Introduction

Occurrence class		Serious Incident
Aircraft	Type	PZL 101/A, Gawron
	Registration	HA-SBG
Occurrence	Date and Time	05. June, 2022, 18:06 LT[1]
	Location	Farkashegy airfield (LHFH)
Purpose of the flight		glider towing
Fatalities / Severe Injuries		the Pilot suffered minor injuries
Damage to Aircraft		Substantial

On 5th June, 2022 at 18:06 LT a PZL-101/A Gawron aircraft (HA-SBG) landed at Farkashegy airfield (LHFH) and turned over and stopped upside down on the runway during the roll after touch down. The pilot was taken to hospital with minor injuries, the aircraft was damaged in the incident.

The Investigation Committee (hereinafter: IC) attributed the direct cause of the incident to the excessive braking force used by the Pilot to stop the aircraft. The shorter runway due to the non-runway direction landing, the high position of the aircraft's center of gravity, the dynamic operation of the air brake and the pilot's lack of landing experience with the type also contributed to the incident.

The IC of the Transport Safety Organization (hereinafter: TSB) found no grounds to issue a safety recommendation.

Figure 1: the aircraft after the event

[1] LT: *Local Time*

Analysis

The pilot, with significant flight time and a large amount of landing experience, had little experience with the aeroplane involved in the incident and also with aeroplanes that have similar brake type.

Due to the centre of gravity of the aircraft and the characteristics of the air brake increased attention must be paid to the application of brake force during the roll-out phase, because the dynamic operation and special handling of the airbrake – although initially delayed due to the compressibility of the air – make it very easy to produce excessive brake force. The aircraft's centre of gravity is both high and relatively forward (not far behind the main landing gear), so that when braking intensively at high speed the aircraft is prone to roll over.

The experienced pilot with little experience on the type landed the aircraft slightly diagonally on the runway due to the crosswind. In the IC's opinion the chosen landing direction and the wind forces during the roll-out may have given the pilot the sensation of running off the runway, which he compensated by braking more intensively than necessary. The dynamic action of the airbrake caused the pilot to roll the aircraft over.

The Pilot may have sustained his injuries in the overturned aircraft by sliding out of the seat upside down – in the absence of a shoulder harness – and hitting his head on the top of the cockpit.

Conclusions

During its safety investigation, the IC concluded that the direct cause of the incident was that the Pilot applied too much brake force to stop the aircraft, which led to the overturning of the aircraft.

In addition to the above, the IC identified the following indirect causes and contributing factors:

- the "shortness" of the runway due to off-track landing;
- the tendency of the aircraft to tilt and overturn due to the position of the center of gravity;
- the dynamic operation of the air brake;
- the Pilot had little landing experience with the type.

The IC of the TSB found no grounds to issue a safety recommendation.