTING ACTIVITIES

(a) Regardless of the approval status of the contracted organisation, the contracting organisation is responsible to ensure that all contracted activities are subject to hazard identification and risk management as required by [ATCO.OR.C.001](#_DxCrossRefBm1379192691)(c) and to compliance monitoring as required by [ATCO.OR.C.001](#_DxCrossRefBm1379192691)(f).

(b) When the contracted organisation is itself certified to carry out the contracted activities, the organisation’s compliance monitoring should at least check that the approval effectively covers the contracted activities and that it is still valid.

ATCO.OR.C.010 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, including demonstration of adequate knowledge and experience, 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 [ATCO.C.045](#_DxCrossRefBm1379192459), with their relevant endorsements.

GM1 ATCO.OR.C.010(b);(c) Personnel requirements

(a) Training organisations may nominate the person responsible for training and a person or persons subordinate to him or her as chief training instructor(s)/unit responsible training officer(s).

(b) Usually, training organisations nominate only one person responsible for training.

(c) Prerequisites, typical function and responsibilities of the person responsible for training may be:

(1) to have extensive experience in instructing for all types of ATC training and possess sound managerial capability;

(2) to have overall responsibility for ensuring satisfactory integration of all training provided and for supervising the progress of the persons undertaking training;

(3) to be responsible for coordinating and delegating the contact to the competent authority in training-related issues; and

(4) to be ultimately responsible to the accountable manager.

(d) Prerequisites, typical functions and responsibilities of the chief training instructor(s)/unit responsible training officer(s) may be:

(1) to have extensive experience in instructing for all types of ATC training and possess sound managerial capability;

(2) to have responsibility for ensuring satisfactory training is provided and for supervising the progress of the persons undertaking training in the areas that have been delegated by the person responsible for training; and

(3) to report to the person responsible for training.

ATCO.OR.C.015 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.

AMC1 ATCO.OR.C.015(a) Facilities and equipment

(a) General areas

A training organisation should have access to facilities appropriate to the size and scope of the intended operations provided in an environment conducive to learning.

(b) Training areas

For training organisations providing theoretical training, the facilities should also include sufficient suitably equipped classroom areas.

GM1 ATCO.OR.C.015(a) Facilities and equipment

(a) General areas

These facilities should include general areas, which consist of sufficient:

(1) office space for managerial and administrative as well as training staff;

(2) rooms for study and testing;

(3) library facilities; and

(4) storage areas, including secure areas for training and personnel records.

(b) Training areas

For training organisations providing practical training, the facilities should also include sufficient:

(1) rooms for briefing and debriefing; and

(2) suitably equipped rooms for practical training.

AMC1 ATCO.OR.C.015(b) Facilities and equipment

SPECIFICATIONS FOR SYNTHETIC TRAINING DEVICES

(a) Synthetic training devices classifications

Synthetic training devices used for training should be classified according to one of the following classifications:

(1) simulator (SIM);

(2) part-task trainer (PTT).

(b) Synthetic training device (STD) criteria

If an STD is used for training, it should be approved by the Committee as part of the course approval process for any training plan. Training organisations should demonstrate how the STD will provide adequate support for the intended training, in particular, how the STD will meet the stated objectives of the practical training exercises and enable the performance objectives to be assessed to the level determined in the training programme.

This demonstration and the related documentation should include the following relevant criteria:

(1) the general environment, which should provide an environment in which STD exercises may be run without undue interference from unrelated activities;

(2) the STD layout;

(3) the equipment provided;

(4) the display presentation, functionality, and updating of operational information;

(5) data displays, including strip displays, where appropriate;

(6) coordination facilities;

(7) aircraft performance characteristics, including the availability of manoeuvres, e.g. holding or instrumental landing system (ILS) operation, required for a particular simulation;

(8) the availability of real-time changes during an exercise;

(9) the processes by which the training organisation can be assured that staff associated with the training conducted with the use of an STD are competent;

(10) the degree of realism of any voice recognition system associated with the STD; and

(11) where a simulator is an integral part of an operational ATC system, the processes by which the training organisation is assured that interference between the simulated and operational environments is prevented.

The extent to which the STD achieves the above criteria will be used to determine the adequacy of the STD for the proposed use. As a general principle, the greater the degree of replication of the operational position being represented, the greater the use will be possible for any particular training.

(c) STD used for pre-on-the-job training

When an STD is used for pre-on-the-job training and the training time is counted as operational training, the STD classification should be a full-size replica of a working position, including all equipment, and computer programmes necessary to represent the full tasks associated with that position, including realistic wind at all levels to facilitate SRA. In the case of a working position at a tower unit, it includes an out-of-the-tower view.

ATCO.OR.C.020 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.

AMC1 ATCO.OR.C.020(a);(b) Record keeping

Training organisations should maintain the following records:

(a) Records of persons undertaking training:

(1) personal information;

(2) details of training received including the starting date of the training, as well as the results of the examinations and assessments;

(3) detailed and regular progress report forms;

(4) certificate of completion of training courses.

(b) Records of instructors and assessors:

(1) personal information;

(2) qualification records;

(3) records of refresher training for instructors and assessors;

(4) assessment reports;

(5) instructional and/or assessment time records.

Training organisations should submit training records and reports to the competent authority as required.

ATCO.OR.C.025 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.

AMC1 ATCO.OR.C.025 Funding and insurances

SUFFICIENT FUNDING

To demonstrate compliance with the requirement on the availability of sufficient funding, training organisations may be required to present an economic study identifying the minimum amount necessary to ensure that the training is conducted in accordance with the applicable requirements.

AMC2 ATCO.OR.C.025 Funding and insurances

SUFFICIENT INSURANCE COVER

To demonstrate compliance with the requirement on sufficient insurance cover, training organisations may be required to provide a deposit of an insurance certificate or other evidence of valid insurance.

The insurance cover should be established by taking into account the nature of the training provided, the frequency and the fees applicable to the training courses.

## SUBPART D – REQUIREMENTS FOR TRAINING COURSES AND TRAINING PLANS

ATCO.OR.D.001 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 Annex I (Part ATCO), Subpart D;

(b) subjects, topics and subtopics for rating endorsements in accordance with the requirements laid down in Annex I (Part ATCO);

(c) methods of assessments in accordance with [ATCO.D.090](#_DxCrossRefBm1379192556)(a)(3) and [ATCO.D.095](#_DxCrossRefBm1379192562)(a)(3).

ATCO.OR.D.005 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 Annex I](#_DxCrossRefBm1379192480) have been completed and the applicant has successfully passed the associated examinations and assessments.

## SUBPART E – REQUIREMENTS FOR AERO-MEDICAL CENTRES

ATCO.OR.E.001 Aero-medical centres

Aero-medical centres (AeMCs) shall apply the provisions of Subparts ORA.GEN and ORA.AeMC of Annex VII to the Order N 3-N of February 2, 2022 of the Minister of Territorial Administration and Infrastructure of the Republic of Armenia (the Aircrew Regulation) , with:

(a) all references to class 1 to be replaced with class 3; and

(b) all references to Part-MED to be replaced with Part ATCO.MED.

# ANNEX IV – PART ATCO.MED – MEDICAL REQUIREMENTS FOR AIR TRAFFIC CONTROLLERS

## SUBPART A – GENERAL REQUIREMENTS

### SECTION 1 – General

ATCO.MED.A.001 Competent authority

For the purpose of this Part, the competent authority shall be:

(a) for aero-medical centres (AeMCs):

(1) the authority designated by the Republic of Armenia where the AeMC has its principal place of business;

(2) the Committee, when the AeMC is located in a third country.

(b) for aero-medical examiners (AMEs):

(1) the Committee designated by the Republic of Armenia where the AMEs have their principal place of practice;

(2) if the principal place of practice of an AME is located in a third country, the Committee designated by the Government of the Republic of Armenia to which the AME applies for the issue of the certificate.

ATCO.MED.A.005 Scope

This Part, set out in this Annex, 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; and

(b) the certification of AMEs to issue class 3 medical certificates.

ATCO.MED.A.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 licensing 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) 'Licensing authority' means the Civil Aviation Committee of the Republic of Armenia, which issued the licence, or to which a person applies for the issue of a licence, or, when a person has not yet applied for the issue of a licence, the competent authority in accordance with this Part;

(g) ‘Limitation’ means a condition placed on the medical certificate that shall be complied with whilst exercising the privileges of the licence;

(h) ‘Refractive error’ means the deviation from emmetropia measured in dioptres in the most ametropic meridian, measured by standard methods;

(i) ‘Significant’ means a degree of a medical condition, the effect of which would prevent the safe exercise of the privileges of the licence.

ATCO.MED.A.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.

AMC1 ATCO.MED.A.015 Medical confidentiality

To ensure medical confidentiality, all medical reports and records should be securely held with accessibility restricted to personnel authorised by the medical assessor.

ATCO.MED.A.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 to requirements laid down in point (a), 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 aware of being pregnant;

(6) have been admitted to hospital or medical clinic;

(7) first require correcting lenses.

In these cases, the 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.

GM1 ATCO.MED.A.020 Decrease in medical fitness

MEDICATION — GUIDANCE FOR AIR TRAFFIC CONTROLLERS

(a) Any medication can cause side effects, some of which may impair the safe exercise of the privileges of the licence. Equally, symptoms of colds, sore throats, diarrhoea and other abdominal upsets may cause little or no problem whilst not exercising the privileges of the licence, but may distract the air traffic controller and degrade their performance whilst on duty. Therefore, one issue with medication and the safe exercise of the privileges of the licence is the underlying condition and, in addition, the symptoms may be compounded by the side effects of the medication prescribed or bought over the counter for treatment. This guidance material provides some help to air traffic controllers in deciding whether expert aero-medical advice by an AME, AeMC or Medical Assessor is needed.

(b) Before taking any medication and exercising the privileges of the licence, the following three basic questions should be satisfactorily answered:

(1) Do I feel fit to control?

(2) Do I really need to take medication at all?

(3) Have I given this particular medication a personal trial whilst not exercising the privileges of my licence to ensure that it will not have any adverse effects on my ability to exercise the privileges of my licence?

(c) Confirming the absence of adverse effects may well need expert aero-medical advice.

(d) The following are some widely used medicines with a description of their compatibility with the safe exercise of the privileges of the licence:

(1) Antibiotics. Antibiotics may have short-term or delayed side effects which can affect the performance of the air traffic controller. More significantly, however, their use usually indicates that an infection is present and, thus, the effects of this infection may mean that an air traffic controller is not fit to control and should obtain expert aero-medical advice.

(2) Anti-malaria drugs. The decision on the need for anti-malaria drugs depends on the geographical areas to be visited, and the risk that the air traffic controller has of being exposed to mosquitoes and of developing malaria. An expert medical opinion should be obtained to establish whether anti-malaria drugs are needed and what kind of drugs should be used. Most of the anti-malaria drugs (atovaquone plus proguanil, chloroquine, doxycycline) are compatible with the safe exercise of the privileges of the licence. However, adverse effects associated with mefloquine include insomnia, strange dreams, mood changes, nausea, diarrhoea and headaches. In addition, mefloquine may cause spatial disorientation and lack of fine coordination and is, therefore, not compatible with the safe exercise of the privileges of the licence.

(3) Antihistamines. Antihistamines can cause drowsiness. They are widely used in ‘cold cures’ and in treatment of hay fever, asthma and allergic rashes. They may be in tablet form or a constituent of nose drops or sprays. In many cases, the condition itself may preclude the safe exercise of the privileges of the licence, so that, if treatment is necessary, expert aero-medical advice should be sought so that so-called non-sedative antihistamines, which do not degrade human performance, can be prescribed.

(4) Cough medicines. Antitussives often contain codeine, dextromethorfan or pseudo-ephedrine which are not compatible with the safe exercise of the privileges of the licence. However, mucolytic agents (e.g. carbocysteine) are well tolerated and are compatible with the safe exercise of the privileges of the licence.

(5) Decongestants. Nasal decongestants with no effect on alertness may be compatible with the safe exercise of the privileges of the licence.

(6) Nasal corticosteroids are commonly used to treat hay fever, and are compatible with the safe exercise of the privileges of the licence.

(7)

(i) Common pain killers and antifebrile drugs. Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and paracetamol, commonly used to treat pain, fever or headaches, may be compatible with the safe exercise of the privileges of the licence. However, the air traffic controller should give affirmative answers to the three basic questions in paragraph (b) before using the medication and exercising the privileges of the licence.

(ii) Strong analgesics. The more potent analgesics including codeine are opiate derivatives, and may produce a significant decrement in human performance and, therefore, are not compatible with the safe exercise of the privileges of the licence.

(8) Anti-ulcer medicines. Gastric secretion inhibitors such as H2 antagonists (e.g. ranitidine, cimetidine) or proton pump inhibitors (e.g. omeprazole) may be acceptable after diagnosis of the pathological condition. It is important to seek for the medical diagnosis and not to only treat the dyspeptic symptoms.

(9) Anti-diarrhoeal drugs. Loperamide is one of the more common anti-diarrhoeal drugs and is usually safe to take whilst exercising the privileges of the licence. However, the diarrhoea itself often makes the air traffic controller unable to exercise the privileges of the licence.

(10) Hormonal contraceptives and hormone replacement therapy usually have no adverse effects and are compatible with the safe exercise of the privileges of the licence.

(11) Erectile dysfunction medication. This medication may cause disturbances in colour vision and dizziness. There should be at least six hours between taking sildenafil and exercising the privileges of the licence; and 36 hours between taking vardenafil or tadalafil and exercising the privileges of the licence.

(12) Smoking cessation. Nicotine replacement therapy may be acceptable. However, other medication affecting the central nervous system (buproprion, varenicline) is not acceptable for air traffic controllers.

(13) High blood pressure medication. Most anti-hypertensive drugs are compatible with the safe exercise of the privileges of the licence. However, if the level of blood pressure is such that drug therapy is required, the air traffic controller should be monitored for any side effects before exercising the privileges of the licence. Therefore, consultation with the AME, AeMC or Medical Assessor as applicable, is needed.

(14) Asthma medication. Asthma has to be clinically stable before an air traffic controller can return to exercising the privileges of the licence. The use of respiratory aerosols or powders, such as corticosteroids, beta-2-agonists or chromoglycic acid may be compatible with the safe exercise of the privileges of the licence. However, the use of oral steroids or theophylline derivatives is usually incompatible with the safe exercise of the privileges of the licence. Air traffic controllers using medication for asthma should consult an AME, AeMC, or Medical Assessor, as applicable.

(15) Tranquillisers, anti-depressants and sedatives. The inability to react, due to the use of this group of medicines, together with the underlying condition for which these medications have been prescribed, will almost certainly mean that the mental state of an air traffic controller is not compatible with the safe exercise of the privileges of the licence. Air traffic controllers using tranquillisers, anti-depressants and sedatives should consult an AME, AeMC, or Medical Assessor, as applicable.

(16) Sleeping tablets. Sleeping tablets dull the senses, may cause confusion and slow reaction times. The duration of effect may vary from individual to individual and may be unduly prolonged. Air traffic controllers using sleeping tablets should consult an AME, AeMC, or Medical Assessor, as applicable.

(17) Melatonin. Melatonin is a hormone that is involved with the regulation of the circadian rhythm. In some countries it is a prescription medicine, whereas in most other countries it is regarded as a ‘dietary supplement’ and can be bought without any prescription. The results from the efficiency of melatonin in treatment of jet lag or sleep disorders have been contradictory. Air traffic controllers using melatonin should consult an AME, AeMC, or Medical Assessor, as applicable.

(18) Coffee and other caffeinated drinks may be acceptable, but excessive coffee drinking may have harmful effects, including disturbance of the heart’s rhythm. Other stimulants including caffeine pills, amphetamines, etc. (often known as ‘pep’ pills) used to maintain wakefulness or suppress appetite can be habit forming. Susceptibility to different stimulants varies from one individual to another, and all may cause dangerous overconfidence. Overdosage causes headaches, dizziness and mental disturbance. These other stimulants should not be used.

(19) Anaesthetics. Following local, general, dental and other anaesthetics, a period of time should elapse before returning to exercising the privileges of the licence. The period will vary considerably from individual to individual, but an air traffic controller should not exercise the privileges of the licence for at least 12 hours after a local anaesthetic, and for at least 48 hours after a general, spinal or epidural anaesthetic.

(e) Many preparations on the market nowadays contain a combination of medicines. It is, therefore, essential that if there is any new medication or dosage, however slight, the effect should be observed by the air traffic controller whilst not exercising the privileges of the licence. It should be noted that medication which would not normally affect air traffic controller performance may do so in individuals who are ‘oversensitive’ to a particular preparation. Individuals are, therefore, advised not to take any medicines before or whilst exercising the privileges of their licence unless they are completely familiar with their effects on their own bodies. In cases of doubt, air traffic controllers should consult an AME, AeMC, or Medical Assessor, as applicable.

(f) Other treatments

Alternative or complementary medicine, such as acupuncture, homeopathy, hypnotherapy and several other disciplines, is developing and gaining greater credibility. Such treatments are more acceptable in some States than others. There is a need to ensure that ‘other treatments’, as well as the underlying condition, are declared and considered by the AME, AeMC, or Medical Assessor, as applicable, for assessing fitness.

ATCO.MED.A.025 Obligations of AeMC and AME

(a) When conducting aero-medical examinations and assessments as required in this Part, 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 licensing authority if the applicant provides incomplete, inaccurate or false statements on their medical history;

(4) notify the licensing 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 licensing 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 licensing 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 [ATCO.MED.A.020](#_DxCrossRefBm1379192377).

(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 competent authority, upon request, all aero-medical records and reports, and any other relevant information when required for:

(1) medical certification;

(2) oversight functions.

AMC1 ATCO.MED.A.025 Obligations of AeMC and AME

(a) If the aero-medical examination is carried out by two or more AMEs, only one of them should be responsible for coordinating the results of the examination, evaluating the findings with regard to medical fitness and signing the report.

(b) The applicant should be made aware that the associated medical certificate may be suspended or revoked if the applicant provides incomplete, inaccurate or false statements on their medical history to the AME or AeMC.

(c) The AME or AeMC should give advice to the applicant on treatment and preventive measures if, during the course of the examination, medical conditions which may endanger the medical fitness of the applicant in the future are found.

GM1 ATCO.MED.A.025 Obligations of AeMC and AME

GUIDELINES FOR THE AEMC AND AME CONDUCTING THE AERO-MEDICAL EXAMINATIONS AND ASSESSMENTS FOR CLASS 3 MEDICAL CERTIFICATES

(a) Before performing the aero-medical examination, the AeMC or AME should:

(1) verify the applicant’s identity by checking their identity card, passport, driving licence or other official document containing a photograph of the applicant;

(2) obtain details of the applicant’s licence from the applicant’s licensing authority if they do not have their licence with them;

(3) obtain details of the applicant’s most recent medical certificate from the applicant’s licensing authority if they do not have their certificate with them;

(4) in the case of a specific medical examination (SIC) on the existing medical certificate, obtain details of the specific medical condition and any associated instructions from the applicant’s licensing authority. This could include, for example, a requirement to undergo a specific examination or test;

(5) except for initial applicants, ascertain, from the previous medical certificate, which routine medical test(s) should be conducted, for example electrocardiogram (ECG);

(6) provide the applicant with the application form for a medical certificate and the instructions for its completion and ask the applicant to complete the form but not to sign it yet;

(7) go through the form with the applicant and give information to help the applicant understand the significance of the entries and ask any questions which might help the applicant to recall important historical medical data; and

(8) verify that the form is complete and legible, ask the applicant to sign and date the form and then sign it as well. If the applicant declines to complete the application form fully or declines to sign the declaration consent to the release of medical information, inform the applicant that it may not be possible to issue a medical certificate regardless of the outcome of the clinical examination.

(b) Once all the items in (a) have been addressed, the AeMC or AME should:

(1) perform the aero-medical examination of the applicant in accordance with the applicable rules;

(2) arrange for additional specialist medical examinations, such as otorhinolaryngology or ophthalmology, to be conducted as applicable and obtain the associated report forms or reports;

(3) complete the aero-medical examination report form in accordance with the associated instructions for completion; and

(4) ensure that all of the report forms are complete, accurate and legible.

(c) Once all the actions in (b) have been carried out, the AeMC or AME should review the report forms and:

(1) if satisfied that the applicant meets the applicable medical requirements as set out in this Part, issue a medical certificate, with limitations if necessary. The applicant should sign the certificate once signed by the AeMC or AME; or

(2) if the applicant does not meet the applicable medical requirements or if the fitness of the applicant is in doubt:

(i) refer the decision on medical fitness to the licensing authority as indicated in [ATCO.MED.B.001](#_DxCrossRefBm1379192731); or

(ii) deny issuance of a medical certificate, explain the reason(s) for denial to the applicant and inform them of their right of a review according to the procedures of the COMMITTEE.

(d) The AeMC or AME should send the documents as required by [ATCO.MED.A.025](#_DxCrossRefBm1379192728)(b) to the applicant’s licensing authority within five days from the date of the aero-medical examination. If a medical certificate has been denied or the decision has been referred, the documents should be sent to the licensing authority on the same day that the denial or referral decision is reached.

### SECTION 2 – Requirements for medical certificates

ATCO.MED.A.030 Medical certificates

(a) Applicants for, and holders of, an air traffic controller licence, or a student air traffic controller licence, shall hold a class 3 medical certificate, except when the privileges are exercised in a synthetic training device environment.

(b) A licence holder shall not at any time hold more than one medical certificate issued in accordance with this Part.

ATCO.MED.A.035 Application for a medical certificate

(a) Applications for a medical certificate shall be made in a format established by the COMMITTEE.

(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.

AMC1 ATCO.MED.A.035 Application for a medical certificate

Except for initial applicants, when applicants do not present the most recent medical certificate to the AeMC or AME prior to the relevant examinations, the AeMC or AME should not issue the medical certificate unless relevant information is received from the licensing division of the Committee.

ATCO.MED.A.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 licensing 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 licensing 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.

ATCO.MED.A.045 Validity, revalidation and renewal of medical certificates

(a) Validity:

(1) Class 3 medical certificates shall be valid for a period of 12 months.

(2) 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.

ATCO.MED.A.046 Suspension or revocation of a medical certificate

(a) Upon revocation of the medical certificate, the holder shall immediately return the medical certificate to the licensing authority.

(b) Upon suspension of the medical certificate, the holder shall return the medical certificate to the licensing authority on request of the Committee.

ATCO.MED.A.050 Referral

If an applicant for a class 3 medical certificate is referred to the licensing authority in accordance with [ATCO.MED.B.001](#_DxCrossRefBm1379192731), the AeMC or AME shall transfer the relevant medical documentation to the licensing authority.

## SUBPART B – SPECIFIC REQUIREMENTS FOR CLASS 3 MEDICAL CERTIFICATES

### SECTION 1 – General

ATCO.MED.B.001 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 jeopardise 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 licensing authority as indicated in this Subpart; or

(ii) in cases where a referral to the licensing 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 licensing authority.

(b) When assessing whether a limitation is necessary, particular 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 jeopardise 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 Committee, 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 licensing 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.

AMC1 ATCO.MED.B.001 Limitations to medical certificates

(a) An AeMC or AME may refer the decision on fitness of an applicant to the licensing authority in borderline cases or where fitness is in doubt.

(b) In cases where a fit assessment may only be considered with a limitation, the AeMC, AME or the licensing authority should evaluate the medical condition of the applicant with appropriate personnel from the air navigation service provider and other experts, if necessary.

(c) Entry of limitations

(1) Limitations TML, VDL, VML, VNL, CCL, HAL, RXO may be imposed by an AME or an AeMC.

(2) Limitations VXL and VXN should be imposed with advice of the air navigation service provider.

(3) Limitations SIC and SSL should only be imposed by the licensing authority.

(d) Removal of limitations

All limitations should only be removed by the licensing authority.

AMC2 ATCO.MED.B.001 Limitations to medical certificates

LIMITATION CODES

(a) The following abbreviations for limitations should be used on the medical certificate as applicable:

|  |  |
| --- | --- |
| Code | Limitation |
| TML | Restriction of the period of validity of the medical certificate |
| VDL | Wear correction for defective distant vision and carry spare set of spectacles |
| VXL | Correction for defective distant vision depending on the working environment |
| VML | Wear correction for defective distant, intermediate and near vision and carry spare set of spectacles |
| VNL | Have correction available for defective near vision and carry spare set of spectacles |
| VXN | Correction for defective near vision; correction for defective distant vision depending on the working environment |
| RXO | Specialist ophthalmological examinations |
| CCL | Correction by means of contact lenses |
| HAL | Valid only when hearing aids are worn |
| SIC | Specific medical examination(s) |
| SSL | Special restrictions as specified |

(b) The abbreviations for the limitation codes should be explained to the holder of a medical certificate as follows:

(1) TML — Time limitation

The period of validity of the medical certificate is limited to the duration as shown on the medical certificate. This period of validity commences on the date of the aero-medical examination. Any period of validity remaining on the previous medical certificate is no longer valid. The holder of a medical certificate should present him/herself for reassessment or examination when advised and should follow any medical recommendations.

(2) VDL — Wear corrective lenses and carry a spare set of spectacles

Correction for defective distant vision: whilst exercising the privileges of the licence, the holder of a medical certificate should wear spectacles or contact lenses that correct for defective distant vision as examined and approved by the AeMC or AME. Contact lenses may not be worn until cleared to do so by an AeMC or AME. A spare set of spectacles, approved by the AeMC or AME, should be readily available.

(3) VXL — Correction for defective distant vision depending on the working environment

Correction for defective distant vision does not have to be worn if the air traffic controller’s visual working environment is in the area of up to 100 cm. Applicants who do not meet the uncorrected distant visual acuity requirement but meet the visual acuity requirement for intermediate and near vision without correction and whose visual working environment is only the intermediate and near vision area (up to 100 cm) may work without corrective lenses.

(4) VML — Wear multifocal spectacles and carry a spare set of spectacles

Correction for defective distant, intermediate and near vision: whilst exercising the privileges of the licence, the holder of a medical certificate should wear spectacles that correct for defective distant, intermediate and near vision as examined and approved by the AeMC or AME. Contact lenses or full-frame spectacles, when either correct for near vision only, may not be worn.

(5) VNL — Have available corrective spectacles and a spare set of spectacles

Correction for defective near vision: whilst exercising the privileges of the licence, the holder of a medical certificate should have readily available spectacles that correct for defective near vision as examined and approved by the AeMC or AME. Contact lenses or full-frame spectacles, when either correct for near vision only, may not be worn.

(6) VXN — Have available corrective spectacles and a spare set of spectacles; correction for defective distant vision depending on the working environment.

Correction for defective distant vision does not have to be worn if the air traffic controller’s visual working environment is in the area of up to 100 cm. Applicants who do not meet the uncorrected distant and uncorrected near visual acuity requirements, but meet the visual acuity requirement for intermediate vision without correction and whose visual working environment is only the intermediate and near vision area (up to 100 cm) should have readily available spectacles and a spare set that correct for defective near vision as examined and approved by the AeMC or AME. Contact lenses or full-frame spectacles, when either correct for near vision only, may not be worn.

(7) CCL — Wear contact lenses that correct for defective vision

Correction for defective distant vision: whilst exercising the privileges of the licence, the holder of a medical certificate should wear contact lenses that correct for defective distant vision, as examined and approved by the AeMC or AME. A spare set of similarly correcting spectacles shall be readily available for immediate use whilst exercising the privileges of the licence.

(8) RXO — Specialist ophthalmological examination(s)

Specialist ophthalmological examination(s), other than the examinations stipulated in this Part, are required for a significant reason.

(9) HAL — Hearing aid(s)

Whilst exercising the privileges of the licence, the holder of the medical certificate should use hearing aid(s) that compensate(s) for defective hearing as examined and approved by the AeMC or AME. A spare set of batteries should be available.

(10) SIC — Specific medical examination(s)

This limitation requires the AeMC or AME to contact the licensing authority before embarking upon renewal or revalidation aero-medical assessment. It is likely to concern a medical history of which the AME should be aware prior to undertaking the aero-medical assessment.

(11) SSL — Special restrictions as specified

This limitation may be considered when an individually specified limitation, not defined in this paragraph, is appropriate to mitigate an increased level of risk to the safe exercise of the privileges of the licence. The description of the SSL should be entered on the medical certificate or in a separate document to be carried with the medical certificate.

### SECTION 2 – Specific requirements for class 3 medical certificates

ATCO.MED.B.005 General

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.

ATCO.MED.B.010 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) 12-lead electrocardiogram (ECG) is performed annually until the age of 40, after which treadmill stress test is conducted;

(ii) at all revalidation or renewal examinations thereafter; and

(iii) when clinically indicated.

(2) An extended cardiovascular assessment shall be completed:

(i) after the age of 65 annually;

(ii) a comprehensive cardiovascular assessment every 4 years; and

(iii) when clinically indicated.

(3) Estimation of serum lipids, including cholesterol, shall be required at the examination for the initial issue of a medical certificate, 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 licensing 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 licensing authority and undergo cardiological 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 licensing authority and undergo a cardiological evaluation before a fit assessment may be considered:

(i) myocardial ischaemia;

(ii) myocardial infarction;

(iii) revascularisation 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 licensing 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 licensing 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.

AMC1 ATCO.MED.B.010 Cardiovascular system

(a) Electrocardiography

(1) An exercise electrocardiogram (ECG) when required as part of a cardiovascular assessment should be symptom-limited and completed to a minimum of Bruce Stage IV or equivalent.

(2) Reporting of resting and exercise ECGs should be carried out by the AME or an appropriate specialist.

(b) General

(1) Cardiovascular risk factor assessment

(i) Serum/plasma lipid estimation is case finding and significant abnormalities should require investigation and management under the supervision of the AeMC or AME in consultation with the licensing authority if necessary.

(ii) An accumulation of risk factors (smoking, family history, lipid abnormalities, hypertension, etc.) should require cardiovascular evaluation by the AeMC or AME in consultation with the licensing authority if necessary.

(2) Extended cardiovascular assessment

(i) The extended cardiovascular assessment should be undertaken at an AeMC or by a cardiologist.

(ii) The extended cardiovascular assessment should include an exercise ECG or other test that will provide equivalent information.

(c) Peripheral arterial disease

Applicants with peripheral arterial disease, before or after surgery, should undergo satisfactory cardiological evaluation including an exercise ECG and 2D echocardiography. Further tests may be required which should show no evidence of myocardial ischaemia or significant coronary artery stenosis. A fit assessment may be considered provided:

(1) the exercise ECG is satisfactory; and

(2) there is no sign of significant coronary artery disease or evidence of significant atheroma elsewhere, and no functional impairment of the end organ supplied.

(d) Aortic aneurysm

(1) Applicants with an aneurysm of the infra-renal abdominal aorta may be assessed as fit following a satisfactory cardiological evaluation.

(2) Applicants may be assessed as fit after surgery for an aneurysm of the thoracic or abdominal aorta if the blood pressure and cardiovascular evaluation are satisfactory. Regular evaluations by a cardiologist should be carried out.

(e) Cardiac valvular abnormalities

(1) Applicants with previously unrecognised cardiac murmurs should require cardiological evaluation. If considered significant, further investigation should include at least 2D Doppler echocardiography.

(2) Applicants with minor cardiac valvular abnormalities may be assessed as fit by the licensing authority. Applicants with significant abnormality of any of the heart valves should be assessed as unfit.

(3) Aortic valve disease

(i) Applicants with bicuspid aortic valve may be assessed as fit if no other cardiac or aortic abnormality is demonstrated. Regular cardiological follow-up, including 2D Doppler echocardiography, may be required.

(ii) Applicants with mild aortic stenosis may be assessed as fit. Annual cardiological follow-up may be required and should include 2D Doppler echocardiography.

(iii) Applicants with aortic regurgitation may be assessed as fit only if regurgitation is minor and there is no evidence of volume overload. There should be no demonstrable abnormality of the ascending aorta on 2D Doppler echocardiography. Cardiological follow-up including 2D Doppler echocardiography may be required.

(4) Mitral valve disease

(i) Applicants with rheumatic mitral stenosis may only be assessed as fit in favourable cases after cardiological evaluation including 2D echocardiography.

(ii) Applicants with uncomplicated minor regurgitation may be assessed as fit. Regular cardiological follow-up including 2D echocardiography may be required.

(iii) Applicants with mitral valve prolapse and mild mitral regurgitation may be assessed as fit.

(iv) Applicants with evidence of volume overloading of the left ventricle demonstrated by increased left ventricular end-diastolic diameter should be assessed as unfit.

(f) Valvular surgery

Applicants with cardiac valve replacement/repair should be assessed as unfit. After a satisfactory cardiological evaluation, fit assessment may be considered.

(1) Asymptomatic applicants may be assessed as fit by the licensing authority six months after valvular surgery subject to:

(i) normal valvular and ventricular function as judged by 2D Doppler echocardiography;

(ii) satisfactory symptom-limited exercise ECG or equivalent;

(iii) demonstrated absence of coronary artery disease unless this has been satisfactorily treated by re-vascularisation;

(iv) no cardioactive medication is required;

(v) annual cardiological follow-up to include an exercise ECG and 2D Doppler echocardiography. Longer periods may be acceptable once a stable condition has been confirmed by cardiological evaluations.

(2) Applicants with implanted mechanical valves may be assessed as fit subject to documented exemplary control of their anti-coagulant therapy. Age factors should form part of the risk assessment.

(g) Thromboembolic disorders

Applicants with arterial or venous thrombosis or pulmonary embolism should be assessed as unfit during the first six months of anticoagulation. A fit assessment, with a limitation if necessary, may be considered by the licensing authority after six months of stable anticoagulation. Anticoagulation should be considered stable if, within the last six months, at least five international normalised ratio (INR) values are documented, of which at least four are within the INR target range and the haemorrhagic risk is acceptable. In cases of anticoagulation medication not requiring INR monitoring, a fit assessment may be considered after review by the licensing authority after a period of three months. Applicants with pulmonary embolism should also be evaluated by a cardiologist. Following cessation of anticoagulant therapy, for any indication, applicants should undergo a reassessment by the licensing authority.

(h) Other cardiac disorders

(1) Applicants with a primary or secondary abnormality of the pericardium, myocardium or endocardium should be assessed as unfit. A fit assessment may be considered following complete resolution and satisfactory cardiological evaluation which may include 2D Doppler echocardiography, exercise ECG, 24-hour ambulatory ECG, and/or myocardial perfusion scan or equivalent test. Coronary angiography may be indicated. Regular cardiological follow-up may be required.

(2) Applicants with a congenital abnormality of the heart should be assessed as unfit. Applicants following surgical correction or with minor abnormalities that are functionally unimportant may be assessed as fit following cardiological assessment. No cardioactive medication is acceptable. Investigations may include 2D Doppler echocardiography, exercise ECG and 24-hour ambulatory ECG. Regular cardiological follow-up may be required.

(i) Syncope

(1) Applicants with a history of recurrent episodes of syncope should be assessed as unfit. A fit assessment may be considered after a sufficient period of time without recurrence provided cardiological evaluation is satisfactory.

(2) A cardiological evaluation should include:

(i) a satisfactory symptom exercise ECG. If the exercise ECG is abnormal, a myocardial perfusion scan or equivalent test should be required;

(ii) a 2D Doppler echocardiogram showing neither significant selective chamber enlargement nor structural or functional abnormality of the heart, valves or myocardium;

(iii) a 24-hour ambulatory ECG recording showing no conduction disturbance, complex or sustained rhythm disturbance or evidence of myocardial ischaemia;

(iv) a tilt test carried out to a standard protocol showing no evidence of vasomotor instability.

(3) Neurological review should be required.

(j) Blood pressure

(1) Anti-hypertensive treatment should be agreed by the licensing authority. Medication may include:

(i) non-loop diuretic agents;

(ii) Angiotensin Converting Enzyme (ACE) inhibitors;

(iii) angiotensin II receptor blocking agents;

(iv) long-acting slow channel calcium blocking agents;

(v) certain (generally hydrophilic) beta-blocking agents.

(2) Following initiation of medication for the control of blood pressure, applicants should be re-assessed to verify that the treatment is compatible with the safe exercise of the privileges of the licence.

(k) Coronary artery disease

(1) Applicants with chest pain of an uncertain cause should undergo a full investigation before a fit assessment may be considered. Applicants with angina pectoris should be assessed as unfit, whether or not it is abolished by medication.

(2) Applicants with suspected asymptomatic coronary artery disease should undergo a cardiological evaluation including exercise ECG. Further tests (myocardial perfusion scanning, stress echocardiography, coronary angiography or equivalent) may be required, which should show no evidence of myocardial ischaemia or significant coronary artery stenosis.

(3) After an ischaemic cardiac event, including revascularisation, applicants without symptoms should have reduced any vascular risk factors to an appropriate level. Medication, when used to control cardiac symptoms, is not acceptable. All applicants should be on acceptable secondary prevention treatment.

(i) A coronary angiogram obtained around the time of, or during, the ischaemic myocardial event and a complete, detailed clinical report of the ischaemic event and of any operative procedures should be available.

(A) there should be no stenosis more than 50 % in any major untreated vessel, in any vein or artery graft or at the site of an angioplasty/stent, except in a vessel subtending a myocardial infarction;

(B) the whole coronary vascular tree should be assessed as satisfactory by a cardiologist, and particular attention should be paid to multiple stenoses and/or multiple revascularisations;

(C) an untreated stenosis greater than 30 % in the left main or proximal left anterior descending coronary artery should not be acceptable.

(ii) At least six months from the ischaemic myocardial event, including revascularisation, the following investigations should be completed:

(A) an exercise ECG showing neither evidence of myocardial ischaemia nor rhythm or conduction disturbance;

(B) an echocardiogram or equivalent test showing satisfactory left ventricular function with no important abnormality of wall motion (such as dyskinesia or akinesia) and a left ventricular ejection fraction of 50 % or more;

(C) in cases of angioplasty/stenting, a myocardial perfusion scan or equivalent test, which should show no evidence of reversible myocardial ischaemia. If there is any doubt about myocardial perfusion, in other cases (infarction or bypass grafting), a perfusion scan should also be required;

(D) further investigations, such as a 24-hour ECG, may be necessary to assess the risk of any significant rhythm disturbance.

(iii) Follow-up should be conducted annually (or more frequently, if necessary) to ensure that there is no deterioration of the cardiovascular status. It should include a cardiological evaluation, exercise ECG and cardiovascular risk assessment. Additional investigations may be required.

(iv) After coronary artery vein bypass grafting, a myocardial perfusion scan or equivalent test should be performed on clinical indication, and in all cases within five years from the procedure.

(v) In all cases, coronary angiography, or an equivalent test, should be considered at any time if symptoms, signs or non-invasive tests indicate myocardial ischaemia.

(vi) Applicants may be assessed as fit after successful completion of the three-month or subsequent review.

(l) Rhythm and conduction disturbances

(1) Applicants with any significant rhythm or conduction disturbance may be assessed as fit after cardiological evaluation and with appropriate follow-up. Such evaluation should include:

(i) exercise ECG which should show no significant abnormality of rhythm or conduction, and no evidence of myocardial ischaemia. Withdrawal of cardioactive medication prior to the test should be required;

(ii) 24-hour ambulatory ECG which should demonstrate no significant rhythm or conduction disturbance;

(iii) 2D Doppler echocardiogram which should show no significant selective chamber enlargement or significant structural or functional abnormality, and a left ventricular ejection fraction of at least 50 %.

Further evaluation may include:

(iv) 24-hour ECG recording repeated as necessary;

(v) electrophysiological study;

(vi) myocardial perfusion imaging or equivalent test;

(vii) cardiac magnetic resonance imaging (MRI) or equivalent test;

(viii) coronary angiogram or equivalent test.

(2) Applicants with supraventricular or ventricular ectopic complexes on a resting ECG may require no further evaluation, provided the frequency can be shown to be no greater than one per minute, for example on an extended ECG strip.

Applicants with asymptomatic isolated uniform ventricular ectopic complexes may be assessed as fit, but frequent or complex forms require full cardiological evaluation.

(3) Where anticoagulation is needed for a rhythm disturbance, a fit assessment may be considered if the haemorrhagic risk is acceptable and the anticoagulation is stable. Anticoagulation should be considered stable if, within the last six months, at least five INR values are documented, of which at least four are within the INR target range. In cases of anticoagulation medication not requiring INR monitoring, a fit assessment with an appropriate limitation may be considered after review by the licensing authority after a period of three months.

(4) Ablation

(i) Applicants who have undergone ablation therapy should be assessed as unfit for a minimum period of two months.

(ii) A fit assessment may be considered following successful catheter ablation provided an electrophysiological study (EPS) demonstrates satisfactory control has been achieved.

(iii) Where EPS is not performed, longer periods of unfitness and cardiological follow-up should be considered.

(iv) Follow-up should include a cardiological review.

(5) Supraventricular arrhythmias

Applicants with significant disturbance of supraventricular rhythm, including sinoatrial dysfunction, whether intermittent or established, should be assessed as unfit. A fit assessment may be considered if cardiological evaluation is satisfactory.

(i) For initial applicants with atrial fibrillation/flutter, a fit assessment should be limited to those with a single episode of arrhythmia which is considered to be unlikely to recur.

(ii) For revalidation, applicants may be assessed as fit if cardiological evaluation is satisfactory and the stroke risk is sufficiently low. A fit assessment may be considered after a period of stable anticoagulation as prophylaxis, after review by the licensing authority. Anticoagulation should be considered stable if, within the last six months, at least five INR values are documented, of which at least four are within the INR target range. In cases of anticoagulation medication not requiring INR monitoring, a fit assessment may be considered after review by the licensing authority after a period of three months.

(iii) Applicants with asymptomatic sinus pauses up to 2.5 seconds on a resting ECG may be assessed as fit if exercise ECG, 2D echocardiography and 24-hour ambulatory ECG are satisfactory.

(iv) Applicants with symptomatic sino-atrial disease should be assessed as unfit.

(6) Mobitz type 2 atrio-ventricular block

Applicants with Mobitz type 2 AV block may be assessed as fit after a full cardiological evaluation confirms the absence of distal conducting tissue disease.

(7) Complete right bundle branch block

Applicants with complete right bundle branch block should require cardiological evaluation on first presentation.

(8) Complete left bundle branch block

A fit assessment may be considered as follows:

(i) Initial applicants may be assessed as fit after full cardiological evaluation showing no pathology. Depending on the clinical situation, a period of stability may be required.

(ii) Applicants for revalidation or renewal of a medical certificate with a de-novo left bundle branch block may be assessed as fit after cardiological evaluation showing no pathology. A period of stability may be required.

(iii) A cardiological evaluation should be required after 12 months in all cases.

(9) Ventricular pre-excitation

Applicants with pre-excitation may be assessed as fit if they are asymptomatic, and an electrophysiological study, including an adequate drug-induced autonomic stimulation protocol, reveals no inducible re-entry tachycardia and the existence of multiple pathways is excluded. Cardiological follow-up should be required including a 24-hour ambulatory ECG recording showing no tendency to symptomatic or asymptomatic tachy-arrhythmia.

(10) Pacemaker

Applicants with a subendocardial pacemaker may be assessed as fit three months after insertion provided:

(i) there is no other disqualifying condition;

(ii) bipolar lead systems programmed in bipolar mode without automatic mode change have been used;

(iii) that the applicant is not pacemaker dependent;

(iv) regular cardiological follow-up should include a symptom-limited exercise ECG that shows no abnormality or evidence of myocardial ischaemia.

(11) QT prolongation

Applicants with asymptomatic QT-prolongation may be assessed as fit subject to a satisfactory cardiological evaluation.

(12) Brugada pattern on electrocardiography

Applicants with a Brugada pattern Type 1 should be assessed as unfit. Applicants with Type 2 or Type 3 may be assessed as fit, with limitations as appropriate, subject to satisfactory cardiological evaluation.

GM1 ATCO.MED.B.010 Cardiovascular system

MITRAL VALVE DISEASE

(a) Minor regurgitation should have evidence of no thickened leaflets or flail chordae and left atrial internal diameter of less than or equal to 4.0 cm.

