



Final report RL 2015:15e

Accident north-east of Munka-Ljungby, Skåne county on 5 June 2015 involving the sailplane D-KYDM of the model Ventus-2 cM, operated by a private individual.

File no. L-50/15

2015-12-02

SHK investigates accidents and incidents from a safety perspective. Its investigations are aimed at preventing a similar event from occurring in the future, or limiting the effects of such an event. The investigations do not deal with issues of guilt, blame or liability for damages.

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General observations

The Swedish Accident Investigation Authority (Statens haverikommission – SHK) is a state authority with the task of investigating accidents and incidents with the aim of improving safety. SHK accident investigations are intended to clarify, as far as possible, the sequence of events and their causes, as well as damages and other consequences. The results of an investigation shall provide the basis for decisions aiming at preventing a similar event from occurring in the future, or limiting the effects of such an event. The investigation shall also provide a basis for assessment of the performance of rescue services and, when appropriate, for improvements to these rescue services.

SHK accident investigations thus aim at answering three questions: *What happened? Why did it happen? How can a similar event be avoided in the future?*

SHK does not have any supervisory role and its investigations do not deal with issues of guilt, blame or liability for damages. Therefore, accidents and incidents are neither investigated nor described in the report from any such perspective. These issues are, when appropriate, dealt with by judicial authorities or e.g. by insurance companies.

The task of SHK also does not include investigating how persons affected by an accident or incident have been cared for by hospital services, once an emergency operation has been concluded. Measures in support of such individuals by the social services, for example in the form of post crisis management, also are not the subject of the investigation.

Investigations of aviation incidents are governed mainly by Regulation (EU) No 996/2010 on the investigation and prevention of accidents and incidents in civil aviation and by the Accident Investigation Act (1990:712). The investigation is carried out in accordance with Annex 13 of the Chicago Convention.

The investigation

SHK was informed on 5 June 2015 that an accident involving a sailplane with the registration D-KYDM had occurred north-east of Munka-Ljungby, Skåne county, the same day at 17.30 hrs.

The accident has been investigated by SHK represented by Mrs Helene Arango Magnusson, Chairperson, and Mr Nicolas Seger, Investigator in Charge.

The investigation team of SHK was assisted by Mr Henrik Svensson as an operations expert.

Mr Magnus Axelsson has participated as an advisor for the Swedish Transport Agency.

The following organisations have been notified: The European Aviation Safety Agency (EASA), the European Commission, the Swedish Transport Agency and the German Federal Bureau of Aircraft Accident Investigation (BFU).

Investigation material

Interviews have been conducted with the pilot. Analysis of GPS log data has been performed.

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Aircraft:	
Registration, type	D-KYDM, Ventus bT
Model	Ventus 2-cM
Class, Airworthiness	Normal, Certificate of Airworthiness and valid ARC ¹
Serial number	132
Engine	Solo 2625 01
Propeller	Technoflug KS-1G-152-R-122
Owner	Private
Time of occurrence	6 June 2015, at 17.30 hrs. in daylight Note: All times are given in Swedish daylight saving time (UTC ² + 2 hours)
Place	North-east of Munka-Ljungby, Skåne county, (pos 5618N, 01305E, 50 metres above mean sea level)
Type of flight	Private
Weather	According to SMHI's analysis: South-easterly wind, 10 knots, visibility >10 km, no cloud below 5 000 feet, temperature/dewpoint +19/+7°C. QNH 1 022 hPa
Persons on board:	1
Crew including cabin	1
Passengers	None
Injuries to persons	None
Damage to aircraft	Substantially damaged
Other damage	No damage, no environmental impact
Commander:	
Age, licence	81 years, Sailplane Licence SPL
Total flying hours	9 900 hours, of which 3 500 hours on type
Flying hours previous 90 days	21 hours on type
Number of landings previous 90 days	41

¹ ARC (Airworthiness Review Certificate).

² UTC (Coordinated Universal Time) is a reference for the exact time anywhere in the world.

Factual information

The pilot took off in Höganäs with his self-launching sailplane to fly to Ferlinge. After a climb up to 1 000 metres and shortly before Ängelholm control zone, the engine was shut down and the propeller pylon was retracted into the sailplane's rear fuselage. The pilot flew onwards through Ängelholm's airspace when he noted that there were poorer thermal conditions than expected. After gliding for a while, the altitude had decreased, and he then intended to start the engine over an area which would facilitate landing, if landing would become necessary.

After passing Munka-Ljungby, the altitude decreased rapidly. In addition, the terrain was higher in this area than at the take-off site. The pilot flew towards an outlanding field and prepared for engine start by bringing up the propeller pylon. He estimated that the height was then about 300 metres above the ground. Despite the preparation of engine start according to normal routine, the engine did not start. The pilot then aborted the start attempt and brought down the propeller pylon whilst simultaneously planning a landing in the direction of the selected field.

