

**APPENDICES 1 to 12**  
**to draft Commission Regulation (EU) No .../...**  
**on the licensing and medical certification of air traffic controllers**  
  
**(Part ATCO, Part ATCO.AR & Part ATCO.OR)**

**APPENDIX 1**  
**FORMAT FOR LICENCE**  
**AIR TRAFFIC CONTROLLER LICENCE**

The 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 desired 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 only STDI privileges are exercised.
- (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 competent authority.
- (D) Language. Licences shall be written in English and, if desired by Member States, in national language(s) and other languages as deemed appropriate.

Cover page

<p>Competent authority's name and logo (English and any language(s) determined by the competent authority)</p> <p>EUROPEAN UNION (English only)</p> <p>(STUDENT) AIR TRAFFIC CONTROLLER LICENCE</p> <p>[English and any language(s) determined by the competent authority]</p> <p>Issued in accordance with Commission Regulation (EU) No .../...</p> <p>This licence complies with the ICAO Standards [English and any language(s) determined by the competent authority]</p> <p>EASA Form 152 — Issue 1</p>	<p>Requirements*</p> <p>'European Union' to be deleted for non-EU Member States.</p> <p>The size of each page shall be one-eighth A4.</p>
---	---

---

\* Requirements:

The pages referring to the instructions on how the (Student) ATCO Licence has to be filled in are intended for use by the competent authority or the assessor specifically authorised to revalidate or renew the unit endorsements. Initial issues of ratings, rating endorsements, language endorsements, instructor and assessor endorsement will always be entered by the competent authority. Revalidation or renewal of unit endorsements will be entered by the competent authority or by the authorised assessors.

Page 2

<b>I</b>	<b>State of issue:</b>	Requirements:
<b>III</b>	<b>Serial number of the licence:</b>	The serial number of the licence will always commence with the UN country code of the State of the licence issue followed by '(Student) ATCO Licence'.
<b>IV</b>	<b>Name of the holder in full:</b>	
<b>IVa</b>	<b>Date of birth:</b>	Standard date format is to be used, i.e. day/month/year in full (e.g., 31.01.2010)
<b>XIV</b>	<b>Place of birth:</b>	
<b>V</b>	<b>Holder's address, if desired by the competent authority:</b> Street, town, area, postal code	
<b>VI</b>	<b>Nationality of holder:</b>	Indicated by the UN country code of the State
<b>VII</b>	<b>Signature of holder:</b>	
<b>X</b>	<b>Signature of officer issuing the licence and date of issue</b>	
<b>XI</b>	<b>Seal or stamp of issuing competent authority</b>	

<b>IX</b>	<p><b>Validity of privileges*:</b>  <i>The holder is entitled to exercise the privileges of the following rating(s) and endorsement(s):</i></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 50%; text-align: center;"><i>Ratings</i></th> <th style="width: 50%; text-align: center;"><i>Date of first issue</i></th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 50%; text-align: center;"><i>Rating endorsement(s)</i></th> <th style="width: 50%; text-align: center;"><i>Date of first issue</i></th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;"><i>OJTI /STDI /Assessor endorsement</i></th> <th style="width: 50%; text-align: center;"><i>Expiry date</i></th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <p>* The privileges of the licence shall be exercised only if the holder has a valid medical certificate, except for STDI and assessor endorsements.</p>	<i>Ratings</i>	<i>Date of first issue</i>															<i>Rating endorsement(s)</i>	<i>Date of first issue</i>																					<i>OJTI /STDI /Assessor endorsement</i>	<i>Expiry date</i>							<p>Requirements:</p> <p>English and any language(s) determined by the competent authority.</p> <p>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.</p>
<i>Ratings</i>	<i>Date of first issue</i>																																															
<i>Rating endorsement(s)</i>	<i>Date of first issue</i>																																															
<i>OJTI /STDI /Assessor endorsement</i>	<i>Expiry date</i>																																															



Page 6

**Abbreviations**

<b>Air traffic controller ratings</b>		Requirements: N/A
<b>ADV</b>	Aerodrome Control Visual	
<b>ADI</b>	Aerodrome Control Instrument	
<b>APP</b>	Approach Control Procedural	
<b>APS</b>	Approach Control Surveillance	
<b>ACP</b>	Area Control Procedural	
<b>ACS</b>	Area Control Surveillance	
<b>Rating endorsements</b>		
<b>AIR</b>	Air Control	
<b>GMC</b>	Ground Movement Control	
<b>TWR</b>	Tower Control	
<b>GMS</b>	Ground Movement Surveillance	
<b>RAD</b>	Aerodrome Radar Control	
<b>PAR</b>	Precision Approach Radar	
<b>SRA</b>	Surveillance Radar Approach	
<b>TCL</b>	Terminal Control	
<b>OCN</b>	Oceanic Control	
<b>Licence endorsements</b>		
<b>OJTI</b>	On-the-job training instructor	
<b>STDI</b>	Synthetic training device instructor	
<b>Assessor</b>	Assessor	

## APPENDIX 2

### LANGUAGE PROFICIENCY RATING SCALE REQUIREMENTS FOR PROFICIENCY IN LANGUAGES

Language proficiency rating scale: expert, extended and operational levels

Level	Pronunciation	Structure	Vocabulary	Fluency	Comprehension	Interactions
Expert 6	Uses a dialect and/or accent intelligible to the aeronautical community.	Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.				
	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 3**  
**BASIC TRAINING**

**(Reference: Annex 1 – Part-ATCO  
Subpart D, Section 2, ATCO.D.010(a)(1))**

**BASIC TRAINING**

**TABLE OF CONTENTS**

<b>SUBJECT 1: INTRODUCTION TO THE COURSE</b>	<b>3</b>
<b>SUBJECT 2: AVIATION LAW</b>	<b>4</b>
<b>SUBJECT 3: AIR TRAFFIC MANAGEMENT</b>	<b>5</b>
<b>SUBJECT 4: METEOROLOGY</b>	<b>7</b>
<b>SUBJECT 5: NAVIGATION</b>	<b>8</b>
<b>SUBJECT 6: AIRCRAFT</b>	<b>9</b>
<b>SUBJECT 7: HUMAN FACTORS</b>	<b>11</b>
<b>SUBJECT 8: EQUIPMENT AND SYSTEMS</b>	<b>12</b>
<b>SUBJECT 9: PROFESSIONAL ENVIRONMENT</b>	<b>14</b>

**Subject 1 : INTRODUCTION TO THE COURSE**

---

**TOPIC INTRB 1 - COURSE MANAGEMENT**

- Subtopic INTRB 1.1 - Course introduction
- Subtopic INTRB 1.2 - Course administration
- Subtopic INTRB 1.3 - Study material and training documentation

---

**TOPIC INTRB 2 - INTRODUCTION TO THE ATC TRAINING COURSE**

- Subtopic INTRB 2.1 - Course content and organisation
- Subtopic INTRB 2.2 - Training ethos
- Subtopic INTRB 2.3 - Assessment process

---

**TOPIC INTRB 3 - INTRODUCTION TO THE ATCO'S FUTURE**

- Subtopic INTRB 3.1 - Job prospects

## Subject 2 : AVIATION LAW

---

### **TOPIC LAW B 1 - INTRODUCTION TO AVIATION LAW**

Subtopic LAW B 1.1 - Relevance of aviation law

---

### **TOPIC LAW B 2 - INTERNATIONAL ORGANISATIONS**

Subtopic LAW B 2.1 - ICAO

Subtopic LAW B 2.2 - European and other agencies

Subtopic LAW B 2.3 - Aviation associations

---

### **TOPIC LAW B 3 - NATIONAL ORGANISATIONS**

Subtopic LAW B 3.1 - Purpose and function

Subtopic LAW B 3.2 - National legislative procedures

Subtopic LAW B 3.3 - Competent authority

Subtopic LAW B 3.4 - National aviation associations

---

### **TOPIC LAW B 4 - ATS SAFETY MANAGEMENT**

Subtopic LAW B 4.1 - Safety regulation

Subtopic LAW B 4.2 - Safety management system

---

### **TOPIC LAW B 5 - RULES AND REGULATIONS**

Subtopic LAW B 5.1 - Units of measurement

Subtopic LAW B 5.2 - ATCO licensing/certification

Subtopic LAW B 5.3 - Overview of ANS and ATS

Subtopic LAW B 5.4 - Rules of the air

Subtopic LAW B 5.5 - Airspace and ATS routes

Subtopic LAW B 5.6 - Flight plan

Subtopic LAW B 5.7 - Aerodromes

Subtopic LAW B 5.8 - Holding procedures for IFR flights

Subtopic LAW B 5.9 - Holding procedures for VFR flights

### Subject 3 : AIR TRAFFIC MANAGEMENT

<b>TOPIC ATMB 1 -</b>	<b>AIR TRAFFIC MANAGEMENT</b>
Subtopic ATMB 1.1 -	Application of units of measurement
Subtopic ATMB 1.2 -	Air traffic control (ATC) service
Subtopic ATMB 1.3 -	Flight information service (FIS)
Subtopic ATMB 1.4 -	Alerting service
Subtopic ATMB 1.5 -	Air traffic advisory service
Subtopic ATMB 1.6 -	ATS system capacity and air traffic flow management
Subtopic ATMB 1.7 -	Airspace management (ASM)
<b>TOPIC ATMB 2 -</b>	<b>ALTIMETRY AND LEVEL ALLOCATION</b>
Subtopic ATMB 2.1 -	Altimetry
Subtopic ATMB 2.2 -	Transition level
Subtopic ATMB 2.3 -	Level allocation
<b>TOPIC ATMB 3 -</b>	<b>RADIOTELEPHONY (RTF)</b>
Subtopic ATMB 3.1 -	RTF general operating procedures
<b>TOPIC ATMB 4 -</b>	<b>ATC CLEARANCES AND ATC INSTRUCTIONS</b>
Subtopic ATMB 4.1 -	Type and content of ATC clearances
Subtopic ATMB 4.2 -	ATC instructions
<b>TOPIC ATMB 5 -</b>	<b>COORDINATION</b>
Subtopic ATMB 5.1 -	Principles, types and content of coordination
Subtopic ATMB 5.2 -	Necessity for coordination
Subtopic ATMB 5.3 -	Means of coordination
<b>TOPIC ATMB 6 -</b>	<b>DATA DISPLAY</b>
Subtopic ATMB 6.1 -	Data extraction
Subtopic ATMB 6.2 -	Data management
<b>TOPIC ATMB 7 -</b>	<b>SEPARATIONS</b>
Subtopic ATMB 7.1 -	Vertical separation and procedures
Subtopic ATMB 7.2 -	Horizontal separation and procedures
Subtopic ATMB 7.3 -	Visual separation
Subtopic ATMB 7.4 -	Aerodrome separation and procedures
Subtopic ATMB 7.5 -	Separation based on ATS surveillance systems
Subtopic ATMB 7.6 -	Wake turbulence separation

