
Electrical arcing severs aileron cable on Boeing 767-332ER, June 25, 1996

Micro-summary: Electrical arcing severed an aileron control cable on this Boeing 767-332ER, prompting a diversion.


Event Date: 1996-06-25 at 1857 EDT


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


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

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		NTSB ID: NYC96IA131		Aircraft Registration Number: N185DN	
		Occurrence Date: 06/25/1996		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place JAMAICA	State NY	Zip Code 11430	Local Time 1857	Time Zone EDT	
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 767-332ER		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>On June 25, 1996, about 1857 eastern daylight time, Delta Airlines Flight 148, N185DN, a Boeing 767-332ER, experienced flight control problems shortly after takeoff from John F. Kennedy International Airport (JFK), Jamaica, New York. Visual meteorological conditions prevailed. There were no injuries to the 229 occupants. The aircraft received minor damage. The destination was Rome, Italy. The flight was operated under 14 CFR Part 121, and had departed from JFK at 1852.</p> <p>In the NTSB Incident Report, Delta Airlines stated:</p> <p>"...The flight departed JFK for FCO and was on radar vectors when a loud "crack" or "pop" was heard in the cockpit. The First Officer was the flying pilot. Approximately one to two seconds after the loud noise was heard, the "right generator off" light illuminated. An uncommanded roll to the left was observed by the First Officer, who countered with right aileron inputs. Control forces required to maintain wings level were high, however the aircraft was controllable at all times. The flight crew disconnected the autopilot and completed the checklist procedure for the generator malfunction. The flight returned to JFK for an overweight landing. The aircraft was landed by the Captain on runway 31L without further incident....."</p> <p>The left side, right aileron cable P/N A2B-3 was severed at approximately station 340, Water Line 190, Right Buttock Line 67.5. This is just forward of the forward baggage compartment on the right side, in the electrical equipment bay. In the same area, the right generator power feeder bundle W208 passed. The bundle is made up of three generator power feed cables tied together, with each cable protected by a plastic sheath. When the aileron cable was replaced and tensioned, the clearance between the aileron cable and the generator feed cable was measured at 3/16 inch.</p> <p>Evidence of arcing was observed on the severed halves of the cable. A small hole was found on the fed line at the location next to where the cable separation occurred. No evidence of direct contact between the aileron cable and the plastic sheath over the generator feed cable was found. A small hole, about 1/8 inch in diameter was found on the plastic sheath over the generator feed cable in the area where aileron cable passed next to the generator feed cable.</p> <p>The Boeing drawing used for production states, "Maintain a minimum clearance of 1.0 inch between bundle [generator feed line] and control cable."</p> <p>The airplane was delivered in 1991, and had accumulated 5,975.2 hours at the time of the incident.</p>					
FACTUAL REPORT - AVIATION					
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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: NYC96IA131			
		Occurrence Date: 06/25/1996			
		Occurrence Type: Incident			
Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:					
Runway Surface Condition:					
Type Instrument Approach:					
VFR Approach/Landing: None					
Aircraft Information					
Aircraft Manufacturer Boeing		Model/Series 767-332ER		Serial Number 27961	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Tricycle					
Homebuilt Aircraft? No	Number of Seats: 235	Certified Max Gross Wt.	407000 LBS	Number of Engines: 2	
Engine Type: Turbo Fan	Engine Manufacturer: P&W	Model/Series: 4060	Rated Power: 60000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection Continuous Airworthiness	Date of Last Inspection 06/1996	Time Since Last Inspection 56 Hours	Airframe Total Time 5975 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner DELTA AIRLINES INCORPORATED		Street Address HARTSFIELD ATLANTA INTL ARPT			
		City ATLANTA	State GA	Zip Code 30320	
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner			
		City	State	Zip Code	
Operator Does Business As: DELTA AIRLINES			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; International; Passenger/Cargo					

 <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p>	NTSB ID: NYC961A131
	Occurrence Date: 06/25/1996
	Occurrence Type: Incident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 57
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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):

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--w/ waivers/lim.	Date of Last Medical Exam: 02/1996
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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	15000	858								
Pilot In Command(PIC)										
Instructor										
Last 90 Days	203	203								
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 JFK	Departure Time 1852	Time Zone EDT
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Destination ROME, ITALY	State OF	Airport Identifier FCO	
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Type of Clearance: IFR

Type of Airspace: Class B

Weather Information

Source of Briefing:
Company

Method of Briefing:

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
JFK	1851	EDT	13 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Clear			0 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL		Visibility: 10 SM	Altimeter: 29.00 "Hg
Temperature: 25 °C	Dew Point: 13 °C	Wind Direction: 310		Density Altitude: Ft.	
Wind Speed: 15	Gusts:	Weather Conditions at Accident Site: Visual 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					
Cabin Attendants				9	9
Other Crew				1	1
Passengers				217	217
- TOTAL ABOARD -				229	229
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	229	229

National Transportation Safety Board

FACTUAL REPORT

AVIATION



NTSB ID: NYC96IA131

Occurrence Date: 06/25/1996

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

ROBERT L. HANCOCK

Additional Persons Participating in This Accident/Incident Investigation: