

**58th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

*Dhaka, Bangladesh
15 to 19 October 2023*

AGENDA ITEM 3: AVIATION SAFETY

**ENSURING EFFECTIVE IMPLEMENTATION OF SAFETY
RECOMMENDATIONS ARISING FROM AIRCRAFT
ACCIDENT INVESTIGATIONS**

(Presented by Bangladesh)

SUMMARY

The primary reason for implementing safety recommendations is to prevent similar accidents from occurring in the future, hence preserving human lives and safeguarding equipment. The implementation helps to continuously improve aviation safety standards. It allows regulatory authorities and industry stakeholders to identify weaknesses in existing systems and practices, leading to the development of more robust safety measures. It minimises the economic impact just for the aviation industry and builds public confidence. The findings in accident investigation address root causes and uncover systemic issues and the associated safety recommendations help to prevent accidents. In a broader sense, implementing safety recommendations is a fundamental part of the safety risk management process. It involves identifying hazards, assessing risks and taking appropriate actions to mitigate those risks. Failure to implement safety recommendations can lead to legal liabilities and reputational damage for airlines, manufacturers and other stakeholders involved in the aviation industry. In summary, the goal of implementing safety recommendations arising from aircraft accident investigations is to create a safer aviation environment for everyone involved, such as, passengers, crew members, operators and the public at large. Therefore, in order to ensure effective implementation of safety recommendations arising from aircraft accident investigation, it is necessary to include a PPQ by ICAO in the related audit area, associated with related CE.

ENSURING EFFECTIVE IMPLEMENTATION OF SAFETY RECOMMENDATIONS ARISING FROM AIRCRAFT ACCIDENT INVESTIGATIONS

1. INTRODUCTION

1.1 Safety recommendations are the proposals of an accident investigation authority based on information derived from an investigation, made with the intention of preventing accidents or incidents. Safety recommendations may also result from diverse sources, including safety studies. This Discussion Paper provides the Proposal for effective implementation of safety recommendations those may arise from both the sources.

1.2 According to standard 6.8 of Annex 13, the accident investigation authority of the State conducting the investigation shall recommend in a dated transmittal correspondence to the appropriate authorities, including those in other States, any preventive action that it considers necessary to be taken promptly to enhance aviation safety. The Annex also emphasizes that although precedence for the issuance of safety recommendations is given to the State conducting the investigation, in the interest of safety, other States participating in the investigation shall be entitled to issue safety recommendations after coordinating with the State conducting the investigation. Thus, the importance of issuance of safety recommendation has been stressed upon so much by ICAO, especially for accident prevention and aviation safety in flight operations.

1.3 As it is important to issue safety recommendations so is important to implement them by all concerned for the ultimate closing of the loop with regard to accident prevention and flight safety. Annex 13 has tried to emphatically specify through Standard 6.10, 6.11 and 6.12 the roles of the Aircraft Accident Investigation Authorities as well as the Civil Aviation Authorities as to the implementation of safety recommendations, there remains a considerable task for the receiving States and organizations of the safety recommendations to ensure that these are appropriately implemented.

1.4 This discussion paper acknowledges that the receiving States of the safety recommendations, through their safety oversight system, should implement the safety recommendations. Considering that the ultimate intent of an accident investigation is to find out the causes and contributing factors and the associated safety recommendations are issued to prevent them from recurring, this discussion paper proposes the following mechanism to ensure that appropriate implementing action of the safety recommendation are taken by the States concerned.

2. DISCUSSION

2.1 Standard 6.10 of Annex 13 specifies that a State that receives safety recommendations shall inform the proposing State, within 90 days of the date of the transmittal correspondence, of the preventive action taken or under consideration, or the reasons why no action will be taken.

2.2 Standard 6.11 of Annex 13 specifies that a State issuing a safety recommendation shall implement procedures to record the responses received. These requirements have been covered in AIG PQ 6.425 and 6.429.

2.3 Standard 6.12 of Annex 13 specifies that a State that receives a safety recommendation shall implement procedures to monitor the progress of the action taken in response to that safety recommendation.

