

**DATA SUMMARY**

**LOCATION**

Date and time	<b>Tuesday, 18 November 2002; 16:45 hours</b>
Site	<b>Airport of Sabadell</b>

**AIRCRAFT**

Registration	<b>F-BRDL</b>
Type and model	<b>SOCATA RALLYE 180</b>

**Engines**

Type and model	<b>LYCOMING O-360-A1A</b>
Number	<b>1</b>

**CREW**

**Pilot in command**

Age	<b>26 years</b>
Licence	<b>Airplane commercial pilot</b>
Total flight hours	<b>1.100 hours</b>
Flight hours on the type	<b>Without data</b>

**INJURIES**

	Fatal	Serious	Minor
Crew			<b>1</b>
Passengers			<b>1</b>
Third persons			

**DAMAGES**

Aircraft	<b>Nose landing gear broken; dam. to prop. and engine</b>
Third parties	<b>None</b>

**FLIGHT DATA**

Operation	<b>General aviation – Pleasure</b>
Phase of flight	<b>Take off – Initial climb</b>

## 1. FACTUAL INFORMATION

### 1.1. History of the flight

The pilot, accompanied by one passenger, intended to perform a local flight at the airport of Sabadell. He began the take-off run along runway 31 and when the aircraft reached the appropriate speed, it became airborne.



Shortly afterwards there was a sudden loss of engine power. The pilot decided to land again but, as the remaining length of the runway was too short, he decided to make a 180 degree turn, which he was unable to complete, as he mentioned in his statement after the incident, due to the lack of speed and altitude of the aircraft. It finally landed on the runway strip. The impact with the ground was hard, the nose landing gear collapsed and subsequently the propeller hit the ground. The aircraft

crossed the taxiway and finally came to a halt a few metres further on.

The airport fire fighting service quickly arrived on the scene where the aircraft had stopped and began to cover the area in foam in order to prevent a fire from breaking out, since some fuel had spilled from the aircraft.

### 1.2. Injuries to persons

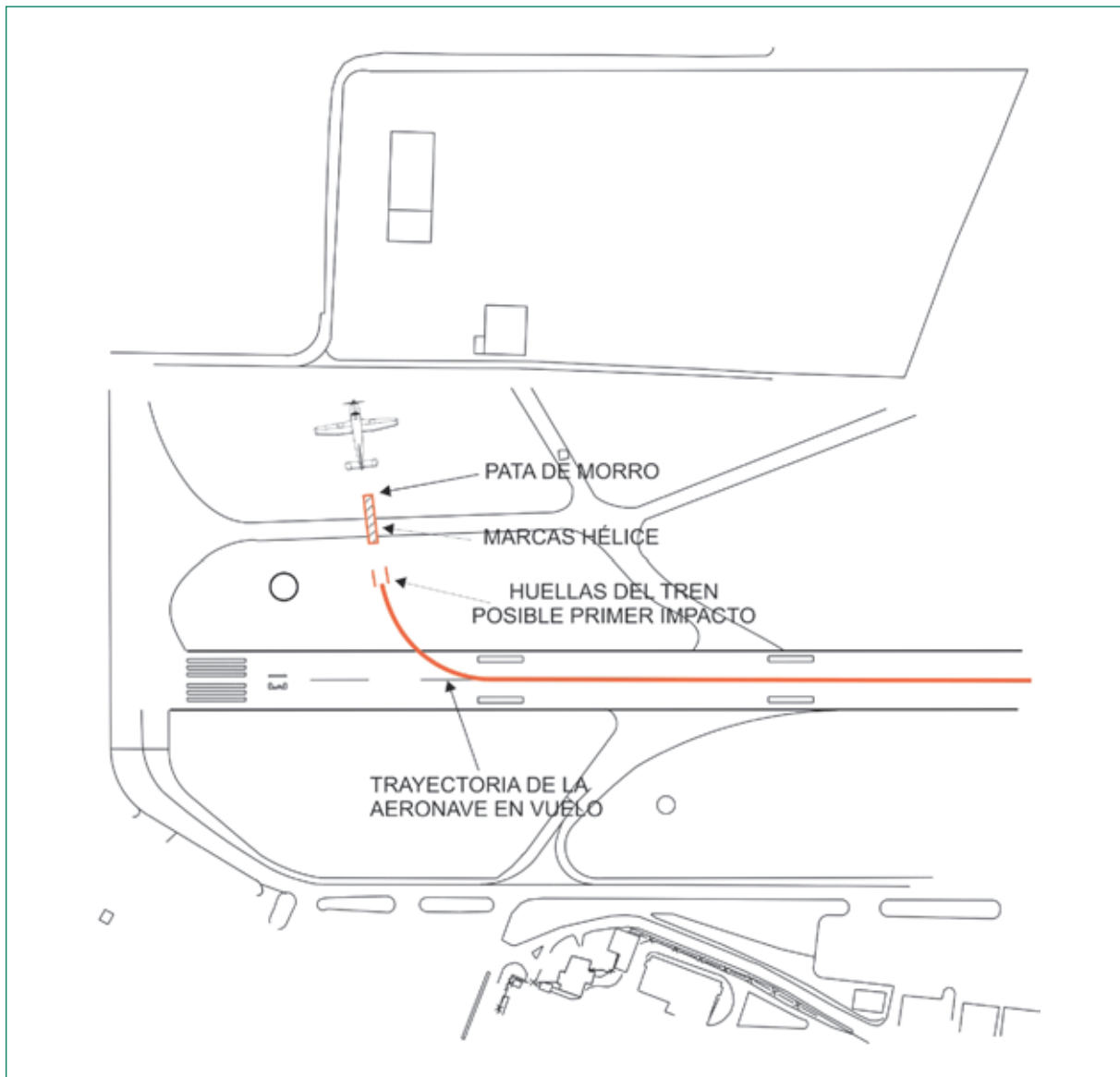
Neither of the occupants of the aircraft was injured.

