European Union Aviation Safety Agency

Notice of Proposed Amendment 2023-02

in accordance with
Article 6 of MB Decision No 01-2022

Training the next generation of ATCOs

Setting performance standards for the initial training output based on the principles of competency-based training and assessment, enabling the virtualisation of training and the acceptance of third-country ATCO licences

RMT.0668 (SUBTASKS 3 & 4)

EXECUTIVE SUMMARY

The objective of the proposed amendments in this Notice of Proposed Amendment (NPA) is to achieve European-wide performance standards concerning the output level of air traffic controllers' (ATCOs) initial training, to maintain a high and uniform level of safety and enhance efficiency and flexibility in the training and availability of ATCOs.

Under Subtask 4 of RMT.0668 EASA aims to:

— harmonise the initial training output to handle complex and dense traffic situations,

— enhance the regulatory framework for instructors and assessors by setting the required performance standards using the principles of competency-based training and assessment (CBTA), which is also the ICAO preferred route to all aviation personnel licensing.

— enable the utilisation of virtual training proposals stemming from the COVID-19 RNO project.

In addition, under Subtask 3, through the new proposal for a delegated act, Member States will be able to positively respond to conversion requests from third-country ATCOs that are interested in obtaining European Union licences, while taking account of their prior training and operational experience. This will also contribute to a more flexible use of the available ATCO resources and thus to a better air traffic capacity management across Europe.

Domain:	Competence of personnel		
Related rules:	Commission Regulation (EU) 2015/340 (ATCO Regulation) and related AMC & GM		
Affected stakeholders:	ATCO training organisations, ATM/ANS service providers, national competent authorities, ATCOs, aero-medical centres, aero-medical examiners		
Driver:	Efficiency/proportionality	**Rulemaking group:**	Yes (Subtask 4) No (Subtask 3)
Impact assessment:	Light		

EASA rulemaking procedure milestones

Start Terms of Reference	**Consultation** NPA 202X-XX	**Proposal to the Commission** EASA Opinion	**Adoption by the Commission** Delegated act	**Decision** Acceptable Means of Compliance, Guidance Material
10.8.2017	2.5.2023	2024/Q1	2024	2024

Table of contents

1. About this NPA

1.1. How this NPA was developed

The European Union Aviation Safety Agency (EASA) developed this NPA in line with Regulation (EU) 2018/1139[1] (the 'Basic Regulation') and the Rulemaking Procedure[2]. This Rulemaking Task RMT.0668 is included in Volume II of the European Plan for Aviation Safety (EPAS) for 2023-2025[3]. The scope and timescales of the task were defined in the related Terms of Reference (ToR)[4].

This NPA groups Subtasks 3 and 4 of the said rulemaking task. The proposal relevant to Subtask 3, to introduce a mechanism for the recognition of third-country ATCO licences under Regulation (EU) 2015/340 [5] (ATCO Regulation), has been developed by EASA, while the proposals under Subtask 4 aiming to harmonise the initial training qualification output to handle complex and dense traffic situations and to enhance the qualification requirements for instructors and assessors by setting the required performance standards using the principles of the CBTA, as well as enable the utilisation of virtual training proposals stemming from the COVID-19 RNO project, were developed with the contribution of a rulemaking group composed of experts having experience in the field of ATCO training and assessment. EUROCONTROL experts prepared the proposals for the adapted competency models that were discussed by the rulemaking group. In addition, experts from six different training organisations with experience in training for procedural ratings participated in the definition of conditions for approach control procedural and area control procedural ratings. The NPA is hereby submitted for consultation in accordance with Article 115 of the Basic Regulation, and Article 6 of the Rulemaking Procedure.

Additionally, a number of inputs resulting from the committee procedure for Opinion No 06/2022 have been taken into account in this NPA — see Section 2.5.

The major milestones of this RMT are presented on the cover page.

---

1 Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139).

2 EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the 'Rulemaking Procedure'. See MB Decision No 01-2022 of 2 May 2022 on the procedure to be applied by EASA for the issuing of opinions, certification specifications and other detailed specifications, acceptable means of compliance and guidance material ('Rulemaking Procedure'), and repealing Management Board Decision No 18-2015 (https://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-01-2022-rulemaking-procedure-repealing-mb).

3 European Plan for Aviation Safety (EPAS) 2023-2025 | EASA (europa.eu)

4 See ToR RMT.0668 - Regular update of the air traffic controller licencing rules (implementing rules, acceptable means of compliance, guidance material) | EASA (europa.eu)

5 Commission Regulation (EU) 2015/340 of 20 February 2015 laying down technical requirements and administrative procedures relating to air traffic controllers' licences and certificates pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council, amending Commission Implementing Regulation (EU) No 923/2012 and repealing Commission Regulation (EU) No 805/2011 (OJ L 63, 6.3.2015, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015R0340&qid=1620633155104).

1.2. How to comment on this NPA

Please submit your comments using the automated **Comment-Response Tool (CRT)** available at **http://hub.easa.europa.eu/crt/**[6].

The deadline for the submission of comments is **2 August 2023**.

1.3. The next steps

Following the public consultation, EASA will review all comments received.

Based on the comments received, EASA will revise, if necessary, the proposed amendments to the ATCO Regulation and issue an opinion. A summary of the comments received will be provided in the explanatory notes to the opinion.

The individual comments received on this NPA and the EASA responses to them will be reflected in a comment-response document (CRD), which will be published on the EASA website[7].

The opinion will be submitted to the European Commission, which will decide whether to amend the ATCO Regulation accordingly.

In accordance with Article 128(4) of the Basic Regulation, before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making. Following the consultation by EASA, the draft of this delegated act shall be presented to the Air Safety experts group, which includes representatives from the Member States.

If the European Commission decides to amend the ATCO Regulation based on the opinion, EASA will publish a decision to amend the related acceptable means of compliance (AMC) and guidance material (GM) to support the implementation of the amendments to the Regulation.

6 In case of technical problems, please send an email to crt@easa.europa.eu with a short description.

7 https://www.easa.europa.eu/document-library/comment-response-documents

2. In summary — why and what

With the aviation industry rapidly evolving, the ATCO Regulation needs to be updated to ensure that it is fit for purpose, cost-effective and in line with the globally applicable standards and practices.

High-level policy documents, notably the Report of the Wise Persons Group[8], identified already before the pandemic that the limited availability and flexibility of ATCO resources hamper the provision of capacity scaled to the demand, and thus the sustainability of the European ATM system. They urged the revision of the current requirements governing ATCO licensing and training and called for more harmonised European training standards as being one factor to allow more flexibility in the use of the ATCO resources.

EASA is committed to supporting the technological and operational developments and conceptual changes that are intended to allow for more flexibility in the use of the available ATCO resources.

In addition, acknowledging the recommendations of the Wise Persons Group, it is now time to update the current requirements governing ATCO licensing and training vis-à-vis future ATM needs and the transition towards a more digital ATM environment. With the future amendments to the technical requirements and administrative procedures relating to ATCO licensing, EASA also aims to assist its stakeholders, among others, in:

— fully exploiting the current regulatory framework and accommodating new technologies and operational concepts through lifting all regulatory obstacles;

— ensuring a more harmonised level of initial training output and providing concrete specifications for synthetic training devices; and

— making distance learning and the use of new digital instruction means possible in a harmonised manner following the COVID-19 pandemic.

The proposed amendments create a less fragmented qualification system and thus enable the application of more harmonised European training standards, as well as make additional ATCO resources available. EASA considers that this is an important step towards allowing more flexibility in the use of the available ATCO resources, as called for in the above-mentioned Report.

Besides, with the adoption of the Basic Regulation and in particular its Article 68, the Commission is now empowered to adopt delegated acts with regard to the acceptance of certificates and other documentation attesting compliance with civil aviation rules issued in accordance with the laws of a third country, whilst ensuring an equivalent level of safety to that provided for in the said Regulation. This NPA therefore includes proposals aiming to bring the current regulatory framework into line with the Basic Regulation and to enable the acceptance of third-country ATCO licences without prejudice to international agreements concluded between the Union and a third country in accordance with point (a) of Article 68(1) of the Basic Regulation.

8 https://ec.europa.eu/transport/sites/transport/files/2019-04-report-of-the-wise-persons-group-on-the-future-of-the-single-european-sky.pdf

2.1. Why we need to amend the rules — issue/rationale

2.1.1. Different performance levels of student ATCOs

At present, student ATCO licences issued on successful completion of initial training with at least one rating do not have a common EU-wide defined performance standard. This leads to **licence holders across the EU having different levels of proficiency and performance**. For historical reasons, linked to established training regimes and, at the time, significant diversity in operational practices across Europe, the common rules governing initial training only detail **training objectives**. The final performance standard for a rating is independently determined by each initial training organisation (ITO). The only requirement today is that the applicant demonstrates the ability to 'handle complex and dense traffic situations'. Since such situations have not been defined, national competent authorities (NCAs) have no common criteria against which to determine whether this requirement has been met.

These differences are problematic for multiple reasons:

— A Member State is obliged to recognise the licence of another Member State even if the level of performance is different from the level achieved by licence holders in their own State.

— There is a risk of students failing their unit training because the performance standard they were required to achieve in order to obtain their student ATCO licence was lower than the performance standard necessary for starting training at their destination ATC unit.

— it is difficult for the relevant training organisations to design a common unit training when the student ATCOs come from different ITOs and perform according to different standards.

As a result, each ITO (and as a consequence, each student ATCO licence) has a different underlying performance standard, based on the local interpretation of 'dense and complex traffic situations'.

Examples illustrating the differences in performance standards may be:

A licence holder in State A is able to:	A licence holder in State B is able to:
- control 45 aircraft per hour in a mixed aircraft type configuration - provide control in an airspace that has multiple crossing/climbing conflicts - resolve 4 simultaneous conflicts involving at least 1 conflict of 3 or more aircraft - work as both a tactical and a planner controller - manage a variety of degraded modes and unusual situations	- control 20 aircraft of a similar performance type per hour - provide control in an upper, en-route airspace where the aircraft are predominantly in cruise flight - resolve 2 simultaneous conflicts involving only 2 aircraft at a time - work in a combined tactical/planner position

Aside from the **disparity between licensing standards**, one of the risks for European air navigation services providers (ANSPs) when they need to meet capacity demands is a shortage of qualified ATCOs. Failure rates of applicants undertaking ATCO training and the duration of ATCO training, in particular unit training, shall be considered as contributing factors.

Training of ATCOs is expensive. Some ANSPs quote just under a million EUROs to take one candidate from selection/recruitment, through training, to the point where they can first work independently (first endorsement). Consequently, a failure is both a financial loss and a contributor towards delayed

resolution of capacity issues that originate in staff shortages. Figures on student pass rates across ANSPs is not publicly available but is estimated to vary from 50 % to 100 % pass rates. In any event, it would seem that the majority of ANSPs may be able to close any staff shortage gaps by improving the pass rate[9].

Furthermore, the lack of a harmonised performance standard enables ITOs to commercially compete by offering rating training courses that are substantially shorter and consequentially cheaper than those of the same type carried out by ANSPs for their own student ATCOs. Examples may be found where a 16-week Basic course and a 17-week Area Control Surveillance (ACS) course are offered for commercial clients, but the same courses for the own ANSP student ATCOs last 21 and 27 weeks respectively. Undoubtedly these differences result in different performance levels achieved at the end of these courses.

The biggest challenge to making improvements in the performance of ATC training today is that ATCO training organisations (ATOs) and ANSPs already have well-established training programmes adapted to support their own current operations. Currently ATCOs are trained to perform safely and efficiently in their particular environment, with their unique operational procedures, meteorological conditions, airspace configurations, etc. Even in presence of common Initial Training provisions, this fragmentation has led to vastly different training programmes being implemented across Europe.

This situation does not support the evolution of the European ATM landscape towards dynamic management of the airspace, further standardised operational procedures, and technological convergence. Future operations would require ATC training and ATCOs' performance to also converge. This need will be further intensified as capacity demands increase and new licence and rating configurations are established.

Compared to today's architecture based on the geographical ATC sectors, system-based ATCO licensing would be different in matching the operational characteristics dependent on the systems used. Those system requirements need to be associated with the necessary qualification requirements and supported with appropriate training. Crucially, this would allow ATCOs to manage any part of the airspace, including not distinct sectors.

EASA is attentive to the needs of its stakeholders and is willing to accompany this evolution with the necessary regulatory adaptations to transition the licensing scheme, including its training aspects, towards a system-based approach.

Conclusion

There will be no training and assessment improvement if there is no further harmonisation of the initial training. By keeping the current training and assessment system, it is also difficult to achieve flexibility and resilience in responding to new technological developments and operational changes. Progressing with gradual adjustments to the established training programmes, starting with further harmonising the outcome of initial training, will bring the first benefits. Establishing performance standards will ensure that the end result is harmonised. This, in turn, will facilitate individual ATCO mobility.

[9] This subject has been extensively discussed by the Network Management Board in 2019. Reference is made here to NMB-19-24-9-Item 2.7- ATCO Training. Attachment: Report of efficiencies in ATC Training. 20.3.19.

2.1.2. Instructors and assessors

According to the ATCO Regulation, appropriately qualified instructors carry out training (theoretical and practical), while assessors conduct the evaluation of the practical skills leading to the issue of the licence, rating and/or endorsement(s) and their revalidation and/or renewal. The role of the assessors is to perform all assessments during the initial training, ongoing competence, but as well, during any other situation requiring an assessment to be performed. Thus the burden to provide good planning and availability of the assessors during all these processes mentioned.

Due to the conditions faced during the years of the pandemic, ANSPs had to:

(a) continue to provide the environment for the preparation of new ATCOs; and

(b) maintain competencies for already qualified ATCOs in a situation with hugely reduced traffic.

The common elements for (a) and (b) above is the availability of training and the possibilities to adapt to the new sanitary conditions. This provided the basis for undertaking parts of the initial training or continuation training in a virtual environment. The best practices and lessons learnt from implementing virtual training showed that there are differences between a classroom and a virtual course in terms of technical aspects, interaction with the students and duration. Having said this, beside the modification of the current course content to be adapted to the virtual environment, the theoretical instructors need to possess a number of skills to cope with the delivery of such courses (see also Section 2.1.3).

Conclusion

The continuity of ATCOs' availability (qualified or to be qualified) and delivery of safe air traffic services will be put under risk again should a pandemic or similar disruption arise in the future if no action is taken to address the training-related issues experienced during the COVID pandemic. Therefore, there is a need to ensure a new skill set to deliver training in a virtual environment. Additionally, experience gained with the implementation of the ATCO Regulation suggested that if no action is taken, the heavy burden on assessors and ANSPs driven by the current applicable requirements will continue, or even increase, with the introduction of virtual training.

2.1.3. Virtual training

Due to the COVID-19 pandemic, the aviation training industry experienced a major shift to more online learning and instruction, such as distance learning and virtual classroom instruction. EASA assisted stakeholders throughout the pandemic with guidelines vis-à-vis the operations under the COVID-19 pandemic[10].

Nonetheless, online teaching requires careful thinking from training organisations about how students and instructors are prepared for the change, and serious consideration about whether the teaching style is still effective when taken out from the classroom and transposed to a virtual environment.

Conclusion

Without introducing harmonised means addressing the various elements of remote delivery of theoretical training and the use of synthetic training devices, there is a risk of losing the experience

[10] 'Guidance for allowing virtual classroom instruction and distance learning', Issue 5, dated 18/08/2020.

gained during the COVID-19 pandemic. This experience allowed virtual classroom instruction and distance learning while maintaining high-quality standards of training in Europe.

2.1.4. Acceptance of licences from third countries

The Report of the Wise Persons Group[11] identified the lack of flexibility in ATCO staffing levels in the European Union (EU) as one of the factors that restricts the scalable capacity of the European ATM system.

The acceptance of third-country ATCO licences is not covered by the current ATCO Regulation. However, the Basic Regulation and, in particular, its Article 68 empowers the Commission to adopt delegated acts with regard to the acceptance of certificates and other documentation attesting compliance with civil aviation rules issued in accordance with the laws of a third country, whilst ensuring an equivalent level of safety to that provided for in said Regulation.

This proposal is therefore intended to increase the availability of ATCOs in the EU ATM system by enabling the acceptance of individual third-country ATCO licences without prejudice to international agreements concluded between the Union and a third country in accordance with point (a) of Article 68(1) of the Basic Regulation.

This proposal also responds to certain comments received from the public consultation of NPA 2021-08 suggesting the application of the principles and methodology established for the crediting and/or conversion of military licences also to other types of national and international licences.

Conclusion

Without the issue of a new delegated act, the NCAs of the Member States shall continue to be prevented from handling licence conversion requests coming from third-country ATCOs. This proposal therefore introduces the appropriate harmonised mechanism, ensuring an equivalent level of safety to that provided for in the Basic Regulation.

2.1.5. ICAO and the CBTA

ICAO has established a Personnel Training and Licensing Panel with the task of introducing the CBTA as a route to licensing for all licensed aviation personnel, including ATCOs. The current licensing route (i.e. based on knowledge, skills and time-based experience) will also remain in place for States that have not reached a level of training maturity that would enable the introduction of the CBTA. Due to the level of maturity in the licensing of aviation personnel achieved by appropriate regulatory frameworks, EU Member States are considered not to be part of this latter group.

The introduction of performance standards using the ICAO principles of the CBTA was the chosen way to harmonise the currently different performance levels of student ATCOs explained in Section 2.1.1.

The standards for licensing through the CBTA will be associated with the ICAO ATC Competency Framework[12]. The proposed requirements for establishing a performance standard for initial training are fully in line with the ICAO concept of adaptability; there are successful examples of the application of such models at State level (Australia) and at ANSP level (NavCanada, Airways New Zealand) of ab

[11] https://ec.europa.eu/transport/sites/transport/files/2019-04-report-of-the-wise-persons-group-on-the-future-of-the-single-european-sky.pdf

[12] ICAO Doc 9868 PANS-Training

initio competency models that apply to all students irrespective of the unit that they will ultimately go to after completion of initial training.

Conclusion

The introduction of the CBTA in ATCO initial training is a step ahead given the maturity of the European training and assessment system. Building on the available successful examples, EU ATCO training organisations will benefit from the experience gained, thus ensuring smooth CBTA implementation.

2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This proposal will contribute to achieving the overall objectives by addressing the issues described in Section 2.1.

The general objective of RMT.0668 is to ensure a high and uniform level of safety in air traffic management (ATM)/air navigation services (ANS), and more specifically in the provision of air traffic services (ATS), by ensuring continued alignment of the qualification scheme of ATCOs stipulated in the ATCO Regulation with the evolution of the regulatory framework, the state of the art and the recognised best practices in aviation.

The specific objectives of this proposal regarding the ATCO Regulation are to:

— harmonise the initial training performance standards to handle complex and dense traffic situations;

— enhance the qualification requirements for instructors and assessors by setting the required performance standards using the principles of the CBTA; and

— enable the utilisation of virtual training proposals stemming from the COVID-19 RNO project.

The new delegated act proposed as part of this NPA will, in addition, complete the legal framework foreseen by the Basic Regulation regarding the acceptance of third-country ATCO certification. This new instrument aims to enable NCAs to handle licence conversion requests coming from third-country ATCOs in a harmonised and controlled manner, ensuring an equivalent level of safety to that provided for in the Basic Regulation.

2.3. How we want to achieve it — overview of the proposed amendments

2.3.1. Different performance levels of student ATCOs

EASA proposes to **introduce a new, harmonised initial training performance standard** that will effectively define what is required by student ATCOs to demonstrate **that they are able to handle 'complex and dense traffic situations'. This performance standard uses the ICAO principles of competency-based training and assessment and a sub-set of the ICAO ATCO Competency Framework**. This also takes into consideration the work started by the ICAO Personnel Training and Licensing Panel on future ICAO standards for ATC training and licensing, with the necessary adaptations to the European environment with common rules.

The CBTA is not a new concept. It has a 60-year history of evolution. It is globally recognised as a pedagogically effective way to train personnel who are in safety-critical jobs that are performed in dynamic environments where the conditions and contexts within which they operate are constantly changing. It is a regulatory requirement in some countries (e.g. Australia), and has been adopted by

many ANSPs worldwide (e.g. NavCanada, Airways New Zealand), including ANSPs in Europe (e.g. MATS, LVNL, MUAC, EPN and CroatiaControl). It is the ICAO preferred route to all aviation personnel licensing.

