

# PRELIMINARY REPORT



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ACCIDENT 2022/2700

State Commission on Aircraft Accidents Investigation (PKBWL)

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# PRELIMINARY REPORT

## ACCIDENT

OCCURENCE NO – 2022/2700

Aircraft – Cessna 152, SP-AKW

DATE AND PLACE OF OCCURRENCE – 2 June 2022, Rębielice  
Królewskie



The Report is a document presenting the position of the State Commission on Aircraft Accidents Investigation concerning circumstances of the air occurrence, its causes and safety recommendations. The Report was drawn up based on information available on the date of its completion.

Use of the Report for purposes other than air accidents and incidents prevention can lead to wrong conclusions and interpretations.

This Report was drawn up in the Polish language. Other language versions may be drawn up for information purposes only.

**WARSAW 2022**

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## General information

Occurrence reference number:	2022/2700			
Type of occurrence:	ACCIDENT			
Date of occurrence:	2 JUNE 2022			
Place of occurrence:	Rębielice Królewskie near Kłobuck			
Type and model of aircraft:	Cessna 152			
Aircraft registration marks:	SP-AKW			
Aircraft user/operator:	Private Limited Company			
Aircraft Commander:	LAPL(A)			
Number of victims/injuries:	Fatal	Serious	Minor	None
	2	–	–	-
Domestic and international authorities informed about the occurrence:	ULC, EASA, NTSB			
Investigator-in-Charge:	Ireneusz Boczkowski			
Investigating Authority:	State Commission on Aircraft Accidents Investigation (PKBWL)			
Accredited Representatives and their advisers:	None			
Document containing results:	PRELIMINARY REPORT			
Safety recommendations:	None			
Addressees of the recommendations:	Not applicable			

## FACTUAL INFORMATION

### 1. History of the flight

On 2 June 2022, in the late afternoon, the airplane pilot decided to perform a recreational flight with a passenger on the Cessna 152 airplane, registration marks SP-AKW. The airplane was previously operated and refuelled by another pilot. The weather was thermal and windy, but the conditions for take-off and flight were good: excellent visibility, high cloud bases, wind in the take-off axis (Fig. 1).



Fig. 1 Cessna 152 SP-AKW before take-off roll [source: PKBWL]

The pilot, without performing the pre-flight inspection, took a seat in the cabin together with the passenger. At 17:43 hrs LMT<sup>1</sup>, the airplane took off from the concrete runway (RWY 28) of EPRU aerodrome.

According to the notification provided by PANSa, the pilot performed a flight to Wieluń town, that was 58 km away from EPRU. The pilot probably managed to reach the destination, what was confirmed by another pilot, who was on the ground and saw Cessna 152 near that town.

The airplane SP-AKW was equipped with a built-in FLARM<sup>2</sup> device, which communicated with OGN<sup>3</sup>.

At 18:44 hrs Aeronautical Rescue Coordination Centre (ARCC) informed PANSa about accident to an airplane, which was later identified as SP-AKW.

The accident occurred in Rębielice Królewskie (Fig. 2).

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<sup>1</sup> All times in the Report are in LMT (Local Mean Time). On the day of the occurrence LMT= UTC+2h

<sup>2</sup> FLARM (an acronym based on 'flight alarm') is the proprietary name for an electronic device which is in use as a means of alerting pilots of small aircraft, particularly gliders, to potential collisions with other aircraft which are similarly equipped. The system, based on accurate GPS data, analyzes and predicts the flight trajectory, calculating, inter alia, collision courses and informing the pilot of the aircraft about the risk and degree of risk of a potential collision.

<sup>3</sup> OGN (Open Glider Network) operating in the 868 MHz band frequency, enables the reception of position signals from aircraft on which FLARM system is installed.

