



*International Civil Aviation Organization*

**First Meeting of the Asia Pacific Accident Investigation Group (APAC-AIG/1)**  
*(Bali, Indonesia, 18-19 September 2013)*

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**Agenda Item 2: Report on recent accident/incident investigation related developments and activities**

## **ON-THE-JOB TRAINING IN FOREIGN COUNTRY**

(Presented by Macao, China)

### **SUMMARY**

A group of four delegates from Hong Kong, Macao and Sri-Lanka attended a three-week on-the-job training (OJT) programme provided by the Bureau D'Enquêtes et D'Analyses (BEA) of France from 24 June to 12 July 2013. This presentation is made by Macao, China.

This paper highlighted the importance of OJT and the benefits of such OJT in another investigation agency in addition to internal OJT. It also raised some discussion points in designing training programmes for accident investigators.

## **1. INTRODUCTION**

1.1 The Asia Pacific Regions have been experiencing continuous increase in transportation volumes. Like some states and administrations, Hong Kong Special Administrative Region (Hong Kong), China, Macao Special Administrative Region (Macao), China and Sri-Lanka are facing similar challenges in air accident investigation.

1.1.1 The air spaces around them are over high Sea.

1.1.2 The air accident investigation units are with limited number of permanent staff notwithstanding they have adequate number of investigators, whose normal duties are engaged with the regulatory functions.

1.1.3 As there are not many real cases of accident investigation, they have to heavily rely on various avenues to upkeep the investigators' skills and experiences.

1.2 Nevertheless, these agencies have been proactively exploring different means of training to enhance the capability of their investigators. The OJT attachment to foreign investigation agencies is considered a valuable exposure.

## 2. DISCUSSION

### *Objectives*

2.1 In 2013, various delegates from Hong Kong, Macao and Sri-Lanka co-incidentally joined together in one visit to the BEA at Le Bourget France. It worked out quite good that with more delegates from different places and backgrounds, more ideas from different perspectives could be shared throughout the whole attachment. The common objectives for this OJT are:

2.1.1 To enhance what have learnt in academic air accident investigation training courses.

2.1.2 To learn from others' experience in air accident investigation.

2.1.3 To gain hands-on practice in accident investigation under supervision of experienced air accident investigators in BEA.

### *Why Bureau D'Enquêtes et d'Analyses (BEA)?*

2.2 The BEA has been established since 1946 with almost 100 dedicated staff, including laboratories specialists and very experienced investigators. Its capabilities, expertise, and experiences on aircraft accident investigation are well recognized.

2.3 Each of the participating authorities has previously signed a Memorandum of Understanding (MOU) about cooperation on Accident Investigation with BEA. These MOUs aim at cooperation in aircraft accident and incident investigation, investigation training and sharing of information and expertise, in accordance with the Standards and Recommended Practices of Annex 13.

2.4 There are large numbers of flights operated by French designed and manufactured aircraft in the airspace of Hong Kong, Macao and Sri-Lanka every day. Should there be any accident or serious incident involving these aircraft, BEA will definitely be invited to participate in the investigation. Therefore, it would be beneficial for the investigators to understand how BEA, as an independent investigation agency, conducts accident investigation.

### *Accomplished and Unable to Accomplished*

2.5 The OJT programme was coordinated by BEA's Special Adviser on International Affairs. The programme was consisted of, experiences sharing through presentations, discussions, and demonstrations by BEA investigators, as well as the delegates' attending the BEA's daily meetings and site visits. Throughout the OJT programme, each session was chaired by investigators specialized in the corresponding topics.

2.6 The OJT syllabus included:

- Introduction of BEA
- Notification process
- Report writing and issuing procedures
- Issuing recommendations and the necessary follow-up actions

- Visits to BEA laboratories (FDR, CVR, avionic, computers, GPS read-outs, metallurgical and X-ray)
- Logistics and go-team equipment
- FDR and CVR analysis
- Various experiences in helicopters investigations
- Various case studies including Concorde, AF447, etc.
- Family Assistance and Media
- Bodies, pathologic examination, fatigue, protecting investigators on site
- Various experiences on sea search operations
- Incident database and ECCAIRS demonstration
- Investigating incidents
- Human factor experience, interviewing witness
- International affairs, regulatory evolution, cooperation and ICAO audit

2.7 The OJT also included a two-day visit to Airbus Industrie, Aerei da Trasporto Regionale (ATR) and BEA field office at Toulouse. Visits to Airbus and ATR were concentrated on the manufacturers' technical supports and advises to accident and incident investigation. Airbus Crisis Control Center were visited, investigation equipment / documents and Airbus support to investigation boards were briefed by Airbus investigator. At ATR, safety manager and other senior management were met. ATR's training facilities and ATR72 simulator were also visited.

2.8 During the programme, the delegates also had a better appreciation of how BEA prepared itself for on-site investigation. BEA had kindly considered arranging the delegates to join the BEA go-team, as observers, to observe their preparation, briefing and on-site investigation in case of any real investigation during the period. Since there was eventually no real event happened nearby, no real on-site investigation was conducted during the OJT. Nevertheless, BEA's kind consideration was much appreciated.

2.9 This three-week programme has given all delegates a very good opportunity to better understand BEA's practices in accident investigation. BEA has earnestly shared plenty of technical aspects and viewpoints regarding investigation with the delegates. More importantly, a strong network platform has been established.

### ***Continuing Improvement of Accident Investigation Training***

2.10 With reducing number of accidents, it would be beneficial for investigators with less experience to attach to foreign investigations as observers. Therefore the OJT attachment to a different investigation organisation should be continued and its objective should be extended so as to achieve better understanding and co-operation among investigators internationally.

2.11 OJT attachments, exercises and attachment to foreign investigations are found to be effective ways to train investigators with practical and hands on experience. Bilateral agreement like the MOUs signed between BEA and other countries and administrations is one way for cooperation. Multilateral agreement like the Asia-Pacific Code of Conduct on Cooperation Relating to Civil Aviation Accident / Incident Investigation could accommodate more countries in the region. APAC-AIG could also be a useful platform for the source of practical trainings. With effective of Asia-Pacific Code of Conduct and further cooperative mechanism defined by APAC-AIG, it is striving to see more practical trainings developing from APAC-AIG based on the Code of Conduct.

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

3.1 The meeting is invited to note the content of this paper and consider defining further cooperative mechanism in practical trainings based on the Code of Conduct.

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