---

**TOPIC ATMB 8 - AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS**

Subtopic ATMB 8.1 - Airborne collision avoidance systems

Subtopic ATMB 8.2 - Ground-based safety nets

---

**TOPIC ATMB 9 - BASIC PRACTICAL SKILLS**

Subtopic ATMB 9.1 - Traffic management process

Subtopic ATMB 9.2 - Basic practical skills applicable to all ratings

Subtopic ATMB 9.3 - Basic practical skills applicable to aerodrome

Subtopic ATMB 9.4 - Basic practical skills applicable to surveillance

**Subject 4 : METEOROLOGY**

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

## Subject 5 : NAVIGATION

<b>TOPIC NAVB 1 -</b>	<b>INTRODUCTION TO NAVIGATION</b>
Subtopic NAVB 1.1 -	Application of units of measurement
Subtopic NAVB 1.2 -	Purpose and use of navigation
<b>TOPIC NAVB 2 -</b>	<b>THE EARTH</b>
Subtopic NAVB 2.1 -	Place and movement of the Earth
Subtopic NAVB 2.2 -	System of coordinates, direction and distance
Subtopic NAVB 2.3 -	Magnetism
<b>TOPIC NAVB 3 -</b>	<b>MAPS AND AERONAUTICAL CHARTS</b>
Subtopic NAVB 3.1 -	Map making and projections
Subtopic NAVB 3.2 -	Maps and charts used in aviation
<b>TOPIC NAVB 4 -</b>	<b>NAVIGATIONAL BASICS</b>
Subtopic NAVB 4.1 -	Influence of wind
Subtopic NAVB 4.2 -	Speed
Subtopic NAVB 4.3 -	Visual navigation
Subtopic NAVB 4.4 -	Navigational aspects of flight planning
<b>TOPIC NAVB 5 -</b>	<b>INSTRUMENT NAVIGATION</b>
Subtopic NAVB 5.1 -	Ground-based systems
Subtopic NAVB 5.2 -	Inertial navigation systems
Subtopic NAVB 5.3 -	Satellite-based systems
Subtopic NAVB 5.4 -	Instrument approach procedures
<b>TOPIC NAVB 6 -</b>	<b>PERFORMANCE BASED NAVIGATION</b>
Subtopic NAVB 6.1 -	Principles and benefits of area navigation
Subtopic NAVB 6.2 -	Introduction to PBN
Subtopic NAVB 6.3 -	PBN applications
<b>TOPIC NAVB 7 -</b>	<b>DEVELOPMENTS IN NAVIGATION</b>
Subtopic NAVB 7.1 -	Future developments

**Subject 6 : AIRCRAFT****TOPIC ACFTB 1 - INTRODUCTION TO AIRCRAFT**

- Subtopic ACFTB 1.1 - Application of units of measurement
- Subtopic ACFTB 1.2 - Aviation and aircraft

**TOPIC ACFTB 2 - PRINCIPLES OF FLIGHT**

- Subtopic ACFTB 2.1 - Forces acting on aircraft
- Subtopic ACFTB 2.2 - Structural components and control of an aircraft
- Subtopic ACFTB 2.3 - Flight envelope

**TOPIC ACFTB 3 - AIRCRAFT CATEGORIES**

- Subtopic ACFTB 3.1 - Aircraft categories
- Subtopic ACFTB 3.2 - Wake turbulence categories
- Subtopic ACFTB 3.3 - ICAO approach categories
- Subtopic ACFTB 3.4 - Environmental categories

**TOPIC ACFTB 4 - AIRCRAFT DATA**

- Subtopic ACFTB 4.1 - Recognition
- Subtopic ACFTB 4.2 - Performance data

**TOPIC ACFTB 5 - AIRCRAFT ENGINES**

- Subtopic ACFTB 5.1 - Piston engines
- Subtopic ACFTB 5.2 - Jet engines
- Subtopic ACFTB 5.3 - Turboprop engines
- Subtopic ACFTB 5.4 - Aviation fuels

**TOPIC ACFTB 6 - AIRCRAFT SYSTEMS AND INSTRUMENTS**

- Subtopic ACFTB 6.1 - Flight instruments
- Subtopic ACFTB 6.2 - Navigational instruments
- Subtopic ACFTB 6.3 - Engine instruments
- Subtopic ACFTB 6.4 - Aircraft systems

**TOPIC ACFTB 7 - FACTORS AFFECTING AIRCRAFT PERFORMANCE**

- Subtopic ACFTB 7.1 - Take-off factors
- Subtopic ACFTB 7.2 - Climb factors
- Subtopic ACFTB 7.3 - Cruise factors
- Subtopic ACFTB 7.4 - Descent and initial approach factors
- Subtopic ACFTB 7.5 - Final approach and landing factors

Subtopic ACFTB 7.6 - Economic factors

Subtopic ACFTB 7.7 - Environmental factors

## Subject 7 : HUMAN FACTORS

---

### **TOPIC HUMB 1 - INTRODUCTION TO HUMAN FACTORS**

- Subtopic HUMB 1.1 - Learning techniques
- Subtopic HUMB 1.2 - Relevance of human factors for ATC
- Subtopic HUMB 1.3 - Human factors and ATC

---

### **TOPIC HUMB 2 - HUMAN PERFORMANCE**

- Subtopic HUMB 2.1 - Individual behaviour
- Subtopic HUMB 2.2 - Safety culture and professional conduct
- Subtopic HUMB 2.3 - Health and well-being
- Subtopic HUMB 2.4 - Teamwork
- Subtopic HUMB 2.5 - Basic needs of people at work
- Subtopic HUMB 2.6 - Stress

---

### **TOPIC HUMB 3 - HUMAN ERROR**

- Subtopic HUMB 3.1 - Dangers of error
- Subtopic HUMB 3.2 - Definition of human error
- Subtopic HUMB 3.3 - Classification of human error
- Subtopic HUMB 3.4 - Risk analysis and risk management

---

### **TOPIC HUMB 4 - COMMUNICATION**

- Subtopic HUMB 4.1 - Importance of good communications in ATC
- Subtopic HUMB 4.2 - Communication process
- Subtopic HUMB 4.3 - Communication modes

---

### **TOPIC HUMB 5 - THE WORK ENVIRONMENT**

- Subtopic HUMB 5.1 - Ergonomics and the need for good design
- Subtopic HUMB 5.2 - Equipment and tools
- Subtopic HUMB 5.3 - Automation

## Subject 8 : EQUIPMENT AND SYSTEMS

---

### **TOPIC EQPSB 1 - ATC EQUIPMENT**

Subtopic EQPSB 1.1 - Main types of ATC equipment

---

### **TOPIC EQPSB 2 - RADIO**

Subtopic EQPSB 2.1 - Radio theory

Subtopic EQPSB 2.2 - Direction finding

---

### **TOPIC EQPSB 3 - COMMUNICATION EQUIPMENT**

Subtopic EQPSB 3.1 - Radio communications

Subtopic EQPSB 3.2 - Voice communication between ATS units/positions

Subtopic EQPSB 3.3 - Data link communications

Subtopic EQPSB 3.4 - Airline communications

---

### **TOPIC EQPSB 4 - INTRODUCTION TO SURVEILLANCE**

Subtopic EQPSB 4.1 - Surveillance concept in ATS

---

### **TOPIC EQPSB 5 - RADAR**

Subtopic EQPSB 5.1 - Principles of radar

Subtopic EQPSB 5.2 - Primary radar

Subtopic EQPSB 5.3 - Secondary radar

Subtopic EQPSB 5.4 - Use of radars

Subtopic EQPSB 5.5 - Mode S

---

### **TOPIC EQPSB 6 - AUTOMATIC DEPENDENT SURVEILLANCE**

Subtopic EQPSB 6.1 - Principles of automatic dependent surveillance

Subtopic EQPSB 6.2 - Use of automatic dependent surveillance

---

### **TOPIC EQPSB 7 - MULTILATERATION**

Subtopic EQPSB 7.1 - Principles of multilateration

Subtopic EQPSB 7.2 - Use of multilateration

---

### **TOPIC EQPSB 8 - SURVEILLANCE DATA PROCESSING**

Subtopic EQPSB 8.1 - Surveillance data networking

Subtopic EQPSB 8.2 - Working principles of surveillance data networking

---

### **TOPIC EQPSB 9 - FUTURE EQUIPMENT**

Subtopic EQPSB 9.1 - New developments

---

### **TOPIC EQPSB 10 - AUTOMATION IN ATS**

Subtopic EQPSB 10.1 - Principles of automation

Subtopic EQPSB 10.2 - Aeronautical fixed telecommunication network (AFTN)

Subtopic EQPSB 10.3 - On-line data interchange

Subtopic EQPSB 10.4 - Systems used for the automatic dissemination of information