The proposed solution to define the performance standards using the ICAO competency-based approach to training and assessment (in ICAO terms, to create an adapted competency model) is limited at this stage to initial training, as this is a controlled and synthetic environment where all conditions and standards can be designed into the training. The ICAO method for creating adapted competency models enables the performance standards to be defined in such a way that it allows a variety of systems, technologies, procedures and airspaces to be used. Any advancements in any of these areas will not be constrained by the performance standards.

Sufficiently high ATCO performance standards achieved at the end of initial training are likely to lead to the successful completion of unit training and thus to improve the pass rate. High and common initial training performance standards may also reduce the duration of the unit training.

In unit training the conditions and standards become specific to the local operational environment, and the competency models should be adapted accordingly by the training organisations.

2.3.2. Instructors and assessors

The implementation of the CBTA concept to the ATCO training needs has also been extended to both instructors and assessors. The practical instructors and assessors are provided with a framework of the adapted competency model to enable the performance standards required for these categories of qualified ATCOs.

Assessor privileges are revised to allow experienced assessors to act without the valid synthetic training device instructor (STDI) and on-the-job training instructor (OJTI) endorsement for the purposes of issuing and renewing STDI and OJTI endorsements. It is envisaged that this will ease the planning and availability of such staff within the training and assessment processes.

Additionally, linked with the virtual training (discussed in Section 2.3.3), it is proposed that theoretical instructors possess skills in the area where the training could be ensured in a virtual environment.

The availability of practical instructors and assessors without a valid unit endorsement would create a more flexible scheme of resources to be used by the ATC units.

2.3.3. Virtual training

During the COVID-19 outbreak, it was necessary to introduce different ways of learning and communicating to successfully enable the continuation of the required training. As a result of this experience, it became evident that remote learning, if appropriately arranged to meet the intended objectives of ATCO training, may become a suitable and, in some cases, an advantageous practice. To achieve this evolution, European aviation training providers need to shift more of their theoretical knowledge instruction footprint to a remote/virtual environment to enable continuity of the planned training. Aviation authorities will play a key role to facilitate this evolution in a safe and efficient manner.

For this purpose, this NPA includes proposals for new AMC and GM concerning:

— definitions for remote learning and virtual classroom;

— means of compliance for instructors involved in virtual training;

— guidance on remote delivery of training courses and training plans;

— guidance on the methods for remote evaluation;

— re-classification of STD tools and improved guidelines for best usage of simulators.

2.3.4. Acceptance of licences from third countries

Building on the empowerment to adopt delegated acts regarding the acceptance of certificates and other documentation attesting compliance with civil aviation rules issued in accordance with the laws of a third country, this NPA proposes to enable the acceptance of third-country ATCO licences without prejudice to international agreements concluded between the Union and a third country in accordance with point (a) of Article 68(1) of the Basic Regulation.

A similar approach to that of the conversion of a European military air traffic controller licence is proposed, with the purpose of enabling third-country ATCOs to obtain credit for the training received for the purpose of demonstrating compliance with the training requirements that apply to European ATCOs.

Obtaining an EU student ATCO licence will enable applicants to further undertake a unit endorsement course, including on-the-job training, within a specific air traffic services unit for the purposes of the issuance of an EU ATCO licence.

In view of the above, this NPA proposes that the conversion is based on a report established by training organisations certified in accordance with the ATCO Regulation to provide initial training. Such a report should include the results of an assessment of the previous training and experience of the ATCO concerned. To achieve a harmonised approach within the EU, the main elements of such national conversion reports in terms of content and format will be specified in the proposed delegated regulation. Accomplishing additional training that arises as necessary from the conversion report would be less time intensive for the applicant than taking the entire initial ATCO training course. The conversion would thus enable third-country ATCOs to be more swiftly available to ANSPs, without any detriment to safety, as such process would ensure that the ATCOs concerned would be qualified in compliance with the requirements of the ATCO Regulation.

2.4. Alignment with Regulation (EU) 2017/373

During the MAB consultation of Opinion No 06/2022, the text of the ATCO Regulation was suggested to be aligned with that of Regulation (EU) 2017/373[13] laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, which introduced specific requirements for air traffic services providers (ATSPs). It is therefore now proposed to change the reference to ATSPs rather than using the generic term ANSP. Although ATS is part of ANS, not all ANSPs are ATSPs. The ATCO Regulation applies only to ATSPs and not to all ANSPs in general.

[13] Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011 (OJ L 62, 8.3.2017, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0373&qid=1671717041317).

For further explanation on the proposed regulatory material, see the 'rationale' boxes in Chapter 3.

2.5. Alignment with the inputs resulting from the committee procedure for Opinion No 06/2022

A number of inputs resulting from the committee procedure for Opinion No 06/2022 have been taken into account in this NPA. Said inputs are described below:

— 'Language assessment bodies' has been changed to 'language testing organisations' to align with the terminology used by ICAO and in the FCL Regulation.

— The word 'immediately' has been deleted from the phrase 'immediately preceding'.

— Rewording of ATCO.C.065 'Temporary assessor authorisation' by moving in point (a) the conditions a holder of an assessor endorsement issued in accordance with ATCO.C.055 needs to meet in order to be authorised to carry out assessments referred to in ATCO.C.045(b)(3) and (4) to cover exceptional situations or to ensure the independence of the assessment. This amendment was made to avoid the repetition of the same wording in points (b) and (c).

2.6. What are the expected benefits and drawbacks of the proposed amendments

Further to the conclusions in Section 2.1, the expected benefits and drawbacks of the proposed amendments are summarised below.

2.6.1. Facilitate the implementation of the CBTA

In the EPAS for 2023-2025 the issue of 'competence of personnel' has been elevated to become a stand-alone strategic objective and cross-domain priority. The aim is to support the implementation of the CBTA for all regulated aviation personnel, including NCA staff. This will promote a more evidence-based, data-driven approach to aviation training and examination.

The availability of competent and well-trained aviation personnel is essential to cope with the increased complexity of the aviation system resulting from the adoption of new business models, operational concepts, advanced technologies, and the introduction of new procedures or standards.

The shift from traditional, prescriptive training objectives and ITO-determined performance standards to a harmonised set of initial training competencies, holds the potential for both safety benefits and operational efficiency gains once regulators, NCAs and industry reach the maturity levels required to properly and efficiently implement the CBTA methodology.

This cross-domain strategic priority aims at the successful implementation of the CBTA, for all licences and ratings, allowing adequate supply of instructors, as well as ensuring the availability of competent personnel in NCAs, taking advantage of new technology and an increasingly data-driven approach to training. The shift towards adopting the CBTA within the industry presents a significant challenge for NCAs considering the need to adjust and, in some cases, refocus their existing safety oversight programmes.

2.6.2. Impact of the CBTA on ATC initial training

The CBTA approach was chosen as the way to introduce the harmonised initial training performance standards because:

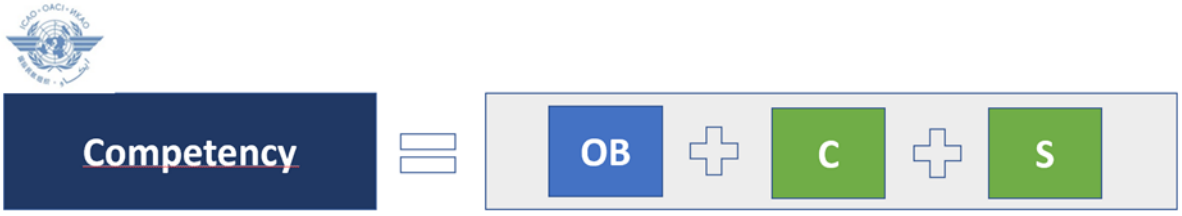
— the way it describes performance is similar to the current way of describing performance; and

— ICAO is advocating for the CBTA and amending Annex 1 'Personnel Licensing' to allow for the CBTA as a route to licensing.

The ATCO Regulation currently requires ITOs to develop performance objectives for each rating course. Consequently, the performance objectives are the main component of an assessment.

A performance objective, as defined in the ATCO Regulation, comprises three elements: a performance statement (P) (i.e. what the student should do), conditions (C), and standards (S).

A competency, as defined in ICAO Doc 9868 PANS-Training, comprises three elements: a set of observable behaviours (OB) (i.e. what the student should do), conditions (C) and standards (S), and a description of the overall competence:



In accordance with ICAO Doc 9868 PANS-Training, the CBTA is defined as training and assessment that are characterised by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards. A CBTA programme includes knowledge, skills, attitude and tasks. To achieve the minimum required standards of performance, the candidate must demonstrate a defined set of competencies in a consistent and integrated manner across a variety of situations and over a period of time.

Contrary to the above, when using a task-based training and assessment programme, the assessment is primarily focused on successful completion of a list of discrete tasks or observation of skills. These may be assessed independently or at the same time. Examples of discrete tasks are:

— uses speed control effectively,

— updates flight data processing system,

— uses surveillance data to achieve separations.

Competencies use the same structural components as performance objectives, but instead of single performance statements, logical performance areas (i.e. competencies), such as situational awareness, traffic and capacity management, separation and conflict resolution, communication, coordination, problem-solving and decision-making, teamwork, etc., are identified and a set of behaviours are ascribed to these competencies. During competency-based assessment to determine whether an ATCO is able to provide safe and efficient air traffic control, they are required to demonstrate an integrated and consistent performance of the identified competencies.

As a result of the similar methods of describing performance, **the impact of the transition from assessing using performance objectives to assessing using competencies is minimal.**

For an ITO whose courses already have performance objectives that are similar to the proposed observable behaviours and conditions, the **effort for the transition** will be limited to **alignment of terminology and assessment processes**. For an ITO whose courses have very different performance objectives and especially conditions that are lower than the standard, effort and resources will be needed to **redesign the practical component of their courses and assessments**, to bring the practical performance to the defined standard. In some instances (if the standard was very low), this may require an increase in the duration of the course.

Conditions include, for example, the:

— number of aircraft/hour the student must safely manage in similar sectors;

— mix of aircraft and their conflict profiles;

— number and types of conflicts to be resolved simultaneously;

— number of aircraft involved in conflicts;

— type of support (e.g. tools, personnel, etc.).

In 2022 EASA approached several stakeholders asking their feedback based on the CBTA implementation experience. It total 5 stakeholders known to be advanced in the implementation of the CBTA (3 EU and 2 non-EU) were contacted. The received feedback indicates that the implementation of the CBTA is perceived to be a positive change in the training provision. The main benefits underlined by respondents were:

— Precise description of the competency required to achieve the rating/endorsement, and how it should be demonstrated;

— Transparency for both students and assessors about the expected performance during both the training and assessment process.

Along with the positive feedback on the CBTA implementation, several stakeholders underlined the main challenges and issues to be carefully considered. These are:

— Time and resources needed for the organisational and cultural change associated with the CBTA implementation. Depending on the size and maturity of the organisation, the adaptation to the CBTA could take several years;

— The need to make adaptations to working methods and applied solutions supporting the application of the CBTA; for example, allowing for flexibility in the training system to accommodate students who reach competency earlier or later than the average student.

Overall, the positive impact of the transition from the current training and assessment system to the CBTA outweighs the identified drawbacks, especially considering that most European training organisations already have in place training schemes that contain many elements of the CBTA.

The main benefit is the transition from definition of performance standards by the training organisations, to a standardised one, which includes harmonising the conditions and standards which define the performance.

Another advantage of this approach is that it gives **predictability** to the operational units. Unit training developers will know the minimum performance level that a student has achieved, irrespectively of where they did their initial training, and be able to tailor the start of their training to this level.

The standardised performance should be set at an achievable level that enables the management of 'complex and dense traffic situations'.

In addition, implementing the CBTA:

— ensures **harmonised competence assessment and a standardised training output at a sufficiently high level;**

— enables potential sharing of synthetic training device instructors and assessors, thus **reducing bottlenecks in training capacity**;

— contributes to instructing excellence and **improved pass rates** during unit training;

— leads to a **potential reduction of unit training duration**;

— enables **adaptation to future training required by the SESAR deployed solutions** (e.g. non-geographical controller, virtual centres, system-driven working positions which control an aircraft from point A to B, etc.) by focusing on the core competencies instead of the task being performed.

In the long term, the implementation of a harmonised European competency standard in initial training constitutes an evolutionary step towards meeting the training needs of the future European ATM operation. It could be gradually expanded to achieve a harmonised and centrally managed training material, and to unit and continuation training when harmonised operational procedures so require.

2.6.3. Instructors and assessors

The introduction of an adapted competency model using the CBTA concept for instructors and assessors aims for the same performance standards and as well the introduction of a uniform scale for the evaluation and assessment of the ATCO progression levels' within their job. The instructional and assessment techniques will be levelled across the community to allow the same performance to be achieved by all ATCOs.

The review of the assessor privileges allowing them to act without the valid STDI and OJTI endorsement for the purposes of issuing and renewing STDI and OJTI endorsements will ensure a better planning and availability of resources in both the training and the assessment process.

2.6.4. Virtual training

The main advantage of this new way of delivering training (even remotely) is that it enables continuity of the planned training in case of peculiar circumstances (e.g. ATCOs unable to attend training on site) and increases mobility.

An increasing number of European ATCO training providers due to the COVID-19 pandemic were forced to shift more of their theoretical knowledge instruction footprint to a remote/virtual environment to enable continuity of the planned training.

Also, during the pandemic crisis one ATCO unit training organisation conducted practical simulator exercises remotely, however with some inherent limitations (without assessments being conducted).

In the future more training organisations will consider the possibility to conduct practical simulations together with the associated assessments remotely.

Additional requirements for IT infrastructure addressing personal data protection and security, change management, continuity, integrity, audits, user authentication privileges, logging of overall integrated system activity should be considered by ATCO training organisations.

Virtual training may constitute an important enabler to support the maintenance of the ATCO competences and qualifications.

2.6.5. Acceptance of licences from third countries

The adoption of a relevant delegated act will enable NCAs to handle licence conversion requests submitted from third-country ATCOs in a harmonised and controlled manner, ensuring an equivalent level of safety to that provided for in the Basic Regulation. This delegated act is also intended to complete the legal framework foreseen by that Regulation.

Introducing the possibility of crediting third-country ATCO training for the purpose of issuing an EU student ATCO licence will potentially also increase the availability of ATCOs in the EU ATM system and thus effectively contribute to addressing the shortage of qualified ATCOs both at Member State and EU level.

2.7. Stakeholders' views on unit endorsements for remote aerodrome air traffic services provision

Stakeholders' comments received to NPA 2021-08 'Enhanced mobility options and streamlined qualifications for air traffic controllers', published as a deliverable of RMT.0668 under Subtask 2, asked for clarifications on the ATCOs' unit endorsement privileges when providing remote services in multiple mode of operation.

According to AMC1 ATCO.B.020(a), related to Regulation (EU) 2015/340, each aerodrome for which aerodrome ATC service is provided from a remote tower centre (RTC) should constitute its own unit endorsement. Considering the establishment of RTCs and multiple mode of operation, EASA is interested in the stakeholders' feedback on the following:

1. Should the remote centre location indicator be used in the unit endorsement?
2. Should the privilege to provide services in multiple mode of operation be indicated by the unit endorsement?
3. Should the combination of different aerodromes attended simultaneously from one remote tower module be indicated in the unit endorsement(s)?
4. Should a unit endorsement for the remote service provision in multiple mode of operation for a group of aerodromes authorise the holder to provide air traffic control services for any combination of the aerodromes included in that unit endorsement?
5. Should a unit endorsement for the remote service provision in multiple mode of operation for a group of aerodromes also authorise the holder to provide air traffic control services in single mode for any of the aerodromes included in that unit endorsement?

Stakeholders are invited to indicate their preferred options, or alternatively, to propose another suitable and justified solution to the above issues. For any of the proposed solutions, stakeholders are invited to provide justification elements on the possible safety, social, economic, and other relevant impact of the option chosen.

EASA considers that this issue affects a wider stakeholder community than that being traditionally interested in ATCO licensing. These issues and related questions above have therefore also been submitted for consultation with NPA 2022-02 on remote aerodrome air traffic services.

The feedback received from the public consultation of both NPAs will be assessed, and the related conclusions will be included in the Opinion resulting from this NPA.

2.8. Monitoring and evaluation

EASA will monitor and evaluate the application of the regulation through its regular standardisation activities. The decision whether an evaluation will be necessary will be taken based also on the monitoring results.

3. Proposed amendments and rationale in detail

The text of the amendment is arranged to show deleted, new or amended, and unchanged text as follows:

— deleted text is ~~struck through~~;

— new or amended text is highlighted in blue;

— an ellipsis '[…]' indicates that the rest of the text is unchanged.

As appropriate, a **rationale** for the proposed amendments is provided below after each subject. Editorial changes, including changes in the numbering and simple self-explanatory clarifications are not always individually addressed.

GM1 Article 2(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(2) comply with the technical requirements and administrative procedures of Article 2(2), air ~~navigation~~ traffic service**s** 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 and are subject to certification in accordance with Regulation (~~EC~~EU) ~~No 216/2008~~ 2018/1139 and Regulation (EU) 2015/340.

Article 4 Definitions

For the purposes of this Regulation, the definitions of Article 2 of Regulation (EC) No 549/2004, the definitions of Article 3 of Regulation (EU) 2018/1139, and the following definitions shall apply:

~~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 Agency to illustrate means by which to establish compliance with Regulation (EU) 2018/1139 and its delegated and implementing acts;'

(2a) 'adapted competency model' means a group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that an organisation uses to develop competency-based training and assessment for a given role;

(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 Regulation (EU) 2018/1139 and its delegated and implementing acts for which no associated AMC have been adopted by the Agency

(6) 'assessment' means ~~an evaluation~~ a determination by an assessor as to whether a person meets a required competency standard ~~of the practical~~ ~~skills~~ under given conditions, by collecting evidence from observable behaviours. The assessment leads~~ing~~ 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) 'competency' means a dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviours that mobilise the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions;

(7b) 'competency-based training and assessment' means training and assessment that are characterised by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.

(7c) 'competency standard' means a level of performance that is defined as acceptable when assessing whether or not competency has been achieved.

(7d) 'conditions' means anything that may qualify a specific environment in which performance will be demonstrated.

(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;

(7b) 'national conversion report' means a report on the basis of which prior air traffic controller training may be given credit by the competent authority to which the application for the issue of a student air traffic controller licence is submitted;

(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;

(9a) 'evaluation' means a determination by an instructor or assessor as to whether a person meets a required competency standard under given conditions, by collecting evidence from observable behaviours, knowledge and understanding. Evaluation can be done in a continuous manner during training.

(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 Agency, which helps to illustrate the meaning of delegated or implementing acts and which is used to support the application of Regulation (EU) 2018/1139 and its delegated and 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;

(14b) 'observable behaviour (OB)' means a single role-related behaviour that can be observed and may or may not be measurable.

(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 criteria' means statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s) and a competency standard.

~~(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;

(21a) 'remote learning' means a reflection of the training situations in which instructors and students are physically separated and interact synchronously or asynchronously. Information is typically transmitted via technology means, such us as discussion boards, video conference, audio bridge or data carrier, and other similar means;

(22) 'renewal' means the administrative act taken after an ~~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 an ~~rating,~~ endorsement or certificate that allows the holder to continue to exercise the privileges of an ~~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.

(32) 'virtual classroom' means a virtual environment adapted for the learning process, not requiring a physical location where synchronous learning takes place.

~~GM1 Article 4(6) Definitions~~

~~**ASSESSMENT**~~

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

Rationale — Article 4 and GM1 Article 4(6)

New definitions have been introduced:

— ‘remote learning’ and ‘virtual classroom’, to introduce changes related to the remote learning originating from the specific circumstances of the pandemic and to provide more flexibility in the use of training methods;

— ‘competency’, ‘competency-based training and assessment’, ‘competency standard’, ‘observable behaviour’ and ‘performance criteria’, to support the introduction of the competency-based training and assessment of ICAO Doc 9868 and 10056;

— ‘assessment’ and ‘evaluation’ have been aligned with the terminology used for the assessment definition in ICAO Doc 9868. In addition, distinction between assessment and evaluation is done via the clarification that assessment is linked to issue, revalidation and renewal of entries in the licence, while evaluation does not affect entries in the licence.

‘Revalidation’ and ‘renewal’ have been updated to reflect that only endorsements are affected by these processes.

