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WORKING PAPER

ASSEMBLY — 42ND SESSION

TECHNICAL COMMISSION

Agenda Item 25: Other issues to be considered by the Technical Commission

PROGRESSIVE AIR TRAFFIC CONTROLLERS (ATCO) LICENSING

(Presented by Civil Air Navigation Services Organization)

EXECUTIVE SUMMARY

This working paper highlights the advantages of a progressive licencing approach to air traffic controllers (ATCO) training. A practice used in other areas of aviation, such as pilot training, the adoption of progressive licencing in ATCO training has been shown to deliver benefits both for supporting student success and addressing resource constraints of air navigation services providers (ANSPs). The paper calls on ICAO and States to support the increased use of progressive licencing approaches through the following actions.

Action: The Assembly is invited to:

a) note the benefits of progressive licencing for supporting successful air traffic controller (ATC) student outcomes and workforce management;
b) urge ICAO to examine ways to ensure the current standards and recommended practices in Annex 1 related to ATCO licencing permit the adoption of a progressive licencing approach by contracting States; and
c) encourage States to work with appropriate air traffic services (ATS) authorities and training organizations to expand ATCO training opportunities by adopting progressive licencing approaches.

Strategic Goals:	This working paper relates to the following Strategic Goals: • *Aviation Delivers Seamless, Accessible, and Reliable Mobility for All* • *No Country Left Behind* • *The Economic Development of Air Transport Assures the Delivery of Economic Prosperity and Societal Well-Being for All*
Financial implications:	The activities referred to in this paper will be subject to the resources available in the 2026-2028 Regular Budget.
References:	ICAO Annex 1 — *Personnel Licensing*, paragraph 4.5 Air traffic controller ratings

[1] Arabic, Chinese, English, French, Russian and Spanish versions provided by CANSO

1. INTRODUCTION

1.1 The training of air traffic controllers is a resource intensive process that can take up to three years, depending on the complexity of the airspace and operations. Efforts to leverage new technologies in operational training have had only minimal impact on reducing training times or increasing success rates. The use of progressive licencing is one exception. While progressive licencing for air traffic controllers (ATCOs) is in limited application globally, for those countries where it is used, experience has shown that a progressive licencing approach is delivering real benefits for air traffic control students and air navigation service providers.

1.2 Progressive licensing offers a structured, phased approach to certifying air traffic controllers. It involves allowing students to earn rating endorsements incrementally based on their proven competencies in specific roles or sectors. Rather than requiring a student to master all aspects of a facilities control environment before receiving an air traffic control certificate or licence, the student is permitted to begin working independently on the positions for which they have earned a rating endorsement/licence.

2. DISCUSSION

2.1 Progressive licensing is a foundational model across many safety-critical industries. In aviation, pilot certification exemplifies this approach: individuals begin with a basic license and advance through stages—student, private, instrument, commercial, and beyond. Each step enables skill development under the supervision of certified instructors while allowing licenced pilots to accumulate real-world experience. This structured progression ensures competence at every level and makes reaching advanced roles, such as airline transport pilot, more efficient, cost-effective, and practical than requiring full qualification upfront.

2.2 One key advantage of progressive licensing is its ability to better support student air traffic controllers during their operational training. Progressive licensing students allows them to gain independent operational experience sooner. As they progress from working under the direct supervision of an ATC instructor, to independently working in a live environment, they are able to gain confidence in managing tasks independently while continuing their broader training. This phased exposure reduces pressure, and helps them apply theoretical knowledge practically, leading to better skill retention and development. This approach to staffing helps improve training outcomes and supports the development of future controllers more effectively.

2.3 Traditional all-or-nothing licensing models can be daunting, resulting in increased dropout or failure rates due to the intensity and complexity of the prolonged training process. In contrast, a step-by-step system offers measurable milestones, a feeling of progress and positive reinforcement. Trainees experience a sense of achievement as they move through each licensing stage, which enhances motivation and provides early indicators of their strengths and areas needing improvement. This iterative learning process increases the likelihood of producing fully licensed controllers who are confident, competent, and prepared for the demands of the role. For those air navigation service providers utilising progressive licencing, there is evidence that indicates it can contribute to higher training success rates overall.

2.4 Progressive licensing offers a vital tool for workforce management in times of ATCO staffing shortages. By enabling trainees with validated progressive licences to perform limited duties, air navigation services providers (ANSPs) can unlock additional resources and increase staffing flexibility. This approach allows experienced controllers to control more complex positions during peak hours, while

trainees with partial certifications productively contribute to operations while continuing to progress their training on other positions.

2.5 Increasing the capacity of training programmes or meeting short-term spikes in traffic can be challenging when your training processes measure in years. In regions experiencing high traffic volumes or rapid sector growth, fast-tracking operational capabilities, even at a limited scope, has proven to relieve pressure on overextended staff and improve overall service resilience.

2.6 Progressive licencing is particularly appropriate for facilities where logical training stages may be defined that allow students to certify a set of skills needed to fully undertake limited roles. In busy air traffic control towers, the student may first acquire a licence for a ground clearance delivery position for example, while in enroute facilities it may begin with a single ATC sector. Permitting progressive licencing enables them to work the position they are licenced for independently, while they continue their training in other positions under the supervision of their licenced on-the-job instructor.

2.7 This method may require additional guidelines around supervision, task limitations, and the environments in which ATCOs with progressive licences can operate. It may also necessitate consideration in shift scheduling, as these ATCOs will be unable to rotate through all positions in the facility until full license endorsement is achieved. Additionally, it is important to ensure appropriate balancing of operational and training shifts so that students continue to progress.

2.8 While progressive licencing is not forbidden by Annex 1, existing ICAO documents do not explicitly permit the certification of supporting positions within an aerodrome or approach control unit. Current standards appear to limit the standard to require full unit certifications. Expanding the process to enable the use of sub-categories, would open the door to a progressive training system. Because the standard does not include this language, ATS authorities have been reluctant to enable such an approach or have restricted its use to very limited circumstances. Introducing progressive licensing may, in certain jurisdictions, require amendments to existing regulations or the development of new licensing categories—a process that must involve safety oversight organizations.

2.9 Adopting progressive licensing for air traffic controllers requires rethinking existing approaches to validation of licenses and putting in place measures that will support students while effectively managing operational risk.

3. CONCLUSION

3.1 When implemented appropriately, progressive licensing in air traffic control enhances support for ATCO trainees and improves training outcomes. Additionally, it provides ANSPs with an adaptable framework to manage their workforce efficiently and bring additional resources to bear sooner to manage growing workload.

3.2 Progressive licencing should be supported by regulatory authorities to ensure it meets the same rigorous safety and competency standards as traditional full-certification paths by ensuring that licenced ATCOs have demonstrated competency in all aspects of the specific task they are being given. Aligning training with operational needs and offering scalable qualification paths ensures that air traffic control services remain safe, effective, and resilient—even in the face of staffing challenges or increased demand.

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