---

**TOPIC EQPSB 11 - WORKING POSITIONS**

Subtopic EQPSB 11.1 - Working position equipment

Subtopic EQPSB 11.2 - Aerodrome control

Subtopic EQPSB 11.3 - Approach control

Subtopic EQPSB 11.4 - Area control

**Subject 9 : PROFESSIONAL ENVIRONMENT**

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

**APPENDIX 4**

**AERODROME CONTROL VISUAL RATING (ADV)**

**(Reference: Annex I - PART-ATCO  
Subpart D, Section 2, ATCO.D.010(a)(2)(i))**

**AERODROME CONTROL VISUAL RATING (ADV)**

**TABLE OF CONTENTS**

<b>SUBJECT 1: INTRODUCTION TO THE COURSE</b>	<b>3</b>
<b>SUBJECT 2: AVIATION LAW</b>	<b>4</b>
<b>SUBJECT 3: AIR TRAFFIC MANAGEMENT</b>	<b>5</b>
<b>SUBJECT 4: METEOROLOGY</b>	<b>7</b>
<b>SUBJECT 5: NAVIGATION</b>	<b>8</b>
<b>SUBJECT 6: AIRCRAFT</b>	<b>9</b>
<b>SUBJECT 7: HUMAN FACTORS</b>	<b>10</b>
<b>SUBJECT 8: EQUIPMENT AND SYSTEMS</b>	<b>11</b>
<b>SUBJECT 9: PROFESSIONAL ENVIRONMENT</b>	<b>12</b>
<b>SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS</b>	<b>13</b>
<b>SUBJECT 11: AERODROMES</b>	<b>14</b>

**Subject 1 :INTRODUCTION TO THE COURSE**

---

**TOPIC INTR 1 - COURSE MANAGEMENT**

- Subtopic INTR 1.1 - Course introduction
- Subtopic INTR 1.2 - Course administration
- Subtopic INTR 1.3 - Study material and training documentation

---

**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 - ATC 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 - Aerodrome control 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

#### **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

#### **TOPIC ATM 6 - SEPARATIONS**

- Subtopic ATM 6.1 - Separation between departing aircraft
- Subtopic ATM 6.2 - Separation of landing aircraft and preceding landing or departing aircraft
- Subtopic ATM 6.3 - Time based wake turbulence longitudinal separation
- Subtopic ATM 6.4 - Reduced separation minima

#### **TOPIC ATM 7 - AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS**

- Subtopic ATM 7.1 - Airborne collision avoidance systems
- Subtopic ATM 7.2 - Ground-based safety nets

#### **TOPIC ATM 8 - DATA DISPLAY**

- Subtopic ATM 8.1 - Data management

#### **TOPIC ATM 9 - OPERATIONAL ENVIRONMENT (SIMULATED)**

- Subtopic ATM 9.1 - Integrity of the operational environment
- Subtopic ATM 9.2 - Verification of the currency of operational procedures
- Subtopic ATM 9.3 - Handover-takeover

#### **TOPIC ATM 10 - PROVISION OF AN AERODROME CONTROL SERVICE**

- Subtopic ATM 10.1 - Responsibility for the provision
- Subtopic ATM 10.2 - Functions of aerodrome control tower

- Subtopic ATM 10.3 - Traffic management process
- Subtopic ATM 10.4 - Aeronautical ground lights
- Subtopic ATM 10.5 - Information to aircraft by aerodrome control tower
- Subtopic ATM 10.6 - Control of aerodrome traffic
- Subtopic ATM 10.7 - Control of traffic in the traffic circuit
- Subtopic ATM 10.8 - Runway in use

**Subject 4 :METEOROLOGY**

---

**TOPIC MET 1 - METEOROLOGICAL PHENOMENA**

Subtopic MET 1.1 - Meteorological phenomena

---

**TOPIC MET 2 - SOURCES OF METEOROLOGICAL DATA**

Subtopic MET 2.1 - Meteorological instruments

Subtopic MET 2.2 - Other sources of meteorological data

**Subject 5 :NAVIGATION**

---

**TOPIC NAV 1 - MAPS AND AERONAUTICAL CHARTS**

Subtopic NAV 1.1 - Maps and charts

---

**TOPIC NAV 2 - INSTRUMENT NAVIGATION**

Subtopic NAV 2.1 - Navigational systems

Subtopic NAV 2.2 - Stabilised approach

**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 - Take-off factors

Subtopic ACFT 3.2 - Climb factors

Subtopic ACFT 3.3 - Final approach and landing factors

Subtopic ACFT 3.4 - Economic factors

Subtopic ACFT 3.5 - Environmental factors

---

**TOPIC ACFT 4 - AIRCRAFT DATA**

Subtopic ACFT 4.1 - Recognition of aircraft types

Subtopic ACFT 4.2 - Performance data

## Subject 7 :HUMAN FACTORS

---

### **TOPIC HUM 1 - PSYCHOLOGICAL FACTORS**

Subtopic HUM 1.1 - Cognitive

---

### **TOPIC HUM 2 - MEDICAL AND PHYSIOLOGICAL FACTORS**

Subtopic HUM 2.1 - Fatigue

Subtopic HUM 2.2 - Fitness

---

### **TOPIC HUM 3 - SOCIAL AND ORGANISATIONAL FACTORS**

Subtopic HUM 3.1 - Team resource management (TRM)

Subtopic HUM 3.2 - Teamwork and team roles

Subtopic HUM 3.3 - Responsible behaviour

---

### **TOPIC HUM 4 - STRESS**

Subtopic HUM 4.1 - Stress

Subtopic HUM 4.2 - Stress management

---

### **TOPIC HUM 5 - HUMAN ERROR**

Subtopic HUM 5.1 - Human error

Subtopic HUM 5.2 - Violation of rules

---

### **TOPIC HUM 6 - COLLABORATIVE WORK**

Subtopic HUM 6.1 - Communication

Subtopic HUM 6.2 - Collaborative work within the same area of responsibility

Subtopic HUM 6.3 - Collaborative work between different areas of responsibility

Subtopic HUM 6.4 - Controller/pilot cooperation

## **Subject 8 :EQUIPMENT AND SYSTEMS**

---

### **TOPIC EQPS 1 - VOICE COMMUNICATIONS**

Subtopic EQPS 1.1 - Radio communications

Subtopic EQPS 1.2 - Other voice communications

---

### **TOPIC EQPS 2 - AUTOMATION IN ATS**

Subtopic EQPS 2.1 - Aeronautical fixed telecommunication network (AFTN)

Subtopic EQPS 2.2 - Automatic data interchange

---

### **TOPIC EQPS 3 - CONTROLLER WORKING POSITION**

Subtopic EQPS 3.1 - Operation and monitoring of equipment

Subtopic EQPS 3.2 - Situation displays and information systems

Subtopic EQPS 3.3 - Flight data systems

---

### **TOPIC EQPS 4 - FUTURE EQUIPMENT**

Subtopic EQPS 4.1 - New developments

---

### **TOPIC EQPS 5 - EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION**

Subtopic EQPS 5.1 - Reaction to limitations

Subtopic EQPS 5.2 - Communication equipment degradation

Subtopic EQPS 5.3 - Navigational equipment degradation

## Subject 9 :PROFESSIONAL ENVIRONMENT

---

**TOPIC PEN 1 - FAMILIARISATION**

Subtopic PEN 1.1 - Study visit to aerodrome

---

**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 - Runway incursion

## Subject 11:AERODROMES

---

**TOPIC AGA 1 - AERODROME DATA, LAYOUT AND COORDINATION**

---

Subtopic AGA 1.1 - Definitions

Subtopic AGA 1.2 - Coordination

---

**TOPIC AGA 2 - MOVEMENT AREA**

---

Subtopic AGA 2.1 - Movement area

Subtopic AGA 2.2 - Manoeuvring area

Subtopic AGA 2.3 - Runways

---

**TOPIC AGA 3 - OBSTACLES**

---

Subtopic AGA 3.1 - Obstacle-free airspace around aerodromes

---

**TOPIC AGA 4 - MISCELLANEOUS EQUIPMENT**

---

Subtopic AGA 4.1 - Location

**APPENDIX 5**

**AERODROME CONTROL INSTRUMENT RATING FOR TOWER - ADI (TWR)**

**(Reference: Annex I - PART-ATCO  
Subpart D, Section 2, ATCO.D.010(a)(2)(ii))**

**AERODROME CONTROL INSTRUMENT RATING FOR TOWER - ADI (TWR)**

**TABLE OF CONTENTS**

<b>SUBJECT 1: INTRODUCTION TO THE COURSE</b>	<b>3</b>
<b>SUBJECT 2: AVIATION LAW</b>	<b>4</b>
<b>SUBJECT 3: AIR TRAFFIC MANAGEMENT</b>	<b>5</b>
<b>SUBJECT 4: METEOROLOGY</b>	<b>7</b>
<b>SUBJECT 5: NAVIGATION</b>	<b>8</b>
<b>SUBJECT 6: AIRCRAFT</b>	<b>9</b>
<b>SUBJECT 7: HUMAN FACTORS</b>	<b>10</b>
<b>SUBJECT 8: EQUIPMENT AND SYSTEMS</b>	<b>11</b>
<b>SUBJECT 9: PROFESSIONAL ENVIRONMENT</b>	<b>12</b>
<b>SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS</b>	<b>13</b>
<b>SUBJECT 11: AERODROMES</b>	<b>14</b>

**Subject 1 :INTRODUCTION TO THE COURSE**

---

**TOPIC INTR 1 - COURSE MANAGEMENT**

- Subtopic INTR 1.1 - Course introduction
- Subtopic INTR 1.2 - Course administration
- Subtopic INTR 1.3 - Study material and training documentation

