

## STATE COMMISSION ON AIRCRAFT ACCIDENTS INVESTIGATION

# PRELIMINARY REPORT

## Serious Incident

### Occurrence No: 1860/14

**aircraft: airplane, Embraer EMB-500 Phenom 100,  
SP-AVP**

**15 October 2014 – Bydgoszcz / Szwedkowo (EPBY)**

*In connection with the provisions of the Regulation (EU) No 996/2010 of the European Parliament and of the Council on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (EU Journal of Laws L. 2010.295.35), the wording used in this Report may not be considered as an indication of a person guilty or responsible for the occurrence.*

*The Commission does not apportion blame or liability.*

*In connection with the above, any form of use of this Report for any purpose other than air accidents and serious incidents prevention, can lead to wrong conclusions and interpretations.*



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## **DATA**

Status: **Preliminary Report**

Classification: **Serious Incident**

Date: **15 October, 2014**

Time: **12:30 UTC<sup>1</sup>**

Aircraft type: **Embraer EMB-500 Phenom 100**

Operator: **Flyjet Sp. z o.o.**

Registration marks: **SP-AVP**

Serial Number: **50000055**

Year of manufacture: **12.05.2011**

Manufacturer: **Empresa Brasileira de Aeronautica S.A.**

Engines: **2x Pratt & Whitney Canada PW617F-E**

Airframe flight time/cycles: **1332hrs 48 min/1188 cycles**

Passengers/Crew: **4 Passengers, 2 Flight Crew, all uninjured**

Captain: **Male, aged 46, Australian citizen, holder of CPL(A) issued by UK CAA, valid until 25 January, 2015**

Co-Pilot: **Male, aged 31, Polish citizen, holder of CPL(A) issued by Polish CAA, valid until 10 April, 2015**

Aircraft Damage: **Scratches on the left leg of the main landing gear**

Aerodrome damage: **destroyed runway end light**

Location: **Bydgoszcz - Szwedkowo (EPBY) aerodrome**

Phase of Flight: **Landing**

Flight Nature: **Commercial - non-scheduled**

Departure Airport: **LSGG**

Destination Airport: **EPBY**

Flight number: **FYJ30**

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<sup>1</sup> All times in this Report are given in UTC



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## Opis zdarzenia

On 15 October 2014 the crew of Embraer EMB-500 airplane performing flight FYJ30 from Geneva (LSGG) to Bydgoszcz (EPBY) landed on RWY 08 and completed the landing roll at the distance of 253[m] from the runway end and 116[m] to the right from its centre line.

Prior to reaching SUI waypoint the crew commenced descent from FL 380 to landing. During the descent the crew tried to establish communication with EPBY Controller to obtain information on the current weather. These attempts failed. The crew received the current information approximately 50 NM before the aerodrome from Poznan APP Controller. The next attempts to establish communication with the EPBY TWR Controller, following instruction of Poznan APP Controller, failed again. Finally, the communication with EPBY TWR was established at the distance of 31 NM on FL 100 and with help of Poznan APP Controller who was asked for assistance. The crew asked the EPBY TWR Controller for clearance for RNAV approach and received information about the current weather conditions and clearance to continue the flight to LUXUD waypoint on FL 100, and then to descend to 6000 ft. In the following phase of approach the EPBY TWR Controller permitted to continue it to the final position and to perform RNAV approach. At this time the crew mistakenly removed one of points of the approach route set in the FMS and started its fast restoration. The original route was restored to the FMS and, according to it, the crew continued the approach. Due to a high approach speed, approximately 160 kts, the landing flaps were fully extended 0,3NM before the RWY 08 threshold. Unstabilized approach was continued and the touchdown occurred at the midpoint of the runway length at the GSPEED = 118kts. The crew proceeded to stop on the remaining part of the wet runway approximately 1250 m long. The airplane with registration marks SP-AVP is equipped only with the main landing gear wheels brakes with anti-skid system, it has no ground spoilers, engines reversers or automatic braking. The crew tried, at a high speed, to vacate the runway via TXWY A, located at the end of the runway, but the airplane slipped sideways and at the GSPEED of 47kts run off the runway threshold. Then the airplane rolled across the grassy part of the aerodrome and came to rest after travelling a distance of 253m from THR 26. The airplane running off the runway was observed by the EPBY TWR Controller, who immediately informed the airport services about the situation. All rescue services went to the scene and after about 2 minutes secured the aircraft, crew and passengers. None of the persons on the board suffered any injuries. During



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visual inspection only traces of a collision with the Runway 08 end light were found on the left leg of the main landing gear of the aircraft. Its tire was torn.

