



Havarikommisjonen
Accident Investigation Board Denmark

BULLETIN

Accident

16-12-2016

involving

BOMBARDIER CL600 2D24 900

OY-KFF



Certain report data are generated via the EC common aviation database

FOREWORD

This bulletin reflects the opinion of the Danish Accident Investigation Board regarding the circumstances of the occurrence and its causes and consequences.

In accordance with the provisions of the Danish Air Navigation Act and pursuant to Annex 13 of the International Civil Aviation Convention, the safety investigation is of an exclusively technical and operational nature, and its objective is not the assignment of blame or liability.

The safety investigation was carried out without having necessarily used legal evidence procedures and with no other basic aim than preventing future accidents and serious incidents.

Consequently, any use of this bulletin for purposes other than preventing future accidents and serious incidents may lead to erroneous or misleading interpretations.

A reprint with source reference may be published without separate permit.

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BULLETIN

General

File number: HCLJ510-2016-321
UTC date: 16-12-2016
UTC time: 11:00
Occurrence class: Accident
Location: Copenhagen, Kastrup (EKCH) - aircraft stand A17
Injury level: Minor

Aircraft

Aircraft registration: OY-KFF
Aircraft make/model: BOMBARDIER CL600 2D24 900
Current flight rules: Instrument Flight Rules (IFR)
Operation type: Commercial Air Transport Passenger Airline
Flight phase: Standing
Aircraft category: Fixed Wing Aeroplane Large Aeroplane
Last departure point: Denmark EKCH (CPH): Kobenhavn/Kastrup
Planned destination: Lithuania EYPA (PLQ): Palanga intl
Aircraft damage: Substantial
Engine make/model: General Electric CF34-8C5

SYNOPSIS

Notification

All times in this report are UTC.

The aerodrome operation centre (OC) at Copenhagen, Kastrup (EKCH), notified the Aviation Unit of the Danish Accident Investigation Board (AIB) on 16-12-2016 at 11:23 hours

The AIB notified the Danish Transport, Construction and Housing Authority (DTCHA), the Canadian Transportation Safety Board (TSB), the European Aviation Safety Agency (EASA), the Directorate-General for Mobility and Transport (DG MOVE), and the International Civil Aviation Organization (ICAO) of the accident on 21-12-2016 at 13:27 hours.

Summary

Non-compliance with the Danish road traffic act led to an x-ray trailer detachment from a tractor on the aerodrome southern service road at EKCH.

The x-ray trailer detachment caused substantial damages to OY-KFF parked at aircraft stand A17.

The accident occurred in daylight and under visual meteorological conditions (VMC).

FACTUAL INFORMATION

History of the flight

The accident occurred at aircraft stand A17 at EKCH, while passengers boarded the aircraft and ground handling personnel loaded baggage and cargo. The crew was on board the aircraft.

A tractor driver had to move an x-ray trailer from the eastern to the western part of the aerodrome.

When the tractor driver arrived at the garage, he inspected the trailer hitch, the hitch pin and the availability of the locking ring. The inspection did not give rise to remarks.

A similar equipped tractor stood next to the tractor intended for use.

The tractor driver observed that the gears of the tractor were not working properly, when the tractor moved forward, and he decided to replace the defective tractor with the tractor standing next to the tractor intended for use.

Due to lack of space, the tractor driver did not inspect the trailer hitch, the hitch pin and the availability of the locking ring of the other tractor.

The tractor driver attached the x-ray trailer to the tractor. The tractor driver did not install the safety wire for the x-ray trailer braking system.

When driving on the aerodrome southern service road with a speed of approximately 40 kilometres per hour and passing abeam aircraft stand A14, the tractor driver noticed a bump on the road. The tractor driver checked his rear-view mirror but did not observe anything unusual and continued driving.

Suddenly, the tractor driver heard a loud bang and observed that the x-ray trailer had detached from the tractor and had collided with an aircraft at aircraft stand A17.

See [appendix 1](#) (the map text is in Danish), [appendix 3](#), and [appendix 4](#).

Injuries to persons

<i>Injuries</i>	<i>Crew</i>	<i>Passengers</i>	<i>Others</i>
Fatal			
Serious			
Minor / None	0/4	1/5	

Damage to aircraft

There were substantial damages to the aircraft.

Other damage

There were minor damages to the x-ray trailer.

