



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



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

Reg. No.: SKS2012002

FINAL REPORT

on investigation of serious incident
unauthorized access of vehicle to an active RWY 31

Date: 14.08.2012

Place: M.R. Štefánik Airport Bratislava / LZIB

A. INTRODUCTION

The investigation of air accident, serious incident, 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 Air Accident and Incident Investigation to the Convention on International Civil Aviation.

The exclusive aim of investigation is to establish causes of accident, serious 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 the air accident in question have an informative character and can only be used as recommendation for the implementation of measures to prevent occurrence of other air accidents and serious incidents with similar causes.

ABBREVIATIONS

Abbreviation	Slovak meaning / English meaning
AGL	Nad úrovňou zeme / Above ground level
APN	Odbavovacia plocha / Apron
B734	Skratka v kóde ICAO pre lietadlo Boeing 737-400 / Abbreviation in the ICAO code for aircraft Boeing 737-400
BIOL	Oddelenie biologickej ochrany LK BTS / Biological Control Department of LK BTS
BTS	Skratka v kóde IATA pre Letisko M.R. Štefánika Bratislava / Abbreviation in the IATA code for the M. R. Štefánik Airport Bratislava
ES TWR	Vedúci zmeny TWR / TWR senior air traffic controller
LK BTS	Spoločnosť Letisko M.R. Štefánika – Airport Bratislava, a.s.
LMU	Letecká mimoriadna udalosť / Occurrence
LPP	Letecké prevádzkové plochy / Operational area
LPS SR, š.p.	Letové prevádzkové služby Slovenskej republiky, štátny podnik / Air traffic services of the Slovak Republic
LZIB	Skratka v kóde ICAO pre Letisko M.R. Štefánika Bratislava // Abbreviation in the ICAO code for the M. R. Štefánik Airport Bratislava
MDVRR SR	Ministerstvo dopravy, výstavby a regionálneho rozvoja Slovenskej republiky / Ministry of Transport, Construction and Regional Development of SR
MHz	Megahertz
OLED	Odbor letiskového dispečingu / Aerodrome Control Department
RWY	Vzletová a pristávacia dráha / Runway
TAR/SRE	Prehľadový radar koncovej riadenej oblasti alebo prehľadový radar riadeného okrsku / Terminal area surveillance radar Okrskový prehľadový radar / Surveillance radar element of precision approach radar system
THR	Prah dráhy / Threshold
TWR	Letisková riadiaca veža alebo letisková služba riadenia / Aerodrome control tower or aerodrome control
TWY	Rolovacia dráha / Taxiway
UTC	Svetový koordinovaný čas / Co-ordinated Universal Time

Operator / Owner:	SAMAIR
Type of operation:	commercial flight
Type of aircraft:	B734
Registration number:	OM-SAA
Landing site:	LZIB
Flight phase:	final approach and landing
Place of serious incident:	crossing of RWY 31 and RWY 04 LZIB
Concerned ground units:	LPS SR, š.p., TWR LK BTS – BIOL
Used radio frequency:	GROUND 121,7 MHz
Date and time of detection of occurrence:	14.08.2012, 10:54 - 10:55 h

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

B. INFORMATIVE SUMMARY

On 14 August 2012 the aircraft B734, registration No. OM-SAA, was implementing the procedure for final approach and landing on RWY 31 LZIB. When the aircraft was in the phase of final approach to THR RWY 31, a biological control vehicle with call sign „SOKOL“ entered the intersection of RWY 31 and RWY 04 without authorization from TWR. By order of TWR the aircraft made a manoeuvre – procedures for repeated final approach and finally landed on the airport LZIB.

The pilot, the aircraft crew and the driver of vehicle were not injured.

The following persons were appointed for investigation of the serious incident:

Ing. Ivo HRUŠOVSKÝ – chairman of the Investigation Board
Lic. Jaroslava MIČEKOVÁ – member of the Investigation Board

