

In-flight Turbulence Encounter (TURB)

Accident Investigation Preliminary Report and Public Notice

Airbus A320-214, B-LPI,
Enroute from
Hong Kong International Airport to
Haikou Meilan International Airport
21 April 2023

04-2023

1. Purposes

- (1) This preliminary report provides factual information established in the investigation's early evidence collection phase. Its purpose is to provide timely information to both the aviation industry and the general public.
- (2) This report is released in accordance with the Hong Kong Civil Aviation (Investigation of Accidents) Regulations (Cap. 448B) and the requirements of Annex 13 to the Convention on International Civil Aviation Aircraft Accident and Incident Investigation (ICAO Annex 13).
- (3) The Air Accident Investigation Authority (AAIA)'s understanding of the accident will be enhanced as the investigation progresses and potential new evidence becomes available. As such, no analysis or findings are included in this report.
- (4) Should safety recommendations be considered necessary during the course of the investigation, they will be promulgated to the parties concerned immediately before a final Investigation Report is published.
- (5) The Investigation Report will be released at the conclusion of the investigation, which will provide a comprehensive overview of the accident, its causes, and any recommendations to improve air safety.

2. General Details

2.1. Occurrence details

| Date and time: | 21 April 2023, 1221 hours Local | |
|--------------------------|--|--|
| Occurrence category: | Accident | |
| Primary occurrence type: | Turbulence encounter (TURB) | |
| Location: | Enroute to Haikou Meilan International Airport | |
| Position: | 20°53'31.3" N, 112°39'22.01" E | |

2.2. Pilot in Command details

| Licence details: | Airline Transport Pilot's Licence (Aeroplanes) |
|-----------------------------|--|
| Medical certificate: | Class 1 |
| Type ratings: | Airbus A320, A330, A340 |
| Aeronautical experience: | 13 938 hours |
| Command time on type (A320) | 3 969 hours |

2.3. Aircraft details

| Manufacturer and model: | Airbus A320-214 | | |
|------------------------------|--|-----------------|--|
| Registration: | Hong Kong SAR, B-LPI | | |
| Serial number: | 5416 | | |
| Year of Manufacture: | 2012 | | |
| Number and type of engines: | Two CFM International CFM56-5B4/3 turbo-fan | | |
| Engine Serial Number: | Left: 645393 Right: 645395 | | |
| Operator: | Hong Kong Airlines | | |
| Type of Operation: | Scheduled Passenger Service | | |
| Certificate of Airworthiness | Transport Category (Passenger) (Valid until 21 January 2024) | | |
| Departure: | Hong Kong International Airport (VHHH) | | |
| Destination: | Haikou Meilan International Airport (ZJHK) | | |
| Persons on board: | Crew – 2 (flight) + 5 (cabin) | Passengers – 98 | |
| Injuries: | Crew – 2 | Passengers – 1 | |
| Aircraft damage: | Nil | | |

Note: All times are local Hong Kong time that is Coordinated Universal Time (UTC) plus eight hours.

3. Synopsis

- (1) The flight (HX107) was from Hong Kong (VHHH) to Haikou (ZJHK) on 21 April 2023. After takeoff, it was observed that there was extensive weather to the south of Hong Kong. Prior to reaching waypoint PECAN, the aircraft commenced deviating to avoid this weather and encountered moderate to occasional severe turbulence during this period.
- (2) When clear of the weather, the flight continued cruising at flight level (FL) 210 in the Hong Kong Flight Information Region airspace. The seat belt sign was then turned off. Shortly after, approximately 46 nautical miles to the south of Xiachuan Island on the southern coast of China, unexpected turbulence associated with an updraft was encountered for a short period.
- (3) During the turbulence encounter, two cabin crewmembers and one passenger were injured.
- (4) The aircraft landed at ZJHK uneventfully. There was no damage to the aircraft. The injured passenger did not request medical assistance and disembarked.
- (5) The two injured cabin crewmembers were positioned back to Hong Kong as passengers. After arrival, they were taken to a hospital for a medical check-up.

4. Order of Investigation

- (1) The operator notified the Air Accident Investigation Authority (AAIA) of the turbulence encounter and the potential serious injury of one of the cabin crewmembers on 22 April 2023. Since then, the AAIA was in close contact with the operator regarding the medical diagnosis and treatment progress of the injured cabin crewmembers as well as validating the details of the flight.
- (2) It was recently confirmed that one of the cabin crewmembers was diagnosed with a right ankle fracture and was hospitalized for more than 48 hours.
- (3) In accordance with the Hong Kong Civil Aviation (Investigation of Accidents) Regulations (Cap. 448B) and the requirements of Annex 13 to the Convention on International Civil Aviation (ICAO Annex 13), this occurrence has been classified as an Accident and the Chief Inspector of AAIA has ordered an investigation into its circumstances and contributing factors.

Safety lessons that can be drawn from the investigation of this occurrence may be beneficial to preventing future recurrence.

- (4) The Bureau of Enquiry and Analysis for Civil Aviation Safety (BEA), France, being the investigation authority representing the State of Design and State of Manufacture of the aircraft, Civil Aviation Department (CAD) of Hong Kong, and the operator were notified on 21 August 2023.
- (5) The International Civil Aviation Organization (ICAO) was also notified of this accident.

5. Investigation Progress

- (1) Aircraft flight documents, crew information, quick access recorder (QAR) data, and weather information were collected. The flight data recorder (FDR) data and the cockpit-voice recording were inadvertently over-written during the following flight.
- (2) The detailed analysis of the data and information collected will enable the investigation team to determine the circumstances, causes and contributing factors of this accident. It will also aid in identifying areas that need further investigation and/or lines of investigation to be pursued.

6. Public Notice

This Report also serves as a public notice under Regulation 10(1) of Cap. 448B. Any person who wishes to make representation as to the circumstances or causes of the accident should do so by letter, facsimile, telephone, or email to the Chief Inspector (Address: Air Accident Investigation Authority, Level G & 2, Facility Building, 1 Tung Fai Road, Hong Kong International Airport, Lantau, Hong Kong; Telephone: (+852) 2910 6079; Facsimile: (+852) 2910 6049 (local), (+852) 3912 4848 (international); or Email: ACCID@tlb.gov.hk) within 14 days of this notice.

About the Air Accident Investigation Authority

The AAIA is an independent investigation authority formed under the Transport and Logistics Bureau (TLB) of the Government of the Hong Kong Special Administrative Region of the People's Republic of China.

The AAIA is established in compliance with the Standards and Recommended Practices (SARPs) of ICAO Annex 13 requiring Contracting States to set up an independent investigation authority to ensure the independence and impartiality of the investigations.

The AAIA is responsible for the investigation of civil aircraft accidents and incidents in Hong Kong in accordance with Hong Kong Civil Aviation (Investigation of Accidents) Regulations (Cap. 448B) and the SARPs of ICAO Annex 13.

The sole objective of the investigation shall be the prevention of accidents and incidents. It is not the purpose of this activity to apportion blame or liability.

Check the AAIA website for information, reports and updates:

https://www.tlb.gov.hk/aaia/eng/index.html

The AAIA 24/7 Duty Investigator Hotline:

Tel: (852) 9518 5800

Email: ACCID@tlb.gov.hk

Fax: (+852) 2910 6049 (local)

(+852) 3912 4848 (international)