

Report C 1998:41e

L-47/98

Report finalized 1998-11-02

<i>Aircraft; registration and type</i>	D-EBGM , Rockwell Commander 114
<i>Owner/Operator</i>	Bernd Graupmann, Ulzburger Strasse 282 DE-22846 Nordersedt, Germany
<i>Time of incident</i>	26-May-1998, 1200 hrs, in daylight <i>Note:</i> All times in the report are given in Swedish summer time (SST) = UTC + 2 hours
<i>Place</i>	Hornlanda Airport, Kisa, E County, (pos 5752N 1551E; 105 m above sea level)
<i>Type of flight</i>	Private
<i>Weather</i>	Easterly wind approx. 5 knots, visibility 10- 20 km in light rain, scattered cloud base at 1500 ft., temp. +8 deg. C, dewpoint +6 deg. C, QNH 1006 hPa.
<i>Numbers on board:</i>	
<i>crew</i>	2
<i>passengers</i>	0
<i>Personal injury</i>	Serious
<i>Damage to aircraft</i>	Totally destroyed
<i>Other damage</i>	Property
<i>Pilot's age, certificate</i>	56 years, private (Germany)
<i>Pilot's total flying hours</i>	180 hrs, of which 50 hrs on the type
<i>Pilot's flying hours last 90 days</i>	6.2 hrs, of which all on the type
<i>Co-pilot's age, certificate</i>	47 years, private (Germany) with night rating
<i>Co-pilot's total flying hours</i>	850 hrs, of which 80 hrs on the type

The Board of Accident Investigation (SHK) was notified on the 26th May 1998, that an aircraft with the registration D-EBGM had that day had an accident at the Hornlanda Airport, located near the town of Kisa, E county, in Sweden at approximately 1200 hrs.

The accident has been investigated by the Board of Accident Investigation (SHK) represented by Ann-Louise Eksborg, Chairman, Rune Lundin, Chief Investigator Flight Operations, and Henrik Elinder, Chief Technical Investigator Aviation.

The investigation was assisted by technical expert Dan Åkerman and medical expert Matts Aldman.

The investigation was also followed by the Swedish Civil Aviation Administration represented by Klas-Göran Bask.

SHK investigates accidents and incidents with regard to safety. The sole objective of the investigation is the prevention of similar occurrences in the future. It is not the purpose of this activity to apportion blame or liability.

Summary

The flight departed from Hamburg with two pilots onboard with a destination of Hornlanda Airport near the town of Kisa, Sweden.

The runway at Hornlanda Airport is a hard asphalt surface with dimensions

815 x 9 meters. It is surrounded by grass outside of the asphalt surface, giving it a total cleared width of 19 meters.

The final decent for landing was steeper than intended and at an altitude of approx. 100 ft. The aircraft started pulling slowly to the right. Touchdown occurred with one main wheel off the runway. The pilot has testified that at this point he applied full power, whereafter the co-pilot took control of the aircraft. The co-pilot has testified that he at no time attempted to take control of the aircraft or interfere with the pilot.

The owner of the airport, who witnessed the event, testified that the approach to landing appeared normal until the aircraft passed over the threshold slightly high. He then observed the aircraft rounding out nose high and then touching down about halfway down the runway. Thereafter full power was applied with the aircraft still in a nose high attitude and pulling to the right. The aircraft then landed a second time outside of the runway, pulled then sharply to the left and disappeared into the adjacent forest where the engine quit.

The aircraft broke up substantially and stopped in the forest about 50 meters from the runway. The pilot was seriously injured while the co-pilot sustained only minor injuries.

The technical investigation showed that the aircraft had no faults or defects prior to the accident. The type of damage to the propeller and throttle position indicated that full power had been selected, together with a 35 degree landing flap configuration and the same position of the flap actuator, at the time of the accident.

The reason for the pilot's inability to get the aircraft safely climbing again can be due to the engine not being able to produce sufficient power to overcome the substantial induced drag caused by the unusual nose high attitude and landing configuration. It is also quite possible that the decrease in speed was caused by the fact that the aircraft touched down on soft surface and dragged a wingtip.

The pilot had no prior experience of landing at Hornlanda Airport. Landing on such a narrow runway is a very demanding task and there is very little margin for error. It is the opinion of SHK that landing at an airport such as Hornlanda automatically implies certain safety risks. If any wheel leaves the hard surface, the drag induced will most likely increase to the point where the aircraft is pulled completely off the runway.

The Swedish CAA specifies that runways at private airports shall have a landing surface of at least 10 meters and a total cleared width of 30 meters. Hornlanda Airport does not meet either of these requirements.

The accident was caused by the aircraft partly landing on the grass outside of the confines of the asphalt landing surface, which caused the pilot to lose control. The accident was further complicated by the fact that no attempt was made to either lower the nose or reduce the landing configuration. Another contributing factor was that the airport did not meet the minimum standards specified in regulations.

Recommendations

The Swedish CAA should begin to more readily enforce the minimum standards they specify for airports and to forbid the use of fields that do not hold these minimum standards as airports.