



## National Transportation Safety Board Aviation Accident Factual Report

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|-------------------------|------------------------|-------------------------|------------------|
| <b>Location:</b>        | WASHINGTON, DC         | <b>Accident Number:</b> | NYC94LA144       |
| <b>Date &amp; Time:</b> | 08/01/1994, 1745 EDT   | <b>Registration:</b>    | N433AW           |
| <b>Aircraft:</b>        | de Havilland DHC-8-311 | <b>Aircraft Damage:</b> | Substantial      |
| <b>Defining Event:</b>  |                        | <b>Injuries:</b>        | 1 Minor, 53 None |

**Flight Conducted Under:** Part 121: Air Carrier - Scheduled

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On August 1, 1994, at 1745 eastern daylight time, a DeHavilland DHC-8-311, N433AW, operated by Atlantic Coast Airlines and doing business as United Express Flight 6578, was substantially damaged while parked at a gate and struck by a ground support vehicle, at Dulles International Airport, Washington, D.C. The three crewmembers and 50 passengers were not injured. Visual meteorological conditions prevailed and an instrument flight rules flight plan had been filed for the flight operating under 14 CFR 121.

In the NTSB Form 6120.1/2, the Regional Flight Manager stated that the airplane was parked at the passenger gate and was being prepared for departure. The engines were stopped, the chocks were in place, the pilots were seated in the cockpit completing weight and balance paperwork, and the airstair door was open.

He further stated:

"...Baggage tractor DH4 had broken down. The operator asked the operator of baggage tractor DH65 to push disabled DH4 to the west end of the ramp where it could await servicing. DH65 began pushing DH4...DH4 steered so as to pass 15 to 20 feet to the left of [N433AW's] nose when approaching the service road. As DH4 entered the service road it began to turn right to head west. At this point DH65 had not yet entered the service road and for the next few feet continued in a somewhat southwesterly direction. The left side of the hitch on the front of DH65 apparently contacted the right side of the hitch on the rear of DH4. Since [they]...were actually heading in different directions (DH4 west and DH65 southwest), the effect of the hitch interaction was to jerk the front of DH65 sharply to the right causing the driver to lose his seat and be pitched halfway off the left side of DH65... the driver's right hand pulled the steering wheel down to the right, and his right foot pressed on the accelerator pedal...DH65 smashed into the left side of the nose of 433 doing extensive damage..."

## Pilot Information

|                                  |   |  |                            |
|----------------------------------|---|--|----------------------------|
| <b>Certificate:</b>              | Airline Transport; Commercial   | <b>Age:</b>                              | 29, Male                   |
| <b>Airplane Rating(s):</b>       | Multi-engine Land; Single-engine Land   | <b>Seat Occupied:</b>                    | Left                       |
| <b>Other Aircraft Rating(s):</b> | None  | <b>Restraint Used:</b>                   | Seatbelt, Shoulder harness |
| <b>Instrument Rating(s):</b>     | Airplane  | <b>Second Pilot Present:</b>             | Yes                        |
| <b>Instructor Rating(s):</b>     | None  | <b>Toxicology Performed:</b>             | No                         |
| <b>Medical Certification:</b>    | Class 1 Valid Medical--no waivers/lim.  | <b>Last FAA Medical Exam:</b>            | 04/22/1994                 |
| <b>Occupational Pilot:</b>       |   | <b>Last Flight Review or Equivalent:</b> |                            |
| <b>Flight Time:</b>              | 6200 hours (Total, all aircraft), 3000 hours (Total, this make and model), 150 hours (Last 90 days, all aircraft) |  |                            |