(b) The following may indicate severe regurgitation:

(1) LV internal diameter (diastole) > 6.0 cm; or

(2) LV internal diameter (systole) > 4.1 cm; or

(3) Left atrial internal diameter > 4.5 cm.

(c) Doppler indices, such as width of jet, backwards extension and whether there is flow reversal in the pulmonary veins may be helpful in assessing severity of regurgitation.

GM2 ATCO.MED.B.010 Cardiovascular system

(a) Asymptomatic applicants with pre-excitation may be assessed as fit at revalidation if they meet the following criteria:

(1) no inducible re-entry;

(2) refractory period > 300 ms;

(3) no induced atrial fibrillation.

(b) There should be no evidence of multiple accessory pathways.

GM3 ATCO.MED.B.010 Cardiovascular system

COMPLETE LEFT BUNDLE BRANCH BLOCK

Left bundle branch block is more commonly associated with coronary artery disease and, thus, requires more in-depth investigation, which may be invasive.

GM4 ATCO.MED.B.010 Cardiovascular system

PACEMAKER

(a) Scintigraphy may be helpful in the presence of conduction disturbance/paced complexes in the resting ECG.

(b) Experience has shown that any failures of pacemakers are most likely to occur in the first three months after being fitted. Therefore, a fit assessment should not be considered before this period has elapsed.

(c) It is known that certain operational equipment may interfere with the performance of the pacemaker. The type of pacemaker used, therefore, should have been tested to ensure it does not suffer from interference in the operational environment. Supporting data and a performance statement to this effect should be available from the supplier.

GM5 ATCO.MED.B.010 Cardiovascular system

ANTICOAGULATION

Applicants and licence holders taking anticoagulant medication which requires monitoring with INR testing, should measure their INR on a ‘near patient’ testing system within 12 hours prior to starting a shift pattern and then at least every three days during the shift pattern. The privileges of the licence should only be exercised if the INR is within the target range. The INR result should be recorded and the results should be reviewed at each aero-medical assessment.

ATCO.MED.B.015 Respiratory system

(a) Applicants with significant impairment of pulmonary function shall be referred to the licensing 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 licensing 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.

AMC1 ATCO.MED.B.015 Respiratory system

(a) Examination

(1) Spirometric examination is required for initial examination. An FEV1/FVC ratio less than 70 % should require evaluation by a specialist in respiratory disease before a fit assessment can be considered.

(2) Posterior/anterior chest radiography may be required at initial, revalidation or renewal examinations when indicated on clinical or epidemiological grounds.

(b) Chronic obstructive airways disease

Applicants with chronic obstructive airways disease should be assessed as unfit. Applicants with only minor impairment of their pulmonary function may be assessed as fit after specialist respiratory evaluation. Applicants with pulmonary emphysema may be assessed as fit following specialist evaluation showing that the condition is stable and not causing significant symptoms.

(c) Asthma

Applicants with asthma requiring medication or experiencing recurrent attacks of asthma may be assessed as fit if the asthma is considered stable with satisfactory pulmonary function tests and medication is compatible with the safe execution of the privileges of the licence. Use of low dose systemic steroids may be acceptable.

(d) Inflammatory disease

(1) For applicants with active inflammatory disease of the respiratory system, a fit assessment may be considered when the condition has resolved without sequelae and no medication is required.

(2) Applicants with chronic inflammatory diseases may be assessed as fit following specialist evaluation showing mild disease with acceptable pulmonary function test and medication compatible with the safe execution of the privileges of the licence.

(e) Sarcoidosis

(1) Applicants with active sarcoidosis should be assessed as unfit. Specialist evaluation should be undertaken with respect to the possibility of systemic, particularly cardiac, involvement. A fit assessment may be considered if no medication is required, and the disease is limited to hilar lymphadenopathy and inactive. Use of low dose systemic steroids may be acceptable.

(2) Applicants with cardiac or neurological sarcoid should be assessed as unfit.

(f) Pneumothorax

Applicants with a spontaneous pneumothorax should be assessed as unfit. A fit assessment may be considered:

(1) six weeks after the event provided full recovery from a single event has been confirmed in a full respiratory evaluation including a CT scan or equivalent;

(2) following surgical intervention in the case of a recurrent pneumothorax provided there is satisfactory recovery.

(g) Thoracic surgery

(1) Applicants requiring thoracic surgery should be assessed as unfit until such time as the effects of the operation are no longer likely to interfere with the safe exercise of the privileges of the licence.

(2) A fit assessment may be considered after satisfactory recovery and full respiratory evaluation including a CT scan or equivalent. The underlying pathology which necessitated the surgery should be considered in the aero-medical assessment.

(h) Sleep apnoea syndrome/sleep disorder

(1) Applicants with unsatisfactorily treated sleep apnoea syndrome and suffering from excessive daytime sleepiness should be assessed as unfit.

(2) A fit assessment may be considered subject to the extent of symptoms, including vigilance, and satisfactory treatment. ATCO operational experience, sleep apnoea syndrome/sleep disorder education and work place considerations are essential components of the aero-medical assessment.

ATCO.MED.B.020 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.

AMC1 ATCO.MED.B.020 Digestive system

(a) Oesophageal varices

Applicants with oesophageal varices should be assessed as unfit.

(b) Pancreatitis

(1) Applicants with pancreatitis should be assessed as unfit. A fit assessment may be considered if the cause (e.g. gallstone, other obstruction, medication) is removed.

(2) Alcohol may be a cause of dyspepsia and pancreatitis. If considered appropriate, a full evaluation of its use or misuse should be undertaken.

(c) Gallstones

(1) Applicants with a single large gallstone may be assessed as fit after evaluation.

(2) Applicants with multiple gallstones may be assessed as fit while awaiting treatment provided the symptoms are unlikely to interfere with the safe exercise of the privileges of the licence.

(d)Inflammatory bowel disease

Applicants with an established diagnosis or history of chronic inflammatory bowel disease may be assessed as fit if the disease is in established stable remission, and only minimal, if any, medication is being taken. Regular follow-up should be required.

(e) Dyspepsia

Applicants with recurrent dyspepsia requiring medication should be investigated by internal examination including radiologic or endoscopic examination. Laboratory testing should include haemoglobin assessment and faecal examination. Any demonstrated ulceration or significant inflammation requires evidence of recovery before a fit assessment may be considered.

(f) Digestive tract and abdominal surgery

Applicants who have undergone a surgical operation on the digestive tract or its adnexa, including a total or partial excision or a diversion of any of these organs, should be assessed as unfit. A fit assessment may be considered if recovery is complete, the applicant is asymptomatic and the risk of secondary complication or recurrence is minimal.

ATCO.MED.B.025 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.

AMC1 ATCO.MED.B.025 Metabolic and endocrine system

(a) Metabolic, nutritional or endocrine dysfunction

Applicants with metabolic, nutritional or endocrine dysfunction may be assessed as fit if the condition is asymptomatic, clinically compensated and stable with or without replacement therapy, and regularly reviewed by an appropriate specialist.

(b) Obesity

(1) Applicants with a Body Mass Index ≥ 35 may be assessed as fit only if the excess weight is not likely to interfere with the safe exercise of the privileges of the licence and a satisfactory cardiovascular risk review and evaluation of the possibility of sleep apnoea syndrome has been undertaken.

(2) Functional testing in the working environment may be necessary before a fit assessment may be considered.

(c) Thyroid dysfunction

Applicants with hyperthyroidism or hypothyroidism should attain a stable euthyroid state before a fit assessment may be considered.

(d)Abnormal glucose metabolism

Glycosuria and abnormal blood glucose levels require investigation. A fit assessment may be considered if normal glucose tolerance is demonstrated (low renal threshold) or impaired glucose tolerance without diabetic pathology is fully controlled by diet and regularly reviewed.

(e) Diabetes mellitus

(1) The following medication, alone and in combination, may be acceptable for control of type 2 diabetes:

(i) alpha-glucosidase inhibitors;

(ii) medication that acts on the incretin pathway;

(iii) biguanides.

(2) A fit assessment may be considered after evaluation of the operational environment, including means of glucose monitoring/management whilst performing rated duties, and with demonstrated exemplary glycaemic control.

(3) Annual follow-up by a specialist should be required including demonstration of absence of complications, good glycaemic control demonstrated by six-monthly HbA1c measurements, and a normal exercise tolerance test.

ATCO.MED.B.030 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.

AMC1 ATCO.MED.B.030 Haematology

(a) Anaemia

(1) Anaemia demonstrated by a reduced haemoglobin level should require investigation. A fit assessment may be considered in cases where the primary cause has been treated (e.g. iron or B12 deficiency) and the haemoglobin or haematocrit has stabilised at a satisfactory level. The recommended range of the haemoglobin level is 11–17 g/dl.

(2) Anaemia which is unamenable to treatment should be disqualifying.

(b) Haemoglobinopathy

Applicants with a haemoglobinopathy should be assessed as unfit. A fit assessment may be considered where minor thalassaemia, sickle cell disease or other haemoglobinopathy is diagnosed without a history of crises and where full functional capability is demonstrated.

(c) Coagulation disorders

(1) Significant coagulation disorders require investigation. A fit assessment may be considered if there is no history of significant bleeding or clotting episodes and the haematological data indicate that it is safe to do so.

(2) If anticoagulant therapy is prescribed, [AMC1 ATCO.MED.B.010(g)](#_DxCrossRefBm1379192744) should be followed.

(d) Disorders of the lymphatic system

Lymphatic enlargement requires investigation. A fit assessment may be considered in cases of an acute infectious process which is fully recovered, or Hodgkin’s lymphoma, or other lymphoid malignancy which has been treated and is in full remission, or that requires minimal or no treatment.

(e) Leukaemia

(1) Applicants with acute leukaemia should be assessed as unfit. Once in established remission, applicants may be assessed as fit.

(2) Applicants with chronic leukaemia should be assessed as unfit. A fit assessment may be considered after remission and a period of demonstrated stability.

(3) Applicants with a history of leukaemia should have no history of central nervous system involvement and no continuing side effects from treatment which are likely to interfere with the safe exercise of the privileges of the licence. Haemoglobin and platelet levels should be satisfactory.

(4) Regular follow-up is required in all cases of leukaemia.

(f) Splenomegaly

Splenomegaly requires investigation. A fit assessment may be considered if the enlargement is minimal, stable and no associated pathology is demonstrated, or if the enlargement is minimal and associated with another acceptable condition.

GM1 ATCO.MED.B.030 Haematology

HODGKIN’S LYMPHOMA

Due to potential side effects of specific chemotherapeutic agents, the precise regime utilised should be taken into account.

GM2 ATCO.MED.B.030 Haematology

CHRONIC LEUKAEMIA

A fit assessment may be considered if the chronic leukaemia has been diagnosed as:

(a) lymphatic at stages 0, I, and possibly II without anaemia and minimal treatment; or

(b) stable ‘hairy cell’ leukaemia with normal haemoglobin and platelets.

GM3 ATCO.MED.B.030 Haematology

SPLENOMEGALY

(a) Splenomegaly should not preclude a fit assessment, but should be assessed on an individual basis.

(b) Associated pathology of splenomegaly is e.g. treated chronic malaria.

(c) An acceptable condition associated with splenomegaly is e.g. Hodgkin’s lymphoma in remission.

ATCO.MED.B.035 Genitourinary system

(a) Urinalysis shall form part of every aero-medical 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 particular 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 licensing authority for an aero-medical assessment after full recovery before a fit assessment may be considered.

AMC1 ATCO.MED.B.035 Genitourinary system

(a) Abnormal urinalysis

Any abnormal finding on urinalysis requires investigation. This investigation should include proteinuria, haematuria and glycosuria.

(b) Renal disease

(1) Applicants presenting with any signs of renal disease should be assessed as unfit. A fit assessment may be considered if blood pressure is satisfactory and renal function is acceptable.

(2) Applicants requiring dialysis should be assessed as unfit.

(c) Urinary calculi

(1) Applicants with an asymptomatic calculus or a history of renal colic require investigation. A fit assessment may be considered after successful treatment for a calculus and with appropriate follow-up.

(2) Residual calculi should be disqualifying unless they are in a location where they are unlikely to move and give rise to symptoms.

(d) Renal and urological surgery

(1) Applicants who have undergone a major surgical operation on the genitourinary system or its adnexa involving a total or partial excision or a diversion of any of its organs should be assessed as unfit until recovery is complete, the applicant is asymptomatic and the risk of secondary complications is minimal.

(2) Applicants with compensated nephrectomy without hypertension or uraemia may be assessed as fit.

(3) Applicants who have undergone renal transplantation may be considered for a fit assessment if it is fully compensated and tolerated with only minimal immuno-suppressive therapy after at least 12 months.

(4) Applicants who have undergone total cystectomy may be considered for a fit assessment if there is satisfactory urinary function, no infection and no recurrence of primary pathology.

ATCO.MED.B.040 Infectious disease

(a) Applicants who are HIV positive shall be referred to the licensing authority and may be assessed as fit subject to satisfactory specialist evaluation and provided the licensing 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 licensing authority for an aero-medical assessment. A fit assessment may be considered after full recovery and specialist evaluation provided the licensing authority has sufficient evidence that the therapy does not compromise the safe exercise of the privileges of the licence.

AMC1 ATCO.MED.B.040 Infectious disease

(a) Infectious disease — General

In cases of infectious disease, consideration should be given to a history of, or clinical signs indicating, underlying impairment of the immune system.

(b) Tuberculosis

(1) Applicants with active tuberculosis should be assessed as unfit. A fit assessment may be considered following completion of therapy.

(2) Applicants with quiescent or healed lesions may be assessed as fit. Specialist evaluation should consider the extent of the disease, the treatment required and possible side effects of medication.

(c) Syphilis

Applicants with acute syphilis should be assessed as unfit. A fit assessment may be considered in the case of those fully treated and recovered from the primary and secondary stages.

(d) HIV positivity

(1) Applicants who are HIV positive may be assessed as fit if a full investigation provides no evidence of HIV associated diseases that might give rise to incapacitating symptoms. Frequent review of the immunological status and neurological evaluation by an appropriate specialist should be carried out. A cardiological review may also be required depending on medication.

(2) Applicants with an AIDS defining condition should be assessed as unfit except in individual cases for revalidation of a medical certificate after complete recovery and dependent on the review.

(3) The aero-medical assessment of individual cases under (1) and (2) should be dependent on the absence of symptoms or signs of the disease and the acceptability of serological markers. Treatment should be evaluated by a specialist on an individual basis for its appropriateness and any side effects.

(e) Infectious hepatitis

Applicants with infectious hepatitis should be assessed as unfit. A fit assessment may be considered once the applicant has become asymptomatic after treatment and specialist evaluation. Regular review of the liver function should be carried out.

GM1 ATCO.MED.B.040 Infectious disease

HIV INFECTION

(a) There is no requirement for routine testing of HIV status, but testing may be carried out on clinical indication.

(b) If HIV positivity has been confirmed, a process of rigorous aero-medical assessment and follow-up should be introduced to enable individuals to continue working provided their ability to exercise their licenced privileges to the required level of safety is not impaired. The operational environment should be considered in the decision-making.

ATCO.MED.B.045 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.

AMC1 ATCO.MED.B.045 Obstetrics and gynaecology

(a) Gynaecological surgery

Applicants who have undergone a major gynaecological operation should be assessed as unfit until recovery is complete, the applicant is asymptomatic and the risk of secondary complications or recurrence is minimal.

(b) Pregnancy

(1) A pregnant licence holder may be assessed as fit during the first 34 weeks of gestation provided obstetric evaluation continuously indicates a normal pregnancy.

(2) The AeMC or AME or the licensing authority should provide written advice to the applicant and the supervising physician regarding potentially significant complications of pregnancy which may negatively influence the safe exercise of the privileges of the licence.

ATCO.MED.B.050 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.

AMC1 ATCO.MED.B.050 Musculoskeletal system

(a) Applicants with any significant sequelae from disease, injury or congenital abnormality affecting the bones, joints, muscles or tendons with or without surgery require full evaluation prior to a fit assessment.

(b) Abnormal physique, including obesity, or muscular weakness may require aero-medical assessment and particular attention should be paid to an aero-medical assessment in the working environment.

(c) Locomotor dysfunction, amputations, malformations, loss of function and progressive osteoarthritic disorders should be assessed on an individual basis in conjunction with the appropriate operational expert with a knowledge of the complexity of the tasks of the applicant.

(d) Applicants with inflammatory, infiltrative or degenerative disease of the musculoskeletal system may be assessed as fit provided the condition is in remission and the medication is acceptable.

ATCO.MED.B.055 Psychiatry

(a) Applicants with a mental or behavioural 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 behavioural disorder;

shall undergo satisfactory psychiatric evaluation before a fit assessment may be considered. Applicants shall be referred to the licensing 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 licensing 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.

AMC1 ATCO.MED.B.055 Psychiatry

(a) Disorders due to alcohol or other substance use

(1) A fit assessment may be considered after successful treatment, a period of documented sobriety or freedom from substance use, and review by a psychiatric specialist. The licensing authority, with the advice of the psychiatric specialist, should determine the duration of the period to be observed before a medical certificate can be issued.

(2) Depending on the individual case, treatment may include in-patient treatment of some weeks.

(3) Continuous follow-up, including blood testing and peer reports, may be required indefinitely.

(b) Mood disorder

Applicants with an established mood disorder should be assessed as unfit. After full recovery and after full consideration of an individual case, a fit assessment may be considered depending on the characteristics and gravity of the mood disorder. If stability on maintenance psychotropic medication is confirmed, a fit assessment with an appropriate limitation may be considered. If the dosage of the medication is changed, a further period of unfit assessment should be required. Regular specialist supervision should be required.

(c) Psychotic disorder

Applicants with a history, or the occurrence, of a functional psychotic disorder should be assessed as unfit. A fit assessment may be considered if a cause can be unequivocally identified as one which is transient, has ceased and the risk of recurrence is minimal.

(d) Deliberate self-harm

Applicants who have carried out a single self-destructive action or repeated acts of deliberate self-harm should be assessed as unfit. A fit assessment may be considered after full consideration of an individual case which may require psychiatric or psychological evaluation. Neuropsychological evaluation may also be required.

ATCO.MED.B.060 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.

AMC1 ATCO.MED.B.060 Psychology

(a) If a psychological evaluation is indicated, it should be carried out by a psychologist taking into account the ATC environment and the associated risks.

(b) Where there is established evidence that an applicant may have a psychological disorder, the applicant should be referred for psychological opinion and advice.

(c) Established evidence should be verifiable information from an identifiable source related to the mental fitness or personality of a particular individual. Sources for this information can be accidents or incidents, problems in training or competence assessments, behaviour or knowledge relevant to the safe exercise of the privileges of the licence.

(d) The psychological evaluation may include a collection of biographical data, the administration of aptitude, as well as personality tests and psychological interview.

(e) The psychologist should submit a written report to the AME, AeMC or licensing authority as appropriate, detailing his/her opinion and recommendation.

ATCO.MED.B.065 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 licensing 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.

AMC1 ATCO.MED.B.065 Neurology

(a) Electroencephalography (EEG)

(1) EEG should be carried out when indicated by the applicant’s history or on clinical grounds.

(2) Epileptiform paroxysmal EEG abnormalities and focal slow waves should be disqualifying. A fit assessment may be considered after further evaluation.

(b) Epilepsy

(1) Applicants who have experienced one or more convulsive episodes after the age of five should be assessed as unfit.

(2) A fit assessment may be considered if:

(i) the applicant is seizure free and off medication for a period of at least 10 years;

(ii) full neurological evaluation shows that a seizure was caused by a specific non-recurrent cause, such as trauma or toxin.

(3) Applicants who have experienced an episode of benign Rolandic seizure may be assessed as fit provided the seizure has been clearly diagnosed including a properly documented history and typical EEG result and the applicant has been free of symptoms and off treatment for at least 10 years.

(c) Neurological disease

Applicants with any stationary or progressive disease of the nervous system which has caused or is likely to cause a significant disability should be assessed as unfit. A fit assessment may be considered after full neurological evaluation in cases of minor functional losses associated with stationary disease.

(d) Disturbance of consciousness

Applicants with a history of one or more episodes of disturbed consciousness may be assessed as fit if the condition can be satisfactorily explained by a non-recurrent cause. A full neurological evaluation is required.

(e) Head injury

Applicants with a head injury which was severe enough to cause loss of consciousness or is associated with penetrating brain injury should be evaluated by a consultant neurologist. A fit assessment may be considered if there has been a full recovery and the risk of epilepsy is sufficiently low. Behavioural and cognitive aspects should be taken into account.

ATCO.MED.B.070 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 licensing 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 licensing authority subject to satisfactory ophthalmic evaluation.

(h) Applicants with a clinical diagnosis of keratoconus shall be referred to the licensing 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.

AMC1 ATCO.MED.B.070 Visual system

(a) Eye examination

(1) At each aero-medical revalidation examination, the visual fitness should be assessed and the eyes should be examined with regard to possible pathology.

(2) All abnormal and doubtful cases should be referred to an ophthalmologist. Conditions which indicate ophthalmological examination include but are not limited to a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity and/or the occurrence of eye disease, eye injury or eye surgery.

(3) Where ophthalmological examinations are required for any significant reason, this should be imposed as a limitation on the medical certificate.

(4) The effect of multiple eye conditions should be evaluated by an ophthalmologist with regard to possible cumulative effects. Functional testing in the working environment may be necessary to consider a fit assessment.

(5) Visual acuity should be tested using Snellen charts, or equivalent, under appropriate illumination. Where clinical evidence suggests that Snellen may not be appropriate, Landolt ‘C’ may be used.

(b) Comprehensive eye examination

A comprehensive eye examination by an eye specialist is required at the initial examination. All abnormal and doubtful cases should be referred to an ophthalmologist. The examination should include:

(1) history;

(2) visual acuities — near, intermediate and distant vision; uncorrected and with best optical correction if needed;

(3) objective refraction — hyperopic initial applicants with a hyperopia of more than +2 dioptres and under the age of 25 in cycloplegia;

(4) ocular motility and binocular vision;

(5) colour vision;

(6) visual fields;

(7) tonometry;

(8) examination of the external eye, anatomy, media (slit lamp) and fundoscopy;

(9) assessment of contrast and glare sensitivity.

(c) Routine eye examination

At each revalidation or renewal examination, the visual fitness should be assessed and the eyes should be examined with regard to possible pathology. All abnormal and doubtful cases should be referred to an ophthalmologist. This routine eye examination should include:

(1) history;

(2) visual acuities — near, intermediate and distant vision; uncorrected and with best optical correction if needed;

(3) morphology by ophthalmoscopy;

(4) further examination on clinical indication.

(d) Refractive error

(1) Applicants with a refractive error between +5.0/-6.0 dioptres may be assessed as fit provided optimal correction has been considered and no significant pathology is demonstrated. If the refractive error exceeds +3.0/-3.0 dioptres, a four-yearly follow-up by an eye specialist should be required.

(2) Applicants with:

(i) a refractive error exceeding -6 dioptres;

(ii) an astigmatic component exceeding 3 dioptres; or

(iii) anisometropia exceeding 3 dioptres;

may be considered for a fit assessment if:

(A) no significant pathology can be demonstrated;

(B) optimal correction has been considered;

(C) visual acuity is at least 6/6 (1.0) in each eye separately with normal visual fields while wearing the optimal spectacle correction;

(D) two-yearly follow-up is undertaken by an eye specialist.

(3) Applicants with hypermetropia exceeding +5.0 dioptres may be assessed as fit subject to a satisfactory ophthalmological evaluation provided there are adequate fusional reserves, normal intraocular pressures and anterior angles and no significant pathology has been demonstrated. Corrected visual acuity in each eye shall be 6/6 or better.

(4) Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.

(e) Convergence

Applicants with convergence outside the normal range may be assessed as fit provided it does not interfere with near vision (30–50 cm) or intermediate vision (100 cm) with or without correction.

(f) Substandard vision

(1) Applicants with reduced central vision in one eye may be assessed as fit for a revalidation or renewal of a medical certificate if the binocular visual field is normal and the underlying pathology is acceptable according to ophthalmological evaluation. Testing should include functional testing in the appropriate working environment.

(2) Applicants with acquired substandard vision in one eye (monocularity, functional monocular vision including eye muscle imbalance) may be assessed as fit for revalidation or renewal if the ophthalmological examination confirms that:

(i) the better eye achieves distant visual acuity of 1.0 (6/6), corrected or uncorrected;

(ii) the better eye achieves intermediate and near visual acuity of 0.7 (6/9), corrected or uncorrected;

(iii) there is no significant ocular pathology;

(iv) a functional test in the working environment is satisfactory; and

(v) in the case of acute loss of vision in one eye, a period of adaptation time has passed from the known point of visual loss, during which the applicant is assessed as unfit.

(3) An applicant with a monocular visual field defect may be assessed as fit if the binocular visual fields are normal.

(g) Keratoconus

Applicants with keratoconus may be considered for a fit assessment if the visual requirements are met with the use of corrective lenses and periodic review is undertaken by an ophthalmologist.

(h) Heterophoria

Applicants with heterophoria (imbalance of the ocular muscles) exceeding when measured with optimal correction, if prescribed:

(1) at six metres:

* 2.0 prism dioptres in hyperphoria,
* 10.0 prism dioptres in esophoria,
* 8.0 prism dioptres in exophoria
* and

(2) at 33 centimetres:

* 1.0 prism dioptre in hyperphoria,
* 8.0 prism dioptres in esophoria,
* 12.0 prism dioptres in exophoria

may be assessed as fit provided that orthoptic evaluation demonstrates that the fusional reserves are sufficient to prevent asthenopia and diplopia. The Netherlands Optical Society (TNO) testing or equivalent should be carried out to demonstrate fusion.

(i) Eye surgery

(1) After refractive surgery or surgery of the cornea including cross linking, a fit assessment may be considered, provided:

(i) satisfactory stability of refraction has been achieved (less than 0.75 dioptres variation diurnally);

(ii) examination of the eye shows no post-operative complications;

(iii) glare sensitivity is normal;

(iv) mesopic contrast sensitivity is not impaired;

(v) evaluation is undertaken by an ophthalmologist.

(2) Cataract surgery

Following intraocular lens surgery, including cataract surgery, a fit assessment may be considered once recovery is complete and the visual requirements are met with or without correction. Intraocular lenses should be monofocal and should not impair colour vision.

(3) Retinal surgery/retinal laser therapy

(i) After successful retinal surgery, applicants may be assessed as fit once the recovery is complete. Annual ophthalmological follow-up may be necessary. Longer periods may be acceptable after two years on recommendation of the ophthalmologist.

(ii) After successful retinal laser therapy, applicants may be assessed as fit provided an ophthalmological evaluation shows stability.

(4) Glaucoma surgery

A fit assessment may be considered six months after successful glaucoma surgery, or earlier if recovery is complete. Six-monthly ophthalmological examinations to follow up secondary complications caused by the glaucoma may be necessary.

(5) Extraocular muscle surgery

A fit assessment may be considered not less than six months after surgery and after a satisfactory ophthalmological evaluation.

(j) Visual correction

Spectacles should permit the licence holder to meet the visual requirements at all distances.

GM1 ATCO.MED.B.070 Visual system

COMPARISON OF DIFFERENT READING CHARTS (APPROXIMATE FIGURES)

(a) Test distance: 40 cm

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Decimal | Nieden | Jäger | Snellen | N | Parinaud |
| 1,0 | 1 | 2 | 1,5 | 3 | 2 |
| 0,8 | 2 | 3 | 2 | 4 | 3 |
| 0,7 | 3 | 4 | 2,5 |  |  |
| 0,6 | 4 | 5 | 3 | 5 | 4 |
| 0,5 | 5 | 5 |  | 6 | 5 |
| 0,4 | 7 | 9 | 4 | 8 | 6 |
| 0,35 | 8 | 10 | 4,5 |  | 8 |
| 0,32 | 9 | 12 | 5,5 | 10 | 10 |
| 0,3 | 9 | 12 |  | 12 |  |
| 0,25 | 9 | 12 |  | 14 |  |
| 0,2 | 10 | 14 | 7,5 | 16 | 14 |
| 0,16 | 11 | 14 | 12 | 20 |  |

(b) Test distance: 80 cm

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Decimal | Nieden | Jäger | Snellen | N | Parinaud |
| 1,2 | 4 | 5 | 3 | 5 | 4 |
| 1,0 | 5 | 5 |  | 6 | 5 |
| 0,8 | 7 | 9 | 4 | 8.0 | 6 |
| 0,7 | 8 | 10 | 4,5 |  | 8 |
| 0,63 | 9 | 12 | 5,5 | 10 | 10 |
| 0,6 | 9 | 12 |  | 12 | 10 |
| 0,5 | 9 | 12 |  | 14 | 10 |
| 0,4 | 10 | 14 | 7,5 | 16 | 14 |
| 0,32 | 11 | 14 | 12 | 20 | 14 |

ATCO.MED.B.075 Colour vision

Applicants shall be normal trichromates.

AMC1 ATCO.MED.B.075 Colour vision

(a)Pseudoisochromatic plate testing alone is not sufficient.

(b)Colour vision should be assessed using means to demonstrate normal trichromacy.

GM1 ATCO.MED.B.075 Colour vision

The means to demonstrate normal trichromacy include:

(a) anomaloscopy (Nagel or equivalent). This test is considered passed if the colour match is trichromatic and the matching range is four scale units or less;

(b) Colour Assessment and Diagnosis (CAD) test.

ATCO.MED.B.080 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 a 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, 1000 or 2000 Hz, or more than 50 dB at 3000 Hz, in either ear separately.

(ii) Applicants who do not meet the hearing criteria above shall be referred to the licensing 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 licensing 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.

AMC1 ATCO.MED.B.080 Otorhinolaryngology

(a) Examination

(1) An otorhinolaryngological examination includes:

(i) history;

(ii) clinical examination including otoscopy, rhinoscopy and examination of the mouth and throat;

(iii) clinical examination of the vestibular system.

(2) Ear, nose and throat (ENT) specialists involved in the aero-medical assessment of air traffic controllers should have an understanding of the functionality required by air traffic controllers whilst exercising the privileges of their licence(s).

(3) Where a full aero-medical assessment and functional check are needed, due regard should be paid to the operational environment in which the operational functions are undertaken.

(b) Hearing

(1) The follow-up of an applicant with hypoacusis should be decided by the licensing authority. If at the next annual test there is no indication of further deterioration, the normal frequency of testing may be resumed.

(2) An appropriate prosthetic aid may be a special headset with individual earpiece volume controls. Full functional and environmental assessments should be carried out with the chosen prosthetic equipment in use.

(c) Ear conditions

An applicant with a single dry perforation of non-infectious origin and which does not interfere with the normal function of the ear may be considered for a fit assessment.

(d) Vestibular disturbance

The presence of vestibular disturbance and spontaneous or positional nystagmus requires complete vestibular evaluation by a specialist. Significant abnormal caloric or rotational vestibular responses are disqualifying. At revalidation and renewal aero-medical examinations, abnormal vestibular responses should be assessed in their clinical context.

(e) Speech disorder

Applicants with a speech disorder should be assessed with due regard to the operational environment in which the operational functions are undertaken. Applicants with significant disorder of speech or voice should be assessed as unfit.

GM1 ATCO.MED.B.080 Otorhinolaryngology

HEARING

(a) Speech discrimination test: discriminating speech against other noise including other sources of verbal communication and ambient noise in the working environment, but not against engine noise.

(b) Functional hearing test: the objective of this test is to evaluate the controller’s ability to hear the full range of communications that occur in an operational environment and not just through a headset or speaker.

(c) Prosthetic aid: the functional hearing test to be carried out with the prosthetic aid in use is to ensure that the individual is able to perform the functions of his/her licence and that the equipment is not adversely affected by interference from headsets or other factors.

(d) Pure-tone audiometry: testing at frequencies at or above 4 000 Hz will aid the early diagnosis of acoustic neuroma, noise-induced hearing loss (NIH) and other disorders of hearing. Particular attention should be paid in cases where there is a significant difference between thresholds of the left and right ear.

ATCO.MED.B.085 Dermatology

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

AMC1 ATCO.MED.B.085 Dermatology

(a) Referral to the licensing authority should be made if doubt exists about the fitness of an applicant with eczema (exogenous and endogenous), severe psoriasis, chronic infections, drug-induced or bullous eruptions or urticaria.

(b)Systemic effects of radiation or pharmacological treatment for a dermatological condition should be evaluated before a fit assessment may be considered.

(c) An applicant with a skin condition that causes pain, discomfort, irritation or itching may only be assessed as fit if the condition can be controlled and does not interfere with the safe exercise of the privileges of the licence.

(d) In cases where a dermatological condition is associated with a systemic illness, full consideration should be given to the underlying illness before a fit assessment may be considered.

ATCO.MED.B.090 Oncology

(a) After diagnosis of primary or secondary malignant disease, applicants shall be referred to the licensing 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 tumour shall be assessed as unfit.

AMC1 ATCO.MED.B.090 Oncology

(a)Applicants who have been diagnosed with a malignant disease may be assessed as fit provided:

(1) after primary treatment there is no evidence of residual malignant disease likely to interfere with the safe exercise of the privileges of the licence;

(2) time appropriate to the type of tumour has elapsed since the end of primary treatment;

(3) the risk of incapacitation from a recurrence or metastasis is sufficiently low;

(4) there is no evidence of short- or long-term sequelae from treatment. Special attention should be paid to applicants who have received anthracycline chemotherapy;

(5) satisfactory oncology follow-up reports are provided to the licensing authority.

(b) Applicants receiving ongoing chemotherapy or radiation treatment should be assessed as unfit.

(c) Applicants with a benign intracerebral tumour may be assessed as fit after satisfactory specialist and neurological evaluation and the condition does not compromise the safe exercise of the privileges of the licence.

(d) Applicants with pre-malignant conditions may be assessed as fit if treated or excised as necessary and there is a regular follow-up.

## SUBPART C – AERO-MEDICAL EXAMINERS (AMES)

ATCO.MED.C.001 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.

(c) Holders of an AME certificate shall not undertake aero-medical examinations and assessments in a State other than the Republic of Armenia that issued their AME certificate, unless they have:

(1) been granted access by the host State to exercise their professional activities as a specialised doctor;

(2) informed the competent authority of the host State of their intention to conduct aero-medical examinations and assessments and to issue medical certificates within the scope of their privileges as AME; and

(3) received a briefing from the competent authority of the host State.

ATCO.MED.C.005 Application

(a) The application for an AME certificate shall be submitted in accordance with the procedure established by the Committee.

(b) Applicants for an AME certificate shall provide the Committee with:

(1) personal details and professional address;

(2) documentation demonstrating that they comply with the requirements established in [ATCO.MED.C.010](#_DxCrossRefBm1379192791), 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 Committee with relevant information regarding all practice locations and practice facilities.

ATCO.MED.C.010 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 competent 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.

ATCO.MED.C.015 Training courses in aviation medicine

(a) Training courses in aviation medicine shall be approved by the competent authority of the State 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.

AMC1 ATCO.MED.C.015 Training courses in aviation medicine

BASIC TRAINING COURSE

(a) Basic training course for AMEs

The basic training course for AMEs should consist of 60 hours of theoretical and practical training, including specific examination techniques.

(b) The learning objectives to acquire the necessary competences should include theoretical knowledge, risk management and decision-making principles in the following subjects. Demonstrations and practical skills should also be included, where appropriate.

(1) Introduction to aviation medicine;

(2) Basic aeronautical knowledge;

(3) Aviation physiology;

(4) Cardiovascular system;

(5) Respiratory system;

(6) Digestive system;

(7) Metabolic and endocrine system;

(8) Haematology;

(9) Genitourinary system;

(10) Obstetrics and gynaecology;

(11) Musculoskeletal system;

(12) Psychiatry;

(13) Psychology;

(14) Neurology;

(15) Visual system and colour vision;

(16) Otorhinolaryngology;

(17) Oncology;

(18) Incidents and accidents, escape and survival;

(19) Legislation, rules and regulations;

(20) Medication and air traffic control.

AMC2 ATCO.MED.C.015 Training courses in aviation medicine

ADVANCED TRAINING COURSE

(a) The advanced training course for AMEs should consist of another 60 hours of theoretical and practical training, including specific examination techniques.

(b) The syllabus for the advanced training course should concentrate on the specific air traffic control environment, and demonstrations and practical skills should be included, where appropriate. The course should cover at least the following subjects:

(1) Air traffic control working environment;

(2) Ophthalmology, including demonstration and practical training;

(3) Otorhinolaryngology, including demonstration and practical training;

(4) Clinical medicine;

(5) Cardiovascular system;

(6) Neurology;

(7) Psychiatry;

(8) Oncology;

(9) Metabolic and endocrine systems;

(10) Human factors in aviation with a specific focus on the air traffic control environment;

(11) Problematic use of substances.

(c) Practical training at an AeMC should be under the guidance and supervision of the Head of the AeMC.

(d) After the successful completion of the practical training, a report of demonstrated competence should be issued.

ATCO.MED.C.020 Changes to the AME certificate

(a) AMEs shall notify the Committee 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 Committee shall result in the suspension or revocation of the privileges of the AME certificate, on the basis of the decision of the competent authority that suspends or revokes the certificate.

ATCO.MED.C.025 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 competent 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.

AMC1 ATCO.MED.C.025(b) Validity of AME certificates

REFRESHER TRAINING IN AVIATION MEDICINE

(a) During the period of authorisation certification, an AME should attend 20 hours of refresher training, including training with regard to the environment of air traffic control.

(b) A proportionate number of refresher training hours should be provided by, or conducted under the direct supervision of, the Committee or the medical assessor.

(c) Attendance at scientific meetings and congresses and air traffic control observation may be credited by the Committee for a specified number of hours against the training obligations of the AME, provided the medical assessor has assessed it in advance as being relevant for crediting purposes.

GM1 ATCO.MED.C.025(b) Validity of AME certificates

REFRESHER TRAINING IN AVIATION MEDICINE

Scientific meetings or congresses that may be credited by the Committee:

(a) European Conference of Aerospace Medicine;

(b) International Academy of Aviation and Space Medicine annual congresses;

(c) Aerospace Medical Association annual scientific meetings; and

(d) Other scientific meetings.

# INITIAL TRAINING CONTENT

AMC1 ATCO.D.010(a) Composition of initial training

GENERAL

1. Structure of the basic and rating training syllabi

(a) The basic and rating training syllabi are structured as follows:

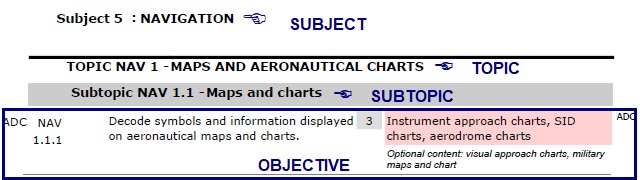
(1) The syllabus is divided into subjects, which are divided into topics that are in turn divided into subtopics. This structure serves the definition and classification of the objectives. There can be one or several objectives linked to each subtopic.

(2) Objectives are assigned to a specific topic/subtopic which deals with the knowledge and skills needed to accomplish the related subject.

(3) Subjects, topics and subtopics are contained in Appendices 2 to 5 to Annex I to this Regulation, and are repeated in:

* [AMC1 ATCO.D.010(a)(1)](https://dxweb.easa.europa.eu/dx4/Topics/atcoannex005.docx) Composition of initial training — BASIC TRAINING — TRAINING OBJECTIVES;
* [AMC1 ATCO.D.010(a)(2)(i)](#_DxCrossRefBm1379192489) Composition of initial training — AERODROME CONTROL RATING (ADC) TRAINING — TRAINING OBJECTIVES;
* [AMC1 ATCO.D.010(a)(2)(iv)](#_DxCrossRefBm1379192497) Composition of initial training — APPROACH CONTROL SURVEILLANCE RATING (APS) TRAINING — TRAINING OBJECTIVES
* [AMC1 ATCO.D.010(a)(2)(v)](#_DxCrossRefBm1379192499) Composition of initial training — AREA CONTROL SURVEILLANCE RATING (ACS) TRAINING — TRAINING OBJECTIVES

in order to provide the reader with a comprehensive and unique reference document for the basic and each of the rating training courses. Training objectives are included in, and form an integral part of, each of the aforementioned AMC.



**Figure 1: Layout of the syllabus**

(b) The following principles may be applied to the development of a training course that is based on any of the syllabi:

(1) The structure of the syllabi and the order of the objectives contained therein is neither intended to convey a pedagogical sequence nor to indicate a relative level of importance.

(2) No objective from the basic training syllabus is repeated as ‘a refresher’ in the rating training syllabi.

(3) The number of objectives contained within a subtopic does not necessarily signify how long it should take to teach that subtopic. For example, a subtopic containing five relatively straightforward objectives may take a shorter time to be taught than another subtopic containing two complex objectives.

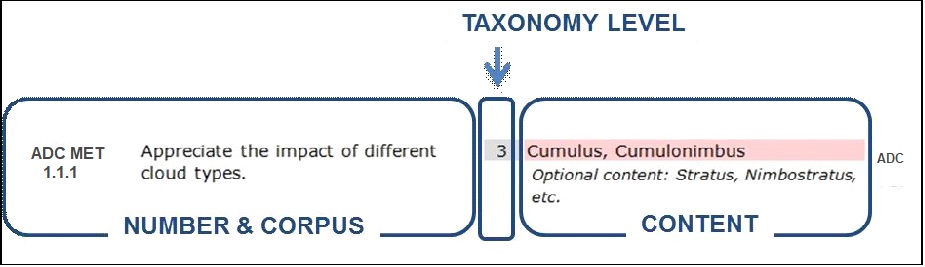
**2. Structure of the objectives**

(a) An objective consists of three elements:

(1) The corpus, which is a description of the required performance. It always contains an action verb to ensure that the outcome is observable. The action verb is always associated with a defined taxonomy.

(2) The level, which indicates numerically the taxonomy of the action verb.

(3) The content, which may be implicit or explicit. Explicit content is written in the content field, while implicit content is not but, instead, is implied in the corpus of the objective and other elements (syllabus, subject, etc.). Content that is a required part of the objective is written in the red-shaded field. Optional content, written in italics is provided to help training designers develop their training material and may suggest possible reference documents that could be used and/or elaborate on the content with specific examples. With or without explicit content, the objective needs to be covered since the implementation is implied in its corpus (text of the objective) and associated context (Subtopic/Topic/Subject/ Rating).

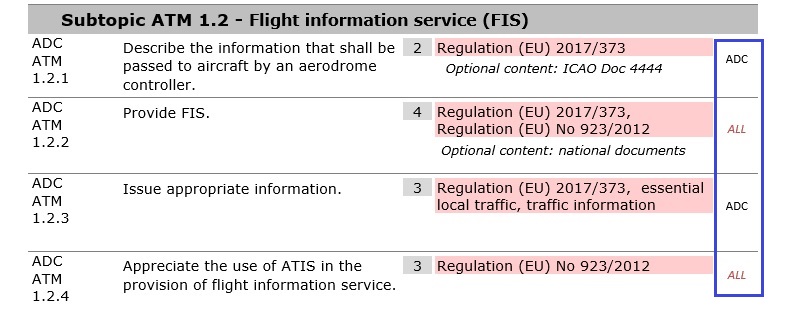


**Figure 2: Layout of an objective**

**3. Repeated and common objectives**

(a) Repeated and common objectives are only applicable to rating training.

(b) To the right of each objective, there is an indication of which other ratings contain this particular objective. If the rating is indicated in red italics, it notifies the reader that the objective(s) is (are) verbatim in each rating; however, the objective numbers are different. This indication is the first step to help training providers identify potential commonalities between the various syllabi. As a second step, training providers must determine, on the level of local implementation, whether the objective is to be regarded as repeated or common.



**Figure 3: Indication of the ratings to which a particular objective applies**

3.1 Repeated objectives

All the objectives appearing in a syllabus are implicitly appropriate to this syllabus. As a consequence, objectives may be repeated ‘verbatim’ in different rating syllabi and nevertheless specify a different performance. The reader always needs to mentally add the sentence ‘in this syllabus context’ at the end of each objective.