GM1 Article 4(6) has been deleted because formative and summative evaluations appear only in this GM and nowhere else in the Regulation. It creates confusion as to which type of evaluations/assessments is to be used.

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

[…]

2. For the purpose of Annex III and for the oversight of the requirements of Annex I regarding air ~~navigation~~ traffic services providers, the competent authority shall be:

[…]

SUBPART A – GENERAL REQUIREMENTS

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

[…]

(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~~ traffic service**s** provider of the provisional inability to exercise the privileges of their licence.

(d) Air ~~navigation~~ traffic service**s** 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~~ traffic service**s** 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(a)(1~~3~~14).

SUBPART B – LICENCES, RATINGS AND ENDORSEMENTS

ATCO.B.001 Student air traffic controller licence

[…]

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

(1) be at least 18 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 (Part ATCO.OR) relevant to the rating, and if applicable, to the rating endorsement, as set out in Part ATCO, Subpart D, Section 2 and demonstrated the required competence, as set out in ATCO.D.035;

(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.

[…]

ATCO.B.005 Air traffic controller licence

[…]

(c) Applicants for the first issue of an air traffic controller licence shall:

(1) hold a student air traffic controller licence;

(2) have completed a unit endorsement course, ~~and~~ successfully passed the appropriate examinations and assessments in accordance with the requirements set out in Part ATCO, Subpart D, Section 3 and demonstrated the required competence, as set out in ATCO.D.060;

(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

[…]

ATCO.B.010 Air traffic controller ratings

[…]

(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:

[…]

ATCO.B.020 Unit endorsements

[…]

(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 and demonstrated the required competence, as set out in ATCO.D.060.

(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 or temporary assessor authorisation for the same unit.

(i) 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; and

(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.

(j) Unit endorsements ~~shall be~~ are revalidated in accordance with requirements ~~provided that the requirements set out~~ in point (i)~~, are met within the 3-month period immediately preceding their expiry date. In such cases,~~ the new validity period shall be counted from the ~~that~~ expiry date of the unit endorsement.

[…]

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

PRACTICAL SKILLS ASSESSMENT FOR 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 months 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, 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

[…]

(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.

Rationale — ATCO.B.001, ATCO.B005, ATCO.B.020

New text has been added is to include the explicit requirement to demonstrate competence in line with the CBTA principles.

ATCO.B.025 Unit competence scheme

(a) Unit competence scheme(s) shall be established by the air ~~navigation~~ traffic services provider and approved by the competent authority. A unit competence scheme shall include at least the following elements:

(1) a list of ~~the validity of the~~ unit endorsement(s) and their validity in accordance with ATCO.B.020(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, the minimum number of approaches, for exercising the privileges of the unit endorsement, for the purpose of ATCO.B.020(i)(1), shall be established for an ~~immediately~~ preceding period of time which shall not exceed 6 months. ~~within a defined period of time, which shall not exceed 12 months, for the purpose of ATCO.B.020(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 the defined performance criteria~~, including assessment of the refresher training subjects according to ATCO.D.080(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 training content ~~topics and subtopics, objectives~~ and ~~training~~ methods for continuation training;

(8) the minimum duration and frequency of the refresher training;

(9) processes for the evaluation of successful completion of the refresher training according to ATCO.D.080(b);

(~~9~~10) processes for the ~~examination of theoretical knowledge,~~ evaluation ~~and/or the assessment of practical skills acquired~~ of the successful completion ~~during~~ of conversion training according to ATCO.D.085, ~~including pass marks for examinations~~;

(~~10~~11) processes in case of failure of an evaluation, examination or assessment, including the appeal processes;

(~~11~~12) training personnel qualifications, roles and responsibilities;

(~~12~~13) a procedure to ensure that practical instructors have practised instructional techniques in the procedures in which instruction is provided in accordance with ATCO.C.010(b)(3) and ATCO.C.030(b)(3);

(~~13~~14) 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 competent authority in accordance with ATCO.A.015(~~d~~e);

(~~14~~15) identification of records to be kept specific to continuation training ~~,~~ evaluations and assessments and any other records pertinent to the above processes; ~~and assessments, in accordance with ATCO.OR.C.020;~~

(~~15~~16) a process and reasons for reviewing and amending the unit competence scheme and its submission to the competent authority. 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~~ traffic services providers shall ~~keep~~ record~~s~~ ~~of~~ the hours during which each licence holder exercises the privileges of his or her unit endorsement working in sectors, group of sectors and/or working positions in the ATC unit and shall provide that data to the competent authorities and to the licence holder upon request.

(c) When establishing the procedures referred to in points (a)(4) and (~~13~~14), air ~~navigation~~ traffic services 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 with 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~~ traffic services 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);(9) 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 against performance criteria defined and updated by the air ~~navigation~~ traffic services provider according to the requirement set out in ATCO.B.025(a)(16).

(b) 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.

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

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

(e) Assessments should be adapted to the validity time of the unit endorsement.

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

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

ASSESSMENTS

(a) Assessments may have one or more components. A documented process should be used to ensure a fair and objective assessment of interim and final competency (i.e. evidence guides, competency checklists and competency assessment forms).

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

(c) Assessment of the required competencies ~~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~~ performance criteria of the air traffic control service expected.

Continuous assessment should be the preferred way for revalidation of a unit endorsement.

Where the assessor has not been able to adequately assess the air traffic controller by continuous assessment, he or ~~/~~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~~ consists 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~~ performance criteria 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 criteria ~~objectives' topics~~ ~~to be assessed~~ should be determined ~~in detail~~ and assessed by the air ~~navigation~~ traffic services 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)(1011), when an air traffic controller fails in one or more of the components of the assessment, he or ~~/~~she should not be allowed to exercise the privilege of this unit endorsement, and provisional inability in accordance with ATCO.A.015(b) may be declared until such time when a successful competence assessment has been performed. Re-sitting 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.~~

GM~~3~~1 ATCO.B.025(a)(~~5~~9) Unit competence scheme

~~ASSESSMENTS~~ EVALUATION OF SUCCESFUL COMPLETION OF REFRESHER TRAINING SUBJECTS

(a) ~~Assessments~~ Evaluation of practical performance should be conducted primarily on a synthetic training device or offline environments.

(b) ~~Assessments~~ Evaluation 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 evaluated ~~assessed~~.

GM1 ATCO.B.025(a)(6);(10) 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 and/or the instructor 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 or ~~/~~she should be doing, but why he or ~~/~~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 and/or instructors.

AMC1 ATCO.B.025(a)(8) Unit competence scheme

DURATION AND FREQUENCY OF REFRESHER TRAINING

As refresher training contains standard practices and procedures, abnormal and emergency situations and human factors, these could be split into separate modules during the period of validity of the unit endorsement. When an ATCO holds multiple unit endorsements, the refresher training should take into consideration that for similar subjects taught for one unit endorsement, it may need to be complemented with the specific parts for the other unit endorsement.

The way it is organised is left to the ANSP and/or training organisation to allow to cover the subjects planned. As such, the duration may vary according to the items under training at one point in time. The phasing of such training is left to the ANSP and/or training organisation, hence the frequency of it may differ from one ANSP to another.

All such details should be included in the description of the refresher training and provided for approval to the competent authority.

AMC1 ATCO.B.025(a)(10) Unit competence scheme

CONVERSION TRAINING

For situations where conversion training leads to the introduction of a new unit endorsement, an assessment should be carried out by a qualified assessor.

GM1 ATCO.B.025(a)(~~9~~10) Unit competence scheme

EXAMINATIONS AND ~~ASSESSMENTS~~ EVALUATIONS DURING CONVERSION TRAINING

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

(b) Examinations and evaluations ~~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~~ evaluated.

AMC1 ATCO.B.025(b) Unit competence scheme

Air traffic services providers should apply a process by which the hours worked by each licence holder exercising the privileges of his or her unit endorsement working in sectors, group of sectors and/or working positions in the ATC unit are properly recorded. Such a process could have an automatic or a manual recording system. In the case of a manual recording system, the air traffic services provider should verify that the entries in the roster and the number of hours provided to the competent authority are the same.

ATCO.B.030 Language proficiency endorsement

[…]

(d) Notwithstanding point (c), extended level (level five) of the language proficiency rating scale set out in Appendix 1 of Annex I may be required by the air ~~navigation~~ traffic services 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~~ traffic services provider wishing to apply the higher level of proficiency and shall be approved by the competent authority.

[…]

ATCO.B.035 Validity of language proficiency endorsement

[…]

(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.

[…]

ATCO.B.040 Assessment of language proficiency

[…]

(b) Language testing organisations ~~assessment bodies~~ shall comply with the requirements established by the competent authorities according to ATCO.AR.A.010.

[…]

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 to Regulation (EU) 2015/340);

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

~~(5) documentation demonstrating the assessment validity, relevance and reliability for the expert level;~~

(~~6~~5) procedures to ensure that language assessments are standardised within the language assessment body and in the ATC community;

(~~7~~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 competent authority and/or to the applicant, including sample certificate; and

— retention of documents and records.

(~~8~~7) The assessment documentation and records should be kept for a period of time determined by the competent authority and made available to the competent authority upon request.

ATCO.B.045 Language training

(a) Air ~~navigation~~ traffic services providers shall make available language training to maintain the required level of language proficiency of air traffic controllers to:

[…]

Rationale — ATCO.B.025 and AMC and GM to ATCO.B.025

The changes to ATCO.B.025 and the associated AMC and GM have been done as follows:

— Number of hours: Shortening to 6 months instead of 1 year is for a better distribution of the hours during a period of time without big gaps in the middle of the counting period.

— Clarification regarding the evaluations to be applied for the refresher and conversion training.

— Alignment with the terminology used for the CBTA principles; for example, in GM1 ATCO.B.025(a)(5) the terminology has been changed, talking about performance instead of skills, and performance criteria instead of performance objectives' topics. Examples of former performance objectives' topics have been deleted as these are covered by the adapted competency model.

— Introduction of the evaluation in the case of refresher and conversion training as well the possibility that either instructors or assessors would be able to carry out evaluations.

— Input received from the standardisation visits regarding the way hours on operational position are recorded triggered the changes to the ATCO.B.025(b).

— Addressing the record-keeping process required by the unit competence scheme to include evaluations and any other records pertinent to the processes from the scheme.

— Transformation of GM1 ATCO.B.025 (a)(3) in AMC to better clarify how the hours shall be counted per unit endorsement and associated rating. As well, for a unit endorsement that includes sectors or working positions, the number of hours should be distributed to cover those in a fair manner.

— In GM1 ATCO.B.025(a)(5) the continuous assessment is recommended as it allows for better evaluation of the competencies required for the validation of the unit endorsement.

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~~ he or 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.

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~~ teaching aids and, where applicable, management of technical platforms for remote learning (hardware, software) are used appropriately;

(d) participants are engaged in the learning process and facilitating skills are used appropriately when using a technical platform (e.g. continuous audio and visual contact, etc.);

~~(d)~~(e) language is unambiguous;

~~(e)~~ (f) the lesson is correctly summarised; and

~~(f)~~ (g) lesson objectives are fulfilled.

Rationale — ATCO.C.001 and AMC ATCO.C.001

Issue encountered with the translation. In some languages ‘and/or’ translates to only ‘or’. Proposal to delete to ensure more clarity.

Holding an ATCO licence does not automatically imply an appropriate knowledge with the taught subjects. Proposal to delete.

The proposed changes are linked to the introduction of the virtual training methods. Deleting the notion visual is to enlarge the scope of teaching methods that could be used.

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

[…]

(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.

[…]

GM1 ATCO.C.010(b)(2) On-the-job training instructor (OJTI) privileges

The 6-month period for exercising the privileges of the valid unit endorsement could include any holiday or days off the ATCO is entitled to, but should exclude situations included in ATCO.A.015 and ATCO.B.025(a) (2), (3) and (14).

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 can be shortened to not less than 1 year by the competent authority 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 on the required competence, as set out in ATCO.D.090.

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 techniques ~~skills~~ during its validity, provided that the requirement of ATCO.C.015(a) is met.

(c) If the OJTI endorsement has expired, provided that the requirement of ATCO.C.015(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 techniques ~~skills~~; and

(2) successfully passing 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 ATCO.C.015(a) is not met, the OJTI endorsement may be exchanged for an STDI endorsement, provided that compliance with the requirements of ATCO.C.040(b) and (c) is ensured.

AMC1 ATCO.C.020(b) Validity of the on-the-job training instructor endorsement

The period between two succeeding refresher courses on practical instructional techniques should not exceed 3 years. For the first revalidation, the refresher training should be undertaken during the last 2 years of the validity of the endorsement.

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~~ techniques is concluded with an evaluation of the competence against established performance criteria. ~~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) is not possible, the competent authority may grant temporary OJTI authorisation based on a safety analysis presented by the air ~~navigation~~ traffic services provider.

[…]

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) 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~~ traffic services 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~~ traffic services provider at the ATC unit;

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

(d) re-opening of a temporary ATC unit.

Rationale — GM1 ATCO.C.010(b)(2), ATCO.C.015, ATCO.C.020, AMC and GM to ATCO.C.020 and GM1 ATCO.C.025(a)

The changes proposed in this section address the following:

— Alignment of the terminology used for the CBTA concept;

— Clarification on the duration between two OJTI refresher courses, including the distribution of the refresher training for the purpose of the first revalidation;

— The privileges to provide OJTI are linked with the exercise of 6 months of the valid unit endorsement. The possibility to exercise the valid unit endorsement should exclude the situations when provisional inability or longer periods of time of off-duty could appear, while planned days off and holidays should not be taken into account for fulfilling the unit competence scheme requirements.

AMC1 ATCO.C.030(b)(2) Synthetic training device instructor (STDI) privileges

DEMONSTRATION OF KNOWLEDGE OF CURRENT OPERATIONAL PRACTICES

For STDIs holding an ATCO licence with a valid unit endorsement, the demonstration of knowledge of current operational practices should be achieved during the refresher training in accordance with the unit competence scheme. For STDIs not holding a valid unit endorsement, the demonstration of knowledge of current operational practices should be achieved by other means.

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 can be shortened to not less than 1 year by the competent authority 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 on the required competence, as set out in ATCO.D.090.

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 techniques ~~skills and on current operational practices~~ during its validity period. In addition, for STDIs not holding a valid unit endorsement, knowledge on the current operational practices shall be ensured.

(c) If the STDI endorsement has expired, it may be renewed by ~~if, within the 12 months preceding the application for renewal, the STDI endorsement holder has:~~

(1) received refresher training on practical instructional techniques. In addition, for STDIs not holding a valid unit endorsement, knowledge on the current operational practices shall be ensured ~~skills and on current operational practices~~; and

(2) successfully passed a practical instructor competence assessment.

within the 12 months preceding the application for renewal.

(d) In the case of first issue and renewal, the period of validity of the STDI endorsement shall start not later than 30 days from the date on which the assessment has been successfully completed.

AMC1 ATCO.C.040(b) Validity of the synthetic training device instructor endorsement

The period between two succeeding refresher courses on practical instructional techniques should not exceed 3 years. For the first revalidation, the refresher training should be undertaken during the last 2 years of the validity of the endorsement.

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

REVALIDATION AND RENEWAL

(a) Successful completion of the refresher training in practical instructional techniques ~~skills~~ and current operational practices is concluded with an evaluation of the competence against established performance criteria. ~~The evaluation can include: may be verified by several means, for example by:~~

~~(1) dedicated or continuous assessment; or~~

~~(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~~.

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

For STDIs not holding a valid unit endorsement, knowledge on current operational practices may be achieved by various activities agreed between the training organisation and the competent authority, such as:

(a) practice of ATCO skills on synthetic training devices; or

(b) real-time validation (as ATCO) of synthetic training device exercises; or

(c) familiarisation visits to operational units; or

(d) attending professional conferences; or

(e) attending presentations on new operational techniques, controller tools and airspace modernisations organised by operational units.

Rationale — AMC1 ATCO.C.030(b)(2), ATCO.C.035, ATCO.C.040, AMC1 ATCO.C.040(b), GM1 ATCO.C.040(b);(c) and GM1 ATCO.C.040(d)

The changes proposed in this section address the following:

— Alignment with the terminology used for the CBTA concept;

— Clarification on the duration between two STDI refresher courses, including the distribution of the refresher training for the purpose of the first revalidation;

— Better explanations for the STDI with no valid unit endorsement on how to manage demonstration of current operational practices.

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 ATCO.B.001(d), ATCO.B.005(e) and ATCO.B.010(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 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 and have exercised the privileges of that endorsement 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 an STDI or OJTI 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~~ an OJTI 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

For assessors holding an ATCO licence with a valid unit endorsement, ~~The~~ the demonstration of knowledge of current operational practices may be achieved during the refresher training in accordance with the unit competence scheme. For assessors not holding a valid unit endorsement, the demonstration of knowledge of current operational practices may be achieved by other means. ~~by establishing familiarity with current environment and operational procedures.~~

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 on the required competence, as set out in ATCO.D.095.

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 a refresher training on assessment ~~skills~~ techniques ~~and on current operational practices~~ during its validity period. In addition, for assessors not holding a valid unit endorsement, knowledge on the current operational practices shall be ensured.

(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~~ techniques. In addition, for assessors not holding a valid unit endorsement, knowledge on the current operational practices shall be ensured ~~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.

AMC1 ATCO.C.060(b) Validity of the assessor endorsement

The period between two succeeding refresher courses on assessment techniques should not exceed 3 years. For the first revalidation, the refresher training should be undertaken during the last 2 years of the validity of the endorsement.

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

REVALIDATION AND RENEWAL

(a) Successful completion of the refresher training in assessment ~~skills~~ techniques ~~and current operational practices~~ is concluded with an evaluation of the competence against established performance criteria. ~~The evaluation can include: may be verified by several means, for example by:~~

~~(1) dedicated or continuous assessment; or~~

~~(2) peer assessment; or~~

~~(3) demonstration of practical instructional 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.~~

AMC1 ATCO.C.060(e) Validity of the assessor endorsement

For assessors not holding a valid unit endorsement, knowledge on current operational practices may be achieved by various activities agreed between the training organisation and the competent authority, such as:

(a) practice of ATCO skills on synthetic training devices; or

(b) real-time validation (as ATCO) of synthetic training device exercises; or

(c) familiarisation visits to operational units; or

(d) attending professional conferences; or

(e) attending presentations on new operational techniques, controller tools and airspace modernisations organised by operational units.

ATCO.C.065 Temporary assessor authorisation

(a) When the requirement provided for in ATCO.C.045(d)(1) cannot be met, the competent authority may authorise holders of an assessor endorsement issued in accordance with ATCO.C.055 to carry out assessments referred to in ATCO.C.045(b)(3) and (4) to cover exceptional situations or to ensure the independence of the assessment, provided that the holder of the assessor endorsement shall also holds a unit endorsement with the associated

rating and, if applicable, rating endorsement, relevant to the assessment for a~~n immediately~~ preceding period of at least one year ~~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. T~~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, 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. T~~the validity of the authorisation shall be determined by the competent authority but shall not exceed the validity of the assessor endorsement issued in accordance with ATCO.C.055.

(d) ~~For issuing a temporary assessor authorisation~~ F~~f~~or the reasons referred to in points (b) and (c), the competent authority may grant a temporary assessor authorisation ~~require~~ based on a safety analysis to be presented by the air ~~navigation~~ traffic services 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) 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~~ traffic services 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~~ traffic services provider at the ATC unit;

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

(d) re-opening of a temporary ATC unit.

Rationale — ATCO.C.045, AMC1 ATCO.C.045(c)(2), ATCO.C.055, ATCO.C.060, AMC1 ATCO.C.060(b), GM1 ATCO.C.060(b);(c), AMC1 ATCO.C.060(e) and GM1 ATCO.C.065(b)

The changes proposed in this section address the following:

— Alignment with the terminology used for the CBTA principles;

— Clarification on the duration between two assessor refresher courses, including the distribution of the refresher training for the purpose of the first revalidation;

— Introduction of more flexibility for using experienced assessors without the valid STDI and OJTI endorsement for the purposes of issuing and renewing STDI and OJTI endorsements;

— Clarification on how to manage demonstration of current operational practices for assessors with no valid unit endorsement;

— In ATCO.C.065 the wording for the safety analysis for temporary assessor authorisation has been aligned with the wording used for temporary OJTI authorisation (ATCO.C.025).

