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Air Accident Investigation Authority

Runway Excursion (RE)

**Accident Investigation
Preliminary Report and
Public Notice**

**Boeing 747-481 BDSF (Registration
Mark TC-ACF)
at Hong Kong International Airport
on 20 October 2025**

PLR-2025-04

1. Purpose

- (1) This preliminary report provides factual information established in the early evidence collection phase of the investigation. 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, such safety recommendations will be promulgated to parties concerned immediately before the 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 this accident, its causes, contributing factors and any recommendations to improve air safety.

2. General Details

2.1 Occurrence Details

Date and time (see Note):	20 October 2025, 03:52 hours
Occurrence category:	Accident
ICAO occurrence type:	Runway Excursion (RE)
Location:	Hong Kong International Airport (VHHH)
Position:	22°18'32"N 113°54'53"E

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

2.2 Pilot-in-Command Details

Licence details:	Directorate General of Civil Aviation of Turkey Airline Transport Pilot License
Medical Certificate:	Class 1, valid until 13 September 2026
Type Ratings:	Boeing 747-400
Total flight time all types:	6,096:27 hours
Total flight time on type:	4,840:10 hours
Total command time on type:	417:59 hours

2.3 Aircraft Details

Manufacturer and model:	Boeing 747-481 BDSF	
Registration:	Turkey, TC-ACF	
Serial number:	25645	
Year of Manufacture:	1993 (Passenger to Freighter conversion in 2011)	
Number / type of engines:	4 x GE CF6-80C2B1F turbofan engines	
Operator:	ACT Airlines (operating on behalf of Emirates SkyCargo)	
Type of Operation:	Cargo flight	
Departure:	Dubai World Central - Al Maktoum International Airport (OMDW)	
Destination:	Hong Kong International Airport (VHHH)	
Persons on board:	Crew – 4	Passengers – 0
Injuries:	Crew – 0	Passengers – 0
	Others – 2 (fatal)	
Aircraft damage (primary):	Destroyed	

3. Synopsis

- (1) At approximately 03:52 hours on 20 October 2025, an ACT Airlines (Air ACT) Boeing 747-481 BDSF freighter aircraft operated on behalf of Emirates SkyCargo (flight no. UAE9788) landed on Runway 07L at Hong Kong International Airport. The co-pilot was the Pilot Flying and the captain was the Pilot Monitoring.
- (2) After landing and when the aircraft was decelerating, an AUTOBRAKES message appeared in the Engine Indication and Crew Alerting System (EICAS) display in the cockpit. The captain took over the control of the aircraft from the co-pilot.
- (3) The aircraft veered off to the left, resulting in a runway excursion abeam Taxiway C6.
- (4) The aircraft subsequently collided with a stationary security ground vehicle positioned in a designated observation point along the airport's perimeter road. The impact resulted in the ground vehicle entering the sea.
- (5) The aircraft continued through the airport's perimeter fence and entered the sea where it came to rest.
- (6) In the course of the runway excursion, the aircraft destroyed various airport meteorological sensor arrays, signage, the ground vehicle and a section of the perimeter fence.
- (7) The aircraft was destroyed. The tail section separated from the aircraft during the impact sequence.
- (8) All four crew members survived the accident. The two security staff in the ground vehicle perished.
- (9) At the time of the accident, the weather conditions were suitable for aircraft operation. Visibility was good, which was 10 km or more. All relevant communications, navigation and surveillance and air traffic control equipment/facilities were serviceable and operating normally.
- (10) Prior to the accident, there was no report of foreign objects on the runway, and communication between Air Traffic Control and the accident aircraft was normal.
- (11) The Runway 07L and the associated directional signage system has been in operational use since commissioning of the New North Runway (07L/25R) in November 2022. On the day of the accident, there was no report of damage to such signage system prior to the accident.

4. Instigation of Investigation

- (1) The Chief Inspector (CI) of the AAIA classified this occurrence as an accident, and instigated an investigation into its circumstances, causes and contributing factors, in accordance with Cap. 448B and the requirements of ICAO Annex 13.
- (2) In accordance with ICAO Standards, the State of Registry, the State of the Operator, the State of Design and the State of Manufacture of the aircraft involved have been notified, namely:
 - the Transport Safety Investigation Center (TSIC) of Turkey (representing the State of Registry and the State of the Operator), and
 - the National Transportation Safety Board (NTSB) of the United States of America (representing the State of Design and the State of Manufacture of the aircraft involved).
- (3) Both TSIC and NTSB appointed their respective Accredited Representatives in accordance with ICAO Annex 13 provisions, who came to Hong Kong with their experts and advisers, to assist in the investigation.
- (4) ICAO was also notified of this accident.

