# Electrical problems on approach, Boeing 717, March 26, 2003

**Micro-summary: This Boeing 717 experienced a loss of all display units and various power sources while on approach.**

**Event Date: 2003-03-26 at 2239 EST**

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

**Investigative Body's Web Site: http://www.ntsb.gov/**

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National Transportation Safety Board

# FACTUAL REPORT AVIATION

| | | |
|---|---|---|
| | NTSB ID: NYC03FA067 | Aircraft Registration Number: N957AT |
| | Occurrence Date: 03/26/2003 | Most Critical Injury: Serious |
| | Occurrence Type: Accident | Investigated By: NTSB |

## Location/Time

| Nearest City/Place | State | Zip Code | Local Time | Time Zone | |
|---|---|---|---|---|---|
| Flushing | NY | 11371 | 2239 | EST | |

| Airport Proximity: On Airport | Distance From Landing Facility: | Direction From Airport: |
|---|---|---|

## Aircraft Information Summary

| Aircraft Manufacturer | Model/Series | Type of Aircraft |
|---|---|---|
| Boeing | 717-200 | Airplane |

Sightseeing Flight: No  Air Medical Transport Flight: No

## Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

HISTORY OF FLIGHT

On March 26, 2003, about 2239 eastern standard time, a Boeing 717-200, N957AT, operated by AirTran Airways as flight 356, received minor damage when the left side power control distribution power unit (PCDU) failed while on approach to land at LaGuardia Airport (LGA), Flushing, New York. During a subsequent emergency evacuation, 1 passenger was seriously injured, and 22 passengers received minor injuries. There were no injuries to the 2 pilots, 3 flight attendants, and 55 passengers. Night visual meteorological conditions prevailed for the scheduled passenger flight. An instrument flight rules (IFR) flight plan had been filed for the flight that departed from The William B Hartsfield Atlanta International Airport (ATL), Atlanta, Georgia, and was conducted under 14 CFR Part 121.

According to flightcrew interviews and documents from Air Tran airways, the en route part of the flight was without incident. Upon arrival in the New York area, the flight was radar vectored for the ILS runway 04 approach. The in-range checklist was completed and the landing weight was determined to be 97,000 pounds. The Vmin speed on approach was 135 knots, and the Vref with 40 degrees of flaps was 130 knots.

The flight was cleared for the ILS runway 4 approach, and instructed to contact LaGuardia control tower. After establishing contact with the control tower, the pilots were told that they were number 3 for the runway, following a Boeing 757, and that the braking action was reported as good by a preceding MD-80.

At 2239:16, the CVR recorded two thumps and two clicks on all channels.

The co-pilot called out the left generator was off, followed by the captain who reported they were, "...losing everything." The APU was started and the crew commented that they had lost all of their busses also. The cockpit area microphone (CAM), recorded the crew alerting and warning system (CAWS) stabilizer alert, "stabilizer motion" which repeated seven times. The co-pilot called, "select FADEC alternate" and advised the captain that he had manual throttles.

At 2239:42, the captain stated, "kill that light out of my face." The co-pilot acknowledged the captain's request, and then asked, "are you moving the stabilizer?" The captain replied that he was, "...not doing anything. I've lost everything." The co-pilot then stated, "generator left off." followed by the captain stating, "kill, kill this light...." to which, the co-pilot replied, "alright."

At 2240:00 the CAM recorded the CAWS stabilizer alert again. The co-pilot then tried to reset the generator, and the captain called, "there's the runway. I'm landing the airplane," followed by a request for landing gear down, and the landing checklist. The co-pilot reported that the auxiliary

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hydraulic pump had failed, followed by the captain who asked for the landing gear to be lowered. This was followed by the sound of a click and increased air noise similar to landing gear being operated.

At 2240:26, the captain questioned his Vref speed of 140 knots, and the co-pilot replied, "roger that." The captain then stated, "we don't have any idea if the gear's down, do we?", to which the co-pilot replied, "not yet, no. Weird huh."

At 2240:37, the flight was cleared to land by the control tower and told that the winds were from 010 degrees at 13 knots.