The pilot performed a short landing circuit to the left towards the designated field. Shortly before touchdown, the pilot spotted a fence on his left side, about 45 degrees out. He veered to the right by making a shallow turn in order to avoid the fence. The right wingtip made contact with the ground, and the aircraft yawed quickly to the right in the form of a ground loop. The pilot sustained no physical injuries. The sailplane's rear fuselage was, however, severed, and ailerons and flaps sustained damage.

The pilot stated after the accident that he had experienced problems with his engine earlier during his flight when a fuse had been tripped as the propeller pylon was being brought up. He also stated that the day before he had not got the engine running in a start attempt on the ground.

Analysis of log data

The pilot had a GPS on board in order to be able to log his flight for evaluation. Logged data from the landing corresponds well with the pilot's description of the landing.

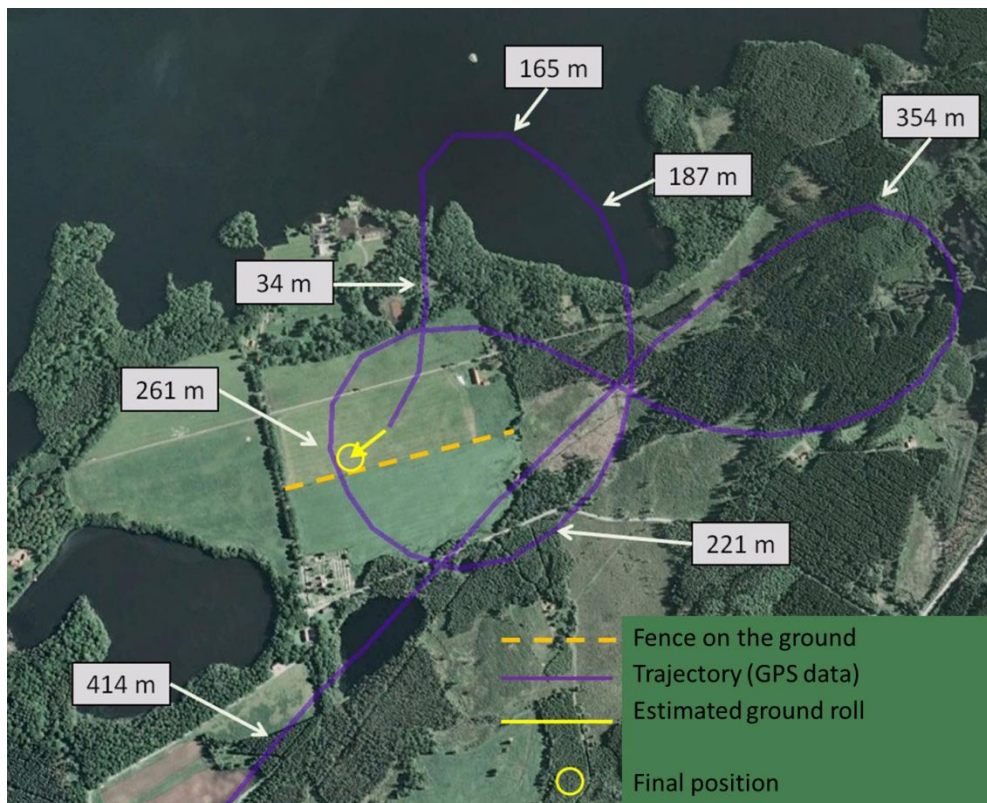


Figure 1. Logged data showing the sequence of events in the landing. Heights stated are above the ground. The fence is marked with a dashed line. Image from Google Earth. Map data © Lantmäteriet Dnr R61749_13002.



Figure 2. The outlanding field against the direction of approach with D-KYDM. Fence between the fields is seen on the right side of the picture. Photo: Mikael Roslund.



Figure 3. D-KYDM with severed rear fuselage after the accident. Photo: Mikael Roslund.

Conclusions

The investigation shows that the thermal conditions were too poor in the area to make continued gliding possible. The pilot intended to start his engine so as to be spared from landing and instead climb by its own power in order to continue his flight. However, the engine did not start, upon which the pilot decided instead to perform an outlanding.

The fact that the pilot chose to first fly towards a suitable outlanding field before attempting to start the engine indicates that he was aware of, and took into consideration, the existence of a risk that the engine would not start.

Outlandings with sailplanes on unknown land can be associated with risks as the opportunities for careful planning and reconnaissance are limited.

The cause of the accident was that the fence was noticed at too late a stage before landing.

Safety recommendations

None.

On behalf of the Swedish Accident Investigation Authority,

Helene Arango Magnusson

Nicolas Seger