## Aircraft and Owner/Operator Information

|                                      |                                      |                                       |                    |
|--------------------------------------|--------------------------------------|---------------------------------------|--------------------|
| <b>Aircraft Make:</b>                | de Havilland                         | <b>Registration:</b>                  | N433AW             |
| <b>Model/Series:</b>                 | DHC-8-311 DHC-8-311                  | <b>Aircraft Category:</b>             | Airplane           |
| <b>Year of Manufacture:</b>          |                                      | <b>Amateur Built:</b>                 | No                 |
| <b>Airworthiness Certificate:</b>    | Transport                            | <b>Serial Number:</b>                 | 305                |
| <b>Landing Gear Type:</b>            | Retractable - Tricycle               | <b>Seats:</b>                         | 53                 |
| <b>Date/Type of Last Inspection:</b> | 07/18/1994, Continuous Airworthiness | <b>Certified Max Gross Wt.:</b>       | 41000 lbs          |
| <b>Time Since Last Inspection:</b>   | 122 Hours                            | <b>Engines:</b>                       | 2 Turbo Prop       |
| <b>Airframe Total Time:</b>          | 6283 Hours                           | <b>Engine Manufacturer:</b>           | P&W                |
| <b>ELT:</b>                          |                                      | <b>Engine Model/Series:</b>           | PW-123             |
| <b>Registered Owner:</b>             | AIR WISCONSIN INC.                   | <b>Rated Power:</b>                   | 2000 hp            |
| <b>Operator:</b>                     | ATLANTIC COAST AIRLINES              | <b>Operating Certificate(s) Held:</b> | Flag carrier (121) |
| <b>Operator Does Business As:</b>    | UNITED EXPRESS                       | <b>Operator Designator Code:</b>      | VTZA               |

## Meteorological Information and Flight Plan

|                                  |                      |   |                  |
|----------------------------------|----------------------|---|------------------|
| Conditions at Accident Site:     | Visual Conditions    | Condition of Light:                     | Day              |
| Observation Facility, Elevation: | IAD, 313 ft msl      | Distance from Accident Site:            | 0 Nautical Miles |
| Observation Time:                | 1652 EDT             | Direction from Accident Site:           | 0°               |
| Lowest Cloud Condition:          | Unknown / 0 ft agl   | Visibility                              | 10 Miles         |
| Lowest Ceiling:                  | Broken / 2700 ft agl | Visibility (RVR):                       | 0 ft             |
| Wind Speed/Gusts:                | 3 knots /            | Turbulence Type<br>Forecast/Actual:     | /                |
| Wind Direction:                  | 230°                 | Turbulence Severity<br>Forecast/Actual: | /                |
| Altimeter Setting:               | 30 inches Hg         | Temperature/Dew Point:                  | 29° C / 23° C    |
| Precipitation and Obscuration:   |                      |   |                  |
| Departure Point:                 |                      | Type of Flight Plan Filed:              | IFR              |
| Destination:                     |                      | Type of Clearance:                      | None             |
| Departure Time:                  | 0000                 | Type of Airspace:                       |                  |

## Airport Information

|                      |                         |                           |      |
|----------------------|-------------------------|---------------------------|------|
| Airport:             | WASHINGTON-DULLES (IAD) | Runway Surface Type:      |      |
| Airport Elevation:   | 313 ft                  | Runway Surface Condition: |      |
| Runway Used:         | 0                       | IFR Approach:             |      |
| Runway Length/Width: |                         | VFR Approach/Landing:     | None |

## Wreckage and Impact Information

|                     |                  |                      |             |
|---------------------|------------------|----------------------|-------------|
| Crew Injuries:      | 3 None           | Aircraft Damage:     | Substantial |
| Passenger Injuries: | 50 None          | Aircraft Fire:       | None        |
| Ground Injuries:    | 1 Minor          | Aircraft Explosion:  | None        |
| Total Injuries:     | 1 Minor, 53 None | Latitude, Longitude: |             |

## Administrative Information

|                                   |  |
|-----------------------------------|--|
| Investigator In Charge (IIC):     | ROBERT L PEARCE,   |
| Additional Participating Persons: |  |
| 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> . |