---

**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 - ATC SAFETY MANAGEMENT**

Subtopic LAW 3.1 - Feedback process

Subtopic LAW 3.2 - Safety Investigation

### Subject 3 :AIR TRAFFIC MANAGEMENT

<b>TOPIC ATM 1 -</b>	<b>PROVISION OF SERVICES</b>
Subtopic ATM 1.1 -	Aerodrome control 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
<b>TOPIC ATM 2 -</b>	<b>COMMUNICATION</b>
Subtopic ATM 2.1 -	Effective communication
<b>TOPIC ATM 3 -</b>	<b>ATC CLEARANCES AND ATC INSTRUCTIONS</b>
Subtopic ATM 3.1 -	ATC clearances
Subtopic ATM 3.2 -	ATC instructions
<b>TOPIC ATM 4 -</b>	<b>COORDINATION</b>
Subtopic ATM 4.1 -	Necessity for coordination
Subtopic ATM 4.2 -	Tools and methods for coordination
Subtopic ATM 4.3 -	Coordination procedures
<b>TOPIC ATM 5 -</b>	<b>ALTIMETRY AND LEVEL ALLOCATION</b>
Subtopic ATM 5.1 -	Altimetry
Subtopic ATM 5.2 -	Terrain clearance
<b>TOPIC ATM 6 -</b>	<b>SEPARATIONS</b>
Subtopic ATM 6.1 -	Separation between departing aircraft
Subtopic ATM 6.2 -	Separation of departing aircraft from arriving aircraft
Subtopic ATM 6.3 -	Separation of landing aircraft and preceding landing or departing aircraft
Subtopic ATM 6.4 -	Time-based wake turbulence longitudinal separation
Subtopic ATM 6.5 -	Reduced separation minima
<b>TOPIC ATM 7 -</b>	<b>AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS</b>
Subtopic ATM 7.1 -	Airborne collision avoidance systems
Subtopic ATM 7.2 -	Ground-based safety nets
<b>TOPIC ATM 8 -</b>	<b>DATA DISPLAY</b>
Subtopic ATM 8.1 -	Data management
<b>TOPIC ATM 9 -</b>	<b>OPERATIONAL ENVIRONMENT (SIMULATED)</b>

- Subtopic ATM 9.1 - Integrity of the operational environment
- Subtopic ATM 9.2 - Verification of the currency of operational procedures
- Subtopic ATM 9.3 - Handover-takeover

---

**TOPIC ATM 10 - PROVISION OF AN AERODROME CONTROL SERVICE**

- Subtopic ATM 10.1 - Responsibility for the provision
- Subtopic ATM 10.2 - Functions of aerodrome control tower
- Subtopic ATM 10.3 - Traffic management process
- Subtopic ATM 10.4 - Aeronautical ground lights
- Subtopic ATM 10.5 - Information to aircraft by aerodrome control tower
- Subtopic ATM 10.6 - Control of aerodrome traffic
- Subtopic ATM 10.7 - Control of traffic in the traffic circuit
- Subtopic ATM 10.8 - Runway in use

---

**TOPIC ATM 11 - PROVISION OF AERODROME CONTROL - INSTRUMENT**

- Subtopic ATM 11.1 - Low visibility operations and special VFR
- Subtopic ATM 11.2 - Departing traffic
- Subtopic ATM 11.3 - Arriving traffic
- Subtopic ATM 11.4 - Aerodrome control service with advanced system support

**Subject 4 :METEOROLOGY**

---

**TOPIC MET 1 - METEOROLOGICAL PHENOMENA**

Subtopic MET 1.1 - Meteorological phenomena

---

**TOPIC MET 2 - SOURCES OF METEOROLOGICAL DATA**

Subtopic MET 2.1 - Meteorological instruments

Subtopic MET 2.2 - Other sources of meteorological data

**Subject 5 :NAVIGATION**

---

**TOPIC NAV 1 - MAPS AND AERONAUTICAL CHARTS**

Subtopic NAV 1.1 - Maps and charts

---

**TOPIC NAV 2 - INSTRUMENT NAVIGATION**

Subtopic NAV 2.1 - Navigational systems

Subtopic NAV 2.2 - Stabilised approach

Subtopic NAV 2.3 - Instrument departures and arrivals

Subtopic NAV 2.4 - Satellite-based systems

Subtopic NAV 2.5 - PBN applications

**Subject 6 :AIRCRAFT**

---

**TOPIC ACFT 1 - AIRCRAFT INSTRUMENTS**

Subtopic ACFT 1.1 - Aircraft instruments

---

**TOPIC ACFT 2 - AIRCRAFT CATEGORIES**

Subtopic ACFT 2.1 - Wake turbulence

Subtopic ACFT 2.2 - Application of ICAO approach categories

---

**TOPIC ACFT 3 - FACTORS AFFECTING AIRCRAFT PERFORMANCE**

Subtopic ACFT 3.1 - Take-off factors

Subtopic ACFT 3.2 - Climb factors

Subtopic ACFT 3.3 - Final approach and landing factors

Subtopic ACFT 3.4 - Economic factors

Subtopic ACFT 3.5 - Environmental factors

---

**TOPIC ACFT 4 - AIRCRAFT DATA**

Subtopic ACFT 4.1 - Recognition of aircraft types

Subtopic ACFT 4.2 - Performance data

## Subject 7 :HUMAN FACTORS

---

### **TOPIC HUM 1 - PSYCHOLOGICAL FACTORS**

Subtopic HUM 1.1 - Cognitive

---

### **TOPIC HUM 2 - MEDICAL AND PHYSIOLOGICAL FACTORS**

Subtopic HUM 2.1 - Fatigue

Subtopic HUM 2.2 - Fitness

---

### **TOPIC HUM 3 - SOCIAL AND ORGANISATIONAL FACTORS**

Subtopic HUM 3.1 - Team resource management (TRM)

Subtopic HUM 3.2 - Teamwork and team roles

Subtopic HUM 3.3 - Responsible behaviour

---

### **TOPIC HUM 4 - STRESS**

Subtopic HUM 4.1 - Stress

Subtopic HUM 4.2 - Stress management

---

### **TOPIC HUM 5 - HUMAN ERROR**

Subtopic HUM 5.1 - Human error

Subtopic HUM 5.2 - Violation of rules

---

### **TOPIC HUM 6 - COLLABORATIVE WORK**

Subtopic HUM 6.1 - Communication

Subtopic HUM 6.2 - Collaborative work within the same area of responsibility

Subtopic HUM 6.3 - Collaborative work between different areas of responsibility

Subtopic HUM 6.4 - Controller/pilot cooperation

## **Subject 8 :EQUIPMENT AND SYSTEMS**

---

### **TOPIC EQPS 1 - VOICE COMMUNICATIONS**

- Subtopic EQPS 1.1 - Radio communications
- Subtopic EQPS 1.2 - Other voice communications

---

### **TOPIC EQPS 2 - AUTOMATION IN ATS**

- Subtopic EQPS 2.1 - Aeronautical fixed telecommunication network (AFTN)
- Subtopic EQPS 2.2 - Automatic data interchange

---

### **TOPIC EQPS 3 - CONTROLLER WORKING POSITION**

- Subtopic EQPS 3.1 - Operation and monitoring of equipment
- Subtopic EQPS 3.2 - Situation displays and information systems
- Subtopic EQPS 3.3 - Flight data systems

---

### **TOPIC EQPS 4 - FUTURE EQUIPMENT**

- Subtopic EQPS 4.1 - New developments

---

### **TOPIC EQPS 5 - EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION**

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

**Subject 9 :PROFESSIONAL ENVIRONMENT**

---

**TOPIC PEN 1 - FAMILIARISATION**

Subtopic PEN 1.1 - Study visit to aerodrome

---

**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 - Runway incursion

## Subject 11:AERODROMES

---

**TOPIC AGA 1 - AERODROME DATA, LAYOUT AND COORDINATION**

---

Subtopic AGA\_1.1 - Definitions

Subtopic AGA 1.2 - Coordination

---

**TOPIC AGA 2 - MOVEMENT AREA**

---

Subtopic AGA 2.1 - Movement area

Subtopic AGA 2.2 - Manoeuvring area

Subtopic AGA 2.3 - Runways

---

**TOPIC AGA 3 - OBSTACLES**

---

Subtopic AGA 3.1 - Obstacle-free airspace around aerodromes

---

**TOPIC AGA 4 - MISCELLANEOUS EQUIPMENT**

---

Subtopic AGA 4.1 - Location

**APPENDIX 6**

**APPROACH CONTROL PROCEDURAL RATING (APP)**

**(Reference: Annex I - PART-ATCO**

**Subpart D, Section 2, ATCO.D.010(a)(2)(iii))**

**APPROACH CONTROL PROCEDURAL RATING (APP)**

**TABLE OF CONTENTS**

<b>SUBJECT 1: INTRODUCTION TO THE COURSE</b>	<b>3</b>
<b>SUBJECT 2: AVIATION LAW</b>	<b>4</b>
<b>SUBJECT 3: AIR TRAFFIC MANAGEMENT</b>	<b>5</b>
<b>SUBJECT 4: METEOROLOGY</b>	<b>7</b>
<b>SUBJECT 5: NAVIGATION</b>	<b>8</b>
<b>SUBJECT 6: AIRCRAFT</b>	<b>9</b>
<b>SUBJECT 7: HUMAN FACTORS</b>	<b>10</b>
<b>SUBJECT 8: EQUIPMENT AND SYSTEMS</b>	<b>11</b>
<b>SUBJECT 9: PROFESSIONAL ENVIRONMENT</b>	<b>12</b>
<b>SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS</b>	<b>13</b>
<b>SUBJECT 11: AERODROMES</b>	<b>14</b>