For example, the objective ‘use approved phraseology’ is repeated (same level, same corpus, same content) in all the syllabi but is different because the context is different in each syllabus (a learner that is able to use approved phraseology for en-route traffic will need additional training before mastering the phraseology in the provision of aerodrome control).

3.2 Common objectives

(a) Common objectives are verbatim the same objectives that appear in more than one rating syllabi in the same context so that they do not need to be taught again in case of combined or successively organised courses.

For example, the objective ‘describe the human information-processing model’ is common for all the syllabi because the context is non-specific and is, therefore, not determined by the type of rating.

(b) As a general principle, the rating subject ‘Human Factors’ is identical in each of the rating training syllabi and can be considered as containing common objectives because the context is always the same. This means that the rating training objectives relating to Human Factors need to be taught only once. If a learner acquires an additional rating, that learner would not be required to repeat the Human Factors objectives.

**4. Action verbs that support the taxonomy for training objectives**

(a) The five taxonomy levels should be understood to have the following levels of complexity:

(1) Action verbs for Level 1

Level 1 — A basic knowledge of the subject. It is the ability to remember essential points, to memorise data and retrieve it.

|  |  |  |
| --- | --- | --- |
| L1 Verb | Definition | Example |
| Define | State what it is and what its limits are; state the definition. | Define ATC service. |
| Draw | Produce a picture, pattern or diagram. | Draw the block diagram.  Draw a holding pattern. |
| List | Say one after the other. | List the different types of jet engines. |
| Name | Give the name of objects or procedures. | Name the competent authorities responsible for ATCO licensing and ANSP oversight. |
| Quote | Repeat what is written or said. | Quote the ICAO definition of ATC service. |
| Recognise | To know what it is because you have seen it before. | Recognise the information contained in the different parts of the AIP. |
| State | Say or write in a formal or definite way. | State the meteorological hazards to aviation. |

(2) Action verbs for Level 2

Level 2 — The ability to understand and to discuss the subject matter intelligently in order to represent and act upon certain objects and events.

|  |  |  |
| --- | --- | --- |
| L2 Verb | Definition | Example |
| Characterise | To describe the quality of features in something. | Characterise the main radio navigation techniques based on ground-based systems. |
| Consider | To think carefully about it. | Consider how the evolution of a situation may have an impact on safety. |
| Demonstrate | Describe and explain; logically or mathematically prove the truth of a statement. | Demonstrate the importance of good communication in ATC. |
| Describe | Say what it is like or what happened. | Describe the methods by which ICAO notifies and implements legislation. |
| Differentiate | Show the differences between things. | Differentiate between different types of visibility. |
| Explain | Give details about something or describe so that it can be understood. | Explain the purpose and function of ICAO. |
| Take account of | Take into consideration before deciding. | Take account of the limitations of equipment and systems. |

(3) Action verbs for Level 3

Level 3 — A thorough knowledge of the subject and the ability to apply it with accuracy. The ability to make use of the repertoire of knowledge to develop plans and activate them.

|  |  |  |
| --- | --- | --- |
| L3 Verb | Definition | Example |
| Act | Carry out, execute. | Act to reduce stress. |
| Apply | Use something in a situation or activity. | Apply separation. |
| Appreciate | To understand a situation and know what is involved in a problem-solving situation, to state a plan without applying it. | Appreciate the need for coordination (the learner says that the coordination will be done and with whom; the learner does not perform the actual coordination). |
| Assist | Help somebody to do a job by doing part of it. | Assist the pilot. |
| Calculate | To discover from information you already have by arithmetic; to think about a possible cause of action in order to form an opinion or decide what to do. | Calculate appropriate levels.  Calculate conversions between the three north designations. |
| Check | Make sure the information is correct (satisfactory). | Check all relevant documentation before managing traffic.  Check availability of information. |
| Choose | Select out of number, decide to do one thing rather than another. | Choose appropriate levels.  Choose the appropriate separation methods. |
| Collect | Assemble, accumulate, bring or come together. | Collect appropriate information relevant to the situation. |
| Conduct | Organise and carry out. | Conduct level changes. |
| Confirm | Establish more firmly, corroborate. | Confirm sequence order. |
| Decode | Turn into ordinary writing, decipher. | Decode the content of weather reports and forecasts. |
| Encode | Put into code or cipher. | Encode and decode flight plans (including supplementary information). |
| Estimate | Form an approximate judgement of a number, form an opinion. | Estimate the heading for a new track and the distance to the next way point. |
| Execute | Perform action. | Execute selected plan in a timely manner. |
| Extract | Copy out, make extracts from, find, deduce. | Extract pertinent data from relevant sources to produce a flight progress display. |
| Identify | Associate oneself inseparably with, establish the identity. | Identify potential or actual abnormal and emergency situations.  Identify aircraft. |
| Inform | Tell, give facts or information. | Inform the supervisor of local factors affecting the ATS system capacity and air traffic flow management. |
| Initiate | Begin, set going, originate. | Initiate appropriate coordination. |
| Input | Enter in the system. | Input data. |
| Issue | Send forth, publish. | Issue appropriate ATC clearances.  Issue appropriate information concerning the position of conflicting traffic. |
| Maintain | Cause or enable to continue. | Maintain situational awareness by monitoring traffic |
| Measure | Ascertain extent or quality of (thing) by comparison with fixed unit or with object of known size. | Measure distance on a map. |
| Monitor | Keep under observation. | Monitor the technical integrity of the controller working position. |
| Notify | Make known, announce, report. | Notify runway in use. |
| Obtain | Acquire easily without research. | Obtain meteorological information. |
| Operate | Conduct work on equipment. | Operate the equipment of the controller working position. |
| Pass | Move, cause to go, transmit. | Pass essential traffic information without delay. |
| Perform | Carry into effect, go through, execute. | Perform communication effectively. |
| Process | To put through the steps of a prescribed procedure. | Process pertinent data on data displays. |
| Record | Register, set down for remembrance or reference. | Record information by writing effectively. |
| Relay | Receive and pass on, broadcast. | Relay meteorological information. |
| Respond | Provide an answer, perform answering or corresponding action. | Respond to loss/doubt concerning identification.  Respond to distress and urgency messages and signals. |
| Scan | Continuously observe rapidly, sequentially and selectively in order to extract relevant data. | Scan data display. |
| Transfer | Hand over. | Transfer information to the relieving controller. |
| Update | Refresh, bring up to date. | Update the data display to accurately reflect the traffic situation. |
| Use | Employ for a purpose, handle as instrument, put into operation. | Use approved phraseology.  Use the available means for coordination. |
| Verify | Establish truth of. | Verify that the settings of the working position are appropriate. |

(4) Action verbs for Level 4

Level 4 — Ability to establish a line of action within a unit of known applications following the correct chronology and the adequate method to resolve a problematic situation. This involves the integration of known applications in a familiar situation.

|  |  |  |
| --- | --- | --- |
| L4 Verb | Definition | Example |
| Acquire | Gain by oneself and for oneself, obtain after research. | Acquire relevant aeronautical information. |
| Adjust | Change to a new position, value or setting. | Adjust the surveillance system display. |
| Allocate | Assign, devote. | Allocate levels according to altimetry data. |
| Analyse | Examine minutely the constitution of. | Analyse examples of pilot–controller communication for effectiveness.  Analyse the information provided by the ATS surveillance system. |
| Assign | Designate or set an element. | Assign codes. |
| Coordinate | Negotiate with others in order to work together effectively. | Coordinate runway in use.  Coordinate when providing FIS. |
| Comply | Act in accordance with. | Comply with rules. |
| Delegate | Commit authority to somebody. | Delegate separation to pilots in the case of aircraft executing successive visual approaches. |
| Detect | Discover existence of. | Detect conflicts in time for appropriate resolution. |
| Ensure | Make safe, make certain. | Ensure the agreed course of action is carried out. |
| Expedite | Assist the progress of, do speedily. | Expedite traffic. |
| Integrate | Combine into a whole, complete by addition of parts. | Integrate appropriate ATC clearances in control service. |
| Manage | Handle, conduct, maintain control over something, be in charge of. | Manage traffic on the manoeuvring area.  Manage traffic in accordance with a change to operational procedures. |
| Organise | Give orderly structure to, frame and put into working order. | Organise pertinent data on data displays.  Organise priority of actions. |
| Predict | Forecast. | Predict positions of aircraft in the aerodrome traffic and taxi circuits. |
| Provide | Supply, furnish. | Provide vectoring.  Provide FIS. |
| Relate | Establish link with. | Relate a pressure setting to an altitude. |

(5) Action verbs for Level 5

Level 5 — Ability to analyse new situation in order to elaborate and apply one or other relevant strategy to solve a complex problem. The defining feature is that the situation is qualitatively different from those previously met, requiring judgement and evaluation of options.

|  |  |  |
| --- | --- | --- |
| L5 verb | Definition | Example |
| Assess | Estimate value or difficulty, evaluate, appraise. | Assess workload. |
| Balance | Weigh (a question, two arguments, etc., against each other). | Balance the workload against personal capacity. |
| Discuss | Investigate by reasoning or argument. | Discuss the impact of regulation. |
| Evaluate | Ascertain amount of, find numerical expression for. | Evaluate the necessary information to be provided to pilots in need of navigational assistance. |
| Interpret | To decide on something’s meaning or significance when there is a choice. | Interpret operational information. |
| Optimise | To make optimal; get the most out of; use best; modify to achieve maximum efficiency. | Optimise the use of support tools. |
| Resolve | Solve, clear up, settle. | Resolve conflict. |
| Select | Pick out as best or most suitable. | Select the runway in use. |
| Theorise | Extract general principles from a particular experience. | Theorise the resolution of conflict between a slow and a fast aircraft. |
| Validate | Make valid, ratify, prove valid, show or confirm the validity of something. | Validate one radar vectoring option to expedite the traffic. |

(b) Application of taxonomy levels to practically based objectives

(1) Objectives at taxonomy level 3 or higher, which are of a practical nature, related to all subjects except ATM, may be achieved by any suitable type of practical training methods, e.g. hands-on, plotting on charts, etc.

(2) Objectives at taxonomy level 3 or higher, for the ATM subject (basic and rating), are practical by nature and require the integration of several knowledge areas and skills at the same time, e.g. vectoring of an aircraft requires knowledge and skills in the areas of radiotelephony, aircraft performance, navigation and radar theory. Therefore, ATM level 3 objectives should be achieved through the use of a part-task trainer or a simulator.

(3) ATM level 4 objectives should be achieved for the most part through the use of a simulator. A part-task trainer, which presents operational situations at an enforced pace, may be used to achieve some ATM level 4 objectives.

(4) ATM level 5 objectives should be achieved through the use of a simulator.

AMC2 ATCO.D.010(a) Composition of initial training

LIST OF ABBREVIATIONS

For the purposes of:

* [AMC1 ATCO.D.010(a)(1)](#_DxCrossRefBm1379192487) Composition of initial training — BASIC TRAINING — TRAINING OBJECTIVES;
* [AMC1 ATCO.D.010(a)(2)(i)](#_DxCrossRefBm1379192489) Composition of initial training — AERODROME CONTROL RATING (ADC) TRAINING —TRAINING OBJECTIVES;
* [AMC1 ATCO.D.010(a)(2)(iv)](#_DxCrossRefBm1379192497) Composition of initial training — APPROACH CONTROL SURVEILLANCE RATING (APS) TRAINING — TRAINING OBJECTIVES
* [AMC1 ATCO.D.010(a)(2)(v)](#_DxCrossRefBm1379192499) Composition of initial training — AREA CONTROL SURVEILLANCE RATING (ACS) TRAINING — TRAINING OBJECTIVES

the following abbreviations apply:

Abbreviation Stands for / Means

A-RNP Advanced Required Navigation Performance

A/B (Type) A and B type approaches (classifications)

ABAS Aircraft-based Augmentation System

ABES Abnormal and Emergency Situations (Subject)

ACARS Aircraft Communications Addressing and Reporting System

ACAS Airborne Collision Avoidance System

ACC Area Control Centre

ACFTB Aircraft — Basic Training (subject)

ACFT Aircraft (subject)

ACN Aircraft Classification Number

ACS Area Control Surveillance Rating

ADF Automatic Direction-Finding System

ADC Aerodrome Control

ADI Aerodrome Control Instrument

ADS Automatic Dependent Surveillance

ADS-B Automatic Dependent Surveillance — Broadcast

ADS-C Automatic Dependent Surveillance — Contract

ADV Aerodrome Control Visual Rating

ADVS Advisory Service

AEA Association of European Airlines

AFIL Air-Filed Flight Plan

AFTN Aeronautical Fixed Telecommunication Network

AGA Aerodromes

AIC Aeronautical Information Circular

AIP Aeronautical Information Publication

AIRAC Aeronautical Information Regulation and Control

AIRAC SUP AIRAC Supplement

AIREP Air-Report

AIRMET Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations

AIS Aeronautical Information Service

ALRS Alerting Service

AMAN Arrival Manager

AMC Acceptable Means of Compliance

ANS Air Navigation Services

AP/FD Autopilot/Flight Director

APM Approach Path Monitor

APS Approach Control Surveillance Rating

APV Approach Procedure with Vertical guidance

APW Area Proximity Warning

ASDA Accelerate Stop Distance Available

ASM Airspace Management

ASMGCS Advanced Surface Movement Guidance and Control Systems

ATC Air Traffic Control

ATCEUC Air Traffic Controllers European Unions Coordination

ATCO Air Traffic Controller

ATCS Air Traffic Control Service

ATFCM Air Traffic Flow and Capacity Management

ATFM Air Traffic Flow Management

ATIS Automatic Terminal Information Service

ATM Air Traffic Management

ATMB Air Traffic Management — Basic Training (subject)

ATS Air Traffic Services

ATZ Aerodrome Traffic Zone

AVASI Advanced Visual Approach Slope Indicator

Beidou Chinese navigation satellite system

BIRDTAM Bird hazard NOTAM (NOTAM reporting bird hazard)

CANSO Civil Air Navigation Services Organisation

CAT Clear-Air Turbulence

CBA Cross-Border Area

CBT Computer-Based Training

CCO Continuous Climb Operations

CDO Continuous Descent Operations

CDR Conditional Route

CEM Collaborative Environmental Management

CISM Critical Incident Stress Management

CPDLC Controller-Pilot Data Link Communications

CPL Current Flight Plan

CWP Controller Working Position

DA Decision Altitude

DFTI Distance from Touchdown Indicator

DH Decision Height

DMAN Departure Manager

DME Distance-Measuring Equipment

Doc Document

EASA European Union Aviation Safety Agency

EAT Expected Approach Time

EATMP European Air Traffic Management Programme

EC European Commission

ECAC European Civil Aviation Conference

EET Estimated Elapsed Time

EFIS Electronic Flight Instrument System

EGNOS European Geostationary Navigation Overlay Service

EGPWS Enhanced Ground Proximity Warning System

EQPS Equipment and Systems (subject)

EQPSB Equipment and Systems — Basic Training (subject)

ETF European Transport Workers’ Federation

EU European Union

EU ETS European Union Emissions Trading Scheme

EUROCONTROL European Organisation for the Safety of Air Navigation

FA Fix to Altitude

FAB Functional Airspace Block

FAF Final Approach Fix

FAP Final Approach Point

FDPS Flight Data Processing System

FIR Flight Information Region

FIS Flight Information Service

FMS Flight Management System

FPB Flight Progress Board

FPL Flight Plan or Filed Flight Plan

FRA Free-Route Airspace

FRT Fixed Radius Transition

FTE Flight Technical Error

FUA Flexible Use of Airspace

Galileo European satellite navigation system

GBAS Ground-Based Augmentation System

GLONASS Global Orbiting Navigation Satellite System

GNSS Global Navigation Satellite System

GP Glide Path

GPS Global Positioning System

GPWS Ground Proximity Warning System

HF High Frequency

HFACS Human Factors Analysis & Classification System

HUM Human Factors (subject)

HUMB Human Factors — Basic Training (subject)

IACA International Air Carrier Association

IAF Initial Approach Fix

IAOPA International Council of Aircraft Owner and Pilot Associations

IATA International Air Transport Association

ICAO International Civil Aviation Organization

IF Intermediate Approach Fix

IFALPA International Federation of Airline Pilots’ Associations

IFATCA International Federation of Air Traffic Controllers’ Associations

IFPS Integrated Initial Flight Plan Processing System

IFR Instrument Flight Rules

ILS Instrument Landing System

IMC Instrument Meteorological Conditions

INS Inertial Navigation System

INTR Introduction to the course (subject)

INTRB Introduction to the course — Basic Training (subject)

IRS Inertial Reference System

IRVR Instrument Runway Visual Range

ISA International Standard Atmosphere

ITU International Telecommunications Union

LAM Local Area Multilateration

LAW Aviation Law (subject)

LAWB Aviation Law — Basic Training (subject)

LDA Landing Distance Available

LOA Letter of Agreement

LOC Localiser

LOPs Local Operating Procedures

LPV Localiser Performance with Vertical guidance

MAPt Missed Approach Point

MCMF Multi-Constellation, Multi-Frequency

MDA Minimum Descent Altitude

MDH Minimum Descent Height

MET Meteorology

METAR Meteorological Aviation Routine Weather Report

METB Meteorology — Basic Training (subject)

MLAT Multilateration

Mode A SSR identification code

Mode C SSR Mode C (pronounced: Mode Charlie)

Mode S Mode Select

MONA Monitoring Aids

MSAW Minimum Safe Altitude Warning

MTCD Medium-Term Conflict Detection

MWO Meteorological Watch Office

NAV Navigation (subject)

NAVAID Navigation(al) Aid

NAVB Navigation — Basic Training (subject)

NDB Non-Directional Beacon

No. Number

NOTAM Notice to Airmen

NPA Non-Precision Approach

NSE Navigation System Error

OCA Obstacle Clearance Altitude

OCH Obstacle Clearance Height

OJT On-the-Job Training

OLDI On-Line Data Interchange

PA Precision Approach

PANS Procedures for Air Navigation Services

PAPI Precision Approach Path Indicator

PAR Precision Approach Radar

PBN Performance-Based Navigation

PCN Pavement Classification Number

PCP Pilot Common Project

PDE Path Definition Error

PEAR (model) People who do the job/Environment in which they work/Actions they perform/Resources necessary to complete the job

PEN Professional Environment (subject)

PENB Professional Environment — Basic Training (subject)

PSR Primary Surveillance Radar

PTP Part-Time Practice

QDM Inbound magnetic bearing to the station

QDR Outbound magnetic bearing from the station

QFE Atmospheric pressure at aerodrome elevation

QNH Atmospheric pressure at mean sea level

QTF The position of the transmitting station according to the bearings taken by the D/F station

RA Resolution Advisory (TCAS)

RAIM Receiver Autonomous Integrity Monitoring

RCC Rescue Coordination Centre

RF Radius to Fix

RNAV Area Navigation

RNP Required Navigation Performance

RNP APCH Required Navigation Performance Approach

RNP AR APCH Required Navigation Performance Authorisation Required Approach

RNP (AR) DEP Required Navigation Performance Authorisation Required Departure

ROC Rate of Climb

RPAS Remotely Piloted Aircraft System

RTF Radiotelephony

RVR Runway Visual Range

RVSM Reduced Vertical Separation Minimum

SADIS Satellite Distribution of World Area Forecast System

SAR Search and Rescue

SARPs Standards and Recommended Practices (ICAO)

SBAS Satellite-Based Augmentation System

SDPS Surveillance Data Processing System

SELCAL Selective Calling

SES Single European Sky

SHELL (model) Software, Hardware, Environment, Live ware, Live ware Model

SIB Safety Information Bulletin

SID Standard Instrument Departure (Route)

SIGMET Significant Meteorological Information

SMAN Surface Management

SMR Surface Movement Radar

SNOWTAM NOTAM on SNOW conditions

SOPs Standard Operating Procedures

SPECI Aviation Selected Special Weather Report

SSR Secondary Surveillance Radar

STAR Standard Instrument Arrival (Route)

STCA Short-Term Conflict Alert

SVFR Special Visual Flight Rules

TA Traffic Alert (TCAS)

TACAN UHF Tactical Air Navigation Aid

TAF Terminal Area (Aerodrome) Forecast

TAWS Terrain Awareness and Warning System

TBO Trajectory-Based Operations

TCAC Tropical Cyclone Advisory Centre

TCAS Traffic Alert and Collision Avoidance System

TODA Take-Off Distance Available

TORA Take-Off Run Available

TRA Temporary Reserved Airspace or Temporary Reserved Area

TRM Team Resource Management

TSA Temporary Segregated Area

TSE Total System Error

TWR Tower Control Unit (Aerodrome Control Tower)

UAS Unmanned Aircraft System

UDF Ultra High Frequency Direction Finder

UHF Ultra High Frequency

UTC Coordinated Universal Time

VAAC Volcanic Ash Advisory Centre

VASI Visual Approach Slope Indicator

VDF Very High Frequency Direction Finder

VFR Visual Flight Rules

VHF Very High Frequency

VMC Visual Meteorological Conditions

VNAV Vertical Navigation

VOLMET Routine Weather Reports Broadcast on VHF

VOR VHF Omni-directional Radio Range

WAFC World Area Forecast Centre

WAFS World Area Forecast System

WAM Wide Area Multilateration

WGS-84 World Geodetic System 84

WMO World Meteorological Organization

AMC1 ATCO.D.010(a)(1) Composition of initial training

BASIC TRAINING — TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in [AMC1 ATCO.D.010(a)](#_DxCrossRefBm1379192482).

(b) Basic training should contain the following training objectives that are associated with the subjects, topics and subtopics contained in Appendix 2 (Basic training) to Annex I to this Regulation.

(c) Subjects, topics and subtopics from Appendix 2 to Annex I to this Regulation are repeated in this AMC for the convenience of the reader and do not form part of it.

##### SUBJECT 1: INTRODUCTION TO THE COURSE

The subject objective is:

Learners shall know and understand the training programme that they will follow and how to obtain the appropriate information, and recognise the potential for development of their careers in ATC.

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| **TOPIC INTRB 1 — COURSE MANAGEMENT** | | | | | | | |
| Subtopic INTRB 1.1 — Course introduction | | | | | | | |
| BASIC INTRB  1.1.1 | | Explain the aims and main objectives of the course. | | 2 | |  | |
| Subtopic INTRB 1.2 — Course administration | | | | | | | |
| BASIC INTRB  1.2.1 | | State how the course is administered. | | 1 | |  | |
| Subtopic INTRB 1.3 — Study material and training documentation | | | | | | | |
| BASIC INTRB  1.3.1 | | Use appropriate documents and their sources for the course. | | 3 | | Optional content: training documentation, library, CBT library, web, learning management server | |
| BASIC INTRB  1.3.2 | | Integrate appropriate information into course studies. | | 4 | | Training documentation  Optional content: supplementary information, library | |
| TOPIC INTRB 2 — INTRODUCTION TO THE ATC TRAINING COURSE | | | | | | | |
| Subtopic INTRB 2.1 — Course content, methodology and organisation | | | | | | | |
| BASIC INTRB  2.1.1 | | State the different training methods used during the course. | | 1 | | Theoretical training, practical training, self-study, types of training events | |
| BASIC INTRB  2.1.2 | | State the subjects covered by the course and their purpose. | | 1 | |  | |
| BASIC INTRB  2.1.3 | | Describe the organisation of theoretical training. | | 2 | | *Optional content: course programme* | |
| BASIC INTRB  2.1.4 | | Describe the organisation of practical training. | | 2 | | *Optional content: PTP, simulation, briefing, debriefing, course programme* | |
| BASIC  INTRB  2.1.5 | | Appreciate appropriate learning techniques. | | 3 | | How the influence of interactive techniques can lead to improved learning | |
| Subtopic INTRB 2.2 — Training ethos | | | | | | | |
| BASIC INTRB  2.2.1 | | Recognise the feedback mechanisms available. | | 1 | | *Optional content: instructor discussions, training progress, assessment, examinations, results, briefing, debriefing* | |
| BASIC INTRB  2.2.2 | | Describe the positive effect of working and learning together with course participants. | | 2 | | Teamwork in theoretical and practical training | |
| Subtopic INTRB 2.3 — Assessment process | | | | | | | |
| BASIC INTRB  2.3.1 | | Describe the assessment process. | | 2 | |  | |
| TOPIC INTRB 3 — INTRODUCTION TO THE ATCO’s FUTURE | | | | | | | |
| Subtopic INTRB 3.1 — Job prospects | | | | | | | |
| BASIC INTRB  3.1.1 | | Recognise an ATCO’s working environment. | | 1 | | Area control unit, approach control unit, aerodrome control unit | |
| BASIC INTRB  3.1.2 | | Recognise career developments. | | 1 | | Optional content: OJT instructor, supervisor, operational managerial posts, non-operational posts | |

**SUBJECT 2: AVIATION LAW**

The subject objective is:

Learners shall apply the regulations governing the rules of the air, airspace and flight planning and explain their development or, where applicable, their incorporation into national legislation.

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| TOPIC LAWB 1 — INTRODUCTION TO AVIATION LAW | | | | | |
| Subtopic LAWB 1.1 — Relevance of aviation law | | | | | |
| BASIC LAWB  1.1.1 | State the necessity for air law, the sources and development of aviation law. | | 1 | Relevant legislation,  ICAO Convention  *Optional content: ICAO Annex 2, national aviation law* | |
| BASIC LAWB  1.1.2 | Describe the impact key international and national organisations have on ATC and their interaction with each other. | | 2 | ICAO, EASA, EUROCONTROL, national organisations | |
| TOPIC LAWB 2 — INTERNATIONAL ORGANISATIONS | | | | | |
| Subtopic LAWB 2.1 — ICAO | | | | | |
| BASIC LAWB  2.1.1 | Explain the purpose and function of ICAO. | 2 | |  | |
| BASIC LAWB  2.1.2 | Describe the methods by which ICAO notifies and implements legislation. | 2 | | SARPs, PANS, ICAO annexes, ICAO documents  Optional content: regional offices | |
| Subtopic LAWB 2.2 — European and other agencies | | | | | |
| BASIC LAWB  2.2.1 | Explain the purpose and function of EUROCONTROL. | 2 | | Network Manager function | |
| BASIC LAWB  2.2.2 | Explain the purpose and function of EASA. | 2 | |  | |
| BASIC LAWB  2.2.3 | State the purpose and function of other international agencies and their relevance to air traffic operations. | 1 | | Optional content: ECOMMITTEE, EU, ITU, CANSO, WMO | |
| Subtopic LAWB 2.3 — Aviation associations | | | | |
| BASIC LAWB  2.3.1 | State the purpose of controller, pilot, airline and airspace user associations and their interaction with ATC. | 1 | | Optional content: IFATCA, IFALPA, IATA, AEA, IAOPA, IACA, military services, ETF, ATCEUC |

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| TOPIC LAWB 3 — NATIONAL ORGANISATIONS | | | | | | |
| Subtopic LAWB 3.1 — National authorities | | | | | | |
| BASIC LAWB  3.1.1 | | Describe the purpose and function of appropriate national agencies and their relevance to air traffic operations. | 2 | *Optional content: civil aviation administration agencies, government agencies* | | |
| Subtopic LAWB 3.2 — National legislative procedures | | | | | | |
| BASIC LAWB  3.2.1 | | Recognise how legislation is implemented, notified and updated. | 1 |  | | |
| Subtopic LAWB 3.3 — Competent authority | | | | | | |
| BASIC LAWB  3.3.1 | | Name the competent authorities responsible for ATCO licensing and ANSP oversight. | 1 |  | | |
| BASIC LAWB  3.3.2 | | State how the competent authority carries out its safety oversight responsibilities. | 1 |  | | |
| Subtopic LAWB 3.4 — National aviation associations | | | | | | |
| BASIC LAWB  3.4.1 | | State the purpose of national controller, pilot, airline and airspace user associations. | 1 |  | | |
| TOPIC LAWB 5 — RULES AND REGULATIONS | | | | |
| Subtopic LAWB 5.1 — Units of measurement | | | | |
| BASIC LAWB  5.1.1 | List the units of measurement used in aviation. | 1 | | Council Directive 80/181/EEC on units of measurement[[2]](#footnote-2), ICAO Annex 5 |
| Subtopic LAWB 5.2 — ATCO licensing/certification | | | | |
| BASIC LAWB  5.2.1 | Explain the ATCO licensing/certification process. | 2 | | RA ATCO licensing/certification Regulation, approved training courses; ATCO licences, ratings and endorsements  *Optional content: national processes* |
| BASIC LAWB  5.2.2 | Explain the privileges and limitations of controller licences. | 2 | | RA ATCO licensing/certification Regulation |
| Subtopic LAWB 5.3 — Overview of ANS | | | | |
| BASIC LAWB  5.3.1 | Differentiate between ANS. | 2 | | Low on Aviation RA Government of the Republic of Armenia Decision N 633-N of April 8, 2004[[3]](#footnote-3) |
| Subtopic LAWB 5.4 — Overview of ATS | | | | |
| BASIC LAWB  5.4.1 | State the considerations which determine the need for ATS. | 1 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| BASIC LAWB  5.4.2 | Differentiate between ATS. | 2 | | ATCS, ADVS, FIS, ALRS |
| BASIC LAWB  5.4.3 | Explain the objectives of ATS. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022[[4]](#footnote-4) |
| Subtopic LAWB 5.5 — Overview of Aeronautical Information Management (AIM) | | | | |
| BASIC LAWB 5.5.1 | Describe the means by which aeronautical information is notified, updated and disseminated. | 2 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: AIS, integrated aeronautical information package (AIPs, AIRAC, SUPs, AICs, NOTAMs), ICAO Annex 15* |
| BASIC LAWB 5.5.2 | Recognise the information contained in the different parts of the AIP. | 1 | |  |
| Subtopic LAWB 5.6 — Rules of the air | | | | |
| BASIC LAWB  5.6.1 | Explain the rules of the air. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 flight over the high seas, applicability and compliance, general rules and collision avoidance |
| BASIC LAWB  5.6.2 | State the published differences with ICAO. | 1 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: Supplements to ICAO Annex 2 and ICAO Annex 11* |
| BASIC LAWB  5.6.3 | Appreciate the influence of relevant flight rules on ATC. | 3 | | General flight rules, instrument flight rules, visual flight rules |
| BASIC LAWB  5.6.4 | Appreciate the differences between flying in accordance with VFR, special VFR and IFR in VMC and IMC. | 3 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 |
| Subtopic LAWB 5.7 — Airspace and ATS routes | | | | |
| BASIC LAWB  5.7.1 | Explain airspace classification. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 |
| BASIC LAWB  5.7.2 | Differentiate between the different types of airspace. | 2 | | *Optional content: control zones, control areas, airways, upper and lower airspace, restricted areas, prohibited and danger areas, FIR, aerodrome traffic zone, etc.* |
| BASIC LAWB  5.7.3 | Differentiate between the different types of ATS routes. | 2 | | Airway, arrival route, departure route, advisory route, controlled route, uncontrolled route, etc. |
| BASIC LAWB  5.7.4 | Decode information from aeronautical charts. | 3 | |  |
| Subtopic LAWB 5.8 — Flight plan | | | | |
| BASIC LAWB  5.8.1 | Explain the functions of a flight plan. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444 |
| BASIC LAWB  5.8.2 | Explain the different types of flight plans and associated update messages. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444 |
| BASIC LAWB  5.8.3 | Explain the pilot’s responsibilities in relation to adherence to flight plan. | 2 | | Inadvertent changes, intended changes, position reporting |
| BASIC LAWB  5.8.4 | Describe flight plan submission and distribution processes. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 |
| Subtopic LAWB 5.9 — Aerodromes | | | | |
| BASIC LAWB  5.9.1 | Describe the general design and layout of an aerodrome. | 2 | | Runway(s), taxiways, apron, movement area, manoeuvring area, designated positions on an aerodrome |
| BASIC LAWB  5.9.2 | Explain the numbering system and orientation of runways. | 2 | | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 |
| BASIC LAWB  5.9.3 | Differentiate between different types of aerodromes. | 2 | | Controlled, uncontrolled  *Optional content: military, international, regional* |
| BASIC LAWB  5.9.4 | Describe designated positions in the traffic circuit. | 2 | |  |
| BASIC LAWB  5.9.5 | List the factors affecting the selection of runway in use. | 1 | |  |
| Subtopic LAWB 5.10 — Holding procedures for IFR flights | | | | |
| BASIC LAWB  5.10.1 | Describe the purpose of holding. | 2 | | Traffic management, weather, pilot request, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, ICAO Doc 8168  *Optional content: ICAO Doc 4444* |
| BASIC LAWB  5.10.2 | Describe the types of holding patterns. | 2 | | Published, non-published |
| BASIC LAWB  5. 10.3 | Describe an ICAO holding pattern. | 2 | | ICAO Doc 8168 — Parts of an IFR holding pattern, entry/exit procedures, dimensions of patterns, protected airspace, holding areas, alignment, rates of turns, holding times, expect further clearance, Expected Approach Times (EATs) |
| BASIC LAWB  5.10.4 | Describe the factors affecting the holding pattern. | 2 | | Effect of speed, effect of level used, effect of navigation aid in use, turbulence |
| Subtopic LAWB 5.11 — Holding procedures for VFR flights | | | | |
| BASIC LAWB  5.11.1 | Describe VFR holding. | 2 | |  |

##### SUBJECT 3: AIR TRAFFIC MANAGEMENT

The subject objective is:

Learners shall describe the basic principles of air traffic management and apply basic operational procedures.

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| TOPIC ATMB 1 — AIR TRAFFIC MANAGEMENT | | | | |
| Subtopic ATMB 1.1 — Application of units of measurement | | | | |
| BASIC ATMB  1.1.1 | Apply the units of measurement appropriate to ATM. | 3 |  | |
| Subtopic ATMB 1.2 — Air traffic control (ATC) service | | | | |
| BASIC ATMB  1.2.1 | Define ATC service. | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | |
| BASIC ATMB  1.2.2 | Explain the division of ATC service. | 2 | Government of the Republic of Armenia Decision N 633-N of April 8, 2004, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | |
| BASIC ATMB  1.2.3 | Explain the responsibility for the provision of ATC service. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | |
| BASIC ATMB  1.2.4 | Differentiate between the different methods of providing ATC services. | 2 | Aerodrome, surveillance, | |
| Subtopic ATMB 1.3 — Flight information service (FIS) | | | | |
| BASIC ATMB  1.3.1 | Define FIS. | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | |
| BASIC ATMB  1.3.2 | Describe the scope of FIS. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | |
| BASIC ATMB  1.3.3 | Explain the responsibility for the provision of FIS. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | |
| BASIC ATMB  1.3.4 | State the methods of transmitting information. | 1 | RTF, data link, ATIS, VOLMET | |
| BASIC ATMB  1.3.5 | List the content of ATIS and VOLMET. | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: meteorological data obtained by data link, ICAO Annex 3* | |
| BASIC ATMB  1.3.6 | Issue information to aircraft. | 3 | *Optional content: SIGMET, serviceability of navaids, weather, flight safety information, essential traffic, essential local traffic, information related to aerodrome conditions, etc.* | |
| Subtopic ATMB 1.4 — Alerting service (ALRS) | | | | |
| BASIC ATMB  1.4.1 | Define ALRS. | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | |
| BASIC ATMB  1.4.2 | Describe the scope of ALRS. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Annex 11 | |
| BASIC ATMB  1.4.3 | Explain the responsibility for the provision of ALRS. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | |
| BASIC ATMB  1.4.4 | Differentiate between the phases of emergency. | 2 | Uncertainty, alert, distress | |
| BASIC ATMB  1.4.5 | Describe the organisation of an ALRS. | 2 | Responsibilities, local organisation | |
| BASIC ATMB  1.4.6 | Describe the cooperation between units providing alerting services and the SAR units. | 2 |  | |
| BASIC ATMB  1.4.7 | Differentiate between distress and urgency signals. | 2 | Mayday, Pan Pan, Pan Pan Medical  *Optional content: visual signals, etc.* | |
| Subtopic ATMB 1.5 — Air traffic advisory service | | | | |
| BASIC ATMB  1.5.1 | Define air traffic advisory service. | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | |
| BASIC ATMB  1.5.2 | State the scope of air traffic advisory service. | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | |
| BASIC ATMB  1.5.3 | Explain the responsibility for the provision of air traffic advisory service. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | |
| Subtopic ATMB 1.6 — ATS system capacity and air traffic flow management (ATFM) | | | | |
| BASIC ATMB  1.6.1 | Define ATFM. | 1 | Government of the Republic of Armenia Decision N 633-N of April 8, 2004 | |
| BASIC ATMB  1.6.2 | Describe the scope of air traffic flow and capacity management (ATFCM). | 2 | | Government of the Republic of Armenia Decision N 505-N of April 8, 2021  Government of the Republic of Armenia Decision N 1937-L of November 30, 2023 ICAO Doc 4444,  EUROCONTROL ATFCM Users Manual |
| BASIC ATMB  1.6.3 | Explain the responsibility for the provision of ATFCM. | 2 | | Government of the Republic of Armenia Decision N 505-N of April 8, 2021  Government of the Republic of Armenia Decision N 1937-L of November 30, 2023 ICAO Doc 4444,  EUROCONTROL ATFCM Users Manual |
| BASIC ATMB  1.6.4 | List the methods of providing ATFCM. | 1 | | Government of the Republic of Armenia Decision N 505-N of April 8, 2021  Government of the Republic of Armenia Decision N 1937-L of November 30, 2023 EUROCONTROL ATFCM Users Manual |
| Subtopic ATMB 1.7 — Airspace management (ASM) | | | | |
| BASIC ATMB  1.7.1 | Define ASM. | 1 | | Government of the Republic of Armenia Decision N 633-N of April 8, 2004  *Optional content: Government of the Republic of Armenia Decision N 1937-L of November 30, 2023[[5]](#footnote-5)* |
| BASIC ATMB  1.7.2 | Describe the scope of ASM. | 2 | | Government of the Republic of Armenia Decision N 1937-L of November 30, 2023  *Optional content: FABs, EUROCONTROL Specification for the application of the FUA* |
| BASIC ATMB  1.7.3 | Explain the responsibility for the provision of ASM. | 2 | | Government of the Republic of Armenia Decision N 1937-L of November 30, 2023  *Optional content: EUROCONTROL Specification for the application of the FUA* |
| BASIC ATMB  1.7.4 | State the methods of managing airspace. | 1 | | Government of the Republic of Armenia Decision N 1937-L of November 30, 2023  *Optional content: Flexible use of airspace, airspace design, CDRs, TSAs* |

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| **TOPIC ATMB 2 — ALTIMETRY AND LEVEL ALLOCATION** | | | | | |
| Subtopic ATMB 2.1 — Altimetry | | | | | |
| BASIC ATMB  2.1.1 | | | Appreciate the relationship between height, altitude and flight level. | 3 | QFE, QNH, standard pressure |
| Subtopic ATMB 2.2 — Transition level | | | | | |
| BASIC ATMB  2.2.1 | | Appreciate the relationship between transition level, transition altitude and transition layer. | | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444  *Optional content: ICAO Doc 8168* |
| BASIC ATMB  2.2.2 | | Calculate the appropriate levels. | | 3 | *Optional content: transition level, transition layer, height, lowest useable flight level, vertical distance to airspace boundaries* |
| Subtopic ATMB 2.3 — Level allocation | | | | | |
| BASIC ATMB  2.3.1 | | Describe the cruising level allocation system. | | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, table of cruising levels |
| BASIC ATMB  2.3.2 | | Choose the appropriate levels. | | 3 | Flight levels, altitudes, heights |
| TOPIC ATMB 3 — RADIOTELEPHONY (RTF) | | | | | |
| Subtopic ATMB 3.1 — RTF general operating procedures | | | | | |
| BASIC ATMB  3.1.1 | | Explain the need for approved phraseology. | | 2 |  |
| BASIC ATMB  3.1.2 | | Use approved phraseology. | | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: national documents* |
| BASIC ATMB  3.1.3 | | Perform communication effectively. | | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, communication techniques, readback/verification of readback |
| TOPIC ATMB 4 — ATC CLEARANCES AND ATC INSTRUCTIONS | | | | |
| Subtopic ATMB 4.1 — Type and content of ATC clearances | | | | |
| BASIC ATMB  4.1.1 | Define ATC clearance. | | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 |
| BASIC ATMB  4.1.2 | Describe the contents of an ATC clearance. | | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444 |
| BASIC ATMB  4.1.3 | Issue appropriate ATC clearances. | | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444, national documents* |
| Subtopic ATMB 4.2 — ATC instructions | | | | |
| BASIC ATMB  4.2.1 | Define ATC Instructions. | | 1 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 |
| BASIC ATMB  4.2.2 | Describe the contents of an ATC instruction. | | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444 |
| BASIC ATMB  4.2.3 | Issue appropriate ATC instructions. | | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444  *Optional content: national documents* |

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| TOPIC ATMB 5 — COORDINATION | | | | |
| Subtopic ATMB 5.1 — Principles, types and content of coordination | | | | |
| BASIC ATMB  5.1.1 | Explain the principles, types and content of coordination. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444, ICAO Annex 11  *Optional content: notification, negotiation, agreement, transfer of flight data and local agreements, etc.* |
| Subtopic ATMB 5.2 — Necessity for coordination | | | | |
| BASIC ATMB  5.2.1 | Appreciate the need for coordination. | 3 | | *Optional content: ICAO Doc 4444, Government of the Republic of Armenia Decision N 821-N of June 2, 2022, local procedures, letters of agreement* |
| BASIC ATMB  5.2.2 | Differentiate between transfer of control and transfer of communication procedures. | 2 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| Subtopic ATMB 5.3 — Means of coordination | | | | |
| BASIC ATMB  5.3.1 | Describe the means of coordination. | 2 | | *Optional content: data link, telephone, intercom, voice, etc.* |
| BASIC ATMB  5.3.2 | Use the available means for coordination. | 3 | |  |
| TOPIC ATMB 6 — DATA DISPLAY | | | | |
| Subtopic ATMB 6.1 — Data extraction | | | | |
| BASIC ATMB  6.1.1 | Encode and decode an appropriate selection of standard ICAO abbreviations. | 3 | | *Optional content: ICAO Doc 8585,  ICAO Doc 8643, ICAO Doc 7910* |
| BASIC ATMB  6.1.2 | Extract pertinent data from relevant sources to produce a flight progress display. | 3 | | Pilot reports, coordination, data exchange  *Optional content: flight plan* |
| BASIC ATMB  6.1.3 | Encode and decode flight plans (including supplementary information). | 3 | | ICAO format, AFTN format |
| Subtopic ATMB 6.2 — Data management | | | | |
| BASIC ATMB  6.2.1 | Update the situation display to accurately reflect the traffic situation. | 3 | | *Optional content: strip marking symbols, strip movement procedures, electronic data, label* |
| TOPIC ATMB 7 — SEPARATIONS | | | | |
| Subtopic ATMB 7.1 — Vertical separation and procedures | | | | |
| BASIC ATMB  7.1.1 | State the vertical separation standards. | 1 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* |
| BASIC ATMB  7.1.2 | Explain the vertical separation procedures. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* |
| Subtopic ATMB 7.2 — Horizontal separation and procedures | | | | |
| BASIC ATMB  7.2.1 | State the principles of longitudinal separation procedures based on time and distance. | 1 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444* |
| BASIC ATMB  7.2.2 | State the principles of lateral separation procedures. | 1 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444* |
| Subtopic ATMB 7.3 — Visual separation | | | | |
| BASIC ATMB  7.3.1 | State the occasions when clearance to fly by maintaining own separation while in VMC can be used. | 1 | |  |
| Subtopic ATMB 7.4 — Aerodrome separation and procedures | | | | |
| BASIC ATMB  7.4.1 | State the aerodrome separation standards. | 1 | | Separation on the manoeuvring area, in the traffic circuit, for departing and arriving aircraft |
| BASIC ATMB  7.4.2 | Explain the aerodrome separation procedures. | 2 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444* |
| BASIC ATMB  7.4.3 | Define essential local traffic. | 1 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| Subtopic ATMB 7.5 — Separation based on ATS surveillance systems | | | | |
| BASIC ATMB  7.5.1 | Explain the use of ATS surveillance systems in ATS. | 2 | | Separation, identification, monitoring, vectoring, expedition and assistance to traffic  *Optional content: ICAO Doc 4444* |
| BASIC ATMB  7.5.2 | Explain the ATS surveillance systems separation standards and procedures. | 2 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* |
| BASIC ATMB 7.5.3 | Explain the methods and procedures for establishing identification. | 2 | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* |
| Subtopic ATMB 7.6 — Wake turbulence separation | | | | |
| BASIC ATMB  7.6.1 | Explain wake turbulence separation. | 2 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: EASA SIB 2017-10 ‘En-route Wake Turbulence Encounters’* |
| TOPIC ATMB 8 — AIRBORNE AND GROUND-BASED SAFETY NETS | | | | |
| Subtopic ATMB 8.1 — Airborne safety nets | | | | |
| BASIC ATMB  8.1.1 | State the European Union requirement for carriage of airborne collision avoidance system. | 1 | | Government of the Republic of Armenia Decision N 1937-L of November 30, 2023[[6]](#footnote-6) |
| BASIC ATMB  8.1.2 | Explain the main characteristics of airborne safety nets and their relevance to ATC operations. | 2 | | ACAS, TAWS  *Optional content: TCAS, EGPWS, wind shear alerts* |
| BASIC ATMB  8.1.3 | Explain the function of ACAS Traffic Alerts and Resolution Advisories. | 2 | | Government of the Republic of Armenia Decision N 1937-L of November 30, 2023,  ICAO Doc 8168  *Optional content: Skybrary Safety Nets* |
| BASIC ATMB  8.1.4 | List the actions of the pilot in case of TA and RA. | 1 | | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, ICAO Doc 9863 |
| BASIC ATMB  8.1.5 | List the ACAS limitations. | 1 | | ICAO Doc 9863  *Optional content: Skybrary Safety Nets* |
| Subtopic ATMB 8.2 — Ground-based safety nets | | | | |
| BASIC ATMB  8.2.1 | Explain the main characteristics of ground-based safety nets and their relevance to ATC operations. | 2 | | *Optional content: STCA, MSAW, APW, APM, Skybrary Safety Nets* |
| TOPIC ATMB 9 — BASIC PRACTICAL SKILLS | | | | |
| Subtopic ATMB 9.1 — Traffic management process | | | | |
| BASIC ATMB  9.1.1 | Consider human information-processing in the provision of ATC. | 2 | | Situational awareness, conflict detection, planning, decision-making, prioritisation, execution |
| BASIC ATMB  9.1.2 | Consider the need for verification that actions are carried out. | 2 | | Monitoring |
| Subtopic ATMB 9.2 — Basic practical skills applicable to all ratings | | | | |
| BASIC ATMB  9.2.1 | Verify that the settings of the working position are appropriate. | | 3 |  |
| BASIC ATMB  9.2.2 | Operate the available working position equipment. | | 3 |  |
| BASIC ATMB  9.2.3 | Maintain situational awareness by monitoring traffic. | | 3 | Information gathering, scanning, planning |
| BASIC ATMB  9.2.4 | Appreciate priority of actions. | | 3 |  |
| BASIC ATMB  9.2.5 | Execute selected plan. | | 3 |  |
| BASIC ATMB  9.2.6 | Apply the prescribed procedures for the area of responsibility. | | 3 | *Optional content: LOPs, transfer of control and communication, level allocation, inbound and outbound procedures* |
| BASIC ATMB  9.2.7 | Appreciate relative velocity between aircraft. | | 3 |  |
| BASIC ATMB  9.2.8 | Identify separation problems. | | 3 |  |
| BASIC ATMB  9.2.9 | Choose the appropriate separation methods. | | 3 |  |
| BASIC ATMB  9.2.10 | Apply separation. | | 3 | *Optional content: vertical, longitudinal, lateral, aerodrome, based on ATS surveillance systems, distances from airspace boundaries* |
| Subtopic ATMB 9.3 — Basic practical skills applicable to aerodromes | | | | |
| BASIC ATMB  9.3.1 | Perform the basic functions of aerodrome control. | | 3 |  |
| BASIC ATMB  9.3.2 | Perform the control of aerodrome traffic. | | 3 | Single runway operations including VFR and IFR traffic |
| Subtopic ATMB 9.4 — Basic practical skills applicable to surveillance | | | | |
| BASIC ATMB  9.4.1 | Apply the procedures for establishing identification. | | 3 | Any of the ATS surveillance systems identification methods |
| BASIC ATMB  9.4.2 | Estimate the heading for a new track and the distance to the next waypoint. | | 3 |  |
| BASIC ATMB  9.4.3 | Apply vectoring techniques. | | 3 |  |
| BASIC ATMB  9.4.4 | Conduct level changes. | | 3 | *Optional content: cruising level allocation, requested level change, climb/descent to exit level, descent to an altitude or a height* |

##### SUBJECT 4: METEOROLOGY

The subject objective is:

Learners shall describe how meteorology affects ATS operations and aircraft performance, and apply meteorological information in the basic operational procedures of ATS.

