**Nr.**  $\frac{1965/40}{234}$ 

Untersuchungsbericht des niederländischen Reichsluftfahrtdienstes

vom 29. Juli 1965

über die Landung des Flugzeuges HB-AAU

in Schiphol

am 7. Juni 1965

Summary Report of the incident to the Balair Fokker Friendship HB-AAU on 7 June 1965 at Schiphol Airport.

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Summary report of the incident to the Balair Fokker Friendship HB-AAU on 7 June 1965 at Schiphol Airport

1. Investigation

### 1.1 History of the flight

Aircraft

	Type: Nationality: Registration:	Fokker F-27 Friendship Swiss HB-AAU
Owner:		Balair AG. Schweizerische Gesellschaft für Bedarfsluftverkehr, Basel
Incident:		Date 7 June 1965 Time 1958 GMT (2058 LT)
Last point of departure:		Geneva Airport
Point of intended landing:		Basel-Mühlhausen
Place of incident:		Schiphol Airport, runway 06
Type of operation:		Scheduled air transport, flight Nr. SR 050 for Swissair
Phase c	of operation:	Landing
Type of accident:		Nosewheel-up landing

#### Brief description of the incident:

The flight took off from Geneva Airport at 1550 GMT to Basel-Mühlhausen. See flightplan in appendix 1.

The flight was uneventful until over Bern at 12000 ft. the aircraft was struck at the right hand side of the nose by a lightning stroke. The crew noticed that the right wing tip had been damaged and notified the Zurich control tower accordingly. At 1624 GMT the flight was cleared to descend to Basel.

The approach procedure proceeded normally until the captain noticed that after having selected the undercarriage down the nosewheel green light did not come up.

When arriving at final approach the nosewheel light still was red and the captain decided to make an overshoot.

When passing the control tower the tower operator observed the nosegear had not been extended. The pilot tried again to extend the nosegear. He applied all conceivable means but did not manage to extend the gear. After a consult by radio with the managing director of Balair, it was decided to proceed to Schiphol Airport (Fokker Aircraft Factory) and to make a landing there. At 1717 GMT the aircraft left Basel and entered the terminal area of Schiphol Airport at 1951 GMT.

In the meantime the Airport authority at Schiphol had started to lay a foam path (10 ft wide) on runway 06. The foam path was ready at 2020 GMT. The chief testpilot of the Fokker Aircraft Factory, who was on control tower, advised the pilot about the approach procedure to be followed and about the emergency procedure to extend the nosegear. It proved however impossible to extend this gear and so the captain decided to land with the nosegear up. After a normal approach he landed the aircraft at 2036 GMT and touched the ground with the maingear about 100 m before the foam path with minimum speed (90-95 kts).

The nose of the aircraft touched the ground in the foam path about 300 m from the beginning of this path. The aircraft came to a standstill about 6 m past the end of the foam path. All occupants left the aircraft without injuries.

#### 1.2 Injuries to persons:

None of the 4 crewmembers and 46 passengers was injured.

#### 1.3 Damage to aircraft:

The underside of the nose was damaged by ground contact. During the removal of the aircraft it had been necessary to open the jammed nosewheel doors by means of a crowbar in order to extend the nosegear. By this operation the nosewheel doors had been damaged. Close inspection of the nose section revealed that the skin at the right hand side and the bottom had been deformed by a local increase of air pressure due to the lightning stroke.

The wheelwell doors were damaged at the left side due to ground contact. The damage to the left door disclosed that this door had been opened more than the right door before ground contact was made. The right wing tip, the right hand side and the bottom of the nose section showed burn marks due to the lightning discharge.

1.4 Other damage:

None

#### 1.5 Crew information:

From the pilot-in-command the following information was collected.

Born:	1927
Nationality:	Swiss
License:	Führerausweis für Linienpiloten, issued 17 February 1961; valid until 8 June
Ratings for:	Vickers Viking since 17 February 1961 Douglas DC-4 since 17 February 1961 Douglas DC-6B since 19 January 1962 Fokker Friendship since 29 April 1964
Experience:	As pilot-in-command about 7000 hours; on Fokker Friendship about 800 hours in command.

### 1.6 Aircraft information:

Registrationmarks:	HB-AAU
Type:	Fokker P-27 "Friendship"
Serial number:	10200
Manufacturer:	Fokker Aircraft Factory, Schiphol Airport
Certificate of registration:	2287/a/l, issued on 30

March 1965 to Balair AG, Basel Certificate of airworthiness: 2287/b/l, issued on 30 March 1965, valid until 31 March 1966.

The aircraft maintenance log did not contain any entry in relation to the operation of the nosegear. The chief Engineer of Balair stated, that before the incident no defect had occured to the nosegear.

Both at take-off and landing the aircraft all-up weight and centre of gravity were within limits.

#### 1.7 Meteorological information

According to the report of the Institut Suisse de Meteorologie at about 1600 GMT a heavy thunderstorm was located over Bern. It was accompanied by lightning and rain, local heavy turbulence.

# 2. Findings and conclusion

### 2.1 Findings

- The aircraft was properly certificated and maintained. It was operated within the operating limits. Before the incident no defects had occured to the nosegear.
- The pilot-in-command was properly licensed. His experience as pilot-in-command on the type of aircraft involved was about 800 hours.
- When flying over Bern the aircraft was struck by a lightning stroke at the right hand side and bottom of the fuselage nose.
- When approaching Basel-Mühlhausen airport it proved to be impossible to extend the nosegear.
  The flight was diverted to Schiphol Airport to make an emergency landing there.
- 5. After renewed efforts to extend the nosegear the aircraft was landed at Schiphol Airport with the maingear extended on runway 06 on which a foam path had been laid.

6. The technical investigation revealed that the nosewheel doors were jammed due to deformation of the fuselage nose as a result of the lightning stroke, which made extension of the nosegear impossible.

# 2.2 Conclusion

The incident has been caused by a lightning stroke on the nosesection of the aircraft, which resulted in jamming of the nosewheeldoors and the subsequent impossibility to extend the nosegear.

Schiphol Airport, 29 July 1965.