NATIONAL TRANSPORTATION SAFETY COMMITTEE

Aircraft Serious Incident Investigation Report

PT. Metro Batavia Airline Boeing 737-200; PK-YTR Juanda International Airport, Surabaya Republic of Indonesia 13 February 2010



This Preliminary Factual Report was produced by the National Transportation Safety Committee (NTSC), Karya Building 7th Floor Ministry of Transportation, Jalan Medan Merdeka Barat No. 8 JKT 10110, Indonesia.

The report is based upon the investigation carried out by the NTSC in accordance with Annex 13 to the Convention on International Civil Aviation, Aviation Act (UU No.1/2009), and Government Regulation (PP No. 3/2001).

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GLOSSARY OF ABBREVIATIONS

AD : Airworthiness Directive AFM : Airplane Flight Manual AGL : Above Ground Level

ALAR : Approach-and-Landing Accident Reduction

AMSL : Above Mean Sea Level
AOC : Air Operator Certificate
ATC : Air Traffic Control

ATPL : Air Transport Pilot License

ATS : Air Traffic Service

ATSB : Australian Transport Safety Bureau

Avsec : Aviation Security

BMG : Badan Meterologi dan Geofisika

BOM : Basic Operation Manual

°C : Degrees Celsius

CAMP : Continuous Airworthiness Maintenance Program

CASO : Civil Aviation Safety Officer
CASR : Civil Aviation Safety Regulation

CPL : Commercial Pilot LicenseCOM : Company Operation ManualCRM : Cockpit Recourses Management

CSN : Cycles Since New

CVR : Cockpit Voice Recorder

DFDAU : Digital Flight Data Acquisition Unit
DGCA : Directorate General Civil Aviation
DME : Distance Measuring Equipment

EEPROM : Electrically Erasable Programmable Read Only Memory

EFIS : Electronic Flight Instrument System

EGT : Exhaust Gas Temperature EIS : Engine Indicating System

FL: Flight Level

F/O : First officer or Copilot FDR : Flight Data Recorder

FOQA : Flight Operation Quality Assurance GPWS : Ground Proximity Warning System

hPa : Hectopascals

Hrs : Hours

ICAO : International Civil Aviation Organization

IFR : Instrument Flight RulesIIC : Investigator in Charge

ILS : Instrument Landing System

Kg : Kilogram(s)
Km : Kilometer(s)
Kts : Knots (nm/hours)
Mm : Millimeter(s)

MTOW : Maximum Take-off Weight

NM : Nautical mile(s)

KNKT/NTSC: Komite Nasional Keselamatan Transportasi / National

Transportation Safety Committee

PIC : Pilot in Command

QFE : Height above airport elevation (or runway threshold

elevation) based on local station pressure

QNH : Altitude above mean sea level based on local station pressure

RESA : Runway End Safety Area RPM : Revolution per Minutes

R/W : Runway

ROV : Remotely Operated Vehicle

SCT : Scattered

S/N : Serial Number

SSCVR : Solid State Cockpit Voice Recorder SSFDR : Solid State Flight Data Recorder

TS/RA : Thunderstorm and rain

TAF : Terminal Aerodrome Forecast

TPL : Towed Pinger Locator

TSN : Time since New

TT/TD : Ambient Temperature/Dew Point

UTC : Universal Time Coordinate

VFR : Visual Flight Rules

VMC : Visual Meteorological Conditions

INTRODUCTION

SYNOPSIS

On 13 February 2010, a Boeing 737-200 aircraft, registered PK-YTR, operated by PT. Metro Batavia as flight number 7P.735, departed from Juanda International Airport (SUB), Surabaya to Hasanudin International Airport (UPG), Makassar. The flight plan indicated that the flight was to be conducted in accordance with the Instrument Flight Rules (IFR). There were 125 persons on board; two pilots, three flight attendants and 120 passengers. The Pilot in Command (PIC) was the support monitoring pilot, and the copilot was the handling pilot for the sector.

The aircraft commenced the take-off roll on runway 10 at 0235 UTC (0935 LT). Approximately 300 meters after commencing the take-off roll, main-wheel tire number one (left outboard) exploded followed by tire number two (left inboard) approximately 1,100 meters further along the runway. Both tires shredded and the aircraft rolled along the runway on the wheel rims.

The copilot decided to abort the takeoff and stopped the aircraft at intersection N6, approximately 350 meters from the departure end of runway 10. Tires numbers three and four deflated.

The pilots did not declare an emergency. Passengers disembarked normally from the forward left passenger door using air stairs. They were transported by bus to the airport terminal. None of the aircraft's occupants were injured.

