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In accordance with Annex 13 to the Chicago Convention and Regulation (EU) No. 996/2010 of the European Parliament and the Council on investigations and prevention of accidents and incidents in civil aviation, and based on the fourth paragraph of Article 137 of the Aviation Act (Official Gazette of the Republic of Slovenia, no. 81/10, 46/16 47/19 and 18/23) and the Regulation on the Investigation of Aviation Accidents, Serious Incidents, and Incidents (Official Gazette of the Republic of Slovenia, no. 72/03 and 110/05), the fundamental objective of accident and incident investigations is to improve safety in aviation. **The sole objective of safety investigations is to prevent future accidents and incidents, not to determine fault or liability.**

# NOTICE OF COMPLETION OF INVESTIGATION
# Serious incident involving WT9 600 FG Dynamic, Reg. D-MSHU, 1 May 2025, Mangart near LJBL

## GENERAL:

An ultralight aircraft, Aerospool WT-9 Dynamic, carrying two persons on board, departed from Straubing Airport (EDMS), Germany, shortly after 09:00 local time on 29 May 2025, with the intention to conduct a ferry flight to Portorož Airport, Slovenia (LJPZ). During the en-route phase, the aircraft reached a cruising altitude of 9,500 ft and continued the flight across the Austrian Alps and then over Italy before entering Slovenian airspace.

According to the pilot's statement, the flight proceeded uneventfully and as planned until the aircraft approached the Kanin area, at which point the pilot initiated a descent from 9,500 ft to 8,500 ft.

Approximately 5 NM prior to reaching Kanin, the aircraft entered an area of light turbulence. As the aircraft decelerated during descent, the turbulence intensified to a degree that the passenger seated on the right-hand side struck their head against the canopy. The canopy fractured in the front windshield section, creating an opening of approximately 0.5 m².

As control of the aircraft was lost during a steep and rapid descent, the pilot deployed the ballistic recovery parachute system. Within seconds, the aircraft came to rest suspended in a tree on steep mountainous terrain.

Both the pilot and the passenger exited the aircraft uninjured and called for assistance. Based on the coordinates provided, the mountain rescue service (GRS) located the aircraft and dispatched a helicopter from the Helicopter Emergency Medical Service (HNMP SV). Both occupants were hoisted

from the inaccessible terrain and transported to a safe location, where further assistance was provided.

Figure 1: D-MSHU at the occurrence site

**Aircraft Information:**

- **Aircraft type:** Dynamic WT9 600 FG
- **Manufacturer:** Aerospool, s.r.o., Slovakia
- **Serial number:** DY-772D
- **Year of manufacture:** 2021
- **Registration mark:** D-MSHU (registered with the German aviation authority)
- **Propeller:** MTV, Entwicklung GmbH, Germany
- **Engine:** Rotax 914 UL, Rotax GmbH, Austria
- **Total flight hours:** 767 h 47 min (as of the date of the occurrence)
- **Airworthiness certificate:** Valid until the end of May 2025 (issued by DAeC)[1]
- **Maximum take-off weight (MTOW):** 600 kg[2]

[1] **Issued by the German aviation authorities for ULN aircraft –** https://lsgb.daec.de/

[2] **Manufacturer data –** https://www.aerospool.sk/index.php/ull-dynamic-wt9-600/

**Pilot Information:**

The pilot, a 39-year-old German national, held a Private Pilot Licence for aeroplanes (PPL(A)) and an ultralight aircraft licence (ULN).

**Licences and Ratings:**

- ULN licence issued on 16 September 2019 (No. 45252/19, issued by the German aviation authority)
- PPL(A) licence issued on 8 August 2023 (No. DE.FCL.62598, issued by the German aviation authority)
- SEP (land) rating valid from 23 March 2025 to 31 July 2025
- Class 2 and LAPL medical certificate issued on 28 February 2023, valid until 28 February 2028

**Flight Experience (as of the date of the occurrence):**

- Total flight time: 144 h 46 min
- In the last 12 months: 13 h 43 min
- In the last 30 days prior to the occurrence: 4 h 28 min

**Meteorological Information:**

Weather conditions on 1 May 2025

A high-pressure system prevailed over most of Europe. Northeasterly winds were advecting dry and slightly warmer air towards the area of Slovenia.

