



International Civil Aviation Organization

**First Meeting of the APRAST – Accident Investigation Ad hoc Working Group
(APRAST-AIG AWG/1)**

(Bangkok, Thailand, 6-8 June 2012)

Agenda Item 4: Independence of Investigation

**SETTING UP A PERMANENT ACCIDENT INVESTIGATION UNIT AND
IMPLEMENTATION OF VIRS BY THE CAA**

(Presented by Macao, China)

SUMMARY

ICAO Annex 13 requires States shall have independence in the conduct of the investigation and have unrestricted authority over its conduct, consistent with the provisions of Annex 13. This discussion paper explores the transition process of setting up a permanent accident investigation unit within the civil aviation authority (CAA), and the implementation of VIRS by the CAA.

1. INTRODUCTION

1.1 ICAO Annex 13 Paragraph 5.4 requires States shall have independence in the conduct of the investigation and have unrestricted authority over its conduct, consistent with the provisions of this Annex.

1.2 The purpose of this discussion paper is to explore the possibility of being the civil aviation authority (CAA), while having the role as the regulator, to set up a permanent accident investigation unit with independence and implementation of VIRS as required by ICAO Annex 13. Some key factors for effective and successful setting up of the unit are discussed.

2. DISCUSSION

Setting Up an Permanent Accident Investigation Unit by the CAA

2.1 Currently, Macao, China does not have a specific unit to conduct aviation accident and incident investigation. When investigation is needed, the Director General of AACM will form an investigation team consists of officers from various departments. Rules for reporting, investigation, preservation of evidence and disclosure of information related to aircraft accidents/incidents are defined in an Aeronautical Circular (AC).

2.2 ICAO had conducted a Safety Oversight Audit to Macao, China in March 2009 and reported that Macao, China does not have any law given AACM the power to execute the responsibilities of aviation accident and incident investigations. ICAO also reported that Macao, China has not formally designated in its legislation a specific agency, commission, board or other body within the State to conduct aviation accident and incident investigations. AACM had promised to complete the corrective actions by year 2012.

2.3 After the ICAO Safety Oversight Audit, the AACM immediately formed an AIG task force and legislation working group to develop the <Aviation Accident and Incident Investigation and Aviation Safety Information Protection Law>. In parallel with the law development, the AACM has been preparing to set up an accident investigation unit.

2.4 The law was drafted in 2009 and 2010, the key process of making the law including study and research, public consultation, introduction to relevant judiciary department and the local legislative process.

Study, research and drafting of the law	2009 – 2010
Public consultation	2010
Legislative process	2011 - 2012

2.5 Throughout the public consultation and introduction section, it was realized that the industry mostly concerned about the requirement on reporting time, independence of investigation, release of final report and disclosure of evidence, while the judiciary authority and executive council mostly concerned about the exception to Aviation Safety Information Protection and any potential conflict to judicial investigation. All the comments received had been evaluated and suitably incorporated into the law. Now the law is finalized and pending for approval by the legislative assembly.

2.6 *Investigation and Safety Data Office:* The office is planned to consist of 3 technical staff and major responsibilities of the office include:

- ➔ Conducting Accident / Incident Investigation with the support of expertise from various technical departments;
- ➔ Establishing and administrating the Voluntary Incident Reporting System;
- ➔ Coordinating the follow-up of Mandatory Incident Reports;
- ➔ Administration and Analysis of Safety Database including Accident/Serious Incident data and VIRS;
- ➔ Measurement of State Safety Performance;
- ➔ Coordinate the Establishment of State acceptable level of Safety;
- ➔ Intra-State and Inter-State Safety Data Sharing;
- ➔ Establishment of internal procedures aiming to ensure independence, confidentiality and proper use of safety data;

