



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Eighth Meeting of the Africa-Indian Ocean Regional Aviation Safety Group (RASG-AFI/8) 7-11 November 2022

Agenda Item 3: 3.3. Other Safety Initiatives

Capacity building and Collaboration in the establishment of RAIO in the AFI Region

(Presented by Ethiopian Aircraft Accident & Incident Investigation Bureau)

SUMMARY	
<p>This working paper proposes AIG Regional collaboration for establishing Regional Accident Investigation Organization (RAIO). It also highlights the need for capacity building for States with low levels of effective implementation of the ICAO (SARPs) of Annex 13 <i>Aircraft Accident and Incident Investigation</i> within the AIG audit area.</p> <p>The paper also highlighted the key challenges and experience that Ethiopia encountered during accidents and incidents over time and underlined the need for an effective AIG Regional Cooperation Mechanism (ARCM) to collaborate and promotes capacity building in particular enhancing the number and ability of qualified personnel to handle major accident investigations in the AFI States.</p> <p><i>Action by the Meeting is provided in Paragraph 3 of this paper.</i></p>	
Strategic Objectives	<i>This relates to the ICAO Strategic Objectives on Safety, Capacity and Efficiency.</i>
References	<i>Annex 13 Aircraft Accident and Incident Investigation; Doc 9756, Manual on Accident and Incident Investigation Policies and Procedures; Doc 9962, Manual of Aircraft Accident and Incident Investigation; Doc9946_RAIO_Manual and Training Guidelines for Aircraft Accident Investigators (Cir 298)</i>

1. INTRODUCTION

- 1.1** Ethiopia keenly supports the various efforts made to establish and strengthen a Regional Accident Investigation Organization (RAIO) in order to promote cooperation among member States in the conduct of effective Aircraft Accident and Incidents Investigation.

- 1.2** The investigation of major accidents in the States which do not have the resources to carry out the investigation may suffer from incapability. For many of those States, the establishment and management of RAIO may be the reasonable option to enable the organization of an effective accident and incident investigation and prevention system that meets the States' obligations.
- 1.3** Enhancing participation of AFI States is important to ensure the establishment of adequate and effective RAIO in the Region. One of the avenues available for establishing such an organization is to enter into a regional arrangement by signing a Memorandum of Understanding (MOU) or a Memorandum of Cooperation (MOC).
- 1.4** Despite the fact that AFCAC, ICAO, SAA, and others sponsored short-term courses and training have been provided for AFI States, it is obvious that the number and qualified competent investigators are far below the optimal required in the region. This observation of lack of training and incompetency in the region can be substantiated by looking at the lowest outcome in the area of accident investigation and the minimum result in the USOAP audit.
- 1.5** It was verified that USOAP audits have highlighted that many States do not have the resources necessary to investigate the full range of aircraft accidents and incidents and to carry out thorough analyses of the accident and incident data received at the required standard. When it is weighed against other regulatory bodies the final result for AIG in the Region and Globally is the lowest in ICAO Universal Safety Oversight Audit Program (USOAP). A few states can be figured out that they are performing their investigation at least in a qualified manner but the rest require adequate support. Hence, the establishment and strengthening of RAIO, or encouraging States to establish a regional pool of experienced investigators, maybe the viable solutions to achieving the effective implementation of an investigation and prevention system.
- 1.6** At the time of accident occurrences, for the investigation of major accidents in States which do not have the resources to carry out the investigation, other interested States may assist and provide support to the State of Occurrence; however support from these parties was not adequately implemented, transporting investigation data (DFDR, CVR) to Europe or US, downloading and formulating flight recorder readout and analysis on the accident airplane was challenging to the States.
- 1.7** The RAIO mechanism facilitate technical cooperation and collaboration in accidents and incidents investigation and maximum use of AIG resources available including experts, training capabilities, equipment, investigation know-how and information, standards, and guidance. At the same time, a regional investigation system can provide economies of scale by authorizing the sharing of required resources, and by working together with the States of a region can have an influential voice on the world stage and can help secure a more favorable climate aimed at a safer international air transportation

system.