At 2240:45, the co-pilot said, "I smell something too, don't you."

At 2241:04, the captain said, "go to flaps forty." This was acknowledged by the co-pilot.

At 2241:08, the CAM recorded a sound similar to the CAWS landing gear alert, which started, and continued to the end of the recording. The CAM also recorded a mechanical voice, which stated, "one thousand [feet]."

At 2241:10, the captain stated, "you smell something burning? I think we have a fire." The co-pilot replied, "I smell something weird...no way to tell if landing gear down. A few seconds later the co-pilot stated, "we lost everything, that's for sure. Your speed's pretty damn high.", to which the captain replied, "that's all right...."

At 2241:34, the captain stated, "tell him we're declaring an emergency. We have an electrical problem." The co-pilot told the control tower that they had an electrical emergency. The captain further stated, "tell him to send the equipment", and the co-pilot transmitted to the control tower,"...we might have a possible fire...we're landing on runway four."

At 2241:58, the captain stated, "all right, we'll stay at this altitude." The co-pilot replied, "roger that. I wouldn't go any lower." At 2242:02, the CAM recorded a mechanical voice, which stated, "minimums." At 2242:04, the captain stated, "...we may have to evacuate the airplane." This was acknowledged by the co-pilot.

At 2242:09, the co-pilot stated, "I wouldn't get any lower." and the captain replied, "...we're all right...". At 2242:12, the co-pilot stated, "okay, your looking good. You're definitely fast. Don't go any faster." The captain replied, "I know, I know that." At the same time as the captain's reply, the CAM recorded a mechanical voice, which stated, "one hundred."

Between 2242:19 and 2242:25, the CAM recorded a mechanical voice calling out "fifty", "forty", "thirty", "twenty", "ten", and "five."

At 2242:25, the CAM recorded a sound similar to the airplane touching down on the runway, and at 2242:28, the CAM recorded a "thump" similar to nose landing gear contact with the runway. At 2242:36, the co-pilot called ,"reverse," and one second later he called, "eighty knots."

At 2242:50, the captain stated, "tell him we need the fire trucks out here. I think we may have a fi, some kind of fire." At 2242:52, the co-pilot transmitted to the control tower, "...tower, Citrus three fifty six, uh, please run the fire trucks out here. We are smelling electrical smoke." The local controller asked the pilots to pull all the way onto taxiway BRAVO, and acknowledged their request for fire trucks.

At 2243:04, the captain stated, "get, get the door, get the door unlocked." The local controller asked the pilots to hold short of taxiway FOXTROT, and this was acknowledged. The local controller then instructed the pilot to contact ground control, and the co-pilot replied, "sir, I can't..."

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The captain then transmitted, "We, we don't have time for that sir. I may have to evacuate. You're gonna have to just get some people out here. The local controller replied, "Okay, you can stop right there if you need to and do what you have to do."

At 2243:37, the captain stated, "we got some kind of fire guys. Get ready to get out of here. A flight attendant stated, "we have no lights", and the captain said, "just, just um all right just hold still, all right, just hold still, hold still."

At 2243:43, an announcement was made on the public address system which stated, "Ladies and gentlemen, we need everybody in their seats please...."

At 2243:44, the captain asked, "do you have any emergency lights?", and the co-pilot replied, "nothing." At 2243:47, the captain stated, "alright, evacuate the airplane. Tell 'em we've gotta evacuate the airplane." At 2243:48, the CAM reported a flight attendant stating, "evacuate, evacuate."

At 2243:50, the captain stated, "All right do your, lets do the checklist." The co-pilot replied, "okay."

The transcript ended at 2243:52

The captain reported that after he stopped the airplane, he exited his seat and opened the cockpit door to assess the situation. The cabin was dark. There was a stronger burning smell in the cabin than they had experienced in the cockpit. The captain then ordered an emergency evacuation of the airplane. The first officer reported that he completed the emergency evacuation checklist, which included resetting the wing flaps to 25 degrees.

