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ASSEMBLY — 36TH SESSION

TECHNICAL COMMISSION

Agenda Item 29: Flight recorders

A REPORT ON THE IMPORTANCE OF URGING STATES TO PRESCRIBE THE COMPLIANCE OF MANUFACTURERS OF AIRCRAFT WITH A MAXIMUM TAKE-OFF MASS OF OVER 5 700 KG WITH THE FDR SPECIFICATIONS IN ANNEX 6, PART I

(Presented by Egypt)

EXECUTIVE SUMMARY

It is necessary to urge States to prescribe the compliance of manufacturers of aircraft with a maximum take-off mass of over 5 700 kg, with the FDR specifications in Annex 6, Part I, and the compliance of manufacturers of Helicopters with a maximum take-off mass of over 3 180 kg to 7 000 kg, for which the airworthiness certificate was first issued after 1 January 2005 with the FDR specification in Annex 6, Part III.

<i>Strategic Objectives:</i>	The information contained in this paper furthers the implementation of Strategic Objective A, through the development of specifications for the FDR.
<i>Financial implications:</i>	No additional resources required.
<i>References:</i>	Annex 6, Part I Annex 6, Part III

1. INTRODUCTION

1.1 AIRCRAFT

1.1.1 The existing FDR requirements in Annex 6, Part I are solely based on the maximum certificated take-off mass, regardless of the number of passengers. They prescribe that all aircraft with a maximum certificated take-off mass of over 5 700 kg, for which the individual certificate of airworthiness is first issued after 1 January 2005 shall be equipped with a Type IA FDR capable of recording up to 77 parameters.

1.1.2 Many new aircraft with the maximum take-off mass of over 5 700 kg, for which the individual certificate of airworthiness was first issued after 1 January 2005 and with a maximum number of passengers allowed on board at 9 passengers, according to the Egyptian records, have been registered.

1.1.3 After analyzing the readings of the FDR, it appeared that such devices record a number of transactions; however, they do not meet the international requirements. Following several communications with the manufacturers of such aircraft, they explained that when the aircraft operate in the United States of America they are in compliance with FAR 91.609 & FAR 135.152 in terms of the FDR, as they are based on the number of passengers only, as such regulations require that the FDR must be in aircraft of more than 9 passengers to be equipped with FDR.

1.1.4 In order to record all the required transactions for Type IA, fundamental modifications have to be made, which might affect the Type Certificate Data Sheet and require the issuance of an STC. All such requirements cannot be met in the present time because of many technical difficulties.

1.1.5 Different regulations in different States of manufacturing made it difficult to implement ICAO requirements concerning the aircraft of a certificated maximum take-off mass of over 5 700 kg and less than 9 passengers. Such difficulties led to many exceptions, which gave an impression of a lack of seriousness on the part of the civil aviation authorities, in implementing their regulations or suspending the operation of such Aircraft.

1.2 HELICOPTERS

1.2.1 The FDR requirements in Annex 6, Part III, Section II paras. 4.3.4 & 4.3.1.7 are solely based on the maximum certificated take-off mass of the helicopter regardless of the number of passengers, as all helicopters of a maximum certificated take-off mass of over 3 180 kg to 7 000 kg, for which the certificate of airworthiness was first issued after 1 January 2005 must be equipped with Type IVA FDR capable of recording up to 36 parameters.

1.2.2 When such helicopters operate in the United States of America, the requirements of the FAA are based on the number of seats (for 10 to 19 seats a factor of 15 is required, while for more than 20 seats a factor of 25 is required).

1.2.3 When such helicopters operate in Europe a factor of 15 is required, according to the provisions of JAR.OPS-3 Item 3.715.

1.2.4 The above States have notified ICAO of the existing differences.

1.2.5 Such difference in regulations in the States that manufacture helicopters made it difficult to implement the ICAO's requirement concerning helicopters of a maximum certificated take-off mass of over 3 180 kg to 7 000 kg, for which the certificate of airworthiness was first issued after 1 January 2005, a matter that led to many exceptions and gave the impression of a lack of seriousness on the part of the civil aviation authorities in implementing their regulation or suspending the operation of such Helicopters.

2. CONCLUSION

2.1 States should be urged to prescribe the compliance by the manufacturers of aircraft with a maximum certificated take-off mass of over 5 700 kg with the FDR specifications in Annex 6 regardless of the maximum number of passengers in accordance to Annex 6, Part I.

2.2 States should be urged to prescribe the compliance by the manufacturers of Helicopters with a maximum certificated take-off mass of 3 180 kg to 7 000 kg, for which the certificate of airworthiness was first issued after 1 January 2005, with the FDR specifications in Annex 6, Part III.

OR

2.3 Consider amending the above-mentioned requirements of Annex 6, Part I to take into account the category of aircraft with the maximum certificated take-off mass of over 5 700 kg and less than 9 passengers.

2.4 Consider amending the above mentioned requirements in Annex 6, Part III.

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