Personnel information

The commander of OY-KFF

The commander (30 years) was the holder of a valid Danish Airline Transport Pilot License (ATPL (A)).

The ATPL contained the following type rating: B737 300-900/IR and CL65/IR.

The type rating CL65/IR was valid until 31-5-2017.

The PART-FCL medical certificate class one was valid until 1-7-2017. There were no remarks to the medical certificate.

The tractor driver

The tractor driver had approximately 22 years of working experience at EKCH.

That week, the tractor driver's working schedule was from 07:00 hours until 14:30 hours. The tractor driver felt well rested.

The transport of the x-ray trailer was a routine and non-stressful task.

Aircraft information

Registration: OY-KFF
Type: Bombardier CL600 2D24
Model: CRJ-900
Manufacturer: Bombardier Aerospace, Canada
Serial number: 15231
Year of manufacture: 2009

Meteorological information

Aviation routine weather report

ekch 161050z 17009kt 9999 ovc015 03/m01 q1033 nosig=

ekch 161120z 19008kt 150v210 9999 ovc015 03/m00 q1033 nosig=

Aerodrome information

The aerodrome southern service road

See [appendix 1](#) and [appendix 2](#).

AIB safety investigation

The x-ray trailer

The x-ray trailer detached from the tractor on the southern service road, continued rolling, and collided with the aft fuselage of OY-KFF at aircraft stand A17.

See [appendix 3](#) and [appendix 4](#).

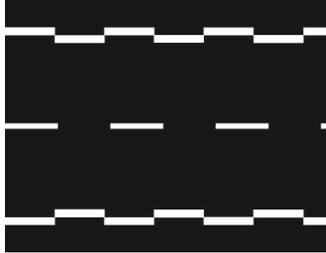
The hitch pin locking ring of the trailer hitch and the safety wire for the x-ray trailer braking system were not installed.

[See appendix 5](#).

The x-ray trailer weighed 3 tonnes.

Local regulations - EKCH

Chapter 1 References and Definitions (extract)



D2. Special airside roads, e.g. service roads (staggered broken edge line).

The common road traffic give way rules as well as the Road Traffic Act regulations for these roads also apply.

Chapter 4 Airside Traffic – Vehicles

4.1.1 General

4.1.1.1 All vehicular and pedestrian traffic on airside is subject to the Danish Road Traffic Act and CPH's Local Regulations.

4.1.3 Speed limit on airside

4.1.3.1 Unless otherwise stated by road signs, a general speed limit of 40 km/h applies on the entire aerodrome area

7.1 Alarm in case of Accidents and Incidents on Airside

7.1.1 In case of accidents and incidents on airside, OC shall always be notified. This applies whether or not CPH-owned vehicles, buildings or fixed ground installations are involved in the incident/accident!

Alarm call - EKCH

Ground handling personnel at aircraft stand A17 notified the aerodrome OC at EKCH of the accident and reported that an x-ray trailer had collided with an aircraft causing substantial damages to the aircraft, but there were no personal injuries.

The Danish road traffic act

The below is a translated extract of the Danish road traffic act.

§ 67 (3) At any time, the driver of a vehicle must be aware of and make sure that the vehicle and a possible trailer are in a safe condition, and particularly that controls, brakes, signalling devices and lights work as prescribed, and the attachment of a possible trailer must be safe.

ANALYSIS

In the opinion of the AIB, the weather conditions at EKCH, the working experience and the work plan of the tractor driver, and the local aerodrome regulations at EKCH had no influence on the sequence of events.

In the garage, the defective tractor in combination with the lack of space most likely distracted the attention of the tractor driver from doing an optimum inspection of the hitch pin.

The non-installation of the safety wire for the x-ray trailer braking system and the lack of adequate inspection of the x-ray trailer attachment as a whole had a direct influence on the sequence of the events.

When passing abeam aircraft stand A14, the bump on the road most likely forced the hitch pin upward leading to a detachment of the x-ray trailer from the tractor.

The detachment of the x-ray trailer occurred on the aerodrome southern service road and for that reason, all vehicle traffic was subject to the Danish road traffic act.