The flight attendants reported that on approach, the cabin lights extinguished, and the emergency lights illuminated. Then after a few minutes, the emergency lights extinguished, and the cabin was without illumination. In addition, the L1 and R1 flight attendants noticed a burning smell. The lead flight attendant (L1) reported that when she punched the buttons for the public address system, the buttons did not illuminate on the handset used for making public address announcements and communicating with the cockpit, and she perceived that the handset was inoperative. After touchdown, the lead flight attendant exited her seat, and tried banging on the cockpit door and speaking loudly to get the attention of the flight crew. The pilots reported that they did not hear the flight attendant pounding on the door or speaking loudly.

About the same time that the captain had opened the cockpit door to check the cabin, the forward flight attendants reported hearing the aft flight attendant make an announcement using the PA system for the passengers to remain seated. The lead flight attendant then tried her handset again, and was able to make an announcement using the PA to begin the evacuation.

The L2 flight attendant at the aft station jettisoned the tail cone, but could not determine if the slide had properly inflated. She then directed the passengers in the aft part of the cabin to the forward over wing exits and forward doors. She exited the cabin at the left rear overwing exit, and then re-entered the cabin. At that time, she heard a "pop" which she associated with the inflation of the tailcone slide.

After the passengers and flight attendants exited the cabin, the captain went to the rear of the airplane and then back forward to ensure no one was still onboard. At that time, firemen were at the forward door of the airplane. The forward slide was released, and the firemen gained access to the cabin using ladders.

The accident occurred during the hours of darkness at 40 degrees, 46.67 minutes north latitude, and 73 degrees, 52.54 minutes west longitude.

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PERSONNEL INFORMATION

Captain

The captain held an airline transport pilot certificate with a multi-engine airplane rating, and a commercial pilot certificate with a single engine airplane rating. He was type rated in the DC-9, which included the Boeing 717. He was last issued a first class FAA airman medical certificate on March 10, 2003. His total flight experience was 13,811 hours, with 1,677 hours in make and model. He had flown 266 hours in the preceding 90 days.

Co-pilot

The co-pilot held an airline transport pilot certificate with single and multi-engine airplane ratings. In addition, he held a commercial pilot certificate with rotorcraft and instrument helicopter ratings. He also held a flight instructor certificate with ratings for single and multi-engine airplanes and instrument airplane. He was last issued a first class FAA airman medical certificate on November 5, 2002. His total flight experience was 7,000 hours, with 873 hours in make and model. He had flown 178 hours in the preceding 90 days.

AIRCRAFT INFORMATION

The Boeing 717-200 was type certificated under A6WE. This included the original DC-9 series, the MD-80 and MD-90 series, and the Boeing 717 series of airplanes.

According to records from Air Tran, at the time of occurrence, the airplane had accumulated 6,308 hours, and 4,503 cycles, since its delivery new in January 2001.

Boeing 717 Electrical System

The Boeing 717 utilized an automatic integrated electrical power system. In-flight power sources were the batteries, and the three AC generators, one on each engine, and the APU. System operation was automatic and under control of the electrical power control unit (EPCU), which provided external power protection, automatic power transfer, emergency power automatic activation, and galley power shedding. Additional system control came from the three-power conversion and distribution units (PCDU), one with each generator. For components requiring DC power, each PCDU had an integrated transformer rectifier that converted 115-volts AC to 28-volts DC.

When an electrical system malfunction occurred, an alert was displayed on the engine and alert display (EAD). Additional information was available on the electrical synoptic page, including power sources, voltage, frequency, generator load, individual relay positions, and primary AC and DC buses.

Display Units

Flight and airplane system information was obtained from the six flat panel Display Units (DUs) on the instrument panel. They were numbered from left to right, one through six. There were four types of information the DUs were capable of displaying. These include; Primary Flight Display (PFD), Navigation Display (ND), Engine and Alert Display (EAD), and System Display (SD). The PFD display was a reserved display, and could not be manually changed to another DU. With a loss of one or more DUs, the system assumed a pre-determined configuration based upon the DUs lost. With a reconfigured, or partial display, the pilots had the option of changing a SD display to a ND display.