The investigation is continuing and will include a detailed examination of the left main wheel assemblies.

1 FACTUAL INFORMATION

1.1 HISTORY OF THE FLIGHT

On 13 February 2010, a Boeing 737-200 aircraft, registered PK-YTR, operated by PT. Metro Batavia as flight number 7P.735, departed from Juanda International Airport (SUB), Surabaya to Hasanudin International Airport (UPG), Makassar. The flight plan indicated that the flight was to be conducted in accordance with the Instrument Flight Rules (IFR). There were 125 persons on board; two pilots, three flight attendants and 120 passengers. The Pilot in Command (PIC) was the support monitoring pilot, and the copilot was the handling pilot for the sector.

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The copilot decided to abort the takeoff and stopped the aircraft adjacent to taxiway N6, approximately 350 meters from the departure end of runway 10. Tires numbers three and four deflated.

The pilots did not declare an emergency. Passengers disembarked normally from the forward left passenger door using air stairs. They were transported by bus to the airport terminal. None of the aircraft's occupants were injured.

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¹ The 24-hour clock in Coordinated Universal Time (UTC) is used in this report to describe the local time as specific events occurred. Local time in the area of the accident, East Indonesia standard Time (Waktu Indonesia Timur (WIT)) is UTC +9 hours.

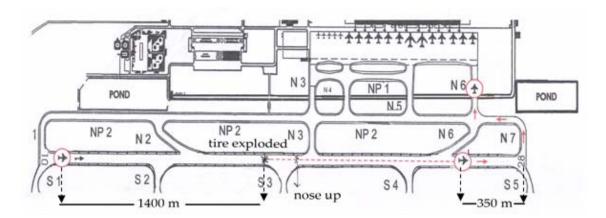


Figure 1: Serious incident location

1.2 INJURIES TO PERSONS

Table 1: Injuries to persons

Injuries	Flight crew	Passengers	Total in Aircraft	Others
Fatal	-	-	-	-
Serious	-	-	-	-
Minor	-	-	-	Not applicable
Nil Injuries	5	120	125	Not applicable
TOTAL	5	120	125	-

1.3 DAMAGE TO AIRCRAFT

The tires on main landing gear wheels one and two shredded, and tires three and four deflated. There was no other damage to the aircraft.



Figure 2: Main landing gear wheels one and two

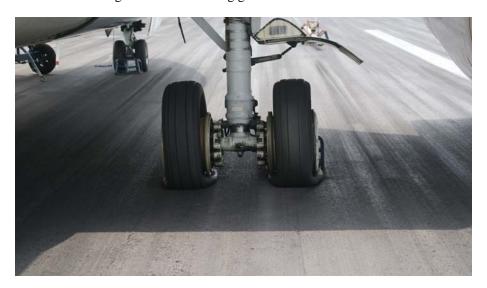


Figure 3: Main landing gear wheels three and four

1.4 OTHER DAMAGE

The asphalt surface of runway 10 was damaged by the number-one and – two main landing gear wheels for a distance of approximately 925 meters between taxiways N3 and N6.



Figure 4: Runway damage

1.5 PERSONNEL INFORMATION

1.5.1 Pilot in command

Gender : Male

Date of birth : 12 April 1971

Nationality : Indonesia

License : Airline Transport Pilot

License No: 5062

Date of issued : 7 July 2008

Valid to : 25 May 2010

Aircraft type rating : Boeing 737-200

Medical certificate : Class 1

Date of medical : 5 January 2010

Valid to : 5 July 2010

Last proficiency check : 25 November 2009

Total hours : 5,000 hours

Last 90 days : 107 hours

Last 30 days : 32 hours Last 24 hours : 0 hours

1.5.2 Co-pilot

Gender : Male

Date of birth : 28 June 1961 Nationality : Indonesia

License : Airline Transport Pilot

License, No: 3021

Date of issued : 12 December 1988 Valid to : 22 October 2010

Aircraft type rating : B737-200

Medical certificate : 4 January 2010

Date of medical : 4 January 2010

Valid to : 4 July 2010

Last proficiency check : 22 October 2009

Total hours : 14,700 hours
Last 90 days : 185 hours
Last 30 days : 69 hours
Last 24 hours : 0 hours

1.6 AIRCRAFT INFORMATION

1.6.1 Aircraft Data

Aircraft manufacturer : Boeing Company Aircraft model/type : Boeing 737-200

Serial number : 21766
Year of manufacture : 1979
Aircraft registration : PK-YTR
Certificate of Registration : No.2266

Valid to : 14 August 2011

Certificate of Airworthiness : No.2266

Valid to : 10 July 2010 Total time since new : 62,454 hours

1.6.2 Engines

Engine type : Turbofan

Manufacturer : Pratt and Whitney

Model : JT8D-17

Engine number One (left)

Serial Number : 709443

Total Time Since New : 42,864 hours Total Time Since Overhaul : 1,576 hours

Engine number two (Right)

Serial Number : 688545

Total time since new : 68,449 hours

Total time since overhaul : 2,701 hours

1.6.3 Weight and Balance (W&B)

The operator provided the following completed weight and balance sheet that was used for the flight.