**Subject 1 :INTRODUCTION TO THE COURSE**

---

**TOPIC INTR 1 - COURSE MANAGEMENT**

Subtopic INTR 1.1 - Course introduction

Subtopic INTR 1.2 - Course administration

Subtopic INTR 1.3 - Study material and training documentation

---

**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 - ATC SAFETY MANAGEMENT**

Subtopic LAW 3.1 - Feedback process

Subtopic LAW 3.2 - Safety Investigation

### **Subject 3 :AIR TRAFFIC MANAGEMENT**

<b>TOPIC ATM 1 -</b>	<b>PROVISION OF SERVICES</b>
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)
<b>TOPIC ATM 2 -</b>	<b>COMMUNICATION</b>
Subtopic ATM 2.1 -	Effective communication
<b>TOPIC ATM 3 -</b>	<b>ATC CLEARANCES AND ATC INSTRUCTIONS</b>
Subtopic ATM 3.1 -	ATC clearances
Subtopic ATM 3.2 -	ATC instructions
<b>TOPIC ATM 4 -</b>	<b>COORDINATION</b>
Subtopic ATM 4.1 -	Necessity for coordination
Subtopic ATM 4.2 -	Tools and methods for coordination
Subtopic ATM 4.3 -	Coordination procedures
<b>TOPIC ATM 5 -</b>	<b>ALTIMETRY AND LEVEL ALLOCATION</b>
Subtopic ATM 5.1 -	Altimetry
Subtopic ATM 5.2 -	Terrain clearance
<b>TOPIC ATM 6 -</b>	<b>SEPARATIONS</b>
Subtopic ATM 6.1 -	Vertical separation
Subtopic ATM 6.2 -	Horizontal separation
Subtopic ATM 6.3 -	Delegation of separation
<b>TOPIC ATM 7 -</b>	<b>AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS</b>
Subtopic ATM 7.1 -	Airborne collision avoidance systems
<b>TOPIC ATM 8 -</b>	<b>DATA DISPLAY</b>
Subtopic ATM 8.1 -	Data management
<b>TOPIC ATM 9 -</b>	<b>OPERATIONAL ENVIRONMENT (SIMULATED)</b>
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
<b>TOPIC ATM 10 -</b>	<b>PROVISION OF CONTROL SERVICE</b>
Subtopic ATM 10.1 -	Responsibility and processing of information

- Subtopic ATM 10.2 - Approach control
- Subtopic ATM 10.3 - Traffic management process
- Subtopic ATM 10.4 - Handling traffic

---

**TOPIC ATM 11 - HOLDING**

- Subtopic ATM 11.1 - General holding procedures
- Subtopic ATM 11.2 - Approaching aircraft

**Subject 4 :METEOROLOGY**

---

**TOPIC MET 1 - METEOROLOGICAL PHENOMENA**

Subtopic MET 1.1 - Meteorological phenomena

---

**TOPIC MET 2 - SOURCES OF METEOROLOGICAL DATA**

Subtopic MET 2.1 - Sources of meteorological information

**Subject 5 :NAVIGATION**

---

**TOPIC NAV 1 - MAPS AND AERONAUTICAL CHARTS**

Subtopic NAV 1.1 - Maps and charts

---

**TOPIC NAV 2 - INSTRUMENT NAVIGATION**

Subtopic NAV 2.1 - Navigational systems

Subtopic NAV 2.2 - Stabilised approach

Subtopic NAV 2.3 - Instrument departures and arrivals

Subtopic NAV 2.4 - Navigational assistance

Subtopic NAV 2.5 - Satellite-based systems

Subtopic NAV 2.6 - PBN applications

## Subject 6 :AIRCRAFT

---

### **TOPIC ACFT 1 - AIRCRAFT INSTRUMENTS**

Subtopic ACFT 1.1 - Aircraft instruments

---

### **TOPIC ACFT 2 - AIRCRAFT CATEGORIES**

Subtopic ACFT 2.1 - Wake turbulence

Subtopic ACFT 2.2 - Application of ICAO approach categories

---

### **TOPIC ACFT 3 - FACTORS AFFECTING AIRCRAFT PERFORMANCE**

Subtopic ACFT 3.1 - Climb factors

Subtopic ACFT 3.2 - Cruise factors

Subtopic ACFT 3.3 - Descent and initial approach factors

Subtopic ACFT 3.4 - Final approach and landing factors

Subtopic ACFT 3.5 - Economic factors

Subtopic ACFT 3.6 - Environmental factors

---

### **TOPIC ACFT 4 - AIRCRAFT DATA**

Subtopic ACFT 4.1 - Performance data

## Subject 7 : HUMAN FACTORS

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

## **Subject 8 :EQUIPMENT AND SYSTEMS**

### **TOPIC EQPS 1 - VOICE COMMUNICATIONS**

- Subtopic EQPS 1.1 - Radio communications
- Subtopic EQPS 1.2 - Other voice communications

### **TOPIC EQPS 2 - AUTOMATION IN ATS**

- Subtopic EQPS 2.1 - Aeronautical fixed telecommunication network (AFTN)
- Subtopic EQPS 2.2 - Automatic data interchange

### **TOPIC EQPS 3 - CONTROLLER WORKING POSITION**

- Subtopic EQPS 3.1 - Operation and monitoring of equipment
- Subtopic EQPS 3.2 - Situation displays and information systems
- Subtopic EQPS 3.3 - Flight data systems

### **TOPIC EQPS 4 - FUTURE EQUIPMENT**

- Subtopic EQPS 4.1 - New developments

### **TOPIC EQPS 5 - EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION**

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

**Subject 9 :PROFESSIONAL ENVIRONMENT**

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

## **Subject 10: ABNORMAL AND EMERGENCY SITUATIONS**

<b>TOPIC ABES 1 -</b>	<b>ABNORMAL AND EMERGENCY SITUATIONS (ABES)</b>
-----------------------	---

Subtopic ABES 1.1 - Overview of ABES

<b>TOPIC ABES 2 -</b>	<b>SKILLS IMPROVEMENT</b>
-----------------------	---------------------------

Subtopic ABES 2.1 - Communication effectiveness

Subtopic ABES 2.2 - Avoidance of mental overload

Subtopic ABES 2.3 - Air / ground cooperation

<b>TOPIC ABES 3 -</b>	<b>PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS</b>
-----------------------	---

Subtopic ABES 3.1 - Application of procedures for ABES

Subtopic ABES 3.2 - Radio failure

Subtopic ABES 3.3 - Unlawful interference and aircraft bomb threat

Subtopic ABES 3.4 - Strayed or unidentified aircraft

Subtopic ABES 3.5 - Diversions

**Subject 11:AERODROMES****TOPIC AGA 1 - AERODROME DATA, LAYOUT AND COORDINATION**

Subtopic AGA 1.1 - Definitions

Subtopic AGA 1.2 - Coordination

**TOPIC AGA 2 - MOVEMENT AREA**

Subtopic AGA 2.1 - Movement area

Subtopic AGA 2.2 - Manoeuvring area

Subtopic AGA 2.3 - Runways

**TOPIC AGA 3 - OBSTACLES**

Subtopic AGA 3.1 - Obstacle-free airspace around aerodromes

**TOPIC AGA 4 - MISCELLANEOUS EQUIPMENT**

Subtopic AGA 4.1 - Location

**APPENDIX 7**

**AREA CONTROL PROCEDURAL RATING (ACP)**

**(Reference: Annex I - PART-ATCO**

**Subpart D, Section 2, ATCO.D.010(a)(2)(iv))**

**AREA CONTROL PROCEDURAL RATING (ACP)**

**TABLE OF CONTENTS**

<b>SUBJECT 1: INTRODUCTION TO THE COURSE</b>	<b>3</b>
<b>SUBJECT 2: AVIATION LAW</b>	<b>4</b>
<b>SUBJECT 3: AIR TRAFFIC MANAGEMENT</b>	<b>5</b>
<b>SUBJECT 4: METEOROLOGY</b>	<b>7</b>
<b>SUBJECT 5: NAVIGATION</b>	<b>8</b>
<b>SUBJECT 6: AIRCRAFT</b>	<b>9</b>
<b>SUBJECT 7: HUMAN FACTORS</b>	<b>10</b>
<b>SUBJECT 8: EQUIPMENT AND SYSTEMS</b>	<b>11</b>
<b>SUBJECT 9: PROFESSIONAL ENVIRONMENT</b>	<b>12</b>
<b>SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS</b>	<b>13</b>

**Subject 1 :INTRODUCTION TO THE COURSE**

---

**TOPIC INTR 1 - COURSE MANAGEMENT**

- Subtopic INTR 1.1 - Course introduction
- Subtopic INTR 1.2 - Course administration
- Subtopic INTR 1.3 - Study material and training documentation

---

**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 - ATC SAFETY MANAGEMENT**

Subtopic LAW 3.1 - Feedback process

Subtopic LAW 3.2 - Safety Investigation

### Subject 3 :AIR TRAFFIC MANAGEMENT

<b>TOPIC ATM 1 -</b>	<b>PROVISION OF SERVICES</b>
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)
<b>TOPIC ATM 2 -</b>	<b>COMMUNICATION</b>
Subtopic ATM 2.1 -	Effective communication
<b>TOPIC ATM 3 -</b>	<b>ATC CLEARANCES AND ATC INSTRUCTIONS</b>
Subtopic ATM 3.1 -	ATC clearances
Subtopic ATM 3.2 -	ATC instructions
<b>TOPIC ATM 4 -</b>	<b>COORDINATION</b>
Subtopic ATM 4.1 -	Necessity for coordination
Subtopic ATM 4.2 -	Tools and methods for coordination
Subtopic ATM 4.3 -	Coordination procedures
<b>TOPIC ATM 5 -</b>	<b>ALTIMETRY AND LEVEL ALLOCATION</b>
Subtopic ATM 5.1 -	Altimetry
Subtopic ATM 5.2 -	Terrain clearance
<b>TOPIC ATM 6 -</b>	<b>SEPARATIONS</b>
Subtopic ATM 6.1 -	Vertical separation
Subtopic ATM 6.2 -	Horizontal separation
<b>TOPIC ATM 7 -</b>	<b>AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS</b>
Subtopic ATM 7.1 -	Airborne collision avoidance systems
<b>TOPIC ATM 8 -</b>	<b>DATA DISPLAY</b>
Subtopic ATM 8.1 -	Data management
<b>TOPIC ATM 9 -</b>	<b>OPERATIONAL ENVIRONMENT (SIMULATED)</b>
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
<b>TOPIC ATM 10 -</b>	<b>PROVISION OF CONTROL SERVICE</b>