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| TOPIC METB 1 — INTRODUCTION TO METEOROLOGY | | | | | |
| Subtopic METB 1.1 — Application of units of measurement | | | | | |
| BASIC METB  1.1.1 | Apply the units of measurement appropriate to meteorology. | | 3 |  | |
| Subtopic METB 1.2 — Aviation and meteorology | | | | | |
| BASIC METB  1.2.1 | Recognise the relevance of meteorology in aviation. | | 1 |  | |
| BASIC METB  1.2.2 | Explain the requirements for the provision of meteorological information available to operators, flight crew members, and to air traffic services. | | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Annex 3,  ICAO Annex 11* | |
| BASIC METB  1.2.3 | State the meteorological hazards to aviation. | | 1 | Turbulence, thunderstorms, icing, micro bursts, squall, macro burst, wind shear, volcanic ash | |
| Subtopic METB 1.3 — Organisation of meteorological service | | | | | |
| BASIC METB  1.3.1 | State the basic duties of meteorological offices. | | 1 | *Optional content: WAFS, WAFC, MWO, VAAC, TCOMMITTEE, SADIS, aerodrome meteorological office, aeronautical meteorological station* | |
| BASIC METB  1.3.2 | State the international and national standards for coordination between ATS and MET services. | | 1 |  | |
| TOPIC METB 2 — ATMOSPHERE | | | | | | |
| Subtopic METB 2.1 — Composition and structure | | | | | | |
| BASIC METB  2.1.1 | State the composition and structure of the atmosphere. | | 1 | | Gases, layers | |
| BASIC METB  2.1.2 | Describe the basic characteristics of the atmospheric parameters measured. | | 2 | | Temperature, pressure, wind, humidity, density | |
| BASIC METB  2.1.3 | List the tools used for the collection of meteorological data. | | 1 | | *Optional content: barometer, thermometer, ceilometer, anemometer, weather balloons, transmissometer, radar, satellites, etc.* | |
| Subtopic METB 2.2 — Standard atmosphere | | | | | | |
| BASIC METB  2.2.1 | Describe the elements of the International Standard Atmosphere (ISA). | | 2 | | Temperature, pressure, density | |
| BASIC METB  2.2.2 | State the reasons why the ISA has been defined. | | 1 | |  | |
| Subtopic METB 2.3 — Heat and temperature | | | | | | |
| BASIC METB  2.3.1 | Define the processes by which heat is transferred and how the atmosphere is heated. | | 1 | | Radiation, convection, advection, conduction, water cycle | |
| BASIC METB  2.3.2 | Describe how temperature varies. | | 2 | | Adiabatic processes, lapse rates, stability, instability | |
| BASIC METB  2.3.3 | State the influencing factors on surface temperature. | | 1 | |  | |
| Subtopic METB 2.4 — Water in the atmosphere | | | | | | |
| BASIC METB  2.4.1 | Differentiate between the different processes related to atmospheric moisture. | | 2 | | Condensation, evaporation, sublimation, saturation | |
| BASIC METB  2.4.2 | Characterise relative humidity, dew point and latent heat. | | 2 | |  | |
| Subtopic METB 2.5 — Air pressure | | | | | | |
| BASIC METB  2.5.1 | Describe the relationship between pressure, temperature, density and height. | | 2 | |  | |
| BASIC METB  2.5.2 | Explain the relationship between pressure settings. | | 2 | | QFE, QNH, standard pressure | |
| BASIC METB  2.5.3 | Explain the effect of air pressure and temperature on altimeter readings and the true altitude of aircraft. | | 2 | |  | |
| TOPIC METB 3 — ATMOSPHERIC CIRCULATION | | | | | | | |
| Subtopic METB 3.1 — General air circulation | | | | | | | |
| BASIC METB  3.1.1 | | State the major atmospheric circulation features on the Earth. | | 1 | | *Optional content: Hadley cells, high and low belts, polar fronts, westerly winds, upper-level jet streams* | |
| Subtopic METB 3.2 — Air masses and frontal systems | | | | | | | |
| BASIC METB  3.2.1 | | State the typical air masses relevant to European weather. | | 1 | | *Optional content: polar, arctic, tropical, equatorial (maritime and continental)* | |
| BASIC METB  3.2.2 | | Recognise the main isobaric features. | | 1 | | *Optional content: cyclones, anticyclones* | |
| BASIC METB  3.2.3 | | Describe the difference between various fronts and the associated weather. | | 1 | | Warm front, cold front, occluded front | |
| Subtopic METB 3.3 — Mesoscale systems | | | | | | | |
| BASIC METB  3.3.1 | | Recognise the main phenomena caused by mesoscale systems. | | 1 | | Mountain waves, valley winds, thunderstorm, squall line  *Optional content: land/sea breezes, tornadoes, land spouts, waterspouts, Föhn, slope winds* | |
| BASIC METB  3.3.2 | | Explain the relevance of mesoscale systems to aviation. | | 2 | |  | |
| Subtopic METB 3.4 — Wind | | | | | | | |
| BASIC METB  3.4.1 | | Explain the significance of wind phenomena and types. | | 2 | | *Optional content: veering, backing, gusting, jet streams, land/sea breezes, Föhn, surface, upper* | |
| BASIC METB  3.4.2 | | State the means by which wind is measured. | | 1 | | Anemometer, wind sock  *Optional content: wind sensor, Beaufort scale, etc.* | |
| BASIC METB  3.4.3 | | Explain the effect of forces which influence wind. | | 2 | |  | |
| TOPIC METB 4 — METEOROLOGICAL PHENOMENA | | | | | | | |
| Subtopic METB 4.1 — Clouds | | | | | | | |
| BASIC METB  4.1.1 | | Explain the different conditions for the formation of clouds. | 2 | | |  | |
| BASIC METB  4.1.2 | | State the different cloud types and their main characteristics. | 1 | | |  | |
| BASIC METB  4.1.3 | | State how the cloud base and the amount of cloud are measured and/or observed. | 1 | | |  | |
| BASIC METB  4.1.4 | | Define cloud base and ceiling. | 1 | | |  | |
| BASIC METB  4.1.5 | | Differentiate between cloud base and ceiling. | 2 | | |  | |
| Subtopic METB 4.2 — Types of precipitation | | | | | | | |
| BASIC METB  4.2.1 | | Explain the significance of precipitation in aviation. | 2 | | |  | |
| BASIC METB  4.2.2 | | Describe types of precipitation and their corresponding cloud families. | 2 | | | *Optional content: rain, snow, snow grains, hail, ice pellets, ice crystals, drizzle* | |
| Subtopic METB 4.3 — Visibility | | | | | | | |
| BASIC METB  4.3.1 | | Explain the causes of atmospheric obscurity. | 2 | | |  | |
| BASIC METB  4.3.2 | | Differentiate between different types of visibility. | 2 | | | Horizontal visibility, slant visibility, prevailing visibility, RVR | |
| BASIC METB  4.3.3 | | State the means by which visibility is measured. | 1 | | |  | |
| BASIC METB  4.3.4 | | Explain the significance of visibility in aviation. | 2 | | |  | |
| Subtopic METB 4.4 — Meteorological hazards | | | | | | | |
| BASIC METB  4.4.1 | | Explain the meteorological hazards to aviation. | 2 | | | Turbulence, icing, micro bursts, macro burst, wind shear, thunderstorms, volcanic ash  *Optional content: squall* | |
| BASIC METB  4.4.2 | | Describe the effect of meteorological hazards on aviation. | 2 | | |  | |
| TOPIC METB 5 — METEOROLOGICAL INFORMATION FOR AVIATION | | | | | | | |
| Subtopic METB 5.1 — Messages and reports | | | | | | | |
| BASIC METB  5.1.1 | | Decode the content of weather reports and forecasts. | 3 | | | METAR, SPECI, TAF, SIGMET  Optional content: local reports | |

##### SUBJECT 5: NAVIGATION

The subject objective is:

Learners shall explain the basic principles of navigation and use this knowledge in ATS operations.

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| **TOPIC NAVB 1 — INTRODUCTION TO NAVIGATION** | | | | |
| Subtopic NAVB 1.1 — Application of units of measurement | | | | |
| BASIC NAVB  1.1.1 | | Apply the units of measurement appropriate to navigation. | 3 |  |
| Subtopic NAVB 1.2 — Purpose and use of navigation | | | | |
| BASIC NAVB  1.2.1 | | Explain the need for navigation in aviation. | 2 |  |
| BASIC NAVB  1.2.2 | | Characterise navigation methods. | 2 | Optional content: historical overview, celestial, on-board, radio, satellites |
| TOPIC NAVB 2 — THE EARTH | | | | |
| Subtopic NAVB 2.1 — Place and movement of the Earth | | | | |
| BASIC NAVB  2.1.1 | | Explain the Earth’s properties and their effects. | 2 | Form, size, rotation, revolution in space, seasons, day, night, twilight, units of time, time zones, UTC |
| Subtopic NAVB 2.2 — System of coordinates, direction and distance | | | | |
| BASIC NAVB  2.2.1 | | Characterise the general principles of a grid system. | 2 | Latitude/longitude, degrees, minutes, seconds |
| BASIC NAVB  2.2.2 | | Explain direction and distance on a globe. | 2 | *Optional content: great circle, small circle, rhumb line, cardinal points, intercardinal points* |
| BASIC NAVB  2.2.3 | | Estimate position on the Earth’s surface. | 3 | Latitude/longitude |
| BASIC  NAVB  2.2.4 | | State the reference system used in aviation. | 1 | WGS 84  *Optional content: impact of alternative*  *reference models* |
| Subtopic NAVB 2.3 — Magnetism | | | |
| BASIC NAVB  2.3.1 | Explain the general principles of the Earth’s magnetism. | 2 | True north, magnetic north, variation, deviation, inclination, declination |
| BASIC NAVB  2.3.2 | Calculate conversions between the three north designations. | 3 | True north, magnetic north, compass north |

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| TOPIC NAVB 3 — MAPS AND AERONAUTICAL CHARTS | | | | | | |
| Subtopic NAVB 3.1 — Maps and charts used in aviation | | | | | | |
| BASIC NAVB  3.1.1 | | Differentiate between the various maps and charts. | | 2 | | AIP |
| BASIC NAVB  3.1.2 | | State the specific use of various maps and charts. | | 1 | |  |
| BASIC NAVB  3.1.3 | | Decode symbols and information displayed on maps and charts. | | 3 | | *Optional content: chart scale, topographical features, NAV aids, fixes, fly-over and fly-by waypoints, display of true north, magnetic north, variation, etc.* |
| TOPIC NAVB 4 — NAVIGATIONAL BASICS | | | | | | |
| Subtopic NAVB 4.1 — Influence of wind | | | | | | |
| BASIC NAVB  4.1.1 | Appreciate the influence of wind on the flight path. | 3 | | Heading, track, drift, wind vector  Optional content: triangle of velocities | | |
| Subtopic NAVB 4.2 — Speed | | | | | | |
| BASIC NAVB  4.2.1 | Explain the relationship between various speeds used in aviation. | 2 | | True air speed, ground speed, indicated air speed (including Mach number) | | |
| BASIC NAVB  4.2.2 | Appreciate the use of various speeds in ATC. | 3 | |  | | |
| Subtopic NAVB 4.3 — Visual navigation | | | | | | |
| BASIC NAVB  4.3.1 | Describe visual navigation. | 2 | | Map reading, visual reference | | |
| BASIC  NAVB  4.3.2 | State the cases where visual navigation is primarily used in commercial aviation. | 1 | | Approach and landing, taxiing  Optional content: visual aids | | |
| Subtopic NAVB 4.4 — Navigational aspects of flight planning | | | | | | |
| BASIC NAVB  4.4.1 | Describe the navigational aspects affecting flight planning. | 2 | | Optional content: fuel/time calculations, minimum altitudes, alternative routes, weather conditions, ICAO Flight Plan (Item 18 use) | | |
| TOPIC NAVB 5 — INSTRUMENT NAVIGATION | | | | | | |
| Subtopic NAVB 5.1 — Ground-based systems | | | | | | |
| BASIC NAVB  5.1.1 | Explain the basic working principles of ground-based systems. | 2 | | VOR, DME, ILS  *Optional content: VDF, NDB, TACAN* | | |
| BASIC NAVB  5.1.2 | State the use of ground-based systems. | 1 | | VOR, DME, ILS  *Optional content: VDF, NDB, TACAN* | | |
| BASIC NAVB  5.1.3 | Characterise the main radio navigation techniques based on ground-based systems. | 2 | | Area navigation, conventional navigation  *Optional content: homing, inbound/ outbound tracking, instrument approach procedures, holding, drift assessment* | | |
| BASIC NAVB  5.1.4 | Explain the accuracy and limitations of ground-based systems. | 2 | | VDF, NDB, VOR, DME, ILS  *Optional content: TACAN* | | |
| Subtopic NAVB 5.2 — Inertial navigation systems | | | | | | |
| BASIC NAVB  5.2.1 | Explain the basic working principles, precision and limitations of on-board systems. | 2 | | *Optional content: INS/IRS* | | |
| BASIC NAVB  5.2.2 | State the use of on-board systems. | 1 | |  | | |
| Subtopic NAVB 5.3 — Satellite-based systems | | | | | | |
| BASIC NAVB  5.3.1 | Explain the basic working principles of a satellite positioning system. | 2 | | *Optional content: GPS, GLONASS, Galileo, Beidou* | | |
| BASIC NAVB  5.3.2 | State the basic principles of the GNSS concept. | 1 | | Basic, ABAS, SBAS, GBAS  *Optional content: core constellations, MCMF, integrity, RAIM, accuracy improvement, geometric altitude accuracy* | | |
| BASIC NAVB  5.3.3 | Explain the limitations of satellite-based systems. | 2 | | GPS, Galileo  *Optional content: GLONASS, Beidou, integrity, GPS NOTAMs* | | |
| Subtopic NAVB 5.4 — Instrument approach procedures | | | | | | |
| BASIC NAVB  5.4.1 | Recognise various types of instrument approach using aeronautical charts. | 1 | | Precision Approach (PA), Approach Procedure with Vertical guidance (APV), Non-Precision Approach (NPA) | | |
| BASIC NAVB  5.4.2 | Differentiate between precision approach and non-precision approach procedures. | 2 | | *Optional content: 2D/3D operations* | | |
| BASIC NAVB  5.4.3 | Recognise the different minima used during an instrument approach. | 1 | |  | | |
| BASIC NAVB  5.4.4 | Define the terms appropriate to instrument approach minima. | 1 | | OCA/OCH, MDA/MDH and DA/DH | | |
| BASIC NAVB  5.4.5 | List the instrument approach fixes. | 1 | | IAF, IF, FAF, FAP, MAPt | | |
| TOPIC NAVB 6 — PERFORMANCE-BASED NAVIGATION | | | | | | |
| Subtopic NAVB 6.1 — Principles and benefits of area navigation | | | | | | |
| BASIC NAVB  6.1.1 | Explain the basic principles of area navigation. | 2 | | *Optional content: requirement for navigation computer, suitable sensors, ICAO Doc 9613* | | |
| BASIC NAVB  6.1.2 | State the benefits of area navigation. | 1 | | *Optional content: ICAO Doc 9613* | | |
| BASIC NAVB  6.1.3 | State the effects of navigational performance accuracy of RNAV systems on the flight. | 1 | | TSE, PDE, NSE, FTE  *Optional content: high-quality data,  ICAO Doc 9613* | | |
| BASIC NAVB  6.1.4 | Characterise the main aircraft and avionics functionalities used in area navigation. | 2 | | *Optional content: database, fly-over and fly-by waypoints transitions, managed turns (RF and FRT) path terminators, parallel offset, autopilot/flight director (AP/FD)* | | |
| BASIC NAVB  6.1.5 | Characterise the navigational functions of FMS. | 2 | | *Optional content: VNAV, LNAV* | | |
| Subtopic NAVB 6.2 — Introduction to PBN | | | | | | |
| BASIC NAVB  6.2.1 | State the general concept of PBN. | 1 | | Components of PBN  *Optional content: key enabler,  ICAO Doc 9613* | | |
| BASIC NAVB  6.2.2 | Differentiate between RNAV and RNP. | 2 | | On-board performance monitoring and alerting  *Optional content: different generations of aircraft and on-board systems* | | |
| BASIC NAVB  6.2.3 | State the navigation infrastructure that may be used in PBN. | 1 | | VOR, DME, GNSS  *Optional content: functionality IRS/INS* | | |
| BASIC NAVB  6.2.4 | State the benefits of the PBN concept. | 1 | | *Optional content: global interoperability, limited number of navigation specifications, the PBN concept enables continuous descent operations (CDO) and continuous climb operations (CCO)* | | |
| BASIC  NAVB  6.2.5 | List the navigation specifications and the phases of flight they are applicable to. | 1 | | RNAV 10, RNAV 5, RNAV 2, RNAV 1, RNP 4, RNP 2, RNP 1, RNP 0.3, A-RNP, RNP APCH and RNP AR APCH  *Optional content: ICAO Doc 9613* | | |
| Subtopic NAVB 6.3 — PBN applications | | | | | | |
| BASIC NAVB  6.3.1 | State the navigation applications used in Europe. | 1 | | RNAV 5, RNAV 1, RNP 1 with RF, RNP 0.3, RNP APCH  *Optional content: PCP (Government of the Republic of Armenia Decision N 1937-L of November 30, 2023*[[7]](#footnote-7))  *(AF #1, AF #3), PBN (Government of the Republic of Armenia Decision N 2054-L of December 7, 2023*)[[8]](#footnote-8) | | |
| TOPIC NAVB 7 — DEVELOPMENTS IN NAVIGATION | | | | | | |
| Subtopic NAVB 7.1 — Future developments | | | | | | |
| BASIC NAVB  7.1.1 | State future developments in navigation. | 1 | | Optional content: 3D VNAV outside FA, trajectory-based operations | | |

##### SUBJECT 6: AIRCRAFT

The subject objective is:

Learners shall describe the basic principles of the theory of flight and aircraft characteristics and how these influence ATS operations.

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| TOPIC ACFTB 1 — INTRODUCTION TO AIRCRAFT | | | | | | | |
| Subtopic ACFTB 1.1 — Application of units of measurement | | | | | | | |
| BASIC ACFTB  1.1.1 | Apply the units of measurement appropriate to aircraft and the principles of flight. | | | | | 3 |  |
| Subtopic ACFTB 1.2 — Aviation and aircraft | | | | | | | |
| BASIC ACFTB  1.2.1 | Explain the relevance of theory of flight and aircraft characteristics in ATS operations. | | | | | 2 |  |
| TOPIC ACFTB 2 — PRINCIPLES OF FLIGHT | | | | | | | |
| Subtopic ACFTB 2.1 — Forces acting on aircraft | | | | | | | |
| BASIC ACFTB  2.1.1 | Explain the forces acting on an aircraft in flight and their interaction. | | | | | 2 | Lift, thrust, drag, weight during level flight  *Optional content: during climb, descent, turn* |
| BASIC ACFTB  2.1.2 | Explain causes and effects of wake turbulence. | | | | | 2 | Induced drag |
| Subtopic ACFTB 2.2 — Structural components and control of an aircraft | | | | | | | |
| BASIC ACFTB  2.2.1 | Describe the main structural components of an aircraft. | | | | | 2 | Rotary and fixed wing, tail plane, fuselage, flap, aileron, elevator, rudder, landing gear |
| BASIC ACFTB  2.2.2 | Explain how the pilot controls the movements of an aircraft. | | | | | 2 | Rudder, aileron, elevator, throttle, rotary wing controls |
| BASIC ACFTB  2.2.3 | Explain the factors affecting aircraft stability. | | | | | 2 |  |
| BASIC ACFTB 2.2.4 | List aircraft design features reducing induced drag. | | | | | 1 | *Optional content: winglet, tip tanks, reducing wing incidence, aspect ratio, etc.* |
| BASIC ACFTB 2.2.5 | Explain aircraft lights and their functions. | | | | | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, ICAO Annex 6  *Optional content: position lights, anti-collision lights, taxi lights, navigation lights, stroboscopic lights, landing lights* |
| Subtopic ACFTB 2.3 — Flight envelope | | | | | | | |
| BASIC ACFTB  2.3.1 | Characterise the critical factors which affect aircraft performance. | | | | | 2 | Maximum speeds, minimum and stall speeds, ceiling, critical angle of attack, maximum ROC |
| TOPIC ACFTB 3 — AIRCRAFT CATEGORIES | | | | | | | |
| Subtopic ACFTB 3.1 — Aircraft categories | | | | | | | |
| BASIC ACFTB  3.1.1 | | List the different categories of aircraft. | | | | 1 | Fixed wing, rotary wing, balloon, glider, RPAS |
| Subtopic ACFTB 3.2 — Wake turbulence categories | | | | | | | |
| BASIC ACFTB  3.2.1 | | List the wake turbulence categories. | | | | 1 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| Subtopic ACFTB 3.3 — ICAO approach categories | | | | | | | |
| BASIC ACFTB  3.3.1 | | List the ICAO approach categories. | | | | 1 | ICAO Doc 8168 |
| Subtopic ACFTB 3.4 — Environmental categories | | | | | | | |
| BASIC ACFTB  3.4.1 | | List the ICAO noise classification. | | | |  | ICAO Annex 16  *Optional content*  [*https://www.easa.europa.eu/eaer/topics/technology-and-design/aircraft-noise*](https://www.easa.europa.eu/eaer/topics/technology-and-design/aircraft-noise) |
| TOPIC ACFTB 4 — AIRCRAFT DATA | | | | | | | |
| Subtopic ACFTB 4.1 — Recognition | | | | | | | |
| BASIC ACFTB  4.1.1 | | Recognise the most commonly used aircraft. | | | | 1 |  |
| Subtopic ACFTB 4.2 — Performance data | | | | | | | |
| BASIC ACFTB  4.2.1 | | State the ICAO aircraft type designators and categories for the most commonly used aircraft. | | | | 1 | Type designators, approach and wake turbulence categories |
| BASIC ACFTB  4.2.2 | | State the standard average performance data of the most commonly used aircraft. | | | | 1 | Rate of climb/descent, cruising speed, ceiling |
| TOPIC ACFTB 5 — AIRCRAFT ENGINES | | | | | | | | |
| Subtopic ACFTB 5.1 — Piston engines | | | | | | | | |
| BASIC ACFTB  5.1.1 | | Explain the operating principles, advantages and disadvantages of the piston engine and propeller. | | | | 2 | Piston engines, fixed pitch, variable pitch, number of blades | |
| Subtopic ACFTB 5.2 — Jet engines | | | | | | | | |
| BASIC ACFTB  5.2.1 | | Explain the operating principles, advantages and disadvantages of the jet engine. | | | | 2 |  | |
| BASIC ACFTB  5.2.2 | | List the different types of jet engines. | | | | 1 |  | |
| Subtopic ACFTB 5.3 — Turboprop engines | | | | | | | | |
| BASIC ACFTB  5.3.1 | | Explain the operating principles, advantages and disadvantages of the turboprop engine and propeller. | | | | 2 |  | |
| Subtopic ACFTB 5.4 — Electric engines | | | | | | | | |
| BASIC ACFTB 5.4.1 | | Explain the operating principles, advantages and disadvantages of the electric engine. | | | | 2 |  | |
| Subtopic ACFTB 5.5 — Sources of energy used in aviation | | | | | | | | |
| BASIC ACFTB  5.5.1 | | List the sources of energy used in aviation propulsion systems. | | | | 1 | Petroleum-based fuels (Avgas, Jet A-1, Jet B, biokerosene), electrical energy stored or generated on board the aircraft  *Optional content: hydrogen cell* | |
| TOPIC ACFTB 6 — AIRCRAFT SYSTEMS AND INSTRUMENTS | | | | | | | | |
| Subtopic ACFTB 6.1 — Flight instruments | | | | | | | | |
| BASIC ACFTB  6.1.1 | | Explain the basic operating principles and interpretation of the information displayed by flight instruments. | | | | 2 | Altimeter, air speed indicator, vertical speed indicator, turn and bank indicator, artificial horizon, gyrosyn compass | |
| BASIC ACFTB  6.1.2 | | Explain the impact of errors and abnormal indications of flight instruments on aircraft operations. | | | | 2 | *Optional content: pitot-static failures, unreliable gyro source* | |
| Subtopic ACFTB 6.2 — Navigational instruments | | | | | | | | |
| BASIC ACFTB  6.2.1 | | | Describe the basic on-board operating principles and interpretation of the information displayed by navigational instruments/systems. | | | 2 | *Optional content: ADF, VOR (TACAN), DME, ILS, inertial reference system, satellite-based systems* | |
| Subtopic ACFTB 6.3 — Engine instruments | | | | | | | | |
| BASIC ACFTB  6.3.1 | | | | List the vital engine monitoring parameters and their associated instruments. | | 1 | *Optional content: oil pressure and temperature, engine temperature, rpm, fuel state and flow, battery resource* | |
| Subtopic ACFTB 6.4 — Aircraft elements and systems | | | | | | | | |
| BASIC ACFTB  6.4.1 | | | | Explain the use of the most common aircraft systems. | | 2 | SSR transponder, GPWS, EFIS, flight director, autopilot, FMS, ice protection, cabin pressurisation, fire detection and extinguishing, emergency oxygen supply systems  *Optional content: ADS capability, head-up display, wind shear indicator, weather radar, hydraulic system, electrical system, environmental system* | |
| BASIC ACFTB  6.4.2 | | | | Explain the impact of degradation/failure of the most common aircraft systems on aircraft operations. | | 2 | Engine failure  *Optional content: hydraulic failure, electrical failure, environmental system failure, degradation of aircraft position source data* | |
| BASIC ACFTB 6.4.3 | | | | Explain common aircraft elements and their functions. | | 2 | Aircraft cabin, flight deck, galley, doors, cargo compartments | |
| TOPIC ACFTB 7 — FACTORS AFFECTING AIRCRAFT PERFORMANCE | | | | | | | | |
| Subtopic ACFTB 7.1 — Take-off factors | | | | | | | | |
| BASIC ACFTB  7.1.1 | | | | Explain the factors affecting aircraft during take-off. | | 2 | Runway conditions, runway slope, wind, temperature, aerodrome elevation, aircraft mass | |
| Subtopic ACFTB 7.2 — Climb factors | | | | | | | | |
| BASIC ACFTB  7.2.1 | | | | Explain the factors affecting aircraft during climb. | | 2 | Speed, mass, wind, wind shear, temperature, cabin pressurisation, air density | |
| Subtopic ACFTB 7.3 — Cruise factors | | | | | | | | |
| BASIC ACFTB  7.3.1 | | | | Explain the factors affecting aircraft during cruise. | | 2 | Level, cruising speed, wind, mass, cabin pressurisation | |
| Subtopic ACFTB 7.4 — Descent and initial approach factors | | | | | | | | |
| BASIC ACFTB  7.4.1 | | | | Explain the factors affecting aircraft during descent. | 2 | | Wind, speed, rate of descent, aircraft configuration, cabin pressurisation | |
| BASIC ACFTB  7.4.2 | | | | Explain the factors affecting an aircraft in a holding pattern. | 2 | | Speed, level, turbulence, icing | |
| BASIC ACFTB  7.4.3 | | | | Explain the benefits of continuous descent operations. | 2 | |  | |
| Subtopic ACFTB 7.5 — Final approach and landing factors | | | | | | | | |
| BASIC ACFTB  7.5.1 | | | | Explain the factors affecting aircraft during final approach and landing. | 2 | | Aircraft configuration, mass, wind, wind shear, aerodrome elevation, runway conditions, runway slope | |
| Subtopic ACFTB 7.6 — Economic factors | | | | | | | | |
| BASIC ACFTB  7.6.1 | | | | Explain the economic consequences of ATC changes on the flight profile of an aircraft. | 2 | | Routing, flight level, speed, rates of climb or descent, continuous descent operations (CDO), continuous climb operations (CCO) | |
| Subtopic ACFTB 7.7 — Environmental factors | | | | | | | | |
| BASIC ACFTB  7.7.1 | | | | Explain performance restrictions due to environmental considerations. | 2 | | *Optional content: continuous descent operations (CDO), continuous climb operations (CCO), fuel-dumping, noise-abatement procedures, minimum flight levels* | |

##### SUBJECT 7: HUMAN FACTORS

The subject objective is:

Learners shall characterise factors which affect personal and team performance.

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| TOPIC HUMB 1 — INTRODUCTION TO HUMAN PERFORMANCE | | | | | | |
| Subtopic HUMB 1.1 — Relevance of human factors to ATC | | | | | | |
| BASIC HUMB  1.1.1 | | Define human factors. | 1 | | |  |
| BASIC HUMB 1.1.2 | | Define human performance. | 1 | | |  |
| BASIC HUMB  1.1.3 | | Explain the relevance of human factors to ATM. | 2 | | | Historical background, safety impact on ATM, licensing requirements, incidents |
| BASIC HUMB  1.1.4 | | Recognise the evolution of human performance during an ATCO’s career. | 2 | | | *Optional content: RA* ATCO Licensing *Regulation; experience; initial, unit, continuation and development training* |
| TOPIC HUMB 2 — HEALTH AND WELL-BEING | | | | | | |
| Subtopic HUMB 2.1 — Fitness for duty | | | | | | |
| BASIC HUMB  2.1.1 | | Recognise the effect of health and well-being on fitness for duty. | 1 | | |  |
| BASIC HUMB  2.1.2 | | List the reasons for provisional inability to exercise the privileges of the ATCO licence. | 1 | | | RA ATCO Licensing Regulation |
| BASIC HUMB  2.1.3 | | Recognise signs of lack of personal fitness. | 1 | | | Cognitive and physical fitness |
| BASIC HUMB  2.1.4 | | Describe good practices that contribute to maintaining fitness for duty. | 2 | | | *Optional content: fitness, diet* |
| Subtopic HUMB 2.2 — Stress and fatigue | | | | | | |
| BASIC HUMB  2.2.1 | | Define stress. | 1 | | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| BASIC HUMB  2.2.2 | | Define fatigue. | 1 | | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| BASIC HUMB  2.2.3 | | Differentiate between stress and fatigue. | 2 | | | ICAO Doc 9966 |
| BASIC HUMB  2.2.4 | | Explain the causal factors of stress and fatigue. | 2 | | | *Optional content: EUROCONTROL Fatigue and sleep management* |
| Subtopic HUMB 2.3 — Substance use and responsibility | | | | | | |
| BASIC HUMB  2.3.1 | | Define psychoactive substance. | 1 | | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| BASIC HUMB  2.3.2 | | Explain the effect of psychoactive substance use on the individual and on safety. | 2 | | |  |
| BASIC HUMB  2.3.3 | | Describe individual responsibility in terms of psychoactive substance use. | 2 | | | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 |
| TOPIC HUMB 3 — HUMAN PERFORMANCE | | | | | | |
| Subtopic HUMB 3.1 — Individual behaviour | | | | | | |
| BASIC HUMB  3.1.1 | | Define human behaviour. | 1 | | |  |
| BASIC HUMB  3.1.2 | | Explain the differences and commonalities that exist among people. | 2 | | | *Optional content: attitude, cultural, language, motivation* |
| BASIC HUMB  3.1.3 | | Describe the reasons for complacency and the associated effects. | 2 | | | Safety, working relationship — team |
| BASIC HUMB  3.1.4 | | Describe the reasons for overconfidence and the associated effects. | 2 | | | Safety, working relationship — team |
| BASIC HUMB  3.1.5 | | Explain the dangers of boredom. | 2 | | |  |
| Subtopic HUMB 3.2 — Safety culture and professional conduct | | | | | | |
| BASIC HUMB  3.2.1 | | Recognise professional conduct in the workplace. | 1 | | | *Optional content: professionalism, attitude, communication, teamwork* |
| BASIC HUMB  3.2.2 | | Describe how the air traffic controller contributes to a positive safety culture. | 2 | | | *Optional content: attitude towards safety, punctuality, rigour, adherence to rules and regulations, teamwork attitude, etc.* |
| BASIC HUMB  3.2.3 | | Consider the factors which influence responsible behaviour. | 2 | | | *Optional content: situation, team, personal situation and judgement, instance of justification, moral motivation, personality* |
| TOPIC HUMB 4 — HUMAN ERROR | | | | | | |
| Subtopic HUMB 4.1 — Definition of human error | | | | | | |
| BASIC HUMB  4.1.1 | Define human error. | | 1 | | |  |
| Subtopic HUMB 4.2 — Classification of human error | | | | | | |
| BASIC HUMB  4.2.1 | List the types of errors. | | 1 | | | *Optional content: slips, lapses, mistakes* |
| BASIC HUMB  4.2.2 | Describe the factors which contribute to the occurrence of different types of errors and how these may be reduced. | | 2 | | | Fatigue, lack of skill, misunderstanding, multitasking, lack of information, distraction, lack of work satisfaction |
| BASIC HUMB  4.2.3 | Define violations. | | 1 | | |  |
| BASIC HUMB  4.2.4 | Differentiate between errors and violations of rules and their consequences for the controller. | | 2 | | |  |
| TOPIC HUMB 5 — TEAMWORK | | | | | | |
| Subtopic HUMB 5.1 — Teamwork and team roles | | | | | | |
| BASIC HUMB  5.1.1 | Define teamwork. | | | 1 |  | |
| BASIC HUMB  5.1.2 | Describe the differences between social human relations and professional interactions. | | | 2 |  | |
| BASIC HUMB  5.1.3 | Explain the different types of teams in the ATC environment. | | | 2 | *Optional content: executive/planner, shift team, sector group or ATC unit team, team with pilots, team with adjacent ATC units* | |
| BASIC HUMB  5.1.4 | Recognise the different types, roles and characters in a team | | | 1 |  | |
| BASIC HUMB  5.1.5 | Characterise the principles of teamwork. | | | 2 | *Optional content: team membership, team roles, group dynamics, advantages/disadvantages of teamwork, conflicts and their solutions* | |
| TOPIC HUMB 6 — COMMUNICATION | | | | | | |
| Subtopic HUMB 6.1 — Communication in ATC | | | | | | |
| BASIC HUMB  6.1.1 | Define communication. | | | 1 |  | |
| BASIC HUMB  6.1.2 | List an ATCO’s communication partners. | | | 1 |  | |
| BASIC HUMB  6.1.3 | Explain good communication practices. | | | 2 | Speaking and listening | |
| BASIC HUMB  6.1.4 | Differentiate between hearing and listening. | | | 2 |  | |
| Subtopic HUMB 6.2 — Communication modes | | | | | | |
| BASIC HUMB  6.2.1 | Describe the factors which affect verbal communication. | | | 2 | *Optional content: word choice, intonation, speed, tone, distortion, load, expectation, noise, interruption, language competence* | |
| BASIC HUMB  6.2.2 | Describe the factors which affect non-verbal communication. | | | 2 | *Optional content: touch, choice, expectation, noise, interruption* | |
| BASIC HUMB  6.2.3 | Describe misunderstandings that may arise during a controller’s communication. | | | 2 |  | |

##### SUBJECT 8: EQUIPMENT AND SYSTEMS

The subject objective is:

Learners shall explain the basic working principles of equipment that is generally used in ATC and appreciate how this equipment aids the controller in providing safe and efficient ATS.