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~~ competencies to deliver safe, orderly and expeditious air traffic control services.

ATCO.D.003 Principles of competency-based training and assessment

(a) Training organisations shall follow competency-based training and assessment principles when developing training plans and courses for all phases of training.

(b) When doing so, the training organisations shall ensure that:

(1) there is an explicit link between competencies and training, required performance, and assessment;

(2) trainees successfully demonstrate competency by meeting the associated competency standard;

(3) evidence of competent performance is valid and reliable;

(4) instructors' and assessors' judgements are calibrated to achieve a high degree of inter-rater reliability; and

(5) the assessment of competencies is based on multiple observations across multiple contexts confirmed with the dedicated or continuous assessment report.

(c) To be considered competent, an individual shall demonstrate an integrated performance of all the required competencies to a specified standard.

GM1 ATCO.D.003 Principles of competency-based training and assessment

Further information can be found in ICAO 'Procedures for Air Navigation Services', Third edition, 2020 (ICAO Doc 9868) and in 'Manual on Air Traffic Controller Competency-based Training and Assessment' first edition, 2017 (ICAO Doc 10056).

Rationale ATCO.D.003

A new point ATCO.D.003 has been added to cover the general principles of competency-based training and assessment as defined in ICAO Doc 9868. Principles specific to unit training are covered in ATCO.D.043.

GM has been added to make reference to ICAO Doc 9868 and ICAO Doc 10056 for further information.

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 and to prepare the student for rating training;

(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;

[…]

~~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), with the exception of training for procedures unlikely to be encountered in the operational environment during the training.~~

Rationale ATCO.D.005; GM1 ATCO.D.005(a)(2)(ii)

The phrase 'and to prepare the student for rating training' has been added to clarify that this is one of the purposes of basic training.

GM1 ATCO.D.005(a)(2)(ii) has been moved to GM1 ATCO.D.060(a)(2).

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 following subjects~~, topics and subtopics contained in Appendix 2 to Annex I;~~:

SUBJECT 1: AVIATION LAW

SUBJECT 2: AIR TRAFFIC MANAGEMENT

SUBJECT 3: METEOROLOGY

SUBJECT 4: NAVIGATION

SUBJECT 5: AIRCRAFT

SUBJECT 6: HUMAN FACTORS

SUBJECT 7: EQUIPMENT AND SYSTEMS

SUBJECT 8: PROFESSIONAL ENVIRONMENT; 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~~;

SUBJECT 1: AVIATION LAW

SUBJECT 2: AIR TRAFFIC MANAGEMENT

SUBJECT 3: METEOROLOGY

SUBJECT 4: NAVIGATION

SUBJECT 5: AIRCRAFT

SUBJECT 6: HUMAN FACTORS

SUBJECT 7: EQUIPMENT AND SYSTEMS

SUBJECT 8: PROFESSIONAL ENVIRONMENT

SUBJECT 9: ABNORMAL AND EMERGENCY SITUATIONS

SUBJECT 10: AERODROMES;

(ii) Approach Control Procedural Rating — APP~~, defined in Appendix 4 to Annex I~~;

SUBJECT 1: AVIATION LAW

SUBJECT 2: AIR TRAFFIC MANAGEMENT

SUBJECT 3: METEOROLOGY

SUBJECT 4: NAVIGATION

SUBJECT 5: AIRCRAFT

SUBJECT 6: HUMAN FACTORS

SUBJECT 7: EQUIPMENT AND SYSTEMS

SUBJECT 8: PROFESSIONAL ENVIRONMENT

SUBJECT 9: ABNORMAL AND EMERGENCY SITUATIONS

SUBJECT 10: AERODROMES;

(iii) Area Control Procedural Rating — ACP~~, defined in Appendix 5 to Annex I~~;

SUBJECT 1: AVIATION LAW

SUBJECT 2: AIR TRAFFIC MANAGEMENT

SUBJECT 3: METEOROLOGY

SUBJECT 4: NAVIGATION

SUBJECT 5: AIRCRAFT

SUBJECT 6: HUMAN FACTORS

SUBJECT 7: EQUIPMENT AND SYSTEMS

SUBJECT 8: PROFESSIONAL ENVIRONMENT

SUBJECT 9: ABNORMAL AND EMERGENCY SITUATIONS

(iv) Approach Control Surveillance Rating — APS~~, defined in Appendix 6 to Annex I~~;

SUBJECT 1: AVIATION LAW

SUBJECT 2: AIR TRAFFIC MANAGEMENT

SUBJECT 3: METEOROLOGY

SUBJECT 4: NAVIGATION

SUBJECT 5: AIRCRAFT

SUBJECT 6: HUMAN FACTORS

SUBJECT 7: EQUIPMENT AND SYSTEMS

SUBJECT 8: PROFESSIONAL ENVIRONMENT

SUBJECT 9: ABNORMAL AND EMERGENCY SITUATIONS

SUBJECT 10: AERODROMES

(v) Area Control Surveillance Rating — ACS~~, defined in Appendix 7 to Annex I~~.

SUBJECT 1: AVIATION LAW

SUBJECT 2: AIR TRAFFIC MANAGEMENT

SUBJECT 3: METEOROLOGY

SUBJECT 4: NAVIGATION

SUBJECT 5: AIRCRAFT

SUBJECT 6: HUMAN FACTORS

SUBJECT 7: EQUIPMENT AND SYSTEMS

SUBJECT 8: PROFESSIONAL ENVIRONMENT

SUBJECT 9: ABNORMAL AND EMERGENCY SITUATIONS

(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 ATCO.B.010(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)(1) Composition of initial training

BASIC TRAINING —TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

[…]

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

AERODROME CONTROL RATING (ADC) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

[…]

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

APPROACH CONTROL PROCEDURAL RATING (APP) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

[…]

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

AREA CONTROL PROCEDURAL RATING (ACP) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

[…]

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

APPROACH CONTROL SURVEILLANCE RATING (APS) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

[…]

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

AREA CONTROL SURVEILLANCE RATING (ACS) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

[…]

Rationale ATCO.D.010

The topics and subtopics have been moved from the implementing rule (IR) level to AMC to allow a quicker update of the training content. The subjects have been kept in the IR as these are not foreseen to change frequently. The subjects have been included here in ATCO.D.010 instead of the former Appendix 2 to Annex I, which has been deleted.

Subject 'INTRODUCTION TO THE COURSE' has been removed as compulsory element from all syllabi based on the feedback from stakeholders. A recommendation to include this subject in each of the training courses has however been kept in AMC1 ATCO.D.010(a)(1) and in AMC1 ATCO.D.010(a)(2)(i)-(v).

The AMC concerned are presented at the end of this document.

ATCO.D.015 Initial training plan

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

[…]

(g) processes for examinations and assessments according to ATCO.D.025 and ATCO.D.035~~, as well as performance objectives according to ATCO.D.030 and ATCO.D.040~~;

[…]

Rationale ATCO.D.015

The references to performance objectives, which were to be defined by the training organisation, have been deleted because these will be replaced by the adapted competency framework as defined in ATCO.D.025 and ATCO.D.035 and the related AMC. The cross references have been updated.

~~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.~~

Rationale GM1 ATCO.D.020(d)

The GM is proposed to be deleted in order to avoid potential data protection issues when issuing training completion certificates.

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 ~~an applicant~~ a candidate achieving a minimum of 75 % of the marks allocated to that examination.

(c) The following competencies shall be assessed: ~~Assessment(s) of performance objectives as listed in ATCO.D.030 shall be conducted on a part-task trainer or a simulator.~~

— Situational awareness: comprehend the current operational situation and appreciate future events;

— Traffic and capacity management: maintain a safe and orderly traffic flow;

— Separation and conflict resolution: respond to potential traffic conflicts and maintain separation;

— Communication: perform communication effectively in STD environment;

— Coordination: apply the available means for coordination in STD environment;

— Self-management: demonstrate personal attributes that improve performance;

— Teamwork: operate as a team member and contribute to a positive working environment.

(d) Assessment(s) shall be conducted on a part-task trainer or a simulator.

(~~d~~e) A pass in assessment(s) shall be awarded to ~~an applicant~~ a candidate who consistently demonstrates the competencies defined in (c) above ~~required performance as listed in ATCO.D.030 and shows the behaviour required for safe provision of the air traffic control service~~.

AMC1 ATCO.D.025(c)(d) Basic training examinations and assessment

REQUIRED COMPETENCIES FOR BASIC TRAINING

Assessments should be based on the competencies defined in ATCO.D.025(c) and the following associated observable behaviours (the competencies and their definitions are repeated for the convenience of the reader):

Competency for BASIC training and definition	Observable behaviours for BASIC training
1. Situational awareness *Comprehend the current operational situation and appreciate future events*	OB 1.1 Monitors traffic in own area of responsibility
	OB 1.2 Checks and uses available tools to scan and comprehend operational situations
	OB 1.3 Processes the information acquired from monitoring and scanning to maintain situational awareness
2. Traffic and capacity management *Maintain a safe and orderly traffic flow*	OB 2.1 Uses prescribed procedures
	OB 2.2 Issues appropriate clearances, instructions and traffic information in a timely manner
	OB 2.3 Uses basic techniques to safely manage the traffic (e.g. identification, vectoring, traffic sequencing, assigning levels)
3. Separation and conflict resolution	OB 3.1 Identifies potential traffic conflicts
	OB 3.2 Chooses the appropriate separation method

Competency for BASIC training and definition	Observable behaviours for BASIC training
Respond to potential traffic conflicts and maintain separation	OB 3.3 Applies appropriate separation methods and spacing
	OB 3.4 Issues clearances and instructions that ensure that separation is maintained
	OB 3.5 Monitors the execution of separation actions
4. Communication *Perform communication effectively in STD environment*	OB 4.1 Speaks clearly, accurately and concisely
	OB 4.2 Uses standard radiotelephony phraseology, when prescribed
	OB 4.3 Verifies accuracy of read backs and corrects as necessary
5. Coordination *Apply the available means for coordination in STD environment*	OB 5.1 Recognises the need for coordination
	OB 5.2 Applies prescribed coordination procedures
	OB 5.3 Uses clear, concise terminology for verbal coordination and standard ATS message formats for non-verbal
6. Self-management *Demonstrate personal attributes that improve performance*	OB 6.1 Acts responsibly when detecting and resolving errors in own performance
	OB 6.2 Maintains an active involvement in self learning and self-development
7. Teamwork *Operate as a team member and contribute to a positive working environment*	OB 7.1 Performs duty and actions in a manner that fosters a team environment
	OB 7.2 Demonstrates consideration and tolerance for other people
	OB 7.3 Uses both positive and negative feedback constructively and objectively

AMC1 ATCO.D.025(c);(e) Basic training examinations and assessment

BASIC TRAINING — REQUIRED LEVEL OF PERFORMANCE

The training organisation should establish the level of performance that is defined as acceptable when assessing whether competency for the successful completion of basic training has been achieved (competency standard) and the specific environment in which performance should be demonstrated (conditions).

Rationale ATCO.D.025 and associated AMC

In point (c), performance objectives have been replaced by relevant competencies and the related observable behaviours. The requirement to conduct the assessments in a part-task trainer or simulator has been separated to a new point (d) to align with the provisions for rating training examinations and assessment. In point (e), the reference to a need to show the behaviour required for safe provision of air traffic control service has been deleted because it is covered by the competency model.

The experts of the rulemaking group agreed that not all ICAO competencies apply for the basic training considering the not very long practical part of the training. 'Management of non-routine situations',

'Problem solving and decision making' and 'Workload management' have been therefore not included in the adapted competency model. In addition, the wording of the definitions of the selected competencies has been modified to better fit basic training. For example, 'Coordination: Apply the available means for coordination in STD environment' has been used instead of the ICAO definition 'Coordination – Manage coordination between personnel in operational positions'.

A limited set of observable behaviours (OBs) for the selected competences that was considered applicable for basic training has been included in the related AMC1 ATCO.D.025(c)(e). Combining some of the ICAO OBs and changing the wording for them was considered necessary in many cases. This was partly since some of the verbs used by ICAO do not appear on the list of action verbs used in the initial training content or were of a taxonomy level that was considered too high for basic training. For example, ICAO OBs 'Coordinates in a timely manner' ('coordinate' does not appear on the list of action verbs) and 'Selects coordination method based on circumstances and prescribed procedures' ('select' is a level 5 action verb) are combined into 'Applies prescribed coordination measures'. All action verbs in the adapted model are at max taxonomy level 3 and the competencies and OBs are adapted to what the students are trained for during basic training.

The definition of competency standards and conditions for basic training is left to the training organisations according to AMC2 ATCO.D.025(c)(e). Further harmonisation is ensured at the rating training level.

~~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.~~

Rationale ATCO.D.030

The basic training performance objectives have been removed as they have now been replaced by the competencies and observable behaviours in ATCO.D.025.

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) The following competencies shall be assessed: ~~Assessment(s) shall be based on the rating training performance objectives described in ATCO.D.040.~~

(1) Situational awareness — comprehend the current operational situation and anticipate future events;

(2) Traffic and capacity management — ensure a safe, orderly and efficient traffic flow, and provide essential information on environment and potentially hazardous situations;

(3) Separation and conflict resolution — manage potential traffic conflicts and maintain separation;

(4) Communication —communicate effectively in all operational situations;

(5) Coordination — manage coordination between personnel in operational positions and with other affected stakeholders;

(6) Management of non-routine situations — detect and respond to emergency and unusual situations related to aircraft operations and manage degraded modes of ATS operation;

(7) Problem-solving and decision-making — find and implement solutions for identified threats and associated undesired states;

(8) Self-management — demonstrate personal attributes that improve performance and maintain an active involvement in self learning and self-development;

(9) Workload management — use available resources to prioritise and perform tasks in an efficient and timely manner;

(10) Teamwork — collaborate actively to achieve a common goal.

(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 achievement of required levels of performance for the required competencies defined in (c) above ~~described in ATCO.D.040 and shows the behaviour required for safe provision of the air traffic control service~~.

AMC1 ATCO.D.035(c);(e) Rating training examinations and assessment

REQUIRED COMPETENCIES FOR RATING TRAINING

Assessments should be based on the competencies defined in ATCO.D.035(c) and the following associated observable behaviours (the competencies and their definitions are repeated for the convenience of the reader):

Competency and definition	Observable behaviours
1. Situational awareness *Comprehend the current operational situation and anticipate future events*	OB 1.1 Monitors air traffic in own area of responsibility and nearby airspace
	OB 1.2 Monitors the meteorological conditions that impact on own area of responsibility and nearby airspace
	OB 1.3 Monitors the status of the ATC systems and equipment
	OB 1.4 Monitors the operational circumstances in nearby sectors to anticipate impact on own situation
	OB 1.5 Acquires information from available surveillance and flight data systems, meteorological data, electronic data displays and any other means available
	OB 1.6 Analyses the actual situation based on information acquired from monitoring and scanning
	OB 1.7 Predicts the future operational situation
	OB 1.8 Identifies potential threats (e.g. high traffic volumes, mountainous terrain, complex airspace infrastructure, complex ATC procedures, adverse weather, unserviceable navigational equipment, flight crew unfamiliar with airport or procedures)
	OB 1.9 Verifies that information is accurate and correct when doubt exists
2. Traffic and capacity management *Ensure a safe, orderly and efficient traffic flow and provide essential information on environment and potentially hazardous situations*	OB 2.1 Identifies situations that have the potential to become unsafe
	OB 2.2 Uses a variety of techniques relevant to the rating to safely and effectively manage the traffic (e.g. speed control, vectoring, traffic sequencing, assigning climb/descent rate)
	OB 2.3 Uses prescribed procedures
	OB 2.4 Issues clearances and instructions that take into account aircraft performance, terrain obstacles, airspace constraints, weather and environmental impact
	OB 2.5 Provides increased safety margins when deemed necessary
	OB 2.6 Issues clearances and instructions that result in an efficient traffic flow
	OB 2.7 Uses available tools to reduce delays and optimise flight profiles
	OB 2.8 Issues information on the runway conditions, weather information, status of airspace, aerodrome resources and status of facilities in a relevant, accurate and timely manner
	OB 2.9 Issues hazard and safety alerts when necessary
	OB 2.10 Issues traffic proximity information in a relevant, accurate and timely manner

Competency and definition	Observable behaviours
3. Separation and conflict resolution *Manage potential traffic conflicts and maintain separation*	OB 3.1 Detects potential traffic conflicts
	OB 3.2 Selects the appropriate separation method
	OB 3.3 Applies appropriate separation and spacing
	OB 3.4 Issues clearances and instructions to ensure that separation is maintained
	OB 3.5 Issues clearances and instructions to resolve conflicts
	OB 3.6 Monitors the execution of separation actions
	OB 3.7 Adjusts control actions, when necessary, to maintain separation
	OB 3.8 Initiates corrective action to restore appropriate separation as soon as possible if below minima
	OB 3.9 Resolves conflicts through coordination with adjacent sectors or units
4. Communication *Communicate effectively in all operational situations*	OB 4.1 Selects communication mode (e.g. radio, telephone, system) that takes into account the requirements of the situation, including speed, accuracy and level of detail of the communication
	OB 4.2 Speaks clearly, accurately and concisely
	OB 4.3 Uses standard radiotelephony phraseology, when prescribed
	OB 4.4 Uses plain language when standardised phraseology does not exist or the situation warrants it
	OB 4.5 Verifies accuracy of read backs and corrects as necessary
	OB 4.6 Adjusts verbal communication techniques to suit the situation (e.g. rate of speech, use of phonetic alphabet for clarity, words twice, simple language)
	OB 4.7 Communicates relevant concerns and intentions
5. Coordination *Manage coordination between personnel in operational positions and with other affected stakeholders*	OB 5.1 Identifies the need for coordination
	OB 5.2 Coordinates with personnel in other operational positions and other stakeholders, in a timely manner
	OB 5.3 Selects coordination mode (e.g. telephone, system, radio) based on circumstances, including urgency of coordination, status of facilities and prescribed procedures
	OB 5.4 Coordinates the movement, control, transfer of control and changes of previously coordinated data for flights using the prescribed coordination procedures
	OB 5.5 Coordinates changes of status of operational facilities (e.g. equipment, systems, functions) and status of airspace and aerodrome resources
	OB 5.6 Uses standard ATS message formats and protocol for non-verbal coordination
	OB 5.7 Conducts effective briefings during position handover

Competency and definition	Observable behaviours
6. Management of nonroutine situations *Detect and respond to emergency and unusual situations related to aircraft operations and manage degraded modes of ATS operation*	OB 6.1 Identifies, from the information available, the possibility of an emergency or unusual situation developing
	OB 6.2 Verifies the nature of the emergency where ambiguity exists
	OB 6.3 Prioritises actions based on the urgency of the situation
	OB 6.4 Provides the most appropriate type(s) of assistance
	OB 6.5 Identifies that ATS systems and/or equipment have degraded
	OB 6.6 Assesses the impact of the degradation on operations
	OB 6.7 Uses prescribed procedures for degraded mode of operation
7. Problem-solving and decision-making *Find and implement solutions for identified threats and associated undesired states*	OB 7.1 Uses appropriate tools to assist in determining possible solutions to a problem
	OB 7.2 Ensures safe and efficient solution to a problem
	OB 7.3 Organises tasks in an appropriate order of priorities
	OB 7.4 Applies an appropriate mitigation strategy for the threats identified (e.g. increased vertical separation in case of CAT, go around if RWY is blocked, etc.)
8. Self-management *Demonstrate personal attributes that improve performance and maintain an active involvement in self learning and self-development*	OB 8.1 Accepts responsibility for own performance (e.g. detecting and resolving own errors, etc.)
	OB 8.2 Demonstrates active listening by asking relevant questions and providing feedback.
	OB 8.3 Evaluates the effectiveness of actions and feedback for improving performance
	OB 8.4 Maintains self-control in changing and/or adverse situations
9. Workload management *Use available resources to prioritise and perform tasks in an efficient and timely manner*	OB 9.1 Manages tasks effectively in response to current and future workload
	OB 9.2 Manages interruptions and distractions effectively
	OB 9.3 Delegates tasks when necessary to reduce workload
	OB 9.4 Integrates the provided assistance, when necessary
	OB 9.5 Adjusts the pace of work according to workload
	OB 9.6 Uses the automated capabilities of ATS equipment to improve efficiency, when available
10. Teamwork *Collaborates actively to achieve a common goal*	OB 10.1 Provides both positive and negative feedback constructively
	OB 10.2 Responds objectively to both positive and negative feedback
	OB 10.3 Demonstrates consideration and tolerance for other people
	OB 10.4 Ensures that actions and duties are carried out in a manner that fosters a team environment