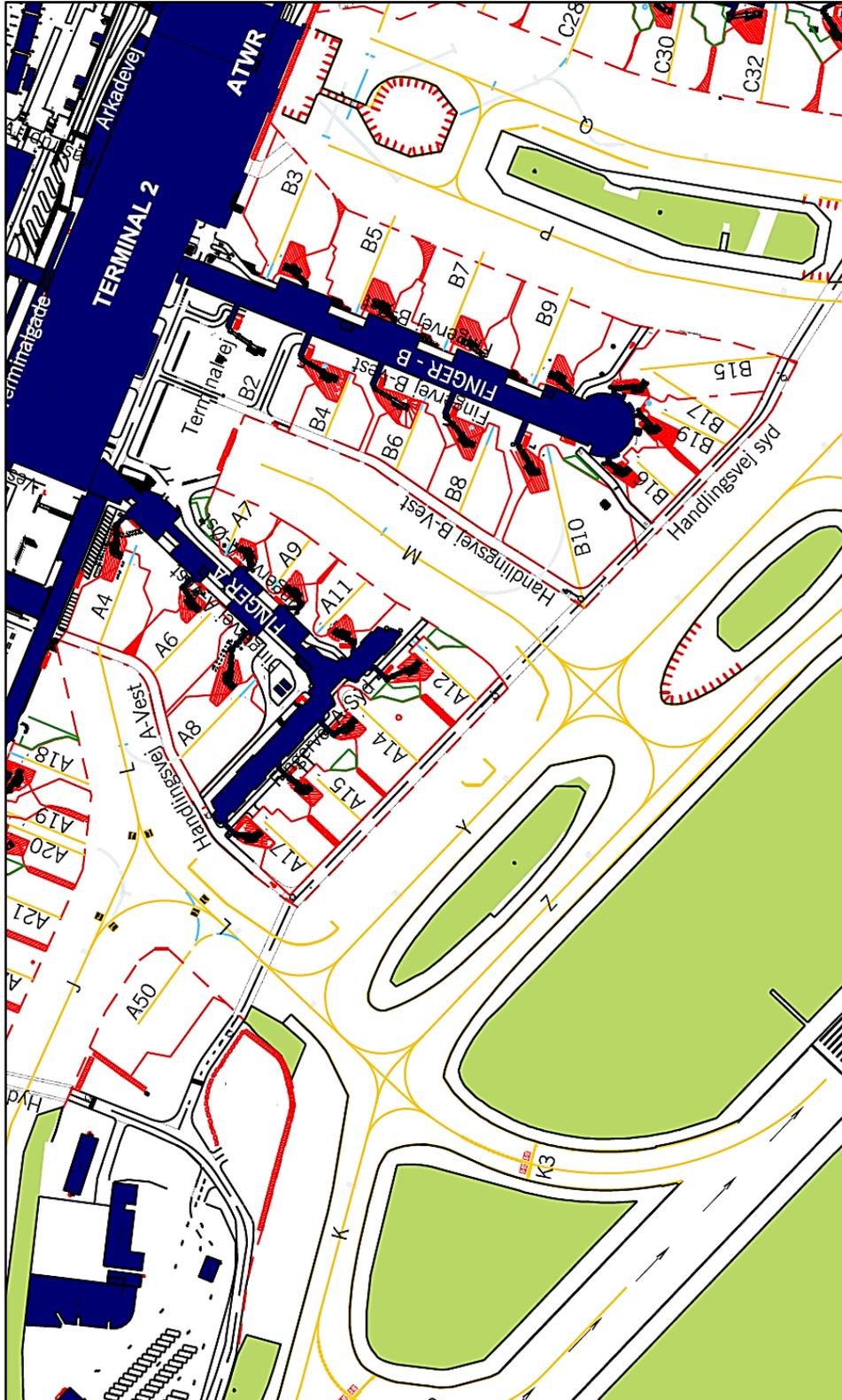
CONCLUSIONS

Non-compliance with the Danish road traffic act led to an x-ray trailer detachment from a tractor on the aerodrome southern service road at EKCH.

The x-ray trailer detachment caused substantial damages to OY-KFF parked at aircraft stand A17.

APPENDIX 1

[Return to history of flight](#) [Return to aerodrome information](#)



Note. Handlingsvej syd = Southern service road

APPENDIX 2

[Return to aerodrome information](#)



APPENDIX 3

[Return to history of flight](#) [Return to AIB safety investigation](#)



 X-ray trailer  Tractor

APPENDIX 4

[Return to history of flight](#) [Return to AIB safety investigation](#)



APPENDIX 5

[Return to AIB safety investigation](#)

