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ASSEMBLY — 42ND SESSION

EXECUTIVE COMMITTEE

Agenda Item 20: Innovation in Aviation

ENHANCING CNS/ATM SAFETY AND RELIABILITY THROUGH AIR TRAFFIC SAFETY ELECTRONICS PERSONNEL LICENSING FRAMEWORK IN INDONESIA

(Presented by Indonesia)

EXECUTIVE SUMMARY

Indonesia has established a comprehensive Licensing and Rating System for Air Traffic Safety Electronics Personnel (ATSEP) to ensure the competence, professionalism, and accountability of personnel responsible for the operation, maintenance, and installation of communications, navigation, and surveillance (CNS)/air traffic management (ATM) systems. More than 1,600 licensed ATSEP personnel are deployed nationwide, supported by national regulations that stipulate licensing, rating, medical fitness, language proficiency, and competency assessment requirements. Although ICAO has not yet incorporated ATSEP licensing provisions into Annex 1, Indonesia has proactively aligned its framework with ICAO Standards and Recommended Practices (SARPs) and international best practices. The Directorate General of Civil Aviation (DGCA) conducts oversight through audits, inspections, and continuous monitoring of training organizations and competency assessments, with administrative sanctions applied for non-compliance. This initiative underlines Indonesia's commitment to aviation safety, operational efficiency, and regulatory harmonization, while also contributing to the global discourse on the potential future inclusion of ATSEP licensing within ICAO Annex provisions.

<i>Strategic Goals:</i>	This working paper relates to all Strategic Goals.
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<i>Financial implications:</i>	NA
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<i>References:</i>	Annex 1 — <i>Personnel Licensing</i> Annex 10 — <i>Aeronautical Telecommunications</i> Annex 19 — <i>Safety Management</i> Doc 9734, <i>Safety Oversight Manual</i> Doc 9859, <i>Safety Management Manual (SMM)</i>
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1. INTRODUCTION

1.1 The Indonesia currently has more than 1,600 air traffic safety electronics personnel (ATSEP) personnel holding valid licenses and ratings. These personnel are responsible for ensuring the safe, efficient, and sustainable operation of communication, navigation, surveillance, and air traffic management (CNS/ATM) systems. Their responsibilities extend beyond maintenance and operations, covering installation, teaching, safety and security management, as well as quality assurance.

1.2 In line with its regulatory mandate, the DGCA has prioritized the establishment of a structured ATSEP licensing and rating system to ensure uniform standards of competency. This reflects Indonesia's commitment to strengthening aviation safety, efficiency, and eco-friendly operations in accordance with user expectations and international practices

1.3 Although ICAO Annex 1 currently does not provide specific provisions on ATSEP licensing, Indonesia has proactively developed a national licensing framework that mirrors the intent of Annex 1 — *Personnel Licensing* with respect to personnel competency. This initiative reflects Indonesia's efforts to bridge regulatory gaps, enhance accountability, and contribute to ongoing international discussions regarding ATSEP recognition

1.4 DGCA also conducts continuous oversight of ATSEP competencies through training, examinations, and regular assessments, thereby ensuring that all personnel maintain the highest professional standards

2. DISCUSSION

2.1 The Indonesian Air Navigation Service Provider (ANSP) assigns ATSEP personnel to operational, maintenance, and installation activities. Each personnel is required to hold the appropriate license and rating before performing these functions

2.2 In regards with the requirements, the applicants must satisfy prerequisites concerning:

- a) age and medical fitness (minimum Class 3 medical certificate);
- b) language proficiency (TOEIC $\geq$ 405, with periodic validation based on score range);
- c) technical competence in Communication, Navigation, Surveillance, and Data Processing; and
- d) knowledge in subjects such as air law, CNS/ATM principles, equipment limitations, safety practices, and operational procedures.

2.3 Examinations include both theoretical and practical components, with a minimum passing grade of 70 per cent.

2.4 The licenses issued by DGCA include key information such as type, ratings, holder details, validity, and language proficiency endorsement. Ratings are categorized into communication, navigation, surveillance, and data processing, authorizing personnel to operate, maintain, design, and develop systems within each domain

2.5 DGCA appoints examiners, administrators, checkers, and on-the-job training (OJT) instructors to implement and supervise the licensing process. National training programmes are designed to build and sustain competencies in line with evolving CNS/ATM technologies. The ANSP is also required to maintain continuing assessment programmes to ensure personnel remain compliant with current requirements.

2.6 DGCA exercises regulatory oversight through audits, inspections, surveillance, and monitoring of both ATSEP personnel and approved training organizations. Enforcement measures, including administrative sanctions, suspension, or revocation of licenses and ratings, are applied in cases of non-compliance or safety hazards.

2.7 The Assembly is invited to note the information contained in this paper on Indonesia's ATSEP licensing system.

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