



WORKING PAPER

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

Montréal, 13 to 18 October 2008

Agenda Item 6: Regional cooperation in accident and incident investigations

**REGIONAL COOPERATION
(The European Example)**

(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

Structured and comprehensive accident investigations are essential for aviation safety. Assistance provided by a safety investigation authority, with significant resources, to an organisation with more limited means is sometimes essential and can take many forms. Co-operation during an investigation is already provided for in Annex 13 and in the Directive 94/56. Nevertheless, it should be reinforced by structures supported by detailed written agreements (check-list and Code of Conducts) between Parties for long-term improvements. To complete and reinforce the existing structures, an assessment of needs to determine the scope of cooperation must be carried out. This will ensure yielding more synergies and avoid receiving excessive assistance with no long-term benefits. Gradually, European safety investigation authorities have each reinforced their structures and their efficiency in conducting safety investigations, thanks to a structured cooperative approach, which has resulted in the creation of the Council of European Aviation Safety Investigation Authorities (EASIA). The extensive experience in Europe can be worth being considered by other regions.

Action by the meeting is in paragraph 3.

1. INTRODUCTION

1.1 Structured and comprehensive accident investigations are essential for aviation safety. Especially when dealing with major accidents, not only do they require trained investigators but also

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.

experts and facilities which a number of States cannot provide unless they receive assistance from other States.

1.2 First of all, co-operation during an investigation is provided for in Annex 13. Co-operation during an investigation occurs through States which have a specific safety interest in understanding the causes of the accident, i.e. the States of design, manufacture, registration and operation of the aircraft. However, this co-operation has to be set up before an accident occurs and if this has not the case, in some circumstances, the Investigator-in-charge may face difficulties such as limited resources. Though some companies can offer their services to conduct an investigation, States which do not have sufficiently developed structures to be able to handle a major investigation should first turn to the safety investigation authorities of other States.

1.3 In the European Union, the Directive 94/56/EC establishes a requirement for a functionally independent investigation organisation in each State (Paragraph 6.1). This authority will be given the means required to carry out its responsibilities (Paragraph 6.3). In order not to create an undue burden on some States, Article 6 was thus completed by two additional paragraphs 6.4 and 6.5 which allow them to request assistance from another Member State.

1.4 The Group of Experts on accident investigations (ACC)³ have regularly discussed the situation and concluded these discussions by the endorsement of two documents, a check-list on investigations permitting Member States to assess their needs, and a Code of Conduct to organise co-operation between the signatory authorities. Members of the ECAC ACC Group of Experts have also been involved with the ICAO Cooperative development of Operational Safety and Continuing Airworthiness Programmes (COSCAP).

2. ASPECTS OF ASSISTANCE DURING AN INVESTIGATION

2.1 Two investigation phases

2.1.1 The investigation process has two main phases: the initial structuring, which lasts roughly a month from the event, then its development, which can take several years. The first phase must enable the situation to move from a crisis context to that of a working one. The second phase must take advantage of the work accomplished in making some contribution to safety. The assistance that an experienced organisation can provide depends on when it is first involved in the process.

2.1.2 The structuring phase of the investigation corresponds to the initial findings and to the gathering of facts and material elements for the investigation. Usually the readout of the flight recorders is performed at this time. The working groups are also defined during this phase, experience acquired from other investigations contributing to their organisation (nomination of team leaders, size of groups, etc.). During this period, it is also important to organise the timely dissemination of appropriate information and to control any possible drift (avoiding leaks or the spreading of dangerous assumptions, clearly identifying the framework for co-operation with the judicial authorities and insurers, etc.); the investigators must be able to carry out their work outside the media spotlight. An organisation that has experience in the handling of aviation disasters can provide its know-how in crisis management and communication.

³ The Group of Experts on Investigation (ACC) was established in 1991. It groups the Safety Investigation Authorities of the 44 ECAC Member States and benefits from the participation of observers representing the European Commission, EASA, the Interstate Aviation Committee from the Commonwealth of Independent States, the United States National Transportation Safety Board, the Transport Safety Board of Canada, aircraft manufacturers, IATA and IFALPA.

2.1.3 The second phase is characterised by a decrease in media pressure and the long-term management of the investigative work. Experience then allows the investigators to establish the main orientations as well as to define and mobilise the resources required (human, technical and financial). During this period an investigation authority that has sent its representatives to assist may need to use their skills in other missions, therefore it is important to make early decisions on transitional measures.

2.2 **Notes on the Basics of Assistance**

2.2.1 Without prejudice to national laws, States might find it preferable to sign bilateral agreements. The agreements signed between investigative bodies can include clauses on training as well as clauses on assistance during investigations. However, such agreements do not cover all of the operational aspects of an assistance mission. It is also important for both parties to define the limitations which apply in terms of responsibility or managing the foreign organisation's resources i.e. who decides on the level of assistance, its use and its duration.

2.2.2 By making an official request, the organisation in charge of the investigation legitimises the actions of the assisting body but it must also facilitate these actions. For example possible practical obstructions to assistance such as time taken for visas or delays in granting access to the site, must be identified and dealt with in advance. Access to the site and the analysis of the wreckage are often essential elements in understanding the accident but they require an action in the shortest possible time.

2.2.3 When the request for assistance requires the deployment of significant resources like a search for wreckage at sea, then how to finance the operation has to be addressed. Note: various solutions have been identified, such as insurance coverage (the State itself being insured or the airline's insurance taking into account special investigative operations) or emergency funds, but they should preserve the independence of the investigation.

