

**DA 40 NG,
G-CTSB**

**Cranfield Airport,
Bedfordshire**

12 December 2020

Accident

Investigation Synopsis

The pilot was seriously injured when the aircraft stalled and then struck the ground shortly after takeoff from a height of about 100-200 ft. It had been loaded with five containers of de-icing fluid, contrary to the approved training organisation's prohibition on the carriage of cargo and dangerous goods. One container, loaded in the front right footwell close to the flying controls, limited the control stick's available forward movement.

The aircraft was near its maximum permitted takeoff weight and aft centre of gravity limit when it departed. This, together with the limited control authority available, caused the accident.

The investigation found that aspects of the management of the Approved Training Organisation may have contributed to the accident. The de-icing fluid was probably incorrectly classified by the manufacturer as a non-dangerous good, with incorrect safety information supplied.

One Safety Recommendation is made regarding the use of recording facilities on digital flight instrument systems.

Safety Recommendation 2022-013

Justification

When a memory card is installed, the Garmin G1000 instrumentation system can record flight and engine data parameters beneficial to safety investigation. This Safety Recommendation is made to ensure this capability is more widely known and understood.

Therefore, the following safety recommendation was made:

Safety Recommendation 2022-013

It is recommended that the Civil Aviation Authority promote the use of the recording facility on Garmin 1000 instrument systems and its potential benefits.

Date Safety Recommendation made: 15 July 2022

LATEST RESPONSE

Response received: 13 November 2023

This is an update to the CAA response dated April 6th 2023, on the actions that have been taken to address the safety recommendation above.

The CAA has undertaken the following actions to promote the various benefits of recording flight data via electronic flight information systems (EFIS) and other similar devices:

- In October 2022, the CAA published an update to Safety Sense Leaflet (SSL) 05: Flight Under VFR.
- On July 19th 2023, the CAA published SkyWise SW2023/195, which has also been sent to the flying training organisations overseen by the CAA General Aviation Unit.

- On July 26th 2023, Astral Aviation Consulting held a workshop on technology, which included making use of the data recording feature on EFIS and other similar devices.

The CAA considers the above actions satisfy the intent of the safety recommendation.

Safety Recommendation Status **Closed**

AAIB Assessment **Adequate**

Action Status **Planned Action Completed**

RESPONSE HISTORY

Response received: 12 April 2023

This is an update on the actions being taken by the CAA to address the safety recommendation above.

The CAA has devised a plan to promote the benefits of using the data recording facility on electronic flight instrument systems (EFIS). The CAA considers the primary audience for this promotion activity to be general aviation pilots who have these devices fitted as well as Approved Training Organisations (ATOs) and Declared Training Organisations (DTOs). The CAA published an update to Safety Sense Leaflet (SSL) 05: Flight Under VFR in October 2022, highlighting how pilots can make use of EFIS data recording for post-flight analysis, self-assessment and self-improvement. The CAA is also identifying other appropriate publications (e.g. SSLs, Skyway Code, etc.) where this recommendation can be included. Additionally, the CAA is preparing a SkyWise to draw attention to this topic, which will be sent directly to the relevant training organisations.

The CAA aims to complete the safety promotion activity by the end of 2023.

AAIB Assessment – Adequate Open

Response received: 06 October 2022

The CAA accepts this Safety Recommendation.

The CAA will devise a safety promotion plan to promote the use of the recording facility on Garmin 1000 instrument systems and similar devices, highlighting their potential benefits to pilots and operators.

The CAA will aim to deliver the safety promotion activity by the end of 2023.

AAIB Assessment – Adequate Open