At the time of the occurrence, weather conditions over the Julian Alps were mostly clear, with cumuliform cloud coverage of 1/8 to 2/8 and cloud bases between 8,000 and 9,500 ft MSL. Visibility exceeded 30 km.

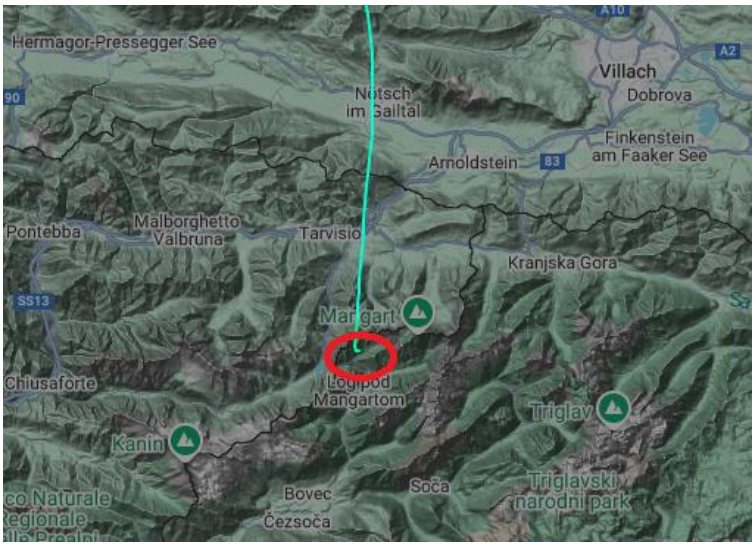

Figure 2: EUMETSAT visible spectrum satellite image at 10:45 LT

Figure 3: Northward view from Bovec Airfield at 11:00 local time

Near the surface, light local winds were observed, while light northeasterly winds prevailed at altitude. In the Bovec area, a valley wind was present, with an average speed of up to 3 knots and gusts up to 5 knots. Over the Kanin area, a southerly wind was observed with speeds up to 3 knots.