### **Meteorological conditions**

METAR EPBY 151100Z VRB01KT 3200 -SHRA BR BKN005CB OVC018 12/11 Q1008=

METAR EPBY 151130Z 07002KT 5000 -SHRA BR SCT005CB OVC032 12/11 Q1008=

METAR EPBY 151200Z 03002KT 5000 BR BKN010 OVC028 12/11 Q1008=

METAR EPBY 151230Z 08005KT 4500 -RA BR BKN008 BKN018 13/12 Q1007=

TAF EPBY 151130Z 1512/1521 13004KT 9999 BKN013 TEMPO 1512/1521 5000 SHRA  
BKN005 BKN010CB PROB40 1512/1516 3000 TSRA=



**Photo 1. Landing roll traces and Embraer EMB-500 airplane after completing the landing roll.**



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**Photo 2. Embraer EMB-500 airplane on the scene.**

Upon arrival of representatives of the State Commission on Aircraft Accidents Investigation (SCAAI) at the Bydgoszcz - Szwederowo aerodrome, in cooperation with Duty Officers of the airport they carried out the following:

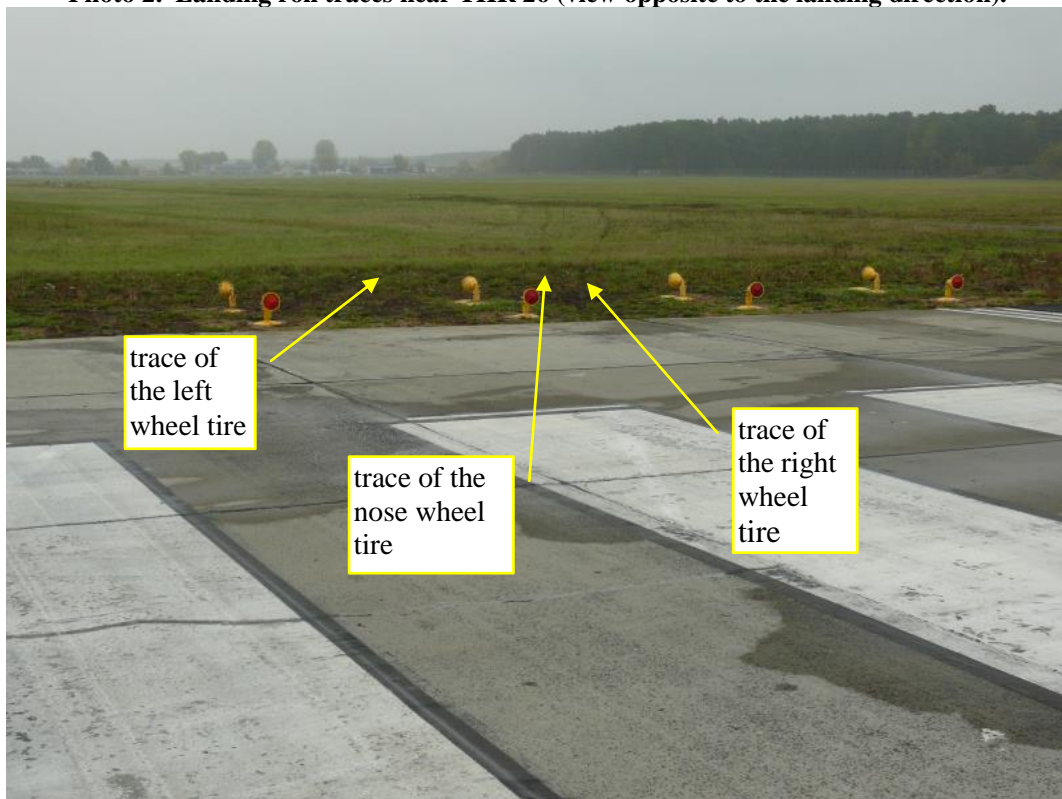
- photographic documentation of the aircraft;
- photographic documentation and measurement of the landing roll traces;
- photographic documentation of the damaged runway end light.

No damage to the surface or painting of the runway was found.

The investigators interviewed the pilots and obtained from them statements about the flight. The EPBY TWR Controller and persons involved in the rescue operation were also interviewed.