5. Investigation Progress

- (1) To date, the AAIA has:
 - inspected and surveyed the accident site and its vicinity for evidence collection;
 - coordinated and arranged for the salvage and safe custody of the wreckage of the aircraft for detailed examination;
 - retrieved the Electronic Engine Control Units (EECUs), Quick Access Recorder (QAR), Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR) from the aircraft for laboratory analysis;
 - interviewed the flight crew of the accident aircraft for flight operation details;
 - coordinated for interviews with the duty air traffic control personnel for details from the ATC operational perspective;
 - obtained / coordinated for the provision of pertinent records as follows:

- records of Air Traffic Control (ATC) surveillance and communication for examination of the trajectory and operational parameters of the aircraft at different phases of its flight, including final approach, landing and subsequent excursion off the runway into the sea;
- meteorological records with details of the weather conditions at the airport prior to and at the time of the accident;
- Closed-circuit Television (CCTV) recordings covering the accident site and its vicinity for examination of the manoeuvre of the accident aircraft in the area;
- records of the Automated Foreign Object Debris Detection System (AFODDS) for information on Foreign Object Debris (FOD) sweeps, scans and reports for Runway 07L on 20 October 2025 between midnight and the accident time; and
- commenced analysis of the above data and information collected.

(2) To date, on the evidence available the AAIA has established:

- The aircraft was dispatched with Minimum Equipment List¹ (MEL) items which included;
 - A Hydraulic System 1 Reservoir cockpit indication issue resolved by maintenance staff prior to the first departure of a flight day.
 - Number 4 engine thrust reverser inoperative.
- After departure, the evidence available is consistent with a normal flight up to the runway excursion.
- An Autobrake 2 and Flap 25 landing was planned.
- After completing a transition to the Instrument Landing System (ILS)² of Runway (RWY) 07L, the aircraft was cleared to land by Air Traffic Control (ATC).

¹ Minimum Equipment List (MEL) is a document created specifically to regulate the continued operation of an aircraft with inoperative equipment under certain conditions or limitations. It is compiled based on aircraft manufacturer guidance and accepted for use by the civil aviation authority of the operator.

² The Instrument Landing System (ILS) is a ground-based precision approach and landing aid. The main elements are the localiser antenna, which provides centreline guidance; the glideslope antenna, which provides a nominal 3° descent guidance which indicates the proper descent path of an aircraft preparing to land.

- ATC also advised that the wind direction was 030 degrees 18 knots³ and instructed the crew that after landing to keep their speed up until vacating the runway.
- The crew read back the landing clearance indicating that they would try their best.
- After touchdown the Speed Brake Lever⁴ extended with the appropriate crew call.
- Reverse thrust of approximately 95% N1 was selected on Number 2 and Number 3 engines with Number 1 engine selected to idle reverse with a crew call 'Reversers Normal'.
- An AUTOBRAKES message appeared in the EICAS display.
- The Autobrake disarmed and a crew call 'Manual Braking' was made.
- The captain took control of the aircraft.
- Subsequently, the following data is observed from the Flight Data Recorder:
 - Number 4 engine accelerated to 90% N1 forward thrust at 03:52:30 hours.
 - All selected thrust reversers were stowed at 03:52:35 hours.
 - Number 4 engine continued to accelerate to approximately 106% N1 forward thrust at 03:52:36 hours and ended up at 107% N1 at 03:52:42 hours.
 - Reverse thrust of approximately 92% N1 was again selected on Number 2 engine at 03:52:41 hours. Number 1 and Number 3 engine thrust reversers were also deployed reaching reverse thrust of approximately 83% N1 and 91% N1 respectively. Those thrust reverser selections occurred after the aircraft had veered off the runway.

(3) Examination of the flight deck showed that:

- The Autobrake selector was indicating Disarmed.

³ Wind direction for landing aircraft is given in degrees magnetic and nautical miles per hour (knots).

⁴ Speed Brakes are the panels on top of an aircraft's wing that raise up to increase drag and reduce lift. After landing they decrease the lift of the wing putting all the weight of the aircraft on the wheels which enables maximum wheel brake efficiency.

- The Speed Brake lever was in the Flight Detent position.
- Number 1, 2 and 3 engine thrust levers were closed with reverse thrust levers selected to maximum.
- The Number 4 engine thrust lever was in the full forward thrust position.
- Number 4 engine reverse thrust lever was fully forward.
- The Fuel Control Switches were selected to Run.

(4) As the investigation progresses, the AAIA will collect further data and information as required and conduct detailed analysis with particular focus on the following issues:

- technical issues related to aircraft systems and performance, including the aircraft's speed, system status and operational control at the time of the accident, as well as conditions and performance of the aircraft engines, the forward movement of the Number 4 engine thrust lever, the landing gears and the associated brake systems, etc.;
- engineering issues and maintenance records of the aircraft systems;
- operational issues related to flight crew qualifications and experience as well as control of the accident aircraft during different phases of flight, including approach, landing and runway excursion;
- human factors issues;
- Safety Management System issues; and
- any other issues identified during the course of the investigation.

(5) Results of the above analysis will enable the investigation team to determine the circumstances, causes and contributing factors of this accident. It will also facilitate the identification of issues that need further investigation.

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, Levels 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.

18 November 2025

K. C. MAN *Chief Inspector*

About the Air Accident Investigation Authority

The AAIA is an independent investigation authority 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 the 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:

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