The standard display and source of power for each DU was as follows:

Narrative (Continued)

DU #1: Captain's PFD Emergency DC bus
DU #2: Captain's ND DC transfer bus
DU #3: EAD Emergency DC bus
DU #4: SD Right DC bus
DU #5: First Officer's ND Right DC bus
DU #6: First Officer's PFD Left DC bus

Cabin Emergency Lighting

The airplane was equipped with both cockpit and cabin emergency lighting whose battery power supply was independent from other airplane power sources. This system was controlled primarily by a three-position toggle switch in the cockpit overhead panel with positions of OFF, ARM, and ON. There was an additional switch on the flight attendant's Control Panel adjacent to the L-1 forward entry door. Likewise, this switch was also a three-position switch (OFF, momentary ARM, and ON.) It was normally guarded in the OFF position and was intended for use only when the flight crew did not arm or was unable to activate the cockpit switch. An alert message was displayed on the EAD DU if the switch was not in the ARM position during normal operation.

With the cockpit switch in the OFF position, the emergency lights were off and would not illuminate during a power loss. If either the cockpit or the flight attendant's switch were selected to the ON position, emergency lights would illuminate in both the cockpit and the cabin. If the flight attendant's switch was used to activate the emergency lights, they would remain illuminated even if the cockpit switch was moved to the OFF position. The flight attendant's switch must be moved to the OFF position to return system control to the cockpit switch.

With the cockpit switch in the ARM position, the cockpit and cabin emergency lights would illuminate with a loss of electrical power to the emergency DC bus. If power was restored to the bus, the emergency lights would extinguish, and the batteries would be recharged.

FLIGHT RECORDERS

Cockpit Voice Recorder

The cockpit voice recorder was examined in the Safety Board vehicle recorder laboratory. The quality of the recording was excellent and a transcript was prepared of the last 19 minutes of flight and 1 minutes of ground time.

Flight Data Recorder

The flight data recorder was examined in the Safety Board vehicle recorder laboratory. The recorder was powered by the left DC bus on the airplane's electrical system. The first indication of an anomalous condition occurred when a momentary data drop out was recorded by the three acceleration channels. Upon data return, all three channels recorded normally again for a further five seconds, when a total loss of all recorded data ensued.

The data for the display units was recorded every 4 seconds. The last data from each of the units indicated they were in operation. There was no data to indicate any anomalous data to either the display units, or any other electrical circuit on the airplane, prior to a total loss of electrical power to the flight data recorder.

WRECKAGE AND IMPACT INFORMATION

The airplane was examined by an inspector from the FAA who reported that the left side PCDU, located in the forward electronics bay, exhibited evidence of sooting, and had a burned odor about

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it. The unit, along with the bus tie breakers associated with it, were removed and retained for further investigation.

The tail cone had separated from the airplane and the tail cone slide was found extended and deflated. When the slide was examined, no problems were found with the unit.

TESTS AND RESEARCH

PCDU

The unit was examined at the manufacturer's facility from April 1- 2, 2003. The three external circuit breakers were not tripped. Several of the circuit cards showed heavy sooting. Molten metal was found on the A4 card where it connected to the A5 card. Several diodes were found shorted on the A4 circuit board. Hamilton Sundstrand personnel reported the failure of VR 12 transient suppression diode was instrumental in the failure of the PCDU.

According to the Safety Board System Group Chairman's report, the failure mode of the PCDU allowed AC current to contaminate the DC circuits in the unit. The overall effect of the AC contamination in internal PCDU circuitry was not determined, nor was the failure instantaneous. The unit recycled multiple times attempting to reset itself, but the cycling rate could not be determined.

The Safety Board System Group Chairman report also revealed the left PCDU non volatile memory included messages about the generator relay over current and generator relay driver. The EPCU non-volatile memory data was related to external power and there were no indications of any trips during the incident flight. No indications of a trip event was found on the right PCDU and APCDU.

ADDITIONAL INFORMATION

Left DC Bus

Additional information contained in the Safety Board Group Chairman's report revealed that with the failure of the left PCDU, the left AC and DC busses were lost. Emergency DC power would have been activated; however, with no other power sources available for either bus, several items would have been unpowered. Among the items unpowered were the indicating and warning systems for down and locked landing gear. In addition, the left DC tie relay was also lost, and that prevented an alternate method of supplying power to the left DC bus.

