## Bundesstelle für Flugunfalluntersuchung



German Federal Bureau of Aircraft Accident Investigation

# Investigation Report

The Investigation Report was written in accordance with para 18 Law Relating to the Investigation into Accidents and Incidents Associated with the Operation of Civil Aircraft stating facts only.

#### Identification

Type of Occurrence: Accident

Date: 28 January 2017

Location: Eschbronn - Mariazell

Aircraft: Airplane

Manufacturer / Model: F.A. UTVA, Pancevo / UTVA 66

Injuries to Persons: Pilot severely injured

Damage: Aircraft destroyed

Other Damage: Crop damage

Information Source: Investigation by BFU external experts for

field investigation

State File Number: BFU 17-0096-CX

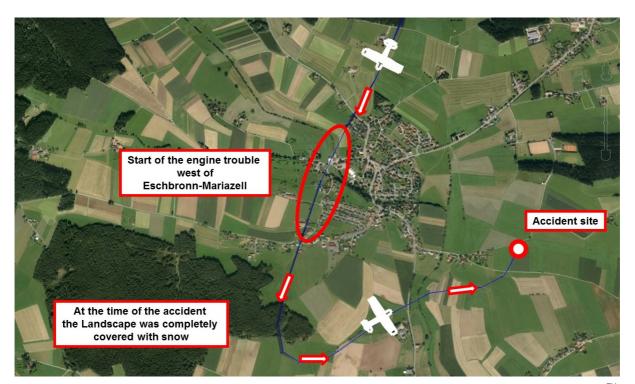
## **Factual Information**

## History of the Flight

At 1520 hrs<sup>1</sup> the pilot took off with the aircraft type UTVA 66 at Schwäbisch Hall Airfield (EDTY) for a cross-country flight to Donaueschingen-Villingen (EDTD).

<sup>1</sup> All times local, unless otherwise stated.





Flight path and accident site

Source: BFU/Google Earth map service™

Prior to take-off the pilot had conducted four traffic circuits with an employee of the maintenance organisation based at Schwäbisch Hall. He had not flown in more than six months and wanted to become familiar again with his airplane.

The employee of the maintenance organisation accompanied the UTVA 66 with another airplane in order to take the pilot/owner later back to Schwäbisch Hall.

Since the transponder of the UTVA 66 did not function correctly the pilot flew east around the control zone Stuttgart.

South-west of the control zone Stuttgart the pilot noticed that the fuel level was very low and shortly afterwards the engine began to misfire.

At the time of the engine failure he was west of Eschbronn-Mariazell flying south at about 1,000 ft AMSL, approximately 30 km from the destination.

After the engine had failed the pilot decided at about 1615 hrs to attempt an emergency landing east of Eschbronn-Mariazell at an ascending, open space covered in snow.

The pilot stated that he had pushed the airplane into the ground during landing in order to prevent the crossing of a street located at the end of the landing field.

During the landing the airplane was destroyed and the pilot suffered severe injuries.



## **Personnel Information**

Since 15 March 1995 the 54-year-old pilot held a private pilot's license (PPL(A)). The licence had been issued in Switzerland in accordance with Part FCL of the ICAO Standards and listed the type rating for single-engine piston land (SEP land); valid until 31 March 2017.

The class 2 medical certificate was valid until 4 April 2016 for PPL privileges and until 4 April 2017 for LAPL privileges.

According to his pilot log book, he had a total flying experience of 609 hour; of which 80 hours and 128 take-offs had been conducted on UTVA 66. In the last 90 days he had conducted four flights.

#### Aircraft Information

The aircraft was a single-engine strutted high-wing aircraft UTVA 66 produced by F.A. It was manufactured in 1970 in Serbia and had the manufacturer's serial number 51 102.

The four-seater UTVA 66 in all-metal construction was equipped with a non-retractable tailwheel and had a wing span of 11.40 m. The construction was designed for short field take-off and landing (STOL).

The aircraft was fitted with a Lycoming GSO-480-B1J6 engine with a 201 kW.

