



**ICAO EIGHTH MEETING OF THE ASIA PACIFIC ACCIDENT
INVESTIGATION GROUP (APAC-AIG/8)**

(Wednesday, 21 October 2020 on Virtual Platform)

Agenda Item 7: Other Business

AIR ACCIDENT INVESTIGATION DURING A PANDEMIC

(Presented by Singapore)

SUMMARY

This paper highlights TSIB's considerations in response to the risks and challenges in investigation operation arisen from the COVID-19 pandemic.

1. INTRODUCTION

1.1 The COVID-19 pandemic has led to a slew of anti-COVID-19 measures to slow down or prevent the spread of the virus, such as closures of borders, travel restrictions and mandatory self-isolation. Thousands of passenger aircraft have been grounded. However, there are still some passenger flights bringing home citizens stranded in foreign lands as well as cargo flights between countries transporting goods such as medical supplies, food, merchandise, etc. This means that Accident Investigation Authorities (AIAs) still need to respond quickly and effectively to an aircraft accident or incident. The COVID-19 pandemic has introduced new risks and challenges for the AIAs.

1.2 ICAO has provided some advice as to how States may overcome difficulties/challenges in the area of accident investigation during this period of COVID-19 pandemic. This is available at <https://www.icao.int/safety/COVID-19OPS/Pages/aig.aspx>.

1.3 ICAO has also organised an AIG Webinar on "Aircraft Accident Investigations during the COVID-19 Pandemic" on 25 June 2020. The recording of the Webinar is available at <https://www.icao.int/Meetings/webinar-series/Pages/ArchivedWebinars.aspx>.

1.4 AIAs should be prepared for the risks and challenges in investigation operation that have arisen from the COVID-19 pandemic. Some examples of the risks, challenges and considerations are discussed below.

2. DISCUSSION

1.1 Nobody knows when the pandemic will end. Risk assessment for responding to a local or overseas accident site could help ensure the safety of investigators when they are deployed for an investigation during the current or future pandemic situation.

1.2 The Transport Safety Investigation Bureau of Singapore (TSIB) has carried out an assessment of the procedures and risks involved in responding to an occurrence in this trying COVID-19 environment, with a view to deciding on how we shall respond to the occurrence.

1.2.1 Local occurrence

- (a) For a local occurrence, the TSIB is mindful that, during its field investigation phase, it would receive only limited, if not nil, support from its foreign counterparts and from the manufacturers of the aircraft/engine/components concerned, owing to the travel restrictions and quarantine requirements. Without the on-site advice and guidance from these experts, there is a risk that evidence may be overlooked or inadvertently destroyed during the wreckage examination or removal process. To overcome the limitation and risk, constant communication with the foreign counterparts and experts will be essential, whether through emails, phone calls, video-conferencing or teleconferencing.
- (b) As for biological hazards at the accident site, the TSIB agrees with many foreign counterparts that personal protective equipment (PPE) should be more than adequate.
- (c) The TSIB has advanced technological equipment such as 3D laser scanner and drones that can quickly generate accident site and wreckage/debris information which can be shared with the foreign counterparts and experts for them to contribute their advice even though they cannot travel here to participate in TSIB's investigation. However, in sharing information, we need to ensure there are adequate data transmission bandwidth.
- (d) The early reading out of flight recorders is essential as the recorder data could provide clues as to what to look for at the accident site. If the recorders need to be sent overseas for the readout, the reading out exercise may be delayed owing to the travel restrictions. Thankfully, the TSIB has its own flight recorder readout facility and thus will be spared the inconvenience of having to bring the recorders overseas for readout, unless the recorders have been severely damaged or are of an uncommon type that the TSIB is unable to handle.
- (e) Even if it is necessary for a recorder to be read out at a foreign facility and for a TSIB representative to hand-carry the recorder to the foreign State concerned, there is still the possibility of handing over the recorder to a representative of the foreign facility at the transit area of an airport in that State, thereby avoiding the need for the TSIB representative to be quarantined by the foreign State.
- (f) Testing of aircraft parts at a foreign test facility is likely to be less affected by the quarantine requirements of the foreign States concerned, as the aircraft parts can be freighted over to the overseas test facility and the AIA of the foreign State concerned may be requested to witness the tests on TSIB's behalf.

1.2.2 Overseas occurrence

- (a) For an overseas occurrence, TSIB will still nominate an accredited representative to represent Singapore in the investigation conducted by the AIA of the State of Occurrence.
- (b) When making the decision as to whether to dispatch the accredited representative and/or his advisors to the accident site in the State of Occurrence, the TSIB will take the following into consideration:
 - Severity of the accident

- Pandemic situation in the State of Occurrence
 - Availability of commercial flights or chartered flights to the State of Occurrence and possibility of making the travel on a specially arranged aircraft
 - Travel restrictions and quarantine requirements imposed by the State of Occurrence
 - Possibility of TSIB's accredited representative and advisors taking a voluntary COVID-19 test as a basis for an exemption from the travel restrictions and quarantine requirements
 - Local logistics arrangements (transport, accommodation, meals, continuous availability of PPE) that can be made by the AIA of the State of Occurrence to facilitate foreign investigators' participation in its investigation
- (c) If it is decided that its accredited representative and his advisors are not to travel to the State of Occurrence to participate in the on-site investigation, the TSIB will nevertheless maintain constant communication with the AIA of the State of Occurrence through emails, telephone calls, video-conferencing or teleconferencing.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the risks and challenges to and considerations for investigation operations during a pandemic;
- b) Note that States/Administrations should carry out risk assessments and review their operational procedures in order to continue to be able to quickly and effectively respond to an accident or incident; and
- c) Encourage ICAO APAC Office to summarise the measures taken by States/Administrations and post on the ICAO APAC's **APAC COVID-19 Contingency and Recovery Planning Group** webpage for reference.

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