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 Course of serious incident

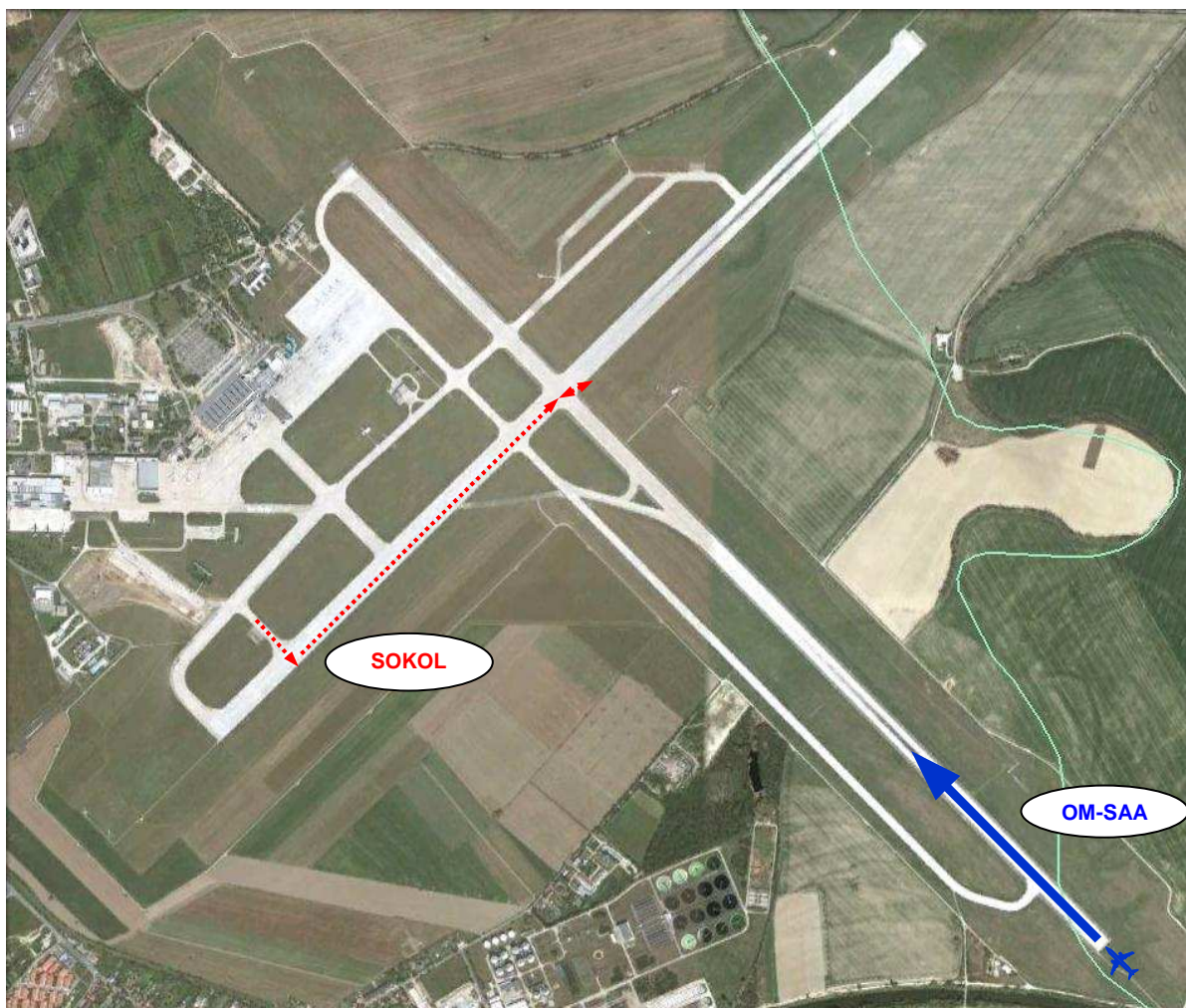
At LPP a BIOL staff member with vehicle with call sign „SOKOL“ was rousing the birds to prevent potential collision of an aircraft with birds. LPP were in use (not closed). The communication on authorized movements of employees on LPP between BIOL and TWR was running on a frequency 121.7 MHz. This procedure was in compliance with the internal document of LK BTS - organizational standard ON-03/2005 Traffic regulations of the M.R. Štefánik Airport in Bratislava.

At 10:53:35 „SOKOL“ called on the operating frequency (121.7 MHz) and requested for authorization for movement from APN through TWY C to RWY 04 and then along RWY 13 to the location (receiving unit - devices TAR/SRE). „SOKOL“ received from TWR the authorization for access to RWY 04. He was ordered to stop in front of RWY 31 or to continue from RWY 04 through TWY F and to stop in front of TWY G. „SOKOL“ confirmed the message from TWR, although it was not fully legible.

At 10:54:40 „SOKOL“ called TWR to inform them that he entered RWY 31 by mistake, but that he was already outside the operational area. However, the aircraft OM-SAA flying on the line CCS 450P was already making, by orders from TWR, the final approach to LZIB, because a vehicle was moving on RWY 31 in the final phase of approach.

At 10:55:40 TWR informed that the vehicle „SOKOL“ had not been permitted to enter RWY 31, but that it had been supposed to stop in front of RWY 31 and wait for further instructions from TWR, or to continue to TWY F and TWY G and to stop in front of RWY 31. „SOKOL“ informed TWR that he had forgotten to stop in front of RWY 31 when performing his activity.

