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## **Report RL 2000:17e**

***Accident onboard aircraft SE-LFB  
in the airspace over Bohuslän,  
Ö county, Sweden, on 17 January 2000***

**Dnr L-002/00**

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

Translated by Bob Arnesen.  
From the original Swedish report at the request of the Board of Accident Investigation (SHK).  
In case of discrepancies between the English and the Swedish texts, the Swedish text is to be considered the authoritative version.

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2000-05-26

L-002/00

Swedish Civil Aviation Administration

601 79 NORRKÖPING

**Report RL 2000: 17e**

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The Board of Accident Investigation (Statens haverikommission, SHK) has investigated an accident that occurred on 17 January 2000 in the Swedish airspace over Bohuslän, O county, onboard an aircraft with registration SE-LFB.

In accordance with section 14 of the Ordinance on the Investigation of Accidents (1990:717) the Board herewith submits a final report on the investigation.

Ann-Louise Eksborg

Monica J Wismar

## Report RL 2000:17e

**L-002/00**

Finalised 2000-05-26

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Aircraft; registration and type	<b>SE-LFB</b> , Fokker F27 MK050
Class/ airworthiness	Normal, valid Certificate of Airworthiness
Owner/operator	SEB Finans AB, 103 78 Stockholm/ SAS Sverige AB (Commuter), Box 7751, 103 96 Stockholm
Time of occurrence	2000-01-17, at 1715 hrs, in darkness <i>Note:</i> All times used in the report are Swedish normal time (SNT) = UTC + 1 hour
Place	In the airspace over Bohuslän, O county, Sweden, at approximate position 5814N 1203E, at FL100 (approx. 3000 m above sea level)
Type of flight	Scheduled flight
Weather	The weather observation made at Gothenburg's Landvetter Airport at 1715 hrs: wind 360° at 12 knots, visibility more than 10 km, clouds 5-6/8 stratocumulus based at 5000 ft, temp. +7° C, dewpoint -3° C, QNH 1006 hPa.
Persons on board; crew	2/2
passengers	46
Injuries to persons	A cabin attendant broke her ankle.
Damage to aircraft	No damage
Other damage	None
Commander:	
age, certificate	42 years, Air Transport Pilot Licence (ATPL)
total flying time	9200 hrs, of which 4700 hrs on type
flying time previous 90 days	approx. 200 hrs , all on type
number of landings previous 90 days	133
First Officer:	
age, certificate	31 years, Commercial Pilot Licence (CPL)
total flying time	1240 hrs, of which 198 hrs on type
flying time previous 90 days	172 , all on type
number of landings previous 90 days	133

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The Board of Accident Investigation (SHK) was notified on 19 January 2000 that an accident had occurred onboard an aircraft with registration SE-LFB, in the airspace over Bohuslän, O county, Sweden, on 17 January 2000 at 1715 hrs.

The accident has been investigated by SHK represented by Ann-Louise Eksborg, chairman, and Monica J Wismar, Chief investigator flight operations.

The investigation was followed by the Swedish Civil Aviation Administration represented by Max Danielsson.

## History of the flight

The aircraft was on a scheduled return flight on the route Gothenburg – Oslo – Gothenburg on the 17 January 2000. The commander had flown the route earlier in the day and was familiar with the existing weather conditions. He informed the cabin crew prior to the departure from Gothenburg that they could expect turbulence, heavy northerly winds aloft and that the flying time from Oslo would be shorter than normal due to the tailwind.

After the departure from Oslo the seat belt sign remained on for approximately five minutes due to turbulence in the climb-out. The flight had a full load of 46 passengers, which meant that there would be little time for the cabin attendants to carry out a full service program on the shorter than normal flight. Ten minutes prior to landing at Gothenburg, when the commander turned on the "fasten seat belt" sign, they were both standing in the aft galley stowing their service carts, having just completed all service. One of the C/A's was leaning slightly forward to lock a cart in place when the aircraft was thrown about in turbulence. She flew up into the air and then landed on the floor on her back with her right leg under her. She felt that something had happened to her leg and after receiving help from the other C/A to remove her boot, could see that her ankle was twisted out of place. The commander was informed of what had happened and it was decided that the injured C/A would remain lying on the floor for the landing. The other C/A sat on a crew seat near her colleague. An ambulance was requested to meet the aircraft after landing. The flight landed eight minutes later.

When the aircraft had parked at the terminal the First Officer assumed the injured C/A's duties in the forward part of the cabin. When all the passengers had left the aircraft, the injured C/A was removed by ambulance personnel and transported to hospital.

After examination at the hospital it was determined that she had suffered three separate fractures in her right ankle.

The injured C/A was a new-hire and was on training on her 15<sup>th</sup> flight with the company.

At the time there were heavy north-westerly winds over Scandinavia and there was an existing SIGMET<sup>1</sup> for severe turbulence around Gothenburg between 4000 and 13000 ft.

The commander stated that the aircraft was flown manually during the approach to avoid any overspeeds caused by turbulence. When passing through 10000 ft the wind was recorded to be from the north at 60 knots. Other than the usual moderate turbulence experienced, the aircraft was shaken about severely once during the flight due to the winds, which did not result in the loss of altitude.

## Conclusion

Turbulence was experienced during the flight. The sudden severe shaking that was felt caused the C/A to lose her balance and fall, breaking her ankle. Contributing to the accident onboard was the fact that the short flight time provided little opportunity for the cabin attendants to complete the normal service program for a fully seated flight and then be seated with their seat belts fastened in good time prior to the landing. SHK considers that the need for serving a complete service program on short flights in turbulent weather can be questioned from a safety point of view.

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<sup>1</sup> SIGMET – information given by the issuing weather authority outlining actual or anticipated weather phenomena affecting the flight safety of an aircraft on a given route.

