



WORKING PAPER

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

Montréal, 13 to 18 October 2008

Agenda Item 1: Annex 13

1.7: Attachment E to Annex 13

NON-DISCLOSURE OF IMAGE RECORDINGS

(Presented by France, on behalf of the European Community and its Member States¹,
and by the other States Members of the European Civil Aviation Conference²)

SUMMARY

This paper identifies omissions in Annex 13, Ninth Edition, Amendment 11, with regard to the non-disclosure of recordings made by Airborne Image Recorders (AIRs).

Action by the meeting is in paragraph 3.

1. INTRODUCTION

1.1 Annex 13 — *Aircraft Accident and Incident Investigation*, Ninth Edition, Amendment 11 contains Standards and Recommended Practices for the non-disclosure of certain types of information, detailed in paragraph 5.12, but currently affords no such protection for image recordings made by AIRs.

2. DISCUSSION

2.1 Accident investigators have recognized for many years that recorded 'images' of the cockpit environment were needed to augment existing data and audio recordings. However, it has only recently become economically realistic to record cockpit images in a crash-protected recording medium. Therefore, supplementing existing data and audio recorder information with an image recording of the cockpit environment is the next logical step in the evolution of flight recorder systems.

¹ Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom. All these 27 States are also Members of the ECAC.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Croatia, Georgia, Iceland, Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

2.2 The combination of audio, data and cockpit image recordings will provide air safety investigators with the necessary information to better define the facts, conditions and circumstances of an occurrence, and to broaden the scope of the vitally important human factor aspects of investigations. Additionally, image recordings can capture other cockpit information that would otherwise be impractical or impossible to record.

2.3 A number of accident investigation authorities have made recommendations to introduce image recording to supplement the information currently provided by the Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR). The technology to implement such systems has been demonstrated and a minimum operational performance specification (Eurocae ED-112) for such recordings was issued in March 2003.

2.4 Eurocae ED-112 identifies a number of classes of AIR for use in different applications. A Class A recorder has been identified to capture data supplemental to conventional flight recorders; for example, to capture cockpit Human Factors, movements etc. A Class B recorder would satisfy CNS/ATM Message Display recording. A Class C recorder could be used to record flight data where it is prohibitively expensive to record on an FDR. A Class D recorder was identified to capture Head Up Displays and a Class E recorder could be used to capture other camera images presented to the crew such as cargo or cabin views.

2.5 Image recorders, in particular the Class C AIR may prove an attractive alternative, in terms of installation costs, to the installation of a Flight Data Recorder system on small aircraft. To that end, the ICAO Flight Recorder Panel (FLIRECP) has tabled proposed amendments to Annex 6 — *Operation of Aircraft* which would allow the use of image recorders instead of an FDR under some circumstances.

2.6 However, although the FLIRECP, at its last meeting held in April 2007, recognized the benefits of introducing image recording, it expressed concern that the introduction of this technology would meet with strong opposition if its use could not be limited solely for accident investigation purposes. In particular, it recognized the attractiveness of the Class A recordings by the media and other organizations desiring to use such information for purposes other than accident investigation. This contrasts with the Class C recorder, its field of view only encompassing displays and / or instrumentation, which would attract considerably less attention but would provide accident investigators with significant additional information. It is worth noting that the Class C recorder met favour with pilots in that it was designed to record exactly what was displayed to flight crew rather than what the aircraft systems thought was displayed, as recorded on an FDR.

2.7 Annex 13, paragraph 5.12 sets out the Standards and Recommended Practices for States with regard to non-disclosure of certain types of records. CVRs and their transcripts are identified as a relevant record in paragraph 5.12 d) and the same, or higher, level of protection would seem to be appropriate for all classes of image recordings and their transcripts. A number of States have already taken the lead and introduced protection for such recordings into their national legislation.

2.8 It is hoped that ICAO, as the organization which sets Standards and Recommended Practices, through the amendment of Annex 13, paragraph 5.12 to protect this recording technology, provides guidance to Contracting States in this matter and hence brings a degree of uniformity to the changes in national legislature required.

3. **ACTION PROPOSED**

3.1 The meeting is invited to:

- a) consider the amendment proposed in the Appendix in order to afford image recordings and their transcripts, in whole or in part, the same, or higher level of protection from disclosure as cockpit voice recorders;
- b) consider methods of protection of these recordings from disclosure in those States which are unable or unwilling to afford such protection in their national legislation.

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APPENDIX

PROPOSED AMENDMENT TO ANNEX 13

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CHAPTER 5. INVESTIGATION

**RESPONSIBILITY FOR INSTITUTING AND
CONDUCTING THE INVESTIGATION**

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Non-disclosure of records

5.12 The State conducting the investigation of an accident or incident shall not make the following records available for purposes other than accident or incident investigation, unless the appropriate authority for the administration of justice in that State determines that their disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigations:

- a) all statements taken from persons by the investigation authorities in the course of their investigation;
- b) all communications between persons having been involved in the operation of the aircraft;
- c) medical or private information regarding persons involved in the accident or incident;
- d) cockpit voice recordings and transcripts from such recordings; and
- e) recordings and transcriptions of recordings from air traffic control units; ~~and~~
- f) airborne image recordings and any part or transcripts from such recordings; and
- g) opinions expressed in the analysis of information, including flight recorder information.

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