### 1.3. Damage to aircraft

The aircraft suffered damage to its nose landing gear, propeller and engine.

### 1.4. Other damage

No damage was caused to third parties. Airport operations were not affected at any time, as the aircraft came to a stop outside the safety areas.



## 1.5. Personnel information

The commander had a valid licence, qualifications as a private pilot and as a commercial pilot as well as ratings for single-engine land aircraft and instrumental flight. His total flight experience was of 1100 hours.

## 1.6. Aircraft information

### 1.6.1. Aircraft airworthiness and maintenance

The aircraft's Airworthiness Certificate was valid until July 13, 2003.

The aircraft had undergone its last 100 hour maintenance operation on May 20, 2002. At that time the aircraft had been flown for a total of 6635 hours.

### 1.7. Pilot's statement

In his statement, the pilot indicated that when the aircraft had just risen a few metres above the runway, there was a sudden loss of engine power but that the engine did not completely stop running.

Once the aircraft came to a stop, the pilot noticed that the fuel switch was in a position that was very near the closed position.

When he was asked whether the fuel switch position was checked during the pre-flight inspection, as required by the corresponding procedure, he answered that he could not remember this fact or the position of the switch at that moment.



## 2. CONCLUSIONS

The fuel switch on this aircraft (see photograph) has two positions: open and closed. In the photograph, the switch is in the closed position. The switch is moved to the open position by turning it about 90 degrees to the left, until it reaches the limit.

In both positions, closed and open, the switch is locked into position, but this will not happen if the switch is in any intermediate position between the open and closed positions.

The loss of power of the engine was due to fuel starvation caused by the closure of the fuel switch.

This suggests that before initiating the takeoff run, the fuel switch was already in a position very close to «closed». The pilot did probably not notice this circumstance, due to the fact that the pre-flight check was not carried out in its entirety.

The pilot tried to turn 180 degrees to land on the opposite runway (13) to the one he had used to take off (31) and almost stalled the aircraft due to the airspeed decrease and to the increase of the stall speed during the turn. He must have realised this circumstance, as he landed straight away when he had only turned about 90 degrees. However, the collapse of the nose landing gear seems to have been caused by the aircraft falling down from certain height before reaching the ground in a controlled touch down.