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| **TOPIC EQPSB 1 — ATC EQUIPMENT** | | | | |
| Subtopic EQPSB 1.1 — Main types of ATC equipment | | | | |
| BASIC EQPSB  1.1.1 | Explain the relevance of ATC equipment. | | 2 | CWP, communication equipment, ATS surveillance systems |
| TOPIC EQPSB 2 — RADIO | | | | |
| Subtopic EQPSB 2.1 — Radio theory | | | | |
| BASIC EQPSB  2.1.1 | | Describe the characteristics of radio waves. | 2 | Propagation, limitations |
| BASIC EQPSB  2.1.2 | | State the use, characteristics and limitations of frequency bands. | 1 | Use in ATC, navigation and communications, and surveillance, use and application in the Aeronautical Mobile Service |
| BASIC EQPSB  2.1.3 | | State the different uses of radio wave spectrum. | 1 |  |
| Subtopic EQPSB 2.2 — Direction finding | | | | |
| BASIC EQPSB  2.2.1 | State the principles and use of VDF/UDF. | | 1 | VDF/UDF, QDM, QDR, QTE  *Optional content: precision of VDF/UDF used in the State system* |
| TOPIC EQPSB 3 — COMMUNICATION EQUIPMENT | | | | |
| Subtopic EQPSB 3.1 — Radio communications | | | | |
| BASIC EQPSB  3.1.1 | | State the use of the radio in ATC. | 1 |  |
| BASIC EQPSB  3.1.2 | | Describe the working principles of a transmitting and receiving system. | 2 |  |
| BASIC EQPSB  3.1.3 | | Explain the effect of antenna shadowing on RTF communications. | 2 |  |
| Subtopic EQPSB 3.2 — Voice communication between ATS units/positions and others | | | | |
| BASIC EQPSB  3.2.1 | | Describe the use of other voice communications. | 2 | *Optional content: telephone, interphone, intercom* | |
| Subtopic EQPSB 3.3 — Data link communications | | | | |
| BASIC EQPSB  3.3.1 | | Explain the use and benefits of controller pilot data link communications (CPDLC). | 2 |  | |
| BASIC EQPSB  3.3.2 | | Explain the use and benefits of aircraft communications addressing and reporting system (ACARS). | 2 |  | |
| Subtopic EQPSB 3.4 — Airline communications | | | | |
| BASIC EQPSB  3.4.1 | | State the use of SELCAL. | 1 |  | |
| TOPIC EQPSB 4 — INTRODUCTION TO SURVEILLANCE | | | | |
| Subtopic EQPSB 4.1 — Surveillance concept in ATS | | | | |
| BASIC EQPSB  4.1.1 | | Describe the concept of surveillance for the provision of ATS. | 2 |  | |
| TOPIC EQPSB 5 — RADAR | | | | | |
| Subtopic EQPSB 5.1 — Principles of radar | | | | | |
| BASIC EQPSB  5.1.1 | State the principles of radar. | | 1 |  | |
| BASIC EQPSB  5.1.2 | Recognise the characteristics of radar wavelengths. | | 1 |  | |
| BASIC EQPSB  5.1.3 | Recognise the use, characteristics and limitations of different radar types. | | 1 | *Optional content: frequency bands, long- and short-range radar, weather radar, high-resolution radar* | |
| Subtopic EQPSB 5.2 — Primary radar | | | | | |
| BASIC EQPSB  5.2.1 | Explain the working principles of PSR. | | 2 |  | |
| Subtopic EQPSB 5.3 — Secondary radar | | | | | |
| BASIC EQPSB  5.3.1 | Explain the working principles of SSR. | | 2 | Mode A, Mode C, Mode S | |
| BASIC EQPSB  5.3.2 | Explain SSR code management | | 2 | Discrete, non-discrete codes, special codes | |
| BASIC EQPSB  5.3.3 | Explain the effect of antenna shadowing on SSR operation. | | 2 |  | |
| Subtopic EQPSB 5.4 — Use of radars | | | | | |
| BASIC EQPSB  5.4.1 | Explain the use of PSR/SSR in area, approach and aerodrome control. | | 2 | Mode A, Mode C, Mode S, SMR  *Optional content: DFTI* | |
| BASIC EQPSB  5.4.2 | Explain the advantages and disadvantages of PSR/SSR. | | 2 |  | |
| TOPIC EQPSB 6 — AUTOMATIC DEPENDENT SURVEILLANCE | | | | | |
| Subtopic EQPSB 6.1 — Principles of automatic dependent surveillance (ADS) | | | | | |
| BASIC EQPSB  6.1.1 | State the different applications of ADS. | | 1 | ADS-B, ADS-C | |
| BASIC EQPSB  6.1.2 | Explain the working principles of ADS. | | 2 |  | |
| Subtopic EQPSB 6.2 — Use of automatic dependent surveillance (ADS) | | | | | |
| BASIC EQPSB  6.2.1 | Describe the use of ADS in ATC. | | 2 | Area, approach, aerodrome, ICAO Doc 4444 | |
| BASIC EQPSB  6.2.2 | Explain the limitations of ADS. | | 2 | Dependency on GNSS, dependency on airborne equipment | |
| TOPIC EQPSB 7 — MULTILATERATION | | | | | |
| Subtopic EQPSB 7.1 — Principles of multilateration (MLAT) | | | | | |
| BASIC EQPSB  7.1.1 | State the different applications of MLAT. | | 1 | *Optional content: ATC, environmental management, airport operations, LAM, WAM* | |
| BASIC EQPSB  7.1.2 | Explain the working principles of MLAT. | | 2 | *Optional content: passive and active MLAT* | |
| Subtopic EQPSB 7.2 — Use of multilateration (MLAT) | | | | | |
| BASIC EQPSB  7.2.1 | Describe the use of MLAT in ATC. | | 2 | Area, approach, aerodrome | |
| BASIC EQPSB  7.2.2 | Explain the limitations of MLAT. | | 2 | Dependency on airborne equipment | |
| TOPIC EQPSB 8 —DATA PROCESSING | | | | | |
| Subtopic EQPSB 8.1 — Surveillance data networking | | | | | |
| BASIC EQPSB  8.1.1 | Explain the advantages and disadvantages of different surveillance technologies. | | 2 | Data quality, coverage, refresh rate, reliability, redundancy, cost-effectiveness | |
| BASIC EQPSB  8.1.2 | Describe the implementation of Surveillance Data Networks. | | 2 | *Optional content: different technologies/sensors, network* | |
| Subtopic EQPSB 8.2 — Working principles of surveillance data networking | | | | | |
| BASIC EQPSB  8.2.1 | State the working principles of surveillance data processing. | | 1 | Surveillance information presented on CWP | |
| BASIC EQPSB  8.2.2 | State other use of processed surveillance data. | | 1 | *Optional content: safety nets, airport operations, environmental management* | |
| Subtopic EQPSB 8.3 — Flight data processing | | | | | |
| BASIC EQPSB  8.3.1 | Explain the FDPS core functions. | | 2 | *Optional content: system flight plan, data input, SSR code management, coordination, correlation/decorrelation, etc.* | |
| TOPIC EQPSB 9 — FUTURE EQUIPMENT | | | | | |
| Subtopic EQPSB 9.1 — New developments | | | | | |
| BASIC EQPSB  9.1.1 | State the developments in the equipment field for introduction in the near future. | | 1 |  | |

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| **TOPIC EQPSB 10 — AUTOMATION IN ATS** | | | |
| Subtopic EQPSB 10.1 — Principles of automation | | | |
| BASIC EQPSB  10.1.1 | Describe the principles of automation in communication and data links in ATS. | 2 |  |
| Subtopic EQPSB 10.2 — Aeronautical fixed telecommunication network (AFTN) | | | |
| BASIC EQPSB  10.2.1 | Describe the principles of AFTN. | 2 |  |
| Subtopic EQPSB 10.3 — Online data interchange | | | |
| BASIC EQPSB  10.3.1 | Describe the benefits of automatic exchange of ATS data in coordination and transfer processes. | 2 | Accuracy, speed and safety, non-verbal communication |
| BASIC EQPSB  10.3.2 | Describe the limitations of automatic exchange of ATS data in coordination. | 2 | Non-recognition of a system’s failure |
| Subtopic EQPSB 10.4 — Systems used for the automatic dissemination of information | | | |
| BASIC EQPSB  10.4.1 | State the working principles of broadcasting systems. | 1 | Optional content: ATIS, VOLMET |
| BASIC EQPSB  10.4.2 | Explain the use of ATIS and VOLMET in ATS. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Annex 3 |
| TOPIC EQPSB 11 — WORKING POSITIONS | | | | |
| Subtopic EQPSB 11.1 — Working position equipment | | | | |
| BASIC EQPSB  11.1.1 | Recognise equipment in a working position. | 1 | Optional content: FPB, radio, telephone and other communications equipment, relevant maps and charts, strip printer, teleprinter, clock, information monitors, situation displays | |
| Subtopic EQPSB 11.2 — Aerodrome control | | | | |
| BASIC EQPSB  11.2.1 | Recognise equipment to be found specifically in a TWR. | 1 | Optional content: wind indicator, aerodrome traffic monitor, SMR, crash alarm, signalling lamp, lighting control panel, runway-in-use indicator, binoculars, signalling/flare gun, IRVR and altimeter-setting indicators, local information systems | |
| Subtopic EQPSB 11.3 — Approach control | | | | |
| BASIC EQPSB  11.3.1 | Recognise equipment to be found specifically in an APP. | 1 | Optional content: sequencing system, PAR, RVR indicators | |
| Subtopic EQPSB 11.4 — Area control | | | | |
| BASIC EQPSB  11.4.1 | Recognise equipment to be found specifically in an ACC. | 1 |  | |

##### SUBJECT 9: PROFESSIONAL ENVIRONMENT

The subject objective is:

Learners shall recognise the need for close cooperation with other parties concerning ATM operations and aspects of environmental protection.

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| **TOPIC PENB 1 — FAMILIARISATION** | | | | |
| Subtopic PENB 1.1 — ATS and aerodrome facilities | | | | |
| BASIC PENB  1.1.1 | Recognise civil and military ATS facilities. | | 1 | Optional content: TWR, APP, ACC, AIS, RCC, Air Defence Unit |
| BASIC PENB  1.1.2 | Recognise airport facilities and local operators. | | 1 | Optional content: firefighting and emergency services, airline operations |
| TOPIC PENB 2 — AIRSPACE USERS | | | | |
| Subtopic PENB 2.1 — Civil aviation | | | | |
| BASIC PENB  2.1.1 | Describe airspace usage by civil aircraft. | | 2 | *Optional content: commercial flying, recreational flying, RPAS, gliders, balloons, calibration flights, aerial photography, skydiving* |
| Subtopic PENB 2.2 — Military aviation | | | | |
| BASIC PENB  2.2.1 | Describe airspace usage by military aircraft. | | 2 | Airspace reservations, training, interception, in-flight refuelling, RPAS  *Optional content: low-level flying, test flights, special military operations* |
| Subtopic PENB 2.3 — Pilot expectations and requirements | | | | |
| BASIC PENB  2.3.1 | Recognise pilots’ expectations and requirements. | | 1 |  |
| BASIC PENB  2.3.2 | State the use of Standard Operating Procedures (SOPs) by aircraft operators. | | 1 |  |
| TOPIC PENB 3 — CUSTOMER RELATIONS | | | | |
| Subtopic PENB 3.1 — ATS as a service provider | | | | |
| BASIC PENB  3.1.1 | | State the role of ATS as a service provider. | 1 | *Optional content: Skybrary — Air Traffic Service* |
| BASIC PENB  3.1.2 | | Recognise the means by which ATS providers are funded. | 1 |  |
| TOPIC PENB 4 — ENVIRONMENTAL PROTECTION | | | | |
| Subtopic PENB 4.1 — Environmental protection | | | | |
| BASIC PENB  4.1.1 | | Describe the impact aviation has on the environment. | 2 | Noise, air quality, climate change, third-party risks |
| BASIC PENB  4.1.2 | | Explain the role of ATS in the concept of sustainable development. | 2 | *Optional content: ICAO Annex 16* |
| BASIC PENB  4.1.3 | | State how the impact of aviation on the environment can be mitigated by ANSPs. | 1 | *Optional content: EU ETS, SES initiative, EUROCONTROL role, continuous descent operations (CDOs), continuous climb operations (CCO), collaborative environmental management (CEM), noise-abatement procedures* |

AMC1 ATCO.D.010(a)(2)(i) Composition of initial training

AERODROME CONTROL RATING (ADC) TRAINING — TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in [AMC1 ATCO.D.010(a)](#_DxCrossRefBm1379192483).

(b) The ATCO rating training Aerodrome Control Rating (ADC) should contain the following training objectives that are associated with the subjects, topics and subtopics contained in Appendix 3 Aerodrome Control Rating (ADC) to Annex I to this Regulation.

(c) Subjects, topics and subtopics from Appendix 3 to Annex I to to this Regulation are repeated in this AMC for the convenience of the reader and do not form part of it.

##### SUBJECT 1: INTRODUCTION TO THE COURSE

The subject objective is:

Learners shall know and understand the training programme that they will follow and learn how to obtain the appropriate information.

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| TOPIC INTR 1 — COURSE MANAGEMENT | | | | |
| Subtopic INTR 1.1 — Course introduction | | | | |
| ADC INTR  1.1.1 | Explain the aims and main objectives of the course. | 2 |  | ALL |
| Subtopic INTR 1.2 — Course administration | | | | |
| ADC INTR  1.2.1 | State how the course is administered. | 1 |  | ALL |
| Subtopic INTR 1.3 — Study material and training documentation | | | | |
| ADC INTR  1.3.1 | Use appropriate documents and their sources for course studies. | 3 | *Optional content: training documentation, library, CBT library, web, learning management server* | ALL |
| ADC INTR  1.3.2 | Integrate appropriate information into course studies. | 4 | Training documentation  *Optional content: supplementary information, library* | ALL |
| TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE | | | | |
| Subtopic INTR 2.1 — Course content and organisation | | | | |
| ADC INTR  2.1.1 | State the different training methods used during the course. | 1 | Theoretical training, practical training, self-study, types of training events | ALL |
| ADC INTR  2.1.2 | State the subjects covered by the course and their purpose. | 1 |  | ALL |
| ADC INTR  2.1.3 | Describe the organisation of theoretical training. | 2 | *Optional content: course programme* | ALL |
| ADC INTR  2.1.4 | Describe the organisation of practical training. | 2 | *Optional content: PTP, simulation, briefing, debriefing, course programme* | ALL |
| Subtopic INTR 2.2 — Training ethos | | | | |
| ADC INTR  2.2.1 | Recognise the feedback mechanisms available. | 1 | Training progress, assessment, briefing, debriefing, learner–instructor feedback, instructor–instructor feedback | ALL |
| Subtopic INTR 2.3 — Assessment process | | | | |
| ADC INTR  2.3.1 | Describe the assessment process. | 2 |  | ALL |

##### SUBJECT 2: AVIATION LAW

The subject objective is:

Learners shall know, understand and apply the Rules of the Air and the Regulations regarding reporting and airspace, and appreciate the Licensing and Competence principles.

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| --- | --- | --- | --- | --- |
| Subtopic LAW 1.1 — Privileges and conditions | | | | |
| ADC LAW  1.1.1 | Appreciate the conditions which shall be met to issue an Aerodrome Control rating. | 3 | RA ATCO Licensing Regulation[[9]](#footnote-9)  *Optional content: national documents* | ADC |
| ADC LAW  1.1.2 | Explain how to maintain and update professional knowledge and skills to retain competence in the operational environment. | 2 |  | ALL |
| ADC LAW  1.1.3 | Explain the conditions for the suspension/revocation of an ATCO licence. | 2 | RA ATCO Licensing Regulation | ALL |
| TOPIC LAW 2 — RULES AND REGULATIONS | | | | |
| Subtopic LAW 2.1 — Reports | | | | |
| ADC LAW  2.1.1 | Describe the functions of, and processes for, reporting. | 2 | Reporting culture, forms for mandatory and voluntary occurrence reporting, Government of the Republic of Armenia Decision N 1053-N of July 13, 2023[[10]](#footnote-10),  Government of the Republic of Armenia Decision N 1053-N of July 13, 2023[[11]](#footnote-11)  *Optional content: breach of regulations, watchbook/logbook, records, voluntary reporting* | ALL |
| ADC LAW  2.1.2 | Use forms for reporting. | 3 | Government of the Republic of Armenia Decision N 1053-N of July 13, 2023, forms for mandatory and voluntary occurrence reporting  *Optional content: routine air-reports, breach of regulations, watchbook/logbook, records* | ALL |
| Subtopic LAW 2.2 — Airspace | | | | |
| ADC LAW  2.2.1 | Appreciate airspace classes and structure and their relevance to operations using the Aerodrome Control rating. | 3 |  | ADC |
| ADC LAW  2.2.2 | Provide planning, coordination and control actions appropriate to the classification and structure of airspace. | 4 | *Optional content: Government of the Republic of Armenia Decision N 821-N of June 2, 2022[[12]](#footnote-12), international requirements, civil requirements, military requirements, areas of responsibility, sectorisation, national requirements* | ALL |
| ADC LAW  2.2.3 | Appreciate responsibility for terrain clearance. | 3 |  | ALL |
| TOPIC LAW 3 — ATC SAFETY MANAGEMENT | | | | |
| Subtopic LAW 3.1 — Feedback process | | | | |
| ADI (TWR) LAW  3.1.1 | State the importance of controller contribution to the feedback process. | 1 | *Optional content: voluntary reporting* | ALL |
| ADI (TWR) LAW  3.1.2 | Describe how reported occurrences are analysed. | 2 | *Optional content: Government of the Republic of Armenia Decision N 1053-N of July 13, 2023, local procedures* | ALL |
| ADI (TWR) LAW  3.1.3 | Name the means used to disseminate recommendations. | 1 | *Optional content: safety letters, safety boards web pages* | ALL |
| ADI (TWR)  LAW  3.1.4 | Appreciate the ‘Just Culture’ concept. | 3 | Benefits, prerequisites, constraints  *Optional content:* [*https://www.skybrary.aero*](https://www.skybrary.aero) | ALL |
|  | | | | |
| TOPIC LAW 3 — ATS SAFETY MANAGEMENT | | | | |
| Subtopic LAW 3.1 — Feedback process | | | | |
| ADC LAW  3.1.1 | State the importance of controller contribution to the feedback process. | 1 | *Optional content: voluntary reporting* | ALL |
| ADC LAW  3.1.2 | Describe how reported occurrences are analysed. | 2 | *Optional content: Government of the Republic of Armenia Decision N 1053-N of July 13, 2023, local procedures* | ALL |
| ADC LAW  3.1.3 | Name the means used to disseminate recommendations. | 1 | *Optional content: safety letters, safety boards web pages* | ALL |
| ADC  LAW  3.1.4 | Appreciate the just culture concept. | 3 | Benefits, prerequisites, constraints  *Optional content: Skybrary* | ALL |
| Subtopic LAW 3.2 — Safety investigation | | | | |
| ADC LAW  3.2.1 | Describe the role and objectives of safety investigation in the improvement of safety. | 2 |  | ALL |

##### SUBJECT 3: AIR TRAFFIC MANAGEMENT

The subject objective is:

Learners shall manage air traffic to ensure safe, orderly and expeditious services.

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| --- | --- | --- | --- | --- |
| TOPIC ATM 1 — PROVISION OF SERVICES | | | | |
| Subtopic ATM 1.1 — Aerodrome control service | | | | |
| ADC ATM  1.1.1 | Appreciate areas of responsibility. | 3 | Control zone, traffic circuit, manoeuvring area, movement area, vicinity  *Optional content: ATZ* | ADC |
| ADC ATM  1.1.2 | Provide aerodrome control service. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023[[13]](#footnote-13), operating procedures for the simulated/training environment | ADC |
| Subtopic ATM 1.2 — Flight information service (FIS) | | | | |
| ADC ATM  1.2.1 | Describe the information that shall be passed on to aircraft by an aerodrome controller. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ADC |
| ADC ATM  1.2.2 | Provide FIS. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023++  *Optional content: national documents* | ALL |
| ADC ATM  1.2.3 | Issue appropriate information. | 3 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, essential local traffic, traffic information | ADC |
| ADC ATM  1.2.4 | Appreciate the use of ATIS in the provision of FIS. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| Subtopic ATM 1.3 — Alerting service (ALRS) | | | | |
| ADC ATM  1.3.1 | Provide ALRS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: national documents* | ALL |
| ADC ATM  1.3.2 | Respond to distress and urgency messages and signals. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Annex 10  *Optional content: EUROCONTROL Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ICAO Doc 4444, national documents* | ALL |
| Subtopic ATM 1.4 — ATS system capacity and air traffic flow management (ATFM) | | | | |
| ADC ATM  1.4.1 | Appreciate the impact of the ATS system capacity and air traffic flow management on the controller. | 3 | *Optional content: EUROCONTROL ATFCM Users Manual, slot management, slot allocation procedures, local implementation of ATFCM principles, etc.* | ADC |
| ADC ATM  1.4.2 | Organise traffic to take account of flow management. | 4 | *Optional content: departure sequence* | ADC |
| ADC ATM  1.4.3 | Inform the appropriate local ATFM unit of local factors affecting the ATS system capacity and air traffic flow management. | 3 | *Optional content: abnormal situations, decrease in sector capacity, limitations on systems and equipment, changes in workload/capacity, unusual meteorological conditions, relevant information: reported ground-based incidents, forest fire, smoke, oil pollution* | ADC |
| TOPIC ATM 2 — COMMUNICATION | | | | |
| Subtopic ATM 2.1 — Effective communication | | | | |
| ADC ATM  2.1.1 | List the communication means between controllers. | 1 | Optional content: electronic, written, verbal and non-verbal communication | ALL |
| ADC ATM  2.1.2 | Select the most suitable means of communication given the situation. | 5 |  | ALL |
| ADC ATM  2.1.3 | Use approved phraseology. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: published national/local language phraseology* | ALL |
| ADC ATM  2.1.4 | Ensure effective communication. | 4 | Use of plain language when required, communication within the sector/working position, between the sectors/WPs/ATC units, readback/verification of readback | ALL |
| ADC ATM  2.1.5 | Analyse examples of pilot–controller communication for effectiveness. | 4 | *Optional content: real-life recordings, situation in the simulator* | ALL |
| TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS | | | | |
| Subtopic ATM 3.1 — ATC clearances | | | | |
| ADC ATM  3.1.1 | Issue appropriate ATC clearances. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444, national documents* | ALL |
| ADC ATM  3.1.2 | Integrate appropriate ATC clearances into the control service. | 4 |  | ALL |
| ADC ATM  3.1.3 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| Subtopic ATM 3.2 — ATC instructions | | | | |
| ADC ATM  3.2.1 | Issue appropriate ATC instructions. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  Optional content: ICAO Doc 4444, national documents | ALL |
| ADC ATM  3.2.2 | Integrate appropriate ATC instructions into the control service. | 4 |  | ALL |
| ADC ATM  3.2.3 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| TOPIC ATM 4 — COORDINATION | | | | |
| Subtopic ATM 4.1 — Necessity for coordination | | | | |
| ADC ATM  4.1.1 | Identify the need for coordination. | 3 |  | ALL |
| Subtopic ATM 4.2 — Tools and methods for coordination | | | | |
| ADC ATM  4.2.1 | Use the available tools for coordination. | 3 | *Optional content: electronic transfer of flight data, telephone, interphone, intercom, direct speech, radiotelephone (RTF), local agreements, automated system coordination* | ALL |
| Subtopic ATM 4.3 — Coordination procedures | | | | |
| ADC ATM  4.3.1 | Initiate appropriate coordination. | 3 | Delegation/transfer of responsibility for air–ground communications and separation, transfer of control, etc., Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: release point* | ALL |
| ADC ATM  4.3.2 | Analyse the effect of coordination requested by an adjacent position/unit. | 4 | *Optional content: delegation/transfer of responsibility for air–ground communications and separation, release point, transfer of control, etc.* | ALL |
| ADC ATM  4.3.3 | Select, after negotiation, an appropriate course of action. | 5 |  | ALL |
| ADC ATM  4.3.4 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| ADC ATM  4.3.5 | Coordinate when providing FIS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| ADC ATM  4.3.6 | Coordinate when providing ALRS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION | | | | |
| Subtopic ATM 5.1 — Altimetry | | | | |
| ADC ATM  5.1.1 | Allocate levels according to altimetry data. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| ADC ATM  5.1.2 | Ensure separation according to altimetry data. | 4 | *Optional content: transition level, transition altitude, transition layer, height, flight level, altitude, vertical distance to airspace boundaries* | ALL |
| Subtopic ATM 5.2 — Terrain clearance | | | | |
| ADC ATM  5.2.1 | Provide planning, coordination and control actions appropriate to the rules for minimum safe height and terrain clearance. | 4 | *Optional content: terrain clearance dimensions, minimum safe altitudes, transition level, minimum flight level, minimum sector altitude* | ADC |
| TOPIC ATM 6 — SEPARATION | | | | |
| Subtopic ATM 6.1 — Separation between departing aircraft | | | | |
| ADC ATM  6.1.1 | Provide separation between departing aircraft. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ADC |
| Subtopic ATM 6.2 — Separation of departing aircraft from arriving aircraft | | | | |
| ADC ATM  6.2.1 | Provide separation of departing aircraft from arriving aircraft. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| Subtopic ATM 6.3 — Separation of landing aircraft and preceding landing or departing aircraft | | | | |
| ADC ATM  6.3.1 | Provide separation of landing aircraft and preceding landing or departing aircraft. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| Subtopic ATM 6.4 — Time-based wake turbulence longitudinal separation | | | | |
| ADC ATM  6.4.1 | Provide time-based wake turbulence longitudinal separation. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ADC |
| Subtopic ATM 6.5 — Reduced separation minima | | | | |
| ADC ATM  6.5.1 | Provide reduced separation minima. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| TOPIC ATM 7 — AIRBORNE AND GROUND-BASED SAFETY NETS | | | | |
| Subtopic ATM 7.1 — Airborne safety nets | | | | |
| ADC ATM  7.1.1 | Recognise the independence of ACAS thresholds and ATC separation standards. | 2 | ICAO Doc 9863  *Optional content: Skybrary Safety Nets* | ALL |
| ADC ATM  7.1.2 | Describe the controller responsibility during and following an ACAS RA reported by the pilot. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444,*  *ICAO Doc 9863, Skybrary Safety Nets* | ALL |
| ADC ATM  7.1.3 | Respond to pilot notification of actions based on airborne systems warnings. | 3 | *Optional content: ACAS, Skybrary Safety Nets* | ADC |
| Subtopic ATM 7.2 — Ground-based safety nets | | | | |
| ADC ATM  7.2.1 | Respond to available ground-based safety nets’ warnings. | 3 |  | ADC |
| TOPIC ATM 8 — DATA DISPLAY | | | | |
| Subtopic ATM 8.1 — Data management | | | | |
| ADC ATM  8.1.1 | Update the data display to accurately reflect the traffic situation. | 3 | *Optional content: information displayed, strip-marking procedures, electronic information data displays, actions based on traffic display information, calculation of EETs* | ALL |
| ADC ATM  8.1.2 | Analyse pertinent data on data displays. | 4 |  | ALL |
| ADC ATM  8.1.3 | Organise pertinent data on data displays. | 4 |  | ALL |
| ADC ATM  8.1.4 | Obtain flight plan information. | 3 | CPL, supplementary information  *Optional content: FPL, AFIL, etc.* | ALL |
| ADC ATM  8.1.5 | Use flight plan information. | 3 |  | ALL |
| TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED) | | | | |
| Subtopic ATM 9.1 — Integrity of the operational environment | | | | |
| ADC ATM  9.1.1 | Obtain information concerning the operational environment. | 3 | *Optional content: local/simulator operation manuals, briefing, notices, current flight plan data/information displays, pilot reports, coordination, verification of information* | ALL |
| ADC ATM  9.1.2 | Ensure the integrity of the operational environment. | 4 | *Optional content: frequency, VOLMET, ATIS, SIGMET, systems’ set-up, integrity of displays* | ADC |
| Subtopic ATM 9.2 — Verification of the currency of operational procedures | | | | |
| ADC ATM  9.2.1 | Check all relevant documentation before managing traffic. | 3 | *Optional content: briefing, letters of agreement (LoAs), NOTAMs, AICs* | ALL |
| Subtopic ATM 9.3 — Handover–takeover | | | | |
| ADC ATM  9.3.1 | Transfer information to the relieving controller. | 3 |  | ALL |
| ADC ATM  9.3.2 | Obtain information from the controller handing over. | 3 |  | ALL |
| ADC ATM  9.3.3 | List possible actions to provide a safe position handover–takeover. | 1 | *Optional content: rigour, preparation, overlap time* | ALL |
| ADC ATM  9.3.4 | Explain the consequences of a missed position handover–takeover process. | 2 |  | ALL |
| TOPIC ATM 10 — PROVISION OF AERODROME CONTROL SERVICE | | | | |
| Subtopic ATM 10.1 — Responsibility for the provision | | | | |
| ADC ATM  10.1.1 | Explain the responsibility for the provision of aerodrome control service. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023,  Regulation (EU) Νο 923/2012  *Optional content: ICAO Doc 4444* | ADC |
| ADC ATM  10.1.2 | Describe the division of responsibility among air traffic control units. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| ADC ATM  10.1.3 | Describe the responsibility in regard to military traffic. | 2 | ICAO Doc 4444  *Optional content: ICAO Doc 9554* | ALL |
| ADC ATM  10.1.4 | Describe the responsibility in regard to unmanned free balloons. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| ADC ATM  10.1.5 | Appreciate the influence of operational requirements. | 3 | *Optional content: military flying, calibration flights, aerial photography* | ALL |
| Subtopic ATM 10.2 — Traffic management process | | | | |
| ADC ATM  10.2.1 | Ensure that situational awareness is maintained. | 4 | Information gathering, observation, traffic projection | ADC |
| ADC ATM  10.2.2 | Detect conflicts in time for appropriate resolution. | 4 |  | ALL |
| ADC ATM  10.2.3 | Identify potential solutions to achieve a safe and effective flow of aerodrome traffic. | 3 |  | ADC |
| ADC ATM  10.2.4 | Evaluate possible outcomes of different planning and control actions. | 5 |  | ALL |
| ADC ATM  10.2.5 | Select an appropriate plan in time to achieve safe and effective flow of aerodrome traffic. | 5 |  | ADC |
| ADC ATM  10.2.6 | Ensure the adequate prioritisation of actions. | 4 |  | ALL |
| ADC ATM  10.2.7 | Execute the selected plan in a timely manner. | 3 |  | ALL |
| ADC ATM  10.2.8 | Ensure that a safe and efficient outcome is achieved. | 4 | Traffic monitoring, adaptability and follow-up | ALL |
| Subtopic ATM 10.3 — Aeronautical ground lights | | | | |
| ADC ATM  10.3.1 | Select appropriate aeronautical ground lights. | 5 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| Subtopic ATM 10.4 — Information to aircraft by the aerodrome control tower | | | | |
| ADC ATM  10.4.1 | Provide information related to the operation of aircraft. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Regulation (EU) No 255/2010 | ADC |
| ADC ATM  10.4.2 | Provide information on aerodrome conditions. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| Subtopic ATM 10.5 — Runway in use | | | | |
| ADC ATM  10.5.1 | Select the runway in use. | 5 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ADC |
| ADC ATM  10.5.2 | Coordinate the runway in use. | 4 | *Optional content: approach control, area control, runway selection, change of runway* | ADC |
| ADC ATM  10.5.3 | Manage traffic in the event of runway-in-use change. | 4 | *Optional content:* [*Skybrary*](https://www.skybrary.aero/) | ADC |
| Subtopic ATM 10.6 — Control of aerodrome traffic | | | | |
| ADC ATM  10.6.1 | Predict positions of aircraft in the aerodrome traffic and taxi circuits. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| ADC ATM  10.6.2 | Manage traffic on the manoeuvring area. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: runway inspection* | ADC |
| ADC ATM  10.6.3 | Manage traffic in accordance with a change to operational procedures. | 4 | *Optional content: taxiway closure* | ADC |
| ADC ATM  10.6.4 | Balance the workload against personal capacity. | 5 | *Optional content: replanning, prioritising solutions, denying requests, delaying traffic* | ADC |
| Subtopic ATM 10.7 — Control of airborne traffic | | | | |
| ADC ATM  10.7.1 | Manage traffic in the traffic circuit. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ADC |
| ADC ATM  10.7.2 | Integrate the change in the serviceability of radio aids in the management of aerodrome traffic. | 4 | *Optional content: limitations, availability and status of ground-based and satellite-based systems* | ADC |
| ADC ATM  10.7.3 | Integrate surface conditions into the control of aerodrome traffic. | 4 | *Optional content: damp, wet, water patches, flooding, snow, slush, ice, braking performance* | ADC |
| ADC ATM  10.7.4 | Integrate information about meteorological phenomena into the control of aerodrome traffic. | 4 | *Optional content: clouds, precipitation, visibility, wind, meteorological hazards* | ADC |
| ADC ATM  10.7.5 | Integrate the information provided by situation displays. | 4 |  | ADC |
| ADC ATM  10.7.6 | Issue missed approach or go-around instruction. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: obstructed runway* | ADC |
| Subtopic ATM 10.8 — Departing traffic | | | | |
| ADC ATM  10.8.1 | Manage departing aircraft. | 4 | ICAO Doc 4444,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022 Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, use of situation displays, allocation of the order of priority, meteorological phenomena, environmental factors, wake turbulence, appropriate departure clearances, SIDs | ADC |
| ADC ATM  10.8.2 | Integrate departure sequence into the control of aerodrome traffic. | 4 | ICAO Doc 4444,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022 Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| ADC ATM  10.8.3 | Provide appropriate information to departing traffic. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  Government of the Republic of Armenia Decision N 505-N of April 8, 2021use of situation displays, wake turbulence  *Optional content: ICAO Doc 4444* | ADC |
| Subtopic ATM 10.9 — Arriving traffic | | | | |
| ADC  ATM  10.9.1 | Manage arriving aircraft. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022, use of situation displays, allocation of the order of priority, meteorological phenomena, environmental factors, wake turbulence  *Optional content: ICAO Doc 4444* | ADC |
| ADC  ATM  10.9.2 | Integrate the approach sequence into the control of aerodrome traffic. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ADC |
| ADC  ATM  10.9.3 | Integrate aircraft on visual approach into the aerodrome traffic. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ADC |
| ADC  ATM  10.9.4 | Integrate aircraft on missed approach into the aerodrome traffic. | 4 |  | ADC |
| ADC  ATM  10.9.5 | Integrate aircraft performing circling approach into the aerodrome traffic. | 4 | ICAO Doc 8168 Volume II | ADC |
| ADC  ATM  10.9.6 | Provide appropriate information to arriving aircraft. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ADC |
| Subtopic ATM 10.10 — Special VFR (SVFR) operations | | | | |
| ADC  ATM  10.10.1 | Manage the suspension of VFR operations. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| ADC  ATM  10.10.1 | Manage SVFR traffic. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| Subtopic ATM 10.11 — Low-visibility operations | | | | |
| ADC  ATM  10.11.1 | Describe the procedures for low-visibility operations. | 3 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ADC |
| Subtopic ATM 10.12 — Aerodrome control service with advanced system support | | | | |
| ADC  ATM  10.12.1 | Appreciate the impact of advanced systems on the provision of aerodrome control service. |  | *Optional content: surface manager (SMAN), departure manager (DMAN), automated conflict/incursion tools, alarms and resolution advisory tools, automated assistance for surface movement planning and routing, enhanced vision technology in low visibility for controllers* | ADC |

##### SUBJECT 4: METEOROLOGY

The subject objective is:

Learners shall acquire, decode and make proper use of meteorological information relevant to the provision of ATS.

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| TOPIC MET 1 — METEOROLOGICAL PHENOMENA | | | | |
| Subtopic MET 1.1 — Meteorological phenomena | | | | |
| ADC MET  1.1.1 | Appreciate the impact of different cloud types. | 3 | Cumulonimbus  *Optional content: stratus, nimbostratus, etc.* | ADC |
| ADC MET  1.1.2 | Recognise different cloud types. | 1 |  | ADC |
| ADC MET  1.1.3 | Appreciate the impact of precipitation. | 3 | Precipitation and microphysics  *Optional content: rain, snow, sleet, hail* | ADC |
| ADC MET  1.1.4 | Appreciate the impact of atmospheric obscurity. | 3 | *Optional content: advection fog, radiation fog, mixing, evaporation, mist, drizzle* | ADC |
| ADC MET  1.1.5 | Appreciate the effect and impact of wind. | 3 | Gusting, veering, backing  *Optional content: land breezes, sea breezes, Föhn* | ADC |
| ADC MET  1.1.6 | Appreciate the effect and danger of hazardous meteorological phenomena. | 3 | Wind shear, turbulence, thunderstorms, icing, microbursts | ADC |
| ADC MET  1.1.7 | Appreciate the effect of a frontal system on aerodrome operations. | 3 |  | ADC |
| ADC MET  1.1.8 | Integrate data about meteorological phenomena into the provision of ATS. | 4 | Clearances, instructions and transmitted information  *Optional content: relevant meteorological phenomena* | ALL |
| TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA | | | | |
| Subtopic MET 2.1 — Meteorological instruments | | | | |
| ADC MET  2.1.1 | Extract information from meteorological instruments. | 3 | *Optional content: anemometer, RVR indicator, cloud base indicator, ceilometer, barometer* | ADC |
| Subtopic MET 2.2 — Other sources of meteorological data | | | | |
| ADC MET  2.2.1 | Decode information from meteorological data displays. | 3 |  | ALL |
| ADC MET  2.2.2 | Use appropriate communication tools and networks to obtain meteorological data. | 3 |  | ADC |
| ADC MET  2.2.3 | Relay meteorological information. | 3 | ICAO Doc 4444,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: flight information centre, adjacent ATS unit, ADS-C reports* | ALL |

##### SUBJECT 5: NAVIGATION

The subject objective is:

Learners shall analyse all navigational aspects in order to organise the traffic.

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| TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS | | | | |
| Subtopic NAV 1.1 — Maps and charts | | | | |
| ADC NAV  1.1.1 | Decode symbols and information displayed on aeronautical maps and charts. | 3 | Instrument approach charts, SID charts, aerodrome charts  Optional content: visual approach charts, military maps and charts | ADC APP APS |
| ADC NAV  1.1.2 | Use relevant maps and charts. | 3 |  | ALL |
| TOPIC NAV 2 — INSTRUMENT NAVIGATION | | | | |
| Subtopic NAV 2.1 — Navigational systems | | | | |
| ADC NAV  2.1.1 | Describe how the operational status of navigational systems may change. | 2 | *Optional content: VDF, NDB, VOR, DME, ILS, ABAS, SBAS, GBAS, RNP* | ADC |
| ADC NAV  2.1.2 | Appreciate the effect of a change on the operational status of navigational systems. | 3 | *Optional content: precision, limitations, status, degraded procedures* | ALL |
| ADC NAV  2.1.3 | Decode operational status displays of navigational systems. | 3 | *Optional content: VDF, NDB, VOR, DME, ILS and GBAS* | ADC |
| Subtopic NAV 2.2 — Stabilised approach | | | | |
| ADC NAV  2.2.1 | Describe the concept of stabilised approach. | 2 | *Optional content:* [*Skybrary*](https://www.skybrary.aero/) | ADC APP APS |
| ADC NAV  2.2.2 | Appreciate the effect of late change of runway-in-use for landing aircraft. | 3 | Cockpit workload  *Optional content: impact on vertical profile (CDO), FMS management, crew procedure briefing, missed approach, loss of situational awareness, etc.* | ADC |
| Subtopic NAV 2.3 — Instrument departures and arrivals | | | | |
| ADC NAV  2.3.1 | Describe relevant SIDs. | 2 |  | ADC |
| ADC NAV  2.3.2 | Describe the types and phases of instrument approach procedures. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, ICAO Annex 6 | ADC APP APS |
| ADI (TWR) NAV  2.3.3 | Describe the relevant minima applicable for a precision/non-precision and visual approach. | 2 | *Optional content: Type A/B operations, CAT I/II/III criteria, LNAV, LNAV/VNAV, LPV, RNP AR APCH minima* | ADC APP APS |
| Subtopic NAV 2.4 — Satellite-based systems | | | | |
| ADC NAV  2.4.1 | State the different applications of satellite-based systems relevant for aerodrome operations. | 1 | *Optional content: LNAV, LNAV/VNAV, LPV, RNP minima, precision approach* | ADC |
| Subtopic NAV 2.5 — PBN applications | | | | |
| ADC NAV  2.5.1 | State future PBN developments. | 1 | A-RNP, RNP (AR) DEP  *Optional content: RNP 3D, VNAV, 4D, TBO* | ALL |

##### SUBJECT 6: AIRCRAFT

The subject objective is:

Learners shall assess and integrate aircraft performance in the provision of ATS.

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| TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS | | | | |
| Subtopic ACFT 1.1 — Aircraft instruments | | | | |
| ADC ACFT  1.1.1 | Integrate information from aircraft instruments provided by the pilot into the provision of ATS. | 4 |  | ALL |
| ADC ACFT  1.1.2 | Explain the operation of aircraft radio equipment. | 2 | *Optional content: radios (number of), emergency radios* | ALL |
| ADC ACFT  1.1.3 | Explain the operation of on-board surveillance equipment. | 2 | Transponders: equipment Mode A,  Mode C, Mode S, ADS capability | ADC APS ACS |
| TOPIC ACFT 2 — AIRCRAFT CATEGORIES | | | | |
| Subtopic ACFT 2.1 — Wake turbulence | | | | |
| ADC ACFT  2.1.1 | Explain the wake turbulence effect and associated hazards to succeeding aircraft. | 2 |  | ALL |
| ADC ACFT  2.1.2 | Appreciate the techniques used to prevent hazards associated with wake turbulence to succeeding aircraft. | 3 |  | ALL |
| Subtopic ACFT 2.2 — Application of the ICAO approach categories | | | | |
| ADC ACFT  2.2.1 | Describe the use of the ICAO approach categories. | 2 | ICAO Doc 8168 | ADC APP APS |
| ADC ACFT  2.2.2 | Appreciate the effect of the ICAO approach categories on the traffic organisation. | 3 |  | ADC APP APS |
| TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE | | | | |
| Subtopic ACFT 3.1 — Take-off factors | | | | |
| ADC ACFT  3.1.1 | Integrate the influence of factors affecting aircraft on take-off. | 4 | *Optional content: runway conditions, runway slope, aerodrome elevation, wind, temperature, aircraft configuration, airframe contamination and aircraft mass* | ADC |
| Subtopic ACFT 3.2 — Climb factors | | | | |
| ADC ACFT  3.2.1 | Appreciate the influence of factors affecting aircraft during climb. | 3 | *Optional content: speed, mass, air density, wind and temperature* | ADC |
| Subtopic ACFT 3.3 — Final approach and landing factors | | | | |
| ADC ACFT  3.3.1 | Integrate the influence of factors affecting aircraft during final approach and landing. | 4 | *Optional content: wind, aircraft configuration, mass, meteorological conditions, runway conditions, runway slope, aerodrome elevation* | ADC |
| Subtopic ACFT 3.4 — Economic factors | | | | |
| ADC ACFT  3.4.1 | Integrate consideration of economic factors affecting aircraft. | 4 | *Optional content: starting-up, taxiing, routing, departure sequence* | ADC |
| Subtopic ACFT 3.5 — Environmental factors | | | | |
| ADC ACFT  3.5.1 | Appreciate the performance restrictions due to environmental constraints. | 3 | *Optional content: noise-abatement procedures, minimum flight altitudes, bird strike hazard* | ADC |
| TOPIC ACFT 4 — AIRCRAFT DATA | | | | |
| Subtopic ACFT 4.1 — Recognition of aircraft types | | | | |
| ADC ACFT  4.1.1 | Characterise a representative sample of aircraft which will be encountered in the operational/working environment. | 2 | Recognition, ICAO type designators, wake turbulence categories  *Optional content: ICAO approach categories* | ADC |
| Subtopic ACFT 4.2 — Performance data | | | | |
| ADC ACFT  4.2.1 | Integrate the average performance data of a representative sample of aircraft which will be encountered in the operational/ working environment into the provision of control service. | 4 | Performance data under a representative variety of circumstances | ALL |

##### SUBJECT 7: HUMAN FACTORS

The subject objective is:

Learners shall recognise the necessity to constantly extend their knowledge and analyse factors which affect personal and team performance.

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| TOPIC HUM 1 — INFORMATION PROCESSING | | | | |
| Subtopic HUM 1.1 — Cognition and factors influencing it | | | | |
| ADC HUM  1.1.1 | Describe the human information-processing model. | 2 | Attention, perception, memory, situational awareness, decision-making, response | ALL |
| ADC HUM  1.1.2 | Describe the factors which influence human information-processing. | 2 | Confidence, stress, learning, knowledge, experience, fatigue, alcohol/drugs, distraction, interpersonal relations | ALL |
| Subtopic HUM 1.2 — Situational awareness | | | | |
| ADC HUM  1.2.1 | Appreciate the effect of human information-processing factors on situational awareness. | 3 | *Optional content: workload, knowledge, interpersonal relations, distraction, confidence, experience, fatigue, stress* | ALL |
| Subtopic HUM 1.3 — Decision-making | | | | |
| ADC HUM  1.3.1 | Appreciate the effect of human information-processing factors on decision-making. |  | *Optional content: workload, stress, interpersonal relations, distraction, confidence* | ALL |
| TOPIC HUM 2 — MEDICAL AND PHYSIOLOGICAL FACTORS | | | | |
| Subtopic HUM 2.1 — Fatigue | | | | |
| ADI (TWR) HUM  2.1.1 | State factors that cause fatigue. | 1 | Shift work  *Optional content: night shifts and rosters, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023[[14]](#footnote-14), ICAO/IFATCA/CANSO’s Fatigue Management Guide for Air Traffic Service Providers* | ALL |
| TOPIC HUM 2 — FACTORS AFFECTING HEALTH AND WELL-BEING | | | | |
| Subtopic HUM 2.1 — Fatigue | | | | |
| ADC HUM  2.1.1 | Describe the onset of fatigue. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: lack of concentration, listlessness, irritability, frustration, Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| ADC HUM  2.1.2 | Recognise the onset of fatigue in self and in others. | 1 | *Optional content: Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| ADI (TWR) HUM  2.1.3 | Describe the appropriate action when recognising fatigue. | 2 | *Optional content: Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| Subtopic HUM 2.2 — Stress | | | | |
| ADC HUM  2.2.1 | Recognise the effects of stress on human performance. | 1 | Stress and its symptoms in self and in others  *Optional content:*  *Government of the Republic of Armenia Decision N 2054-L of December 7, 2023* | ALL |
| ADC HUM  2.2.2 | Describe the appropriate action when recognising stress. | 2 |  | ALL |
| ADC HUM  2.2.3 | Act to reduce stress. | 3 |  | ALL |
| ADC HUM  2.2.4 | Respond to stressful situations by offering, asking for or accepting assistance. | 3 |  | ALL |
| ADC HUM  2.2.5 | Recognise the effects of stressful events. | 1 | Self and others, abnormal situations | ALL |
| TOPIC HUM 3 — THREAT AND ERROR MANAGEMENT | | | | |
| Subtopic HUM 3.1 — Threat and error management framework | | | | |
| ADC HUM  3.1.1 | Explain the importance of threat and error management. | 2 | *Optional content: prevention of incidents, safety improvement, revision of procedures and/or working practices* | ALL |
| ADC HUM  3.1.2 | Explain the threat and error management framework. | 2 | Threats, errors, undesired states, countermeasures  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ADC HUM  3.1.3 | Differentiate between the different types of threats in ATC. | 2 | Internal, external, airborne, environmental  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ADC HUM  3.1.4 | Differentiate between the different types of errors in ATC. | 2 | Equipment, communication  *Optional content: Increase in traffic, changes in procedures, complexities of systems or traffic, weather, unusual occurrences* | ALL |
| ADC HUM  3.1.5 | Differentiate between the different types of undesired states. | 2 | On the ground, airborne  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ADC HUM  3.1.6 | Analyse examples of threat and error management in ATC. | 4 | Case studies  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| Subtopic HUM 3.2 — Application of threat and error management | | | | |
| ADC HUM  3.2.1 | Manage threats. | 4 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ADC HUM  3.2.2 | Manage errors. | 4 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ADC HUM  3.2.3 | Manage undesired states. | 4 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| TOPIC HUM 4 — TEAMWORK | | | | |
| Subtopic HUM 4.1 — Benefits of teamwork | | | | |
| ADC HUM  4.1.1 | State the benefits of teamwork. | 1 | Increased safety, efficiency and capacity | ALL |
| ADC HUM  4.1.2 | List the controller’s human performance elements affected by teamwork. | 1 | Situational awareness, communication, decision-making, threat and error management, workload management | ALL |
| Subtopic HUM 4.2 — Conflict management | | | | |
| ADC HUM  4.2.1 | Identify the reasons for conflict. | 3 |  | ALL |
| ADC HUM  4.2.2 | Describe strategies to cope with human conflicts. | 2 | *Optional content: in your team, in the simulator* | ALL |
| ADC HUM  4.2.3 | Describe actions to prevent human conflicts. | 2 |  | ALL |
| TOPIC HUM 5 —SYSTEMS | | | | |
| Subtopic HUM 5.1 — Concept of systems in ATM/ANS | | | | |
| ADC HUM  5.1.1 | Explain the concept of systems. | 2 | People; procedures; equipment; ATM in system terms: simple, complicated, and complex systems; system thinking | ALL |
| ADC HUM  5.1.2 | Describe how changes in one part of a system may impact the other parts. | 2 |  | ALL |
| ADC HUM  5.1.3 | Describe the role of the human in the system. | 2 |  | ALL |
| TOPIC HUM 6 — COMMUNICATION | | | | | |
| Subtopic HUM 6.1 — Effective communication | | | | | |
| ADC HUM  6.1.1 | Explain effective communication in ATC operations. | 2 | ICAO Doc 9868 | ALL | |
| ADC HUM  6.1.2 | Explain key strategies used to enable open communication. | 2 | *Optional content: active listening, active speaking, assertiveness, honesty, relevance, facts, neutrality* | ALL | |
| ADC HUM  6.1.3 | Describe the parameters affecting the controller’s competence to communicate effectively. | 2 | Workload, mutual knowledge, controller versus pilot mental picture, distractions, sound, human conflicts  *Optional content: communication between and within the team(s), in the simulator, with the pilots, instructors, coordination partners* | ALL | |
| Subtopic HUM 6.2 — Effective feedback | | | | | |
| ADC HUM  6.2.1 | Define feedback. | 1 |  | ALL | |
| ADC HUM  6.2.2 | Explain the purpose of receiving and giving feedback, and its effect on performance. | 2 |  | ALL | |
| ADC HUM  6.2.3 | Consider the impact of communication styles on feedback and on conflict resolution. | 2 |  | ALL | |
| ADC HUM  6.2.4 | Integrate feedback into performance. | 4 |  | ALL | |

##### SUBJECT 8: EQUIPMENT AND SYSTEMS

The subject objective is:

Learners shall integrate knowledge and understanding of the basic working principles of equipment and systems, and comply with the equipment and system degradation procedures in the provision of ATS.