**Photo 2. Landing roll traces near THR 26 (view opposite to the landing direction).**



**Photo 3. Landing roll traces on the runway and on the grass near THR 26.**



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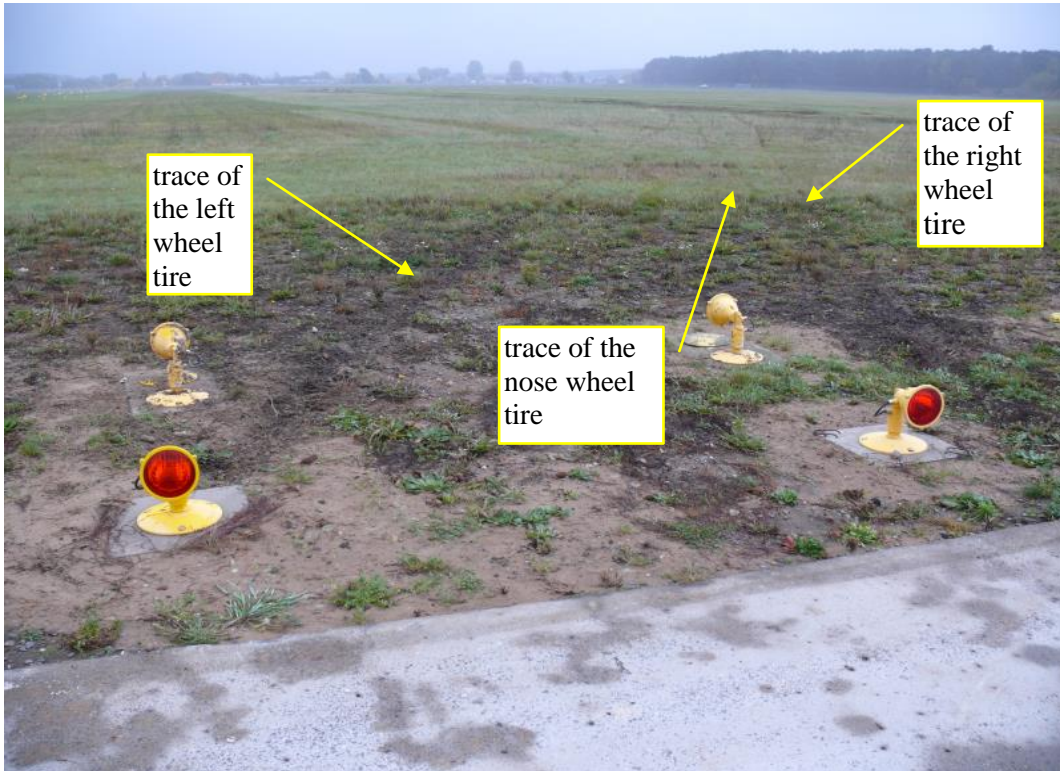


Photo 5. Landing roll traces on the grass near THR 26.



Photo 6. Landing roll traces crossing a service road situated in a valley near THR 26.



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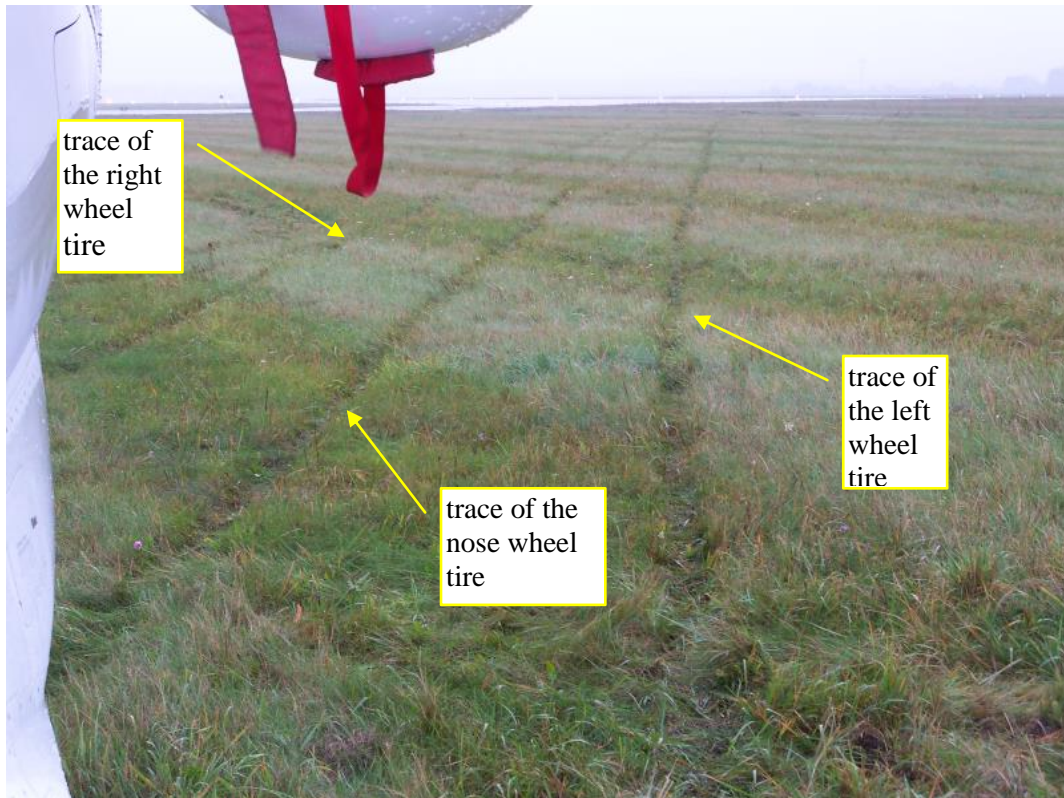