Subtopic ATM 10.1 - Responsibility and processing of information

Subtopic ATM 10.2 - Area control

Subtopic ATM 10.3 - Traffic management process

Subtopic ATM 10.4 - Handling traffic

---

**TOPIC ATM 11 - HOLDING**

Subtopic ATM 11.1 - General holding procedures

Subtopic ATM 11.2 - Holding aircraft

**Subject 4 :METEOROLOGY**

---

**TOPIC MET 1 - METEOROLOGICAL PHENOMENA**

Subtopic MET 1.1 - Meteorological phenomena

---

**TOPIC MET 2 - SOURCES OF METEOROLOGICAL DATA**

Subtopic MET 2.1 - Sources of meteorological information

**Subject 5 : NAVIGATION**

---

**TOPIC NAV 1 - MAPS AND AERONAUTICAL CHARTS**

Subtopic NAV 1.1 - Maps and charts

---

**TOPIC NAV 2 - INSTRUMENT NAVIGATION**

Subtopic NAV 2.1 - Navigational systems

Subtopic NAV 2.2 - Navigational assistance

Subtopic NAV 2.3 - PBN applications

**Subject 6 :AIRCRAFT**

---

**TOPIC ACFT 1 - AIRCRAFT INSTRUMENTS**

Subtopic ACFT 1.1 - Aircraft instruments

---

**TOPIC ACFT 2 - AIRCRAFT CATEGORIES**

Subtopic ACFT 2.1 - Wake turbulence

---

**TOPIC ACFT 3 - FACTORS AFFECTING AIRCRAFT PERFORMANCE**

Subtopic ACFT 3.1 - Climb factors

Subtopic ACFT 3.2 - Cruise factors

Subtopic ACFT 3.3 - Descent factors

Subtopic ACFT 3.4 - Economic factors

Subtopic ACFT 3.5 - Environmental factors

---

**TOPIC ACFT 4 - AIRCRAFT DATA**

Subtopic ACFT 4.1 - Performance data

## Subject 7 : HUMAN FACTORS

---

### **TOPIC HUM 1 - PSYCHOLOGICAL FACTORS**

Subtopic HUM 1.1 - Cognitive

---

### **TOPIC HUM 2 - MEDICAL AND PHYSIOLOGICAL FACTORS**

Subtopic HUM 2.1 - Fatigue

Subtopic HUM 2.2 - Fitness

---

### **TOPIC HUM 3 - SOCIAL AND ORGANISATIONAL FACTORS**

Subtopic HUM 3.1 - Team resource management (TRM)

Subtopic HUM 3.2 - Teamwork and team roles

Subtopic HUM 3.3 - Responsible behaviour

---

### **TOPIC HUM 4 - STRESS**

Subtopic HUM 4.1 - Stress

Subtopic HUM 4.2 - Stress management

---

### **TOPIC HUM 5 - HUMAN ERROR**

Subtopic HUM 5.1 - Human error

Subtopic HUM 5.2 - Violation of rules

---

### **TOPIC HUM 6 - COLLABORATIVE WORK**

Subtopic HUM 6.1 - Communication

Subtopic HUM 6.2 - Collaborative work within the same area of responsibility

Subtopic HUM 6.3 - Collaborative work between different areas of responsibility

Subtopic HUM 6.4 - Controller/pilot cooperation

**Subject 8 :EQUIPMENT AND SYSTEMS****TOPIC EQPS 1 - VOICE COMMUNICATIONS**

Subtopic EQPS 1.1 - Radio communications

Subtopic EQPS 1.2 - Other voice communications

**TOPIC EQPS 2 - AUTOMATION IN ATS**

Subtopic EQPS 2.1 - Aeronautical fixed telecommunication network (AFTN)

Subtopic EQPS 2.2 - Automatic data interchange

**TOPIC EQPS 3 - CONTROLLER WORKING POSITION**

Subtopic EQPS 3.1 - Operation and monitoring of equipment

Subtopic EQPS 3.2 - Situation displays and information systems

Subtopic EQPS 3.3 - Flight data systems

**TOPIC EQPS 4 - FUTURE EQUIPMENT**

Subtopic EQPS 4.1 - New developments

**TOPIC EQPS 5 - EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION**

Subtopic EQPS 5.1 - Reaction to limitations

Subtopic EQPS 5.2 - Communication equipment degradation

Subtopic EQPS 5.3 - Navigational equipment degradation

**Subject 9 :PROFESSIONAL ENVIRONMENT**

---

**TOPIC PEN 1 - FAMILIARISATION**

Subtopic PEN 1.1 - Study visit to area control centre

---

**TOPIC PEN 2 - AIRSPACE USERS**

Subtopic PEN 2.1 - Contributors to civil ATS operations

Subtopic PEN 2.2 - Contributors to military ATS operations

---

**TOPIC PEN 3 - CUSTOMER RELATIONS**

Subtopic PEN 3.1 - Provision of services and user requirements

---

**TOPIC PEN 4 - ENVIRONMENTAL PROTECTION**

Subtopic PEN 4.1 - Environmental protection

## **Subject 10:ABNORMAL AND EMERGENCY SITUATIONS**

---

### **TOPIC ABES 1 - ABNORMAL AND EMERGENCY SITUATIONS (ABES)**

Subtopic ABES 1.1 - Overview of ABES

---

### **TOPIC ABES 2 - SKILLS IMPROVEMENT**

Subtopic ABES 2.1 - Communication effectiveness

Subtopic ABES 2.2 - Avoidance of mental overload

Subtopic ABES 2.3 - Air / ground cooperation

---

### **TOPIC ABES 3 - PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS**

Subtopic ABES 3.1 - Application of procedures for ABES

Subtopic ABES 3.2 - Radio failure

Subtopic ABES 3.3 - Unlawful interference and aircraft bomb threat

Subtopic ABES 3.4 - Strayed or unidentified aircraft

Subtopic ABES 3.5 - Diversions

**APPENDIX 8**

**APPROACH CONTROL SURVEILLANCE RATING (APS)**

**(Reference: Annex I - PART-ATCO  
Subpart D, Section 2, ATCO.D.010(a)(2)(v))**

**APPROACH CONTROL SURVEILLANCE RATING (APS)**

**TABLE OF CONTENTS**

<b>SUBJECT 1: INTRODUCTION TO THE COURSE</b>	<b>3</b>
<b>SUBJECT 2: AVIATION LAW</b>	<b>4</b>
<b>SUBJECT 3: AIR TRAFFIC MANAGEMENT</b>	<b>5</b>
<b>SUBJECT 4: METEOROLOGY</b>	<b>7</b>
<b>SUBJECT 5: NAVIGATION</b>	<b>8</b>
<b>SUBJECT 6: AIRCRAFT</b>	<b>9</b>
<b>SUBJECT 7: HUMAN FACTORS</b>	<b>10</b>
<b>SUBJECT 8: EQUIPMENT AND SYSTEMS</b>	<b>11</b>
<b>SUBJECT 9: PROFESSIONAL ENVIRONMENT</b>	<b>12</b>
<b>SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS</b>	<b>13</b>
<b>SUBJECT 11: AERODROMES</b>	<b>14</b>

**Subject 1 :INTRODUCTION TO THE COURSE**

---

**TOPIC INTR 1 - COURSE MANAGEMENT**

- Subtopic INTR 1.1 - Course introduction
- Subtopic INTR 1.2 - Course administration
- Subtopic INTR 1.3 - Study material and training documentation

---

**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 - ATC SAFETY MANAGEMENT**

Subtopic LAW 3.1 - Feedback process

Subtopic LAW 3.2 - Safety Investigation

### Subject 3 :AIR TRAFFIC MANAGEMENT

<b>TOPIC ATM 1 -</b>	<b>PROVISION OF SERVICES</b>
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)
<b>TOPIC ATM 2 -</b>	<b>COMMUNICATION</b>
Subtopic ATM 2.1 -	Effective communication
<b>TOPIC ATM 3 -</b>	<b>ATC CLEARANCES AND ATC INSTRUCTIONS</b>
Subtopic ATM 3.1 -	ATC clearances
Subtopic ATM 3.2 -	ATC instructions
<b>TOPIC ATM 4 -</b>	<b>COORDINATION</b>
Subtopic ATM 4.1 -	Necessity for coordination
Subtopic ATM 4.2 -	Tools and methods for coordination
Subtopic ATM 4.3 -	Coordination procedures
<b>TOPIC ATM 5 -</b>	<b>ALTIMETRY AND LEVEL ALLOCATION</b>
Subtopic ATM 5.1 -	Altimetry
Subtopic ATM 5.2 -	Terrain clearance
<b>TOPIC ATM 6 -</b>	<b>SEPARATIONS</b>
Subtopic ATM 6.1 -	Vertical separation
Subtopic ATM 6.2 -	Longitudinal separation in a surveillance environment
Subtopic ATM 6.3 -	Delegation of separation
Subtopic ATM 6.4 -	Wake turbulence distance-based separation
Subtopic ATM 6.5 -	Separation based on ATS surveillance systems
<b>TOPIC ATM 7 -</b>	<b>AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS</b>
Subtopic ATM 7.1 -	Airborne collision avoidance systems
Subtopic ATM 7.2 -	Ground-based safety nets
<b>TOPIC ATM 8 -</b>	<b>DATA DISPLAY</b>
Subtopic ATM 8.1 -	Data management
<b>TOPIC ATM 9 -</b>	<b>OPERATIONAL ENVIRONMENT (SIMULATED)</b>
Subtopic ATM 9.1 -	Integrity of the operational environment
Subtopic ATM 9.2 -	Verification of the currency of operational procedures