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| TOPIC EQPS 1 — VOICE COMMUNICATIONS | | | | |
| Subtopic EQPS 1.1 — Radio communications | | | | |
| ADC EQPS  1.1.1 | Operate two-way communication equipment. | 3 | Transmit/receive switches, procedures  *Optional content: frequency selection, standby equipment* | ALL |
| ADC EQPS  1.1.2 | Identify indications of operational status of radio equipment. | 3 | *Optional content: indicator lights, serviceability displays, selector/frequency displays* | ALL |
| Subtopic EQPS 1.2 — Other voice communications | | | | |
| ADC EQPS  1.2.1 | Operate landline communications. | 3 | *Optional content: telephone, interphone and intercom equipment* | ALL |
| TOPIC EQPS 2 — AUTOMATION IN ATS | | | | |
| Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN) | | | | |
| ADC EQPS  2.1.1 | Decode AFTN messages. | 3 | *Optional content: movement and control messages, NOTAMs, SNOWTAMs, BIRDTAMs, etc.* | ALL |
| Subtopic EQPS 2.2 — Automatic data interchange | | | | |
| ADC EQPS  2.2.1 | Use automatic data transfer equipment where available. | 3 | *Optional content: sequencing systems, automated information and coordination, OLDI* | ADC APS ACS |
| ADC EQPS  2.2.2 | Explain operational application of CPDLC for departure clearance (DCL) delivery and D-ATIS. | 2 | ICAO Doc 9694 | ADC |
| TOPIC EQPS 3 — CONTROLLER WORKING POSITION | | | | |
| Subtopic EQPS 3.1 — Operation and monitoring of equipment | | | | |
| ADC EQPS  3.1.1 | Monitor the technical integrity of the controller working position. | 3 | Notification procedures, responsibilities | ALL |
| ADC EQPS  3.1.2 | Operate the equipment of the controller working position. | 3 | *Optional content: situation displays, flight progress board, flight data display, radio, telephone, maps and charts, strip-printer, clock, information systems, UDF/VDF* | ALL |
| ADC EQPS  3.1.3 | Operate the available equipment in abnormal and emergency situations. | 3 |  | ALL |
| Subtopic EQPS 3.2 — Situation displays and information systems | | | | |
| ADC EQPS  3.2.1 | Use situation displays. | 3 |  | ALL |
| ADC EQPS  3.2.2 | Check the availability of information. | 3 |  | ALL |
| ADC EQPS  3.2.3 | Obtain information from equipment. | 3 | *Optional content: information from wind direction indicator* | ADC |
| ADC EQPS  3.2.4 | Take account of anti-incursion equipment. | 2 |  | ADC |
| ADC EQPS  3.2.5 | Explain the use of ASMGCS. | 2 |  | ADC |
| Subtopic EQPS 3.3 — Flight data systems | | | | |
| ADC EQPS  3.3.1 | Use the flight data information at the controller working position. | 3 |  | ALL |
| TOPIC EQPS 4 — FUTURE EQUIPMENT | | | | |
| Subtopic EQPS 4.1 — New developments | | | | |
| ADC EQPS  4.1.1 | Recognise future developments. | 1 | New advanced systems  *Optional content: European ATM Master Plan, European Plan for Aviation Safety* | ALL |
| TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS’ LIMITATIONS AND DEGRADATION | | | | |
| Subtopic EQPS 5.1 — Reaction to limitations | | | | |
| ADC EQPS  5.1.1 | Take account of the limitations of equipment and systems. | 2 |  | ALL |
| ADC EQPS  5.1.2 | Respond to technical deficiencies of the operational position. | 3 | Notification procedures, responsibilities | ALL |
| Subtopic EQPS 5.2 — Communication equipment degradation | | | | |
| ADC EQPS  5.2.1 | Identify that communication equipment has degraded. | 3 | *Optional content: ground–air, ground–ground and landline communications* |  |
| ADC EQPS  5.2.2 | Apply contingency procedures in the event of communication equipment degradation. | 4 | *Optional content: total or partial degradation of ground–air and landline communications; alternative methods of transferring data* | ALL |
| Subtopic EQPS 5.3 — Navigational equipment degradation | | | | |
| ADC EQPS  5.3.1 | Identify when a navigational equipment failure will affect operational ability. | 3 | *Optional content: navigational aids, ‘European GNSS Contingency/Reversion Handbook for PBN Operations’* | ALL |
| ADC EQPS  5.3.2 | Apply contingency procedures in the event of a navigational equipment degradation. | 3 | *Optional content: vertical separation, information to aircraft, navigational assistance, seeking assistance from adjacent units* | ALL |

##### SUBJECT 9: PROFESSIONAL ENVIRONMENT

The subject objective is:

Learners shall identify the need for close cooperation with other parties concerning ATM operations and appreciate aspects of environmental protection.

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| TOPIC PEN 1 — FAMILIARISATION | | | | |
| Subtopic PEN 1.1 — Study visit to an aerodrome | | | | |
| ADC PEN  1.1.1 | Appreciate the functions and provision of operational aerodrome control services. | 3 | Study visit to a TWR | ADC |
| TOPIC PEN 2 — AIRSPACE USERS | | | | |
| Subtopic PEN 2.1 — Contributors to civil ATS operations | | | | |
| ADC PEN  2.1.1 | Characterise civil ATS activities at an aerodrome. | 2 | Study visit to a TWR  *Optional content: familiarisation visits to APP, ACC, AIS, RCC* | ADC |
| ADC PEN  2.1.2 | Characterise other parties interfacing with ATS operations. | 2 | *Optional content: familiarisation visits to engineering services, firefighting and emergency services, airline operations offices* | ALL |
| Subtopic PEN 2.2 — Contributors to military ATS operations | | | | |
| ADC PEN  2.2.1 | Characterise military ATS activities. | 2 | Optional content: familiarisation visits to TWR, APP, ACC, AIS, RCC, air defence units | ALL |
| TOPIC PEN 3 — CUSTOMER RELATIONS | | | | |
| Subtopic PEN 3.1 — Provision of services and user requirements | | | | |
| ADC PEN  3.1.1 | Appreciate the role of an air navigation service provider. | 3 | Law of the Republic of Armenia on Aviation[[15]](#footnote-15) | ALL |
| ADC PEN  3.1.2 | Appreciate ATS users’ requirements. | 3 |  | ALL |
| TOPIC PEN 4 — ENVIRONMENTAL PROTECTION | | | | |
| Subtopic PEN 4.1 — Environmental protection | | | | |
| ADC PEN  4.1.1 | Describe the environmental constraints on aerodrome operations. | 2 | *Optional content: ICAO Doc 10013 — Operational opportunities to reduce fuel burn and emissions* | ADC APP APS |
| ADC PEN  4.1.2 | Explain the use of the Collaborative Environmental Management (CEM) process at aerodromes. | 2 | *Optional content: European ATM Master Plan, EUROCONTROL CEM Specification* | ADC APP APS |
| ADC PEN  4.1.3 | Appreciate the mitigation techniques used at aerodromes to minimise aviation’s impact on the environment. | 3 | *Optional content: noise-abatement procedures, noise preferential routes, flight efficiency* | ADC APP |

##### SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

The subject objective is:

Learners shall develop a professional attitude to manage traffic in abnormal and emergency situations.

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| TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES) | | | | |
| Subtopic ABES 1.1 — Overview of ABES | | | | |
| ADC ABES  1.1.1 | List common abnormal and emergency situations. | 1 | *Optional content: EATM Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ambulance flights, ground-based safety nets alerts, airframe failure, unreliable instruments, runway incursion, GNSS failure* | ALL |
| ADC ABES  1.1.2 | Identify potential or actual abnormal and emergency situations. | 3 |  | ALL |
| ADC ABES  1.1.3 | Take into account the procedures for given abnormal and emergency situations. | 2 | Bird strike, aborted take-off  *Optional content: ICAO Doc 4444* | ADC |
| ADC ABES  1.1.4 | Take into account that procedures do not exist for all abnormal and emergency situations. | 2 | *Optional content: real-life examples* | ALL |
| ADC ABES  1.1.5 | Consider how the evolution of a situation may have an impact on safety. | 2 | *Optional content: separation, information, coordination* | ALL |
| TOPIC ABES 2 — SKILLS IMPROVEMENT | | | | |
| Subtopic ABES 2.1 — Communication effectiveness | | | | |
| ADC ABES  2.1.1 | Ensure effective communication in all circumstances including the case where standard phraseology is not applicable. | 4 | Phraseology, vocabulary, readback, radio silence instruction | ALL |
| ADC ABES  2.1.2 | Apply change of radiotelephony call sign. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444* | ALL |
| Subtopic ABES 2.2 — Avoidance of mental overload | | | | |
| ADC ABES  2.2.1 | Describe actions to keep the situation under control. | 2 | *Optional content: sector-splitting, holding, flow management, task delegation* | ALL |
| ADC ABES  2.2.2 | Organise priority of actions. | 4 |  | ALL |
| ADC ABES  2.2.3 | Ensure the effective dissemination of information. | 4 | *Optional content: between executive and planner/coordinator, with the supervisor, between sectors, between ACC, APP and TWR, with ground staff, etc.* | ALL |
| ADC ABES  2.2.4 | Consider asking for help. | 2 |  | ALL |
| Subtopic ABES 2.3 — Air–ground cooperation | | | | |
| ADC ABES  2.3.1 | Collect appropriate information relevant to the situation. | 3 |  | ALL |
| ADC ABES  2.3.2 | Assist the pilot. | 3 | Pilot workload  *Optional content: instructions, information, support, human factors, etc.* | ALL |
| TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS (ABES) | | | | |
| Subtopic ABES 3.1 — Application of procedures for ABES | | | | |
| ADC ABES  3.1.1 | Apply the procedures for given abnormal and emergency situations. | 3 | *Optional content: EATM Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ambulance flights, ground-based safety nets alerts, airframe failure* | ALL |
| Subtopic ABES 3.2 — Radio failure | | | | |
| ADC ABES  3.2.1 | Describe the procedures to be followed by a pilot when experiencing complete or partial radio failure. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444, military procedures, simulator operation procedures* | ALL |
| ADC ABES  3.2.2 | Apply the procedures to be followed when a pilot experiences complete or partial radio failure. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: prolonged loss of communication* | ALL |
| Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat | | | | |
| ADC ABES  3.3.1 | Apply ATC procedures associated with unlawful interference and aircraft bomb threat. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: simulator operation procedures* | ALL |
| Subtopic ABES 3.4 — Strayed or unidentified aircraft | | | | |
| ADC ABES  3.4.1 | Apply the procedures for strayed aircraft. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: inside controlled airspace, outside controlled airspace* | ALL |
| ADC ABES  3.4.2 | Apply the procedures for unidentified aircraft. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| ADC ABES  3.4.3 | Provide navigational assistance to aircraft. | 4 | *Optional content: diverted aircraft, aircraft lost or unsure of position, information derived locally or from radar service or from other pilots, nearest most suitable aerodrome, track, heading, distance, aerodrome information, any other relevant navigational assistance, ICAO Doc 4444, etc.* | ADC |
| Subtopic ABES 3.5 — Runway incursion | | | | |
| ADC ABES  3.5.1 | Apply ATC procedures associated with runway incursion. | 3 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ADC |
| ABES 3.6 — Interception of civil aircraft | | | | |
| ADC ABES  3.6.1 | Explain the procedures in the event of interception of civil aircraft. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |

##### SUBJECT 11: AERODROMES

The subject objective is:

Learners shall recognise and understand the design and layout of aerodromes.

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| TOPIC AGA 1 — AERODROME DATA, LAYOUT AND COORDINATION | | | | |
| Subtopic AGA 1.1 — Definitions | | | | |
| ADC AGA  1.1.1 | Define aerodrome data. | 1 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023[[16]](#footnote-16)  *Optional content: aerodrome elevation, reference point, apron, movement area, manoeuvring area, hotspot* | ADC APP APS |
| Subtopic AGA 1.2 — Coordination | | | | |
| ADC AGA  1.2.1 | Identify the information that has to be exchanged between ATS and the aerodrome authority. | 3 | Aerodrome conditions, fire/rescue category, condition of ground equipment and NAVAIDs, AIRAC, Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| TOPIC AGA 2 — MOVEMENT AREA | | | | |
| Subtopic AGA 2.1 — Movement area | | | | |
| ADC AGA  2.1.1 | Describe the movement area. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| ADC AGA  2.1.2 | Describe the marking of obstacles and unusable or unserviceable areas. | 2 | Flags, signs on pavement, lights | ADC APP APS |
| ADC AGA  2.1.3 | Identify the information on conditions of the movement area that has to be passed on to aircraft. | 3 | Essential information on aerodrome conditions | ADC APP APS |
| Subtopic AGA 2.2 — Manoeuvring area | | | | |
| ADC AGA  2.2.1 | Describe the manoeuvring area. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| ADC AGA  2.2.2 | Describe the taxiway. | 2 |  | ADC APP APS |
| ADC AGA  2.2.3 | Describe the daylight marking on taxiways. | 2 |  | ADC APP APS |
| ADC AGA  2.2.4 | Describe taxiway lighting. | 2 |  | ADC APP APS |
| Subtopic AGA 2.3 — Runways | | | | |
| ADC AGA  2.3.1 | Describe the runway. | 2 | Runway, runway surface, runway strip, runway shoulder, runway-end safety areas, clearways, stopways | ADC APP APS |
| ADC AGA  2.3.2 | Describe the instrument runway. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| ADC AGA  2.3.3 | Describe the non-instrument runway. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| ADC AGA  2.3.4 | Explain runway declared distances. | 2 | TORA, TODA, ASDA, LDA | ADC APP APS |
| ADC AGA  2.3.5 | Explain the differences between ACN and PCN. | 2 | Strength of pavements | ADC APP APS |
| ADC AGA  2.3.6 | Describe the daylight markings on runways. | 2 | *Optional content: runway designator, centre line, threshold, aiming point, fixed distance, touchdown zone, side strip, colour* | ADC APP APS |
| ADC AGA  2.3.7 | Describe runway lights. | 2 | *Optional content: colour, centre line, intensity, edge, touchdown zone, threshold, barettes* | ADC APP APS |
| ADC AGA  2.3.8 | Explain the functions of visual landing aids. | 2 | *Optional content: AVASI, VASI, PAPI* | ADC APP APS |
| ADC AGA  2.3.9 | Describe the approach lighting systems. | 2 | Centre line, cross bars, stroboscopic lights, colours, intensity and brightness | ADC APP APS |
| ADC AGA  2.3.10 | Characterise the effect of water/ice on runways. | 2 |  | ADC APP APS |
| ADC AGA  2.3.11 | Explain braking performance and methods of reporting it. | 2 |  | ADC APP APS |
| ADC AGA  2.3.12 | Explain the effect of runway visual range on aerodrome operations. | 2 |  | ADC APP APS |
| TOPIC AGA 3 — OBSTACLES | | | | |
| Subtopic AGA 3.1 — Obstacle-free airspace around aerodromes | | | | |
| ADC AGA  3.1.1 | Explain the necessity for establishing and maintaining airspace around aerodromes obstacle free. | 2 |  | ADC APP APS |

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| TOPIC AGA 4 — MISCELLANEOUS EQUIPMENT | | | | |
| Subtopic AGA 4.1 — Location | | | | |
| ADC AGA  4.1.1 | Explain the location of miscellaneous aerodrome ground equipment. | 2 | *Optional content: LOC, GP, VDF, radio communication or ATS surveillance systems sensors, stopbars, AVASI, VASI, PAPI* | ADC APP APS |

AMC1 ATCO.D.010(a)(2)(iv) Composition of initial training

APPROACH CONTROL SURVEILLANCE RATING (APS) TRAINING — TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in [AMC1 ATCO.D.010(a)](#_DxCrossRefBm1379192483).

(b) The ATCO rating training Approach Control Surveillance Rating (APS) should contain the following training objectives that are associated with the subjects, topics and subtopics contained in Appendix 4 Approach Control Surveillance Rating (APS) to Annex I to this Regulation.

(c) Subjects, topics and subtopics from Appendix 6 to Annex I to this Regulation are repeated in this AMC for the convenience of the reader and do not form part of it.

##### SUBJECT 1: INTRODUCTION TO THE COURSE

The subject objective is:

Learners shall know and understand the training programme that they will follow and learn how to obtain the appropriate information.

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| **TOPIC INTR 1 — COURSE MANAGEMENT** | | | | |
| Subtopic INTR 1.1 — Course introduction | | | | |
| APS INTR  1.1.1 | Explain the aims and main objectives of the course. | 2 |  | ALL |
| Subtopic INTR 1.2 — Course administration | | | | |
| APS INTR  1.2.1 | State how the course is administered. | 1 |  | ALL |
| Subtopic INTR 1.3 — Study material and training documentation | | | | |
| APS INTR  1.3.1 | Use appropriate documents and their sources for course studies. | 3 | Optional content: training documentation, library, CBT library, web, learning management server | ALL |
| APS INTR  1.3.2 | Integrate appropriate information into course studies. | 4 | Training documentation  Optional content: supplementary information, library | ALL |
| TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE | | | | |
| Subtopic INTR 2.1 — Course content and organisation | | | | |
| APS INTR  2.1.1 | State the different training methods used during the course. | 1 | Theoretical training, practical training, self-study, types of training events | ALL |
| APS INTR  2.1.2 | State the subjects covered by the course and their purpose. | 1 |  | ALL |
| APS INTR  2.1.3 | Describe the organisation of theoretical training. | 2 | Optional content: course programme | ALL |
| APS INTR  2.1.4 | Describe the organisation of practical training. | 2 | Optional content: PTP, simulation, briefing, debriefing, course programme | ALL |
| Subtopic INTR 2.2 — Training ethos | | | | |
| APS INTR  2.2.1 | Recognise the feedback mechanisms available. | 1 | Training progress, assessment, briefing, debriefing, learner–instructor feedback, instructor–instructor feedback | ALL |
| Subtopic INTR 2.3 — Assessment process | | | | |
| APS INTR  2.3.1 | Describe the assessment process. | 2 |  | ALL |

##### SUBJECT 2: AVIATION LAW

The subject objective is:

Learners shall know, understand and apply the Rules of the Air and the Regulations regarding reporting and airspace, and appreciate the Licensing and Competence principles.

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| TOPIC LAW 1 — ATCO LICENSING/CERTIFICATE OF COMPETENCE | | | | |
| Subtopic LAW 1.1 — Privileges and conditions | | | | |
| APS LAW  1.1.1 | Appreciate the conditions which shall be met to issue an Approach Control Surveillance rating. | 3 | RA ATCO Licensing Regulation[[17]](#footnote-17)  *Optional content: national documents* | APS |
| APS LAW  1.1.2 | Explain how to maintain and update professional knowledge and skills to retain competence in the operational environment. | 2 |  | ALL |
| APS LAW  1.1.3 | Explain the conditions for the suspension/ revocation of an ATCO licence. | 2 | RA ATCO Licensing Regulation | ALL |
| TOPIC LAW 2 — RULES AND REGULATIONS | | | | |
| Subtopic LAW 2.1 — Reports | | | | |
| APS LAW  2.1.1 | Describe the functions of, and processes for, reporting. | 2 | Reporting culture, forms for mandatory and voluntary occurrence reporting, Government of the Republic of Armenia Decision N 1053-N of July 13, 2023[[18]](#footnote-18), Government of the Republic of Armenia Decision N 1053-N of July 13, 2023[[19]](#footnote-19)  *Optional content: breach of regulations, watchbook/logbook, records, voluntary reporting* | ALL |
| APS LAW  2.1.2 | Use forms for reporting. | 3 | Government of the Republic of Armenia Decision N 1053-N of July 13, 2023, forms for mandatory and voluntary occurrence reporting  *Optional content: routine air-reports, breach of regulations, watchbook/logbook, records* | ALL |
| Subtopic LAW 2.2 — Airspace | | | | |
| APS LAW  2.2.1 | Appreciate airspace classes and structure and their relevance to operations using the Approach Control Surveillance rating. | 3 |  | APS |
| APS LAW  2.2.2 | Provide planning, coordination and control actions appropriate to the classification and structure of given airspace. | 4 | *Optional content: Government of the Republic of Armenia Decision N 821-N of June 2, 2022[[20]](#footnote-20), international requirements, civil requirements, military requirements, areas of responsibility, sectorisation, national requirements* | ALL |
| APS LAW  2.2.3 | Appreciate responsibility for terrain clearance. | 3 |  | ALL |
| TOPIC LAW 3 — ATS SAFETY MANAGEMENT | | | | |
| Subtopic LAW 3.1 — Feedback process | | | | |
| APS LAW  3.1.1 | State the importance of controller contribution to the feedback process. | 1 | *Optional content: voluntary reporting* | ALL |
| APS LAW  3.1.2 | Describe how reported occurrences are analysed. | 2 | *Optional content: Government of the Republic of Armenia Decision N 1053-N of July 13, 2023, local procedures* | ALL |
| APS LAW  3.1.3 | Name the means used to disseminate recommendations. | 1 | *Optional content: safety letters, safety boards web pages* | ALL |
| APS LAW  3.1.4 | Appreciate the just culture concept. | 3 | Benefits, prerequisites, constraints  *Optional content:* [Skybrary](https://www.skybrary.aero/) | ALL |
| Subtopic LAW 3.2 — Safety Investigation | | | | |
| APS LAW  3.2.1 | Describe the role and objectives of safety investigation in the improvement of safety. | 2 |  | ALL |

##### SUBJECT 3: AIR TRAFFIC MANAGEMENT

The subject objective is:

Learners shall manage air traffic to ensure safe, orderly and expeditious services.

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| TOPIC ATM 1 — PROVISION OF SERVICES | | | | |
| Subtopic ATM 1.1 — Air traffic control (ATC) service | | | | |
| APS ATM  1.1.1 | Appreciate own area of responsibility. | 3 |  | APP ACP APS ACS |
| APS ATM  1.1.2 | Provide approach control service. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, operating procedures for the simulated/training environment | APP APS |
| Subtopic ATM 1.2 — Flight information service (FIS) | | | | |
| APS ATM  1.2.1 | Provide FIS. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: national documents* | ALL |
| APS ATM  1.2.2 | Use an ATS surveillance system in the provision of FIS. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, information to identified aircraft concerning: traffic, navigation  *Optional content: weather* | APS ACS |
| APS ATM  1.2.3 | Issue appropriate information concerning the position of conflicting traffic. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, traffic information, essential traffic information | APS ACS  APP ACP |
| APS ATM  1.2.4 | Appreciate the use of ATIS in the provision of FIS. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| Subtopic ATM 1.3 — Alerting service (ALRS) | | | | |
| APS ATM  1.3.1 | Provide ALRS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: national documents* | ALL |
| APS ATM  1.3.2 | Respond to distress and urgency messages and signals. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Annex 10,  *Optional content: EUROCONTROL Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ICAO Doc 4444, national documents* | ALL |
| APS ATM  1.3.3 | Use an ATS surveillance system in the provision of ALRS. | 3 |  | APS ACS |
| Subtopic ATM 1.4 — ATS system capacity and air traffic flow management (ATFM) | | | | |
| APS ATM  1.4.1 | Appreciate the impact of the ATS system capacity and air traffic flow management on the controller. | 3 | *Optional content: EUROCONTROL ATFCM Users Manual, FABs, FUA, free route airspace, local implementation of ATFCM principles, etc.* | APP ACP APS ACS |
| APS ATM  1.4.2 | Take account of flow management procedures in the provision of ATC. | 2 | *Optional content: EUROCONTROL ATFCM Users Manual* | APP APS |
| APS ATM  1.4.3 | Organise traffic flows and patterns to take account of airspace boundaries. | 4 | *Optional content: civil and military, controlled, uncontrolled, advisory, restricted, danger, prohibited, special rules, sector boundaries, national boundaries, FIR boundaries, delegated airspace, transfer of control, transfer of communications, en-route, off-route* | APP ACP APS ACS |
| APS ATM  1.4.4 | Organise traffic flows and patterns to take account of areas of responsibility. | 4 | *Optional content: EUROCONTROL ATFCM Users Manual* | APP ACP APS ACS |
| APS ATM  1.4.5 | Inform the supervisor of local factors affecting the ATS system capacity and air traffic flow management. | 3 | *Optional content: abnormal situations, decrease in sector capacity, limitations on systems and equipment, changes in workload/capacity, unusual meteorological conditions, relevant information like: reported ground-based incidents, forest fire, smoke, oil pollution* | APP ACP APS ACS |
| APS ATM  1.4.6 | Organise traffic flows and patterns to take account of the ATS surveillance system capability. | 4 |  | APS ACS |
| Subtopic ATM 1.5 — Airspace management (ASM) | | | | |
| APS ATM  1.5.1 | Appreciate the impact of ASM on the controller. | 3 | *Optional content: FABs, EUROCONTROL Specification for the application of FUA, TSAs, CDRs, CBAs, free route airspace* | APP ACP APS ACS |
| APS ATM  1.5.2 | Organise traffic to take account of ASM. | 4 | Real-time activation, deactivation or reallocation of airspace  *Optional content: CDR, TSA, TRA, CBA* | APS  ACS |
| TOPIC ATM 2 — COMMUNICATION | | | | |
| Subtopic ATM 2.1 — Effective communication | | | | |
| APS ATM  2.1.1 | List the means of communication between controllers. | 1 | *Optional content: electronic, written, verbal and non-verbal communication* | ALL |
| APS ATM  2.1.2 | Select the most suitable means of communication given the situation. | 5 |  | ALL |
| APS ATM  2.1.3 | Use approved phraseology. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: published national/local language phraseology* | ALL |
| APS ATM  2.1.4 | Ensure effective communication. | 4 | Use of plain language when required, communication within the sector/working position, between the sectors/WPs/ATC units, readback/verification of readback | ALL |
| APS ATM  2.1.5 | Analyse examples of pilot–controller communication for effectiveness. | 4 | *Optional content: real-life recordings, situation in the simulator* | ALL |
| TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS | | | | |
| Subtopic ATM 3.1 — ATC clearances | | | | |
| APS ATM  3.1.1 | Issue appropriate ATC clearances. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444, national documents* | ALL |
| APS ATM  3.1.2 | Integrate appropriate ATC clearances into the control service. | 4 |  | ALL |
| APS ATM  3.1.3 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| Subtopic ATM 3.2 — ATC instructions | | | | |
| APS ATM  3.2.1 | Issue appropriate ATC instructions. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444 national documents* | ALL |
| APS ATM  3.2.2 | Integrate appropriate ATC instructions into the control service. | 4 |  | ALL |
| APS ATM  3.2.3 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| TOPIC ATM 4 — COORDINATION | | | | |
| Subtopic ATM 4.1 — Necessity for coordination | | | | |
| APS ATM  4.1.1 | Identify the need for coordination. | 3 |  | ALL |
| Subtopic ATM 4.2 — Tools and methods for coordination | | | | |
| APS ATM  4.2.1 | Use the available tools for coordination. | 3 | *Optional content: electronic transfer of flight data, telephone, interphone, intercom, direct speech, radiotelephone (RTF), local agreements, automated system coordination* | ALL |
| Subtopic ATM 4.3 — Coordination procedures | | | | |
| APS ATM  4.3.1 | Initiate appropriate coordination. | 3 | Delegation/transfer of responsibility for air–ground communications and separation, transfer of control, etc., Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: release point* | ALL |
| APS ATM  4.3.2 | Analyse the effect of coordination requested by an adjacent position/unit. | 4 | *Optional content: delegation/transfer of responsibility for air–ground communications and separation, release point, transfer of control, etc.* | ALL |
| APS ATM  4.3.3 | Select, after negotiation, an appropriate course of action. | 5 |  | ALL |
| APS ATM  4.3.4 | Ensure the agreed course of action is carried out. | 4 |  | ALL |
| APS ATM  4.3.5 | Coordinate when providing FIS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| APS ATM  4.3.6 | Coordinate when providing ALRS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION | | | | |
| Subtopic ATM 5.1 — Altimetry | | | | |
| APS ATM  5.1.1 | Allocate levels according to altimetry data. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| APS ATM  5.1.2 | Ensure separation according to altimetry data. | 4 | *Optional content: transition level, transition altitude, transition layer, height, flight level, altitude, vertical distance to airspace boundaries* | ALL |
| Subtopic ATM 5.2 — Terrain clearance | | | | |
| APS ATM  5.2.1 | Provide planning, coordination and control actions appropriate to the rules for minimum usable levels and terrain clearance. | 4 | *Optional content: minimum vectoring altitude, terrain clearance dimensions, minimum safe altitudes, transition level, minimum flight level, minimum sector altitude* | APS ACS |

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| TOPIC ATM 6 — SEPARATION | | | | |
| Subtopic ATM 6.1 — Vertical separation | | | | |
| APS ATM  6.1.1 | Provide standard vertical separation. | 4 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 821-N of June 2, 2022, level allocation, during climb/descent, rate of climb/descent, holding pattern | APP APS |
| APS ATM  6.1.2 | Provide increased vertical separation. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444  *Optional content: level allocation, during climb/descent, rate of climb/descent, degraded aircraft performance, non-RVSM aircraft, reported severe turbulence* | APP ACP APS ACS |
| APS ATM  6.1.3 | Appreciate the application of emergency vertical separation. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Doc 4444, ICAO Doc 7030 | APP ACP APS ACS |
| APS ATM  6.1.4 | Provide vertical separation in a surveillance environment. | 4 | Pressure altitude-derived information, pilot-level reports  *Optional content: into/out of ATS surveillance system coverage* | APS ACS |
| Subtopic ATM 6.2 — Longitudinal separation in a surveillance environment | | | | |
| APS ATM  6.2.1 | Provide longitudinal separation in a surveillance environment. | 4 | Successive departures, successive arrivals, overflights, speed control, silent transfer, ICAO Doc 4444 | APS |
| Subtopic ATM 6.3 — Delegation of separation | | | | |
| APS ATM  6.3.1 | Delegate separation to pilots in the case of aircraft executing successive visual approaches. | 4 |  | APP APS |
| APS ATM  6.3.2 | Appreciate the conditions which must be met when delegating separation to pilots to fly maintaining own separation while in VMC. | 3 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APP APS |
| Subtopic ATM 6.4 — Wake turbulence distance-based separation | | | | |
| APS ATM  6.4.1 | Provide distance-based wake turbulence separation. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: EASA SIB 2017-10 ‘En-route Wake Turbulence Encounters’, national documents* | APS  ACS |
| Subtopic ATM 6.5 — Separation based on ATS surveillance systems | | | | |
| APS ATM  6.5.1 | Describe how separation based on ATS surveillance systems is applied. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS  ACS |
| APS ATM  6.5.2 | Provide horizontal separation. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: local/simulator operation manuals, holding* | APS  ACS |
| APS ATM  6.5.3 | Provide horizontal separation by vectoring in a variety of situations. | 4 | *Optional content: transit, meteorological phenomena, vectoring for approach, departure versus transit versus arrival* | APS  ACS |
| APS ATM  6.5.4 | Ensure horizontal or vertical separation from airspace boundaries. | 4 | Adjacent sectors, restricted, prohibited and danger areas, TSAs | APS  ACS |
| TOPIC ATM 7 — AIRBORNE AND GROUND-BASED SAFETY NETS | | | | |
| Subtopic ATM 7.1 — Airborne safety nets | | | | |
| APS ATM  7.1.1 | Recognise the independence of ACAS thresholds from ATC separation standards. | 1 | ICAO Doc 9863  *Optional content: Skybrary Safety Nets* | ALL |
| APS ATM  7.1.2 | Describe the controller responsibility during and following an ACAS RA reported by a pilot. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444,*  *ICAO Doc 9863, Skybrary Safety Nets* | ALL |
| APS ATM  7.1.3 | Respond to pilot notification of actions based on airborne systems warnings. | 3 | ACAS  *Optional content: TAWS, Skybrary Safety Nets* | APP APS ACP ACS |
| Subtopic ATM 7.2 — Ground-based safety nets | | | | |
| APS ATM  7.2.1 | Describe the controller responsibility during and following safety net warnings. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ACAO Doc 4444, STCA, MSAW, APW, APM* | APS ACS |
| APS ATM  7.2.2 | Respond to ground-based safety net warnings. | 3 | *Optional content: STCA, MSAW, APW, APM* | APS ACS |
| TOPIC ATM 8 — DATA DISPLAY | | | | |
| Subtopic ATM 8.1 — Data management | | | | |
| APS ATM  8.1.1 | Update the data display to accurately reflect the traffic situation. | 3 | *Optional content: information displayed, strip-marking procedures, electronic information data displays, actions based on traffic display information, calculation of EETs* | ALL |
| APS ATM  8.1.2 | Analyse pertinent data on data displays. | 4 |  | ALL |
| APS ATM  8.1.3 | Organise pertinent data on data displays. | 4 |  | ALL |
| APS ATM  8.1.4 | Obtain flight plan information. | 3 | CPL, supplementary information  *Optional content: FPL, AFIL, etc.* | ALL |
| APS ATM  8.1.5 | Use flight plan information. | 3 |  | ALL |
| TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED) | | | | |
| Subtopic ATM 9.1 — Integrity of the operational environment | | | | |
| APS ATM  9.1.1 | Obtain information concerning the operational environment. | 3 | *Optional content: local/simulator operation manuals, briefing, notices, current flight plan data/information displays, pilot reports, coordination, verification of information* | ALL |
| APS ATM  9.1.2 | Ensure the integrity of the operational environment. | 4 | *Optional content: integrity of displays, verification of the information provided by displays, etc.* | APP ACP APS ACS |
| Subtopic ATM 9.2 — Verification of the currency of operational procedures | | | | |
| APS ATM  9.2.1 | Check all relevant documentation before managing traffic. | 3 | *Optional content: briefing, letters of agreement (LoAs), NOTAMs, AICs* | ALL |
| APS ATM  9.2.2 | Manage traffic in accordance with a change to operational procedures. | 4 |  | APP ACP APS ACS |
| Subtopic ATM 9.3 — Handover–takeover | | | | |
| APS ATM  9.3.1 | Transfer information to the relieving controller. | 3 |  | ALL |
| APS ATM  9.3.2 | Obtain information from the controller handing over. | 3 |  | ALL |
| APS ATM  9.3.3 | List possible actions to provide a safe position handover–takeover. | 1 | *Optional content: rigour, preparation, overlap time* | ALL |
| APS ATM  9.3.4 | Explain the consequences of a missed position handover–takeover process. | 2 |  | ALL |
| TOPIC ATM 10 — PROVISION OF CONTROL SERVICE | | | | |
| Subtopic ATM 10.1 — Responsibility for the provision of control service and the processing of information | | | | |
| APS ATM  10.1.1 | Describe the division of responsibility among air traffic control units. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| APS ATM  10.1.2 | Describe the responsibility in regard to military traffic. | 2 | ICAO Doc 4444  *Optional content: ICAO Doc 9554* | ALL |
| APS ATM  10.1.3 | Describe the responsibility in regard to unmanned free balloons. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| APS ATM  10.1.4 | Interpret operational information. | 5 |  | APP ACP APS ACS |
| APS ATM  10.1.5 | Organise forwarding of operational information. | 4 | *Optional content: including the use of backup procedures* | APP ACP APS ACS |
| APS ATM  10.1.6 | Integrate operational information into control decisions. | 4 |  | APP ACP APS ACS |
| APS ATM  10.1.7 | Appreciate the influence of operational requirements. | 3 | *Optional content: military flying, calibration flights, aerial photography* | ALL |
| Subtopic ATM 10.2 — ATS surveillance service | | | | |
| APS ATM  10.2.1 | Explain the responsibility for the provision of ATS surveillance service appropriate to APS rating. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: local/simulator operation manuals* | APS |
| APS ATM  10.2.2 | Explain the functions that may be performed with the use of ATS surveillance system derived information presented on a situation display. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS  ACS |
| APS ATM  10.2.3 | Provide planning, coordination and control actions appropriate to VFR, SVFR and IFR traffic in VMC and IMC. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, ICAO Doc 4444 | APS  APP |
| APS ATM  10.2.4 | Apply the procedures for termination of ATS surveillance service. | 3 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444, transfer of control, termination or interruption of ATS surveillance service* | APS ACS |
| Subtopic ATM 10.3 — Traffic management process | | | | |
| APS ATM  10.3.1 | Ensure that situational awareness is maintained. | 4 | Information gathering, scanning, traffic projection | APS ACS |
| APS ATM  10.3.2 | Detect conflicts in time for appropriate resolution. | 4 |  | ALL |
| APS ATM  10.3.3 | Identify potential solutions to achieve a safe and effective traffic flow. | 3 |  | APP ACP APS ACS |
| APS ATM  10.3.4 | Evaluate possible outcomes of different planning and control actions. | 5 |  | ALL |
| APS ATM  10.3.5 | Select an appropriate plan in time to achieve safe and effective traffic flow. | 5 |  | APP ACP APS ACS |
| APS ATM  10.3.6 | Ensure the adequate prioritisation of actions. | 4 |  | ALL |
| APS ATM  10.3.7 | Execute the selected plan in a timely manner. | 3 |  | ALL |
| APS ATM  10.3.8 | Ensure that a safe and efficient outcome is achieved. | 4 | Traffic monitoring, adaptability and follow-up | ALL |
| Subtopic ATM 10.4 — Handling traffic | | | | |
| APS ATM  10.4.1 | Manage arrivals, departures and overflights. | 4 | *Optional content: simulator operation procedures* | APP ACP APS ACS |
| APS ATM  10.4.2 | Balance the workload against personal capacity. | 5 | *Optional content: rerouting, replanning, prioritising solutions, denying requests, delegating responsibility for separation* | APP ACP APS ACS |
| APS ATM  10.4.3 | Define flight path monitoring and vectoring. | 1 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| APS ATM  10.4.4 | Explain the requirements for vectoring and termination of vectoring. | 2 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| APS ATM  10.4.5 | Provide vectoring. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: separation, expediting arrivals, departures and/or climb to cruising levels, aircraft leaving the hold, navigation assistance, uncontrolled airspace, etc.* | APS ACS |
| APS ATM  10.4.6 | Apply the procedures for termination of vectoring. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| APS ATM  10.4.7 | Manage traffic on different types of approaches. | 4 | Precision, non-precision, visual | APP  APS |
| APS ATM  10.4.8 | Initiate missed approach. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content:* [*Skybrary*](https://www.skybrary.aero/) | APP  APS |
| APS ATM  10.4.9 | Integrate aircraft on missed approach into the traffic situation. | 4 |  | APP  APS |
| Subtopic ATM 10.5 — Control service with advanced system support | | | | |
| APS ATM  10.5.1 | Appreciate the impact of advanced systems on the provision of approach control service. | 3 | *Optional content: sequencing systems, arrival management, departure management, automated holding lists, vertical traffic displays, conflict detection and decision-making tools, automated information and coordination tools* | APS |
| TOPIC ATM 11 — HOLDING | | | | |
| Subtopic ATM 11.1 — Holding procedures | | | | |
| APS ATM  11.1.1 | Apply holding procedures. | 3 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, holding instructions, allocation of holding levels, onward clearance times | APP ACP APS ACS |
| APS ATM  11.1.2 | Appreciate the factors affecting holding patterns. | 3 | Effect of speed, effect of level used, effect of navigation aid in use, turbulence, aircraft type | APP ACP APS ACS |
| Subtopic ATM 11.2 — Approaching aircraft | | | | |
| APS ATM  11.2.1 | Issue Expected Approach Times (EATs). | 3 |  | APP APS |
| APS ATM  11.2.2 | Organise the traffic landing sequence in a holding pattern. | 4 | *Optional content: company preference, aircraft performance, aircraft approach capability, ILS categories, flow control management* | APP APS |
| Subtopic ATM 11.3 — Holding in a surveillance environment | | | | |
| APS ATM  11.3.1 | Organise traffic to separate other aircraft from holding aircraft. | 4 |  | APS ACS |
| APS ATM  11.3.2 | Integrate system support, when available. | 4 | *Optional content: arrival management system, automated holding lists, vertical traffic displays* | APS ACS |
| TOPIC ATM 12 — IDENTIFICATION | | | | |
| Subtopic ATM 12.1 — Establishment of identification | | | | |
| APS ATM  12.1.1 | Appreciate the precautions when establishing identification. | 3 |  | APS ACS |
| APS ATM  12.1.2 | Identify aircraft. | 3 | *Optional content: PSR, SSR or ADS identification method* | APS ACS |
| APS ATM  12.1.3 | Apply the procedures for misidentification. | 3 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: local/simulator operation manuals* | APS ACS |
| Subtopic ATM 12.2 — Maintenance of identification | | | | |
| APS ATM  12.2.1 | Appreciate the necessity to maintain identification. | 3 |  | APS ACS |
| Subtopic ATM 12.3 — Loss of identity | | | | |
| APS ATM  12.3.1 | Appreciate when an aircraft identification is lost or in doubt. | 3 | *Optional content: out of ATS surveillance system coverage, failure of ATS surveillance system, weather clutter, other clutter, garbling, holding, etc.* | APS ACS |
| APS ATM  12.3.2 | Apply methods to re-establish identification. | 3 |  | APS ACS |
| APS ATM  12.3.3 | Respond to loss/doubt concerning identification. | 3 |  | APS ACS |
| Subtopic ATM 12.4 — Position information | | | | |
| APS ATM  12.4.1 | Appreciate the circumstances when position information should be passed on to aircraft. | 3 |  | APS ACS |
| APS ATM  12.4.2 | State the format in which position information can be passed on to aircraft. | 1 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| Subtopic ATM 12.5 — Transfer of identity | | | | |
| APS ATM  12.5.1 | Apply methods of transfer of identification. | 3 |  | APS ACS |
| APS ATM  12.5.2 | Appreciate the precautions when transferring identification. | 3 |  | APS ACS |

##### SUBJECT 4: METEOROLOGY

The subject objective is:

Learners shall acquire, decode and make proper use of meteorological information relevant to the provision of ATS.

