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ASSEMBLY — 42ND SESSION

TECHNICAL COMMISSION

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

DEVELOPMENT OF ICAO GUIDANCE MATERIAL ON HARMONIZED IMPLEMENTATION OF QUALITY MANAGEMENT SYSTEMS IN AVIATION AND RELATED OVERSIGHT BASED ON EUR DOC 048

(Presented by Kazakhstan)

REVISION NO. 1

EXECUTIVE SUMMARY

Quality Management System (QMS) principles are already embedded within ICAO Standards and Recommended Practices (SARPs) and have evolved alongside Safety Management Systems, sharing structural alignment with international standards such as ISO 9000. While the QMS requirements integrated within regulatory framework, experience shows that implementation remains inconsistent, especially for air operators, partly due to limited QMS requirements in ICAO SARPs.

To address these gaps, the ICAO Regional Expert Safety Group (RESG) and the ICAO European Aviation System Planning Group (EASPG) endorsed specific actions under the EUR Regional Aviation Safety Plan (EUR RASP 2023–2025). A dedicated project team developed the EUR DOC 048 Guidance on the harmonized implementation of QMS in Aviation and Related Oversight and QMS Assessment Tool to support harmonized implementation. Kazakhstan, as the pilot State, tested the tool and identified discrepancies in national regulations and variable QMS maturity levels among service providers.

The testing confirmed that EUR DOC 048 is an effective instrument to strengthen QMS practices across the sector. Therefore, Kazakhstan proposes the development of ICAO guidance material based on these tools to provide harmonized guidance for all Member States

Action: The Assembly is invited to:

- acknowledge the importance of the consistent implementation and oversight of QMS in aviation; and
- consider the contents of EUR DOC 048 in the development and publication of future ICAO guidance material.

*Strategic
Goals:*

This working paper relates to *Every Flight is Safe and Secure*

*Financial
implications:*

For the aviation community: not determined.

For ICAO: not determined.

Kazakhstan stands ready to contribute expertise and human resources to this initiative.

<i>References:</i>	<i>Annex 1 – Personnel Licensing</i> <i>Annex 6 – Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes and Part III — International Operations — Helicopters</i> <i>Annex 8 – Airworthiness of Aircraft</i> <i>Annex 19 – Safety Management</i> <i>Doc 9859 – Safety Management Manual</i> <i>Doc 9841 – Manual on the Approval of Training Organizations</i> <i>Doc 9760 – Airworthiness Manual</i> <i>Doc 8335 – Manual of Procedures for Operations Inspections, Certification and Continued Surveillance</i> <i>EUR Doc 048 - Guidance on the Harmonized Implementation of Quality Management Systems in Aviation and Related Oversight</i> <i>QMS Assessment Tool</i> <i>ISO 9000 Series</i> <i>EASPG RESG08 RESG RASP WG07 SOD;</i> <i>EASPG RESG09 RESG RASP WG08 SOD.</i>
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1. INTRODUCTION

1.1 Quality Management System (QMS) principles are already reflected in ICAO Annexes and recommended practices, covering aspects such as management commitment, resource planning, quality assurance, supplier control, and document management. Since 2006, safety management systems (SMS) have been required and developed alongside QMS principles, with considerable overlap in structure and objectives, aligned with ISO 9000 standards.

1.2 The European Union further strengthened QMS application by embedding QMS requirements within management system requirements for aviation stakeholders. European regulations integrate SMS and compliance/QMS into one framework, supporting a harmonized approach. acknowledging systemic (organizational) issues as contributing factors to accidents and incidents, and recognizing that the service providers with implemented QMS principles are better prepared to identify and address organizational challenges through quality assurance and continuous improvements, the ICAO Regional Expert Safety Group (RESG) recommended, and the ICAO European Aviation System Planning Group (EASPG) endorsed the inclusion of specific safety action into European Regional Safety Plan (EUR RASP 2023–2025): EUR.SPT.0099 “Application of selected ISO QMS requirements for management systems of selected aviation service providers”.

1.3 In support of this, RESG formed the QMS Oversight Implementation Project Team (QMSOI PT), which developed the EUR DOC 048 Guidance on the Harmonized Implementation of Quality Management Systems in Aviation and Related Oversight and the QMS Assessment Tool. Kazakhstan, as a pilot State, tested the tool (still under development and to be finalized) and presented the results to the EASPG in May 2025.

2. DISCUSSION

2.1 The results of the voluntary testing revealed notable gaps. A gap analysis showed inconsistencies in national regulations on QMS requirements for different service providers in Kazakhstan. While requirements exist for air operators, approved training organizations, approved

maintenance organizations and parts of air navigation service providers such as aeronautical information service and meteorological service, they vary greatly in scope and detail.

2.2 Testing of the QMS Assessment Tool for air operators showed that most operators comply only with minimal national requirements and face difficulties maintaining documented processes, identifying risks and opportunities, and setting robust quality objectives and policies. In contrast, air operators subject to IOSA or SGRAO (Shell Group Requirements for Aircraft Operators) standards demonstrated strong QMS maturity even beyond national requirements.

2.3 Further, ICAO SARPs provide limited detail on QMS requirements for air operators, which impacts how national regulations are drafted and enforced, affecting safety performance. Unlike maintenance and training organizations, which align more closely with ICAO SARPs, air operators lack clear and detailed QMS guidance at global level.

3. CONCLUSION

3.1 Kazakhstan's experience shows that EUR DOC 048 and the QMS Assessment Tool (still under development and to be finalized) are effective instruments to objectively assess and develop QMS maturity across different aviation service providers. These tools help bridge regulatory gaps and promote consistent application of QMS principles across the civil aviation sector.

3.2 Therefore, Kazakhstan proposes the development of future ICAO guidance material based on EUR DOC 048 to provide all ICAO Member States with clear, harmonized guidance for implementing QMS requirements in aviation and integrating them into oversight systems.

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