



## SERIOUS INCIDENT



# PRELIMINARY INVESTIGATION REPORT

RAMP - Collapse of Apron Catchpit during Aircraft Pushback

**Boeing B787-800**  
**Reg No A7-BCV**

A7-BCV/SINCID/001024

## DISCLAIMER

This preliminary investigation report contains the factual information along with necessary details that have been established so far during the evidence collection phase, i.e. the initial phase of the investigation process. It does not contain any analysis or findings. These will be outlined in the investigation's final report. The information contained herein is released in accordance with QAAI Regulations and a recommendation in para 5.4.6 of Annex 13 (Thirteenth Edition July 2020) to the Convention on International Civil Aviation Organization (ICAO) and has been articulated according to the guidelines provided in the ICAO Doc 9756 Part 2 (Para 2.1).

In the interest of safety, the information contained in this report may only be reproduced if the Civil Aircraft Accident and Incidents Investigation Unit (QAAI) as the source is acknowledged in a formal manner<sup>1</sup> and provided that this use is done with accuracy and within the original context. This report, or the contents thereof, are not to be used for commercial, administrative, legal, or any other type of proceedings meant for any other purpose except safety<sup>2</sup>.

This report is in addition to the initial notification<sup>3</sup>. It is intended to provide a timely update to the aviation industry and the public with a brief description of the occurrence, its circumstances, significant facts, and other relevant information, including (more importantly) the mitigation measures that were implemented immediately after the occurrence along with the related corrective actions under consideration at the time of publishing of this report.

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<sup>1</sup> Formal manner of referencing this document shall essentially include mentioning of the page / para number, title of publication, and the State of Qatar as the publisher.

<sup>2</sup> QAAI Regulations, and paras 3.1 and 5.4.1 ICAO Annex 13.

<sup>3</sup> The QAAI initial notification of this occurrence is in accordance with QAAI Regulations, and ICAO Annex 13 "Chapter 4 – Notification". Additionally, in accordance with "Chapter 7 – ADREP Reporting", para 7.7, and "Attachment B" to Annex 13, para 3, the information mandated in this case i.e. "INCIDENT DATA REPORT for aircraft over 5700 kg", is already provided in the initial notification to the stakeholders including ICAO.

**List of Acronyms and Abbreviations**

<b>Item</b>	<b>Description</b>
ATC	Air Traffic Control / Controller
ICAO	International Civil Aviation Authority
MATAR	<i>Qatar Company for Airports Operation and Management (MATAR)</i>
MLG	Main Landing Gear
NOTAM	Notice to the Airmen
PA	Public Announcement
QAAI	<i>Qatar Aircraft Accident and Incidents Investigation Unit</i>
QR	Qatar Airways
TWY	Taxiway
RH	Right Hand
UTC	Coordinated Universal Time
QAS	Qatar Aviation Services

## Summary

On 25 October 2024, a Qatar Airways (QR) Boeing 787-8 Dreamliner, registration A7-BCV, performing flight QR1379 from Doha to Algiers, was positioned at Parking Bay 634 on Apron 6 at Hamad International Airport. At approximately 05:45 UTC (08:45 Local Time). During pushback and engine start, the right-hand main landing gear (RH MLG) rolled over a grated catchpit covering a water drainage system, the grating's underlying structure gave way, dropping the panels into the pit, which caused the RH MLG to partially sink into the opening and become lodged, bringing the pushback operation and the aircraft to an abrupt halt.

The occurrence resulted in damage to the RH MLG, the underside of the No. 2 Engine (RH Engine), and various components in the nose gear area.

The occurrence was reported to the QAAI by QR Safety at 09:57 UTC and officially submitted to the SafetyWeb system on 26 October 2024.



*Figure 1: A view of the aircraft, the right-side main landing gear assembly, and No 2 Engine touching the ground – from different perspectives.*



## Post-Occurrence Actions and Aircraft Handling

No injuries were reported among all the 256 passengers (including one infant) and 12 crew members onboard. All passengers disembarked safely onto the apron.

Subsequent actions included:

- Offloading of baggage and cargo.
- Defueling of the aircraft.
- Assessment and replacement of three out of four damaged tires.

At approximately 21:33 UTC, the aircraft was towed from Parking Bay 634 to the maintenance hangar for further inspection and repairs.

## Immediate Response & Containment Measures

Following notification of the occurrence, MATAR Safety initiated an internal safety investigation and implemented a series of mitigation measures to address the situation.

### 1. Taxiway Closure & Area Isolation

- A NOTAM<sup>4</sup> was issued by ATC for taxiway closure, isolating the affected parking stand, adjoining apron, and entry/exit points.