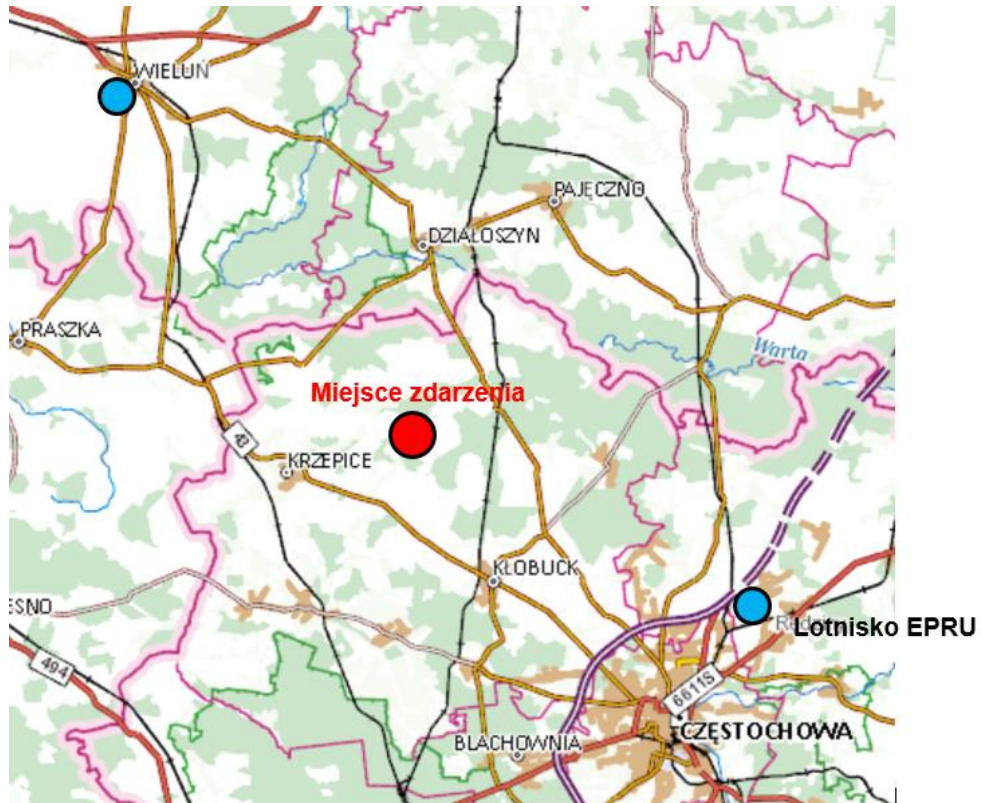


Fig. 2 Take-off place, destination, and place of the accident [source: Geoportal]

The scale of the damage indicates that the airplane collided with the ground (farmland) at high speed.

The last record of WGS 84 coordinates: 51°00'44.9N, 18°51'19.6E, indicated the position of the aircraft as it is marked in Fig. 3.

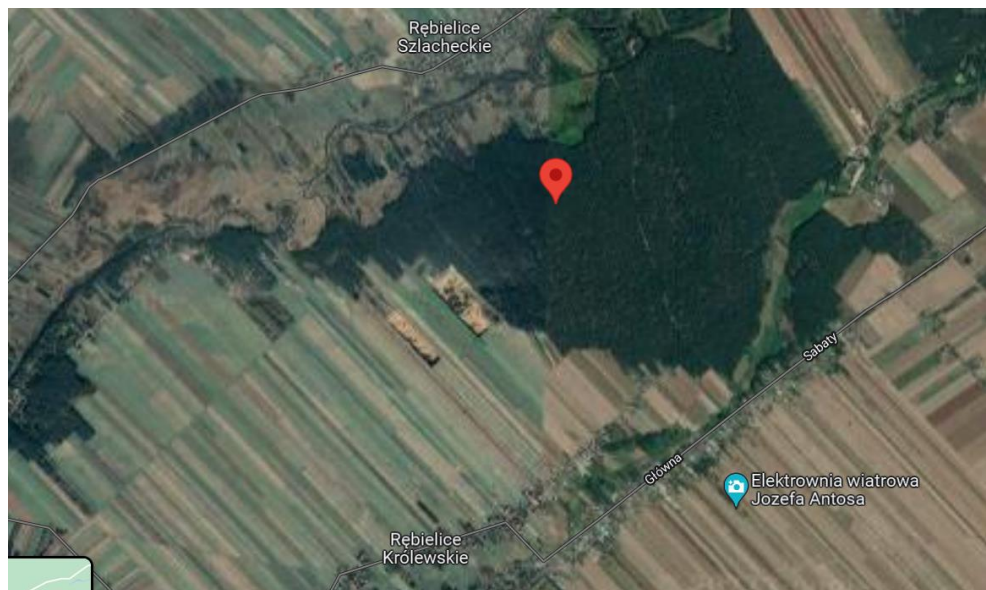


Fig. 3 The last identification of the airplane position, captured by the OGN [source: Google Maps]

## 2. Injuries to persons

Table 1.

Injuries	Crew	Passengers	Others	Total
Fatal	1	1	-	2
Serious	-	-	-	-
Minor	-	-	-	-
None	-	-	-	-

## 3. Damage to aircraft

The airplane was destroyed. The force of the impact tore the airplane structure apart, and it moved around the farmland in a disorderly manner. None of the main components of the structure preserved its geometry. Although the condition of the wreckage did not allow to determine the kinematic continuity of the airplane control elements, the investigation team made efforts aimed at assessment of the connections in the control surfaces drive systems. However, the obtained results are not reliable in the final assessment of the operation of the aircraft flight control components.