Competency and definition	Observable behaviours
	OB 10.5 Responds appropriately to the needs of others

AMC2 ATCO.D.035(c);(e) Rating training examinations and assessment

AERODROME CONTROL RATING — REQUIRED LEVEL OF PERFORMANCE

The level of performance that is defined as acceptable when assessing whether or not competency for the issue of an ADC rating has been achieved (competency standard) and the specific environment in which performance should be demonstrated (conditions) are as follows:

Conditions ADC	
At the end of the training the learner will be able to consistently demonstrate, without any assistance or prompts from the instructor/assessor, an integrated performance of all the competencies under the following conditions:	
Simulated aerodrome control services environment (minimum of 180° aerodrome simulator)	The configuration of the aerodrome should reflect the complexity values given in the traffic levels and complexity section below. ADC sector provides aerodrome control service to aerodrome traffic operating within the aerodrome control zone (CTR) with a single instrument runway and a minimum of three taxiways connected to the runway on both sides. There should be an approach sector and/or an adjacent area control unit above and around the airport (CTR) that will enable management and coordination of arriving and departing aircraft with the different performance specifications. The CTR is Class D or C airspace.
With the following traffic levels and complexity (defined for the example CTR of approximate dimensions of 5 nm radius from GND to 2 500 ft.)	1. mostly IFR traffic with occasional VFR flights and special VFR flights in different weather conditions (IMC/VMC, visibility, wind, etc.) 2. mix of arrivals, departures and other aerodrome traffic (e.g. overflights/circuit traffic/vehicles, etc.) 3. heavy and medium jets, medium turboprops, light training aircraft and helicopters 4. all levels of traffic with the minimum of 24 aircraft per 45 minutes for the assessed exercise and should ideally not exceed 10 aircraft on frequency simultaneously 5. at least 5 aircraft/vehicles will generate actions at the same time 6. some conflicts/actions to be resolved simultaneously 7. traffic should include arriving and departing aircraft with the different wake turbulence and performance specifications; integration of aircraft in/through the aerodrome traffic circuit from the entry points and visual holdings; management of aircraft and vehicles on the manoeuvring area
The assessed exercises should include one of the following example non-routine situations:	— IFR missed approach — runway incursion — aborted take-off — blocked taxiway — any other non-routine situation

Working position configuration	Aerodrome controller provides all aerodrome control services from one working position
With the use of the following tools and equipment:	— Reconfigurable communication panels — Aerodrome lighting panel — Support information (e.g. maps, weather, airspace reservation, etc.) and the navigation equipment status system — Electronic/paper flight progress strip/list — Situation display so that trainee can monitor the position of aircraft inbound to the aerodrome
Standards ADC	
The students will be able to demonstrate an integrated performance of all the competencies following the procedures and standards described in:	
(a) Regulation (EU) No 923/2012; Regulation (EU) 2017/373; Regulation (EU) No 376/2014; (b) ADC Simulator Local Operating Procedures.	

AMC3 ATCO.D.035(c);(e) Rating training examinations and assessment

APPROACH CONTROL PROCEDURAL RATING — REQUIRED LEVEL OF PERFORMANCE

The level of performance that is defined as acceptable when assessing whether or not competency for the issue of an APP rating has been achieved (competency standard) and the specific environment in which performance should be demonstrated (conditions) are as follows:

Conditions APP	
At the end of the training the learner will be able to consistently demonstrate, without any assistance or prompts from the instructor/assessor, an integrated performance of all the competencies under the following conditions:	
Simulated approach procedural control services environment	The dimensions of the simulated sector should reflect the complexity values given in the traffic levels and complexity section below. APP sector provides approach procedural control services to traffic operating within the approach control area (CTA) and should include integration of inbound and outbound traffic with use of instrument procedures. There should be at least one airport (CTR) below the approach sector and an adjacent area control unit that will enable management and coordination of arriving and departing aircraft with the different performance specifications. The approach sector should be notified as Class C or D airspace. The airspace below the approach CTA sector outside (around) CTR is classified as uncontrolled G airspace.
With the following traffic levels and complexity (defined for the example airspace of approximate dimensions of 60 nm x 60 nm from 300 m GND/MSL - FL145)	a) mostly IFR traffic with occasional VFR flights b) mix of arrivals, departures and at least one overflight c) heavy and medium jets, medium turboprops, light aircraft d) all levels of traffic with the minimum of 9 aircraft per 45 minutes for the assessed exercise and should ideally not exceed 4 aircraft on frequency simultaneously e) at least 2 aircraft will generate actions at the same time f) some actions to be executed simultaneously g) traffic conflicts should include inbound and outbound aircraft with the different performance specifications requiring coordination and the use of procedural separations and should include at least two successive departures and/or arrivals
The assessed exercises should include one of the following example non-routine situations:	a) Weather change b) Request for RWY change c) Diversion with no emergency d) IFR missed approach e) any other non-routine situation appropriate to procedural environment
Working position configuration	The Executive Controller provides all services from a single working position
With the use of at least the following tools and equipment:	a) Voice communication panel b) Electronic/paper flight progress strip/list c) Support information (e.g. maps, weather, airspace reservation, aircraft progress visualisation aid, etc.) and the navigation equipment status system
Standards APP	
The learners will be able to demonstrate an integrated performance of all the competencies following the procedures and standards described in:	
1. Regulation (EU) No 923/2012; Regulation (EU) 2017/373; Regulation (EU) No 376/2014; 2. APP Simulator Local Operating Procedures.	

AMC4 ATCO.D.035(c);(e) Rating training examinations and assessment

AREA CONTROL PROCEDURAL RATING — REQUIRED LEVEL OF PERFORMANCE

The level of performance that is defined as acceptable when assessing whether or not competency for the issue of an ACP rating has been achieved (competency standard) and the specific environment in which performance should be demonstrated (conditions) are as follows:

Conditions ACP	
At the end of the training the learner will be able to consistently demonstrate, without any assistance or prompts from the instructor/assessor, an integrated performance of all the competencies under the following conditions:	
Simulated area control procedural services environment	The dimensions of the simulated sector should reflect the complexity values given in the traffic levels and complexity section below. ACP sector provides area control procedural services to traffic operating within the control area and should include bi-directional ATS route and crossing ATS routes. There should be at least one airport and one local airfield below the ACP sector and other airports in the adjacent sectors that will require integration of arriving and departing aircraft with the different performance specifications. The training airspace should be notified as Class C airspace and above FL195 the sector could be notified as Class A airspace. The airspace below the CTA sector outside the approach sector is classified as uncontrolled G airspace.
With the following traffic levels and complexity (defined for the example airspace of approximate dimensions of 120 nm x 130 nm from minimum level(s)/ – FL275)	2.1 mostly IFR traffic with occasional VFR flights or military jets 2.2 mix of overflights, arrivals, departures 2.3 heavy and medium jets, medium turboprops, business jets, military jets, light aircraft 2.4 all levels of traffic with the minimum of 12 aircraft per 45 minutes for the assessed exercise and should ideally not exceed 4 aircraft on frequency simultaneously 2.5 at least 3 aircraft will generate actions at the same time 2.6 some conflicts/actions to be resolved/executed simultaneously 2.7 traffic conflicts should be managed by the use of coordination and procedural control separations/techniques
The assessed exercises should include one of the following example non-routine situations:	1. level change requests due to turbulence 2. diversion with the METAR request (no emergency) 3. any other non-routine situation appropriate to procedural environment
Working position configuration	The Executive Controller provides all services from a single working position
With the use of at least the following tools and equipment:	(1) Voice communication panel (2) Electronic/paper flight progress strip/list (3) Support information system (e.g. maps, weather, airspace reservation, aircraft progress visualisation aid, etc.) and the navigation equipment status system
Standards ACP	
The learners will be able to demonstrate an integrated performance of all the competencies following the procedures and standards described in:	

1. Regulation (EU) No 923/2012; Regulation (EU) 2017/373; Regulation (EU) No 376/2014;
2. ACP Simulator Local Operating Procedures.

AMC5 ATCO.D.035(c);(e) Rating training examinations and assessment

APPROACH CONTROL SURVEILLANCE RATING — REQUIRED LEVEL OF PERFORMANCE

The level of performance that is defined as acceptable when assessing whether or not competency for the issue of an APS rating has been achieved (competency standard) and the specific environment in which performance should be demonstrated (conditions) are as follows:

Conditions APS	
At the end of the training the learner will be able to consistently demonstrate, without any assistance or prompts from the instructor/assessor, an integrated performance of all the competencies under the following conditions:	
Simulated approach control surveillance services environment	The dimensions of the simulated sector should reflect the complexity values given in the traffic levels and complexity section below. APS sector provides approach control surveillance services to traffic operating within the approach control area (CTA) and should include integration of arriving and departing traffic via ATS routes, holding pattern(s), STARs and SIDs. There should be at least one major airport (CTR) below the approach sector and an adjacent area control unit that will enable management and coordination of arriving and departing aircraft with the different performance specifications. The approach sector should be notified as Class C airspace. The airspace below the approach CTA sector outside (around) CTR is classified as uncontrolled G airspace.
With the following traffic levels and complexity (defined for the example airspace of approximate dimensions of 50 nm x 50 nm from 300 m GND/MSL - FL145)	a) mostly IFR traffic with occasional VFR flights b) mix of arrivals, departures and some overflights, VFRs or military jets c) heavy and medium jets, medium turboprops, light training aircraft d) all levels of traffic with the minimum of 20 aircraft per 45 minutes for the assessed exercise and should ideally not exceed 8 aircraft on frequency simultaneously e) at least 5 aircraft will generate actions at the same time f) some conflicts/actions to be resolved simultaneously g) traffic conflicts should include inbound and outbound aircraft with the different wake turbulence and performance specifications requiring the use of vectoring, sequencing, holding and speed control techniques to assist approach, separation and coordination; integration of aircraft approaching from un-controlled airspace
The assessed exercises should include one of the following example non-routine situations:	a) weather avoidance b) level change requests c) IFR missed approach d) ILS failure e) Activation of TSA/TRA (e.g. paragliding activities) f) navigation assistance to an aircraft g) any other non-routine situation

Working position configuration	The Executive Controller provides all services from a single working position
With the use of the following tools and equipment:	1. Multilateral SSR radar system (with Mode S) 2. Reconfigurable communication panels 3. OLDI 4. STCA and/or MTCA systems 5. Support information (e.g. maps, weather, airspace reservation, etc.) and the navigation equipment status system 6. Flight data processing system 7. Electronic/paper flight progress strip/list
Standards APS	
The learners will be able to demonstrate an integrated performance of all the competencies following the procedures and standards described in:	
1. Regulation (EU) No 923/2012; Regulation (EU) 2017/373; Regulation (EU) No 376/2014; 2. APS Simulator Local Operating Procedures.	

AMC6 ATCO.D.035(c);(e) Rating training examinations and assessment

AREA CONTROL SURVEILLANCE RATING — REQUIRED LEVEL OF PERFORMANCE

The level of performance that is defined as acceptable when assessing whether or not competency for the issue of an ACS rating has been achieved (competency standard) and the specific environment in which performance should be demonstrated (conditions) are as follows:

Conditions ACS	
At the end of the training the learner will be able to consistently demonstrate, without any assistance or prompts from the instructor/assessor, an integrated performance of all the competencies under the following conditions:	
Simulated area control surveillance services environment	The dimensions of the simulated sector should reflect the complexity values given in the traffic levels and complexity section below. ACS sector's vertical limits should enable the application of both the upper and low level flights (outside the approach environment). ACS sector provides area control surveillance services to traffic operating within the control area and should include bi-directional ATS route and crossing ATS routes. There should be at least one major airport and one local airfield below the ACS sector and other airports in the adjacent sectors that will require integration of arriving and departing aircraft with the different performance specifications. The training airspace should be notified as Class C airspace and above FL195 the sector could be notified as Class A airspace. The airspace below the CTA sector outside the approach sector is classified as uncontrolled G airspace. The CTA is designated RVSM airspace between FL290 and FL410. All aircraft operating between FL290 and FL410 inclusive must be RVSM equipped.

With the following traffic levels and complexity (defined for the example airspace of approximate dimensions of 120 nm x 130 nm from FL95/FL145 – FL660)	(1) mostly IFR traffic with occasional VFR flights (2) mix of overflights, arrivals, departures and joining VFRs or military jets (3) heavy and medium jets, medium turboprops, business jets, military jets, light training aircraft (4) all levels of traffic with the minimum of 28 aircraft per 45 minutes for the assessed exercise and should ideally not exceed 12 aircraft on frequency simultaneously (5) at least 6 aircraft will generate actions at the same time (6) some conflicts to be resolved simultaneously (7) traffic conflicts should include aircraft on same and opposite tracks, the split situations to enable climb/descent, crossing conflicts on a bi-directional airway that crosses other airways, converging exit conflicts and integration of arrivals/departures with the different wake turbulence and performance specifications, requiring the use of speed control techniques to assist separation, including at least one fast aircraft following a slower one
The assessed exercises should include one of the following example non-routine situations:	1. weather avoidance 2. level change requests due to turbulence 3. level bust TCAS RA 4. diversion with the METAR request (no emergency) 5. unplanned activation of TSA/TRA; 6. any other non-routine situation
Working position configuration	The Executive Controller and Planner provide all services from two adjacent positions in identical configuration.
With the use of the following tools and equipment:	(1) Multilateral SSR radar system (with Mode S) (2) Reconfigurable communication panels (3) OLDI (4) STCA and/or MTCA systems (5) Support information system (e.g. maps, weather, airspace reservation, etc.) (6) Flight data processing systems (7) Electronic/paper flight progress strip/list
Standards ACS	
The learners will be able to demonstrate an integrated performance of all the competencies following the procedures and standards described in:	
1. Regulation (EU) No 923/2012; Regulation (EU) 2017/373; Regulation (EU) No 376/2014; 2. ACS Simulator Local Operating Procedures.	

Rationale ATCO.D.035

In point (c), performance objectives have been replaced by competencies. In point (e), the reference to a need to show the behaviour required for safe provision of air traffic control service has been deleted because it is covered by the competency model.

The adapted competency model for ratings includes all 10 ICAO competencies. The definitions of the competencies are the same as ICAO definitions, except for the definition for 'Teamwork'. A reduced

number of observable behaviours (OBs) is presented in AMC 2-6 ATCO.D.035(c)(e). Similar to basic training, some ICAO OBs for rating training have been considered too complex and not supported by the current training syllabus. Therefore, some OBs have been combined, some reworded and some not selected.

AMC 2-6 ATCO.D.035(c)(e) propose the harmonised conditions (a specific environment in which performance will be demonstrated) and standards (a level of performance that is defined as acceptable when assessing whether competency has been achieved). These have been developed for each of the ratings considering the initial training content with the purpose of ensuring a more harmonised level of the students at the time of the student ATCO licence issue.

The conditions were defined by training experts from EUROCONTROL and the rulemaking group. The traffic levels are based on the figures received from EUROCONTROL. In this statistic the average ACS sector capacity of 230 sectors in Europe was 40 aircraft per hour and the maximum 62. It was considered that for complex and dense traffic situations a slightly higher figure than the average should be used. The calculation is therefore based on 48 aircraft per hour. 80 % of this traffic was considered appropriate for the final assessments as the assessment situation as such creates additional stress and as the assessments also include a non-routine situation. The number was further reduced to take into account the proposed length of the exercise being 45 minutes. This resulted in a minimum of 28 aircraft in a 45-minute exercise. The figures for other ratings were derived in a similar manner.

The figure above as well as other conditions on traffic levels and complexity presented are established in relation to an example airspace. The dimension of the example airspace was therefore included and a requirement that 'the dimensions of simulated sector should reflect the complexity values given in the traffic levels and complexity section' was added to highlight that the traffic levels would need to be adjusted if a smaller or bigger airspace would be used.

~~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 Procedural (APP) rating shall ensure that applicants:~~

~~(1) manage the workload and provide air traffic services within a defined approach control area of responsibility; and~~

~~(2) apply procedural approach control, planning techniques and operational procedures to arriving, holding, departing and transiting traffic.~~

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

~~(f) In addition to point (b), rating training performance objectives for the Area Control Procedural (ACP) rating shall ensure that applicants:~~

~~(1) manage the workload and provide air traffic services within a defined area control area of responsibility; and~~

~~(2) apply procedural area control, planning techniques and operational procedures to area traffic.~~

~~(g) In addition to point (b), rating training performance objectives for the Area Control Surveillance (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~~

~~*ED Decision 2015/010/R*~~

~~**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.~~

Rationale ATCO.D.040

ATCO.D.040 and the related AMC and GM have been deleted because the adapted competency model replaces the former performance objectives.

SECTION 3 – UNIT TRAINING REQUIREMENTS

ATCO.D.043 Principles of competency-based training and assessment for unit training

When developing training plans and courses for unit training, training organisations shall, in addition to what is foreseen in ATCO.D.003, ensure that:

(a) relevant competencies are clearly defined;

(b) competencies are formulated in a way that ensures that they can be trained for, observed and assessed consistently in a wide variety of work; and

(c) clear performance criteria are established for assessing competence.

AMC1 ATCO.D.043(a) Principles of competency-based training and assessment for unit training

RELEVANT COMPETENCIES FOR UNIT TRAINING

To train and assess the capacity of an individual to perform at the standard expected in the ATC unit, the training organisation should develop an adapted competency model suitable for the specific local environment using as a minimum the competencies for rating training, as defined in ATCO.D.035(c).

The adapted competency model should reflect the ATS unit's specific local environment and requirements. The selection or adaptation of the associated observable behaviours should be based on analysis of the specific environment considering the regulatory, operational, technical and organisational requirements.

GM1 ATCO.D.043(a) Principles of competency-based training and assessment for unit training

RELEVANT COMPETENCIES FOR UNIT TRAINING

Further guidance on observable behaviours for unit training can be found in ICAO 'Procedures for Air Navigation Services', Third edition, 2020 (ICAO Doc 9868) and in 'Manual on Air Traffic Controller Competency-based Training and Assessment' first edition, 2017 (ICAO Doc 10056).

Rationale ATCO.D.043

A new point ATCO.D.043 has been added to cover the general principles of competency-based training and assessment applicable for unit training, which are additional to the general principles covered in ATCO.D.003.

ATCO.D.025 and ATCO.D.035 contain a harmonised adapted competency model for initial training. For unit training, there will be local adaptation that is left to the training organisations. This is further explained in AMC1 ATCO.D.043(a).

GM1 ATCO.D.043(a) provides reference to the ICAO Documents that can be helpful and that should be considered when defining the adapted competency model for the unit.

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

(~~d~~c) 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~~d) 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 the applicant during unit training in team resource management, fatigue management and stress management.

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

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

(~~d~~b) Training organisations should develop training objectives for team resource management, fatigue management and stress management training.

Rationale ATCO.D.045

In AMC1 ATCO.D.045(c)(3), the obligation of training organisations to develop performance objectives for abnormal and emergency situation training has been deleted because 'performance objectives' are not used anymore and because the content is included in competency 'Management of non-routine situations', which the training organisations should cover in their adapted competency model.

For similar reasons the requirement to develop performance objectives for team resource management training (covered by 'teamwork' competency) is deleted in AMC1 ATCO.D.045(c)(4). Team resource management has been however added to the list of topics for which the unit training

organisations should develop training objectives. Additionally, former point (c) has been removed because it has been considered to be of no added value.

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 competent authority.

(b) The unit training plan shall contain at least:

[…]

(4) the process for the conduct of ~~a~~ the unit endorsement course(s);

[…]

AMC2 ATCO.D.055(b)(6) Composition of unit training

DURATION OF UNIT ENDORSEMENT COURSES

The duration of the unit endorsement course should refer to the number of hours that can be counted as training, in order to distinguish them from the trainee's overall working hours. The training organisation should describe how to count these training hours (e.g. exclusion of low-traffic periods, limitation of the number of night shift hours, determination by the instructor after the session, etc.).

~~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.~~

Rationale ATCO.D.055

GM has been added to give further guidance on how the duration of training should be counted.

