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## Total electrical failure and electrical smoke, Boeng 717-200, March 5, 2004

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**Micro-summary:** This Boeing 717-200 experienced complete electrical power in flight and cabin smoke.

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**Event Date:** 2004-03-05 at 1539 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: ATL04IA085		Aircraft Registration Number: N978AT	
		Occurrence Date: 03/05/2004		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Atlanta		State GA	Zip Code 30320	Local Time 1539	Time Zone EST
Airport Proximity: On Airport		Distance From Landing Facility: 0		Direction From Airport: 0	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 717-200		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 March 5, 2004, at 1539 eastern standard time, a Boeing 717-200, N978AT, operating as flight Citrus 852, registered to Wells Fargo Bank Northwest NA Trustee and operated by Air Tran Airways Incorporated, reported smoke in the passenger cabin during takeoff climb form Hartsfield-Jackson International Airport, Atlanta, Georgia. The scheduled domestic passenger flight was operated under the provisions of Part 121 CFR Title 14 with an IFR flight plan filed. Visual meteorological conditions prevailed at the time of the incident, and there was no damage to the airplane. The airline transport rated captain, airline transport rated first officer, three flight attendants, and 116 passengers were uninjured. The flight departed Hartsfield-Jackson International Airport, Atlanta, Georgia on March 5, 2004 at 1405.</p> <p>According to the captain, during the climb out from runway 26L at approximately 200 feet, the number 6 display unit on the pilot's instrument panel went blank and the engine alert display (EAD) left generator off alert displayed. The first officer requested radar vectors from the Atlanta Tower. After contacting the tower the airplane had a complete electrical power failure, and communications with the Atlanta Tower was lost. Emergency electrical power was restored shortly after the electrical failure. The flight attendants advised the captain that there was smoke in the aft part of the cabin area. The captain and first officer "smelled an electrical burning smell", and declared an emergency. The captain returned to the airport and made an emergency landing, and evacuated the airplane on runway 9R.</p> <p>According to the flight attendant, during the first taxi departure the airplane returned to the gate for mechanical problems. As the airplane taxied out and proceeded to takeoff the emergency lights came on in the cabin. The flight attendant in the forward jump seat yelled, " smoke in the cabin". Smoke was observed emitting from the baseboard vents on the left of the aircraft. The flight attendant notified the captain of the smoke condition and the captain replied, "We are going back". The smoke was extinguished and an announcement was made to inform the passengers that we were returning to the airport..</p> <p>Examination of the Power Conversion Distribution Unit revealed that the tantalum capacitor and the permanent magnet generator input transformer failed. No other anomalies were reported by the captain.</p>					
FACTUAL REPORT - AVIATION					

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: ATL04IA085			
		Occurrence Date: 03/05/2004			
		Occurrence Type: Incident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
THE WILLIAM B HARTSFIELD ATLAN	ATL	1026 Ft. MSL	9R	9001	150
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach: Visual					
VFR Approach/Landing: Full Stop					
<b>Aircraft Information</b>					
Aircraft Manufacturer		Model/Series		Serial Number	
Boeing		717-200		55037	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 117	Certified Max Gross Wt.	67000 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	Rolls-Royce	BR 715	18500 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
Continuous Airworthiness		Hours	Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site? No			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner		Street Address			
		City	State	Zip Code	
Operator of Aircraft AIRTRAN AIRWAYS INC		Street Address 9955 Airtran Blvd.			
		City Orlando	State FL	Zip Code 32827	
Operator Does Business As:			Operator Designator Code: ZZDA		
- 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: ATL04IA085
	Occurrence Date: 03/05/2004
	Occurrence Type: Incident

<b>First Pilot Information</b>				
Name On File	City On File	State On File	Date of Birth On File	Age 32

Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport; Commercial

Airplane Rating(s): Multi-engine Land; Single-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: 04/2004
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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	7300									
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

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

Type of Flight Plan Filed: IFR	
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Departure Point Same as Accident/Incident Location	State	Airport Identifier ATL	Departure Time 1405	Time Zone EST
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Destination MINNEAPOLIS	State MI	Airport Identifier MSP	
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Type of Clearance: IFR

Type of Airspace: Class B

**Weather Information**

Source of Briefing: Company

Method of Briefing: Telephone

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	Occurrence Date: 03/05/2004
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<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
KATL	1539	EST	1034 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Few			3500 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: Broken		9000 Ft. AGL		Visibility: 10 SM	Altimeter: 30.07 "Hg
Temperature: 24 °C	Dew Point: 17 °C	Wind Direction: 190		Density Altitude: 2194 Ft.	
Wind Speed: 10	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): Ft.	Visibility (RVV) SM	Intensity of Precipitation:			
Restrictions to Visibility: None					
Type of Precipitation: None					

<b>Accident Information</b>		
Aircraft Damage: None	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				3	3
Other Crew					
Passengers				113	113
- TOTAL ABOARD -				118	118
Other Ground					
- GRAND TOTAL -				118	118

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National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: ATL04IA085

Occurrence Date: 03/05/2004

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

Eric H. Alleyne

Additional Persons Participating in This Accident/Incident Investigation:

Glen Thompson  
Aviation Safety Inspector  
Atlanta SDO  
1701 Columbia Ave.  
College Park, GA 30337