Display Unit Reconfiguration

According to Boeing, with a loss of power to one or more DUs, the remaining screens will automatically reconfigure to a pre-programmed setting. During the reconfiguration process, the new data to be displayed will be checked for validity prior to being displayed. The reconfiguration of the DU, subsequent validity check, and display of new information would normally happen within a few seconds; however, it could take as long as 10 seconds depending on the type of failure and length of power outage to the DU.

Following the electrical interruption and power loss to the left DC bus, DUs 1, 3, 4, and 5 would have reconfigured as indicated below.

DU #1: PFD
DU #2: Status unknown - Due to failure mode of PCDU
DU #3: EAD
DU #4: SD (pilot selectable to ND)
DU #5: PFD
DU #6: Blank - No power

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The investigation revealed that each time the PCDU recycled, it also caused the DUs to recycle, which would reset the process to display new data.

Airplane Testing

Testing was conducted on the emergency light system of the accident airplane in Orlando, Florida, on April 15, 2003, under the supervision of the Safety Board Systems Group Chairman. Testing of the emergency lights found no discrepancies with their operation. A review of maintenance records revealed that the emergency lighting system was also checked prior to moving the airplane from LaGuardia, and no discrepancies were found at that time. There was no record that the batteries or any other components had been replaced.

It was determined that when the left PCDU failed, the internal circuitry of the PCDU became contaminated with AC power. The investigation was unable to determine conclusively how the system would operate under these circumstances, and was therefore unable to determine why the emergency lights turned off in the cabin after a few minutes of operation.

Cockpit Emergency Procedures

Generator OFF Checklist - The generator off checklist used by AirTran allowed for one reset attempt, after which the generator was turned off and the APU was started. According to the CVR transcript, this was accomplished.

Pilot Interviews

During interviews, the captain reported that after the event initiated, he directed his vision outside of the cockpit. He said the bright light referred to in the CVR transcript was the MASTER WARNING light which was located at the top of the glare shield directly in front of his vision. In addition, the captain said he believed the cockpit emergency lights did not illuminate. However, he did remember turning on the emergency lights as he was securing the cockpit, after the airplane had stopped. When asked if he had attempted to use the ISIS (standby instruments), he replied that he had not. He said he focused his vision outside of the cockpit where it remained until after touchdown.

The co-pilot reported that when the event initiated, all the system Cue switches, located on the lower center pedestal had illuminated. He added that the procedures taught at AirTran were to depress the respective system Cue switch when illuminated, and this action would cancel the MASTER WARNING light. However, he added that all the system Cue switches were illuminated, and even though he pressed all of them multiple times, the system Cue switches, along with the flashing MASTER WARNING light remained illuminated for a period of time.

When the co-pilot was asked if the cockpit emergency lights had illuminated after the event, he reported that he did not believe they had illuminated and he had no memory of turning off the emergency lights. After reporting that the cockpit had darkened after the event initiated, the co-pilot was asked if he had used a flashlight to illuminate the cockpit and he replied that he had not. However, he did report that he was able to get airspeed data from the DUs. When questioned further in this area, the co-pilot reported that as the airplane approached the runway, he transferred his vision to outside of the cockpit about 20 seconds prior to touchdown, and it remained there until after touchdown.

Flight Attendant Interviews

The forward flight attendant seated at the L-1 door reported that she did not reach over her shoulder to activate cabin emergency lights, after the cabin went dark. The flight attendants

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reported that after the airplane had landed, the inside of the cabin was illuminated by floodlights on nearby buildings.

The L2 flight attendant sent a letter to the Safety Board Survival Factors Investigator after the accident. The letter stated in part:

"...What I saw that night was a yellow pack, which at this time I believe must have contained or was the slide itself. In my experience with any slides I have used in training and in the evacuation itself, the slides were always gray in color, not yellow. At this time I know that the metal cover must have come off with the tailcone and there was a yellow pack in place, which I was under the impression at the time of the evacuation that it was the slide pack cover...I have come to realize with this experience that the mock-up we use in training cannot fully equip a flight attendant to the realities of a real-life evacuation...."