2.3 **Increasing co-operation**

Three areas have been identified to enhance co-operation, namely:

- a) Collaboration in the context of aviation accidents and incidents;
- b) Training of investigators, welcoming observers, simulations relating to reactions to an event or the review of procedures; and
- c) Establishing and maintaining contacts between investigation authorities beyond the context of a crisis through exchange of views, feedback, etc.

2.4 **Check-list on Investigations**

First and foremost, it is useful for States to examine their needs and their capacity to fulfil their responsibilities when faced with a major civil aviation accident. The check-list (in Appendix), prepared by the ECAC/ACC Group, provides a comprehensive assessment by the participating States of their needs related to investigations and possible practical or legal obstacles. To complete and reinforce the existing structures, such an assessment must determine the scope of cooperation to ensure that it will yield more synergies and avoid having excessive assistance, which puts the receiver in a situation of dependency, with no long-term safety benefits.

2.5 **Code of Conduct on Co-operation**

A document, named “Code of Conduct on Co-Operation” (available on: www.ecac-ceac.org, “Publications and Documents”) was endorsed at the beginning of 2006 by the ECAC Member States. This agreement, consistent with the relevant provisions of Annex 13 to the Chicago Convention and Directive 94/56/EC, provides for a convenient framework for co-operation, in order to develop meaningful cooperation bonds between ECAC Member States outside the context of a specific investigation.

2.6 **Council of European Aviation Safety Investigation Authorities**

European safety investigation authorities have each reinforced their structures and their efficiency in conducting safety investigations, thanks to a structured cooperative approach. This has resulted in the creation of the Council of European Aviation Safety Investigation Authorities (EASIA), which is composed of the Heads of the aviation safety investigation authorities of the EU Member States. The Council coordinates and harmonises the activity of safety investigation authorities without hampering their independence.

3. **ACTION PROPOSED**

3.1 The meeting is invited to:

- a) urge Contracting States to conduct safety investigations when an accident occurs in its territory pursuant to Article 26 of the Chicago Convention, and if deficiencies have been identified, the deficient States are urged to look for regional support;
- b) append the “checklist on assistance” to the Memorandum of Understanding proposed by ICAO Secretariat; and
- c) encourage the study of the implications of the “Code of Conduct on Co-Operation” established by the ECAC State members and available on: www.ecac-ceac.org, “Publications and Documents”.

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APPENDIX

CHECKLIST ON ASSISTANCE

Assessment of the needs

1. Is there an independent organisation with the specific task of conducting investigations into aircraft accident and incident?
2. Is there a comprehensive set of national laws to organise the technical investigation?
3. Does the investigative body have its own independent means to undertake technical investigations?
4. Is there appropriate documentation, basic facilities and adequate means of transportation for the conduct of an investigation?
5. Is there a specific database to enter and consult information on aviation events? Is there a need for assistance in the management of this database?
6. Do investigators have access to the appropriate protective equipment and clothing before going to the crash scene?
7. Are there any experienced investigators who have participated in or led major accident investigations?
8. Is the number of investigators adequate to deal with a major investigation?
9. Has an appropriate communication procedure been established to notify and then deal with the many parties involved in a major aircraft accident?
10.
 - a) Do you have access to all the facilities required to read out recorders?
 - b) If not, is it possible to easily reach an agreement with a third party on such a task?
11.
 - a) Can you perform detail examination of parts or components of aircraft on your premises?
 - b) If not, is it possible to easily reach an agreement with a third party on such a task?
12.
 - a) Is there any appropriate facilities for any possible additional examinations and research, such as numerical computation, spectral analysis, etc.?
 - b) If not, is it possible to easily reach an agreement with a third party on such a task?
13. Is it possible to carry out medical examination?

14. Are there seasonal peak periods for the activity of the investigative body which correspond to some specific needs for assistance?
15. Is there a need for assistance to investigate general aviation events, or only for commercial aviation?
16. Is there a need for some assistance to investigate specific activities, such as helicopters?
17. Is there a need for advice on the organisation of investigation?
18. Is there a need for advice on the gathering of basic data?
19. Is there a need for assistance with the protection of the crash scene?
20. Are there any investigators experienced in taking various samples of different nature?
21. Are there any investigators who have experience or training in conducting an interview?
22. Has a list of contacts been established to find some specific information (on the aircraft, meteorology, airfield, etc.)?
23. Are the investigators experienced enough in the conduct of working groups (human factors or interpretation of data for instance)?
24. Do investigators have a broad knowledge to analyse any human factors aspects?
25. Are some specific tools and methods available regarding the analysis of factual information and determination of causes?
26. Is there a need for assistance in writing reports and safety recommendations?
27. Has a communication policy been established?

Possible Obstacles

28. Can the judicial investigation take precedence over and therefore hamper the conduct of the technical investigation?
29. Can a foreign investigator access the scene, as well as any data relevant to the completion of the mission he is undertaking?
30. In case of an event occurring abroad which involves your organisation, is rapid transportation available or is it then necessary to call upon a third party to assist you?
31. According to your national laws, can you send aircraft parts or components abroad for examination?
32. Which organisation is responsible for communicating information relating to an accident?

33. Is the communication between the various possible parties organised, for example via a specific procedure?
34. Are there any specific local constraints in your State, such as geographical, that might hamper the success of the assistance provided by another State?
35. Has a procedure been established with operators to identify hazardous materials on the crash site?
36. Has a procedure been set up or contacts been made which would facilitate the arrival of assisting investigators?
37. Is it possible to translate documents for foreign investigators?
38. Is the function of a foreign technical expert recognised under national laws?
39. Are there any provisions under national laws relating to non-disclosure of confidential data?

— END —