### 2. Emergency Response Activation

- Emergency services ensured safe passenger disembarking, cargo offloading, defueling, and aircraft recovery/removal.

### 3. Apron and Drainage System Assessment

- Temporary blockage of parking stands 621-637 on Apron 6's western side.
- A thorough structural examination of airport's water drainage system catchpits.

### 4. Hazard Mitigation and Site Security

- Documentation of identified hazards and safety concerns.
- Isolation and visual marking (red and white metal sheeting) of potentially hazardous catchpits.

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<sup>4</sup> NOTAM A1126/24 initiated from 1504/25 Oct 2024 till 1800 / 26 Oct 2024 (TWY S2 BTN TWY S1 AND TWY T8 + TWY T7 CLSD).

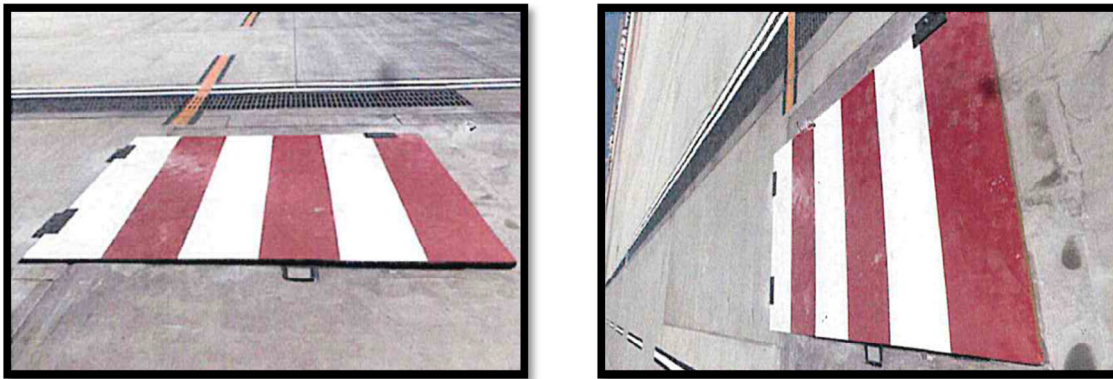


Figure 2: The suspected catchpits have been covered with metal sheets painted in red and white.

## 5. Temporary Closure of Parking Stands

- Affected/risk-assessed parking stands are closed until full hazard mitigation; notifications sent.
- Unaffected stands are cleared for normal operations.

## 6. Review of Procedures

- Detailed review of ATC and QAS pushback procedures for improvement opportunities.
- Operational Safety assessments for “power-in” and “towing-in” procedures.

## 7. Repairs and Enhancements

- Recommendations for repairing/reinforcing compromised catchpit and weak points shared with appropriate authorities for action.

## 8. Monitoring and Coordination

- Thorough review of relevant aspects completed, with results shared as necessary<sup>5</sup>, ongoing monitoring of temporary measures.

### Additional Measures by QR and ANS Safety

- QR and ANS Safety have completed internal risk assessments and initiated mitigation measures as deemed necessary<sup>6</sup>.

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<sup>5</sup> In addition to all the entities responsible for mitigating the identified hazards, necessary details have been provided to QAAI.

<sup>6</sup> The details will be reviewed during the further investigation and will be reflected in the final report accordingly.

## Overview of the Investigation and the Way Forward

### Investigation Framework

- Initiated in accordance with:
  - State of Qatar Legislation<sup>7</sup>
  - National Law<sup>8</sup>
  - QAAI regulations (adopted from ICAO Annex 13)

### Investigation Scope

The ongoing investigation, led by QAAI, focuses on:

#### 1. Apron Design & Operationalization

- Design limitations and construction of the apron and ancillary facilities.
- Project handover procedures and certification requirements with ICAO Annex 14.

#### 2. Civil Engineering Aspects

- Quality control and management in apron construction, as approved by civil aviation entities.

#### 3. Operational Procedures & Human Factors

- Pushback planning and operational procedures.
- Ground staff training and experience in aircraft pushback, considering SMS human and organizational aspects.

#### 4. Aircraft Dynamics & Damage Assessment

- Loads inflicted on the aircraft structure after the occurrence.
- Comprehensive aircraft damage assessment.

### Reporting Timeline

- Final report publication upon investigation completion and consultations.
- Interim statement (detailing progress and identifying safety concerns) if the final report is not published within 12 months, according to national and international regulations.

### Urgent Safety Concerns

Any identified during the investigation will be immediately communicated to relevant parties for prompt action through "Interim Safety Recommendations".

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<sup>7</sup> Law No. 15 of 2002 on Civil Aviation as Amended.

<sup>8</sup> Amiri Decision No. (67) of 2018 On the Establishment of Civil Aircraft Accident and Incident Investigation Unit.