

Air Accident Investigation Unit (Belgium) City Atrium Rue du Progrès 56 1210 Brussels

# **Interim Statement**

Ref. AAIU-2017-04

## SYNOPSIS

Date and time:	5 February 2017 – 09:48 UTC
Aircraft:	Airbus A330-343 msn284
Date of Manufacture:	Oct 1999
Type of engine:	2 x RR Trent 772B-60
Event location:	Brussels Airport (EBBR)
Type of flight:	Commercial - Passenger
Phase:	Take-off
Injuries:	None
Occurrence type:	System/Component Failure or Malfunction (Non-Powerplant) (SCF–NP)

#### Abstract

The airplane, an A330 from Air Canada was departing from Brussels Airport, EBBR to Montreal airport CYUL.

The plane landed previously in Brussels coming from Montreal on the same day at 08:25. The landing was uneventful, stated the crew to the arriving crew for the next flight from Brussels to Montreal.

The crew prepared the aircraft and the passengers boarded. The pushback was initiated at 09:27. The airplane taxied towards the Zulu taxiway for onward departure from Runway 07L.

The airplane received the authorization to line up on Runway 07R on the line-up position H. The crew noticed for entering runway 07R they had to apply some power, but the terrain is uphill. The crew received the take-off clearance and proceeded to the Xwind take-off procedure – a MEL item requiring to apply 1.1 EPR (60%N1) power slightly, with brakes applied before the take-off.

Brake was released, and speed built up. Between 60 KCAS (call-up from the captain) and 100 KCAS the crew heard a loud bang, and immediately thereafter, an ECAM warning "brake release". The captain reacted immediately and ordered to abort the take-off.

The braking was not as efficient as expected. The crew deployed the thrust reversers, but the RH reverser did not deploy. The airplane decelerated and came to a stop at C1.

The crew tried to call the tower, but the frequency was occupied by a communication with another airplane, a KLM aircraft having declared a pan-pan for fuel shortage. The airplane lining up behind



the Air Canada called on the tower frequency and stated they witnessed smoke and parts flying from the aircraft.

The crew of the Air Canada requested the support of the fire brigade, which they repeated two times. When the fire trucks arrived, the crew was unable to communicate with them, and the tower designated a frequency for the communication. The crew shut down the engine for the fire brigade to approach the landing gear.



#### Findings:

The forward right wheel of the RH Main landing gear was missing, remained only the axle and the brake. A separated half of a half wheel rim was still present. The hydraulic lines were cut, and fluid was leaking.

The first part found on the ground was the axle cover. It was found on taxiway Zulu, more or less at the same point the airplane was taxiing when smoke was first spotted. (turn between OUT 10 and Zoulou).

Small parts, including some coming from the bearing (rollers,..) were found on Runway 07R, from the start of the runway up to H. From that point, further towards the half length of the runway, bigger parts were found, including a half wheel rim between intersection C3 and C2.

The tyre was found nearly intact in the grass located right side of runway 01 north of F2.





Figure 2: Damage on the RH boogie



Figure 3: Location of the wheel debris



#### Preliminary conclusion:

#### Direct cause:

The failure of the outboard roller bearing of wheel #4

### **Progress of investigation**

AAIU(Be) has gathered all operational and engineering information and a draft of the final report shall be in the near future circulated amongst:

- Safety investigation authorities and civil aviation authorities of the States concerned, and (a) the ICAO, according to the international standards and recommended practices;
- (b) Addressees of safety recommendations contained in the report;
- The Commission and EASA, (c)

The ICAO Annex 13 determines a delay of 60 days for the comments.

#### About this interim statement

This interim statement is released in accordance with Regulation (EU) no 996/2010 of the European Parliament and of the Council of 20 October 2010. The regulation states that if the final report cannot be made public within 12 months, the safety investigation authority shall release an interim statement at least at each anniversary of the accident or serious incident, detailing the progress of the investigation and any safety issues raised.

It is not the purpose of the Air Accident Investigation Unit to apportion blame or liability. The sole objective of the investigation and the reports produced is the determination of the causes, and, where appropriate define recommendations in order to prevent future accidents and incidents.