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PRELIMINARY REPORT

of

State Commission on Aircraft Accidents Investigation

dated 21 October 2024

from the investigation of a serious incident

2024-0096

OCCURRENCE NUMBER

Robinson R44 II helicopter, SP-CBW

22 September 2024, Warszawa

This Preliminary Report was issued by the State Commission on Aircraft Accidents Investigation on the basis of information available on the date of its issue.

This Report presents the circumstances of the aviation occurrence concerned and safety recommendations, if issued.



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1. Course of the occurrence

On 22 September 2024, the pilot planned a recreational flight in a Robinson R44 II helicopter, SP-CBW registration number, along the route Warsaw Babice (EPBC) - Krosno (EPKR) - Arłamów - Warsaw Babice. The pilot invited three acquaintances for that flight. The pilot and the passengers arrived at EPBC airport at approximately 06:20 hrs LMT¹. The pilot familiarized himself with the meteorological situation and checked the occupancy of the zones on the planned flight route. After obtaining information about the synoptic situation and the lack of occupancy of zones, the pilot began to perform a pre-flight inspection. In accordance with the checklist, he found that there were about 140 liters of AVGAS 100 LL fuel in the helicopter tanks, he checked the fuel sediment twice and secured a sample. The oil level in the main gearbox and the tail rotor angle gearbox was in accordance with the manufacturer's recommendation. The pilot checked the engine oil level, then topped up the oil level to the recommended level by adding about 0.5 liters of oil. After the inspection, the pilot assigned seats in the cabin to the passengers. The first in the front on the left seat, the next two passengers on the rear seats. The pilot took the right front seat in the helicopter cabin. The pilot established communication with TWR EPBC and was cleared to start the engine. During the start-up, the pilot performed an engine test with the result of "no comments". After obtaining the take-off parameters and establishing communication with TWR EPBC, he was cleared to take off. The pilot confirmed the clearance and commenced take-off from the "FATO" point of EPBC airport. During take-off, while hovering, during climb and in flight, all parameters were normal. After landing in Arłamów, the pilot refilled the engine oil level to the recommended value by adding about 1 liter of oil. On the last section of the Arłamów - EPBC route, flying at an altitude of 1500 ft and maintaining a speed of about 90 kt, the pilot observed that the charging pressure approached the value of 24 PSI. With about 6 minutes to landing, the helicopter began to lose altitude despite the change in flight parameters. After establishing communication with TWR EPBC, the pilot was cleared to enter the airfield traffic circle. A moment later, flying at an altitude of approximately 1,000 feet in the area of navigation point ZULU, he informed TWR EPBC that due to loss of engine power he would be performing an emergency, off-field landing.

The landing took place in a fortuitous area at a distance of approximately 1.5 km from the ZULU point. After touchdown, the pilot performed the standard engine cooling procedure, shutting it down and stopping the main rotor blades.

The pilot ordered the passengers to leave the helicopter. The pilot then established contact with TWR Babice, providing information that:

- the helicopter was not damaged,
- the pilot and passengers did not suffer any injuries.

¹ All times in this Report are given as LMT. On the day of the occurrence LMT=UTC+2.

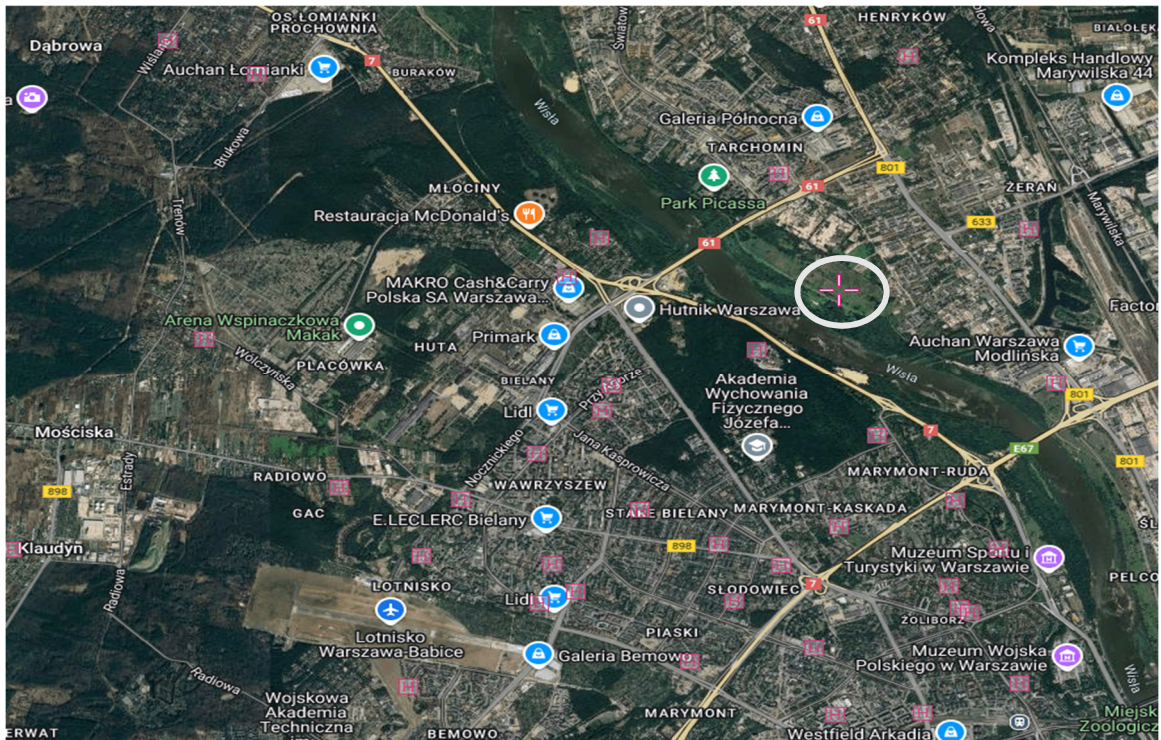


Fig. 1. Emergency landing site of the helicopter, coordinates 52°18'09.1"N 20°58'11.1"E, marked with a marker (source: <https://www.google.pl/maps/>).



Fig. 2. Emergency landing site of the R44 II helicopter, SP-CBW. (source: photo of the pilot).



Fig. 3. Emergency landing site of the R44 II helicopter, SP-CBW. (source: photo of the pilot).

2. Injuries to persons

Table 1. Summary of the number of injuries.

Injuries	Crew	Passenger	Total in the aircraft	Others
Fatal	-	-	-	-
Serious	-	-	-	-
Minor	-	-	-	-
None	1	3	4	-
TOTAL	1	3	4	-

3. Aircraft damage

The helicopter was not damaged.

4. Other relevant information

On 22 September 2024, in the afternoon, stable weather conditions prevailed over most of Poland. It was a sunny day with slight and moderate cloudiness.

The weather had no influence on the occurrence.

5. Activities undertaken by the SCAAI Investigation Team

The helicopter was inspected and no damage was found. The engine is planned to be dismantled and further examined.

6. Safety recommendations

None.
