

*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

FINAL REPORT

on investigation of accident
of helicopter type **CH-7B Cicaré**
Registration No. **OM-M669**

Reg. No. **SKA2014006**

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

Operator / Owner:	Novaplast, s.r.o.
Type of operation:	general aviation / sport and recreational flying
Type:	flying sport vehicle CH-7B Cicaré (hereinafter "FSV")
Registration No:	OM-M669



Take-off site:	meadow near the heliport Liptov / Liptovská Ondrašová
Flight phase:	take-off
Place of accident:	field behind the heliport in Liptov
Date and time of accident:	11.10.2014, 14:50

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

B. INFORMATIVE SUMMARY

On 11 October 2014 at 14:50 the pilot with FSV, registration No. OM-M669, took off from the meadow near the heliport Liptov / Liptovská Ondrašová. During the take-off the pilot felt engine power shortfall and tried to land. During the attempted landing he caught the uneven ground with anti-torque rotor and left helicopter skid and FSV turned over and remained laying on the side.

The following commission was appointed for investigation of the air accident:

Ing. Zdenko BIELIK
Marián TURAN

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

After the take-off the pilot climbed with FSV to a height of 1.5 - 2 m above the take-off site and ran up FSV over the ground with a course of 230°. During this run-up the pilot got impression as if the engine was losing power. He wanted to solve the problem by opening the throttle, but it was already fully open. Finally the pilot handled the situation by lowering the collective control level with intention to land.

Maybe due to a wind gust from the rear semi-sphere, FSV sagged and caught the ground with anti-torque rotor and left skid. It leaped off the ground several times, hit the ground with the front section and remained laying on the left side.

Daytime: day

Flight rules: VFR

1.2 Injuries to persons

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

1.3 Damage to FSV

FSV was destroyed in the accident – broken rotor blades, separated tail section, broken cockpit canopy, damaged and bent parts of landing gear.



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:

A national of the Slovak Republic, aged of 49 years
Holder of the FSV pilot licence, issued by the Civil Aviation Authority of the Slovak Republic on 9 March 2012 with marked validity until 1 July 2016.

Medical certificate of 2nd class with marked validity until 31.05.2015.

Flying experience:

Total flight hours:	229 h
In it with the type:	78 h 20 min
For last 90 days:	78 h 25 min
For last 30 days:	21 h 0 min

1.6 FSV information

Airframe:

Type:	CH-7B CICARÉ
Registration number:	OM – M669
Serial number:	SN005
Manufacturer of building kit for amateur builders:	CICARÉ S.A.
Designer of building kit:	Ing. Milan Ďurica

Engine:

Type:	ROTAX 912 ULS2
Serial number:	6777700
Manufacturer:	BRP-POWERTRAIN GmbH Austria

Certificate of airworthiness No. RS211 issued by SFUL on 10.04.2012.

Third-party insurance: Allianz Slovenská poisťovňa, certificate No. 411019403.

1.7 Meteorological situation

Clear sky, wind gusts 5 - 10 m/s, wind direction 050°, amount of clouds 3-4/8, visibility above 10 km.

1.8 Aids to navigation

N/A.

1.9 Communications

N/A.

1.10 Aerodrome information

Meadow at the surface for take-off helicopter heliport Liptov.

1.11 Flight recorders

N/A.

1.12 Wreckage and impact information

FSV crashed to the field without major obstacles.

The site of accident is described by the geographic coordinates:

49°06'05''N, 19°34'26''E



1.13 **Medical and pathological information**

After the accident the pilot left FSV through the broken cockpit door without help of other person.

The called ambulance doctor stated a light injury of the pilot who was transported to the hospital for treatment.

1.14 **Fire**

No fire broke out.

1.15 **Survival aspects**

The search and rescue operations by SAR means were not required.

1.16 **Tests and research**

No technical failure was detected during the inspection of FSV.

1.17 **Organizational and management information**

N/A.

1.18 **Additional information**

The pilot in his statement excluded technical failure of FSV.

1.19 **Useful or effective investigation techniques**

Standard investigation techniques were used.

2. **ANALYSIS**

The pilot took off with FSV from a meadow near the heliport in Liptov / Liptovská Ondrašová with tail wind contrary to the rule applicable to all vehicles that they must take-off into wind.

By this action the pilot created very unfavourable conditions for continuation of the take-off.

The pilot climbed with FSV to a height of 2 m, but when he tried to run up the helicopter above the ground, FSV did not have sufficient power for such take-off due to the tail wind. When FSV flew over the road due to gusty tail wind (from direction of 50°) it sagged and caught the ground with anti-torque rotor and left skid. The tail section with anti-torque rotor was knocked off and FSV landed on the left side.

3. C O N C L U S I O N S / CAUSE OF ACCIDENT

3.1 Findings

Pilot

- According to submitted documentation the pilot had valid qualifications for flights with FSV of this category.
- The pilot had sufficient flying experiences.
- At the time of accident the pilot was not under the influence of alcohol, drugs or common medicaments which might have decreased his attention during flight.
- At the time of accident the pilot was holder of the FSV pilot licence issued by LAA CR, which did not authorize him for flights in the airspace of SR.

FSV

- FSV had valid documentation and did not show any fault before the incident.

3.2 Causes of air accident

The cause of the accident was the take-off with gusty tail wind.

4. SAFETY RECOMMENDATIONS

The final report does not contain any safety recommendations.

Bratislava, 10.12.2014