The AMC on desirable behaviours for abnormal and emergency situations is proposed to be deleted because the same issue is covered by the requirement in ATCO.D.043 for the training organisations to establish performance criteria.

ATCO.D.060 Unit endorsement course

[…]

(c) Unit endorsement courses shall define the syllabus in accordance with ATCO.D.045(c) and the ~~performance objectives~~ required performance criteria in accordance with ATCO.D.0435(c), and shall be conducted in accordance with the unit training plan.

[…]

GM1 ATCO.D.060(a)(2) Unit endorsement course

ON-THE-JOB TRAINING PHASE

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

(b) Hours accumulated on approved synthetic training devices 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), with the exception of training for procedures unlikely to be encountered in the operational environment during the training.

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

COMPETENCIES AND PERFORMANCE CRITERIA ~~OBJECTIVES~~ FOR AIR TRAFFIC CONTROLLERS PROVIDING SERVICES TO AIRCRAFT CARRYING OUT FLIGHT TESTS

The competencies and performance criteria ~~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 according to ATS.TR.160 of Commission Implementing Regulation (EU) 2017/373 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, to aircraft carrying out flight tests within a defined aerodrome, approach control and/or area control area of responsibility.

Rationale ATCO.D.060

Point (c) has been amended to reflect the changes related to introduction of the CBTA. In addition, the link with the common requirements with regard to flight tests has been established in GM1 ATCO.D.060(c).

The text in GM1 ATCO.D.060(a)(2) is the same text as the one removed from GM1 ATCO.D.005(a)(2)(ii).

ATCO.D.070 Assessments during unit endorsement courses

(a) The applicant's final 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~~ evaluated 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. In the case of a single assessment, the evaluation reports provided by the instructors should be built on multiple observations.

(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, of ~~to~~ maintaining 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.

[…]

(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~~ assessors 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~~ he or she should be doing, but also why ~~he/she~~ he or she should be doing it. It

requires considerable skills and it should be undertaken in a way to ensure consistency among individual ~~examiners~~ assessors.

Rationale — ATCO.D.070, GM1 ATCO.D.070

In ATCO.D.070(a), 'at least once at the end of the on-the-job training' has been deleted to encourage multiple observations in the spirit of CBTA principles. Instead, the word 'final' has been added to indicate that not all assessments throughout the entire unit training do necessarily need to take place in an operational environment. 'Final' assessment is considered to cover all assessment types (including continuous assessment).

In ATCO.D.070(a), 'assessed' has been replaced by 'evaluated' due to the fact that this does not generate an entry in the licence, and the assessment shall be performed at the end of the unit endorsement course.

In addition, a reference to allow dedicated assessment based on multiple observations has been added to single assessments.

SECTION 4 – CONTINUATION TRAINING REQUIREMENTS

ATCO.D.075 Continuation training

Continuation training shall consist of refresher and, when relevant, conversion training courses and shall be provided according to the requirements contained in the unit competence scheme according to ATCO.B.025.

ATCO.D.080 Refresher training

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

(b) Refresher training shall be designed to review, reinforce or enhance the existing knowledge and practical performance ~~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 including performance criteria and the associated evaluation methods shall be defined 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**~~ **EVALUATIONS** ~~**ASSESSMENTS**~~

Refresher training ~~topics~~ subjects should be ~~examined or~~ evaluated ~~assessed~~ using the processes described in the unit competence scheme**.**

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

~~**PHRASEOLOGY TRAINING**~~

~~Training organisations should develop objectives for phraseology.~~

GM1 ATCO.D.080(c) Refresher training

SYLLABUS FOR REFRESHER TRAINING

The syllabus should include a clear description of the objectives and methods to be used for the evaluation of practical skills and theoretical knowledge.

ATCO.D.085 Conversion training

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

(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 or~~ evaluation ~~and/or assessments~~ 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(b) Conversion training

The need for conversion training is identified in the safety assessment of changes to the functional system. Not all safety assessments may generate a need for conversion training.

Conversion training includes, but is not limited to, cases where a change modifies the:

— way ATCOs operate and use equipment;

— operations manuals, according to ATM/ANS.OR.B.035 of Regulation (EU) 2017/373), that are used by ATCOs;

— formal interfaces, according to ATM/ANS.OR.B.005(f) of Regulation (EU) 2017/373, affecting ATCOs.

Care should be taken when training operational staff before the change is operational, as the training may change the behaviour of the operational staff when they interact with the existing functional system before any other part of the change is made.

AMC1 ATCO.D.085(c)(2) Conversion training

EVALUATIONS
Conversion training should be evaluated using the processes described in the unit competence scheme.

Rationale — ATCO.D.075, ATCO.D.080, AMC1 to ATCO.D.080, AMC1 ATCO.D.080(b)(1);(2), GM1 ATCO.D.080(c), ATCO.D.085, GM1 ATCO.D.085(b), AMC1 ATCO.D.085(c)(3)

The changes proposed in this section are due to introduction of evaluations as a replacement for the assessments. In addition, the link with Regulation (EU) 2017/373 regarding the changes to functional system and conversion training is reflected now in the AMC/GM material.

All other proposed changes are to reflect the CBTA terminology.

AMC1 ATCO.D.080(b)(1);(2) has been deleted because the content of the refresher training is based on the content of the unit endorsement courses/unit training. During this training, phraseology is used in conjunction with standard operating practices and abnormal and emergency situations under the competency 'Communication' for which performance criteria have been developed; therefore, there is a duplication in AMC1 ATCO.D.080(b)(1);(2).

SECTION 5 – TRAINING OF INSTRUCTORS AND ASSESSORS

ATCO.D.087 Principles for competency-based training and assessment for practical instructors and assessors

(a) The training for practical instructors and assessors in a competency-based environment shall ensure that they:

(1) fully understand the principles of competency-based training and assessment;

(2) have detailed knowledge of the adapted competency model and the processes for assessing competence.

(b) In a competency-based environment, a practical instructor shall:

(1) instruct on the basis of the training plan and associated training materials;

(2) understand the merits of, and provide timely and continuous feedback on, trainee performance;

(3) use the adapted competency model to diagnose the root cause(s) of performance difficulties;

(4) recognise the challenges associated with instructing and diagnosing deficiencies in the cognitive processes;

(5) manage issues related to attitude.

(c) In a competency-based environment, the assessor shall:

(1) gather evidence of competent performance through practical observations (and any associated interviews);

(2) analyse all the evidence to determine if the trainees' performance demonstrates that they have acquired or maintained the competencies detailed in the adapted competency model;

(3) be able to assess an integrated performance and, at the same time, evaluate the performance of separate competencies;

(4) conduct assessment(s) by gathering evidence of competent performance;

(5) debrief the trainees in a manner that will aid their progress.

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

REQUIRED COMPETENCIES FOR PRACTICAL INSTRUCTORS

Assessments should be based on the following competencies and the associated observable behaviours.

Competency for practical instructors and definition	Observable behaviours
1. Situational awareness *Comprehend current operational situation, anticipate future events and the impact of the students' performance on the operation* (*Note: 'Students' should be understood as the persons undertaking training*)	OB 1.1 Monitors the operational situation while instructing
	OB 1.2 Monitors the impact of the students' actions on the traffic situation
	OB 1.3 Demonstrates understanding of the situation based on the analysis of the students' actions and behaviours
	OB 1.4 Monitors the students' actions continuously
	OB 1.5 Monitors the students' behaviour for physical signs of cognitive overload, fatigue or acute stress.
	OB 1.6 Demonstrates the ability to predict the future operation situation (based on the student's/trainee's decisions/planning)
	OB 1.7 Identifies potentially hazardous situations (e.g. separation, consequences of adverse weather, capacity overload, emergency and urgency)
2. Safety and efficiency management *Ensure safety and efficiency of the operation during training*	OB 2.1 Prioritises safety above teaching the students
	OB 2.2 Takes action to ensure that safety is never compromised (e.g. correct errors, take over control)
	OB 2.3 Intervenes in a timely manner to maintain an orderly flow of traffic, when appropriate, and to ensure that safety is not compromised
	OB 2.4 Ensures that traffic efficiency is maintained, including impact on adjacent sectors/units
	OB 2.5 Manages own and the students' workload to ensure safe and efficient operations (e.g. sector splitting, increased spacing, adapting instructional techniques)
3. Mentoring *Support the students' integration into the professional environment by mentoring, advising, guiding and creating a positive learning experience*	OB 3.1 Develops a rapport (positive professional relationship) with the students and provides encouragement and support
	OB 3.2 Promotes positive working relationships
	OB 3.3 Encourages a positive approach to learning
	OB 3.4 Demonstrates empathy and understanding, recognising situations when extra support is required
	OB 3.5 Encourages students to self-reflect to identify strengths and weaknesses and areas for improvement
	OB 3.6 Encourages students to look for positive learning experiences from each training session, even those that did not go well
	OB 3.7 Encourages students to extract maximum training value from any feedback, including negative points and appreciate ownership and responsibility for the training outcome
	OB 3.8 Appreciate ownership and responsibility for the training outcome
	OB 3.9 Encourages students to ask questions as part of the overall learning experience
	OB 3.10 Helps students to build and maintain confidence through encouragement and motivation

Competency for practical instructors and definition	Observable behaviours
	OB 3.11 Ensures sufficient repetition of learning activities
	OB 3.12 Ensures opportunities for increasing complexity
4. Teaching, instructing and coaching *Provide instruction and facilitates learning in the operational and synthetic training environment*	OB 4.1 Prepares for each training session and briefs the students prior to taking over the operational position
	OB 4.2 Ensures the students understand goals for the session and the expected performance standards
	OB 4.3 Ensures the students understand the operational situation prior to assuming control
	OB 4.4 Maintains appropriate seating position and proximity to the students
	OB 4.5 Uses targeted training techniques to enable learning (e.g. talk aloud problem-solving techniques, demonstration, immediate bad habit correction, students' involvement, questioning techniques)
	OB 4.6 Adapts training techniques and style to meet the needs of the students
	OB 4.7 Ensures appropriate timing of teaching opportunities
	OB 4.8 Understands students' behaviours and responds appropriately (e.g. stress, under confidence, over-confidence)
	OB 4.9 Encourages the students to make decisions appropriate to their level of competence and experience
	OB 4.10 Understands the students' intended actions and plans (e.g. using questioning techniques) and encourages the students to develop problem-solving abilities
	OB 4.11 Keeps an appropriate attitude when taking control from the students in the circumstances dictating this type of intervention
	OB 4.12 Provides constructive and balanced feedback in a timely and appropriate manner
	OB 4.13 Debriefs the students to review the performance emphasising positive actions and development areas
	OB 4.14 Helps the students to develop strategies for improvement to overcome any gaps in competencies

Competency for practical instructors and definition	Observable behaviours
5. Communication *Communicate effectively with the students in verbal, non-verbal and written form*	OB 5.1 Listens actively.
	OB 5.2 Encourages constructive discussion about the students' performance
	OB 5.3 Speaks clearly, accurately and in a calm and measured manner
	OB 5.4 Adjusts speech techniques to suit the operational and/or instructional situation (e.g. conveys a sense of urgency, speaks calmly)
	OB 5.5 Adapts the content of communication to the needs of the students (e.g. does not overload with too much information)
	OB 5.6 Explains complex situations clearly (e.g. traffic situations, application of procedures, management of emergencies)
	OB 5.7 Explains cognitive strategies clearly (e.g. how to analyse situations, prioritise, select a course of action, distribute attention)
	OB 5.8 Interacts and asks questions in a way that does not distract a student from current tasks
	OB 5.9 Asks questions that are valid, relevant and unambiguous
	OB 5.9 Delivers difficult messages with tact and sensitivity
	OB 5.10 Writes objective and comprehensive reports on the students' performance, including recommendations for improvement
	OB 5.11 Ensures the reports are made in accordance with training procedures (e.g. formative).
6. Assessment *Evaluate the performance of the students for the purposes of enabling learning, monitoring progress and/or determining whether competence has been achieved* *(Note: Assessment does not relate to the current definition inserted in the Regulation, but to the formative assessments to be conducted during the training.)*	OB 6.1 Gathers factual evidence of the students' performance against the objectives
	OB 6.2 Gathers factual evidence for all the required competencies
	OB 6.3 Evaluates the students' performance in relation to the competencies and previously set goals and performance standards
	OB 6.4 Analyses poor performance to determine underlying reasons, when appropriate
	OB 6.5 Determines remedial actions required to address deficiencies in performance, when appropriate
	OB 6.6 Determines whether the evidence gathered supports a decision that a students is competent
	OB 6.7 Applies consistent standards when evaluating performance
7. Collaboration *Collaborate with relevant parties to facilitate a robust training experience for the students*	OB 7.1 Gathers relevant information in advance for the purpose of tailoring the training approach and of maximising productivity of the training session (e.g. from the training organisation, human resources department, previous training reports)
	OB 7.2 Co-ordinates with the students and other parties for the purposes of tailoring the training approach
	OB 7.3 Asks for help when a student needs additional support in training, when required (e.g. from an experienced OJTI or OJTI team, additional practice on simulator, counselling)

Competency for practical instructors and definition	Observable behaviours
	OB 7.4 Contributes information on the students' progress to the training team
8. Self-assessment *Improve teaching, instructional and coaching capabilities through self-assessment*	OB 8.1 Remains open to feedback
	OB 8.2 Improves performance based on accurate and balanced feedback
	OB 8.3 Improves performance through self-evaluation of the effectiveness of actions
	OB 8.4 Maintains self-control in challenging training situations
	OB 8.5 Responds as needed to deal with the demands of challenging training situations
9. Ethics and integrity *Demonstrate openness, respect and fairness towards the students, and consider the consequences when making a decision or taking action*	OB 9.1 Treats the students respectfully, fairly and objectively
	OB 9.2 Answers questions truthfully without embellishment or attempt to cover up a lack of knowledge
	OB 9.3 Maintains privacy and confidentiality when appropriate
	OB 9.4 Manages professional relationships with appropriate role boundaries
	OB 9.5 Acts with integrity

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

REQUIRED COMPETENCIES FOR ASSESSORS

Competency for assessors and definition	Observable behaviours
1. Situational awareness *Comprehend current and future operational situation and the impact of the ATCO's/student's performance on the operation*	OB 1.1 Understands the current and future operational situation
	OB 1.2 Uses information obtained from monitoring and scanning into the overall picture
	OB 1.3 Monitors and analyses the impact of the ATCO's/student's actions on the traffic situation, continuously
	OB 1.4 Identifies potentially hazardous situations (e.g. separation with other aircraft, objects, airspace and ground, consequences of adverse weather, capacity overload, emergency and urgency) including the ATCO's/student's behaviour (e.g. cognitive overload, unsafe actions)
2. Safety management *Ensure the safety of the operations is maintained during the assessment*	OB 2.1 Prioritises safety above the conduct of the assessment.
	OB 2.2 Prioritises safety-related actions above other performance objectives
	OB 2.3 Identifies situations that have the potential to become unsafe
	OB 2.4 Monitors the traffic levels, complexity and workload on a position to verify that the assessment is conducted under normal operational conditions
	OB 2.5 Takes action to ensure that the assessment is conducted under normal operational conditions

Competency for assessors and definition	Observable behaviours
3. Preparation and briefing *Obtain information relevant for the assessment, inform the ATCO/student of expected standards, and check the ATCO's/student's readiness to perform*	OB 3.1 Collects information necessary for the regular conduct of the assessment (e.g. local rules and procedures, a position, predicted traffic, time, weather situation, equipment status, planned activities in the airspace)
	OB 3.2 Appreciates the reason for the assessment (e.g. training, assessment of competence) and the background of the assessed ATCO/student and prepares accordingly
	OB 3.3 Communicates the performance criteria and relevant procedures prescribed for the assessment
	OB 3.4 Establishes a rapport (positive professional relationship) with the ATCO/student
	OB 3.5 Informs the ATCO/student about the expected standards (e.g. competency units, objectives), conditions (e.g. the position, traffic levels), the conduct of the assessment (e.g. taking notes, actions in case of an emergency or an unusual situation.
	OB 3.6 Informs the ATCO/student of who is responsible for safety
	OB 3.7 Informs the ATCO/student about the right to appeal
	OB 3.8 Checks with the ATCO/student whether they are fit for duty and ready to perform
	OB 3.9 Ensures that the ATCO/student is aware of the implications of the assessment result
	OB 3.10 Appreciates the ATCO's/student's expectations and opinions and encourages open communication
4. Assessment *Evaluate the ATCO's/student's performance to determine whether the ATCO competence or required level of performance in training has been achieved*	OB 4.1 Acts as unobtrusively as possible
	OB 4.2 Maintains appropriate seating position and proximity to the ATCO/student
	OB 4.3 Collects evidence for all required competencies that can be reliably attributed to the assessed ATCO/student
	OB 4.4 Assesses performance against the defined performance criteria leading to a decision of the assessment
	OB 4.5 Ensures that the assessment is conducted according to the relevant local operational procedures
	OB 4.6 Ensures that real-time notes are taken
	OB 4.7 Collects evidence through the use of the appropriate questioning techniques during the assessment, when required
	OB 4.8 Applies consistent standards when assessing performance
5. Decision-making *Ensure that the judgements and decisions promote objectivity and safety and fully comply with the regulations and rules*	OB 5.1 Uses the notes to reconstruct major occurrences during the assessment.
	OB 5.2 Maintains impartiality, neutrality and objectivity regardless of the outcome of decisions
	OB 5.5 Ensures discretion and confidentiality and decides what information can be disclosed and when

Competency for assessors and definition	**Observable behaviours**
	OB 5.6 Seeks advice if unsure prior to making difficult and sensitive decisions
	OB 5.7 Takes into account the existing rules and operating procedures when determining the assessment result
6. Debriefing *Provide objective feedback on student/ ATCO performance*	OB 6.1 Provides comprehensive debrief to review the performance against the performance criteria/objectives, emphasising positive actions, areas to work on and strategies for improvement
	OB 6.2 Recognises and responds appropriately to the behaviour of the assessed ATCO/student (e.g. stress, under confidence, over-confidence)
	OB 6.3 Informs the assessed ATCO/student of the assessment result clearly and unambiguously
7. Communication *Communication techniques to effectively communicate verbally, non-verbally and in written form*	OB 7.1 Listens actively during the full process of assessment
	OB 7.2 Speaks clearly, accurately and in a calm and measured manner
	OB 7.3 Adjusts speech techniques (use of voice modulation) to suit the situation
	OB 7.4 Adapts the content of the communication to the person under assessment (e.g. does not overload or confuse)
	OB 7.5 Explains in a clear manner complex situations (e.g. traffic situations, application of procedures, management of emergencies plan, prioritisation)
	OB 7.6 Asks questions that are valid, relevant and unambiguous
	OB 7.7 Delivers difficult messages with tact and sensitivity
	OB 7.8 Ensures the reports are written objectively and comprehensively with integrity and confidentiality
	OB 7.9 Ensures that the reports are complete including all facts that are relevant for decision-making
8.Collaboration and Teamwork *Integrate as a functional team member and collaborate with the aim of conducting the assessment*	OB 8.1 Treats the assessed person respectfully, fairly and objectively
	OB 8.2 Shows respect, tolerance for other people involved in the conduct of the assessment
9.Self-assessment and Continuous development *Demonstrate personal attributes that improve performance, maintain self-awareness and active involvement in learning and self-development*	OB 9.1 Responds objectively to both positive and negative feedback
	OB 9.2 Improves performance through self-evaluation of the effectiveness of actions
	OB 9.3 Takes responsibility for own actions and self-corrects own errors.
	OB 9.4 Maintains self-control in challenging situations
10.Ethics and integrity *Demonstrate openness, respect and fairness towards colleagues and students and consider the consequences of actions*	OB 10.1 Evaluates gathered evidence for its relevance, validity, reliability, sufficiency and authenticity and ensures appropriate secure storage
	OB 10.2 Answers questions honestly without covering up a lack of knowledge
	OB 10.3 Maintains privacy and confidentiality
	OB 10.4 Acts with objectivity and professional integrity

~~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.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.~~

Rationale — ATCO.D.087, AMC2 ATCO.D.090(a)(1), AMC1 ATCO.D.095(a)(1)

The changes proposed in this section are the first substantial changes to introduce the concept of the CBTA for the instructors' and assessor's training. This led to the introduction of ATCO.D.087 and subsequent AMC material to introduce the CBTA principles for the instructors and assessors and to propose the competencies and observable behaviours similar to the ATCO training from ICAO Doc 9868. Additionally, AMC2 ATCO.D.090(a)(1) and AMC1 ATCO.D.095(a)(1) have been replaced.

