



*International Civil Aviation Organization*

**Second Meeting of the Asia Pacific Accident Investigation Group  
(APAC-AIG/2)**

*(Hong Kong, China, 27-28 May 2014)*

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**Agenda Item 4: Work Plan**

**INVESTIGATION CAPACITY BUILDING - MAINTAINING INVESTIGATION SKILLS**

(Presented by Singapore)

**SUMMARY**

This paper highlights the importance of building aircraft accident investigation capacity through exercises and continuous competency-based training.

**1. INTRODUCTION**

1.1 Over the years, aviation travel has become safer and fewer major occurrences happened in recent years, thanks to the hard work of the aviation community. While this is good news to the aviation industry and travellers, it has created a dilemma situation to accident investigation agencies as it is getting difficult to maintain the investigation skill sets for their investigators due to lesser chance of investigation.

1.2 Even major investigation agencies such as the France BEA are facing the same problem. BEA shared at the International Transportation Safety Association Meeting in 2012 on how BEA maintains the capability/skills of its investigators as a result of the improvement in aviation safety. BEA makes use of the chances to investigate serious incidents to hone their investigators skills and to maintain the capability of the relevant support sections. This is to ensure that its investigators are able to meet the expected performance should there be a major investigation.

**2. DISCUSSION**

2.1 It is certainly a good idea to hone the investigation skills through investigating incidents. However, for States/Administrations which do not have enough incidents to investigate, such method of maintaining investigation skills may not be sufficient. In addition, the skill sets needed for major investigation may not be able to be acquired through investigation of incident, such as the management of a multi-national investigation team, debris mapping, donning of personal protective equipment, underwater search of flight recorders, etc.

2.2 Having attended an accident investigation course is not enough to prepare one to front a major investigation. Moreover, accident may not occur immediately after attending an accident investigation course and the knowledge learned may turn rusty after a while. When a major occurrence happens, it may be difficult to recall what has been taught in the classroom.

2.3 Apart from the conduct of actual investigation, investigators can hone their investigation skill through the conduct of regular relevant investigation exercises to practice the skill sets which are needed. For instance, sea search exercise could help hone the skills needed for the underwater search of flight recorders as well as practise the organisation of sea search resources; and land crash exercise could help enhance crash site documentation (e.g. debris mapping, photo taking, etc.), interviewing techniques, coordination with other relevant agencies, etc.

2.4 It is hoped that with the constant practice through investigation exercises, investigators will become well prepared to handle the challenging tasks when the need arises. Hence, the investigation exercises should have an element to evaluate the competency of the investigation tasks performed.

2.5 Apart from having regular investigation exercises, investigators could also maintain their investigation skill sets through competency-based training which focuses on the practical aspects of investigation.

2.6 Skill sets that are very useful during a major investigation and for which competency-based training may be designed include the following:

- Comprehensive understanding of Annex 13 protocol
- Accident site management
- Accident site risk assessment
- Debris mapping
- Conduct of interview
- Report writing
- Underwater search of flight recorders

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to recommend to APRAST and RASG-APAC to encourage APAC States/Administrations to build and maintain investigation capability by:

- a) Organising regular investigation exercises to evaluate investigators' competency; and
- b) Attending/conducting competency-based investigation training.