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## Cargo door opening in-flight, Boeing 727-232, February 13, 1997

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**Micro-summary:** The aft cargo door of this Boeing 727-232 opened on takeoff.

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**Event Date:** 1997-02-13 at 1217 EST


**Investigative Body:** National Transportation Safety Board (NTSB), USA


**Investigative Body's Web Site:** <http://www.nts.gov/>


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1. Accident reports can be and sometimes are revised. Be sure to consult the investigative agency for the latest version before basing anything significant on content (e.g., thesis, research, etc).
  2. Readers are advised that each report is a glimpse of events at specific points in time. While broad themes permeate the causal events leading up to crashes, and we can learn from those, the specific regulatory and technological environments can and do change. ***Your company's flight operations manual is the final authority as to the safe operation of your aircraft!***
  3. Reports may or may not represent reality. Many many non-scientific factors go into an investigation, including the magnitude of the event, the experience of the investigator, the political climate, relationship with the regulatory authority, technological and recovery capabilities, etc. It is recommended that the reader review all reports analytically. Even a "bad" report can be a very useful launching point for learning.
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		NTSB ID: ATL97IA042		Aircraft Registration Number: N416DA	
		Occurrence Date: 02/13/1997		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place ATLANTA		State GA	Zip Code 30320	Local Time 1217	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility: 1		Direction From Airport: 90	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 727-232		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On February 13, 1997, about 1217 eastern standard time, the aft cargo door of a Boeing 727-232, N416DA, opened during takeoff from The William B. Hartsfield-Atlanta International Airport, Atlanta, Georgia. The airplane, Flight 1180, was operated by Delta Air Lines as a scheduled, domestic, passenger flight under the provisions of Title 14 CFR Part 121, and instrument flight rules. Instrument meteorological conditions prevailed. An instrument flight plan was activated. There were no injuries to the airplane's occupants, and the airplane had minor damage. The flight, which was originating at the time of the incident, was destined for Charleston, South Carolina.</p> <p>The captain of Flight 1180 stated that the pushback and taxi were "normal with all lights extinguished." He noted, "during takeoff roll, the aft cargo light on the second officer's panel illuminated, cabin pressurization was normal." When the airplane reached approximately 900 feet, there was a "pop", and the airplane lost pressurization. A passenger noticed the cargo door had opened and brought it to the attention of a flight attendant. According to the pilot, the #3 engine then experienced difficulties. There was a "decrease in EPR, N1, and N2 and the engine failed." The airplane returned to Atlanta for an uneventful landing.</p> <p>According to Delta's Operating Manual for the Boeing 727, the cargo light is on the Second Officer's panel and checklist. During the Captain's pre-flight checklist, he inquires as to whether the Second Officer completed his checklist. The Captain and First Officer do not visually check the Second Officer's panel for illuminated lights.</p> <p>According to Delta's records, the Second Officer had 1216 hours of total flight time in the 727, and 179 hours in the last 90 days. The Second Officer was originally hired in October 1991, furloughed in October 1993, and recalled in June 1996. He had 372 hours in the 727 since he was recalled.</p> <p>It was later noted that one bag fell out of the baggage hold onto the runway. Subsequent examination of the airplane did not reveal any structural damage to the airframe. The same cargo door was removed for minor repairs, and was re-installed on the airplane. The latching mechanism was examined and was found capable of smooth operation. There was no damage to the door's locking hooks. An electrical continuity check of the door warning circuitry was positive, and the bulb in the cockpit warning light would illuminate. According to Delta, all of the ground personnel interviewed stated they did not lock the cargo door. They were unable to determine who last operated the cargo door.</p>					
FACTUAL REPORT - AVIATION					
Page 1					

		NTSB ID: ATL971A042			
		Occurrence Date: 02/13/1997			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
HARTSFIELD INTERNATIONAL	ATL	1026 Ft. MSL	9L	11889	150
Runway Surface Type: Concrete					
Runway Surface Condition: Wet					
Type Instrument Approach:					
VFR Approach/Landing:					
Aircraft Information					
Aircraft Manufacturer		Model/Series		Serial Number	
Boeing		727-232		21258	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 152	Certified Max Gross Wt.	184200 LBS	Number of Engines: 3	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	P&W	JT8D-15A	15500 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness	02/1997	32 Hours	21128 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner		Street Address			
DELTA AIR LINES		1030 DELTA BLVD			
		City	State	Zip Code	
		ATLANTA	GA	30320	
Operator of Aircraft		Street Address			
Same as Reg'd Aircraft Owner		Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As:			Operator Designator Code: DALA		
- Type of U.S. Certificate(s) Held:					
Air Carrier Operating Certificate(s): Flag Carrier/Domestic					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 121: Air Carrier					
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: ATL97IA042
	Occurrence Date: 02/13/1997
	Occurrence Type: Incident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 52
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport

Airplane Rating(s): Multi-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--no waivers/lim.	Date of Last Medical Exam: 02/1997
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	13750	4640								
Pilot In Command(PIC)										
Instructor										
Last 90 Days	238	238								
Last 30 Days										
Last 24 Hours										

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier ATL	Departure Time 1210	Time Zone EST
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Destination CHARLESTON	State SC	Airport Identifier CHS	
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Type of Clearance: IFR

Type of Airspace: Class B

**Weather Information**

Source of Briefing:  
Company

Method of Briefing:

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: ATL97IA042
	Occurrence Date: 02/13/1997
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**Weather Information**

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
ATL	1215	EST	1026 Ft. MSL	1 NM	90 Deg. Mag.

Sky/Lowest Cloud Condition: Unknown 0 Ft. AGL Condition of Light: Day

Lowest Ceiling: Broken 900 Ft. AGL Visibility: 2.5 SM Altimeter: 30.00 "Hg

Temperature: 4 °C Dew Point: °C Wind Direction: 70 Density Altitude: 0 Ft.

Wind Speed: 15 Gusts: 19 Weather Conditions at Accident Site: Instrument Conditions

Visibility (RVR): 0 Ft. Visibility (RVV) 0 SM Intensity of Precipitation: Unknown

Restrictions to Visibility: None

Type of Precipitation: None

**Accident Information**

Aircraft Damage: Minor Aircraft Fire: None Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer				1	1
Cabin Attendants				3	3
Other Crew					
Passengers				86	86
- TOTAL ABOARD -				92	92
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	92	92

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: ATL97IA042

Occurrence Date: 02/13/1997

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

PRESTON E. HICKS

Additional Persons Participating in This Accident/Incident Investigation:

CHARLEY SPILLNER

GEORGIA FSDO

REGAN H CAMPBELL

NTSB-ATLANTA OFFICE