



**ASSEMBLY — 41ST SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 31: Aviation Safety and Air Navigation Standardization**

**THE PROGRESS IN CERTIFICATION SYSTEM FOR AERODROME AND EN-ROUTE EQUIPMENT FOR THE MEMBER-STATES OF THE AGREEMENT**

(Presented by the Interstate Aviation Committee)

**EXECUTIVE SUMMARY**

Working paper A37-WP/83 addressed the issue of certification of aerodrome and en-route equipment as an effective means for ensuring compliance with appropriate ICAO Standards and Recommended Practices (SARPs).

The practice of certification of aerodrome and en-route equipment existing in the region of Member States of the Agreement on Civil Aviation and Use of Airspace (hereinafter referred to as the Agreement) has been further developed through continued implementation of the ICAO SARPs over the past three-year period.

<i>Strategic Objectives:</i>	This information document relates to the strategic objectives of improving the flight safety level of international civil aviation.
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<i>Financial implications:</i>	No financial implications for the ICAO
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<i>References:</i>	Resolution A39-12: <i>ICAO global planning for safety and air navigation</i> Resolution A39-14: <i>Regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets</i> Annex 3 — <i>Meteorological Service for International Air Navigation</i> Annex 10 — <i>Aeronautical Telecommunication</i> Annex 11 — <i>Air Traffic Services</i> Annex 14 — <i>Aerodromes</i> A37-WP/83: <i>Certification of aerodrome and en-route equipment</i> A40-WP/89: <i>Certification of aerodrome and en-route equipment</i>
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<sup>1</sup> English and Russian versions provided by IAC.

## 1. INTRODUCTION

1.1 The aerodrome and en-route equipment means communication, navigation and surveillance aids, equipment for air traffic control centers, aerodrome visual aids, meteorological and electrical equipment, aerodrome pavement surface condition monitoring means, rescue and fire-fighting equipment.

1.2 The practice of type design certification of aerodrome and en-route equipment has existed since 1975. The first certificate for the approved equipment type design was issued in 1978.

1.3 Compliance of the type design with the requirements is ensured in accordance with the interstate Aviation Regulations (Certification Rules for Aerodrome and En-route Equipment) being adopted by the Council on Aviation and Use of Airspace of the Member-States of the Agreement (hereinafter referred to as the Council), which establish the procedure for the type design approval: from the application for certification up to the issuance of the Equipment Type Certificate.

1.4 The relevant technical requirements are listed in Certification Requirements for Aerodrome and En-route Equipment – this document is the Aviation Regulations that were created on the basis of the type design certification experience, ICAO SARPs and Procedures for Air Navigation Services (PANS) and were also adopted by the Council.

1.5 Since one of the most important items of development of the Certification Requirements for Aerodrome and En-route Equipment is the harmonization with the ICAO requirements, a constant work is being carried out in order to improve the Aviation Regulations in the interests of the Member-States of the Agreement.

## 2. DISCUSSION

2.1 The Aviation Register (which is the certification body of the Interstate Aviation Committee) improves the Aviation Regulations (AR) by developing amendments. Amendments are being adopted by the Council as well as the new AR.

2.2 Over the past three-year period, a number of amendments have been adopted on the different sections of the Certification Requirements for Aerodrome and En-route Equipment.

### *Colours for aerodrome visual aids*

2.2.1 The process of harmonization with the current requirements of Annex 14 Volume I on the characteristics of aerodrome visual aids is finalized by the Amendment to the Aviation Regulations on colours for aeronautical ground lights, markings, signs and panels.

### *GBAS ground subsystems*

2.2.2 The requirements corresponding to Annex 10, Volume I for GBAS ground subsystems for all service types, including GAST-D, were included in the Aviation Regulations as the Amendment to the navigation aids.

***Aerodrome pavement surface condition monitoring means***

2.2.3 Taking into account the ICAO Global Reporting Format for the assessment and information reporting on the runway surface conditions, the performance requirements for the pavement surface condition monitoring means have been changed. According to the current requirements of Annex 14 Volume I, guidance and informational materials related to the characteristics of the pavement surface condition of the movement area and related facilities were included into the Aviation Regulations.

***Ground-based wind shear remote sensing and detection equipment***

2.2.4 The requirements for ground equipment for the wind shear detection, warning and alert were harmonized with the provisions of Annex 3 and the Manual on low-level wind shear (doc. 9817 AN/449).

***Ground surveillance aids with ADS-B functions***

2.2.5 The Aviation Regulations requirements for the secondary surveillance radar with automatic dependent surveillance-broadcast (ADS-B) functions were brought into compliance with Annex 10, Volume 4 by the Amendment to surveillance aids.

2.3 To improve flight safety the Aviation Register of the Interstate Aviation Committee supports harmonization process of the Aviation Regulations with the ICAO SARPs and PANS in the interests of the Member-States of the Agreement.

2.4 Certification of aerodrome and en-route equipment is an important means for the implementation of the ICAO requirements in the practice of Contracting States and the significant reserve for flight safety improvement.

**3. CONCLUSION**

3.1 The participants of the 41st ICAO Assembly Session are invited to take into consideration the information stated in this paper.