

Air Accident Investigation Unit Ireland

PRELIMINARY REPORT

ACCIDENT BRM Aero, Bristell NG5, G-OJCS Belan, Co. Kildare 13 June 2019





This safety investigation is exclusively of a technical nature and the Final Report reflects the determination of the AAIU regarding the circumstances of this occurrence and its probable causes.

In accordance with the provisions of Annex 13¹ to the Convention on International Civil Aviation, Regulation (EU) No 996/2010² and Statutory Instrument No. 460 of 2009³, safety investigations are in no case concerned with apportioning blame or liability. They are independent of, separate from and without prejudice to any judicial or administrative proceedings to apportion blame or liability. The sole objective of this safety investigation and Final Report is the prevention of accidents and incidents.

Accordingly, it is inappropriate that AAIU Reports should be used to assign fault or blame or determine liability, since neither the safety investigation nor the reporting process has been undertaken for that purpose.

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¹ **Annex 13**: International Civil Aviation Organization (ICAO), Annex 13, Aircraft Accident and Incident Investigation.

² **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.

³ **Statutory Instrument (SI) No. 460 of 2009**: Air Navigation (Notification and Investigation of Accidents, Serious Incidents and Incidents) Regulations 2009.



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This Investigation is conducted in accordance with Annex 13 to the Convention on International Civil Aviation, Regulation (EU) No 996/2010 and the provisions of SI No. 460 of 2009. This Preliminary Report contains information, as known at this time, and does not contain analysis or conclusions. This information is therefore subject to change, and may contain errors; any errors in this Report will be corrected in the Final Report. The sole purpose of this Investigation is the prevention of aviation accidents and incidents. It is not the purpose of this Investigation to apportion blame or liability.

AIRCRAFT INFORMATION

Aircraft Manufacturer: BRM Aero

Model: Bristell NG5

State of Manufacture: UK (Home Built)

Registration: G-OJCS

State of Registry: United Kingdom

Serial Number: LAA 385-15458

Year of Manufacture: 2018

TYPE OF OPERATION: General Aviation

DATE / TIME (UTC)⁴: 13 June 2019 @ 18.21 hrs

LOCATION / POSITION: Belan, Co. Kildare

PERSONS ON BOARD: Crew - 2 Passengers - Nil

INJURIES: Crew - 2 (Fatal) Passengers - Nil

DAMAGE: Aircraft destroyed

INVESTIGATOR-IN-CHARGE: Howard Hughes

⁴ **UTC**: Co-ordinated Universal Time. All timings in this report are quoted in UTC; Local time was UTC + 1 hour.

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NOTIFICATION AND RESPONSE

On 14 June 2019 at 03.30 hrs, the AAIU duty Inspector was notified by the Irish Coast Guard, that the wreckage of a light aircraft had been located at Belan, Co. Kildare. Two Inspectors of Air Accidents deployed to the accident site to conduct a site examination. Once this was complete, the aircraft was removed to the AAIU's secure wreckage facility at Gormanston, Co. Meath, for further examination.

The Investigation obtained data from a number of sources, including witness statements, recordings of ATC radar returns, and data extracted from navigation devices installed in the aircraft.

2. THE OCCURRENCE

2.1 **History of Flight**

The aircraft took off from Kilrush Airfield (EIKH), Co. Kildare at 18.02 hrs for a local flight. The aircraft initially departed to the north-west of EIKH, climbing to 1,400 ft. At a point 6 NM (nautical miles) to the north-west of EIKH, the aircraft performed a left-hand orbit, maintaining 1,400 ft.

Having completed the orbit, the aircraft took up a southerly heading, followed by a southeasterly heading, and climbed to 3,200 ft. At 18.17 hrs, the aircraft was 6 NM south of EIKH, where it performed a number of turns, eventually taking up a westerly heading. Once on this heading, recovered data showed that the engine power was reduced as the aircraft maintained approximately 3,200 ft, with a reducing airspeed. At 18.21 hrs, the aircraft rapidly lost height, and impacted the ground approximately 30 seconds later. Both occupants were fatally injured. The aircraft was destroyed. There was no fire.

2.2 The Aircraft

G-OJCS was a home-built light aircraft of all-metal construction (Photo No. 1). It had an enclosed cockpit with two seats, in a side-by-side configuration. It was equipped with a fixed tricycle landing gear and a Rotax 912ULS four-stroke engine.



Photo No. 1: The accident aircraft (file photo)



3. ACCIDENT SITE

3.1 General

The accident site was located in an agricultural field approximately 5 NM south of EIKH. The site was very compact and contained all parts of the aircraft.

3.2 Wreckage Examination

The on-site examination indicated that the aircraft impacted the ground at a high vertical rate, in a nearly level attitude, whilst rotating anticlockwise about the yaw axis.

3.3 Witness Statements

Witnesses, who had observed the aircraft at different times during the flight, informed the Investigation that the aircraft appeared to be flying normally, and that the engine sounded normal. At the time of writing the Investigation is not aware of any witnesses that may have seen the final moments of the accident.

4. RECORDED DATA

4.1 On Board Navigation Devices

The aircraft was equipped with a Dynon Skyview HDX panel, with a GPS receiver. The unit was removed from the aircraft for further examination. When examined it was found that data logging had been enabled, and a successful download of the logged parameters, including position and altitude data, was accomplished. The Investigation was able to recreate the flight path of the aircraft from take-off at EIKH to the time it entered the rapid descent.

The aircraft was also fitted with a tablet device, which was running a proprietary navigation application. The Investigation was able to successfully access the data logged through the application.

4.2 Radar Data

The Air Traffic Control radar data for the period leading up to the time of the accident was quarantined and retained by both the Station Manager at Shannon Air Traffic Services and Station Manager at Dublin Air Traffic Services, for analysis by the Investigation. The aircraft was equipped with a transponder and radar replay showed a secondary radar return painting in the area where the aircraft flew on the date and time in question. The altitude and speed data from the radar returns were consistent with those obtained from the aircraft's on-board navigation devices.

5. WEATHER INFORMATION

Met Éireann, the Irish Meteorological service, provided the Investigation with an aftercast for the Belan, Co. Kildare area valid between 18.00 and 19.00 hrs on 13 June 2019. The aftercast reported surface winds from a north-westerly direction at 5 kts, the wind at 2,000 ft from a north-westerly direction at 10-12 kts, an outside air surface temperature of 10° C, and a barometric pressure at mean sea level of 1006 hectoPascals.

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There was no precipitation, with a weak occlusion moving south-eastwards across the midlands at the time of the accident. The aftercast indicated the cloud-base was 1-2 octas of cumulus cloud at between 2,500 and 3,000 ft, and 5-7 octas of stratocumulus at between 3,000 and 4,000 ft. The aftercast also stated that as the occlusion moved across the country, the cloud base would begin to rise slightly, and cloud layers began to break and thin out.

6. FURTHER INVESTIGATION

The Investigation is on-going and a Final Report will be published in due course.

- END -

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In accordance with Annex 13 to the Convention on International Civil Aviation, Regulation (EU) No. 996/2010, and Statutory Instrument No. 460 of 2009, Air Navigation (Notification and Investigation of Accidents, Serious Incidents and Incidents) Regulation, 2009, the sole purpose of this investigation is to prevent aviation accidents and serious incidents. It is not the purpose of any such investigation and the associated investigation report to apportion blame or liability.

A safety recommendation shall in no case create a presumption of blame or liability for an occurrence.

Produced by the Air Accident Investigation Unit

AAIU Reports are available on the Unit website at www.aaiu.ie



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