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| **TOPIC MET 1 — METEOROLOGICAL PHENOMENA** | | | | |
| Subtopic MET 1.1 — Meteorological phenomena | | | | |
| APS MET  1.1.1 | Appreciate the impact of adverse weather on aircraft. | 3 | Thunderstorms, icing, clear-air turbulence (CAT), turbulence, microburst, wind shear, severe mountain waves, squall lines, volcanic ash | APP APS |
| APS MET  1.1.2 | Integrate data about meteorological phenomena into the provision of ATS. | 4 | Clearances, instructions and transmitted information  Optional content: relevant meteorological phenomena | ALL |
| APS MET  1.1.3 | Use techniques to avoid adverse weather when necessary/possible. | 3 | Rerouting, level change, etc. | APP ACP APS ACS |
| TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA | | | | |
| Subtopic MET 2.1 — Sources of meteorological information | | | | |
| APS MET  2.1.1 | Obtain meteorological information. | 3 | METAR, TAF, SIGMET, AIRMET  *Optional content: AIREP/special AIREP* | APP ACP APS ACS |
| APS MET  2.1.2 | Decode information from meteorological data displays. | 3 |  | ALL |
| APS MET  2.1.2 | Relay meteorological information. | 3 | ICAO Doc 4444,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: flight information centre, adjacent ATS unit* | ALL |

##### SUBJECT 5: NAVIGATION

The subject objective is:

Learners shall analyse all navigational aspects in order to organise the traffic.

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| TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS | | | | |
| Subtopic NAV 1.1 — Maps and charts | | | | |
| APS NAV  1.1.1 | Decode symbols and information displayed on aeronautical maps and charts. | 3 | Instrument approach charts, SID & STAR charts, aerodrome charts  *Optional content: visual approach charts, military maps and charts* | ADC APP APS |
| APS NAV  1.1.2 | Use relevant maps and charts. | 3 |  | ALL |
| TOPIC NAV 2 — INSTRUMENT NAVIGATION | | | | |
| Subtopic NAV 2.1 — Navigational systems | | | | |
| APS NAV  2.1.1 | Manage traffic in case of change in the operational status of navigational systems. | 4 | *Optional content: limitations, availability and status of ground-based and satellite-based systems* | APP ACP APS ACS |
| APS NAV  2.1.2 | Appreciate the effect of a change in the operational status of navigational systems. | 3 | *Optional content: precision, limitations, status, degraded procedures* | ALL |
| Subtopic NAV 2.2 — Stabilised approach | | | | |
| APS NAV  2.2.1 | Describe the concept of stabilised approach. | 2 | *Optional content:* [*Skybrary*](https://www.skybrary.aero/) | ADC APP APS |
| APS NAV  2.2.2 | Appreciate the effect of late change of runway-in-use or type of approach for landing aircraft. | 3 | Cockpit workload  *Optional content: impact on vertical profile (CDO), FMS management, crew procedure briefing, missed approach, loss of situational awareness, etc.* | APP APS |
| APS NAV  2.2.3 | Appreciate controller actions that may contribute to an unstabilised approach. | 3 | Inappropriate speed control, vectoring for short final, vectoring for approach with significant tailwind, glide path interception from above, lack of or incorrect distance to touchdown information, delayed descent, incorrect use of ‘DIRECT TO’ | APS |
| Subtopic NAV 2.3 — Instrument departures and arrivals | | | | |
| APS NAV  2.3.1 | Describe relevant SIDs and STARs. | 2 |  | APP APS |
| APS NAV  2.3.2 | Describe the types and phases of instrument approach procedures. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, ICAO Annex 6 | ADC APP APS |
| APS NAV  2.3.3 | Describe the relevant minima applicable for a precision/non-precision and visual approach. | 2 | *Optional content: Type A/B operations, CAT I/II/III criteria, LNAV, LNAV/VNAV, LPV, RNP AR APCH minima* | ADC APP APS |
| Subtopic NAV 2.4 — Navigational assistance | | | | |
| APS NAV  2.4.1 | Evaluate the necessary information to be provided to pilots in need of navigational assistance. | 5 | *Optional content: nearest most suitable* *aerodrome, track, heading, distance, aerodrome information, any other navigational assistance relevant at the time* | APP  ACP  APS  ACS |
| APS NAV  2.4.2 | Assist pilots with navigation when required. | 3 | Aircraft observed to be deviating from their known intended route, on pilots’ request | APS  ACS |
| Subtopic NAV 2.5 — Satellite-based systems | | | | |
| APS NAV  2.5.1 | State the different applications of satellite-based systems relevant for approach operations. | 1 | RNP APCH, RNP AR APCH, SBAS, GBAS  *Optional content: LNAV, LNAV/VNAV LPV, RNP minima, precision approach* | APP APS |
| Subtopic NAV 2.6 — PBN applications | | | | |
| APS NAV  2.6.1 | State the navigation applications used in approach and terminal environments. | 1 | Approach-RNP APCH/ RNP AR APCH, Terminal-RNAV-1 RNP 1 with RF, rotorcraft option RNP 0.3  *Optional content: ICAO Doc 9613, Government of the Republic of Armenia Decision N 1937-L of November 30, 2023[[21]](#footnote-21),  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023[[22]](#footnote-22)* | APP APS |
| APS NAV  2.6.2 | Explain the principles and designation of navigation specifications in use. | 2 | Performance, functionalities, sensors  *Optional content: aircrew and controller requirements, accuracy requirements, integrity and continuity* | APP  ACP  APS  ACS |
| APS NAV  2.6.3 | Describe the differences in turn performance. | 2 | *Optional content: fly-by, fly-over, RF,*  *ICAO Doc 4444* | APP APS |
| APS NAV  2.6.4 | State future PBN developments. | 1 | A-RNP, RNP (AR) DEP  *Optional content: RNP 3D, VNAV, RNP 4D, TBO* | ALL |

##### SUBJECT 6: AIRCRAFT

The subject objective is:

Learners shall assess and integrate aircraft performance in the provision of ATS.

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| TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS | | | | |
| Subtopic ACFT 1.1 — Aircraft instruments | | | | |
| APS ACFT  1.1.1 | Integrate information from aircraft instruments provided by the pilot into the provision of ATS. | 4 |  | ALL |
| APS ACFT  1.1.2 | Explain the operation of aircraft radio equipment. | 2 | *Optional content: radios (number of), emergency radios* | ALL |
| APS ACFT  1.1.3 | Explain the operation of on-board surveillance equipment. | 2 | Transponders: equipment Mode A,  Mode C, Mode S, ADS capability | ADC APS ACS |
| TOPIC ACFT 2 — AIRCRAFT CATEGORIES | | | | |
| Subtopic ACFT 2.1 — Wake turbulence | | | | |
| APS ACFT  2.1.1 | Explain the wake turbulence effect and associated hazards to succeeding aircraft. | 2 |  | ALL |
| APS ACFT  2.1.2 | Appreciate the techniques used to prevent hazards associated with wake turbulence to succeeding aircraft. | 3 |  | ALL |
| Subtopic ACFT 2.2 — Application of the ICAO approach categories | | | | |
| APS ACFT  2.2.1 | Describe the use of the ICAO approach categories. | 2 | ICAO Doc 8168 | ADC APP APS |
| APS ACFT  2.2.2 | Appreciate the effect of the ICAO approach categories on the traffic organisation. | 3 |  | ADC APP APS |
| TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE | | | | |
| Subtopic ACFT 3.1 — Climb factors | | | | |
| APS ACFT  3.1.1 | Integrate the influence of factors affecting aircraft during climb. | 4 | Optional content: speed, mass, air density, cabin pressurisation, wind and temperature | APP ACP APS ACS |
| APS ACFT  3.1.2 | Describe the influence of factors affecting departing aircraft. | 3 | Optional content: runway conditions, runway slope, aerodrome elevation, wind, temperature, aircraft configuration, airframe contamination and aircraft mass | APP APS |
| Subtopic ACFT 3.2 — Cruise factors | | | | |
| APS ACFT  3.2.1 | Integrate the influence of factors affecting aircraft during cruise. | 4 | Optional content: level, cruising speed, wind, mass, cabin pressurisation | APP APS |
| Subtopic ACFT 3.3 — Descent and initial approach factors | | | | |
| APS ACFT  3.3.1 | Integrate the influence of factors affecting aircraft during descent. | 4 | Optional content: wind, speed, rate of descent, aircraft configuration, cabin pressurisation | APP APS |
| Subtopic ACFT 3.4 — Final approach and landing factors | | | | |
| APS ACFT  3.4.1 | Integrate the influence of factors affecting aircraft during final approach and landing. | 4 | Optional content: wind, aircraft configuration, mass, meteorological conditions, runway conditions, runway slope, aerodrome elevation | APP APS |
| Subtopic ACFT 3.5 — Economic factors | | | | |
| APS ACFT  3.5.1 | Integrate consideration of economic factors affecting aircraft. | 4 | Optional content: routing, level, speed, rate of climb and rate of descent, approach profile | APP APS |
| APS ACFT  3.5.2 | Provide continuous climb/descent whenever possible. | 4 |  | APS  ACS |
| APS ACFT  3.5.3 | Use direct routing where applicable. | 3 |  | APP  ACP  APS  ACS |
| APS ACFT  3.5.4 | Appreciate controller’s actions that may contribute to pilot’s ability to fly an optimum continuous descent. | 3 | Optional content: level instructions, speed control, vertical speed control, vectoring, distance-to-touchdown information | APS  ACS |
| Subtopic ACFT 3.6 — Environmental factors | | | | |
| APS ACFT  3.6.1 | Appreciate the performance restrictions due to environmental considerations. | 3 | Optional content: fuel-dumping, noise-abatement procedures, minimum flight levels, bird strike hazard, continuous descent operations | APP APS |
| TOPIC ACFT 4 — AIRCRAFT DATA | | | | |
| Subtopic ACFT 4.1 — Performance data | | | | |
| APS ACFT  4.1.1 | Integrate the average performance data of a representative sample of aircraft which will be encountered in the operational/ working environment into the provision of control service. | 4 | Performance data under a representative variety of circumstances | ALL |

##### SUBJECT 7: HUMAN FACTORS

The subject objective is:

Learners shall recognise the necessity to constantly extend their knowledge and analyse factors which affect personal and team performance.

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| TOPIC HUM 1 — INFORMATION PROCESSING | | | | |
| Subtopic HUM 1.1 — Cognition and factors influencing it | | | | |
| APS HUM  1.1.1 | Describe the human information-processing model. | 2 | Attention, perception, memory, situational awareness, decision-making, response | ALL |
| APS HUM  1.1.2 | Describe the factors which influence human information-processing. | 2 | Confidence, stress, learning, knowledge, experience, fatigue, alcohol/drugs, distraction, interpersonal relations | ALL |
| Subtopic HUM 1.2 — Situational awareness | | | | |
| APS HUM  1.2.1 | Appreciate the effect of human information-processing factors on situational awareness. | 3 | *Optional content: workload, knowledge, interpersonal relations, distraction, confidence, experience, fatigue, stress* | ALL |
| Subtopic HUM 1.3 — Decision-making | | | | |
| APS HUM  1.3.1 | Appreciate the effect of human information-processing factors on decision-making. | 3 | *Optional content: workload, stress, interpersonal relations, distraction, confidence* | ALL |
| TOPIC HUM 2 — FACTORS AFFECTING HEALTH AND WELL-BEING | | | | |
| Subtopic HUM 2.1 — Fatigue | | | | |
| APS HUM  2.1.1 | Describe the onset of fatigue. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: lack of concentration, listlessness, irritability, frustration, Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| APS HUM  2.1.2 | Recognise the onset of fatigue in self and in others. | 1 | *Optional content: Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| APS HUM  2.1.3 | Describe the appropriate action when recognising fatigue. | 2 | *Optional content: Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| Subtopic HUM 2.2 — Stress | | | | |
| APS HUM  2.2.1 | Recognise the effects of stress on human performance. | 1 | Stress and its symptoms in self and in others  *Optional content: Government of the Republic of Armenia Decision N 2054-L of December 7, 2023* | ALL |
| APS HUM  2.2.2 | Describe the appropriate action when recognising stress. | 2 |  | ALL |
| APS HUM  2.2.3 | Act to reduce stress. | 3 |  | ALL |
| APS HUM  2.2.4 | Respond to a stressful situation by offering, asking for or accepting assistance. | 3 |  | ALL |
| APS HUM  2.2.5 | Recognise the effect of stressful events. | 1 | Self and others, abnormal situations | ALL |
| TOPIC HUM 3 — THREAT AND ERROR MANAGEMENT | | | | |
| Subtopic HUM 3.1 — Threat and error management framework | | | | |
| APS HUM  3.1.1 | Explain the importance of threat and error management. | 2 | *Optional content: prevention of incidents, safety improvement, revision of procedures and/or working practices* | ALL |
| APS HUM  3.1.2 | Explain the threat and error management framework. | 2 | Threats, errors, undesired states, countermeasures  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| APS HUM  3.1.3 | Differentiate between the different types of threats in ATC. | 2 | Internal, external, airborne, environmental  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| APS HUM  3.1.4 | Differentiate between the different types of errors in ATC. | 2 | Equipment, procedural, communication  *Optional content: increase in traffic, changes in procedures, complexities of systems or traffic, weather, unusual occurrences* | ALL |
| APS HUM  3.1.5 | Differentiate between the different types of undesired states. | 2 | On the ground, airborne  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| APS HUM  3.1.6 | Analyse examples of threat and error management in ATC. | 4 | Case studies  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| Subtopic HUM 3.2 — Application of threat and error management | | | | |
| APS HUM  3.2.1 | Manage threats. | 4 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| APS HUM  3.2.2 | Manage errors. | 4 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| APS HUM  3.2.3 | Manage undesired states. | 4 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| TOPIC HUM 4 — TEAMWORK | | | | |
| Subtopic HUM 4.1 — Benefits of teamwork | | | | |
| APS HUM  4.1.1 | State the benefits of teamwork. | 1 | Increased safety, efficiency and capacity | ALL |
| APS HUM  4.1.2 | List the controller’s human performance elements affected by teamwork. | 1 | Situational awareness, communication, decision-making, threat and error management, workload management | ALL |
| Subtopic HUM 4.2 — Conflict management | | | | |
| APS HUM  4.2.1 | Identify the reasons for conflict. | 3 |  | ALL |
| APS HUM  4.2.2 | Describe strategies to cope with human conflicts. | 2 | *Optional content: in your team, in the simulator* | ALL |
| APS HUM  4.2.3 | Describe actions to prevent human conflicts. | 2 |  | ALL |
| TOPIC HUM 5 — HUMAN ERROR | | | | |
| Subtopic HUM 5.1 — Concept of systems in ATM/ANS | | | | |
| APS HUM  5.1.1 | Explain the concept of systems. | 2 | People; procedures; equipment; ATM in systems terms: simple, complicated, and complex systems; system thinking | ALL |
| APS HUM  5.1.2 | Describe how changes in one part of a system may impact the other parts. | 2 |  | ALL |
| APS HUM  5.1.3 | Describe the role of the human in the system. | 2 |  | ALL |
| TOPIC HUM 6 — COMMUNICATION | | | | |
| Subtopic HUM 6.1 — Effective communication | | | | |
| APS HUM  6.1.1 | Explain effective communication in ATC operations. | 2 | ICAO Doc 9868 | ALL |
| APS HUM  6.1.2 | Explain key strategies used to enable open communication. | 2 | *Optional content: active listening, active speaking, assertiveness, honesty, relevance, facts, neutrality* | ALL |
| APS HUM  6.1.3 | Describe the parameters affecting the controller’s competence to communicate effectively. | 2 | Workload, mutual knowledge, controller versus pilot mental picture, distractions, sound, human conflicts  *Optional content: communication between and within the team(s), in the simulator, with the pilots, instructors, coordination partners workload* | ALL |
| Subtopic HUM 6.2 — Effective feedback | | | | |
| APS HUM  6.2.1 | Define feedback. | 1 |  | ALL |
| APS HUM  6.2.2 | Explain the purpose of receiving and giving feedback, and its effect on performance. | 2 |  | ALL |
| APS HUM  6.2.3 | Consider the impact of communication styles on feedback and on conflict resolution. | 2 |  | ALL |
| APS HUM  6.2.4 | Integrate feedback into performance. | 4 |  | ALL |

##### SUBJECT 8: EQUIPMENT AND SYSTEMS

The subject objective is:

Learners shall integrate knowledge and understanding of the basic working principles of equipment and systems, and comply with the equipment and system degradation procedures in the provision of ATS.

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| **TOPIC EQPS 1 — VOICE COMMUNICATIONS** | | | | |
| Subtopic EQPS 1.1 — Radio communications | | | | |
| APS EQPS  1.1.1 | Operate two-way communication equipment. | 3 | Transmit/receive switches, procedures  Optional content: frequency selection, standby equipment | ALL |
| APS EQPS  1.1.2 | Identify indications of operational status of radio equipment. | 3 | Optional content: indicator lights, serviceability displays, selector/frequency displays | ALL |
| APS EQPS  1.1.3 | Consider radio range. | 2 | Optional content: transfer to another frequency, apparent radio failure, failure to establish radio contact, frequency protection range | APP ACP APS ACS |
| Subtopic EQPS 1.2 — Other voice communications | | | | |
| APS EQPS  1.2.1 | Operate landline communications. | 3 | Optional content: telephone, interphone and intercom equipment | ALL |
| TOPIC EQPS 2 — AUTOMATION IN ATS | | | | |
| Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN) | | | | |
| APS EQPS  2.1.1 | Decode AFTN messages. | 3 | *Optional content: movement and control messages, NOTAMs, SNOWTAMs, BIRDTAMs, etc.* | ALL |
| Subtopic EQPS 2.2 — Automatic data interchange | | | | |
| APS EQPS  2.2.1 | Use automatic data transfer equipment where available. | 3 | *Optional content: sequencing systems, automated information and coordination, OLDI* | ADC APS ACS |
| TOPIC EQPS 3 — CONTROLLER WORKING POSITION | | | | |
| Subtopic EQPS 3.1 — Operation and monitoring of equipment | | | | |
| APS EQPS  3.1.1 | Monitor the technical integrity of the controller working position. | 3 | Notification procedures, responsibilities | ALL |
| APS EQPS  3.1.2 | Operate the equipment of the controller working position. | 3 | *Optional content: situation displays, flight progress board, flight data display, radio, telephone, maps and charts, strip-printer, clock, information systems, UDF/VDF* | ALL |
| APS EQPS  3.1.3 | Operate the available equipment in abnormal and emergency situations. | 3 |  | ALL |
| Subtopic EQPS 3.2 — Situation displays and information systems | | | | |
| APS EQPS  3.2.1 | Use situation displays. | 3 |  | ALL |
| APS EQPS  3.2.2 | Check the availability of information. | 3 |  | ALL |
| APS EQPS  3.2.3 | Obtain information from equipment. | 3 |  | APP ACP APS ACS |
| Subtopic EQPS 3.3 — Flight data systems | | | | |
| APS EQPS  3.3.1 | Use the flight data information at the controller working position. | 3 |  | ALL |
| Subtopic EQPS 3.4 — Use of the ATS surveillance system | | | | |
| APS EQPS  3.4.1 | Use the ATS surveillance system functions. | 3 |  | APS ACS |
| APS EQPS  3.4.2 | Analyse the information provided by the ATS surveillance system. | 4 |  | APS ACS |
| APS EQPS  3.4.3 | Assign codes. | 4 |  | APS ACS |
| APS EQPS  3.4.4 | Appreciate the use of advanced surveillance technology. | 3 | *Optional content: Mode S, ADS-B, MLAT* | APS ACS |
| Subtopic EQPS 3.5 — Advanced systems | | | | |
| APS EQPS  3.5.1 | Appreciate the use of controller–pilot data link communications when available. | 3 |  | APS ACS |
| APS EQPS  3.5.2 | Characterise the use of information provided by advanced systems. | 2 | MTCD, AMAN, DMAN  *Optional content: trajectory-based information, MONA, etc.* | APS ACS |
| TOPIC EQPS 4 — FUTURE EQUIPMENT | | | | |
| Subtopic EQPS 4.1 — New developments | | | | |
| APS EQPS  4.1.1 | Recognise future developments. | 1 | New advanced systems  *Optional content: European ATM Master Plan, European Plan for Aviation Safety* | ALL |

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| TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS’ LIMITATIONS AND DEGRADATION | | | | |
| Subtopic EQPS 5.1 — Reaction to limitations | | | | |
| APS EQPS  5.1.1 | Take account of the limitations of equipment and systems. | 2 |  | ALL |
| APS EQPS  5.1.2 | Respond to technical deficiencies of the operational position. | 3 | Notification procedures, responsibilities | ALL |
| Subtopic EQPS 5.2 — Communication equipment degradation | | | | |
| APS EQPS  5.2.1 | Identify that communication equipment has degraded. | 3 | *Optional content: ground–air and landline communications* | APP ACP APS ACS |
| APS EQPS  5.2.2 | Apply contingency procedures in the event of communication equipment degradation. | 3 | *Optional content: procedures for total or partial degradation of ground–air and landline communications, alternative methods of transferring data* | ALL |
| Subtopic EQPS 5.3 — Navigational equipment degradation | | | | |
| APS EQPS  5.3.1 | Identify when a navigational equipment failure will affect operational ability. | 3 | *Optional content: navigational aids, ‘European GNSS Contingency/Reversion Handbook for PBN Operations’* | ALL |
| APS EQPS  5.3.2 | Apply contingency procedures in the event of a navigational equipment degradation. | 3 | *Optional content: vertical separation, information to aircraft, navigational assistance, seeking assistance from adjacent units* | ALL |
| Subtopic EQPS 5.4 — Surveillance equipment degradation | | | | |
| APS EQPS  5.4.1 | Identify that surveillance equipment has degraded. | 3 | Partial power failure, loss of certain facilities, total failure | APS ACS |
| APS EQPS  5.4.2 | Apply contingency procedures in the event of surveillance equipment degradation. | 3 | *Optional content: inform adjacent sectors, inform aircraft, apply vertical separation (emergency), increased horizontal separation, reduce the number of aircraft entering area of responsibility, transfer aircraft to another unit* | APS ACS |
| Subtopic EQPS 5.5 — ATC processing system degradation | | | | |
| APS EQPS  5.5.1 | Identify processing system degradation. | 3 | *Optional content: FDPS, SDPS, software processing of situation display* | APS ACS |
| APS EQPS  5.5.2 | Apply contingency procedures in the event of processing system degradation. | 3 |  | APS ACS |

##### SUBJECT 9: PROFESSIONAL ENVIRONMENT

The subject objective is:

Learners shall identify the need for close cooperation with other parties concerning ATM operations and appreciate aspects of environmental protection.

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| **TOPIC PEN 1 — FAMILIARISATION** | | | | |
| Subtopic PEN 1.1 — Study visit to an approach control unit | | | | |
| APS PEN  1.1.1 | Appreciate the functions and provision of operational approach control service. | 3 | Study visit to an approach control unit | APP APS |
| TOPIC PEN 2 — AIRSPACE USERS | | | | |
| Subtopic PEN 2.1 — Contributors to civil ATS operations | | | | |
| APS PEN  2.1.1 | Characterise civil ATS activities in an approach control unit. | 2 | Study visit to an approach control unit  *Optional content: familiarisation visits to TWR, ACC, AIS, RCC* | APP APS |
| APS PEN  2.1.2 | Characterise other parties interfacing with ATS operations. | 2 | *Optional content: familiarisation visits to engineering services, firefighting and emergency services, airline operations offices* | ALL |
| Subtopic PEN 2.2 — Contributors to military ATS operations | | | | |
| APS PEN  2.2.1 | Characterise military ATS activities. | 2 | *Optional content: familiarisation visits to TWR, APP, ACC, AIS, RCC, air defence units* | ALL |
| TOPIC PEN 3 — CUSTOMER RELATIONS | | | | |
| Subtopic PEN 3.1 — Provision of services and user requirements | | | | |
| APS PEN  3.1.1 | Appreciate the role of an air navigation service provider. | 3 | Law of the Republic of Armenia on Aviation[[23]](#footnote-23) | ALL |
| APS PEN  3.1.2 | Appreciate ATS users’ requirements. | 3 |  | ALL |
| TOPIC PEN 4 — ENVIRONMENTAL PROTECTION | | | | |
| Subtopic PEN 4.1 — Environmental protection | | | | |
| APS PEN  4.1.1 | Describe the environmental constraints on aerodrome operations. | 2 | *Optional content: ICAO Doc 10013 —Operational Opportunities to reduce fuel burn and emissions* | ADC APP APS |
| APS PEN  4.1.2 | Explain the use of the Collaborative Environmental Management (CEM) process at aerodromes. | 2 | *Optional content: European ATM Master Plan, EUROCONTROL CEM Specification* | ADC APP APS |
| APS PEN  4.1.3 | Appreciate the mitigation techniques used to minimise aviation’s impact on the environment. | 3 | *Optional content: continuous descent operations (CDO), continuous climb operations (CCO), noise-abatement procedures, noise preferential routes, flight efficiency* | APS |

##### SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

The subject objective is:

Learners shall develop a professional attitude to manage traffic in abnormal and emergency situations.

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| TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES) | | | | |
| Subtopic ABES 1.1 — Overview of ABES | | | | |
| APS ABES  1.1.1 | List common abnormal and emergency situations. | 1 | *Optional content: EATM Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ambulance flights, ground-based safety nets alerts, airframe failure, unreliable instruments, runway incursion, GNSS failure* | ALL |
| APS ABES  1.1.2 | Identify potential or actual abnormal and emergency situations. | 3 |  | ALL |
| APS ABES  1.1.3 | Take into account the procedures for given abnormal and emergency situations. | 2 | *Optional content: ICAO Doc 4444* | APP ACP APS ACS |
| APS ABES  1.1.4 | Take into account that procedures do not exist for all abnormal and emergency situations. | 2 | *Optional content: real-life examples* | ALL |
| APS ABES  1.1.5 | Consider how the evolution of a situation may have an impact on safety. | 2 | *Optional content: separation, information, coordination* | ALL |
| TOPIC ABES 2 — SKILLS IMPROVEMENT | | | | |
| Subtopic ABES 2.1 — Communication effectiveness | | | | |
| APS ABES  2.1.1 | Ensure effective communication in all circumstances including the case where standard phraseology is not applicable. | 4 | Phraseology, vocabulary, readback, radio silence instruction | ALL |
| APS ABES  2.1.2 | Apply change of radiotelephony call sign. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444* | ALL |
| Subtopic ABES 2.2 — Avoidance of mental overload | | | | |
| APS ABES  2.2.1 | Describe actions to keep the situation under control. | 2 | *Optional content: sector-splitting, holding, flow management, task delegation* | ALL |
| APS ABES  2.2.2 | Organise priority of actions. | 4 |  | ALL |
| APS ABES  2.2.3 | Ensure the effective dissemination of information. | 4 | *Optional content: between executive and planner/coordinator, with the supervisor, between sectors, between ACC, APP and TWR, with ground staff, etc.* | ALL |
| APS ABES  2.2.4 | Consider asking for help. | 2 |  | ALL |
| Subtopic ABES 2.3 — Air–ground cooperation | | | | |
| APS ABES  2.3.1 | Collect appropriate information relevant to the situation. | 3 |  | ALL |
| APS ABES  2.3.2 | Assist the pilot. | 3 | Pilot workload  *Optional content: instructions, information, support, human factors, etc.* | ALL |
| TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS (ABES) | | | | |
| Subtopic ABES 3.1 — Application of procedures for ABES | | | | |
| APS ABES  3.1.1 | Apply the procedures for given abnormal and emergency situations. | 3 | *Optional content: EATM Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ambulance flights, ground-based safety nets alerts, airframe failure* | ALL |
| Subtopic ABES 3.2 — Radio failure | | | | |
| APS ABES  3.2.1 | Describe the procedures to be followed by a pilot when experiencing complete or partial radio failure. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444, military procedures, simulator operation procedures* | ALL |
| APS ABES  3.2.2 | Apply the procedures to be followed when a pilot experiences complete or partial radio failure. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: prolonged loss of communication* | ALL |
| Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat | | | | |
| APS ABES  3.3.1 | Apply ATC procedures associated with unlawful interference and aircraft bomb threat. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: simulator operation procedures* | ALL |
| Subtopic ABES 3.4 — Strayed or unidentified aircraft | | | | |
| APS ABES  3.4.1 | Apply the procedures for strayed aircraft. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: inside controlled airspace, outside controlled airspace* | ALL |
| APS ABES  3.4.2 | Apply the procedures for unidentified aircraft. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| Subtopic ABES 3.5 — Diversion | | | | |
| APS ABES  3.5.1 | Provide navigational assistance to aircraft diverting in emergency. | 4 | Track/heading, distance, other navigational assistance  *Optional content: nearest most suitable aerodrome* | APP ACP APS ACS |
| Subtopic ABES 3.6 — Transponder failure | | | | |
| APS ABES  3.6.1 | Apply procedures in the event of an SSR transponder failure. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: total/partial failure, impact on ADS-B/Mode S capability* | APS ACS |
| Subtopic ABES 3.7 — Interception of civil aircraft | | | | |
| APS ABES  3.7.1 | Explain the procedures in the event of interception of civil aircraft. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |

##### SUBJECT 11: AERODROMES

The subject objective is:

Learners shall recognise and understand the design and layout of aerodromes.

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| TOPIC AGA 1 — AERODROME DATA, LAYOUT AND COORDINATION | | | | |
| Subtopic AGA 1.1 — Definitions | | | | |
| APS AGA  1.1.1 | Define aerodrome data. | 1 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023[[24]](#footnote-24)  *Optional content: aerodrome elevation, reference point, apron, movement area, manoeuvring area, hotspo*t | ADC APP APS |
| Subtopic AGA 1.2 — Coordination | | | | |
| APS AGA  1.2.1 | Identify the information that has to be exchanged between Air Traffic Services (ATS) and the aerodrome authority. | 3 | Aerodrome conditions, fire/rescue category, condition of ground equipment and NAVAIDs, AIRAC, Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| TOPIC AGA 2 — MOVEMENT AREA | | | | |
| Subtopic AGA 2.1 — Movement area | | | | |
| APS AGA  2.1.1 | Describe the movement area. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| APS AGA  2.1.2 | Describe the marking of obstacles and unusable or unserviceable areas. | 2 | Flags, signs on pavement, lights | ADC APP APS |
| APS AGA  2.1.3 | Identify the information on conditions of the movement area that has to be passed on to aircraft. | 3 | Essential information on aerodrome conditions | ADC APP APS |
| Subtopic AGA 2.2 — Manoeuvring area | | | | |
| APS AGA  2.2.1 | Describe the manoeuvring area. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| APS AGA  2.2.2 | Describe the taxiway. | 2 |  | ADC APP APS |
| APS AGA  2.2.3 | Describe the daylight marking on taxiways. | 2 |  | ADC APP APS |
| APS AGA  2.2.4 | Describe taxiway lighting. | 2 |  | ADC APP APS |
| Subtopic AGA 2.3 — Runways | | | | |
| APS AGA  2.3.1 | Describe the runway. | 2 | Runway, runway surface, runway strip, runway shoulder, runway-end safety areas, clearways, stopways | ADC APP APS |
| APS AGA  2.3.2 | Describe the instrument runway. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| APS AGA  2.3.3 | Describe the non-instrument runway. | 2 | Government of the Republic of Armenia Decision N 1318-N of August 24, 2023 | ADC APP APS |
| APS AGA  2.3.4 | Explain declared distances. | 2 | TORA, TODA, ASDA, LDA | ADC APP APS |
| APS AGA  2.3.5 | Explain the differences between ACN and PCN. | 2 | Strength of pavements | ADC APP APS |
| APS AGA  2.3.6 | Describe the daylight markings on runways. | 2 | *Optional content: runway designator, centre line, threshold, aiming point, fixed distance, touchdown zone, side strip, colour* | ADC APP APS |
| APS AGA  2.3.7 | Describe runway lights. | 2 | *Optional content: colour, centre line, intensity, edge, touchdown zone, threshold, barettes* | ADC APP APS |
| APS AGA  2.3.8 | Explain the functions of visual landing aids. | 2 | *Optional content: AVASI, VASI, PAPI* | ADC APP APS |
| APS AGA  2.3.9 | Describe the approach lighting systems. | 2 | Centre line, cross bars, stroboscopic lights, colours, intensity and brightness | ADC APP APS |
| APS AGA  2.3.10 | Characterise the effect of water/ice on runways. | 2 |  | ADC APP APS |
| APS AGA  2.3.11 | Explain braking performance and methods of reporting it. | 2 |  | ADC APP APS |
| APS AGA  2.3.12 | Explain the effect of runway visual range on aerodrome operations. | 2 |  | ADC APP APS |
| TOPIC AGA 3 — OBSTACLES | | | | |
| Subtopic AGA 3.1 — Obstacle-free airspace around aerodromes | | | | |
| APS AGA  3.1.1 | Explain the necessity for establishing and maintaining airspace around aerodromes obstacle free. | 2 |  | ADC APP APS |
| TOPIC AGA 4 — MISCELLANEOUS EQUIPMENT | | | | |
| Subtopic AGA 4.1 — Location | | | | |
| APS AGA  4.1.1 | Explain the location of different aerodrome ground equipment. | 2 | *Optional content: LOC, GP, VDF, radio communication or ATS surveillance systems sensors, stopbars, AVASI, VASI, PAPI* | ADC APP APS |

AMC1 ATCO.D.010(a)(2)(v) Composition of initial training

AREA CONTROL SURVEILLANCE RATING (ACS) TRAINING — TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in [AMC1 ATCO.D.010(a)](#_DxCrossRefBm1379192483).

(b) The ATCO rating training Area Control Surveillance Rating (ACS) should contain the following training objectives that are associated with the subjects, topics and subtopics contained in Appendix 5 Area Control Surveillance Rating (ACS) to Annex I to this Regulation.

(c) Subjects, topics and subtopics from Appendix 5 to Annex I to this Regulation are repeated in this AMC for the convenience of the reader and do not form part of it.

##### SUBJECT 1: INTRODUCTION TO THE COURSE

The subject objective is:

Learners shall know and understand the training programme that they will follow and learn how to obtain the appropriate information.

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| **TOPIC INTR 1 — COURSE MANAGEMENT** | | | | |
| Subtopic INTR 1.1 — Course introduction | | | | |
| ACS INTR  1.1.1 | Explain the aims and main objectives of the course. | 2 |  | ALL |
| Subtopic INTR 1.2 — Course administration | | | | |
| ACS INTR  1.2.1 | State how the course is administered. | 1 |  | ALL |
| Subtopic INTR 1.3 — Study material and training documentation | | | | |
| ACS INTR  1.3.1 | Use appropriate documents and their sources for course studies. | 3 | Optional content: training documentation, library, CBT library, web, learning management server | ALL |
| ACS INTR  1.3.2 | Integrate appropriate information into course studies. | 4 | Training documentation  Optional content: supplementary information, library | ALL |
| TOPIC INTR 2 — INTRODUCTION TO THE ATC TRAINING COURSE | | | | |
| Subtopic INTR 2.1 — Course content and organisation | | | | |
| ACS INTR  2.1.1 | State the different training methods used during the course. | 1 | Theoretical training, practical training, self-study, types of training events | ALL |
| ACS INTR  2.1.2 | State the subjects covered by the course and their purpose. | 1 |  | ALL |
| ACS INTR  2.1.3 | Describe the organisation of theoretical training. | 2 | Optional content: course programme | ALL |
| ACS INTR  2.1.4 | Describe the organisation of practical training. | 2 | Optional content: PTP, simulation, briefing, debriefing, course programme | ALL |
| Subtopic INTR 2.2 — Training ethos | | | | |
| ACS INTR  2.2.1 | Recognise the feedback mechanisms available. | 1 | Training progress, assessment, briefing, debriefing, learner–instructor feedback, instructor–instructor feedback | ALL |
| Subtopic INTR 2.3 — Assessment process | | | | |
| ACS INTR  2.3.1 | Describe the assessment process. | 2 |  | ALL |

##### SUBJECT 2: AVIATION LAW

The subject objective is:

Learners shall know, understand and apply the Rules of the Air and the Regulations regarding reporting and airspace, and appreciate the Licensing and Competence principles.

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| TOPIC LAW 1 — ATCO LICENSING/CERTIFICATE OF COMPETENCE | | | | |
| Subtopic LAW 1.1 — Privileges and conditions | | | | |
| ACS LAW  1.1.1 | Appreciate the conditions which shall be met to issue an Area Control Surveillance rating. | 3 | RA ATCO Licensing Regulation[[25]](#footnote-25) | ACS |
| ACS LAW  1.1.2 | Explain how to maintain and update professional knowledge and skills to retain competence in the operational environment. | 2 |  | ALL |
| ACS LAW  1.1.3 | Explain the conditions for the suspension/ revocation of an ATCO licence. | 2 | RA ATCO licensing/certification Regulation | ALL |
| TOPIC LAW 2 — RULES AND REGULATIONS | | | | |
| Subtopic LAW 2.1 — Reports | | | | |
| ACS LAW  2.1.1 | Describe the functions of, and processes for, reporting. | 2 | Reporting culture, forms for mandatory and voluntary occurrence reporting, Government of the Republic of Armenia Decision N 1053-N of July 13, 2023[[26]](#footnote-26), Government of the Republic of Armenia Decision N 1053-N of July 13, 2023[[27]](#footnote-27)  *Optional content: breach of regulations, watchbook/logbook, records, voluntary reporting* | ALL |
| ACS LAW  2.1.2 | Use forms for reporting. | 3 | Government of the Republic of Armenia Decision N 1053-N of July 13, 2023, forms for mandatory and voluntary occurrence reporting  *Optional content: routine air-reports, breach of regulations, watchbook/logbook, records* | ALL |
| Subtopic LAW 2.2 — Airspace | | | | |
| ACS LAW  2.2.1 | Appreciate airspace classes and structure and their relevance to operations using the Area Control Surveillance rating. | 3 |  | ACS |
| ACS LAW  2.2.2 | Provide planning, coordination and control actions appropriate to the classification and structure of given airspace. | 4 | *Optional content: Government of the Republic of Armenia Decision N 821-N of June 2, 2022[[28]](#footnote-28), international requirements, civil requirements, military requirements, areas of responsibility, sectorisation, national requirements* | ALL |
| ACS LAW  2.2.3 | Appreciate responsibility for terrain clearance. | 3 |  | ALL |
| TOPIC LAW 3 — ATS SAFETY MANAGEMENT | | | | |
| Subtopic LAW 3.1 — Feedback process | | | | |
| ACS LAW  3.1.1 | State the importance of controller contribution to the feedback process. | 1 | *Optional content: voluntary reporting* | ALL |
| ACS LAW  3.1.2 | Describe how reported occurrences are analysed. | 2 | *Optional content: Government of the Republic of Armenia Decision N 1053-N of July 13, 2023, local procedures* | ALL |
| ACS LAW  3.1.3 | Name the means used to disseminate recommendations. | 1 | *Optional content: safety letters, safety boards’ web pages* | ALL |
| ACS LAW  3.1.4 | Appreciate the just culture concept. | 3 | Benefits, prerequisites, constraints  *Optional content:* [*Skybrary*](https://www.skybrary.aero/) | ALL |
| Subtopic LAW 3.2 — Safety investigation | | | | |
| ACS LAW  3.2.1 | Describe the role and objectives of safety investigation in the improvement of safety. | 2 |  | ALL |

##### SUBJECT 3: AIR TRAFFIC MANAGEMENT

The subject objective is:

Learners shall manage air traffic to ensure safe, orderly and expeditious services.

