



**Final Report
of the Aircraft Accident
Investigation Bureau**

concerning the incident of

the aircraft Airbus A320-200, D-AIPM

of 26 October 1999

at Geneva-Airport

FINAL REPORT

THIS REPORT HAS BEEN PREPARED FOR THE PURPOSE OF ACCIDENT/INCIDENT PREVENTION. THE LEGAL ASSESSMENT OF ACCIDENT/INCIDENT CAUSES AND CIRCUMSTANCES IS NO CONCERN OF THE INCIDENT INVESTIGATION (ARTICLE 24 OF THE AIR NAVIGATION LAW)

AIRCRAFT	Airbus A320-200	D-AIPM
OPERATOR	Deutsche Lufthansa AG, Frankfurt/D	
OWNER	Deutsche Lufthansa AG, Frankfurt/D	

PILOTS	PIC: German citizen, born on 1955
	COPI: German citizen, born on 1966

LICENCE	ATPL
----------------	------

FLIGHT EXPERIENCE (PIC)	Total	10225	In the previous 90 days	36:45
	On the accident type	2368	In the previous 90 days	36:45

PLACE	Geneva-Airport
--------------	----------------

CO-ORDINATES	---	ALTITUDE	---
---------------------	-----	-----------------	-----

DATE AND TIME	26 October 1999, 1540 UTC
----------------------	---------------------------

TYPE OF OPERATION	Scheduled flight DLH 4290, FRA-BCN
--------------------------	------------------------------------

PHASE OF FLIGHT	Cruise
------------------------	--------

TYPE OF INCIDENT	Smell/fumes in cabin
-------------------------	----------------------

INJURIES TO PERSONS

	Crew	Passengers	Others
Fatal	---	---	---
Serious	---	---	---
Minor or none	7	114	---

DAMAGE TO AIRCRAFT	---
---------------------------	-----

OTHER DAMAGE	---
---------------------	-----

HISTORY OF THE FLIGHT

During cruise at FL 290 a cabin attendant noticed an odour like "burned electric cables" in the forward galley. She informed immediately the cockpit crew. The First Officer (FO) went back to the forward galley and confirmed the "electrical smell". After handing over controls to the FO, the Commander (CP) tried to identify the smell unsuccessfully, but decided to divert to Geneva (GVA). According to the Cockpit Voice Recorder (CVR)-readout, the reason for the diversion to GVA was given as "a minor technical problem" and "electrical fume in the forward galley". The offer by Air Traffic Control (ATC) for priority landing in GVA was accepted by the crew. Consequently ATC alerted fire and rescue services. During the descent, galley power was switched off. The crew reported to ATC that they had no more electrical fume and that they wanted to do a precautionary landing in GVA in order to have the problem checked by maintenance. No abnormalities were noticed in the cockpit.

The crew did not declare emergency and a normal landing was made in GVA ; however fire and rescue services followed up the aircraft. The passengers disembarked the aircraft normally.

INVESTIGATION

The airport authority GVA informed the Federal Aircraft Accident Investigation Bureau about the incident. An investigation according to ICAO Annex 13 was opened on the same day together with technical staff from Swissair, Lufthansa and the flight crew. Due to lack of manpower during the nightshift, the investigation continued the following morning and the aircraft was released on October 27, 1999 at 1300 UTC.

FINDINGS

- All crew members held valid licences.
- The aircraft had no history of smell or smoke.
- During the investigation extended operation of the ovens in the forward galley reproduced the "electrical smell". No fumes or smoke were present.
- A faulty oven heater relay inside of the oven timer panel was identified to produce an "electrical odour" under power. P/N : Sell 8001-26-0000 ALH, S/N 88-07-5229.
- Two wires attached to the relay were found loose.
- No arcing or heat damage could be found.
- No other discrepancies could be found.

ANALYSIS

The decision of the cockpit-crew to divert to GVA for a precautionary landing was appropriate. After having shut down galley power, the "electrical odour" ceased. The crew's decision to perform a normal landing and disembarkation of the passengers was therefore also appropriate.

The heater-relay producing the "electrical smell" was contained in the oven timer-panel. As no arcing and/or heat damage could be found, the incident can be considered as minor.

CAUSE

The incident was caused by a faulty oven heater relay producing an "electrical smell".

Berne, 01 June 2000

Aircraft Accident Investigation Bureau