None of the flight attendants reported that they took their flashlights with them, or assessed conditions outside of the various emergency exits prior to opening them.

AirTran Flight Attendant Training Aids

The Safety Board, Survival Factors Group Chairman reported that AirTran had two tail cone door trainers. One was configured for the Douglas DC-9, and the other was configured for the Boeing 717. However, although the door trainers were representative of the airplanes used, there was only one tail cone trainer, and it did not match the specific configuration of either airplane. Following is a list of discrepancies found with the tail cone trainer:

The tail cone trainer had primary and secondary tail cone release handles inside the tail cone area. This matched the configuration of the DC-9, but did not match the configuration of the Boeing 717, which had only a secondary release handle in that area. The primary tail cone release on the Boeing 717 occurred when the tail cone door was opened.

The tail cone trainer had a rigid yellow plastic slide cover over the tail cone slide. The DC-9 used a gray soft fabric cover, and the Boeing 717 used a rigid slide cover that was greenish-gray in color.

The tail cone trainer had a fabric handle and quick release straps to manually deploy the slide pack. This matched the DC-9; however, the Boeing 717 used a rigid "T" handle that latched the slide cover closed.

The tail cone trainer depicted a slide that could be manually deployed by kicking it with your foot. This matched the DC-9; however, the Boeing 717 required that the slide cover be lifted off of the slide by use of the "T" handle prior to kicking the pack.

At the time of the accident, Air Tran was transitioning from the DC-9, to the Boeing 717, and their fleet consisted of 13 DC-9s, and 56 717s. The transition was completed in January 2004.

Crewmember Emergency Training

Crewmember emergency training was covered by 14 CFR Part 121.417. The FAA definition of "crewmember" included both the cockpit crew and flight attendants.

After it was found that the existing tailcone trainer used by AirTran did not accurately reflect either the DC-9, or Boeing 717 airplanes, AirTran set up an interim training program for their flight attendants, until a new door trainer could be obtained. This program was approved by the FAA Principal Operations Inspector (POI), and did not include hands on training for the flight attendants. Additionally, the pilots were not included in the training program.

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The Vice President of Flight Operations at AirTran, and the FAA POI, both reported that the training was within FAA guidelines, and did not require hands on training, or need to include the pilots.

The Safety Board Survival Factors Group Chairman then requested a "legal" interpretation of 14 CFR 121.417. The FAA reply stated in part:

"...Each crewmember (flight attendant and pilot) must operate each type of emergency equipment in the normal and emergency modes including the actions and forces necessary in the deployment of the evacuation slides. Hands-on training of the B-717 tailcone door and emergency evacuation slides for all crewmembers must be conducted during the recurrent training cycle...."

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Occurrence Type: Accident

## Landing Facility/Approach Information

| Airport Name | Airport ID: | Airport Elevation | Runway Used | Runway Length | Runway Width |
|---|---|---|---|---|---|
| LaGuardia Airport | LGA | 22 Ft. MSL | 04 | 7000 | 150 |

Runway Surface Type: Asphalt

Runway Surface Condition: Wet

Type Instrument Approach: ILS-complete

VFR Approach/Landing: None

## Aircraft Information

| Aircraft Manufacturer | Model/Series | Serial Number |
|---|---|---|
| Boeing | 717-200 | 55017 |

Airworthiness Certificate(s): Transport

Landing Gear Type: Retractable - Tricycle

| Homebuilt Aircraft? | Number of Seats: | Certified Max Gross Wt. | Number of Engines: |
|---|---|---|---|
| No | 123 | 121000 LBS | 2 |

| Engine Type: | Engine Manufacturer: | Model/Series: | Rated Power: |
|---|---|---|---|
| Turbo Fan | Rolls-Royce | BR715-A2 | 18500 LBS |

- Aircraft Inspection Information

| Type of Last Inspection | Date of Last Inspection | Time Since Last Inspection | Airframe Total Time |
|---|---|---|---|
| Continuous Airworthiness | 03/2003 | 195.4 Hours | 6304.5 Hours |

