



National Transportation Safety Board

Aviation Accident Data Summary

Location:	Fort Lauderdale, FL	Accident Number:	MIA07FA005
Date & Time:	11/01/2006, 0233 EST	Registration:	N232TN
Aircraft:	British Aerospace HS 125-700A	Injuries:	12 None
Flight Conducted Under:	Part 91: General Aviation - Executive/Corporate		

Analysis

As the flight approached Fort Lauderdale/Hollywood International Airport, Fort Lauderdale, Florida, the flight crew prepared for a visual approach to the runway and advised the air traffic controller that the field was in sight. According to the pilot, he was distracted by trying to locate the runway for a visual approach. A review of the “Before Landing” and “Close In” checklists for the airplane revealed that both checklists contained landing gear verification tasks; however, although the copilot stated that he read from the checklist, the cockpit voice recorder (CVR), which captured other cockpit conversations, recorded no checklist challenge-response callouts. During the landing, the airplane touched down on the runway with its landing gear retracted and slid about 2,600 feet before coming to a stop, sustaining substantial damage to a structural component and fire damage to the bottom of the fuselage. Following touchdown, the CVR recorded that the pilot asked what happened to the landing gear and that the copilot responded, “We never put it down.”

Although the airplane was equipped with an audible landing gear warning system designed to alert the flight crew that the landing gear is not extended when the airplane is otherwise configured for landing, the CVR captured no sounds that could be associated with the landing gear warning horn, and the pilot reported that he did not hear a warning. Postaccident testing of the airplane’s landing gear system revealed that it operated normally using the normal and emergency extension systems and that the cockpit landing gear visual annunciators and standby indicators correctly indicated the landing gear position. However, the audible landing gear warning system did not operate.

Examination of the electrical wiring for the warning system revealed that a wire labeled “68CA8” was fractured and separated from the “CA” relay; this separation rendered the landing gear warning horn inoperative.

Metallurgical examination of the 68CA8 wire revealed that the fracture features were consistent with overstress; however, the source of the overstress condition was not identified. According to the airplane’s maintenance records, the CA relay and its immediate area were inspected 7 months and 22 days before the accident, and the airplane had operated for 60 hours (accumulating 43 cycles) since the inspection. According to the airplane manufacturer, there is no preflight test that a flight crew could perform to determine the operational status of the audible landing gear warning system.

However, because the audible landing gear warning system and the cabin altitude warning system shared the CA relay, the fractured 68CA8 wire would also have rendered the cabin altitude warning system inoperative, and the operational status of the cabin altitude warning system is a preflight check item for flight crews. Therefore, the anomaly that rendered the gear warning system inoperative would be detectable during a flight crew’s preflight check because the cabin altitude warning would fail to function. However, a review of available maintenance and discrepancy records revealed no indication that any flight crews had previously detected and reported an inoperative cabin altitude warning system, and the accident crewmembers provided no information about their preflight observations of the status of the cabin altitude warning system. Therefore, it could not be determined when the 68CA8 wire fracture occurred.

The pilot was employed by the airplane’s owner. The investigation found that the pilot’s U.S.

commercial airman certificate (issued on the basis of his Mexican pilot license) was not valid for the carriage of persons for compensation or hire. Further, Federal Aviation Administration (FAA) records indicated that the pilot did not hold a U.S. airman medical certificate and that his U.S. airman certificate did not include a type rating for the accident airplane or an instrument rating (the accident flight was operated under instrument flight rules). Additionally, the pilot had not completed a pilot proficiency check within the preceding 12 calendar months. Further, the copilot held only a U.S. private pilot certificate (issued on the basis of his Mexican pilot license) that did not include an instrument rating. Although there is insufficient evidence to indicate that any of these flight crew discrepancies were directly related to the cause of the accident, the FAA determined that these discrepancies represented noncompliance with numerous Federal Aviation Regulations (FARs). According to the FARs, the pilot was not authorized to act as pilot-in-command of the accident flight, and the copilot was not authorized to act as a required crewmember of the accident flight.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the flight crew to extend the landing gear. Contributing to the accident was the inoperative audible landing gear warning system.

Findings

Occurrence #1: WHEELS UP LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. ELECTRICAL SYSTEM,ELECTRIC RELAY - FRACTURED
2. (F) LANDING GEAR,GEAR WARNING SYSTEM - INOPERATIVE
3. (C) CHECKLIST - NOT FOLLOWED - FLIGHTCREW
4. (C) GEAR EXTENSION - NOT PERFORMED - FLIGHTCREW

Pilot Information

Certificate:	Commercial	Age:	47
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	10112 hours (Total, all aircraft), 1730 hours (Total, this make and model), 10112 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

Co-Pilot Information

Certificate:	Private	Age:	22
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	British Aerospace	Registration:	N232TN
Model/Series:	HS 125-700A	Engines:	2 Turbo Fan
Operator:	Juventude Ltd.	Engine Manufacturer:	Garrett-AiResearch
Air Carrier Operating Certificate:	None	Engine Model/Series:	TFE 731-3
Flight Conducted Under:	Part 91: General Aviation - Executive/Corporate		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KFLL, 9 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Night	Wind Speed/Gusts, Direction:	4 knots, 330°
Temperature:	25° C / 22° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Toluca (MMTO)	Destination:	Fort Lauderdale, FL (KFL)

Airport Information

Airport:	Fort Lauderdale/Hollywood Intl (KFL)	Runway Surface Type:	Asphalt
Runway Used:	9L	Runway Surface Condition:	Dry
Runway Length/Width:	9000 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	10 None	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Timothy W Monville	Adopted Date:	11/20/2008
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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