



CIVIL AVIATION SAFETY INVESTIGATION
AND ANALYSIS AUTHORITY (SIAA)

FINAL REPORT

of civil aviation safety investigation

CLASSIFICATION

SERIOUS INCIDENT

Owner

GAS AVIATION d.o.o.

Operator

STS AVIACIJA d.o.o.

Manufacturer

PIPER AIRCRAFT INC

Aircraft

PIPER PA 28RT-201T

Registration country

SERBIA

Registration

YU-DZZ

Location

G. V. Bibescu aerodrome – Strejnic, Prahova county

Date and time:

11.11.2020 / 08:58 LT (06:58 UTC)



No. 126-01
Date: 22.01.2026



AKNOWLEDGEMENT

This REPORT presents data, analysis, conclusions and recommendations made by the Civil Aviation Safety Investigation Commission appointed by the General Director of AIAS.

The safety investigation was conducted in accordance with the provisions of the REGULATION (EU) No. 996/2010 of the European Parliament and of the Council from 20 October 2010 on the investigation and prevention of accidents and incidents occurred in civil aviation and repealing of Directive 94/56/EC, the provisions of Annex 13 to the Convention on International Civil Aviation signed at Chicago on 7 December 1944, as well as with Government Ordinance no. 26/2009, approved with amendments and additions by Law No. 55/2010, modified and completed by Government Ordinance no. 17 /2018.

The sole objective of civil aviation safety investigation is preventing the occurrence of accidents and incidents, by effective determination of causes and circumstances that led to this occurrence and establishing the necessary recommendations for civil aviation safety.

Civil aviation safety investigation does not establish guilty, individual or collective responsibilities.

As a consequence, the use of this REPORT for other purposes than preventing the occurrence of civil aviation accidents and incidents might generate misinterpretations.



FINAL REPORT

UNCONTROLLED LANDING GEAR RETRACTMENT

1. FACTUAL INFORMATIONS

1.1 History of the flight

The history of this event was reconstructed based on the pilot's statement.

During October-November 2020, a national fox vaccination campaign was carried out on Romanian territory, by dropping vaccine baits from aircraft.

On the morning of 11.11.2020, at 7:00 local time, the pilots involved in the flights that were to be carried out on this day reported to the G. V. Bibescu Aerodrome (LRPW) where a briefing session was held. After the briefing, the pilot of the YU-DZZ aircraft, together with the operator of the vaccine bait launch equipment, went to the aircraft.

The pilot checked the aircraft, started the engine and checked the operating parameters, and at 08:37 local time he took off.

After takeoff, during the climb, when he wanted to give the command to retract the landing gear, the pilot noticed that the three green lights of the landing gear were off, and the automatic fuse of the electrical circuit for the landing gear control was disconnected. Attempts to reconnect the fuse failed.

The pilot contacted the flight coordinator and announced that he was having problems with the landing gear, namely non-compliant signaling for its position: the landing gear position indicator lights were off, and the control lever was in the extended position. He then performed a low-altitude pass to the control tower crossbar to visually confirm the "extended" position of the landing gear. After receiving confirmation from the flight coordinator that the landing gear was extended, the pilot made the decision to land on runway 08.



Figure 1 - Aircraft trajectory after contact with the runway

After touching down, the landing gear began to retract slightly until the aircraft's fuselage made direct contact with the runway surface. From the moment the

fuselage touched down, the aircraft traveled approximately 250 m before coming to rest at the end of the runway.

The two occupants of the aircraft, the pilot and the operator of the vaccine baiting equipment, were not injured.



Figure 2 - Final position of the aircraft

2. ADDITIONAL INFORMATION

2.1 Personnel information

Pilot	Female, 25 years old
License	PL.FCL.....CPL(A) valid
Medical certificate	Class 1 / Valid
Flight experience	Total - 600 hours / 65 hours on type

2.2 Aircraft information

Manufacturer and aircraft type	PIPER AIRCRAFT INC / PA 28RT-201T
Serial number / manufacturing year	28R-7931159 / 1992
State and registration mark	Serbia – YU-DZZ
Owner	GAS AVIATION d.o.o.
Operator	STS AVIACIJA d.o.o.
Airworthiness certificate	Valid

The Piper PA-28 Cherokee is a family of two- or four-seat light aircraft built by Piper Aircraft and designed for flight training and private flying. The PA-28RT-201T aircraft is an all-metal, unpressurized cabin, single-piston engine, low-mounted wing, and tricycle landing gear.

The aircraft is equipped with a retractable tricycle landing gear, hydraulically actuated by an electric reversible pump. The pump is controlled by a selector on the instrument panel.



Figure 3 - Landing gear control selector

2.3 Operational aspects

According to the documents on board, the interior configuration of the aircraft was modified in 2015 by installing a vaccine baiting system, which is used in fox rabies vaccination campaigns.

The aircraft modification project was prepared by an EASA-approved PART-21 organization. The project contains minor modifications to the aircraft to enable it to carry out vaccine baiting missions.

According to the documents, after the implementation of minor changes, the aircraft configuration should have been as follows:

- the last row of seats removed;
- the vaccine bait spreading machine installed in the baggage hold;
- the machine operator seated on the right pilot's seat, which is installed rotated backwards, the operator being oriented in the opposite direction to the direction of flight. He must use seat belts during the flight.

