

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



AVIATION AND MARITIME INVESTIGATION AUTHORITY
Námestie slobody 6, P.O.BOX 100
810 05 Bratislava

FINAL REPORT

on the safety investigation of the air accident
of aircraft type **DA-40 D**
with registration mark **OM-SCS**

Reg. No.: SKA2017004

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:	Seagle Air – FTO, s.r.o. / FORMEDIA S.C.A., s.r.o.
Operation type:	Sport and recreation flying
Aircraft type:	DA-40 D
Registration mark:	OM-SCS
Place of take-off:	Trenčín Airport / LZTN
Flight phase:	Landing
Accident location:	Prievidza Airport / LZPE
Accident date and time:	14 May 2017, 16:30

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

B. INFORMATIVE SUMMARY

On 14 May 2017, the pilot landed at the LZPE Airport with the aircraft type DA-40 D, registration mark OM-SCS (hereinafter referred to as “OM-SCS”).

After a hard-landing, OM-SCS bounced on the grass runway (hereinafter referred to as “RWY”); it became uncontrollable and with subsequent movement it damaged the parked gliders from the flying competition Glide Challenge Cup GSS-KSS PRIEVIDZA 2017 (hereinafter referred to as “Glide Challenge”).

The event was reported by the organizer of the Glide Challenge competition by phone to the Aviation and Maritime Investigation Authority.

A commission was set up to investigate the causes of the event in question

Ing. Igor Benek	Chairman of the Safety Investigating Commission
Lic. Jaroslava Mičková	Member of the Safety Investigating Commission

The report to be issued by:

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

C. MAIN PART OF THE REPORT

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

1. FACTUAL INFORMATION

1.1 History of the flight

On 14 May 2017, the pilot carried out a navigation flight along the line LZTN – Nemšová – Beluša – Žilina/LZZI Airport– Strečno – Martin/LZMA Airport– Dubové – LZPE – Hradište - Trenčianske Jastrabie - LZTN.

During the flight, the pilot decided to carry out an intermediate landing at LZPE Airport.

At 16:20, the pilot contacted the LZPE operator of the CTAF (Common Traffic Advisory Frequency) on freq 122.60 MHz to get permission to land at the LZPE Airport.

At that time, the activity – flying competition Glide Challenge – was performed at the LZPE Airport.

CTAF LZPE provided the pilot with information on RWY use, meteorological information and information on the known operation.

The pilot carried out his approach to landing via the left-hand traffic circuit RWY04L. He carried out the landing 265 metres behind the threshold of RWY04L at the speed of 60 KIAS (knots indicated airspeed) with the full configuration of flaps.

On the right side of RWY04R, 280 metres behind the threshold, was glider SP-3985 after landing from the competition task.

OM-SCS hard-landed at RWY04R in the H-beam on main landing gear with immediate touching of the front landing gear with RWY, which resulted in the situation where the aircraft bounced with its kinetic energy from RWY, deviating along the longitudinal axis to the right side. During this manoeuvre it narrowly passed a glider parked after landing on RWY04R.

OM-SCS again landed on RWY04R, but with considerable deviation to the right side, and continued through RWY04L, RWY04R in the direction of the aircraft stand used for the parking of gliders during the flying competition. The pilot solved the situation by deciding to take off and increase the throttle of the engine. 20-30 metres before the parked gliders he succeeded in “raising” the front landing gear leg. Subsequently, OM-SCS crashed into the parked gliders and the front landing gear leg was broken. The aircraft fell on its front part, its engine was stopped forcibly, it turned around 180° and remained standing near the transport vehicles.

The OM-SCS crew got out of the aircraft on their own, without any injury.

The air accident was reported by the operator of CTAF LZPE by phone on 14 May 2017 to the Aviation and Maritime Investigation Authority of the Ministry of Transport and Construction of the Slovak Republic.

Time period: Day

Flight rules: VFR

1.2 Injuries to persons

Injury	Crew	Passenger	Other persons
Fatal	-	-	-
Serious	-	-	-
MInor	-	-	-
None	1	1	

1.3 Damage to aircraft

OM-SCS was destroyed during the aviation event:

- broken propeller blades, destroyed engine covers, important parts of the engine damaged, deformed structure of engine mount, damaged anti-fire wall, damaged attachment of the right wing to the aircraft body, main landing gear deformed, front landing gear leg broken off the aircraft body and broken in the place of attachment, casings for attachment of the landing gear pulled out of the support structure of the aircraft body, broken tail unit, damaged board devices due to their intensive overloading.



1.4 Other damages

During landing of OM-SCS with its subsequent running out of RWY, the parked gliders of the following registration marks were damaged:

SP-3955 – destroyed



D-4972 – destroyed



SP-3993 – substantial damaged



SP-3896 – damaged



SP-3968 – damaged



1.5 Personnel information

Pilot:

A citizen of the Slovak Republic, aged 55 years, the holder of the private pilot licence (aircraft) PPL(A), issued by the Transport Authority of the Slovak Republic on 1 July 2015.

Qualification:

SEP(L) – with marked validity until 30 June 2017.

Certificate of medical fitness of the 2nd class with marked validity until 21 December 2017.

Certificate of medical fitness LAPL with marked validity until 21 December 2018.

Flying experience:

Total hours flown by the pilot as at 14 May 2017:

118 h 50 min and 416 flights

1.6 Aircraft information

Type: DA-40 D

Registration mark: OM-SCS

Serial number: D4.169

Manufacturer: Diamond Aircraft Industries GmbH, Austria

The aircraft airworthiness certificate No. 1273/01, issued on 30 September 2016 by the Transport Authority of the Slovak Republic.

Statutory insurance – Allianz Slovenská poisťovňa, a.s. (Allianz Slovak Insurance Company, joint-stock company), No .411 023 349, valid until 22 September 2017.

Total hours flown by the aircraft as at 14 May 2017:

1,947 h 10 min

1.7 Meteorological information

N/A.

1.8 Aids to navigation

N/A.

1.9 Communications

N/A.

1.10 Aerodrome information

LZPE Airport is a public international airport.

Its altitude is 260 m above sea level (853 ft) / RWY 04L/22R sized 940*85 m.

1.11 Flight recorders

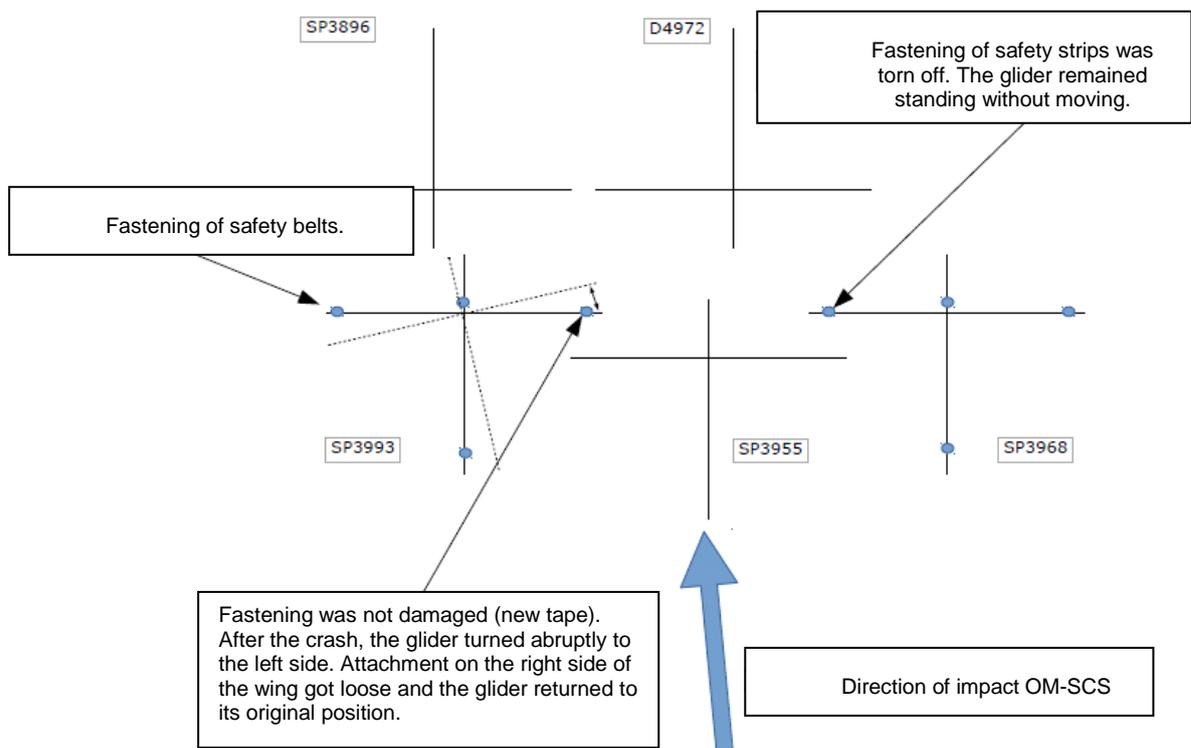
N/A.