2.4 The purpose of a safety recommendation is to ensure that identified risks are communicated to those entities or organizations best able to effect change and to convince them to take remedial safety action. In this regard, the issuance of safety recommendations by the investigation authority can be viewed as the most important output of the investigation. The full potential of recommendations to prevent future accidents and incidents cannot be realized until appropriate safety action to mitigate the risks underlying the recommendation is taken by the entity to which the recommendation was issued. Measuring the effectiveness of safety recommendations to achieve

positive changes requires an evaluation of the actions taken against the performance expectations of the safety recommendation.

2.5 With regard to ‘Monitoring the progress of action taken, DOC 9756 Part-IV (Reporting) mentions:

(a) In some States, the State accident investigation authority is responsible for ensuring compliance with these Standards and Recommended Practices; in other States, the State civil aviation authority is the entity responsible.

(b) The DOC goes on to mention, “Notwithstanding the Annex 13 provisions, it would be prudent for the accident investigation authority that issued the safety recommendation to establish a direct staff-level liaison with the accident investigation authority of the State responsible for responding to the recommendation in order to arrange for routine updates as to the status of the action taken and/or action planned”.

(c) The DOC also mentions, “For situations where a response is not received within the prescribed 90 days, it would be prudent for the State that issued the recommendation to formally request a status report from the action addressee to which the safety recommendation was made”.

2.6 Considering 2.5 (a)-(c), this Discussion Paper feels that, the implementation of the safety recommendations issued by the accident investigation authority are still in a disarray as to their effectiveness. Therefore, in order to ensure effective implementation of safety recommendations arising from aircraft accident investigations, this Discussion Paper proposes the following mechanism to be adopted by ICAO:

(a) One Protocol Questions (PQ) in each of the OPS, AIR, PEL, ANS and AGA of the USOAP CMA may be included by ICAO for the Contracting States to address;

(b) A suggested example of the structure of the PQ is shown below:

PQ No	Protocol Question	Guidance for Review for Evidence	ICAO References	PPQ	CE
	Has the State implemented a mechanism to ensure that the Safety Recommendations issued by the aircraft accident investigation authority of the State have been effectively implemented for accident prevention and safe operation of flights?	<p>(1) Review the mechanism/ methodology established;</p> <p>(2) Review:</p> <p>(a) If the CAA forwards the SRs to applicable air air operators, air traffic services, Air navigation services, aerodrome & ground aid agencies, applicable regulatory bodies and other relevant entities involved?</p> <p>(b) If the CAA receives an implementation plan, from the recipients mentioned in (a) based on the Safety Recommendations.</p> <p>(c) If the CAA verifies the implementation plan to address the safety issues effectively, the timeline for implementation, and the resources allocated for this</p>	<p>STD</p> <p>A13</p> <p>6.10</p> <p>6.11</p> <p>6.12</p> <p>GM</p> <p>Doc 9756</p> <p>Part 4, 5.3.1</p>	Yes	CE-8

		<p>purpose.</p> <p>(d) If the CAA, through its aviation safety oversight system monitors the progress of implementation by the recipients.</p> <p>(e) If the CAA conducts regular follow-up meetings, progress reports, or site visits to ensure that the corrective actions taken are continuously adhered to;</p> <p>(f) In case a recipient fails to implement the Safety Recommendations adequately or within the agreed timeframe, whether the CAA takes appropriate enforcement measures.</p> <p>(g) If the CAA provides feedback to the Accident investigation authority about of the preventive action taken or under consideration, or the reasons why no action will be taken, in order for the aircraft accident investigation authorities to keep records, identify the risk mitigation and disclose the same pursuant to the guidance mentioned in DOC 9756.</p>			
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2.7 Because of the fact that, the responsibility to ensure the effective implementation of safety recommendations, inclusive of the overall aviation safety, rests on the safety oversight department of the CAA of a contracting State, this Discussion Paper pledges that the above initiative will leave no stone unturned to fully implement the safety recommendations, generated through aircraft accident investigation authorities of States.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

- (a) To note the importance of this Discussion Paper.
- (b) Request ICAO to make the necessary addition in its USAOP CMA system to include the Protocol Questions as suggested in Para 2.6 (b) of this paper.