The commander of aircraft OM-SAA broke off final approach in an altitude of 400 ft AGL (i.e. about 1,930 m in front of THR RWY 31) and following the instructions of TWR made a manoeuvre – procedures for repeated final approach (communication on frequency 120.9 MHz). Only after this manoeuvre and landing he received information that the vehicle „SOKOL“ had been moving on RWY 31 and blocking the air traffic.



Daytime: day

The serious incident was reported by LPS SR, š.p. to the Aviation and Maritime Investigation Authority of the Ministry of Transport, Construction and Regional Development of the Slovak Republic.

1.2 Injuries to persons

No personal injury.

1.3 Damage to aircraft and vehicle

No damage.

1.4 Other damages

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

Information about crew of aircraft – not applicable.

Information about crew of vehicle – the driver of vehicle „SOKOL“ is a holder of valid licence – limited licence of radio telephonist of aeronautical mobile service II, issued by the Telecommunications Office of the Slovak Republic, and a holder of valid operational area driver's licence, issued by the company Letisko M.R. Štefánika – Airport Bratislava, a.s. (BTS). He also participated in the training from internal organizational standard ON-03/2005 Traffic regulations of the M.R. Štefánik Airport, Bratislava.

1.6 Aircraft information

Not applicable.

1.7 Meteorological situation

Meteorological conditions had no influence on the occurrence of the serious incident.

1.8 Aids to navigation

Not applicable.

1.9 Communications

The aircraft was equipped by radio communication system enabling two-way communication with all air stations at every moment of the flight.

The vehicle „SOKOL“ was equipped by radio communication system enabling permanent two-way communication with TWR LZIB.

1.10 Aerodrome information

The airport LZIB at the time of serious incident it was suitable for air traffic.

1.11 Flight recorders and other records

Flight recorders – not applicable.

Other recording systems – recordings of radio correspondence between TWR and „SOKOL“ were evaluated. The Flight Report was written by the commander of aircraft OM-SAA.

1.12 Wreckage and impact information

Not applicable.

1.13 Medical and pathological information

Not applicable.

1.14 **Fire**

No fire broke out.

1.15 **Survival aspects**

The search and rescue were not required.

1.16 **Tests and research**

No tests or research were required.

1.17 **Organizational and management information**

The operator of the airport LZIB is a company that holds the operating licence valid until 31.10.2012.

1.18 **Additional information**

Not applicable.

1.19 **Useful or effective investigation techniques**

Standard investigation methods were used.

2. **ANALYSIS**

In spite of the order from TWR to stop in front of RWY 31, the driver of vehicle „SOKOL“ did not observe this order due to omission and in the effort to rouse more birds entered the said RWY, where the aircraft OM-SAA was making a landing manoeuvre at the critical time.

The aircraft was in the final approach and landing phase. The air traffic controller properly issued the order to the aircraft crew to break off and repeat the landing manoeuvre, by which he prevented a potential collision between the aircraft and the vehicle „SOKOL“.

Although it was partially illegible, radio correspondence between TWR and the driver of vehicle „SOKOL“ proved that the driver had confirmed the reception of the orders to stop in front of RWY 31, but in his effort and concentration to his activity (rousing of the birds) he had forgotten it.

TWR informed the crew of aircraft OM-SAA about authorized access of vehicle to RWY 31 only after they have issued the order for implementation of failed approach procedures.

3. CONCLUSIONS / Cause of serious incident

Findings

- the driver of vehicle „SOKOL“ had valid documents required for performance of the said activity,
- nobody was injured in the serious incident,
- neither the aircraft nor the vehicle were damaged,
- nonstandard phraseology was used in the communication between TWR and the vehicle „SOKOL“.

Cause of serious incident

- the vehicle „SOKOL“ entered RWY 31 without authorization from TWR, because the driver forgot the order to stop in front of RWY 31 – failure of human factor.

4. SAFETY RECOMMENDATIONS

On the basis of investigation of causes of serious incident

- unauthorized access of vehicle to active RWY 31, which occurred on **17.08.2012** at the M. R. Štefánik Airport Bratislava, we recommend:

LPS SR, š.p.

- to analyze the serious incident, putting stress on the use of standard phraseology.

The operator of LK BTS

- to analyze the serious incident with concerned operating and maintenance unit personnel and employees of BIOL LK BTS;
- to organize retraining and examination from ON-03/2005 Traffic regulations of the M. R. Štefánik Airport Bratislava for category of operational area drivers and BIOL employees.

Bratislava, 10.09.2012