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| TOPIC ATM 1 — PROVISION OF SERVICES | | | | |
| Subtopic ATM 1.1 — Air traffic control (ATC) service | | | | |
| ACS ATM  1.1.1 | Appreciate own area of responsibility. | 3 |  | APP ACP APS ACS |
| ACS ATM  1.1.2 | Provide area control service. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, operating procedures for the simulated/training environment | ACP ACS |
| Subtopic ATM 1.2 — Flight information service (FIS) | | | | |
| ACS ATM  1.2.1 | Provide FIS. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: national documents* | ALL |
| ACS ATM  1.2.2 | Use an ATS surveillance system in the provision of FIS. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, information to identified aircraft concerning: traffic, navigation  *Optional content: weather* | APS ACS |
| ACS ATM  1.2.3 | Issue appropriate information concerning the position of conflicting traffic. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, traffic information, essential traffic information | APS ACS  APP ACP |
| ACS ATM  1.2.4 | Appreciate the use of ATIS in the provision of FIS. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| Subtopic ATM 1.3 — Alerting service (ALRS) | | | | |
| ACS ATM  1.3.1 | Provide ALRS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: national documents* | ALL |
| ACS ATM  1.3.2 | Respond to distress and urgency messages and signals. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Annex 10  *Optional content: EUROCONTROL Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ICAO Doc 4444, national documents* | ALL |
| ACS ATM  1.3.3 | Use an ATS surveillance system in the provision of ALRS. | 3 |  | APS ACS |
| Subtopic ATM 1.4 — ATS system capacity and air traffic flow management | | | | |
| ACS ATM  1.4.1 | Appreciate the impact of the ATS system capacity and air traffic flow management on the controller. | 3 | *Optional content: EUROCONTROL ATFCM Users Manual, FABs, FUA, free route airspace, local implementation of ATFCM principles, etc.* | APP ACP APS ACS |
| ACS ATM  1.4.2 | Apply flow management procedures in the provision of ATC. | 3 | *Optional content: EUROCONTROL ATFCM Users Manual* | ACP ACS |
| ACS ATM  1.4.3 | Organise traffic flows and patterns to take account of airspace boundaries. | 4 | *Optional content: civil and military, controlled, uncontrolled, advisory, restricted, danger, prohibited, special rules, sector boundaries, national boundaries, FIR boundaries, delegated airspace, transfer of control, transfer of communications, en-route, off-route* | APP ACP APS ACS |
| ACS ATM  1.4.4 | Organise traffic flows and patterns to take account of areas of responsibility. | 4 | *Optional content: EUROCONTROL ATFCM Users Manual* | APP ACP APS ACS |
| ACS ATM  1.4.5 | Inform the supervisor of local factors affecting the ATS system capacity and air traffic flow management. | 3 | *Optional content: abnormal situations, decrease in sector capacity, limitations on systems and equipment, changes in workload/capacity, unusual meteorological conditions, relevant information like: reported ground-based incidents, forest fire, smoke, oil pollution* | APP ACP APS ACS |
| ACS ATM  1.4.6 | Organise traffic flows and patterns to take account of the ATS surveillance system capability. | 4 |  | APS ACS |
| Subtopic ATM 1.5 — Airspace management (ASM) | | | | |
| ACS ATM  1.5.1 | Appreciate the impact of ASM on the controller. | 3 | *Optional content: FABs, EUROCONTROL Specification for the application of FUA, TSAs, CDRs, CBAs, free route airspace* | APP ACP APS ACS |
| ACS ATM  1.5.2 | Organise traffic to take account of ASM. | 4 | Real-time activation, deactivation or reallocation of airspace  *Optional content: CDR, TSA, TRA, CBA* | APS  ACS |

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| TOPIC ATM 2 — COMMUNICATION | | | | |
| Subtopic ATM 2.1 — Effective communication | | | | |
| ACS ATM  2.1.1 | List the means of communication between controllers. | 1 | *Optional content: electronic, written, verbal and non-verbal communication* | ALL |
| ACS ATM  2.1.2 | Select the most suitable means of communication given the situation. | 5 |  | ALL |
| ACS ATM  2.1.3 | Use approved phraseology. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: published national/local language phraseology* | ALL |
| ACS ATM  2.1.4 | Ensure effective communication. | 4 | Use of plain language when required, communication within the sector/working position, between the sectors/WPs/ATC units, readback/verification of readback | ALL |
| ACS ATM  2.1.5 | Analyse examples of pilot–controller communication for effectiveness. | 4 | *Optional content: real-life recordings, situation in the simulator* | ALL |
| TOPIC ATM 3 — ATC CLEARANCES AND ATC INSTRUCTIONS | | | | |
| Subtopic ATM 3.1 — ATC clearances | | | | |
| ACS ATM  3.1.1 | Issue appropriate ATC clearances. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444, national documents* | ALL |
| ACS ATM  3.1.2 | Integrate appropriate ATC clearances into the control service. | 4 |  | ALL |
| ACS ATM  3.1.3 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| Subtopic ATM 3.2 — ATC instructions | | | | |
| ACS ATM  3.2.1 | Issue appropriate ATC instructions. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444, national documents* | ALL |
| ACS ATM  3.2.2 | Integrate appropriate ATC instructions into the control service. | 4 |  | ALL |
| ACS ATM  3.2.3 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| TOPIC ATM 4 — COORDINATION | | | | |
| Subtopic ATM 4.1 — Necessity for coordination | | | | |
| ACS ATM  4.1.1 | Identify the need for coordination. | 3 |  | ALL |
| Subtopic ATM 4.2 — Tools and methods for coordination | | | | |
| ACS ATM  4.2.1 | Use the available tools for coordination. | 3 | *Optional content: electronic transfer of flight data, telephone, interphone, intercom, direct speech, radiotelephone (RTF), local agreements, automated system coordination* | ALL |
| Subtopic ATM 4.3 — Coordination procedures | | | | |
| ACS ATM  4.3.1 | Initiate appropriate coordination. | 3 | Delegation/transfer of responsibility for air–ground communications and separation, transfer of control, etc., Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: release point* | ALL |
| ACS ATM  4.3.2 | Analyse the effect of coordination requested by an adjacent position/unit. | 4 | *Optional content: delegation/transfer of responsibility for air–ground communications and separation, release point, transfer of control, etc.* | ALL |
| ACS ATM  4.3.3 | Select, after negotiation, an appropriate course of action. | 5 |  | ALL |
| ACS ATM  4.3.4 | Ensure that the agreed course of action is carried out. | 4 |  | ALL |
| ACS ATM  4.3.5 | Coordinate when providing FIS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| ACS ATM  4.3.6 | Coordinate when providing ALRS. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444* | ALL |
| TOPIC ATM 5 — ALTIMETRY AND LEVEL ALLOCATION | | | | |
| Subtopic ATM 5.1 — Altimetry | | | | |
| ACS ATM  5.1.1 | Allocate levels according to altimetry data. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| ACS ATM  5.1.2 | Ensure separation according to altimetry data. | 4 | *Optional content: transition level, transition altitude, transition layer, height, flight level, altitude, vertical distance to airspace boundaries* | ALL |
| Subtopic ATM 5.2 — Terrain clearance | | | | |
| ACS ATM  5.2.1 | Provide planning, coordination and control actions appropriate to the rules for minimum usable levels and terrain clearance. | 4 | *Optional content: minimum vectoring altitude, terrain clearance dimensions, minimum safe altitudes, transition level, minimum flight level, minimum sector altitude* | APS ACS |
| TOPIC ATM 6 — SEPARATION | | | | |
| Subtopic ATM 6.1 — Vertical separation | | | | |
| ACS ATM  6.1.1 | Provide standard vertical separation. | 4 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 821-N of June 2, 2022, level allocation, during climb/descent, rate of climb/descent, RVSM, non-RVSM aircraft, holding pattern | ACP ACS |
| ACS ATM  6.1.2 | Provide increased vertical separation. | 4 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: level allocation, during climb/descent, rate of climb/descent, degraded aircraft performance, non-RVSM aircraft, reported severe turbulence* | APP ACP APS ACS |
| ACS ATM  6.1.3 | Appreciate the application of emergency vertical separation. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, ICAO Doc 4444, ICAO Doc 7030 | APP ACP APS ACS |
| ACS ATM  6.1.4 | Provide vertical separation in a surveillance environment. | 4 | Pressure altitude-derived information, pilot-level reports  *Optional content: into/out of ATS surveillance system coverage* | APS ACS |
| Subtopic ATM 6.2 — Longitudinal separation in a surveillance environment | | | | |
| ACS ATM  6.2.1 | Provide longitudinal separation in a surveillance environment. | 4 | Successive departures, successive arrivals, overflights, speed control, Mach number techniques, silent transfer, ICAO Doc 4444 | ACS |
| Subtopic ATM 6.3 — Wake turbulence distance-based separation | | | | |
| ACS ATM  6.3.1 | Provide distance-based wake turbulence separation. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: EASA SIB 2017-10 ‘En-route Wake Turbulence Encounters’, national documents* | APS ACS |
| Subtopic ATM 6.4 — Separation based on ATS surveillance systems | | | | |
| ACS ATM  6.4.1 | Describe how separation based on ATS surveillance systems is applied. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| ACS ATM  6.4.2 | Provide horizontal separation. | 4 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: local/simulator operation manuals, holding* | APS ACS |
| ACS ATM  6.4.3 | Provide horizontal separation by vectoring in a variety of situations. | 4 | *Optional content: transit, meteorological phenomena, vectoring for approach, departure versus transit versus arrival* | APS ACS |
| ACS ATM  6.4.4 | Ensure horizontal or vertical separation from airspace boundaries. | 4 | Adjacent sectors, restricted, prohibited and danger areas, TSAs. | APS ACS |

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| TOPIC ATM 7 — AIRBORNE AND GROUND-BASED SAFETY NETS | | | | |
| Subtopic ATM 7.1 — Airborne safety nets | | | | |
| ACS ATM  7.1.1 | Recognise the independence of ACAS thresholds from ATC separation standards. | 1 | ICAO Doc 9863  *Optional content: Skybrary Safety Nets* | ALL |
| ACS ATM  7.1.2 | Describe the controller responsibility during and following an ACAS RA reported by a pilot. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444,*  *ICAO Doc 9863, Skybrary Safety Nets* | ALL |
| ACS ATM  7.1.3 | Respond to pilot notification of actions based on airborne systems warnings. | 3 | ACAS  *Optional content: TAWS, Skybrary Safety Nets* | APP  APS  ACP  ACS |
| Subtopic ATM 7.2 — Ground-based safety nets | | | | |
| ACS ATM  7.2.1 | Describe the controller responsibility during and following safety net warnings. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444, STCA, MSAW, APW, APM* | APS ACS |
| ACS ATM  7.2.2 | Respond to ground-based safety net warnings. | 3 | *Optional content: STCA, MSAW, APW, APM* | APS ACS |
| TOPIC ATM 8 — DATA DISPLAY | | | | |
| Subtopic ATM 8.1 — Data management | | | | |
| ACS ATM  8.1.1 | Update the data display to accurately reflect the traffic situation. | 3 | *Optional content: information displayed, strip-marking procedures, electronic information data displays, actions based on traffic display information, calculation of EETs* | ALL |
| ACS ATM  8.1.2 | Analyse pertinent data on data displays. | 4 |  | ALL |
| ACS ATM  8.1.3 | Organise pertinent data on data displays. | 4 |  | ALL |
| ACS ATM  8.1.4 | Obtain flight plan information. | 3 | CPL, supplementary information  *Optional content: FPL, AFIL, etc.* | ALL |
| ACS ATM  8.1.5 | Use flight plan information. | 3 |  | ALL |
| TOPIC ATM 9 — OPERATIONAL ENVIRONMENT (SIMULATED) | | | | |
| Subtopic ATM 9.1 — Integrity of the operational environment | | | | |
| ACS ATM  9.1.1 | Obtain information concerning the operational environment. | 3 | *Optional content: local/simulator operation manuals, briefing, notices, current flight plan data/information displays, pilot reports, coordination, verification of information* | ALL |
| ACS ATM  9.1.2 | Ensure the integrity of the operational environment. | 4 | *Optional content: integrity of displays, verification of the information provided by displays, etc.* | APP ACP APS ACS |
| Subtopic ATM 9.2 — Verification of the currency of operational procedures | | | | |
| ACS ATM  9.2.1 | Check all relevant documentation before managing traffic. | 3 | *Optional content: briefing, letters of agreement (LoAs), NOTAMs, AICs* | ALL |
| ACS ATM  9.2.2 | Manage traffic in accordance with a change to operational procedures. | 4 |  | APP ACP APS ACS |
| Subtopic ATM 9.3 — Handover–takeover | | | | |
| ACS ATM  9.3.1 | Transfer information to the relieving controller. | 3 |  | ALL |
| ACS ATM  9.3.2 | Obtain information from the controller handing over. | 3 |  | ALL |
| ACS ATM  9.3.3 | List possible actions to provide a safe position handover–takeover. | 1 | *Optional content: rigour, preparation, overlap time* | ALL |
| ACS ATM  9.3.4 | Explain the consequences of a missed position handover–takeover. | 2 |  | ALL |
| TOPIC ATM 10 — PROVISION OF CONTROL SERVICE | | | | |
| Subtopic ATM 10.1 — Responsibility for the provision of control service and the processing of information | | | | |
| ACS ATM  10.1.1 | Describe the division of responsibility among air traffic control units. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | ALL |
| ACS ATM  10.1.2 | Describe the responsibility in regard to military traffic. | 2 | ICAO Doc 4444  *Optional content: ICAO Doc 9554* | ALL |
| ACS ATM  10.1.3 | Describe the responsibility in regard to unmanned free balloons. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| ACS ATM  10.1.4 | Interpret operational information. | 5 |  | APP ACP APS ACS |
| ACS ATM  10.1.5 | Organise forwarding of operational information. | 4 | *Optional content: including the use of backup procedures* | APP ACP APS ACS |
| ACS ATM  10.1.6 | Integrate operational information into control decisions. | 4 |  | APP ACP APS ACS |
| ACS ATM  10.1.7 | Appreciate the influence of operational requirements. | 3 | *Optional content: military flying, calibration flights, aerial photography* | ALL |
| Subtopic ATM 10.2 — ATS surveillance service | | | | |
| ACS ATM  10.2.1 | Explain the responsibility for the provision of ATS surveillance service appropriate to ACS rating. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: local/simulator operation manuals* | ACS |
| ACS ATM  10.2.2 | Explain the functions that may be performed with the use of ATS surveillance system derived information presented on a situation display. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS  ACS |
| ACS ATM  10.2.3 | Provide planning, coordination and control actions appropriate to VFR and IFR traffic in VMC and IMC. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022,  ICAO Annex 11, ICAO Doc 4444 | ACS  ACP |
| ACS ATM  10.2.4 | Apply the procedures for the termination of ATS surveillance service. | 3 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: ICAO Doc 4444, transfer of control, termination or interruption of ATS surveillance service* | APS ACS |
| Subtopic ATM 10.3 — Traffic management process | | | | |
| ACS ATM  10.3.1 | Ensure that situational awareness is maintained. | 4 | Information gathering, scanning, traffic projection | APS ACS |
| ACS ATM  10.3.2 | Detect conflicts in time for appropriate resolution. | 4 |  | ALL |
| ACS ATM  10.3.3 | Identify potential solutions to achieve a safe and effective traffic flow. | 3 |  | APP ACP APS ACS |
| ACS ATM  10.3.4 | Evaluate possible outcomes of different planning and control actions. | 5 |  | ALL |
| ACS ATM  10.3.5 | Select an appropriate plan in time to achieve safe and effective traffic flow. | 5 |  | APP ACP APS ACS |
| ACS ATM  10.3.6 | Ensure an adequate priority of actions. | 4 |  | ALL |
| ACS ATM  10.3.7 | Execute the selected plan in a timely manner. | 3 |  | ALL |
| ACS ATM  10.3.8 | Ensure that a safe and efficient outcome is achieved. | 4 | Traffic monitoring, adaptability and follow-up | ALL |
| Subtopic ATM 10.4 — Handling traffic | | | | |
| ACS ATM  10.4.1 | Manage arrivals, departures and overflights. | 4 | *Optional content: simulator operation procedures* | APP ACP APS ACS |
| ACS ATM  10.4.2 | Balance the workload against personal capacity. | 5 | *Optional content: rerouting, replanning, prioritising solutions, denying requests, delegating responsibility for separation* | APP ACP APS ACS |
| ACS ATM  10.4.3 | Define flight path monitoring and vectoring. | 1 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| ACS ATM  10.4.4 | Explain the requirements for vectoring and termination of vectoring. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| ACS ATM  10.4.5 | Provide vectoring. | 4 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: separation, expediting arrivals, departures and/or climb to cruising levels, aircraft leaving the hold, navigation assistance, uncontrolled airspace, etc.* | APS ACS |
| ACS ATM  10.4.6 | Apply the procedures for the termination of vectoring. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| Subtopic ATM 10.5 — Control service with advanced system support | | | | |
| ACS ATM  10.5.1 | Appreciate the impact of advanced systems on the provision of area control service. | 3 | *Optional content: sequencing systems, automated holding lists, vertical traffic displays, conflict detection and decision-making tools, automated information and coordination tools* | ACS |
| TOPIC ATM 11 — HOLDING | | | | |
| Subtopic ATM 11.1 — Holding procedures | | | | |
| ACS ATM  11.1.1 | Apply holding procedures. | 3 | ICAO Doc 4444,  Government of the Republic of Armenia Decision N 821-N of June 2, 2022, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023, holding instructions, allocation of holding levels, onward clearance times | APP ACP APS ACS |
| ACS ATM  11.1.2 | Appreciate the factors affecting holding patterns. | 3 | Effect of speed, effect of level used, effect of navigation aid in use, turbulence, aircraft type | APP ACP APS ACS |
| Subtopic ATM 11.2 — Holding aircraft | | | | |
| ACS ATM  11.2.1 | Issue expected onward clearance times. | 3 |  | ACP ACS |
| Subtopic ATM 11.3 — Holding in a surveillance environment | | | | |
| ACS ATM  11.3.1 | Organise traffic to separate other aircraft from holding aircraft. | 4 |  | APS ACS |
| ACS ATM  11.3.2 | Integrate system support, when available. | 4 | *Optional content: arrival management system, automated holding lists, vertical traffic displays* | APS ACS |
| TOPIC ATM 12 — IDENTIFICATION | | | | |
| Subtopic ATM 12.1 — Establishment of identification | | | | |
| ACS ATM  12.1.1 | Appreciate the precautions when establishing identification. | 3 |  | APS ACS |
| ACS ATM  12.1.2 | Identify aircraft. | 3 | *Optional content: PSR, SSR or ADS identification method* | APS ACS |
| ACS ATM  12.1.3 | Apply the procedures for misidentification. | 3 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: local/simulator operation manuals* | APS ACS |
| Subtopic ATM 12.2 — Maintenance of identification | | | | |
| ACS ATM  12.2.1 | Appreciate the necessity to maintain identification. | 3 |  | APS ACS |
| Subtopic ATM 12.3 — Loss of identity | | | | |
| ACS ATM  12.3.1 | Appreciate when an aircraft identification is lost or in doubt. | 3 | *Optional content: out of ATS surveillance system coverage, failure of ATS surveillance system, weather clutter, other clutter, garbling, holding, etc.* | APS ACS |
| ACS ATM  12.3.2 | Apply methods to re-establish identification. | 3 |  | APS ACS |
| ACS ATM  12.3.3 | Respond to loss/doubt concerning identification. | 3 | *Optional content: procedural separation* | APS ACS |
| Subtopic ATM 12.4 — Position information | | | | |
| ACS ATM  12.4.1 | Appreciate the circumstances when position information should be passed on to aircraft. | 3 |  | APS ACS |
| ACS ATM  12.4.2 | State the format in which position information can be passed on to aircraft. | 1 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 | APS ACS |
| Subtopic ATM 12.5 — Transfer of identity | | | | |
| ACS ATM  12.5.1 | Apply the methods of transfer of identification. | 3 |  | APS ACS |
| ACS ATM  12.5.2 | Appreciate the precautions when transferring identification. | 3 |  | APS ACS |

##### SUBJECT 4: METEOROLOGY

The subject objective is:

Learners shall acquire, decode and make proper use of meteorological information relevant to the provision of ATS.

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| **TOPIC MET 1 — METEOROLOGICAL PHENOMENA** | | | | |
| Subtopic MET 1.1 — Meteorological phenomena | | | | |
| ACS MET  1.1.1 | Appreciate the impact of adverse weather on aircraft. | 3 | Thunderstorms, icing, jet streams, clear-air turbulence (CAT), turbulence, microburst, severe mountain waves, squall lines, volcanic ash  Optional content: solar radiation | ACP ACS |
| ACS MET  1.1.2 | Integrate data about meteorological phenomena into the provision of ATS. | 4 | Clearances, instructions and transmitted information  Optional content: relevant meteorological phenomena | ALL |
| ACS MET  1.1.3 | Use techniques to avoid adverse weather when necessary/possible. | 3 | Rerouting, level change, etc. | APP ACP APS ACS |
| TOPIC MET 2 — SOURCES OF METEOROLOGICAL DATA | | | | |
| Subtopic MET 2.1 — Sources of meteorological information | | | | |
| ACS MET  2.1.1 | Obtain meteorological information. | 3 | METAR, TAF, SIGMET, AIRMET  *Optional content: AIREP/special AIREP* | APP ACP APS ACS |
| ACS MET  2.1.2 | Decode information from meteorological data displays. | 3 |  | ALL |
| ACS MET  2.1.3 | Relay meteorological information. | 3 | ICAO Doc 4444, Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: flight information centre, adjacent ATS unit* | ALL |

##### SUBJECT 5: NAVIGATION

The subject objective is:

Learners shall analyse all navigational aspects in order to organise the traffic.

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| TOPIC NAV 1 — MAPS AND AERONAUTICAL CHARTS | | | | |
| Subtopic NAV 1.1 — Maps and charts | | | | |
| ACS NAV  1.1.1 | Use relevant maps and charts. | 3 |  | ALL |
| ACS NAV  1.1.2 | Decode symbols and information displayed on aeronautical maps and charts. | 3 | En-route and area charts  *Optional content: STAR charts* | ACP  ACS |
| TOPIC NAV 2 — INSTRUMENT NAVIGATION | | | | |
| Subtopic NAV 2.1 — Navigational systems | | | | |
| ACS NAV  2.1.1 | Manage traffic in case of change in the operational status of navigational systems. | 4 | *Optional content: limitations, availability and status of ground-based and satellite-based systems* | APP ACP APS ACS |
| ACS NAV  2.1.2 | Appreciate the effect of a change in the operational status of navigational systems. | 3 | *Optional content: precision, limitations, status, degraded procedures* | ALL |
| Subtopic NAV 2.2 — Navigational assistance | | | | |
| ACS NAV  2.2.1 | Evaluate the necessary information to be provided to pilots in need of navigational assistance. | 5 | *Optional content: nearest most suitable aerodrome, track, heading, distance, aerodrome information, any other navigational assistance relevant at the time* | APP  ACP  APS  ACS |
| ACS NAV  2.2.2 | Assist pilots with navigation when required. | 3 | Aircraft observed to be deviating from their known intended route, on pilots’ request | APS  ACS |
| Subtopic NAV 2.3 — PBN applications | | | | |
| ACS NAV  2.3.1 | State the navigation applications used in terminal and en-route environments. | 1 | Terminal-RNAV-1, En-route-RNAV-5  *Optional content: A-RNP, Commission Implementing Government of the Republic of Armenia Decision N 2054-L of December 7, 2023 (the PBN Regulation), ICAO Doc 9613* | ACP ACS |
| ACS NAV  2.3.2 | Explain the principles and designation of navigation specifications in use. | 2 | Performance, functionalities, sensors  *Optional content: aircrew and controller requirements, accuracy requirements, integrity and continuity* | APP  ACP  APS  ACS |
| ACS NAV  2.3.3 | Describe the differences in turn performance. | 2 | *Optional content: fly-by, fly-over, FRT, ICAO Doc 4444* | ACP ACS |
| ACS NAV  2.3.4 | State future PBN developments. | 1 | A-RNP, RNP (AR) DEP  *Optional content: RNP 3D, VNAV, 4D, TBO* | ALL |

##### SUBJECT 6: AIRCRAFT

The subject objective is:

Learners shall assess and integrate aircraft performance in the provision of ATS.

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| TOPIC ACFT 1 — AIRCRAFT INSTRUMENTS | | | | |
| Subtopic ACFT 1.1 — Aircraft instruments | | | | |
| ACS ACFT  1.1.1 | Integrate information from aircraft instruments provided by the pilot into the provision of ATS. | 4 |  | ALL |
| ACS ACFT  1.1.2 | Explain the operation of aircraft radio equipment. | 2 | *Optional content: radios (number of), emergency radios* | ALL |
| ACS ACFT  1.1.3 | Explain the operation of on-board surveillance equipment. | 2 | Transponders: equipment Mode A, Mode C, Mode S, ADS capability | ADC APS ACS |
| TOPIC ACFT 2 — AIRCRAFT CATEGORIES | | | | |
| Subtopic ACFT 2.1 — Wake turbulence | | | | |
| ACS ACFT  2.1.1 | Explain the wake turbulence effect and associated hazards to succeeding aircraft. | 2 |  | ALL |
| ACS ACFT  2.1.2 | Appreciate the techniques used to prevent hazards associated with wake turbulence to succeeding aircraft. | 3 |  | ALL |
| TOPIC ACFT 3 — FACTORS AFFECTING AIRCRAFT PERFORMANCE | | | | |
| Subtopic ACFT 3.1 — Climb factors | | | | |
| ACS ACFT  3.1.1 | Integrate the influence of factors affecting aircraft during climb. | 4 | *Optional content: speed, mass, air density, cabin pressurisation, wind and temperature* | APP ACP APS ACS |
| Subtopic ACFT 3.2 — Cruise factors | | | | |
| ACS ACFT  3.2.1 | Integrate the influence of factors affecting aircraft during cruise. | 4 | Level, cruising speed, wind, mass, cabin pressurisation | ACP ACS |
| Subtopic ACFT 3.3 — Descent factors | | | | |
| ACS ACFT  3.3.1 | Integrate the influence of factors affecting aircraft during descent. | 4 | *Optional content: wind, speed, rate of descent, cabin pressurisation* | ACP ACS |
| Subtopic ACFT 3.4 — Economic factors | | | | |
| ACS ACFT  3.4.1 | Integrate consideration of economic factors affecting aircraft. | 4 | *Optional content: routing, level, speed, rate of climb and rate of descent, approach profile, top of descent* | ACP ACS |
| ACS ACFT  3.4.2 | Provide continuous climb/descent whenever possible. | 4 |  | APS  ACS |
| ACS ACFT  3.4.3 | Use direct routing where applicable. | 3 |  | APP  ACP  APS  ACS |
| ACS ACFT  3.4.4 | Appreciate controller’s actions that may contribute to pilot’s ability to fly an optimum continuous descent. | 3 | *Optional content: level instructions, speed control, vertical speed control, vectoring, distance-to-touchdown information* | ACS  APS |
| Subtopic ACFT 3.5 — Environmental factors | | | | |
| ACS ACFT  3.5.1 | Appreciate the performance restrictions due to environmental considerations. | 3 | *Optional content: fuel-dumping, minimum flight levels, continuous descent operations* | ACP ACS |
| TOPIC ACFT 4 — AIRCRAFT DATA | | | | |
| Subtopic ACFT 4.1 — Performance data | | | | |
| ACS ACFT  4.1.1 | Integrate the average performance data of a representative sample of aircraft which will be encountered in the operational/ working environment into the provision of control service. | 4 | Performance data under a representative variety of circumstances | APP ACP APS ACS |

##### SUBJECT 7: HUMAN FACTORS

The subject objective is:

Learners shall recognise the necessity to constantly extend their knowledge and analyse factors which affect personal and team performance.

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| TOPIC HUM 1 — INFORMATION PROCESSING | | | | |
| Subtopic HUM 1.1 — Cognition and factors influencing it | | | | |
| ACS HUM  1.1.1 | Describe the human information-processing model. | 2 | Attention, perception, memory, situational awareness, decision-making, response | ALL |
| ACS HUM  1.1.2 | Describe the factors which influence human information-processing. | 2 | Confidence, stress, learning, knowledge, experience, fatigue, alcohol/drugs, distraction, interpersonal relations | ALL |
| Subtopic HUM 1.2 — Situational awareness | | | | |
| ACS  HUM  1.2.1 | Appreciate the effect of human information-processing factors on situational awareness. | 3 | *Optional content: workload, knowledge, interpersonal relations, distraction, confidence, experience, fatigue, stress* | ALL |
| Subtopic HUM 1.3 — Decision-making | | | | |
| ACS HUM  1.3.1 | Appreciate the effect of human information-processing factors on decision-making. | 3 | *Optional content: workload, stress, interpersonal relations, distraction, confidence* | ALL |
| TOPIC HUM 2 — FACTORS AFFECTING HEALTH AND WELL-BEING | | | | |
| Subtopic HUM 2.1 — Fatigue | | | | |
| ACS HUM  2.1.1 | Describe the onset of fatigue. | 2 | Government of the Republic of Armenia Decision N 2054-L of December 7, 2023  *Optional content: lack of concentration, listlessness, irritability, frustration, Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| ACS HUM  2.1.2 | Recognise the onset of fatigue in self and in others. | 1 | *Optional content: Skybrary Human Behaviour: EUROCONTROL Fatigue and sleep management* | ALL |
| ACS HUM  2.1.3 | Describe the appropriate action when recognising fatigue. | 2 | *Optional content: Skybrary Human Behaviour, EUROCONTROL Fatigue*  *and sleep management* | ALL |
| Subtopic HUM 2.2 — Stress | | | | |
| ACS HUM  2.2.1 | Recognise the effects of stress on human performance. | 1 | Stress and its symptoms in self and in others  *Optional content:*  *Government of the Republic of Armenia Decision N 2054-L of December 7, 2023* | ALL |
| ACS HUM  2.2.2 | Describe the appropriate action when recognising stress. | 2 |  | ALL |
| ACS HUM  2.2.3 | Act to reduce stress. | 3 |  | ALL |
| ACS HUM  2.2.4 | Respond to stressful situations by offering, asking for or accepting assistance. | 3 |  | ALL |
| ACS HUM  2.2.5 | Recognise the effect of stressful events. | 1 | Self and others, abnormal situations | ALL |
| TOPIC HUM 3 — THREAT AND ERROR MANAGEMENT | | | | |
| Subtopic HUM 3.1 — Threat and error management framework | | | | |
| ACS HUM  3.1.1 | Explain the importance of threat and error management. | 2 | *Optional content: prevention of incidents, safety improvement, revision of procedures and/or working practices* | ALL |
| ACS HUM  3.1.2 | Explain the threat and error management framework. | 2 | Threats, errors, undesired states, countermeasures  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ACS HUM  3.1.3 | Differentiate between the different types of threats in ATC. | 2 | Internal, external, airborne, environmental  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ACS  HUM  3.1.4 | Differentiate between the different types of errors in ATC. | 2 | Equipment, procedural, communication  *Optional content: increase in traffic, changes in procedures, complexities of systems or traffic, weather, unusual occurrences* | ALL |
| ACS HUM  3.1.5 | Differentiate between the different types of undesired states. | 2 | On the ground, airborne  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ACS HUM  3.1.6 | Analyse examples of threat and error management in ATC. | 4 | Case studies  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| Subtopic HUM 3.2 — Application of threat and error management | | | | |
| ACS HUM  3.2.1 | Manage threats. | 3 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ACS HUM  3.2.2 | Manage errors. | 2 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| ACS HUM  3.2.3 | Manage undesired states. | 2 | Detect and respond  *Optional content: ICAO Circular 314 — AN/178 Threat and Error Management (TEM) in Air Traffic Control* | ALL |
| TOPIC HUM 4 — TEAMWORK | | | | |
| Subtopic HUM 4.1 — Benefits of teamwork | | | | |
| ACS HUM  4.1.1 | State the benefits of teamwork. | 1 | Increased safety, efficiency and capacity | ALL |
| ACS HUM  4.1.2 | List the controller’s human performance elements affected by teamwork. | 1 | Situational awareness, communication, decision-making, threat and error management, workload management | ALL |
| Subtopic HUM 4.2 — Conflict management | | | | |
| ACS HUM  4.2.1 | Identify the reasons for conflict. | 3 |  | ALL |
| ACS HUM  4.2.2 | Describe strategies to cope with human conflicts. | 2 | *Optional content: in your team, in the simulator* | ALL |
| ACS HUM  4.2.3 | Describe actions to prevent human conflicts. | 2 |  | ALL |
| TOPIC HUM 5 — SYSTEMS | | | | |
| Subtopic HUM 5.1 — Concept of systems in ATM/ANS | | | | |
| ACS HUM  5.1.1 | Explain the concept of systems. | 2 | People; procedures; equipment; ATM in system terms: simple, complicated, and complex systems; system thinking | ALL |
| ACS HUM  5.1.2 | Describe how changes in one part of a system may impact the other parts. | 2 |  | ALL |
| ACS HUM  5.1.3 | Describe the role of the human in the system. | 2 |  | ALL |

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| TOPIC HUM 6 — COMMUNICATION | | | | |
| Subtopic HUM 6.1 — Communication | | | | |
| ACS HUM  6.1.1 | Explain effective communication in ATC operations. | 2 | ICAO Doc 9868 | ALL |
| ACS HUM  6.1.2 | Explain key strategies used to enable open communication. | 2 | *Optional content: active listening, active speaking, assertiveness, honesty, relevance, facts, neutrality* | ALL |
| ACS HUM  6.1.3 | Describe the parameters affecting the controller’s competence to communicate effectively. | 2 | Workload, mutual knowledge, controller versus pilot mental picture, distractions, sound, human conflicts  *Optional content: communication between and within the team(s), in the simulator, with the pilots, instructors, coordination partners* | ALL |
| Subtopic HUM 6.2 — Effective feedback | | | | |
| ACS HUM  6.2.1 | Define feedback. | 1 |  | ALL |
| ACS HUM  6.2.2 | Explain the purpose of receiving and giving feedback and its effect on performance. | 2 |  | ALL |
| ACS HUM  6.2.3 | Consider the impact of communication styles on feedback and on conflict resolution. | 2 |  | ALL |
| ACS HUM  6.2.4 | Integrate feedback into performance. | 4 |  | ALL |

##### SUBJECT 8: EQUIPMENT AND SYSTEMS

The subject objective is:

Learners shall integrate knowledge and understanding of the basic working principles of equipment and systems, and comply with the equipment and system degradation procedures in the provision of ATS.

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| **TOPIC EQPS 1 — VOICE COMMUNICATIONS** | | | | |
| Subtopic EQPS 1.1 — Radio communications | | | | |
| ACS EQPS  1.1.1 | Operate two-way communication equipment. | 3 | Transmit/receive switches, procedures  Optional content: frequency selection, standby equipment | ALL |
| ACS EQPS  1.1.2 | Identify indications of operational status of radio equipment. | 3 | Optional content: indicator lights, serviceability displays, selector/frequency displays | ALL |
| ACS EQPS  1.1.3 | Consider radio range. | 2 | Optional content: transfer to another frequency, apparent radio failure, failure to establish radio contact, frequency protection range | APP ACP APS ACS |
| Subtopic EQPS 1.2 — Other voice communications | | | | |
| ACS EQPS  1.2.1 | Operate landline communications. | 3 | Optional content: telephone, interphone and intercom equipment | ALL |
| TOPIC EQPS 2 — AUTOMATION IN ATS | | | | |
| Subtopic EQPS 2.1 — Aeronautical fixed telecommunication network (AFTN) | | | | |
| ACS EQPS  2.1.1 | Decode AFTN messages. | 3 | *Optional content: movement and control messages, NOTAMs, SNOWTAMs, BIRDTAMs, etc.* | ALL |
| Subtopic EQPS 2.2 — Automatic data interchange | | | | |
| ACS EQPS  2.2.1 | Use automatic data transfer equipment where available. | 3 | *Optional content: sequencing systems, automated information and coordination, OLDI* | ADC APS ACS |
| TOPIC EQPS 3 — CONTROLLER WORKING POSITION | | | | |
| Subtopic EQPS 3.1 — Operation and monitoring of equipment | | | | |
| ACS EQPS  3.1.1 | Monitor the technical integrity of the controller working position. | 3 | Notification procedures, responsibilities | ALL |
| ACS EQPS  3.1.2 | Operate the equipment of the controller working position. | 3 | *Optional content: situation displays, flight progress board, flight data display, radio, telephone, maps and charts, strip-printer, clock, information systems, UDF/VDF* | ALL |
| ACS EQPS  3.1.3 | Operate the available equipment in abnormal and emergency situations. | 3 |  | ALL |
| Subtopic EQPS 3.2 — Situation displays and information systems | | | | |
| ACS EQPS  3.2.1 | Use situation displays. | 3 |  | ALL |
| ACS EQPS  3.2.2 | Check the availability of information. | 3 |  | ALL |
| ACS EQPS  3.2.3 | Obtain information from equipment. | 3 |  | APP ACP APS ACS |
| Subtopic EQPS 3.3 — Flight data systems | | | | |
| ACS EQPS  3.3.1 | Use the flight data information at the controller working position. | 3 |  | ALL |
| Subtopic EQPS 3.4 — Use of the ATS surveillance system | | | | |
| ACS EQPS  3.4.1 | Use the ATS surveillance system functions. | 3 |  | APS ACS |
| ACS EQPS  3.4.2 | Analyse the information provided by the ATS surveillance system. | 4 |  | APS ACS |
| ACS EQPS  3.4.3 | Assign codes. | 4 |  | APS ACS |
| ACS EQPS  3.4.4 | Appreciate the use of advanced surveillance technology. | 3 | *Optional content: Mode S, ADS-B, MLAT* | APS ACS |
| Subtopic EQPS 3.5 — Advanced systems | | | | |
| ACS EQPS  3.5.1 | Appreciate the use of controller–pilot data link communications when available. | 3 |  | APS ACS |
| ACS EQPS  3.5.2 | Characterise the use of information provided by advanced systems. | 2 | MTCD, AMAN, DMAN  *Optional content: trajectory-based information, MONA, etc.* | APS ACS |
| TOPIC EQPS 4 — FUTURE EQUIPMENT | | | | |
| Subtopic EQPS 4.1 — New developments | | | | |
| ACS EQPS  4.1.1 | Recognise future developments. | 1 | New advanced systems  *Optional content: European ATM Master Plan, European Plan for Aviation Safety* | ALL |
| TOPIC EQPS 5 — EQUIPMENT AND SYSTEMS’ LIMITATIONS AND DEGRADATION | | | | |
| Subtopic EQPS 5.1 — Reaction to limitations | | | | |
| ACS EQPS  5.1.1 | Take account of the limitations of equipment and systems. | 2 |  | ALL |
| ACS EQPS  5.1.2 | Respond to technical deficiencies of the operational position. | 3 | Notification procedures, responsibilities | ALL |
| Subtopic EQPS 5.2 — Communication equipment degradation | | | | |
| ACS EQPS  5.2.1 | Identify that communication equipment has degraded. | 3 | *Optional content: ground–air and landline communications* | APP ACP APS ACS |
| ACS EQPS  5.2.2 | Apply contingency procedures in the event of communication equipment degradation. | 3 | *Optional content: procedures for total or partial degradation of ground–air and landline communications, alternative methods of transferring data* | ALL |
| Subtopic EQPS 5.3 — Navigational equipment degradation | | | | |
| ACS EQPS  5.3.1 | Identify when a navigational equipment failure will affect operational ability. | 3 | *Optional content: navigational aids, ‘European GNSS Contingency/Reversion Handbook for PBN Operations’* | ALL |
| ACS EQPS  5.3.2 | Apply contingency procedures in the event of navigational equipment degradation. | 3 | *Optional content: vertical separation, information to aircraft, navigational assistance, seeking assistance from adjacent units* | ALL |
| Subtopic EQPS 5.4 — Surveillance equipment degradation | | | | |
| ACS EQPS  5.4.1 | Identify that surveillance equipment has degraded. | 3 | Partial power failure, loss of certain facilities, total failure | APS ACS |
| ACS EQPS  5.4.2 | Apply contingency procedures in the event of surveillance equipment degradation. | 3 | *Optional content: inform adjacent sectors, inform aircraft, apply vertical separation (emergency), increased horizontal separation, reduce the number of aircraft entering area of responsibility, transfer aircraft to another unit* | APS ACS |
| Subtopic EQPS 5.5 — ATC processing system degradation | | | | |
| ACS EQPS  5.5.1 | Identify processing system degradation. | 3 | *Optional content: FDPS, SDPS, software processing of situation display* | APS ACS |
| ACS EQPS  5.5.2 | Apply contingency procedures in the event of processing system degradation. | 3 |  | APS ACS |

##### SUBJECT 9: PROFESSIONAL ENVIRONMENT

The subject objective is:

Learners shall identify the need for close cooperation with other parties concerning ATM operations and appreciate aspects of environmental protection.

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| **TOPIC PEN 1 — FAMILIARISATION** | | | | |
| Subtopic PEN 1.1 — Study visit to an area control centre | | | | |
| ACS PEN  1.1.1 | Appreciate the functions and provision of operational area control service. | 3 | Study visit to an area control centre | ACP ACS |
| TOPIC PEN 2 — AIRSPACE USERS | | | | |
| Subtopic PEN 2.1 — Contributors to civil ATS operations | | | | |
| ACS PEN  2.1.1 | Characterise civil ATS activities in area control centre. | 2 | Study visit to an area control centre  *Optional content: familiarisation visits to TWR, APP, AIS, RCC* | ACP ACS |
| ACS PEN  2.1.2 | Characterise other parties interfacing with ATS operations. | 2 | *Optional content: familiarisation visits to engineering services, firefighting and emergency services, airline operations offices* | ALL |
| Subtopic PEN 2.2 — Contributors to military ATS operations | | | | |
| ACS PEN  2.2.1 | Characterise military ATS activities. | 2 | *Optional content: familiarisation visits to TWR, APP, ACC, AIS, RCC, air defence units* | ALL |
| TOPIC PEN 3 — CUSTOMER RELATIONS | | | | |
| Subtopic PEN 3.1 — Provision of services and user requirements | | | | |
| ACS PEN  3.1.1 | Appreciate the role of an air navigation service provider. | 3 | Law of the Republic of Armenia on Aviation | ALL |
| ACS PEN  3.1.2 | Appreciate ATS users’ requirements. | 3 |  | ALL |
| TOPIC PEN 4 — ENVIRONMENTAL PROTECTION | | | | |
| Subtopic PEN 4.1 — Environmental protection | | | | |
| ACS PEN  4.1.1 | Appreciate the mitigation techniques used en-route to minimise aviation’s impact on the environment. | 3 | *Optional content: free route airspace (FRA), night/weekend routes, continuous descent operations (CDO), continuous climb operations (CCO), ICAO Doc 10013 — Operational Opportunities to reduce fuel burn and emissions* | ACS |

##### SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS

The subject objective is:

Learners shall develop a professional attitude to manage traffic in abnormal and emergency situations.

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| TOPIC ABES 1 — ABNORMAL AND EMERGENCY SITUATIONS (ABES) | | | | |
| Subtopic ABES 1.1 — Overview of ABES | | | | |
| ACS ABES  1.1.1 | List common abnormal and emergency situations. | 1 | *Optional content: EATM Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ambulance flights, ground-based safety nets alerts, airframe failure, unreliable instruments, runway incursion, GNSS failure* | ALL |
| ACS ABES  1.1.2 | Identify potential or actual abnormal and emergency situations. | 3 |  | ALL |
| ACS ABES  1.1.3 | Take into account the procedures for given abnormal and emergency situations. | 2 | *Optional content: ICAO Doc 4444* | APP ACP APS ACS |
| ACS ABES  1.1.4 | Take into account that procedures do not exist for all abnormal and emergency situations. | 2 | *Optional content: real-life examples* | ALL |
| ACS ABES  1.1.5 | Consider how the evolution of a situation may have an impact on safety. | 2 | *Optional content: separation, information, coordination* | ALL |
| TOPIC ABES 2 — SKILLS IMPROVEMENT | | | | |
| Subtopic ABES 2.1 — Communication effectiveness | | | | |
| ACS ABES  2.1.1 | Ensure effective communication in all circumstances including the case where standard phraseology is not applicable. | 4 | Phraseology, vocabulary, readback, radio silence instruction | ALL |
| ACS  ABES  2.1.2 | Apply change of radiotelephony call sign. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444* | ALL |
| Subtopic ABES 2.2 — Avoidance of mental overload | | | | |
| ACS ABES  2.2.1 | Describe actions to keep the situation under control. | 2 | *Optional content: sector-splitting, holding, flow management, task delegation* | ALL |
| ACS ABES  2.2.2 | Organise priority of actions. | 4 |  | ALL |
| ACS ABES  2.2.3 | Ensure the effective dissemination of information. | 4 | *Optional content: between executive and planner/coordinator, with the supervisor, between sectors, between ACC, APP and TWR, with ground staff, etc.* | ALL |
| ACS ABES  2.2.4 | Consider asking for help. | 2 |  | ALL |
| Subtopic ABES 2.3 — Air–ground cooperation | | | | |
| ACS ABES  2.3.1 | Collect appropriate information relevant to the situation. | 3 |  | ALL |
| ACS ABES  2.3.2 | Assist the pilot. | 3 | Pilot workload  *Optional content: instructions, information, support, human factors, etc.* | ALL |
| TOPIC ABES 3 — PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS (ABES) | | | | |
| Subtopic ABES 3.1 — Application of procedures for ABES | | | | |
| ACS ABES  3.1.1 | Apply the procedures for given abnormal and emergency situations. | 3 | *Optional content: EATM Guidelines for Controller Training in the Handling of Unusual/Emergency Situations, ambulance flights, ground-based safety nets alerts, airframe failure* | ALL |
| Subtopic ABES 3.2 — Radio failure | | | | |
| ACS ABES  3.2.1 | Describe the procedures to be followed by a pilot when experiencing complete or partial radio failure. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: ICAO Doc 4444, military procedures, simulator operation procedures* | ALL |
| ACS ABES  3.2.2 | Apply the procedures to be followed when a pilot experiences complete or partial radio failure. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: prolonged loss of communication* | ALL |
| Subtopic ABES 3.3 — Unlawful interference and aircraft bomb threat | | | | |
| ACS ABES  3.3.1 | Apply ATC procedures associated with unlawful interference and aircraft bomb threat. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: simulator operation procedures* | ALL |
| Subtopic ABES 3.4 — Strayed or unidentified aircraft | | | | |
| ACS ABES  3.4.1 | Apply the procedures for strayed aircraft. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: inside controlled airspace, outside controlled airspace* | ALL |
| ACS ABES  3.4.2 | Apply the procedures for unidentified aircraft. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |
| Subtopic ABES 3.5 — Diversion | | | | |
| ACS ABES  3.5.1 | Provide navigational assistance to aircraft diverting in emergency. | 4 | Track/heading, distance, other navigational assistance  *Optional content: nearest most suitable aerodrome* | APP ACP APS ACS |
| Subtopic ABES 3.6 — Transponder failure | | | | |
| ACS ABES  3.6.1 | Apply procedures in the event of an SSR transponder failure. | 3 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022  *Optional content: total/partial failure, impact on ADS-B/Mode S capability* | APS ACS |
| Subtopic ABES 3.7 — Interception of civil aircraft | | | | |
| ACS  ABES  3.7.1 | Explain the procedures in the event of interception of civil aircraft. | 2 | Government of the Republic of Armenia Decision N 821-N of June 2, 2022 | ALL |

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