- Emergency Locator Transmitter (ELT) Information

| ELT Installed? | ELT Operated? | ELT Aided in Locating Accident Site? |
|---|---|---|
| Yes | No | No |

## Owner/Operator Information

| Registered Aircraft Owner | Street Address | City | State | Zip Code |
|---|---|---|---|---|
| Air Tran Airways, Inc. | 9955 Air Tran Blvd | Orlando | FL | 32824 |

| Operator of Aircraft | Street Address | City | State | Zip Code |
|---|---|---|---|---|
| Same as Reg'd Aircraft Owner | Same as Reg'd Aircraft Owner | | | |

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

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## First Pilot Information

| Name | City | State | Date of Birth | Age |
|---|---|---|---|---|
| On File | On File | On File | On File | 49 |

Sex: M | Seat Occupied: Left | Principal Profession: Civilian Pilot | Certificate Number: On File

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? 11/2002

Medical Cert.: Class 1 | Medical Cert. Status: With Waivers/Limitations | Date of Last Medical Exam: 03/2003

| - Flight Time Matrix | All A/C | This Make and Model | Airplane Single Engine | Airplane Mult-Engine | Night | Instrument Actual | Instrument Simulated | Rotorcraft | Glider | Lighter Than Air |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Time | 13811 | 1677 | 1000 | 10000 | | | | | | |
| Pilot In Command(PIC) | 7681 | 1677 | 450 | 7600 | | | | | | |
| Instructor | | | | | | | | | | |
| Last 90 Days | | 266 | | | | | | | | |
| Last 30 Days | | 80 | | | | | | | | |
| Last 24 Hours | | 4 | | | | | | | | |

Seatbelt Used? Yes | Shoulder Harness Used? Yes | Toxicology Performed? No | Second Pilot? Yes

## Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

| Departure Point | State | Airport Identifier | Departure Time | Time Zone |
|---|---|---|---|---|
| Atlanta | GA | ATL | 2106 | EST |

| Destination | State | Airport Identifier |
|---|---|---|
| Same as Accident/Incident Location | | LGA |

Type of Clearance: IFR

Type of Airspace: Class B

## Weather Information

Source of Briefing: Company

Method of Briefing: In Person

National Transportation Safety Board

# FACTUAL REPORT AVIATION

NTSB ID: NYC03FA067

Occurrence Date: 03/26/2003

Occurrence Type: Accident

## Weather Information

| WOF ID | Observation Time | Time Zone | WOF Elevation | WOF Distance From Accident Site | Direction From Accident Site |
|---|---|---|---|---|---|
| LGA | 2251 | EST | 22 Ft. MSL | 0 NM | 0 Deg. Mag. |

Sky/Lowest Cloud Condition: Few 1500 Ft. AGL

Condition of Light: Night

Lowest Ceiling: Overcast 3700 Ft. AGL

Visibility: 10 SM

Altimeter: 29.90 "Hg

Temperature: 8 °C

Dew Point: 6 °C

Wind Direction: 20

Density Altitude: -783 Ft.

Wind Speed: 8

Gusts:

Weather Condtions at Accident Site: Visual Conditions

Visibility (RVR): Ft.

Visibility (RVV) SM

Intensity of Precipitation:

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 | | | | 3 | 3 |
| Other Crew | | | | | |
| Passengers | | 1 | 22 | 55 | 78 |
| - TOTAL ABOARD - | | 1 | 22 | 60 | 83 |
| Other Ground | | | | | |
| - GRAND TOTAL - | | 1 | 22 | 60 | 83 |

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## Administrative Information

Investigator-In-Charge (IIC)

Robert L. Hancock

Additional Persons Participating in This Accident/Incident Investigation:

Richard Anderson
Air Safety Investigator
Boeing
Seattle, WA

Victoria E Anderson
Aviation Safety Investigator
FAA - AAI-100
Washington, DC

Jean-Pierre Dagon
Director of Corporate Safety
Air Tran Airways
Orlando, FL