2. DISCUSSION

- 2.1** Training and education as part of safety promotion and strengthening of States competency for the standards; this should be initiated from in-house by sufficient funds to provide the required training for its personnel. AIG courses were frequently provided by large investigation organizations (NTSB, TSB, BEA) and other organizations. The region must take advantage of ICAO recognized training center in the AFI Region to offer AIG basic, recurrent, advanced, and specialized courses.
- 2.2** The main objective of establishing an RAIO is to assist Member States in meeting their accident and incident investigation obligations and responsibilities under the Chicago Convention, its Annexes, and other safety-related procedures and practices. The establishment of an RAIO, or the establishment of a regional pool of experienced investigators, is the viable solution to achieving the effective implementation of an investigation and prevention system.
- 2.3** The State's accident and incident investigation authority should retain full responsibility for investigation activities, while the RAIO provides standardized, common regulations, policies, and procedures for investigation, provides oversight of the implementation of such requirements, as well as advice, guidance, and assistance to Member States.
- 2.4** Ethiopia is a signatory to the Convention on International Civil Aviation (Chicago 1944) and a founding member of the International Civil Aviation Organization (ICAO) in line with Article 26 of the Convention.
- 2.5** The Ethiopian Aircraft Accident Investigation Bureau (EAAIB) is the investigation authority in Ethiopia responsible to the Ministry of Transport and logistics for the investigation of civil Aircraft accidents and serious incidents in Ethiopia. The mission of the EAAIB is to promote aviation safety through the conduct of independent, separate investigations without prejudice to any judicial or administrative action consistent with Annex 13 to the Convention on International Civil Aviation Organization. Before establishing an independent investigation bureau, the EAAIB had been working as an AD HOC committee and later on, transitioned to a directorate level under ECAA and worked for years. The ECAA builds the capacity of qualified investigators over time by providing consistent training and hands-on work on accidents, serious incidents, and incidents.
- 2.6** Since 2016 the Bureau has been structured under the Ministry of Transport and Logistics to avoid conflicts of interest with other aviation organizations. The EAAIB has been strengthened with experienced investigators, legal instruments including its proclamation No 957/2016, Annex 13 to the Convention on ICAO, Regulation, policies & procedure manual, training policy, and program and other documents that support and govern how member States of the International Civil Aviation Organization

(ICAO) conduct aircraft accident investigations internationally

- 2.7** The Bureau has tried to foster cooperation and mutual assistance (MOU) between States in implementing the provisions of Annex 13 of the Chicago Convention. Currently, the Bureau has initiated and drafted MOUs with the Republic of Djibouti, the Republic of Botswana, the Republic of Rwanda, and the Republic of Uganda. At the same time, the EAAIB has mounted up its handiness by sharing Accident Investigation experiences and supporting accident investigations with other States (the Republic of South Africa, Somalia, and South Sudan). In carrying out the investigations, the EAAIB adheres to ICAO's stated objective.
- 2.8** The MAX Aircraft tragic fatal accident has pained the world, and the EAAIB also suffered with the overall situation in managing and investigating the accident. Despite the complexity and challenges of this accident, the Bureau has managed to collaborate with various entities as well as engage specialists and advisors to conduct a comprehensive investigation. The experience that we encounter in the process of investigation showed that it is really important to mobilize resources among various stakeholders and partners which would have been easier through the RAIO arrangement.

3. ACTION: The meeting is invited to:

- a) Note the information contained in the paper.
- b) Recognize and encourage States to:
 - 1) Collaborate and expedite the establishment and strengthening of RAIOs in the region and provide support to realize effective institutional framework;
 - 2) Promulgate common organizational policies, regulations, and procedures developed and agreed upon by the AFI States/RAIO in the area of accident and incident investigation that are amenable to the provisions of ICAO Annex 13 – Aircraft Accident and Incident Investigation;
 - 3) Be committed to establishing an independent, effective and efficient AIG with adequate resources, including funding and qualified personnel, for the carrying out of all investigations; and
 - 4) Enter into a regional agreement by signing a Memorandum of Understanding (MOU) or a Memorandum of Cooperation (MOC) for immediate cooperation and work towards the realization of establishing RAIOs.

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