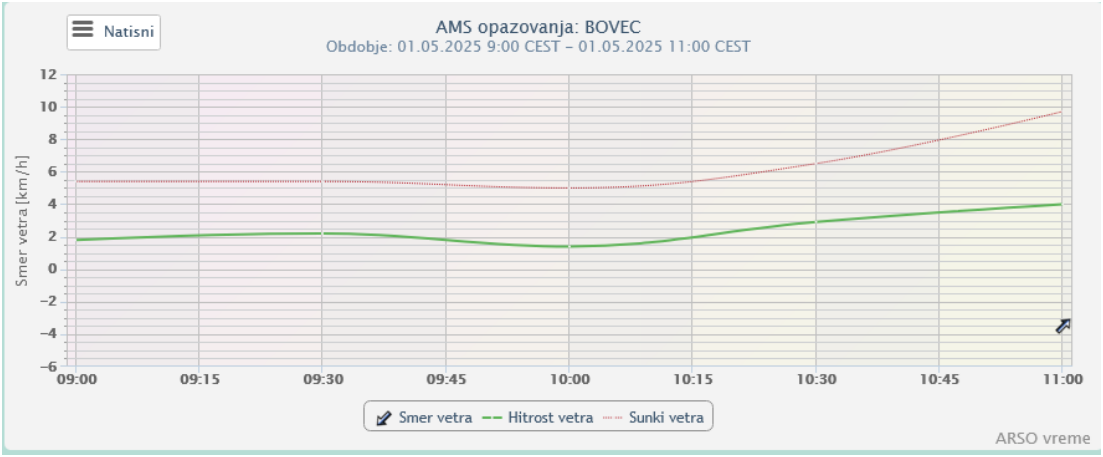

Figure 4: Wind speed measured at the automatic station at Bovec Airfield

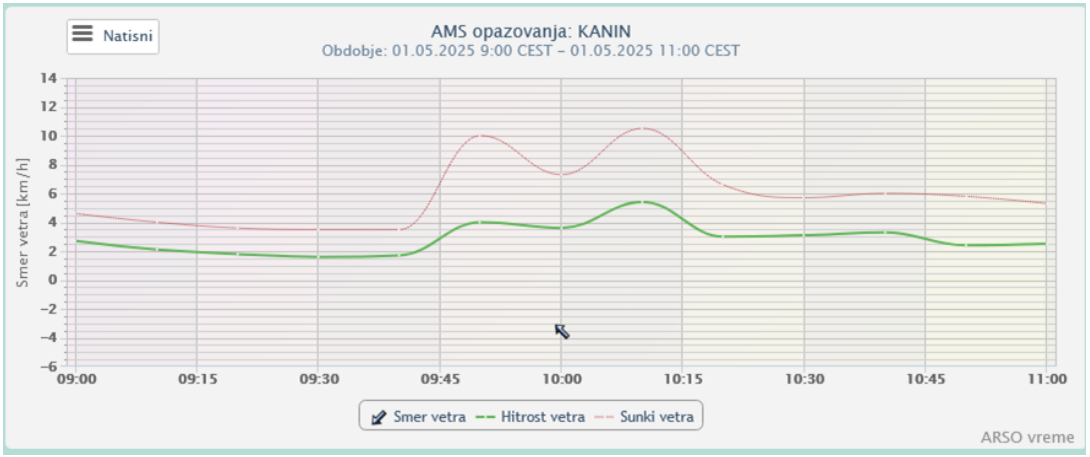

Figure 5: Wind speed measured at the automatic station on Kanin

Moderate thermal activity was forecast for the day (see Figure 6). At the time of the occurrence, thermals were not yet fully developed.

At the edges of thermal updrafts, weak turbulence could occur due to differences in vertical air movement.