~~APPENDIX 2 OF ANNEX I~~

~~BASIC TRAINING~~

~~(Reference: Annex I — Annex I (Part-ATCO), Subpart D, Section 2, point ATCO.D.010(a)(1))~~

~~TABLE OF CONTENTS~~

~~SUBJECT 1: INTRODUCTION TO THE COURSE~~

~~SUBJECT 2: AVIATION LAW~~

~~Subtopic LAWB 2.2 - European and other agencies~~

~~Subtopic LAWB 2.3 - Aviation associations~~

~~TOPIC LAWB 3 - NATIONAL ORGANISATIONS~~

~~Subtopic LAWB 3.1 - National authorities~~

~~Subtopic LAWB 3.2 - National legislative procedures~~

~~Subtopic LAWB 3.3 - Competent authority~~

~~Subtopic LAWB 3.4 - National aviation associations~~

~~TOPIC LAWB 4 - ATS SAFETY MANAGEMENT~~

~~Subtopic LAWB 4.1 - Safety regulation~~

~~Subtopic LAWB 4.2 - Safety management system~~

~~TOPIC LAWB 5 - RULES AND REGULATIONS~~

~~Subtopic LAWB 5.1 - Units of measurement~~

~~Subtopic LAWB 5.2 - ATCO licensing/certification~~

~~Subtopic LAWB 5.3 - Overview of ANS~~

~~Subtopic LAWB 5.4 - Overview of ATS~~

~~Subtopic LAWB 5.5 - Overview of aeronautical information management (AIM)~~

~~Subtopic LAWB 5.6 - Rules of the air~~

~~Subtopic LAWB 5.7 - Airspace and ATS routes~~

~~Subtopic LAWB 5.8 - Flight plan~~

~~Subtopic LAWB 5.9 - Aerodromes~~

~~Subtopic LAWB 5.10 - Holding procedures for IFR flights~~

~~Subtopic LAWB 5.11 - Holding procedures for VFR flights~~

~~**SUBJECT 3: AIR TRAFFIC MANAGEMENT**~~

~~TOPIC ATMB 1 - AIR TRAFFIC MANAGEMENT~~

~~Subtopic ATMB 1.1 - Application of units of measurement~~

~~Subtopic ATMB 1.2 - Air traffic control (ATC) service~~

~~Subtopic ATMB 1.3 - Flight information service (FIS)~~

~~Subtopic ATMB 1.4 - Alerting service~~

~~Subtopic ATMB 1.5 - Air traffic advisory service~~

~~Subtopic ATMB 1.6 - ATS system capacity and air traffic flow management~~

~~Subtopic ATMB 1.7 - Airspace management (ASM)~~

~~TOPIC ATMB 2 - ALTIMETRY AND LEVEL ALLOCATION~~

~~Subtopic ATMB 2.1 - Altimetry~~

~~Subtopic ATMB 2.2 - Transition level~~

~~Subtopic ATMB 2.3 - Level allocation~~

~~TOPIC ATMB 3 - RADIOTELEPHONY (RTF)~~

~~Subtopic ATMB 3.1 - RTF general operating procedures~~

~~TOPIC ATMB 4 - ATC CLEARANCES AND ATC INSTRUCTIONS~~

~~Subtopic ATMB 4.1 - Type and content of ATC clearances~~

~~Subtopic ATMB 4.2 - ATC instructions~~

~~TOPIC ATMB 5 - COORDINATION~~

~~Subtopic ATMB 5.1 - Principles, types and content of coordination~~

~~Subtopic ATMB 5.2 - Necessity for coordination~~

~~Subtopic ATMB 5.3 - Means of coordination~~

~~TOPIC ATMB 6 - DATA DISPLAY~~

~~Subtopic ATMB 6.1 - Data extraction~~

~~Subtopic ATMB 6.2 - Data management~~

~~TOPIC ATMB 7 - SEPARATIONS~~

~~Subtopic ATMB 7.1 - Vertical separation and procedures~~

~~Subtopic ATMB 7.2 - Horizontal separation and procedures~~

~~Subtopic ATMB 7.3 - Visual separation~~

~~Subtopic ATMB 7.4 - Aerodrome separation and procedures~~

~~Subtopic ATMB 7.5 - Separation based on ATS surveillance systems~~

~~Subtopic ATMB 7.6 - Wake turbulence separation~~

~~TOPIC ATMB 8 - AIRBORNE AND GROUND-BASED SAFETY NETS~~

~~Subtopic ATMB 8.1 - Airborne safety nets~~

~~Subtopic ATMB 8.2 - Ground-based safety nets~~

~~TOPIC ATMB 9 - BASIC PRACTICAL SKILLS~~

~~Subtopic ATMB 9.1 - Traffic management process~~

~~Subtopic ATMB 9.2 - Basic practical skills applicable to all ratings~~

~~Subtopic ATMB 9.3 - Basic practical skills applicable to aerodrome~~

~~Subtopic ATMB 9.4 - Basic practical skills applicable to surveillance~~

~~**SUBJECT 4: METEOROLOGY**~~

~~TOPIC METB 1 - INTRODUCTION TO METEOROLOGY~~

~~Subtopic METB 1.1 - Application of units of measurement~~

~~Subtopic METB 1.2 - Aviation and meteorology~~

~~Subtopic METB 1.3 - Organisation of meteorological service~~

~~TOPIC METB 2 - ATMOSPHERE~~

~~Subtopic METB 2.1 - Composition and structure~~

~~Subtopic METB 2.2 - Standard atmosphere~~

~~Subtopic METB 2.3 - Heat and temperature~~

~~Subtopic METB 2.4 - Water in the atmosphere~~

~~Subtopic METB 2.5 - Air pressure~~

~~TOPIC METB 3 - ATMOSPHERIC CIRCULATION~~

~~Subtopic METB 3.1 - General air circulation~~

~~Subtopic METB 3.2 - Air masses and frontal systems~~

~~Subtopic METB 3.3 - Mesoscale systems~~

~~Subtopic METB 3.4 - Wind~~
~~TOPIC METB 4 - METEOROLOGICAL PHENOMENA~~

~~Subtopic METB 4.1 - Clouds~~

~~Subtopic METB 4.2 - Types of precipitation~~

~~Subtopic METB 4.3 - Visibility~~

~~Subtopic METB 4.4 - Meteorological hazards~~

~~TOPIC METB 5 - METEOROLOGICAL INFORMATION FOR AVIATION~~

~~Subtopic METB 5.1 - Messages and reports~~

~~SUBJECT 5: NAVIGATION~~

~~TOPIC NAVB 1 - INTRODUCTION TO NAVIGATION~~

~~Subtopic NAVB 1.1 - Application of units of measurement~~

~~Subtopic NAVB 1.2 - Purpose and use of navigation~~

~~TOPIC NAVB 2 - THE EARTH~~

~~Subtopic NAVB 2.1 - Place and movement of the Earth~~

~~Subtopic NAVB 2.2 - System of coordinates, direction and distance~~

~~Subtopic NAVB 2.3 - Magnetism~~

~~TOPIC NAVB 3 - MAPS AND AERONAUTICAL CHARTS~~

~~Subtopic NAVB 3.1 - Maps and charts used in aviation~~

~~TOPIC NAVB 4 - NAVIGATIONAL BASICS~~

~~Subtopic NAVB 4.1 - Influence of wind~~

~~Subtopic NAVB 4.2 - Speed~~

~~Subtopic NAVB 4.3 - Visual navigation~~

~~Subtopic NAVB 4.4 - Navigational aspects of flight planning~~

~~TOPIC NAVB 5 - INSTRUMENT NAVIGATION~~

~~Subtopic NAVB 5.1 - Ground-based systems~~

~~Subtopic NAVB 5.2 - Inertial navigation systems~~

~~Subtopic NAVB 5.3 - Satellite-based systems~~

~~Subtopic NAVB 5.4 - Instrument approach procedures~~

~~TOPIC NAVB 6 - PERFORMANCE-BASED NAVIGATION~~

~~Subtopic NAVB 6.1 - Principles and benefits of area navigation~~

~~Subtopic NAVB 6.2 - Introduction to PBN~~

~~Subtopic NAVB 6.3 - PBN applications~~

~~TOPIC NAVB 7 - DEVELOPMENTS IN NAVIGATION~~

~~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 - Electric engines~~

~~Subtopic ACFTB 5.5 - Sources of energy used in aviation~~

~~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 elements and 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 PERFORMANCE~~

~~Subtopic HUMB 1.1 - Relevance of human factors for ATC~~

~~TOPIC HUMB 2 – HEALTH AND WELL-BEING~~

~~Subtopic HUMB 2.1 – Fitness for duty~~

~~Subtopic HUMB 2.2 – Stress and fatigue~~

~~Subtopic HUMB 2.3 – Substance use and responsibility~~

~~TOPIC HUMB 3 - HUMAN PERFORMANCE~~

~~Subtopic HUMB 3.1 - Individual behaviour~~

~~Subtopic HUMB 3.2 - Safety culture and professional conduct~~

~~TOPIC HUMB 4 – HUMAN ERROR~~

~~Subtopic HUMB 4.1 - Definition of human error~~

~~Subtopic HUMB 4.2 - Classification of human error~~

~~TOPIC HUMB 5 – TEAMWORK~~

~~Subtopic HUMB 5.1 – Teamwork and team roles~~

~~TOPIC HUMB 6 - COMMUNICATION~~

~~Subtopic HUMB 6.1 - Communication in ATC~~

~~Subtopic HUMB 6.2 - Communication modes~~

~~**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 and others~~

~~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~~

~~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 - DATA PROCESSING~~

~~Subtopic EQPSB 8.1 - Surveillance data networking~~

~~Subtopic EQPSB 8.2 - Working principles of surveillance data networking~~

~~Subtopic EQPSB 8.3 – Flight data processing~~

~~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 - Online data interchange~~

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

~~TOPIC EQPSB 11 - WORKING POSITIONS~~

~~Subtopic EQPSB 11.1 - Working position equipment~~

~~Subtopic EQPSB 11.2 - Aerodrome control~~

~~Subtopic EQPSB 11.3 - Approach control~~

~~Subtopic EQPSB 11.4 - Area control~~

~~**SUBJECT 9: PROFESSIONAL ENVIRONMENT**~~

~~TOPIC PENB 1 - FAMILIARISATION~~

~~Subtopic PENB 1.1 - ATS and aerodrome facilities~~

~~TOPIC PENB 2 - AIRSPACE USERS~~

~~Subtopic PENB 2.1 - Civil aviation~~

~~Subtopic PENB 2.2 - Military aviation~~

~~Subtopic PENB 2.3 - Expectations and requirements of pilots~~

~~TOPIC PENB 3 - CUSTOMER RELATIONS~~

~~Subtopic PENB 3.1 - ATS as a service provider~~

~~TOPIC PENB 4 - ENVIRONMENTAL PROTECTION~~

~~Subtopic PENB 4.1 - Environmental protection;~~

~~APPENDIX 3 OF ANNEX I~~

~~AERODROME CONTROL RATING (ADC)~~

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

~~TABLE OF CONTENTS~~

~~SUBJECT 1: INTRODUCTION TO THE COURSE~~

~~SUBJECT 2: AVIATION LAW~~

~~SUBJECT 3: AIR TRAFFIC MANAGEMENT~~

~~SUBJECT 4: METEOROLOGY~~

~~SUBJECT 5: NAVIGATION~~

~~SUBJECT 6: AIRCRAFT~~

~~SUBJECT 7: HUMAN FACTORS~~

~~SUBJECT 8: EQUIPMENT AND SYSTEMS~~

~~SUBJECT 9: PROFESSIONAL ENVIRONMENT~~

~~SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS~~

~~SUBJECT 11: AERODROMES~~

~~SUBJECT 1: INTRODUCTION TO THE COURSE~~

~~TOPIC INTR 1 - COURSE MANAGEMENT~~

~~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 - 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 - 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~~

~~Subtopic ATM 5.2 - Terrain clearance~~

~~TOPIC ATM 6 - SEPARATIONS~~

~~Subtopic ATM 6.1 - Separation between departing aircraft~~

~~Subtopic ATM 6.2 - Separation of departing aircraft from arriving aircraft~~

~~Subtopic ATM 6.3 - Separation of landing aircraft and preceding landing or departing aircraft~~

~~Subtopic ATM 6.4 - Time-based wake turbulence longitudinal separation~~

~~Subtopic ATM 6.5 - Reduced separation minima~~

~~TOPIC ATM 7 - AIRBORNE 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 AN AERODROME CONTROL SERVICE~~

~~Subtopic ATM 10.1 - Responsibility for the provision~~

~~Subtopic ATM 10.2 - Traffic management process~~

~~Subtopic ATM 10.3 - Aeronautical ground lights~~

~~Subtopic ATM 10.4 - Information to aircraft by the aerodrome control tower~~

~~Subtopic ATM 10.5 - Control of aerodrome traffic~~

~~Subtopic ATM 10.6 - Control of airborne traffic~~

~~Subtopic ATM 10.7 - Runway in use~~

~~Subtopic ATM 10.8 - Departing traffic~~

~~Subtopic ATM 10.9 - Arriving traffic~~

~~Subtopic ATM 10.10 - Special VFR operations~~

~~Subtopic ATM 10.11 - Low-visibility operations~~

~~Subtopic ATM 10.12 - 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 – 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~~

~~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 an 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~~

~~Subtopic ABES 3.6 - Interception of civil aircraft~~

~~**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 4 OF ANNEX I~~

~~**APPROACH CONTROL PROCEDURAL RATING (APP)**~~

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

TABLE OF CONTENTS

~~**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 - Horizontal separation~~

~~Subtopic ATM 6.3 - Delegation of separation~~

~~TOPIC ATM 7 - AIRBORNE SAFETY NETS~~

~~Subtopic ATM 7.1 - Airborne 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 - 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~~

~~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~~

~~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 an 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 – Interception of civil aircraft~~

~~SUBJECT 11: AERODROMES~~

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

~~Subtopic AGA 1.1 - Definitions~~

~~Subtopic AGA 1.2 - Coordination~~

~~TOPIC AGA 2 - MOVEMENT AREA~~

~~Subtopic AGA 2.1 - Movement area~~

~~Subtopic AGA 2.2 - Manoeuvring area~~

~~Subtopic AGA 2.3 - Runways~~

~~TOPIC AGA 3 - OBSTACLES~~

~~Subtopic AGA 3.1 - Obstacle free airspace around aerodromes~~

~~TOPIC AGA 4 - MISCELLANEOUS EQUIPMENT~~

~~Subtopic AGA 4.1 - Location~~

~~APPENDIX 5 OF ANNEX I~~

~~AREA CONTROL PROCEDURAL RATING (ACP)~~

~~(Reference: Annex I (PART ATCO), Subpart D, Section 2, point ATCO.D.010(a)(2)(iii))~~

~~TABLE OF CONTENTS~~

~~SUBJECT 5: NAVIGATION~~

~~SUBJECT 6: AIRCRAFT~~

~~SUBJECT 7: HUMAN FACTORS~~

~~SUBJECT 8: EQUIPMENT AND SYSTEMS~~

~~SUBJECT 9: PROFESSIONAL ENVIRONMENT~~

~~SUBJECT 10: ABNORMAL AND EMERGENCY SITUATIONS~~

~~**SUBJECT 1: INTRODUCTION TO THE COURSE**~~

~~TOPIC INTR 1 - COURSE MANAGEMENT~~

~~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 - 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 - Horizontal separation~~

~~TOPIC ATM 7 - AIRBORNE SAFETY NETS~~

~~Subtopic ATM 7.1 - Airborne 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 - 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 – 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~~

~~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 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 – Interception of civil aircraft~~

~~APPENDIX 6 OF ANNEX I~~

~~APPROACH CONTROL SURVEILLANCE RATING (APS)~~

~~(Reference: Annex I (PART ATCO), Subpart D, Section 2, point ATCO.D.010(a)(2)(iv))~~

~~TABLE OF CONTENTS~~

~~SUBJECT 1: INTRODUCTION TO THE COURSE~~

~~SUBJECT 2: AVIATION LAW~~

~~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 - Delegation of separation~~

~~Subtopic ATM 6.4 - Wake turbulence distance-based separation~~

~~Subtopic ATM 6.5 - Separation based on ATS surveillance systems~~

~~TOPIC ATM 7 - AIRBORNE 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 - 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 – 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 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~~

~~Subtopic ABES 3.7 – Interception of civil aircraft~~

SUBJECT 11: AERODROMES

TOPIC AGA 1 - AERODROME DATA, LAYOUT AND COORDINATION

Subtopic AGA 1.1 - Definitions

Subtopic AGA 1.2 - Coordination

TOPIC AGA 2 - MOVEMENT AREA

Subtopic AGA 2.1 - Movement area

Subtopic AGA 2.2 - Manoeuvring area

Subtopic AGA 2.3 - Runways

TOPIC AGA 3 - OBSTACLES

Subtopic AGA 3.1 - Obstacle-free airspace around aerodromes

TOPIC AGA 4 - MISCELLANEOUS EQUIPMENT

Subtopic AGA 4.1 – Location

APPENDIX 7 OF ANNEX I

AREA CONTROL SURVEILLANCE RATING (ACS)

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

TABLE OF CONTENTS

~~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 - 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~~

Rationale Appendices 2-7 to Annex I

The Appendices have been removed because all subjects are now included in ATCO.D.010. The topics and subtopics have been moved to AMC to allow faster updating of the initial training content in accordance with the changes in the operational environment.

ANNEX III – PART ATCO.OR – REQUIREMENTS FOR AIR TRAFFIC CONTROLLER TRAINING ORGANISATIONS AND AERO-MEDICAL CENTRES

SUBPART C – MANAGEMENT OF AIR TRAFFIC CONTROLLER TRAINING ORGANISATIONS

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.~~ knowledge on the current operational practices is ensured for their synthetic training device instructors and assessors if they are not holders of an ATCO licence with a valid unit endorsement.

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~~ type of training provided relevant to the rating and/or endorsement and are approved by the competent authority.

(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.

Rationale – ATCO.OR.C.015

The proposed amendment is to clarify that the STDs specifications and requirements shall be relevant to the type of training (initial training, unit training, etc.) and to the rating or, in the case of instructor and assessor training, to the endorsement.

AMC1 ATCO.OR.C.015(a) Facilities and equipment

~~(a) General areas~~

A training organisation should have access to facilities that are appropriate to the size and scope of the intended operations and training delivery, and provide~~d 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~~ space for study and testing, briefing, and debriefing;

(3) (digital) library facilities; ~~and~~

(4) storage areas, including secure (digital) areas for training and personnel records~~.~~; and

(5) suitably equipped space for practical training.

~~(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.~~

Rationale – AMC1 ATCO.OR.C.015(a) and GM1 ATCO.OR.C.015(a)

The proposed amendment is to provide more flexibility for the training organisations.

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) high-fidelity simulator (HI FI SIM)

A replica of controller pork positions (CWPs) including all equipment (hardware, software and connectivity) enabling full functioning/interaction of the CWP and their environment. In the case of aerodrome training (ADC), it includes an out-of-the-tower view.

~~(1)~~ (2) simulator (SIM)~~;~~

A device which presents the trainee with important features of the real situation and reproduces operational conditions which enable the trainee to practise real-time tasks directly.

~~(2)~~ (3) part-task trainer (PTT)~~.~~

A training device which allows the trainee to practise operational functions independently from other functions.

The table below indicates the best usage for synthetic training devices

	Initial training	Unit training	Continuation training (standard, emergency + ABES, TRM, conversion	Instructors and assessors training
HI FI SIM		x	x	
SIM	x	x	x	x
PTT	x			x

(b) Synthetic training device (STD) criteria

If an STD is used for training, it should be approved by the competent authority according to its possible usage. ~~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 evaluated ~~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 part of the operational training, the STD classification should be a high-fidelity simulator ~~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.~~

Rationale – AMC1 ATCO.OR.C.015(b)

The proposed classification of synthetic training devices aligns with the Eurocontrol document 'Simulations Facilities for Air Traffic Control Training', Edition 1.0, dated 15 March 2000[14], HUM.ET1.ST07.3000-REP-02.