It was not possible to recreate the seating positions of the pilot and passenger in the cabin.

There was no fire.



Fig. 4 Traces and the wreckage of the airplane after the collision with the field [source: Police]

## 4. Other damage

None.

## 5. Personnel information (crew data)

Pilot: male, aged 58, with the following authorizations:

- LAPL(A), issued 10 March 2022 by the President of Civil Aviation Authority of the Republic of Poland, entitles to fly single engine aircraft with a maximum certificated take-off mass of 2 000 kg or less in non-commercial operations;
- SEP(L), without a defined expiry date;
- Aviation Medical Certificate LAPL, issued 10 September 2020, valid until 10 September 2022 with the VNL limitation <sup>4</sup>.

**Table 2. Pilot's flight experience (in hours) until the day of accident**

Last	7 days	90 days	Total flight time
	0:52	5:52	about 40 h

## 6. Aircraft information

Cessna 152 is a two-seat, single-engine high wing braced monoplane of all-metal construction. It has a conventional fixed tricycle landing gear with a nose wheel. This airplane is powered by a 4-cylinder, carburetted Lycoming O-235 L2C, around 108 HP engine with two-blade fixed pitch McCauley propeller, model 1A 103.



Fig. 5 Cessna 152, SP-AKW [source: Internet]

**Table 2. General information – Airplane SP-AKW**

Year of manufacture	Manufacturer	Serial Number	Registration marks	Register number	Register date
1979	Cessna Aircraft Co. USA	15283490	SP-AKW	3673	08.02.2022

<sup>4</sup> VNL – Near Vision Limitation.



Certificate of Airworthiness issued 15 September 2017.

Airworthiness Review Certificate valid until: 09 September 2022.

Radio permit valid until: 11 October 2028.

Certificate of Release to Service - 50 h check (airframe and engine) of 13 May 2022.

Maintenance Statement (MS) of 14 May 2022.

Next planned service – inspection every 600 h/12 months, not later than 06 July 2022.

On the day when the Maintenance Statement was issued, the airframe time since new (TSN) was 18,268 hours, with 12,826 landings, engine TSN was 1250 hours, and the propeller TSN was 1450 hours.

The airplane's insurance was within the validity period.

The airworthiness records and the maintenance status for compliance with the Maintenance Program were complete.

As for the accident day, the Aircraft Technical Logbook (PDT) on the contained the entries of three pilots. On that day, before the accident flight, the airplane performed 3 flights during 2.26 MT (2 hours 15 minutes).

PDT did not contain any entries related to technical failures.

## **7. Meteorological information**

The flight was performed in daylight in Visual Meteorological Conditions (VMC). Cloud cover, about an hour before the occurrence, is presented in Fig. 1. The weather along the flight route was similar.

## **8. Aids to navigation**

They were not used.

## **9. Communications**

The pilot maintained radio communication with FIS Kraków on the frequency of 119.275 MHz. The details of the correspondence will be established after PANSA makes the recordings of the calls available. The pilot was communicating with FIS Kraków on the frequency 119.275 MHz. The details of the correspondence will be established at the later stages of the investigation.

## **10. Aerodrome information**

The Rudniki aerodrome (EPRU) is located 9.5 km from the city of Częstochowa, from with its ARP<sup>5</sup> 262 m AMSL. The aerodrome is approved for operations of airplanes, helicopters, gyroplanes, gliders, paragliders, powered paragliders, powered hang

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<sup>5</sup> ARP – Aerodrome Reference Point

gliders and parachutes, in accordance with VFR during day and night, for aircraft with MTOW below 5,700 kg.

## 11. Flight recorders

The plane was not equipped with any flight recorders. However, it had the FLARM anti-collision system, which via OGN was transmitting data on the position of the aircraft.

## 12. Wreckage and impact information

### 12.1 Place of occurrence

The collision with the surface of the farmland occurred approx. 200 m north-east of the Rębielice Królewskie village on the southern side of the forest complex.

Coordinates of the place of the occurrence: 51°00'18.3" N, 018°51'37.7" E.

### 12.2 Wreckage

The general view of the accident site is shown in Fig. 4

## 13. Medical and pathological information

The energy of the airplane collision with the surface of the farmland and the condition of the wreckage excluded the possibility of survival for the pilot and the passenger.

## 14. Fire

No traces of fire in flight or after the impact with the ground were found.

## 15. PKBWL planned activities

- 1) Visual inspection and examination of the powerplant;
- 2) An attempt to recover FLARM data and analysis of possibly obtained data;
- 3) Acquisition and analysis of the recording of the pilot's radio communication;
- 4) Acquisition and analysis of the meteorological data;
- 5) Acquisition and analysis of the autopsy report.

**THE END**

*Investigator-in-Charge*

*Signature on original*

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