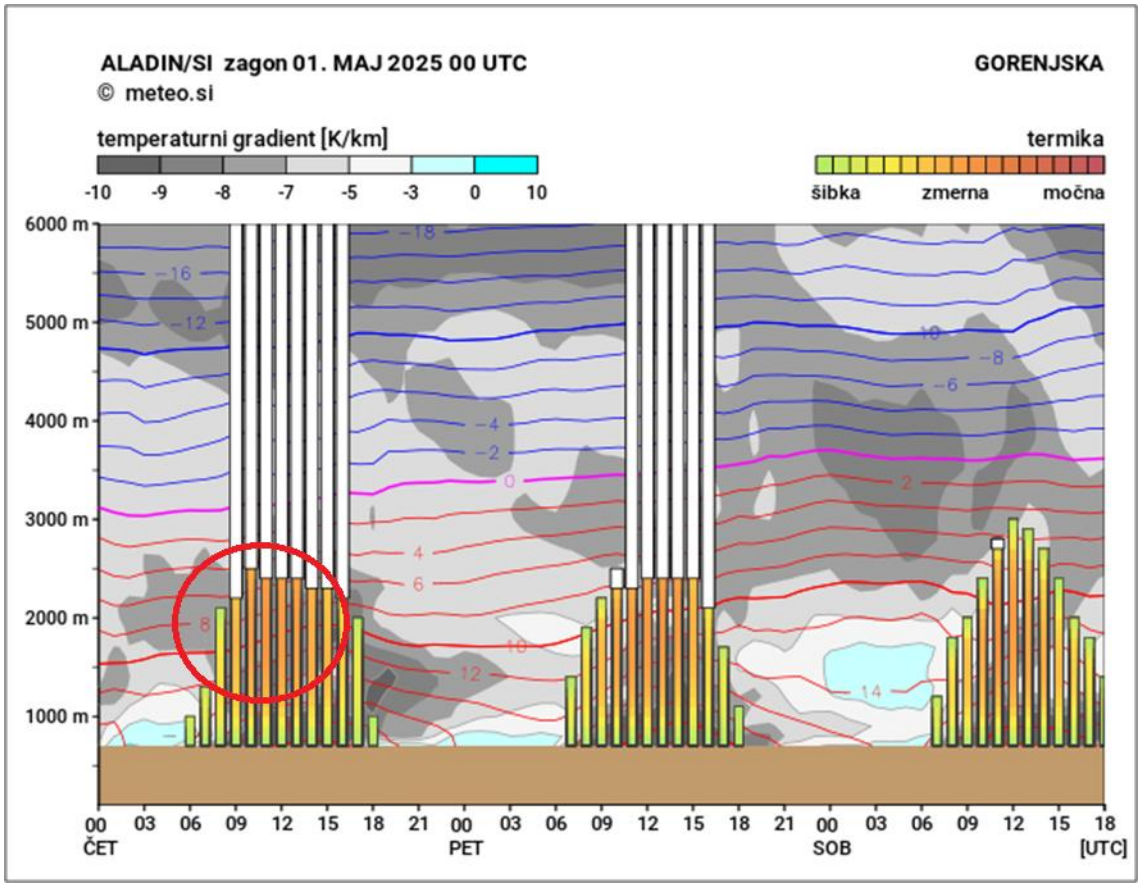


Figure 6: Thermal activity forecast for the Gorenjska region

**Summary of meteorological conditions**

On 1 May 2025, around 11:00 local time, the following weather conditions prevailed near the Mangart Saddle area:

- Horizontal visibility over 30 km
- Cumuliform cloud coverage (Cu) of 1/8 to 2/8 with bases between 8,000 and 9,500 ft MSL
- Light variable winds with speeds up to 5 knots
- Moderate thermal updrafts on sun-exposed slopes
- Possibility of weak turbulence at the edges of thermal activity

**ANALYSIS:**

The Safety Investigation Authority was immediately notified of the occurrence by the Regional Notification Centre (ReCO) and the Operational Communication Centre (OKC) Nova Gorica.

In the initial phase of the investigation, information was obtained from the Bovec Police Station, followed by statements from the pilot and the aircraft owner.

A review of the aircraft's documentation and the pilot's licenses was conducted. Subsequently, an analysis of the aircraft manufacturer's operational documents and pilot records was performed. No discrepancies or deficiencies were identified during the review.

Based on radar data obtained from the Slovenian Air Navigation Services (KZPS), an analysis of the flight trajectory was conducted. It revealed significant variations in airspeed and altitude at a specific point along the route, most likely due to the influence of severe turbulence.

Despite the use of a three-point safety harness, the passenger seated on the right side struck the canopy with his head during a period of strong turbulence. The impact caused the canopy to crack, resulting in an opening in the front section of the cockpit enclosure.

Figure 7: D-MSHU at the occurrence site with fractured front canopy

According to the pilot, who was seated in the left seat, the sudden and forceful dynamic air pressure entering through the cracked canopy caused a brief moment of disorientation. Shortly thereafter, the pilot lost control of the aircraft, which became unresponsive to control inputs.

The aircraft entered an uncontrolled, steep descent with a slight left bank, approaching the terrain. In an emergency, the pilot activated the ballistic recovery system (BRS). A few seconds later, the aircraft came to rest, suspended in a tree on a very steep slope.

The pilot's reaction and her decision to deploy the recovery parachute at a critical stage of flight control loss were appropriate and timely. The BRS performed its intended function successfully.

Following the analysis of the event, a review of the documentation provided by the aircraft owner, and an interview with the pilot, the Safety Investigation Authority concluded that, based on the established facts and the circumstances under which the serious incident occurred, no additional safety findings are expected with regard to the category of ultralight motorized aircraft involved in this occurrence.

In accordance with Article 5 of Regulation (EU) No. 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation, the Safety Investigation Authority hereby concludes the investigation with this notice.

Ljubljana, 21. 7. 2025

Toni STOJČEVSKI
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