



International Civil Aviation Organization

**Third Meeting of the Asia Pacific Accident Investigation Group
(APAC-AIG/3)**

(Colombo, Sri Lanka, 23-24 June 2015)

Agenda Item 5: Investigator Training

INVESTIGATION UNDER CHALLENGING ENVIRONMENT

(Presented by China)

SUMMARY

This paper shares the Civil Aviation Administration of China's (CAAC's) experience in conducting investigation in challenging terrain and environment, and the types of training and coordination taken to better prepare their investigators for such situations.

1. INTRODUCTION

1.1 With international flights flying over and landing at almost every part of the globe, air accidents could occur at almost every corner around the world, be it in the airport, plateau, mountain area, jungle, or desert or in the ocean. Different terrain, different climate or different accident site usually makes investigators leave their familiar and comfortable environment for a very tough and strange location, as well as the different religions and cultures. That significant change of the natural or social environment also could influence an investigation and the performance of an investigator.

2. DISCUSSION

2.1 China has such a vast territory that covers almost all kinds of natural environment of the earth, plain, plateau, jungle, mountain, desert, and ocean. Climate is quite different all over the country, in northeast part, temperature can be lower to -40 °C during the winter; in north and northwest part, the desert area, can be dry and hot; in south and southeast part, the jungle and mountain area could be hot and wet. Flight routes cover all over the Chinese territory and, in the past decade, some air accidents occurred in the airports, desert, ocean, and plateau areas.:

- One major accident involving an Embraer190 in August: the site was in vicinity of the airport, northeast part of China.
- One GA accident involving a Cessna Citation II missing in March: the suspected crash site is in Xinjiang Province, at the Tianshan mountainous area, the elevation of which reaches 4500 meters in average.
- One helicopter accident crashed during the earthquake relief activity in southwest mountain region in 2008: the road to the site was totally destroyed by the mountain moving. The investigators had to work on site and suffer frequent aftershocks.

- One helicopter accident at the Antarctic continental: it is not possible for the investigators to reach the site. They had to instruct the operator to well protect the wreckage, take record/photo of all the evidence, and ship them back to China.
- One GA aircraft fatal accident occurred in desert in north part of the country.

2.2 The Civil Aviation Administration of China (CAAC) believes that the tough natural environment can heavily influence the investigation, reduce the efficiency of the investigation, and impact the health of the investigators. Therefore, the CAAC has developed the specific training plans/courses for its investigators.

- Outdoor training. Invite outdoor experts, such as desert hiker, mountaineer, policeman who have experience on site survey at the tough outdoor environment, professional rescue persons, etc. Teach the CAAC investigators the general knowledge in adverse natural environment. Build up contact with some outdoor clubs or associations to provide assistance to our safety investigation.
- Coordination with local agencies. Advise the local government the special procedure and requirement of an air safety investigation, maximum utilization of local resources available for the investigation.
- Training and exercise. Based on the training manual, develop periodic train and exercise plans, including in-house training, OJT, and exercise. Normally, the CAAC HQs organizes one or two in-house training courses every year and one out-door exercise every 2 years. The seven Regional Administrations organize training and exercise within their respective regions. For those training courses and exercises, besides the CAAC investigators, operators, airports, manufactures, investigators from outside mainland China, such as Hong Kong, Macau, Taiwan, and Singapore, etc., are invited as observers.
- CAAC previous outdoor exercises. Within past decade, in order to experience the different terrain and climate, CAAC HQs has organized several outdoor exercises in summer plain/water, desert and plateau areas, CAAC is planning to organizes an outdoor exercise within an extreme cold environment in northeast part in winter.
- International/Regional cooperation. Take every available opportunity to learn experiences from international counterparts and regional partners. In 2013, CAAC invited BEA investigators to train our staff as the part of EU-CAAC Project during recent years; CAAC has dispatched investigators to participate investigation in foreign countries and regions, such as Asiana B-777 accident in SFO, MH370 accident, Air Asia A320 accident flight recorders sea search operation, and TransAir ATR-72 accident in Taiwan.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to note that:

- a) Training and experience different tough natural environment is always the necessity for the preparation of a future investigation. CAAC will continuously organize trainings and exercises, also participate the training course and exercises abroad; and
- b) CAAC will continuously push international and regional cooperation; share our experience among our international counterparts and regional partners.