

IBAC Technical Report Summary

Subject: Flight Recorders

Meeting: ICAO AIG Divisional Meeting (1999)

IBAC File: ICAO Divisional Meetings

Reported by: Peter R. Ingleton

Summary:

AIG addressed a range of subjects related to Accident Investigation and Prevention. Of these, the subject of Flight Recorders was of principal interest to IBAC.

The subjects comprising the future work of the ICAO Flight Recorder Panel (FLIRECP) deserve close monitoring.

Concerning operation of aircraft with Flight Recorder Disabled, the meeting agreed that Annex 6 Part I PARAS 6.3.10.1 and 6.3.10.2 and the corresponding paragraphs of Annex 6 Parts II and III should not be amended.

The meeting agreed that magnetic tape flight recorders are obsolescent but decided that an economic study should be completed before the matter is taken further.

The meeting also recommended that the FLIREC Panel

- consider introducing specifications to extend the recording duration of CVR's to at least two hours , and to provide an independent power supply to CVR's to allow their continued operation for a short time following the failure of the aircraft power supply,

- continue to explore means of enhancing the survivability of flight recorder recording media.

Implication for Business Aviation:

The development of amendments of regulations pertaining to FDR, and in particular CVR, will have retrofit implications and impact equipment /installation requirements on new aircraft.

Decisions Required:

P.O.C. to endorse need for ongoing IBAC involvement in FLIRECP and request D.G. assign suitable expert to succeed Mr. F. Kirby/ formerly NBAA.

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Report of ICAO AIG /99 Divisional Meeting.

Introduction

The ICAO Accident Investigation and Prevention (AIG) Divisional Meeting (1999) was held in Montreal 14-24 September 1999.

IBAC Representation

IBAC was represented, with Observer status, by Mr. P.R. Ingleton (14 –17 Sept) and Mr. D. Spruston (20-22 Sept).

Agenda Item 1: Annex 13

The Meeting considered the need for and the development of proposed amendments to the Standards and Recommended Practices (SARP's) in Annex 13. The preponderance of working papers for the meeting related to this Item to which the Meeting devoted the bulk of its time.

Twelve Recommendations pertaining to the amendment of SARP's were adopted. A further seven Recommendations unrelated to SARP's amendments were also adopted.

No matters arose of significant, direct interest to business aviation.

Agenda Item 2: Analysis of accident and incident data

Discussion took place under four sub-headings: Development of taxonomies, Safety data sources, Safety data analysis and Exposure data.

In the context of safety data analysis, it was noted that accident trends based on accident rates could only be calculated for scheduled air transport operations because reliable exposure data was only available for this category of operation. In particular, there was a need for exposure data for non-scheduled air transport operations and general aviation.

Regarding the availability of exposure data, the meeting was informed that the Ninth Session of the Statistics Division (1997) had recommended that ICAO remind States of the requirement to file statistical reports in accordance with Articles 54, 55 and 57 of the Convention on Civil Aviation and Assembly Resolution A4-19. States were also urged to comply with the requirements to file statistical reports in support of the safety monitoring tasks of ICAO.

Agenda Item 3: Resource allocation in accident investigation

The matters considered under this Agenda Item were of concern to States rather than aircraft operators.

Agenda Item 4: Flight recorders

Concerning operation of aircraft with Flight Recorder Disabled, the meeting agreed that Annex 6 Part I paragraphs 6.3.10.1 and 6.3.10.2 and the corresponding paragraphs of Annex 6 Parts II and III should not be amended.

The meeting agreed that magnetic tape flight recorders are obsolescent but decided that an economic study should be completed before the matter is taken further.

The meeting therefore recommended that the FLIRECP Panel study the implications of replacing magnetic tape recorders with solid-state recorders and develop appropriate provisions for Annex 6.

The meeting also recommended that the FLIREC Panel;

- consider introducing specifications to extend the recording duration of CVR's to at least two hours , and to provide an independent power supply to CVR's to allow their continued operation for a short time following the failure of the aircraft power supply,

- continue to explore means of enhancing the survivability of flight recorder recording media.

The future work of the ICAO Flight Recorder Panel (FLIRECP) therefore warrants close monitoring by IBAC.

The meeting recognized that flight data analysis programmes were an effective accident prevention tool. A Recommendation for the amendment of Annex 6 Part I* was adopted accordingly, as follows;

3.6.2 Recommendation . – From 1 January 2002, an operator of an aeroplane of a certificated take off mass in excess of 27 000 kg should establish and maintain a flight data analysis programme as part of its accident prevention and flight safety programme.

3.6.3 From 1 January 2005, an operator of an aeroplane of maximum certificated take off mass in excess of 27 000 kg shall establish and maintain a flight data analysis programme as part of its accident prevention and flight safety programme.

3.6.4 A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

*** Note: there is no counterpart proposal to amend Annex 6 Part II.**

Agenda Item 5: Review of ICAO ADREP System

Agenda Item 6: Review of AIG Documentation

Agenda Item 7: Training Seminars

The foregoing Items were of principal interest to States and thus, were not of direct concern to IBAC.

Agenda Item 8: Hazardous materials in aircraft wreckage

Although nothing arose of direct concern to business aviation as a matter of record under this Item, there were tangential implications regarding the ready accessibility and availability of load manifests. How, if at all, this might impinge on aircraft operators and possibly also on information provided in the flight plan is obscure for the time being.

Copies of the AIG Working Papers and Meeting Report are on file at the IBAC Montreal Office and can be made available upon request.

Peter R. Ingleton

5 October 1999.