# National Transportation Safety Board
# Aviation Incident Factual Report

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| **Location:** | BIRMINGHAM, AL | **Incident Number:** | ATL01IA001 |
| **Date & Time:** | 10/01/2000, 1618 CDT | **Registration:** | N69826 |
| **Aircraft:** | McDonnell Douglas MD-80 | **Aircraft Damage:** | Minor |
| **Defining Event:** | | **Injuries:** | 1 Minor, 146 None |
| **Flight Conducted Under:** | Part 121: Air Carrier - Scheduled | | |

On October 1, 2000, central daylight time, a McDonnell Douglas MD-80, N69826, operated by Continental Airlines as Flight 1579, experienced an electrical fire during cruise flight at flight level 310 near Birmingham, Alabama. Flight 1579 was operated under the provisions of Title 14 CFR Part 121 as a scheduled domestic passenger flight from Atlanta, Georgia, to Houston, Texas. The flight departed Hartsfield International Airport in Atlanta, Georgia, at approximately 1720 eastern daylight time with two air transport pilots, one jump-seat rider, three flight attendants, and 141 passengers on board. The airplane sustained minor damage and the jump-seat rider received minor injuries; there were no other injuries reported. Visual weather conditions prevailed at the time of the incident, and Flight 1579 operated on an instrument flight rules flight plan.

According to the pilot, approximately 15 minutes into the flight, the cockpit filled with smoke and he heard a loud popping sound and saw sparks emitting from the jump seat area. The jump seat rider reported that he heard an explosion and leaned forward to avoid heat, which he felt on his left shoulder. When the jump seat rider looked at his left shoulder, he noticed that his shirt was burning. He extinguished the fire on his shirt, and put on his oxygen mask, since the cockpit was filled with smoke. The pilot declared and emergency and initiated a descending right turn. The flight diverted into Birmingham, Alabama, and landed without further incident.

According to the Continental Fleet Campaign Directive, (FCD), the registration certificate holder was modified on September 28, 2000. The FCD called for the holder to be modified in order to prevent loss of the certificate or damage of the certificate that would preclude dispatch of the airplane. The FCD required maintenance personnel to drill two small pilot holes just above the top of the certificate, and, in the case of mounting on a metal wall, install two screws into the pilot holes. A note is included on the FDC that allows alternate length screws to be used as required.

The examination of the airplane disclosed a 2 by 1 1/2 inch fire-damaged hole in the left jump seat wall. Several heavy gauge electrical wires were welded together on the opposite side of the wall. There were also four 50-amphere circuit breakers popped on the left circuit breaker

panel behind the pilot's seat. The hole also included an area of the left edge of the registration certificate holder. The plastic cover of the registration certificate holder was melted in this area and soot damage was evident for several inches around the hole. The registration certificate holder was attached to the wall by 8 screws that extended into the cavity where the electrical fire occurred. The hole appeared to be on the left side, middle position of the certificate holder. This screw was missing; all of the seven other screws were present. The screws immediately above and below this middle position on the left side extended is approximately 0.5 inches into the cavity where the electrical fire occurred. The missing segments of wire were aligned with the center of the hole in the wall, and also with the position of the middle screw. At the point of the missing wire segments, a screw similar to that placed above and below the missing middle screw could have extended into the wiring. There is no mention in the FCD of steps that should be taken to insure that no damage is done to items on the other side of the wall either during the drilling process or by the screws themselves once they are inserted into the holes.

Corrective actions that Continental Airlines have taken are to remove all certificate holders that are on the EPC wall and to install a new 3-slot certificate holder on the galley wall, which has a honeycomb backing. According to the Engineering Authorization, the best location for the certificate holder approximately 32.5 inches from the floor, 3 inches below the lowest coat hook, and 4.5 inches in from the cockpit door.

## Pilot Information

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| **Certificate:** | Airline Transport | **Age:** | 52, Male |
| **Airplane Rating(s):** | Multi-engine Land | **Seat Occupied:** | Left |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | |
| **Instrument Rating(s):** | Airplane | **Second Pilot Present:** | |
| **Instructor Rating(s):** | | **Toxicology Performed:** | |
| **Medical Certification:** | Class 1 Valid Medical--no waivers/lim. | **Last FAA Medical Exam:** | 05/03/2000 |
| **Occupational Pilot:** | | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | | | |

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | McDonnell Douglas | **Registration:** | N69826 |
| **Model/Series:** | MD-80 MD-80 | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | No |
| **Airworthiness Certificate:** | Transport | **Serial Number:** | MD-80-82 |
| **Landing Gear Type:** | | **Seats:** | 172 |
| **Date/Type of Last Inspection:** | 09/06/2000, Continuous Airworthiness | **Certified Max Gross Wt.:** | 149500 lbs |
| **Time Since Last Inspection:** | | **Engines:** | 2 Turbo Jet |
| **Airframe Total Time:** | 39417 Hours | **Engine Manufacturer:** | P&W |
| **ELT:** | | **Engine Model/Series:** | JT8D |
| **Registered Owner:** | FIRST SECURITY BANK NA TRUSTEE | **Rated Power:** | 7700 hp |
| **Operator:** | CONTINENTAL AIRLINES | **Operating Certificate(s) Held:** | Flag carrier (121) |
| **Operator Does Business As:** | | **Operator Designator Code:** | CO |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual Conditions | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | BHM, 644 ft msl | **Distance from Accident Site:** | 0 Nautical Miles |
| **Observation Time:** | 1453 CDT | **Direction from Accident Site:** | 0° |
| **Lowest Cloud Condition:** | Scattered / 8000 ft agl | **Visibility** | 10 Miles |
| **Lowest Ceiling:** | Broken / 20000 ft agl | **Visibility (RVR):** | 0 ft |
| **Wind Speed/Gusts:** | 5 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | Variable | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 30 inches Hg | **Temperature/Dew Point:** | 29°C / 11°C |
| **Precipitation and Obscuration:** | | | |
| **Departure Point:** | ATLANTA, GA (ATL) | **Type of Flight Plan Filed:** | IFR |
| **Destination:** | HOUSTON, TX (IAH) | **Type of Clearance:** | |
| **Departure Time:** | 0000 | **Type of Airspace:** | Class C |

## Airport Information

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| **Airport:** | BIRMINGHAM AIRPORT (BHM) | **Runway Surface Type:** | Asphalt |
| **Airport Elevation:** | 644 ft | **Runway Surface Condition:** | Dry |
| **Runway Used:** | 0 | **IFR Approach:** | None |
| **Runway Length/Width:** | | **VFR Approach/Landing:** | |

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 Minor, 5 None | **Aircraft Damage:** | Minor |
| **Passenger Injuries:** | 141 None | **Aircraft Fire:** | In-Flight |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 1 Minor, 146 None | **Latitude, Longitude:** | |

## Administrative Information

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| **Investigator In Charge (IIC):** | PHILLIP POWELL |
| **Additional Participating Persons:** | RONALD P BLITZ<br>SCOTT WARREN; WASHINGTON, DC, |
| **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.ntsb.gov/pubdms/. |