Deleting the reference to pre-on-the-job training is to enable crediting of training hours accomplished on a synthetic training device and thus to provide more flexibility to the training organisations.

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;

14 32916.pdf (skybrary.aero)

(2) details of training received including the starting date of the training, as well as the results of the examinations, evaluations 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 on time spent instructing, evaluating and/or assessing.

Training organisations should submit training records and reports to the competent authority as required.

ATCO.OR.D.001 Requirements for training courses and training plans

Training organisations shall develop:

(a) training plans and training courses associated with ~~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 assessment, evaluation and examination. ~~assessments in accordance with ATCO.D.090(a)(3) and ATCO.D.095(a)(3).~~

AMC1 ATCO.OR.D.001 Requirements for training courses and training plans

CONTENT FOR TRAINING COURSES AND TRAINING PLANS

When training courses and plans are developed, the training organisations should ensure that the ways of conducting the training are suitable for meeting the training objectives. The following points (non-exhaustive list) should be taken into consideration:

(a) The planned way of conducting a course or elements thereof meet the taxonomy/performance/competence requirements of the training objectives.

(b) Training aids (hardware, software and connectivity) are specified and available whenever required for the chosen type of conduct.

(c) When STDs are used for distance learning, it has to be ensured that the training objectives are met without on-site personal guidance.

(d) The training material and referenced bibliography should be made available to all students.

(e) Data protection, protection of intellectual property as well as information security requirements are met.

(f) Appropriate procedures are established to ensure the integrity of evaluations.

GM1 ATCO.OR.D.001 Requirements for training courses and training plans

A training organisation that intends to provide remote learning should:

(a) ensure that the hardware, software and connectivity are suitable for the training;

(b) continuously monitor attendance and progress of students;

(c) adapt the duration of lessons according to student learning capacity on synchronous distance learning;

(d) provide the competent authority with access to the virtual environment;

(e) ensure that the staff is trained on remote training techniques;

(f) familiarise students with remote learning;

(g) develop detailed methods of remote evaluation, where applicable, ensuring the integrity of the process;

(h) ensure data security and protection of data privacy.

Rationale —AMC1 ATCO.OR.C.001, ATCO.OR.C.015, AMC1 and GM1 to ATCO.OR.C.015(a), AMC1 ATCO.OR.C.015(b), AMC1 ATCO.OR.C.020(a),(b), ATCO.OR.D.001, AMC1 and GM1 to ATCO.OR.D.001

The changes proposed in this section:

(1) are linked with the related changes in the previous sections;

(2) introduce and align the use of evaluations and assessments;

(3) clarify which facilities and equipment, especially for the synthetic training devices, should be used in the training process including the remote learning;

(4) adapt the record-keeping process to be more accurate regarding the assessment and evaluation for the instructors.

ANNEX II – PART ATCO.AR – REQUIREMENTS FOR COMPETENT AUTHORITIES

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

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~~ traffic services provider or the applicant.

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

[…]

(d) In cases of suspension or revocation of licences, ratings and endorsements, the competent authority shall notify in writing the licence holder and the relevant air ~~navigation~~ traffic services provider of this decision, and inform the licence holder of his or her right of appeal in accordance with the procedures established in ATCO.AR.A.010(m).

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 have been 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 7 to Annex I to Commission Regulation (EU) 2015/340~~ ATCO.D.010, and are repeated in:

— AMC1 ATCO.D.010(a)(1) Composition of initial training — BASIC TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES;

— AMC1 ATCO.D.010(a)(2)(i) Composition of initial training — AERODROME CONTROL RATING (ADC) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES;

— AMC1 ATCO.D.010(a)(2)(ii) Composition of initial training — APPROACH CONTROL PROCEDURAL RATING (APP) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES;

— AMC1 ATCO.D.010(a)(2)(iii) Composition of initial training — AREA CONTROL PROCEDURAL RATING (ACP) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES;

— AMC1 ATCO.D.010(a)(2)(iv) Composition of initial training — APPROACH CONTROL SURVEILLANCE RATING (APS) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES;

— AMC1 ATCO.D.010(a)(2)(v) Composition of initial training — AREA CONTROL SURVEILLANCE RATING (ACS) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES.

in order to provide the reader with a comprehensive and unique reference document for the basic and each of the rating trainings. Topics, subtopics and t~~T~~raining objectives are included in and form an integral part of each of the aforementioned AMC.

[…]

Rationale AMC1 ATCO.D.010(a)

Editorial changes introduced because of moving of subjects from the Appendices to ATCO.D.010 and moving of topics and subtopics to AMC.

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

BASIC TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in AMC1 ATCO.D.010(a).

(b) Basic training should contain the following topics, subtopics and training objectives that are associated with the subjects~~, topics and subtopics~~ contained in ATCO.D.010(a)(1) ~~Appendix 2 to Annex I to Commission Regulation (EU) 2015/340~~ — Basic training.

Note: ~~(c)~~ Subjects~~, topics and subtopics~~ from ~~Appendix 2 to Annex I to Commission Regulation (EU) 2015/340~~ ATCO.D.010(a)(1) are repeated in this AMC for the convenience of the reader and do not form part of it.

RECOMMENDED SUBJECT ~~1~~0: INTRODUCTION TO THE COURSE

Subject 'Introduction to the course' with the following topics, subtopics and objectives is recommended to be included in the course for better organisation of training.

[…]

SUBJECT ~~2~~1: AVIATION LAW

[…]
SUBJECT ~~3~~2: AIR TRAFFIC MANAGEMENT
[…]
SUBJECT ~~4~~3: METEOROLOGY
[…]
SUBJECT ~~5~~4: NAVIGATION
[…]
SUBJECT ~~6~~5: AIRCRAFT
[…]
SUBJECT ~~7~~6: HUMAN FACTORS
[…]
SUBJECT ~~8~~7: EQUIPMENT AND SYSTEMS
[…]
SUBJECT ~~9~~8: PROFESSIONAL ENVIRONMENT
[…]

AMC1 ATCO.D.010(a)(2)(i) Composition of initial training[15]

AERODROME CONTROL RATING (ADC) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in AMC1 ATCO.D.010(a).

(b) The ATCO rating training Aerodrome Control Rating (ADC) should contain the following topics, subtopics and training objectives that are associated with the subjects~~, topics and subtopics~~ contained in ATCO.D.010(a)(2)(i) ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ — Aerodrome Control Rating ~~(~~ADC~~)~~.

(c) Subjects~~, topics and subtopics~~ from ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ ATCO.D.010(a)(2)(i) are repeated in this AMC for the convenience of the reader and do not form part of it.

RECOMMENDED SUBJECT ~~1~~0: INTRODUCTION TO THE COURSE

Subject 'Introduction to the course' with the following topics, subtopics and objectives is recommended to be included in the course for better organisation of training.

[…]

SUBJECT ~~2~~1: AVIATION LAW

[…]
SUBJECT ~~3~~2: AIR TRAFFIC MANAGEMENT
[…]
SUBJECT ~~4~~3: METEOROLOGY
[…]
SUBJECT ~~5~~4: NAVIGATION
[…]
SUBJECT ~~6~~5: AIRCRAFT
[…]
SUBJECT ~~7~~6: HUMAN FACTORS
[…]
SUBJECT ~~8~~7: EQUIPMENT AND SYSTEMS
[…]
SUBJECT ~~9~~8: PROFESSIONAL ENVIRONMENT
[…]
SUBJECT ~~10~~9: ABNORMAL AND EMERGENCY SITUATIONS
[…]
SUBJECT 1~~1~~0: AERODROMES
[…]

[15] The numbering presented in this document follows that presented in the draft AMC and GM as published for information along with Opinion No 06/2022.

AMC1 ATCO.D.010(a)(2)(ii) Composition of initial training[16]

APPROACH CONTROL PROCEDURAL RATING (APP) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in AMC1 ATCO.D.010(a).

(b) The ATCO rating training Approach Control Procedural Rating (APP) should contain the following topics, subtopics and training objectives that are associated with the subjects~~, topics and subtopics~~ contained in ATCO.D.010(a)(2)(ii) ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ — Approach Control Procedural Rating ~~(~~APP~~)~~.

(c) Subjects~~, topics and subtopics~~ from ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ ATCO.D.010(a)(2)(ii) are repeated in this AMC for the convenience of the reader and do not form part of it.

RECOMMENDED SUBJECT ~~1~~0: INTRODUCTION TO THE COURSE

Subject 'Introduction to the course' with the following topics, subtopics and objectives is recommended to be included in the course for better organisation of training.

[…]

SUBJECT ~~2~~1: AVIATION LAW

[…]
SUBJECT ~~3~~2: AIR TRAFFIC MANAGEMENT
[…]
SUBJECT ~~4~~3: METEOROLOGY
[…]
SUBJECT ~~5~~4: NAVIGATION
[…]
SUBJECT ~~6~~5: AIRCRAFT
[…]
SUBJECT ~~7~~6: HUMAN FACTORS
[…]
SUBJECT ~~8~~7: EQUIPMENT AND SYSTEMS
[…]
SUBJECT ~~9~~8: PROFESSIONAL ENVIRONMENT
[…]
SUBJECT ~~10~~9: ABNORMAL AND EMERGENCY SITUATIONS
[…]
SUBJECT 1~~1~~0: AERODROMES
[…]

[16] The numbering presented in this document follows that presented in the draft AMC and GM as published for information along with Opinion No 06/2022.

AMC1 ATCO.D.010(a)(2)(iii) Composition of initial training[17]

AREA CONTROL PROCEDURAL RATING (ACP) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in AMC1 ATCO.D.010(a).

(b) The ATCO rating training Area Control Procedural Rating (ACP) should contain the following topics, subtopics and training objectives that are associated with the subjects~~, topics and subtopics~~ contained in ATCO.D.010(a)(2)(iii) ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ — Approach Control Procedural Rating ~~(~~ACP~~)~~.

(c) Subjects~~, topics and subtopics~~ from ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ ATCO.D.010(a)(2)(iii) are repeated in this AMC for the convenience of the reader and do not form part of it.

RECOMMENDED SUBJECT ~~1~~0: INTRODUCTION TO THE COURSE

Subject 'Introduction to the course' with the following topics, subtopics and objectives is recommended to be included in the course for better organisation of training.

[…]

SUBJECT ~~2~~1: AVIATION LAW

[…]
SUBJECT ~~3~~2: AIR TRAFFIC MANAGEMENT
[…]
SUBJECT ~~4~~3: METEOROLOGY
[…]
SUBJECT ~~5~~4: NAVIGATION
[…]
SUBJECT ~~6~~5: AIRCRAFT
[…]
SUBJECT ~~7~~6: HUMAN FACTORS
[…]
SUBJECT ~~8~~7: EQUIPMENT AND SYSTEMS
[…]
SUBJECT ~~9~~8: PROFESSIONAL ENVIRONMENT
[…]
SUBJECT ~~10~~9: ABNORMAL AND EMERGENCY SITUATIONS
[…]

[17] The numbering presented in this document follows that presented in the draft AMC and GM as published for information along with Opinion No 06/2022.

AMC1 ATCO.D.010(a)(2)(iv) Composition of initial training[18]

APPROACH CONTROL SURVEILLANCE RATING (APS) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in AMC1 ATCO.D.010(a).

(b) The ATCO rating training Approach Control Surveillance Rating (APS) should contain the following topics, subtopics and training objectives that are associated with the subjects~~, topics and subtopics~~ contained in ATCO.D.010(a)(2)(iv) ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ — Approach Control Surveillance Rating ~~(~~APS~~)~~.

(c) Subjects~~, topics and subtopics~~ from ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ ATCO.D.010(a)(2)(iv) are repeated in this AMC for the convenience of the reader and do not form part of it.

RECOMMENDED SUBJECT ~~1~~0: INTRODUCTION TO THE COURSE

Subject 'Introduction to the course' with the following topics, subtopics and objectives is recommended to be included in the course for better organisation of training.

[…]

SUBJECT ~~2~~1: AVIATION LAW

[…]
SUBJECT ~~3~~2: AIR TRAFFIC MANAGEMENT
[…]
SUBJECT ~~4~~3: METEOROLOGY
[…]
SUBJECT ~~5~~4: NAVIGATION
[…]
SUBJECT ~~6~~5: AIRCRAFT
[…]
SUBJECT ~~7~~6: HUMAN FACTORS
[…]
SUBJECT ~~8~~7: EQUIPMENT AND SYSTEMS
[…]
SUBJECT ~~9~~8: PROFESSIONAL ENVIRONMENT
[…]
SUBJECT ~~10~~9: ABNORMAL AND EMERGENCY SITUATIONS
[…]
SUBJECT 1~~1~~0: AERODROMES
[…]

[18] The numbering presented in this document follows that presented in the draft AMC and GM as published for information along with Opinion No 06/2022.

AMC1 ATCO.D.010(a)(2)(v) Composition of initial training[19]

AREA CONTROL SURVEILLANCE RATING (ACS) TRAINING — TOPICS, SUBTOPICS AND TRAINING OBJECTIVES

(a) The general principles that apply to this AMC are contained in AMC1 ATCO.D.010(a).

(b) The ATCO rating training Area Control Surveillance Rating (ACS) should contain the following topics, subtopics and training objectives that are associated with the subjects~~, topics and subtopics~~ contained in ATCO.D.010(a)(2)(v) ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ — Approach Control Surveillance Rating ~~(~~ACS~~)~~.

Note: ~~(c)~~ Subjects~~, topics and subtopics~~ from ~~Appendix 3 to Annex I to Commission Regulation (EU) 2015/340~~ ATCO.D.010(a)(2)(v) are repeated in this AMC for the convenience of the reader and do not form part of it.

RECOMMENDED SUBJECT ~~1~~0: INTRODUCTION TO THE COURSE

Subject 'Introduction to the course' with the following topics, subtopics and objectives is recommended to be included in the course for better organisation of training.

[…]

SUBJECT ~~2~~1: AVIATION LAW

[…]
SUBJECT ~~3~~2: AIR TRAFFIC MANAGEMENT
[…]
SUBJECT ~~4~~3: METEOROLOGY
[…]
SUBJECT ~~5~~4: NAVIGATION
[…]
SUBJECT ~~6~~5: AIRCRAFT
[…]
SUBJECT ~~7~~6: HUMAN FACTORS
[…]
SUBJECT ~~8~~7: EQUIPMENT AND SYSTEMS
[…]
SUBJECT ~~9~~8: PROFESSIONAL ENVIRONMENT
[…]
SUBJECT ~~10~~9: ABNORMAL AND EMERGENCY SITUATIONS
[…]

Rationale AMC1 ATCO.D.010(a)(1) and AMC1 ATCO.D.010(a)(2)(i)-(v)

In AMC1 ATCO.D.010(a)(1), AMC1 ATCO.D.010(a)(2)(i)-(v), similar editorial changes have been made. In addition, subject 'INTRODUCTION TO THE COURSE' has been changed to a 'recommended subject', which also changes the numbering of the subjects that follow.

[19] The numbering presented in this document follows that presented in the draft AMC and GM as published for information along with Opinion No 06/2022.

COMMISSION DELEGATED REGULATION (EU) …/...

of XXX

laying down detailed rules with regard to the acceptance of third-country certification of air traffic controllers

[…]

Article 1

(1) Without prejudice to international agreements concluded between the European Union and a third country in accordance with Article 68(1) (a) of Regulation (EU) 2018/1139, the competent authority of a Member State may convert air traffic controller licences issued in compliance with the requirements of ICAO Annex 1 to the Chicago Convention by a third country into a student air traffic controller licence issued in accordance with Commission Regulation (EU) 2015/340, provided that the holder of such ICAO-compliant licence:

(a) is at least 18 years old;

(b) demonstrates compliance with the relevant requirements of Annex I (Part ATCO) to Commission Regulation (EU) 2015/340);

(c) holds a valid medical certificate according to point ATCO.AR.F.005 of Commission Regulation (EU) 2015/340;

(d) has demonstrated an adequate level of language proficiency in accordance with the requirements set out in ATCO.B.030 of Commission Regulation (EU) 2015/340.

(2) The competent authority that has received an application for the conversion referred to in paragraph 1 shall request a training organisation that meets the requirements laid down in Annex III (Part ATCO.OR) to Commission Regulation (EU) 2015/340 and is certified to provide initial training for the purpose of issuing student air traffic controller licences in accordance with Commission Regulation (EU) 2015/340 to assess the applicant's compliance with the relevant requirements of Annex I (Part ATCO) to Commission Regulation (EU) 2015/340 and submit a conversion report to the competent authority.

(3) The conversion report shall:

(a) describe the scope of the privileges of the third-country air traffic controller licence referred to in paragraph (1);

(b) indicate for which requirements of Annex I (Part ATCO) to Commission Regulation (EU) 2015/340 credit is to be given;

(c) indicate the additional training, including the required examinations and assessments, to be undertaken by the applicants; that training, including the required examinations and assessments, must be conducted by a training organisation that meets the requirements laid down in Annex III (Part ATCO.OR) to Commission Regulation (EU) 2015/340 and that is certified to provide initial training for the purpose of issuing student air traffic controller licences in accordance with Commission Regulation (EU) 2015/340;

(d) include a statement confirming that the compliance of the applicant with the training, examination, and assessment requirements described in the national conversion report

can be considered as being equivalent to the successful completion of the initial training required under Commission Regulation (EU) 2015/340 for the purpose of issuing a student air traffic controller licence;

(e) include copies of all relevant supporting documentation, including copies of the relevant third-country requirements and procedures, demonstrating how the training organisation has established the elements listed in points (a) to (d) above.

(4) When satisfied that the requirements of Annex I (Part ATCO) to Commission Regulation (EU) 2015/340 are complied with, the competent authority shall give credit to the applicant in accordance with the conversion report referred to in paragraph (3) and issue a student ATCO licence in accordance with Commission Regulation (EU) 2015/340.

4. Proposed actions to support implementation

EASA will consider the most appropriate method to support the implementation of this proposal by applying one of the following actions, as appropriate:

— Focused communication for Advisory Body meeting(s) (MAB/SAB/TeB/TEC/COM) targeting the Advisory Body members

— Dedicated thematic meetings or workshop sessions targeting industry stakeholders and NCAs

5. References

5.1. Related EU regulations

Commission Regulation (EU) 2015/340 of 20 February 2015 laying down technical requirements and administrative procedures relating to air traffic controllers' licences and certificates pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council, amending Commission Implementing Regulation (EU) No 923/2012 and repealing Commission Regulation (EU) No 805/2011 (OJ L 63, 6.3.2015, p. 1)

5.2. Related EASA decisions

Executive Director Decision 2015/010/R of the Executive Director of the Agency of 13 March 2015 adopting Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) 2015/340

5.3. Other references

— Annex 1 ‘Personnel Licensing’ to the Convention on International Civil Aviation (Chicago Convention)

— Regulation (EU) 2017/373

— ICAO Doc 9868 ‘Procedures for Air Navigation Services – Training’

— ICAO Doc 10056 ‘Manual on Air Traffic Controller Competency-based Training and Assessment’

6. Quality of the NPA

To continuously improve the quality of its documents, EASA welcomes your feedback on the quality of this NPA with regard to the following aspects:

6.1. The regulatory proposal is of technically good/high quality

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.
Fully agree / Agree / Neutral / Disagree / Strongly disagree

6.2. The text is clear, readable and understandable

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.
Fully agree / Agree / Neutral / Disagree / Strongly disagree

6.3. The regulatory proposal is well substantiated

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.
Fully agree / Agree / Neutral / Disagree / Strongly disagree

6.4. The regulatory proposal is fit for purpose (capable of achieving the objectives set)

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.
Fully agree / Agree / Neutral / Disagree / Strongly disagree

6.5. The impact assessment (IA), as well as its qualitative and quantitative data, is of high quality

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.
Fully agree / Agree / Neutral / Disagree / Strongly disagree

6.6. The regulatory proposal applies the 'better regulation' principles[1]

Please choose one of the options below and place it as a comment in CRT; if you disagree or strongly disagree, please provide a brief justification.
Fully agree / Agree / Neutral / Disagree / Strongly disagree

6.7. Any other comments on the quality of this NPA (please specify)

Note: Your comments on Chapter 7 will be considered for internal quality assurance and management purposes only and will not be published in the related CRD.

[1] For information and guidance, see:
- https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how_en
- https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox_en
- https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox/better-regulation-toolbox_en