

*The original of the Final Report was issued in the Slovak language.
In case of inconsistency original version in Slovak language is applicable.*



MINISTRY OF TRANSPORT, CONSTRUCTION AND REGIONAL DEVELOPMENT OF THE SLOVAK REPUBLIC

Aviation and Maritime Investigation Authority
Námestie slobody 6, P.O.BOX 100, 810 05 Bratislava 15



Reg. No.: SKS2013004

FINAL REPORT

on investigation of serious incident of
aircraft type **CESSNA U206 F**
Registration No. **HA-SVU**

Date: 11.08.2013

Place: 1750 m south-east of the Airport Kráľova pri Senci / LZKS

The investigation of occurrence has been conducted pursuant to Art. 18 of the Act No. 143/1998 on Civil Aviation (Civil Aviation Act) and on Amendment of Certain Acts and in accordance with the Regulation (EU) No. 996/2010 of the European Parliament and of the Council on investigation and prevention of civil aviation accidents and incidents, governing the investigation of civil aviation accidents and incidents.

The final report is issued in accordance with the Regulation L 13 that is the application of the provisions of ANNEX 13 Aircraft Accident and Incident Investigation to the Convention on International Civil Aviation.

The exclusive aim of investigation is to establish causes of accident, incident and to prevent their occurrence, but not to refer to any fault or liability of persons.

This final report, its individual parts or other documents related to the investigation of occurrence in question have an informative character and can only be used as recommendation for the implementation of measures to prevent occurrence of other accidents and incidents with similar causes.

A. INTRODUCTION

Type of operation:	general aviation / sport and recreational flying
Type of aircraft:	CESSNA U206 F
Registration No:	HA-SVU



Operator:	PANNON AIR SERVICE, Tököl
Owner:	Airlon Zrt. Budapest
Take-off site:	LZKS
Planned landing site:	Airport Bratislava / LZIB
Flight phase:	take-off
Place of accident:	N 48°11'24,60'', E 17°29'17,60''
Date and time of accident:	11.08.2013, 16:55

Note: All time data in this report are stated in the UTC time.

B. INFORMATIVE SUMMARY

After the start of aircraft type CESSNA U206 F, registration No. HA-SVU, from the grass runway ("RWY") 10 of the airport LZKS the pilots observed the engine thrust reduction. After performance of required operations they decided to make a forced ground landing on clear surface.

The pilots landed with the aircraft on the ground without any further damage. Nobody was injured in the incident.

The commission composed of the following members was appointed for investigation of the occurrence:

Ing. Zdeno BIELIK
Ing. Juraj GYENES

The report is issued by:

Aviation and Maritime Investigation Authority
of the Ministry of Transport, Construction and Regional Development
of the Slovak Republic

C. MAIN PART OF REPORT

1. FACTUAL INFORMATION
2. ANALYSES
3. CONCLUSIONS
4. SAFETY RECOMMENDATIONS

1. FACTUAL INFORMATION

1.1 History of the flight

On 11 August 2013 the crew composed of the pilot-instructor, retrained pilot and one passenger started from RWY 10 of the airport LZKS with the intent to continue to the airport LZIB. After the take-off the pilots observed the engine power reduction and flashing red LEDs FADEC A (Full Authority Digital Engine Control) and FADEC B. They reacted by actuating the auxiliary pump which caused the change of thrust, and decided to make a forced ground landing in the take-off direction slightly to the right, where an onion field was spreading.

The landing itself was made without complications and the aircraft remained undamaged after the landing.

Daytime: day
Flight rules: VFR

1.2 Injuries to persons

Injury	Crew	Passengers	Other persons
Fatal	-	-	-
Serious	-	-	-
Minor	-	-	-
None	2	1	

1.3 **Damage to aircraft**

The aircraft was not damaged in the serious incident.

1.4 **Other damage**

No circumstances with potential claims for compensation of other damage toward a third party were notified to the Aviation and Maritime Investigation Authority.

1.5 **Personnel information**

Pilot of aircraft - instructor :

National of the Republic of Hungary, aged of 29 years,
holder of the CPL(A) commercial pilot licence No. H/FCL/CPL/006915 issued by the National Transportation Authority of the Republic of Hungary on 17 July 2001.

Medical certificate of 2nd class with marked validity until 06.07.2017.

Certificate of competency for operation of aircraft radio station marked in the pilot licence.

Qualifications:

SEP(L)	with marked validity until 30.04.2015
FI(A)	with marked validity until 28.04.2014
CRI(A)/ SE	with marked validity until 28.04.2014

Flying experience:

Total flight hours:	1297 h 30 min
For the last 30 days:	6 h 30 min
For the last 90 days:	25 h 08 min
With the type:	168 h 20 min

Retrained pilot:

A national of the Slovak Republic, aged of 24 years,
holder of the private PPL(A) pilot licence No. SK02110093 issued by the Civil Aviation Authority of the Slovak Republic on 13.06.2011.

Medical certificate of 2nd class with marked validity until 14.10.2014.

Limited certificate of radio telephonist No. OFSH-19/2005.

Qualifications:

SEP(L)	with marked validity until 30.04.2015
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Flying experience:

Total flight hours:	290 h 30 min
For the last 30 days:	20 h 00 min
For the last 90 days:	70 h 00 min
With the type:	0 h 28 min

1.6 **Information about aircraft**

a) Airframe

Type:	CESSNA U206 F
Registration No:	HA-SVU
Serial No:	2173
Manufacturer:	Cessna Aircraft Co.

Total operating hours since manufacture: 8070 h

b) Engine

Type:	TAE Centurion 4.0 BE-228
Serial No:	03-01-00003
Manufacturer:	Thielert Aircraft Engines GmbH

Total operating hours since manufacture: 543 h 05 min



1.13 Medical and pathological information

N/A.

1.14 Fire

No fire broke out.

1.15 Survival aspects

N/A.

1.16 Tests and research

The taken sample of **fuel** Jet A1 was tested in the certified facility „Výskumný ústav pre ropu a uhľovodíkové plyny (VÚRUP)“ (Research Institute of Oil and Hydrocarbon Gases).

On the basis of results and GC analysis it can be stated that fuel Jet A1 was used for the critical flight and fulfilled the required parameters.

The sample of **oil** was tested in a company for lubricant production, distribution and service MOL-LUB s.r.o. - laboratory WEARCHECK and showed a high iron content, taking into account the operating conditions.

With exception of iron content, the other indicators of oil in the examined spectrum fulfilled the required parameters.

1.17 Organizational and management information

The flight operations were conducted in accordance with aeronautical standards valid in the territory of the Slovak Republic.

1.18 **Additional information**

N/A.

1.19 **Useful or effective investigation techniques**

Standard investigation techniques were used.

2. ANALYSIS

- The crew of aircraft correctly evaluated and managed the situation by forced ground landing.
- The fuel booster pump was sent by the aircraft owner to the production plant for detection of cause of its failure.

The investigation commission did not receive results of these tests before termination of the investigation.

3. CONCLUSIONS / CAUSE OF SERIOUS INCIDENT

3.1 Findings

- The pilots had valid qualifications for the critical flight.
- The aircraft had valid documentation and did not show any faults before the serious incident.
- The aircraft fulfilled the airworthiness conditions before the critical flight.

3.2 Causes of serious incident

- Significant engine power reduction caused by technical fault of the engine fuel supply system, which was caused by failure of fuel booster pump.

4. SAFETY RECOMMENDATIONS

The final report from investigation of the serious incident does not contain any recommendations.

Bratislava, 09.01.2014