Air Accident Investigation Unit
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Mobility and Transport
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Safety Investigation Report

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About this report

As per Annex 13 and EU regulation EU 996/2010, each civil aviation safety investigation shall be concluded with a report in a form appropriate to the type and seriousness of the accident and serious incident. For this occurrence, a limited-scope, fact-gathering investigation and analysis was conducted in order to produce a short summary report.
It is not the purpose of the Air Accident Investigation Unit to apportion blame or liability. The sole objective of the investigation and the reports produced is the determination of the causes, and, where appropriate define recommendations in order to prevent future accidents and incidents.

SYNOPSIS

Classification:	Serious incident	**Occurrence category:**	Abnormal runway contact - ARC
Level of investigation:	Limited	**Type of operation:**	Non-commercial – Ultralight
Date and time:	31 October 2019 15:55 UTC	**Phase:**	Take-off
Location:	Runway 09 Aerodrome of Saint-Ghislain (EBSG)	**Operator:**	Private
Aircraft:	Aerospool Dynamic WT9	**Aircraft damage:**	Minor
Aircraft category:	Fixed-wing - Ultralight	**Injuries:**	None

Abstract:

During a touch and go, the landing gear was mistakenly retracted causing a collapse. No one got injured.

Table 1: Summary of factors

Organisational	Not determined
Aircraft	Landing gear system – Landing gear selector – Unintentional use (Cause) Landing gear system – Landing gear selector – Design (Factor)
Personnel	Action – Incorrect action performance (= 'slip') - Pilot (Cause)
Environmental	Not determined

1. FACTUAL INFORMATION

1.1 Description of the event by the pilot:

"On the 31st of October 2019, I flew with my passenger from Kortrijk (EBKT) to the airfield of Saint Ghislain (EBSG) as a leisure flight with the intention to practice some landings at EBSG. First we made a full stop to complete the aerodrome administration and pay the landing fees. Upon completion, we went back to the aircraft and prepped for start-up. Once ready, we started rolling toward the holding point of the active runway 09. With all checks performed; ready for departure; we took off on own discretion. We completed two eventless circuits/landings. I had the intention to leave for EBKT after the third and final touch and go. After landing for the third time, during the reconfiguration from landing to take-off, I mistook the landing gear switch instead of the flaps switch. I quickly repositioned the landing gear lever but the harm was already done. With little weight on the nose wheel, it collapsed with as result that the nose went down, the propeller hit the ground and the aircraft's nose cowling started scratching the runway surface until we stopped moving. We quickly shut down all electrical systems and closed the fuel valve. We then got out of the aircraft, both of us unharmed. We were able to lift the nose up again and position the nose wheel in the extended state to push the aircraft into a hangar offered by the airport commander.

The IAS (indicated airspeed) must have been between 80 and 90 km/h."

Figure 1: showing the position of the 2 switches (flaps switch above, landing gear switch below) on the center console

1.2 Damage to aircraft

One bended propeller blade, nose wheel strut scratched, landing light broken, exhaust pipe, scratched, engine cowling scratched.

1.3 Personnel information

Table 2: General pilot data

License	Valid foreign ULM license

Table 3 : Flying experience pilot

Total time:	+- 170 flight hours
Total on Type:	43 flight hours
Total on Type Past 90 Days:	6 flight hours
Total on Type Past Month:	2 flight hours

1.4 Injuries and survivability

No one got injured, both occupants were wearing the 4-point harness installed.

1.5 Aircraft information

Aerospool WT9 Dynamic is a Slovak ultralight and light-sport aircraft. It features a cantilever low-wing, a two-seats-in-side-by-side configuration enclosed cockpit, fixed or retractable tricycle landing gear and a single Rotax 912 ULS engine.

The aircraft involved is foreign registered.

The aircraft with retractable landing gear is equipped with non-opening signalization and retraction blockage on the ground. Disabling of the possibility to retract a landing gear when the speed is below 43 kt (80 km/h) is established by a so-called gear-blocking body that is connected to both the static ports and pitot tube. The system does not allow gear retracting and signalizes this operation error by flashing of three green control lights on the landing gear control panel.

2. SAFETY ACTIONS

Comment from the manufacturer:

“The speed of 43 kt / 80 km/h of the landing gear retraction blockage was determined on the assumption that the Dynamic with 472.5 kg is already safely in the air.
Due to previous “unwanted” landing gear retractions, the adjusted value has been increased from 80 km/h to 100 km/h - New production (DYN-130-69-ZP Rev. a, dated 24.10.2018).
However, we did not issue any newsletter for already flying aircraft as the system is primarily intended to prevent the undercarriage from accidentally closing on the ground.”