The investigation commission dispatched to the scene of the event found the following changes to the aircraft:

- the last row of seats removed;
- the right pilot's seat removed, in its place the vaccine bait boxes were stored;
- the vaccine bait spreading equipment installed in the rear baggage hold;
- the equipment operator, during the flight, was to sit on the floor behind the pilot, without wearing seat belts.

The aircraft YU-DZZ has a different configuration than the one in its documents, so that during a mission, the aircraft is managed by the aircraft pilot occupying the left cockpit and the vaccine bait spreading operator sitting on the floor.

NOTE: In 2019, between June and July, another fox vaccination campaign was carried out on the territory of Romania, by distributing vaccine baits by air. On 27.06.2019, a PIPER PA-28-161 aircraft, registered YU-DDB, belonging to the same operator, was involved in an accident in a wooded area belonging to the locality of Măieruș, Harghita County. At that time, the same non-conformities were found on that aircraft regarding the differences between the aircraft modification project and its equipment at the time of operation. (the content of this report can be consulted [here](#)).

2.4 Aerodrome information

The G. V. Bibescu Airport is a certified airfield, located approximately 5 km from the city of Ploiești. The airfield is managed by the Higher School of Civil Aviation. At the time of the event, the airfield had an asphalt runway for takeoff / landing in the direction 08/26 (80° / 260°) with a length of 750 m and a width of 30 m and a grass runway for takeoff/landing in the direction 09 / 27 (90° / 270°) with a length of 790 m and a width of 30 m. Both runways have an elevation of 174.6 m.

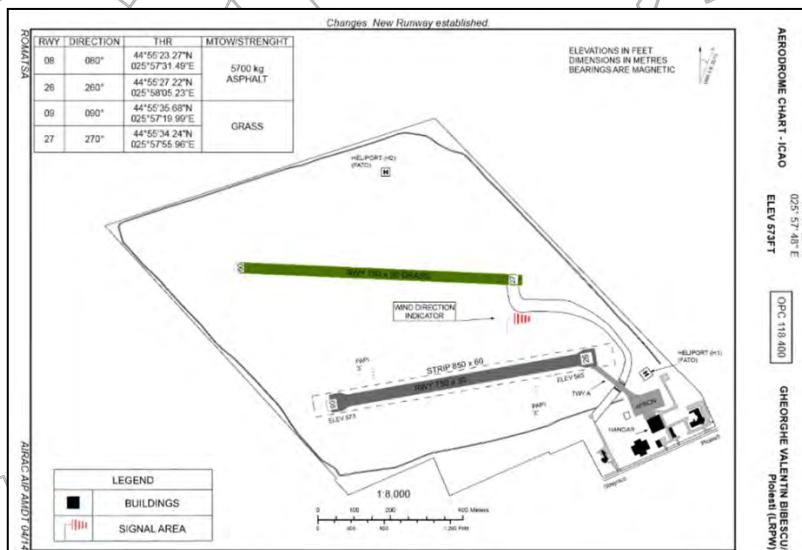


Figure 4 – LRPW aerodrome

2.5 Weather information

Weather conditions did not influence the occurrence of the event.

3. ANALYSIS

After takeoff, during the climb, when he wanted to give the command to retract the landing gear, the pilot noticed that the three green lights of the landing gear were off. Under normal conditions, namely the gear extended and secured, the lights should be on ("three greens").

He checked the position of the automatic fuse (CB) of the electrical circuit for the landing gear control and found that it was disconnected. Attempts to reconnect the CB failed.

Although he received visual confirmation from the flight coordinator that the landing gear was extended, during the taxi after landing the main landing gear retracted without command.

In the first part of the taxi after contact with the ground, the weight of the aircraft was taken over by the sides of the two wheels of the main landing gear and the front landing gear and only in the last part, at low speed, by the ventral side of the fuselage. Due to the contact between the fuselage and the runway at a relatively low speed, the aircraft did not suffer any important damage.

When checking the aircraft in order to determine the cause that led to the occurrence of the event, a failure was found in the electrical control circuit of the landing gear, which caused the uncontrolled unlocking of the landing gear in the extended position. The failure of the electrical control circuit of the landing gear was confirmed by the impossibility of re-locking its safely.

Immediately after the incident, the defect in the electrical circuit was repaired and the aircraft resumed its aerial work missions.

4. Conclusions

4.1 Findings

- The pilot had a valid flight license and medical certificate.
- The aircraft had a valid airworthiness certificate.
- The interior configuration of the aircraft was not in accordance with the modification project.

4.2 Cause of the event

This serious incident occurred as a result of the failure of the electrical control circuit of the landing gear.

5. Safety Recommendations

Following the investigation of the accident of the aircraft YU-DDB, which occurred on 27.06.2019, which had the same configuration as YU-DZZ, the AIAS issued 5 safety recommendations to the Civil Aviation Authorities of Serbia and Romania, referring to the verification of the concordance between the aircraft configuration and the approved modification project, stipulating the number of seats with seat belts on board the aircraft, objective documentation of ramp inspections, as well as conducting unannounced inspections to verify the aircraft configuration. These recommendations were implemented by the Civil Aviation Authorities of Serbia and Romania, so that the non-conformities related to the differences between the aircraft modification project and its equipment were eliminated.

Following the investigation of the serious incident involving the aircraft registered YU-DZZ, the investigation commission does not issue any other recommendations regarding civil aviation safety.

Note: The documents and analysis objects used for the issuance of the flight safety investigation Report are confidential and are archived at the Civil Aviation Safety Investigation and Analysis Authority, according to legal provisions.