



ACCIDENT INVESTIGATION AND PREVENTION (AIG) DIVISIONAL MEETING (2008)

Montréal, 13 to 18 October 2008

Agenda Item 2: Recent developments in investigation and prevention matters

IMPENDING REPLACEMENT OF OUTDATED FLIGHT RECORDERS

(Presented by the Interstate Aviation Committee)

SUMMARY

The working paper considers the necessity to promptly replace obsolete flight recorders.

Action by the meeting is in paragraph 3.

1. INTRODUCTION

1.1 The obsolete flight recorders, which use magnetic tape as a media, that are now in operation do not comply with the modern requirements as to protection, quantity and quality of recorded data. The operation of obsolete flight recorders hampers efficient air accident and incident investigations and sometimes makes them impossible. The ICAO Flight Recorder Panel (FLIRECP) has developed proposed changes in Annex 6 Standards and Recommended Practices as to equipping aircraft with flight recorders and replacing the obsolete recorders.

2. DISCUSSION

2.1 At present time a large number of aircraft in operation are equipped with obsolete magnetic tape flight recorders.

2.2 Obsolete recorders do not provide the required level of data protection during air accidents; they do not comply with the modern requirements to quality and quantity of recorded data. Such recorders can not ensure efficient use of Flight Data Analysis (FDA) programs.

2.3 The manufacturers have almost stopped production of spare parts and magnetic tapes for obsolete models of flight recorders. It is getting more and more costly to repair and maintain such flight recorders. In the nearest future, aviation industry will face increasing difficulties in maintaining such recorders.

2.4 By now, a wide range of modern solid-state flight recorders has been developed and is manufactured. The efficiency of modern solid-state flight recorders has been confirmed by 20 years of their operation. Such flight recorders provide high level of data protection during air accidents. The solid-state flight recorders are by far more cost-effective than obsolete models.

2.5 Despite all the benefits of modern flight recorders, aircraft operators take their time over replacing the obsolete recorders. The pace of retrofitting the aircraft that are now in operation is still very slow.

2.6 The operators consider the replacement of obsolete flight recorders with modern ones to be economically unreasonable. Operators often neglect the requirements to continuing airworthiness of obsolete recorders for reasons, specified in 2.3 of this Paper, which leads to loss of data during air accident and incident investigations.

2.7 The lack of economical leverages to influence the pace of aircraft retrofitting causes the necessity of working out a coordinated opinion on this issue of the international aviation community as well as developing Standards and Recommended Practices that would encourage operators to promptly replace the obsolete flight recorders.

2.8 The second meeting of the ICAO FLIRECP developed and submitted to the ICAO Air Navigation Commission their proposals with regard to introduction to Annex 6 of Standards and Recommended Practices that would encourage prompt replacement of flight recorders and provision of objective good-quality data for investigations.

2.9 In accordance with the proposals of the ICAO FLIRECP, beside other, the use of magnetic tape flight recorders shall be discontinued by 2016, meanwhile operators are recommended to stop operation of such recorders by 2010.

3. ACTION PROPOSED

3.1 The meeting is invited to support the work of the ICAO FLIRECP and later, when the proposals go under discussion, to promote the approval of the relative amendments to Annex 6.

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