Subtopic ATM 9.3 - Handover-takeover

---

**TOPIC ATM 10 - PROVISION OF CONTROL SERVICE**

Subtopic ATM 10.1 - Responsibility and processing of information

Subtopic ATM 10.2 - ATS surveillance service

Subtopic ATM 10.3 - Traffic management process

Subtopic ATM 10.4 - Handling traffic

Subtopic ATM 10.5 - Control service with advanced system support

---

**TOPIC ATM 11 - HOLDING**

Subtopic ATM 11.1 - General holding procedures

Subtopic ATM 11.2 - Approaching aircraft

Subtopic ATM 11.3 - Holding in a surveillance environment

---

**TOPIC ATM 12 - IDENTIFICATION**

Subtopic ATM 12.1 - Establishment of identification

Subtopic ATM 12.2 - Maintenance of identification

Subtopic ATM 12.3 - Loss of identity

Subtopic ATM 12.4 - Position Information

Subtopic ATM 12.5 - Transfer of identity

**Subject 4 :METEOROLOGY**

---

**TOPIC MET 1 - METEOROLOGICAL PHENOMENA**

Subtopic MET 1.1 - Meteorological phenomena

---

**TOPIC MET 2 - SOURCES OF METEOROLOGICAL DATA**

Subtopic MET 2.1 - Sources of meteorological information

## **Subject 5 :NAVIGATION**

---

**TOPIC NAV 1 - MAPS AND AERONAUTICAL CHARTS**

---

Subtopic NAV 1.1 - Maps and charts

---

**TOPIC NAV 2 - INSTRUMENT NAVIGATION**

---

Subtopic NAV 2.1 - Navigational systems

Subtopic NAV 2.2 - Stabilised approach

Subtopic NAV 2.3 - Instrument departures and arrivals

Subtopic NAV 2.4 - Navigational assistance

Subtopic NAV 2.5 - Satellite-based systems

Subtopic NAV 2.6 - PBN applications

**Subject 6 :AIRCRAFT**

---

**TOPIC ACFT 1 - AIRCRAFT INSTRUMENTS**

Subtopic ACFT 1.1 - Aircraft instruments

---

**TOPIC ACFT 2 - AIRCRAFT CATEGORIES**

Subtopic ACFT 2.1 - Wake turbulence

Subtopic ACFT 2.2 - Application of ICAO approach categories

---

**TOPIC ACFT 3 - FACTORS AFFECTING AIRCRAFT PERFORMANCE**

Subtopic ACFT 3.1 - Climb factors

Subtopic ACFT 3.2 - Cruise factors

Subtopic ACFT 3.3 - Descent and initial approach factors

Subtopic ACFT 3.4 - Final approach and landing factors

Subtopic ACFT 3.5 - Economic factors

Subtopic ACFT 3.6 - Environmental factors

---

**TOPIC ACFT 4 - AIRCRAFT DATA**

Subtopic ACFT 4.1 - Performance data

## Subject 7 : HUMAN FACTORS

---

### **TOPIC HUM 1 - PSYCHOLOGICAL FACTORS**

Subtopic HUM 1.1 - Cognitive

---

### **TOPIC HUM 2 - MEDICAL AND PHYSIOLOGICAL FACTORS**

Subtopic HUM 2.1 - Fatigue

Subtopic HUM 2.2 - Fitness

---

### **TOPIC HUM 3 - SOCIAL AND ORGANISATIONAL FACTORS**

Subtopic HUM 3.1 - Team resource management (TRM)

Subtopic HUM 3.2 - Teamwork and team roles

Subtopic HUM 3.3 - Responsible behaviour

---

### **TOPIC HUM 4 - STRESS**

Subtopic HUM 4.1 - Stress

Subtopic HUM 4.2 - Stress management

---

### **TOPIC HUM 5 - HUMAN ERROR**

Subtopic HUM 5.1 - Human error

Subtopic HUM 5.2 - Violation of rules

---

### **TOPIC HUM 6 - COLLABORATIVE WORK**

Subtopic HUM 6.1 - Communication

Subtopic HUM 6.2 - Collaborative work within the same area of responsibility

Subtopic HUM 6.3 - Collaborative work between different areas of responsibility

Subtopic HUM 6.4 - Controller/pilot cooperation

## **Subject 8 :EQUIPMENT AND SYSTEMS**

---

### **TOPIC EQPS 1 - VOICE COMMUNICATIONS**

- Subtopic EQPS 1.1 - Radio communications
- Subtopic EQPS 1.2 - Other voice communications

---

### **TOPIC EQPS 2 - AUTOMATION IN ATS**

- Subtopic EQPS 2.1 - Aeronautical fixed telecommunication network (AFTN)
- Subtopic EQPS 2.2 - Automatic data interchange

---

### **TOPIC EQPS 3 - CONTROLLER WORKING POSITION**

- Subtopic EQPS 3.1 - Operation and monitoring of equipment
- Subtopic EQPS 3.2 - Situation displays and information systems
- Subtopic EQPS 3.3 - Flight data systems
- Subtopic EQPS 3.4 - Use of ATS surveillance system
- Subtopic EQPS 3.5 - Advanced systems

---

### **TOPIC EQPS 4 - FUTURE EQUIPMENT**

- Subtopic EQPS 4.1 - New developments

---

### **TOPIC EQPS 5 - EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION**

- Subtopic EQPS 5.1 - Reaction to limitations
- Subtopic EQPS 5.2 - Communication equipment degradation
- Subtopic EQPS 5.3 - Navigational equipment degradation
- Subtopic EQPS 5.4 - Surveillance equipment degradation
- Subtopic EQPS 5.5 - ATC processing system degradation

**Subject 9 :PROFESSIONAL ENVIRONMENT**

---

**TOPIC PEN 1 - FAMILIARISATION**

Subtopic PEN 1.1 - Study visit to approach control unit

---

**TOPIC PEN 2 - AIRSPACE USERS**

Subtopic PEN 2.1 - Contributors to civil ATS operations

Subtopic PEN 2.2 - Contributors to military ATS operations

---

**TOPIC PEN 3 - CUSTOMER RELATIONS**

Subtopic PEN 3.1 - Provision of services and user requirements

---

**TOPIC PEN 4 - ENVIRONMENTAL PROTECTION**

Subtopic PEN 4.1 - Environmental protection

**Subject 10:ABNORMAL AND EMERGENCY SITUATIONS**

---

**TOPIC ABES 1 - ABNORMAL AND EMERGENCY SITUATIONS (ABES)**

Subtopic ABES 1.1 - Overview of ABES

---

**TOPIC ABES 2 - SKILLS IMPROVEMENT**

Subtopic ABES 2.1 - Communication effectiveness

Subtopic ABES 2.2 - Avoidance of mental overload

Subtopic ABES 2.3 - Air / ground cooperation

---

**TOPIC ABES 3 - PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS**

Subtopic ABES 3.1 - Application of procedures for ABES

Subtopic ABES 3.2 - Radio failure

Subtopic ABES 3.3 - Unlawful interference and aircraft bomb threat

Subtopic ABES 3.4 - Strayed or unidentified aircraft

Subtopic ABES 3.5 - Diversions

Subtopic ABES 3.6 - Transponder failure

## **Subject 11:AERODROMES**

---

### **TOPIC AGA 1 - AERODROME DATA, LAYOUT AND COORDINATION**

Subtopic AGA 1.1 - Definitions

Subtopic AGA 1.2 - Coordination

---

### **TOPIC AGA 2 - MOVEMENT AREA**

Subtopic AGA 2.1 - Movement area

Subtopic AGA 2.2 - Manoeuvring area

Subtopic AGA 2.3 - Runways

---

### **TOPIC AGA 3 - OBSTACLES**

Subtopic AGA 3.1 - Obstacle-free airspace around aerodromes

---

### **TOPIC AGA 4 - MISCELLANEOUS EQUIPMENT**

Subtopic AGA 4.1 - Location

**APPENDIX 9**

**AREA CONTROL SURVEILLANCE RATING (ACS)**

**(Reference: Annex I - PART-ATCO  
Subpart D, Section 2, ATCO.D.010(a)(2)(vi))**

**AREA CONTROL SURVEILLANCE RATING (ACS)**

**TABLE OF CONTENTS**

<b>SUBJECT 1: INTRODUCTION TO THE COURSE</b>	<b>3</b>
<b>SUBJECT 2: AVIATION LAW</b>	<b>4</b>
<b>SUBJECT 3: AIR TRAFFIC MANAGEMENT</b>	<b>5</b>
<b>SUBJECT 4: METEOROLOGY</b>	<b>7</b>
<b>SUBJECT 5: NAVIGATION</b>	<b>8</b>
<b>SUBJECT 6: AIRCRAFT</b>	<b>9</b>
<b>SUBJECT 7: HUMAN FACTORS</b>	<b>10</b>
<b>SUBJECT 8: EQUIPMENT AND SYSTEMS</b>	<b>11</b>
<b>SUBJECT 9: PROFESSIONAL ENVIRONMENT</b>	<b>12</b>
<b>SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS</b>	<b>13</b>

**Subject 1 :INTRODUCTION TO THE COURSE**

---

**TOPIC INTR 1 - COURSE MANAGEMENT**

- Subtopic INTR 1.1 - Course introduction
- Subtopic INTR 1.2 - Course administration
- Subtopic INTR 1.3 - Study material and training documentation