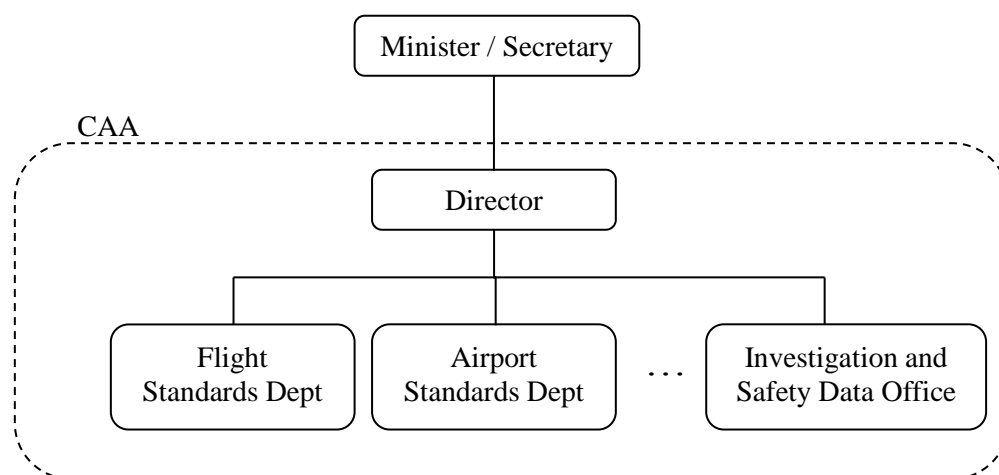


Chart 1 Structure of CAA with Investigation and Safety Data Office

2.7 Proper Internal Structure and Procedure: The investigation and safety data office is fully independent from other operational departments, such as flight standards and airport standards. In some States, although having an independent accident investigation agency may not be justified, having a number of technical personnel specialized in accident investigation within the civil aviation authority may be the possible solution. This department, as the department administering and analyzing the safety database, can coordinate the measurement of State safety performance and establishment of State acceptable level of safety (ALoS). It can also facilitate intra-State and inter-State safety data sharing. Proper organization structure must be accompanied with proper internal procedures aiming to ensure independence, confidentiality and proper use of safety data.

VIRS Implementation

2.8 In regard to implementation of VIRS, it becomes a challenge to the CAA on how to take up several different roles successfully without jeopardizing the independence, non-punitive and confidential principle. To compensate for the imperfection, States should take appropriate measures taking into account the following key factors:

2.9 Legislation for Protection of Safety Data: The protection of safety data from inappropriate use is essential to ensure its continued availability, since the use of safety data for other than safety-related purposes may inhibit the future availability of such data. The most effective way to achieve this goal is to establish legislation for protection of safety data and ensuring proper use of such data. This legislation should clearly define the classification of safety data, the purpose of collecting such data, the protection principles and the criteria for disclosure. Another important consideration is the balance between the need for the protection of safety data and the need for the proper administration of justice. Annex 13 Attachment E is a useful reference material for development of such legislation.

2.10 Immunity from Enforcement Action: Confidentiality of received data can guarantee that the reporter will not be punished after making the report. In order to give more incentive for making a report, the authority can ensure that the reporter will be immune from enforcement action even the relevant contravention is discovered via other channels. In existing VIRS, the FAA is committed to applying this immunity principle via the publication of an advisory circular. If this immunity principle can be published as a law, it will pass a strong message to the aviation industry of the regulator's commitment. On the contrary, to avoid abuse of this policy, contraventions classified as intentional conduct or gross negligence shall not be protected. Exceptions to safety data protection and immunity from enforcement action can be determined by the appropriate judicial authority.

2.11 Education and Promulgation: Having the above arrangement is only the beginning of the long journey. Initial and continuous promulgation of the program to the industry is critically essential. As part of this campaign, besides detailed explanation of the legislation and the just policy, the CAA also needs to demonstrate a high degree of transparency to the industry about how investigations and reports are handled independently and confidentially. Trust of the aviation participants on the system will gradually build up if the CAA always keeps its commitment. Reputation takes a long time to establish but can easily be ruined by mishandling a single case. Reporting culture is tightly linked with the safety culture which requires long term cultivation and regular education.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information provided in this paper.