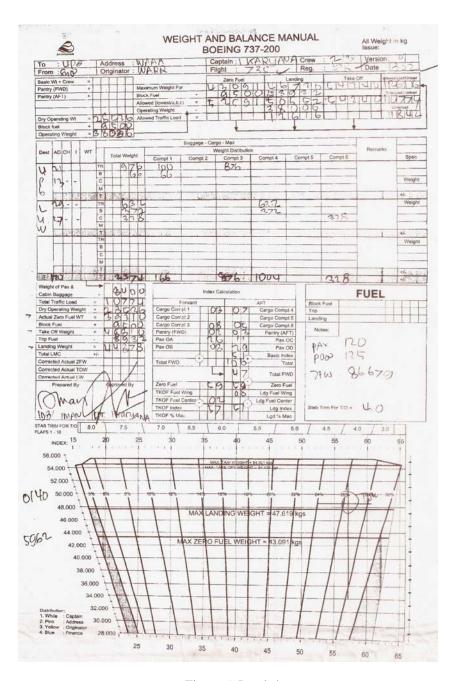


Figure 5: Load sheet

1.7 METEOROLOGICAL INFORMATION

Surface wind : 200/06 Kts
Visibility : 10 Km

Present weather : Nil

Cloud : Few 2000

Temperature : 29 C Dew Point : 24 C

QNH : 1011 Mbs

1.8 AIDS TO NAVIGATION

Not relevant to this serious incident investigation.

1.9 COMMUNICATIONS

Communication was normal and the crew had no difficulty communicating with the Surabaya aerodrome controller during the take off.

1.10 AERODROME INFORMATION

Aerodrome Code : WARR

Airport Name : Juanda International Airport

Airport Address : Jl. Ir.Juanda No.1 Sidoarjo, Surabaya,

East Java 61235 1A

Airport Class : I A

Airport Authority : Directorate General of Civil Aviation

Airport Service : No Information

Coordinates : 07°22′50" S / 112°47′10" E

Elevation : 9 feet

Runway Length : 3,000 meters

Runway Width : 45 meters

Azimuth : 10/28

1.11 FLIGHT RECORDERS

The aircraft was equipped with a Flight Data Recorder (FDR) and a Cockpit Voice Recorder (CVR).

1.11.1 Flight Data Recorder

FDR Manufacturer : Honeywell

Model : 980-4120-GQUS

Serial Number : 20473



Figure 6: Flight Data Recorder

1.11.2 Cockpit Voice Recorder

CVR Manufacturer : Honeywell
Model : 93A100-80

Serial Number : 56473



Figure 7: Cockpit Voice Recorder

1.12 WRECKAGE AND IMPACT INFORMATION

Apart from the main landing gear wheel assemblies, the aircraft was not damaged.



Figure 8: The aircraft at the final position (N6 intersection)

1.13 MEDICAL AND PATHOLOGICAL INFORMATION

No medical or pathological examinations were required.

1.14 FIRE

There was no pre- or post- serious incident fire.

1.15 SURVIVAL ASPECTS

None of the aircraft's occupants were injured.

1.16 TESTS AND RESEARCH

No tests or research were performed up to the date of issuing the Preliminary Report.

1.17 ORGANIZATIONAL AND MANAGEMENT INFORMATION

Aircraft Owner : PT. Metro Batavia Aircraft Operator : PT. Metro Batavia

Jl. Ir. H. Juanda, No.15 Jakarta

Republic of Indonesia.

AOC : 121-007

1.18 ADDITIONAL INFORMATION

This serious incident caused the closure of runway 10 for about 4 hours.

The investigation is continuing and will include a detailed examination of the left main wheel assemblies.

1.19 USEFUL OR EFFECTIVE INVESTIGATION TECHNIQUE

The investigation is being conducted in accordance with NTSC approved policies and procedures, and in accordance with the standards and recommended practices of Annex 13 to the Chicago Convention.