TECHNICAL REPORT A-054/2004

DATA SUMMARY

LOCATION

Date and time	Friday, 27 August 2004; 19:00 local time
Place	Puerto de Cotefablo (Huesca)

AIRCRAFT

Registration	D-KIYL
Type and model	DG FLUGZEUGBAU GMBH DG 800
Operator	Private

Engines

Type and model	OEHLER SOLO 2625
Number	1

CREW

Pilot in command

Age	62 years
Licence	Glider pilot
Total flight hours	2.100 h
Flight hours on the type	1.300 h

INJURIES	Fatal	Serious	Minor/None
Crew			1
Passengers			
Third persons			

DAMAGE

Aircraft	Destroyed
Third parties	None

FLIGHT DATA

Operation	General aviation – Non commercial – Private
Phase of flight	Maneuvering on slope

REPORT

Date of approval	27 July 2005

1. FACTUAL INFORMATION

1.1. History of the flight

The powered glider, registration D-KIYL, took off from the aerodrome of Santa Cilia de Jaca (Huesca) at 14:15 h, in order to take part in a competitionl. The points along the competition route were AISA-CASTEJON-ISABA-TORLA-SANTA CILIA, and made up a total run of approximately 380 km.

Once the last turning point at Torla had been passed, and in the direction of the aerodrome, when at an altitude of some 1,650 m on the west side of the mountain at the height of Linas de Broto, the glider fell to the ground.

The slope on the side of the mountain where the crash occurred was steep. It was covered with small bushes which first helped to dampen the crash and then to stop the aircraft in its downward slide.

After an hour and a half of search with an aircraft and a helicopter, the wreckage was located and the pilot, who was uninjured, was rescued.

1.2. Damage to aircraft

The aircraft suffered significant damage. The fuselage split into two separate pieces.

1.3. Meteorological information

The pilot was in possession of meteorological information before and during the flight. The conditions were good: daylight, good visibility and absence of cloud or gusts of wind.

1.4. Personnel information

1.4.1. Personnel information

The pilot was in possession of a valid license, which expired on 31 November 2004. His flying experience was 2,100 h, of which 1,300 were on the type.

1.4.2. Pilot's statement

The pilot stated that he was taking part in the Santa Cilia de Jaca Cup trials. After having made the last turn corresponding to the town of Torla, and continuing with his flight, he found himself on the west-facing side of the Linas de Brota slope at an altitude of some 1,680 m. It was in this area where, after having made two passes in the

same place, he felt the glider's tail lift and observed that the indicated aispeed was falling by more than 60 kph, after which he crashed into the ground. He indicated that the controls were completely useless and that he could do nothing to avoid the accident because by the time he realised what was happening he was already on the ground. He completed his statement indicating that the slope was very steep and covered with small bushes, which dampened the crash. He slipped down the slope some 25 m until once again the glider's friction against the bushes brought him to a halt.

1.5. Aircraft information

The powered glider, registration D-KIYL, is a model DG 800 M, built in 2000. It had an airworthiness certificate valid until March 2005.

1.6. Test and research

1.6.1. Logger data

Important flight data have been obtained from reading the aircraft's logger. Based on these data, it can be established that the aircraft had carried out a figure of eight in the

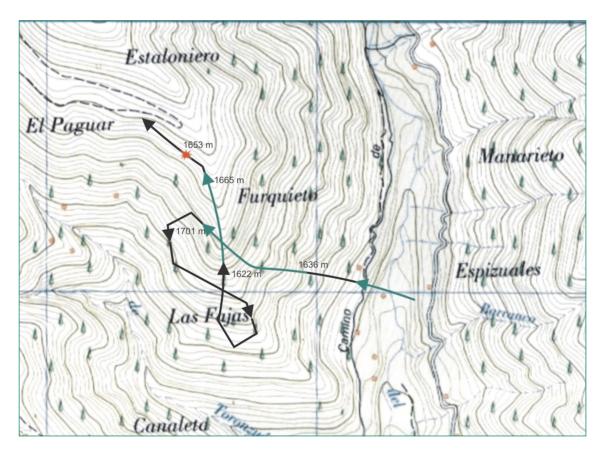


Figure 1. Track detail

vicinity of the slope, at an altitude of between 1,622 and 1,701 m. In a first pass it gained height up to 1,701 m and then in what would be the longest part of the figure of eight run it descended to 1,622 m, when it again gained height to 1,665 m, subsequently descending for 8 seconds until it crashed into the ground. The last recorded data corresponding to the point of contact are: altitude 1,653 m, indicated airspeed 82 kph and vertical speed –3 m/s. The wind was blowing from 266° at a speed of 15 kph.

2. ANALYSIS AND CONCLUSIONS

From the altitude data supplied by the logger and observation of the area's orography, it can be concluded that the glider needed to gain height in order to pass over the mountains existing between its position and the aerodrome.

The pilot, on observing a west-facing slope where the sun was still shining, tried to gain height by slope soaring but he did not encounter the ideal conditions, either due to the slope's low warming or because cold air was already rolling down from the mountain due to the lateness of the hour.

As indicated in his statement, the pilot felt the glider's tail lift, which may have indicated the presence of a thermal and, as has been described, before the last fall, there was a short period of time in which the glider ascended. At the same time, as regards the sudden loss of speed indicated by the pilot, this can be considered to be expected when maneuvering in a glider in slope soaring flight, close to the ground and with changes of direction with respect to the prevailing wind.

At no time did the pilot make use of the engine, either to gain height or avoid crashing into the ground. The engine's start-up operation in the last phase of the flight would probably not have been advisable because it would have considerably decreased the glider's aerodynamic performance qualities.

According to the pilot, he had no time to react, possibly because he was flying very close to the ground, a circumstance that is understandable because he wanted to make the most of the slope effect, although perhaps a certain competitive spirit and an overdose of confidence on the part of the pilot also contributed to the accident.