---

**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 - ATC SAFETY MANAGEMENT**

Subtopic LAW 3.1 - Feedback process

Subtopic LAW 3.2 - Safety Investigation

### Subject 3 :AIR TRAFFIC MANAGEMENT

<b>TOPIC ATM 1 -</b>	<b>PROVISION OF SERVICES</b>
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)
<b>TOPIC ATM 2 -</b>	<b>COMMUNICATION</b>
Subtopic ATM 2.1 -	Effective communication
<b>TOPIC ATM 3 -</b>	<b>ATC CLEARANCES AND ATC INSTRUCTIONS</b>
Subtopic ATM 3.1 -	ATC clearances
Subtopic ATM 3.2 -	ATC instructions
<b>TOPIC ATM 4 -</b>	<b>COORDINATION</b>
Subtopic ATM 4.1 -	Necessity for coordination
Subtopic ATM 4.2 -	Tools and methods for coordination
Subtopic ATM 4.3 -	Coordination procedures
<b>TOPIC ATM 5 -</b>	<b>ALTIMETRY AND LEVEL ALLOCATION</b>
Subtopic ATM 5.1 -	Altimetry
Subtopic ATM 5.2 -	Terrain clearance
<b>TOPIC ATM 6 -</b>	<b>SEPARATIONS</b>
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
<b>TOPIC ATM 7 -</b>	<b>AIRBORNE COLLISION AVOIDANCE SYSTEMS AND GROUND-BASED SAFETY NETS</b>
Subtopic ATM 7.1 -	Airborne collision avoidance systems
Subtopic ATM 7.2 -	Ground-based safety nets
<b>TOPIC ATM 8 -</b>	<b>DATA DISPLAY</b>
Subtopic ATM 8.1 -	Data management
<b>TOPIC ATM 9 -</b>	<b>OPERATIONAL ENVIRONMENT (SIMULATED)</b>
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

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

## Subject 8 :EQUIPMENT AND SYSTEMS

### **TOPIC EQPS 1 - VOICE COMMUNICATIONS**

- Subtopic EQPS 1.1 - Radio communications
- Subtopic EQPS 1.2 - Other voice communications

### **TOPIC EQPS 2 - AUTOMATION IN ATS**

- Subtopic EQPS 2.1 - Aeronautical fixed telecommunication network (AFTN)
- Subtopic EQPS 2.2 - Automatic data interchange

### **TOPIC EQPS 3 - CONTROLLER WORKING POSITION**

- Subtopic EQPS 3.1 - Operation and monitoring of equipment
- Subtopic EQPS 3.2 - Situation displays and information systems
- Subtopic EQPS 3.3 - Flight data systems
- Subtopic EQPS 3.4 - Use of ATS surveillance system
- Subtopic EQPS 3.5 - Advanced systems

### **TOPIC EQPS 4 - FUTURE EQUIPMENT**

- Subtopic EQPS 4.1 - New developments

### **TOPIC EQPS 5 - EQUIPMENT AND SYSTEMS LIMITATIONS AND DEGRADATION**

- Subtopic EQPS 5.1 - Reaction to limitations
- Subtopic EQPS 5.2 - Communication equipment degradation
- Subtopic EQPS 5.3 - Navigational equipment degradation
- Subtopic EQPS 5.4 - Surveillance equipment degradation
- Subtopic EQPS 5.5 - ATC processing system degradation

**Subject 9 :PROFESSIONAL ENVIRONMENT**

---

**TOPIC PEN 1 - FAMILIARISATION**

Subtopic PEN 1.1 - Study visit to area control centre

---

**TOPIC PEN 2 - AIRSPACE USERS**

Subtopic PEN 2.1 - Contributors to civil ATS operations

Subtopic PEN 2.2 - Contributors to military ATS operations

---

**TOPIC PEN 3 - CUSTOMER RELATIONS**

Subtopic PEN 3.1 - Provision of services and user requirements

---

**TOPIC PEN 4 - ENVIRONMENTAL PROTECTION**

Subtopic PEN 4.1 - Environmental protection

**Subject 10:ABNORMAL AND EMERGENCY SITUATIONS**

---

**TOPIC ABES 1 - ABNORMAL AND EMERGENCY SITUATIONS (ABES)**

Subtopic ABES 1.1 - Overview of ABES

---

**TOPIC ABES 2 - SKILLS IMPROVEMENT**

Subtopic ABES 2.1 - Communication effectiveness

Subtopic ABES 2.2 - Avoidance of mental overload

Subtopic ABES 2.3 - Air / ground cooperation

---

**TOPIC ABES 3 - PROCEDURES FOR ABNORMAL AND EMERGENCY SITUATIONS**

Subtopic ABES 3.1 - Application of procedures for ABES

Subtopic ABES 3.2 - Radio failure

Subtopic ABES 3.3 - Unlawful interference and aircraft bomb threat

Subtopic ABES 3.4 - Strayed or unidentified aircraft

Subtopic ABES 3.5 - Diversions

Subtopic ABES 3.6 - Transponder failure

**APPENDIX 10**  
**CERTIFICATE FOR AIR TRAFFIC CONTROLLER**  
**TRAINING ORGANISATIONS (ATCO TOS)**

**European Union<sup>2</sup>**

**Competent authority**

**AIR TRAFFIC CONTROLLERS TRAINING ORGANISATION CERTIFICATE**

[CERTIFICATE NUMBER/REFERENCE]

Pursuant to Commission Regulation (EU) No .../... and subject to the conditions specified below, the [competent authority] hereby certifies

[NAME OF THE TRAINING ORGANISATION]

[ADDRESS OF THE TRAINING ORGANISATION]

as a Part ATCO.OR certified training organisation with the privilege to provide Part ATCO training, as listed in the attached training approval.

Terms of approval and privileges:

This certificate is limited to the privileges and the scope of providing training as listed in the attached training approval.

This certificate is valid whilst the certified organisation remains in compliance with Part ATCO.OR, Part ATCO and other applicable regulations.

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.

Date of issue:

Signed:

[Competent authority]

\* EASA Form 153 — Issue 1, Page 1/2

---

<sup>2</sup> 'European Union' to be deleted for non-EU Member States.

**AIR TRAFFIC CONTROLLERS TRAINING ORGANISATION CERTIFICATE  
TRAINING APPROVAL**

Attachment to ATCO TO certificate number:

[CERTIFICATE NUMBER/REFERENCE]

[NAME OF THE TRAINING ORGANISATION]

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 <sup>3</sup>	Remarks <sup>4</sup>
<input type="checkbox"/> ATCO Initial training	<input type="checkbox"/> Basic training	n/a	
	<input type="checkbox"/> Rating training <sup>5</sup> .....		
<input type="checkbox"/> ATCO Unit training	..... <sup>6</sup>		
<input type="checkbox"/> ATCO Continuation training	<input type="checkbox"/> ATCO Refresher training	n/a	
	<input type="checkbox"/> ATCO Conversion training <sup>7</sup>	n/a	
<input type="checkbox"/> Practical instructor training	n/a	n/a	
		n/a	
<input type="checkbox"/> Assessor training	n/a	n/a	
		n/a	

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.

Date of issue:

Signed: [Competent authority]

For the Member State/EASA

EASA Form 153 — Issue 1, Page 2/2

<sup>3</sup> The competent authority shall specify the rating endorsements according to ATCO.B.015 for which the training is provided, if appropriate.

<sup>4</sup> Wherever necessary.

<sup>5</sup> The competent authority shall specify the ratings according ATCO.B.010 for which the training is provided.

<sup>6</sup> The competent authority shall specify the unit endorsement(s) for which the training is provided.

<sup>7</sup> Not generic training; provided on an ad hoc basis following a specific approval by the competent authority.

**APPENDIX 11**  
**CERTIFICATE FOR AERO-MEDICAL EXAMINERS (AMES)<sup>8</sup>**

**European Union<sup>9</sup>**  
**Competent authority**

**AERO-MEDICAL EXAMINER CERTIFICATE**

CERTIFICATE [NUMBER/REFERENCE]:

Pursuant to Commission Regulation (EU) No 290/2012 and subject to the conditions specified below, the [competent authority] hereby certifies

[NAME OF THE AERO-MEDICAL EXAMINER]

[ADDRESS OF THE AERO-MEDICAL EXAMINER]

as aero-medical examiner

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 [xx/yy/zzzz<sup>10</sup>] 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.

.....

Date of issue:

.....

Signature: [Competent authority]

---

<sup>8</sup> EASA Form 148 — Issue 1.

<sup>9</sup> 'European Union' to be deleted for non-EU Member States.

<sup>10</sup> Expiry date: day/month/year.

---

**CERTIFICATE FOR AERO-MEDICAL EXAMINERS (AMEs)**

Attachment to AME certificate number:

PRIVILEGES AND SCOPE

[Name and academic title of the aero-medical examiner] has obtained the privilege(s) to undertake aero-medical examinations and assessments for the issuance of medical certificates as stated in the table below and to issue these medical certificates for:

LAPL	[yes/date]
Class 2	[yes/date]
Class 1 revalidation/renewal	[yes/date]/[no]
Class 3 revalidation/renewal	[yes/date]/[no]

.....  
Date of issue:

.....  
Signature: [Competent authority]

**APPENDIX 12**  
**CERTIFICATE FOR AERO-MEDICAL CENTRES (AEMCS)<sup>11</sup>**

**European Union<sup>12</sup>**  
**Competent authority**

**AERO-MEDICAL CENTRE CERTIFICATE**

REFERENCE:

Pursuant to Commission Regulation (EU) No 290/2012 and subject to the conditions specified below, the [competent authority] hereby certifies

[NAME OF THE ORGANISATION]

[ADDRESS OF THE ORGANISATION]

as a Part ORA certified aero-medical centre with the privileges and the scope of activities as listed in the attached terms of approval.

CONDITIONS:

1. This certificate is limited to that specified in 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 subject to compliance with the requirements of Part ORA unless it has been surrendered, superseded, suspended or revoked.

.....  
Date of issue:

.....  
Signature: [Competent authority]

---

<sup>11</sup> EASA Form 146 — Issue 1.

<sup>12</sup> 'European Union' to be deleted for non-EU Member States.