Photo 7. Landing roll traces on the airplane stopping place (view opposite to the landing direction).

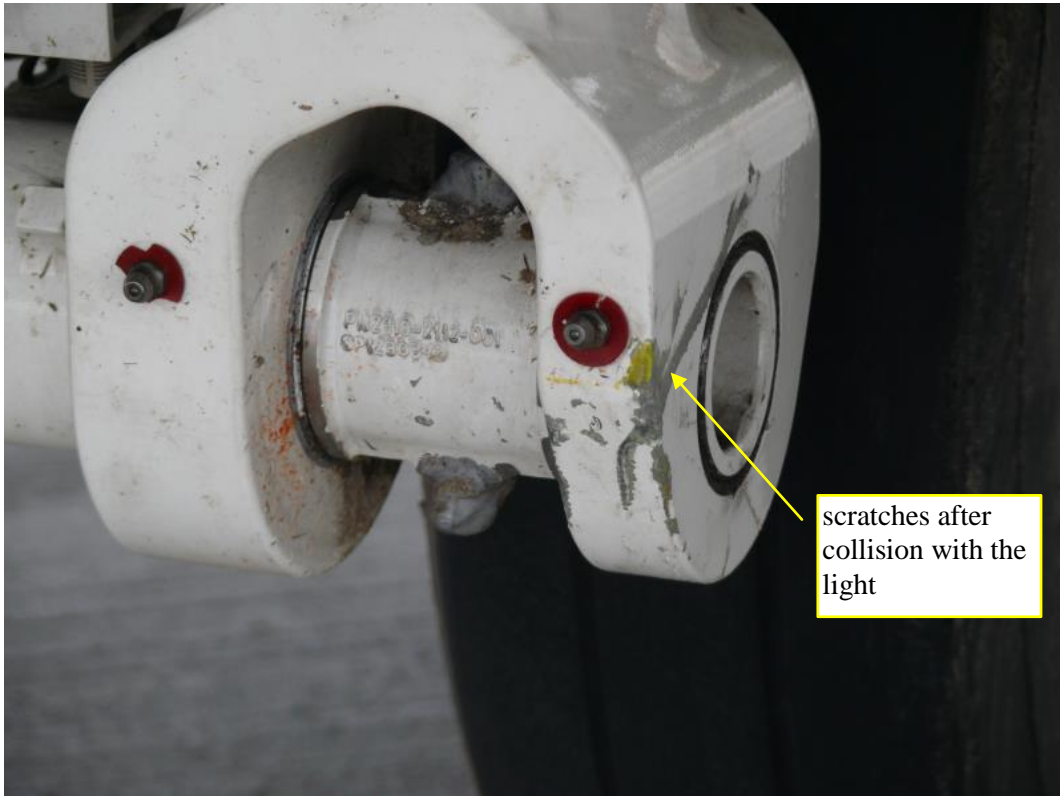


Photo 8. Damaged runway end light and trace of the left wheel of the main landing gear near THR 26.





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**Photo 9. Traces of collision with the runway end light on the left leg of the main landing gear.**

After arrival of the operator maintenance personnel and the aircraft manufacturer representative an inspection of the aircraft was conducted. Cockpit Voice and Data Recorder (CVDR) and Central Maintenance Computer (CMC) were read out. Retrieved recordings will be used in the further investigation of this occurrence.

The following evidence was secured for the further investigation:

- ATC communication;
- recording of the radar display;
- CVDR recordings;
- CMC recordings;
- necessary operational and technical documentation of the operator.



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Photo 10. CVDR of Embraer EMB-500.



Photo 11. View from the EPBY TWR at the end of the RWY 08 and THR 26.



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**At this stage of the investigation of the serious incident the State Commission on Aircraft Accidents Investigation has not formulated any safety recommendations.**

Investigator-in-Charge

Piotr Lipiec