1.12 Wreckage and impact information

Glider position after landing SP-3985 48°45'52.00"N, 18°35'08.00"E

OM-SCS first contact with RWY 48°45'52.93"N, 18°35'04.81"E

Place of OM-SCS' stopping 48°45'57.21"N, 18°35'21.48"E



1.13 Medical and pathological information

N/A.

1.14 Fire

None.

1.15 Survival aspects

It was not necessary to carry out any investigation or rescue by SAR means.

1.16 Tests and research

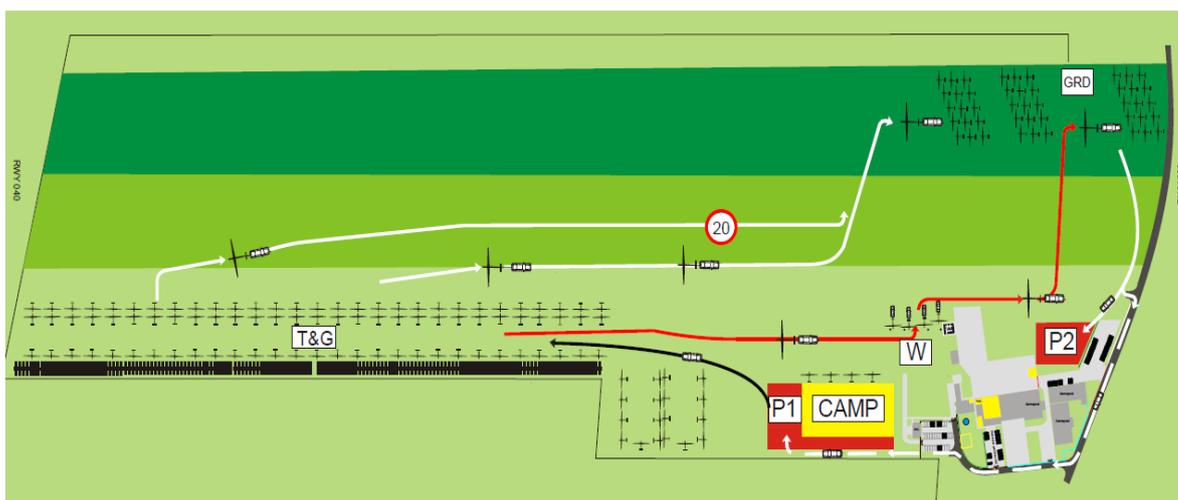
It was not necessary to carry out any tests or expert examination of any parts of the aircraft.