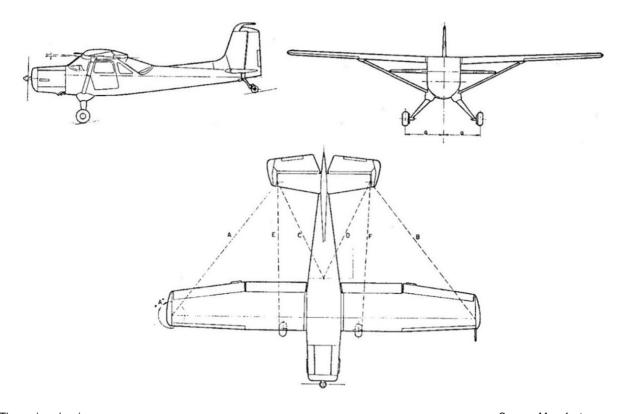
Its maximum take-off mass was 1,820 kg.

It had a Serbian certificate of registration and was operated privately.

The last annual check was conducted on 6 July 2016.

Total operating time was 1,193 hours since manufacture, of which 9 hours were conducted after an engine replacement.





Three-view drawing Source: Manufacturer

## Meteorological Information

Sunny winter weather with scattered clouds and a temperature of about -10 ℃ prevailed. The slight wind came from westerly directions.

## Flight Recorder

The aircraft was not equipped with a flight data recorder or a cockpit voice recorder. There were no legal requirements for such equipment to be fitted.

For the reconstruction of the flight path the BFU had GPS data available.

## Wreckage and Impact Information

The accident site was located about 10 km north-west of the city of Rottweil and 800 m south-east of Eschbronn-Mariazell within a rippled open country covered in snow.



The street and road network in the vicinity of the accident site had partially been cleared of snow and was therefore visible as such. The approach area located south of the accident site was clear of obstacles.



Accident site Source: BFU

The airplane was found on a meadow ascending from south to north and covered in snow. The fuselage pointed toward 360°.

Elevation was 720 m AMSL and the snow was approximately 15 to 20 cm deep.

Approximately 100 m north of the wreckage a street running west to east was located.

Impact and sliding traces of 16 m length were found in the snow south of the wreckage.

The wreckage of the UTVA was complete. The tail was still connected with all control cables and rods but had been torn off to the left. The tail section had not been damaged and remained connected to the tail.

Visually the left wing was intact, the right bent, and the right strut compressed. The flaps were found in approximately position 10° (flaps and lever position).

The propeller turned freely and the blades were bent backwards.

The fuselage was compressed, the left cockpit door dented. The right door was found open and could no longer be closed. The main landing gear leg was found next to the wreckage.





Accident site and impact traces

Source: BFU

The entire engine compartment was dry without any traces of leaking operating fluids. The lower spark plugs showed a white combustion pattern.

The right fuel tank did not contain any fuel; the right was filled with 15 l.

Visually the cockpit including seats, seat belts, and instrument panel did not show any damages.

Diverse documentation and a flexible uninstalled additional fuel tank were found behind the seats.

All control elements could be checked, the control column had jammed due to impact forces.



Investigator in charge: Klaus-Uwe Fuchs

Field Investigation: Matthias Felsch

Braunschweig: 2 June 2017

This investigation was conducted in accordance with the 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 and the Federal German Law relating to the investigation of accidents and incidents associated with the operation of civil aircraft (*Flugunfall-Untersuchungs-Gesetz - FlUUG*) of 26 August 1998.

The sole objective of the investigation is to prevent future accidents and incidents. The investigation does not seek to ascertain blame or apportion legal liability for any claims that may arise.

This document is a translation of the German Investigation Report. Although every effort was made for the translation to be accurate, in the event of any discrepancies the original German document is the authentic version.

## Published by:

Bundesstelle für Flugunfalluntersuchung Hermann-Blenk-Str. 16 38108 Braunschweig

Phone +49 531 35 48 - 0 Fax +49 531 35 48 - 246

Mail <u>box@bfu-web.de</u>
Internet <u>www.bfu-web.de</u>