

DATA SUMMARY

LOCATION

Date and time	Thursday, 29 May 2007; 17:00 UTC
Site	Herencia (Ciudad Real)

AIRCRAFT

Registration	BGA 4843
Type and model	SCHEMPP HIRTH DISCUS 2A Glider
Operator	Private

Engines

Type and model	N/A
Number	N/A

CREW

Pilot in command

Age	41 years old
Licence	Glider pilot
Total flight hours	1,182.21 h
Flight hours on the type	158.45 h

INJURIES

	Fatal	Serious	Minor/None
Crew			1
Passengers			
Third persons			

DAMAGE

Aircraft	Significant
Third parties	Minor to vineyard

FLIGHT DATA

Operation	General Aviation – Pleasure
Phase of flight	Landing

REPORT

Date of approval	25 June 2008
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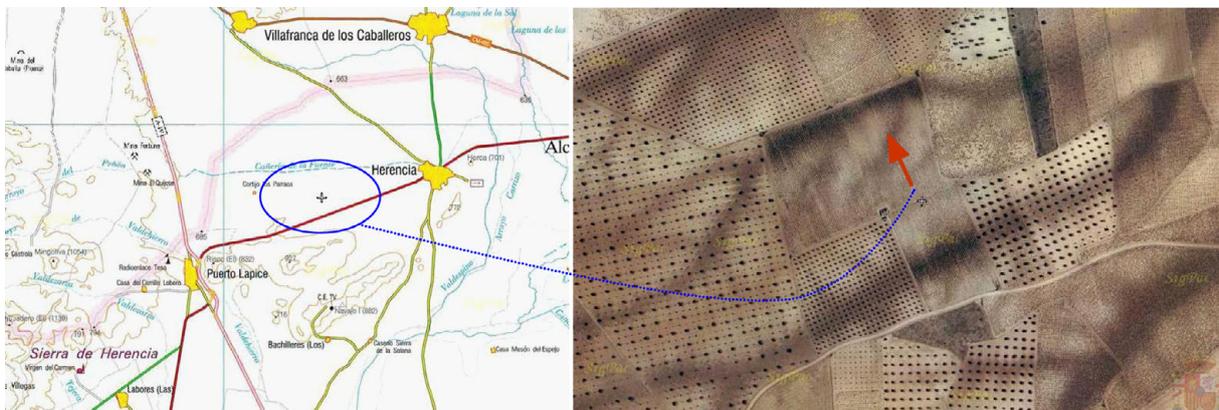
1. FACTUAL INFORMATION

1.1. Description of event

The pilot, of British nationality, was participating in the OVERSEAS competition held annually in Ocaña (Toledo). This competition lasts around a week and consists in flying a set route established daily, with several waypoints, in the shortest time possible. On 29 May, during a cross-country flight included as part of the competition, the pilot lost altitude and, given the lack of thermals, he decided to look for a field and land. According to the pilot's statement, most of the surrounding fields were vineyards, the majority being unsuitable for landing. The field he eventually chose, however, seemed adequate, with low lying vegetation. During the final turn onto the field, the pilot noted that the "vegetation" was in reality a grove arranged in rows. From about 30 ft away, he could see that it was a vineyard of young vines with slender stalks some three feet high. With the adjacent field (in the landing direction, around 360°) having similar characteristics, his only option was to land between the vines. Before the flare, the pilot saw some metallic posts used to support the vines, and which were tied together using wires that ran parallel to the landing direction. During the landing between the rows, the pilot held the wings above the vines and posts for as long as possible before finally descending on top of them. The wings struck several vines and metal posts, which caused the aircraft to turn left and stop abruptly. The pilot was uninjured.

The aircraft's wings and the tail were damaged as a result of striking the metallic posts. There was a significant loss of gelcoat, possible delamination and considerable damage to the leading edge of the tail. There was damage to various parts of the fuselage, with a loss of gelcoat, especially along the underside.

As for the damage to the vineyard, some 20 vines were damaged, 10 metallic posts were bent and the wire broke in several places.



Figur3 1. BGA 4843 landing spot

1.2. Personnel and aircraft information

The pilot had a Glider Pilot License with 1182.21 total hours as the pilot in command, and 158.45 h on the type. He had experience on the K13, K21, ACRO and DUO dual control gliders, and on the Discus, Discus 2 and ASW 24 gliders. By his own estimate, the pilot had performed over 30 off-field landings. He had last flown by himself the day before, and his last dual control flight review had taken place on 24 March 2007.

1.3. Meteorology

The pilot stated that on the day of the accident, visibility was over 20 km with scattered cumulus clouds (2/8), no precipitation and winds from the north at around 5-10 kt.

The weather forecast provided by the Ocaña aerodrome was similar to that given by the pilot, and called for temperatures of between 8° and 23°, 2 m/s thermals, and cumulus clouds between 1 and 2/8, with the cloud base at 1,800 m AGL and a thermal ceiling at 2,300 m AGL. There was a 0% chance of storms, and thermal activity between 13:00 and 18:30. Surface winds were from the west at 4 kt and from the northwest and 8 kt at 1,500 m MSL. The runway in use was 29 (290°).

The 17:02 UTC weather report for that day in the vicinity of Ocaña (Dos Barrios) indicated winds from the west-northwest at 6.1 kt gusting up to 10.42 kt.

2. ANALYSIS AND CONCLUSIONS

A glider's ability to remain airborne depends on the existence and proper use of thermals. In their absence, pilots are trained and accustomed to land off field, meaning they must always be on the lookout for a potential landing site. Taking part in a competition, as opposed to flying for pleasure, means that pilots tend to prioritize factors different from those they would normally consider. In this particular case, covering a set flight distance in as little time as possible so as to achieve maximum points results in pilots paying less attention to maintaining the altitude margins normally used, as well as to constantly searching for a potential safe landing field in case of need. Plus the annual nature of the competition, an additional factor could have been the pilot's unfamiliarity with the terrain. The available fields were wholly unsuitable given their location in the vicinity of Toledo hills, with a predominance of farm land and, in particular, of vineyards. Upon losing altitude, the pilot chose a field that seemed to be unfarmed. He noted the scarce vegetation and a large clearing. As he descended while turning onto the field, he saw that the scarce vegetation was in fact a vineyard and that the adjacent fields had the same characteristics, and so he decided to land between the rows of vines.

It was a clear day with few clouds and with adequate conditions for gliding. The landing was made with headwind, which was from the west-northwest, according to the weather report.

The accident is considered to have resulted from an emergency landing in a vineyard field whose physical characteristics were unsuitable for a safe landing. This landing was necessary when the flight conditions were deteriorated, with an excessive drop in altitude due to a lack of rising thermals. The pilot's decision to land in that place was conditioned by the lack of fields with suitable characteristics in the surrounding area.