



ASSEMBLY — 41ST SESSION

TECHNICAL COMMISSION

Agenda Item 31: Aviation Safety and Air Navigation Standardization

STANDARDS TO STRENGTHEN MEASURES TO ENSURE SAFETY DURING REFUELLING

(Presented by the Russian Federation)

EXECUTIVE SUMMARY

This Working Paper contains brief information about the risks for flight safety when low-quality fuel is used for fuelling, due to a lack of clear, comprehensive global standards controlling fuel quality.

Questions of ensuring quality fuel for jet engines when aircraft are being fuelled are important for maintaining the required level of flight safety. The *Manual on Civil Aviation Jet Fuel Supply* (ICAO Doc 9977) was developed by the IATA's Technical Fuel Group, in coordination with ICAO, Airlines for America (A4A), the Joint Inspection Group (JIG), suppliers, and the Airports Council International (ACI), and contains complete and importation information for these matters.

It is necessary to be mindful of provisions in this Manual when developing new Standards and Recommended Practices (SARPs) for their inclusion in Volume I of Annex 14 — *Aerodrome Design and Operations*, about the requirements for quality control of fuel at airports as was proposed by IATA in working paper WP/167 at the 39th Session of the Assembly, in Annex 8, *Airworthiness of Aircraft* and in Annex 19 — *Safety Management*.

**Actions:** The Assembly is invited to request that the Council of ICAO:

- a) review the proposal to add to the Air Navigation Committee agenda an item about developing SARPs to be added to Volume I of Annex 14, *Aerodrome Design and Operations*, Annex 8, *Airworthiness of Aircraft*, and to Annex 19, *Safety Management*. The SARPs would have requirements ensuring the quality of jet fuel used in various types of aircraft, considering the expected conditions of their operation; and
- b) recommend that the ICAO Air Navigation Commission actualize the provisions in *Manual on Civil Aviation Jet Fuel Supply* (Doc. 9977), taking into consideration the new SARPs, mentioned in item a) above.

<i>Strategic Objectives:</i>	This working paper relates to the Flight Safety Strategic Objective.
<i>Financial implications:</i>	To be determined. The work proposed in this document will be done pursuant to resources within the Regular Programme Budget for 2023-2025.
<i>References:</i>	Doc 9977, <i>Manual on Civil Aviation Jet Fuel Supply</i>

<sup>1</sup> Russian version provided by the Russian Federation.

## 1. INTRODUCTION

1.1 Standardizing processes and procedures of how jet fuel is supplied to civil aviation and aircraft are fuelled is a foundational pillar of safety assurance in the aviation system globally in this area of civil aviation.

1.2 ICAO already has an algorithm to develop and amend the Standards and Recommended Practices (SARPs) contained in the Convention on International Civil Aviation from the initial proposal to publishing, which is a timeline from one to five years. For this consideration, one could use the provisions of Doc 9977 *Manual on Civil Aviation Jet Fuel Supply*, which make it possible to complete development of the necessary provisions in an optimal time frame.

1.3 Developing the provisions of Doc 9977 and Standards and Recommended Practices will make it possible to begin forming a global legal basis for quality control of the jet fuel supplied to civil aviation in the form of a system of documents that defines the use of aviation fuel for different types of aircraft, considering the expected conditions of their operation.

## 2. REVIEW OF THE MATTER

2.1 The question of ensuring safety while an aircraft is being fuelled is relevant for all ICAO Member States. The statistics of failures with aviation technology occurring in civil aviation have shown that insufficient quality control over jet fuel causes aviation incidents.

2.2 The causes and sources of the decreasing level of quality of jet fuel have many factors that can emerge at any place on the chain of supplying jet fuel to civil aviation, from refinery operations to the aircraft.

2.3 When proposals were being drafted for the 39th Session of the Assembly, IATA prepared working paper A39-WP/167, *New Information from IATA on the Question of Strengthening Safety Measures During Refueling: The Impact of ICAO Doc 9977*, which also devoted attention to the question of safety during refuelling. The IATA document noted that to ensure the proper level of jet fuel quality, it is necessary to consider the multidisciplinary character of the issue.