1.17 Organizational and management information

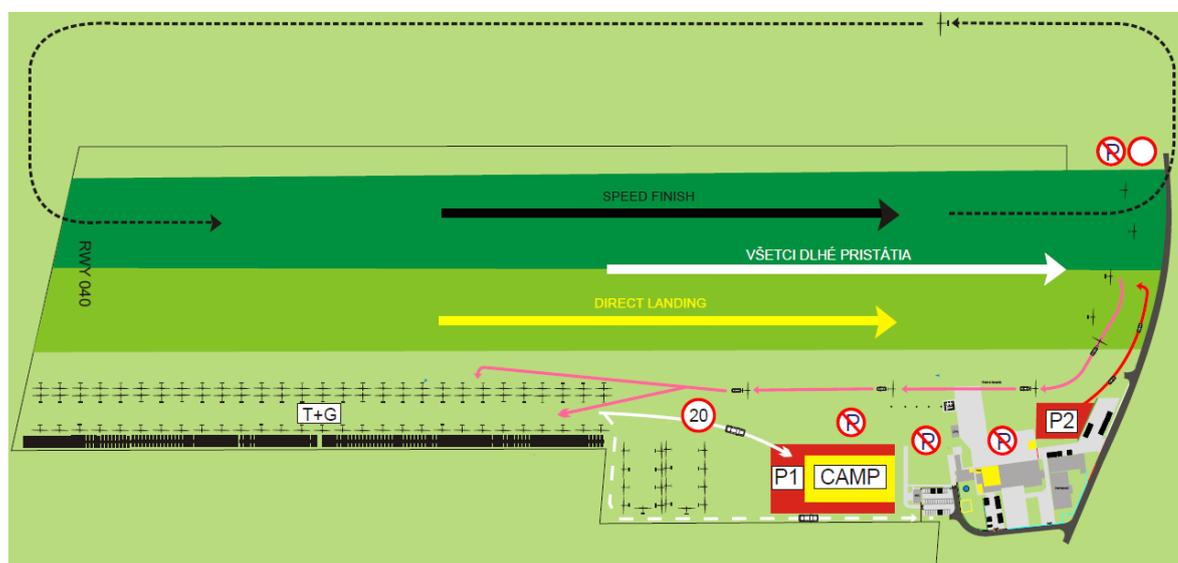
The flying activity was performed in accordance with the flying regulations valid in the territory of the Slovak Republic and with the local rules.

On the given date before the start of the competition, RWY22 was in operation.

During the flying competition Glide Challenge, the damaged gliders were parked at the prescribed operating premises.



Transport of gliders to GRID RWY22



At the time of the aviation event, RWY04 was in operation

1.18 Additional information

N/A.

1.19 Useful or effective investigation techniques

The common methods of investigation were applied.

2. ANALYSIS

Pilot activity

During the navigation flight, the pilot decided to carry out an intermediate landing at LZPE Airport.

He carried out the final approach to landing into 1/3 RWY04L. There was a glider on the right side approximately at the same distance that had landed just before that from the competition task at RWY04R.

The pilot probably focused his attention during landing on the glider on the right side and did not pay sufficient attention to his landing. With this activity, he brought the aircraft during the landing phase into a large angle of inclination and by constantly pulling up the control lever he overflew RWY, which he did not rectify in time.

Subsequently, the speed decreased and the aircraft inclined to the right side, with an undesirable rapid hard contact with the ground on the main landing gear in the H-beam with the immediate contact of the front landing gear with RWY, which resulted in the situation where the aircraft bounced with its kinetic energy from RWY deviating along the longitudinal axis to the right side.

OM-SCS again landed on RWY, but with considerable deviation to the right side (outside the axes of RWY04L) and continued through RWY04L, RWY04R in the direction of the aircraft stand used for the parking of gliders during the flying competition. At this moment, OM-SCS narrowly passed the glider parked after landing on RWY04R.

Subsequently, the pilot increased the throttle of the engine with the intention of taking off, but as he was approaching the aircraft stand where the gliders were parked, he did not succeed in rectifying the issues having effect during take-off (the impact of the reactive moment from the propeller, gyroscopic moment) and subsequent levelling the aircraft up with the axis RWY04. Before the parked gliders, he managed to raise the front landing gear leg.

Subsequently, the aircraft crashed into the gliders and its front landing gear leg was broken.

3. CONCLUSIONS / Cause of air accident

3.1 Findings

Pilot

- according to the submitted documentation, he had the valid qualifications for performing flights with the given category of aircraft,
- at the time of the aviation event, he was not under the influence of alcohol, drugs or prescription medication that could have decreased his attention during the flight.

Aircraft

It had valid documentation and did not show any damage before the aviation event.

Airport

It did not have any impact on the occurrence of the event in question.
The damaged gliders were parked in the prescribed area.

3.2 Causes of the air accident

Failure to master the technique of piloting by the pilot during landing.

4. SAFETY RECOMMENDATIONS

The final report of the air accident investigation does not contain any recommendations.

In Bratislava, 12 July 2017