



# Aviation Investigation Final Report

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<b>Location:</b>	Carrollton, Georgia	<b>Accident Number:</b>	ATL03LA081
<b>Date &amp; Time:</b>	March 17, 2003, 18:25 Local	<b>Registration:</b>	N227BC
<b>Aircraft:</b>	Beech A100	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot departed with the flaps of the airplane inoperative and stowed in the up position. At the time of landing, runway 34 was wet and there was precipitation in the area. The airplane hydroplaned down the runway and rolled off the departure end of the runway into a muddy area. The airplane nosed over and the nose gear collapsed. The pilot stated that she did not compute the landing roll distance needed for landing on the wet runway. The Safety Information Section of the Pilots Operating Handbook states a caution when landing on runways covered by water. Examination of the airplane revealed that the propeller assemblies and both engines were damaged.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot misjudged the approach and touchdown airspeeds that resulted in the overrun of the runway during a landing. Factors were the wet runway and hydroplaning conditions.

## Findings

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Occurrence #1: OVERRUN

Phase of Operation: LANDING - ROLL

### Findings

1. (F) AIRCRAFT PERFORMANCE, HYDROPLANING CONDITION
2. AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION - WET
3. (C) PERFORMANCE DATA - NOT CALCULATED - PILOT IN COMMAND
4. (C) AIRSPEED - MISJUDGED - PILOT IN COMMAND

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Occurrence #2: NOSE OVER

Phase of Operation: LANDING - ROLL

### Findings

5. LANDING GEAR, NOSE GEAR - OVERLOAD
6. LANDING GEAR, NOSE GEAR - COLLAPSED

## Factual Information

On March 17, 2003, at 1825 eastern standard time, a Beech A100, N227BC, registered to and operated by CB Aviation Inc., collided with the ground when the nose wheel collapsed during landing on runway 34 at West Georgia Regional Airport in Carrollton, Georgia. The personal flight operated under the provisions of Title 14 CFR Part 91 with an instrument flight plan filed. Instrument weather conditions prevailed at the time of the accident. The airplane sustained substantial damage, and the pilot and passenger were not injured. The flight departed Minden, Louisiana on March 17, 2003 at 1600.

The flight made a stop at Mc Ghee Tyson Airport (TYS), Alcoa, Tennessee to drop off some non-revenue passengers. Upon landing at TYS the pilot noticed that the wing flaps were stuck in the down position. The pilot taxied the airplane to Vol Aircraft Maintenance to inspect the flaps. Vol Aircraft Maintenance informed the pilot that the flap motor was inoperative. Upon the pilot's request, the wing flaps were secured in the up position so the pilot may continue the flight to her destination.

The pilot departed Alcoa, Tennessee, with the flaps of the airplane secured in the up position. The wing flap circuit breaker was also disabled before the flight. The airplane was being repositioned from Alcoa, Tennessee to Carrollton, Georgia, with a passenger on board. The airplane did not have a ferry permit or a minimum equipment list to allow for flight with inoperative wing flaps.

According to the pilot she had completed one previous instrument approach that concluded in a missed approach. During the second approach to land, the pilot reported a mechanical problem with the wing flaps to the air traffic controller. The pilot elected to execute a flaps-up landing. During the landing rollout, the airplane rolled off the departure end of the runway 34 into a muddy area. The airplane nosed over and the nose gear collapsed.

The runway at West Georgia Regional Airport is 5,001 feet long. The airplane landed on the first third of the runway. At the time of landing runway 34 was wet and there was precipitation in the area. The airplane hydroplaned down the runway. The pilot stated "She applied reverse thrust upon landing". According to the Beech A100 Airplane Flight Manual, the flap up landing distance on dry asphalt, without propeller reversing is approximately 2200 feet of ground roll.

The Safety Information Section of the Pilots Operating Handbook states "Use caution when landing on runways covered by water or slush which cause hydroplaning, a phenomenon that renders braking and steering ineffective because of the lack of sufficient surface friction". Examination of the airplane revealed that the propeller assemblies were damaged. Both engines were also damaged.

The pilot stated that she did not compute the landing roll distance needed for landing on the wet runway.

### Pilot Information

<b>Certificate:</b>	Airline transport; Commercial; Flight instructor	<b>Age:</b>	56, Female
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	September 30, 2002
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	June 23, 2002
<b>Flight Time:</b>	4361 hours (Total, all aircraft), 157 hours (Total, this make and model), 4145 hours (Pilot In Command, all aircraft), 61 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Beech	<b>Registration:</b>	N227BC
<b>Model/Series:</b>	A100	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	B-0227
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	9
<b>Date/Type of Last Inspection:</b>	September 27, 2002 100 hour	<b>Certified Max Gross Wt.:</b>	11500 lbs
<b>Time Since Last Inspection:</b>	64.6 Hrs	<b>Engines:</b>	2 Turbo prop
<b>Airframe Total Time:</b>	5640 Hrs at time of accident	<b>Engine Manufacturer:</b>	Pratt & Whitney Canada
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	PT6A-28
<b>Registered Owner:</b>	CB Aviation Inc.	<b>Rated Power:</b>	680 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Dusk
<b>Observation Facility, Elevation:</b>	FTY,841 ft msl	<b>Distance from Accident Site:</b>	80 Nautical Miles
<b>Observation Time:</b>	18:53 Local	<b>Direction from Accident Site:</b>	270°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	5 miles
<b>Lowest Ceiling:</b>	Overcast / 800 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	80°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.62 inches Hg	<b>Temperature/Dew Point:</b>	14°C / 12°C
<b>Precipitation and Obscuration:</b>	Moderate - None - Rain		
<b>Departure Point:</b>	Minden, LA (F24 )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Carrollton, GA (CTJ )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	16:00 Local	<b>Type of Airspace:</b>	Class C

## Airport Information

<b>Airport:</b>	Carrollton West Georgia Region CTJ	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1160 ft msl	<b>Runway Surface Condition:</b>	Wet
<b>Runway Used:</b>	34	<b>IFR Approach:</b>	Localizer only
<b>Runway Length/Width:</b>	5001 ft / 100 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	33.631111,-85.151947

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Powell, Phillip
<b>Additional Participating Persons:</b>	Tim D Beglau; Atlanta FSDO
<b>Original Publish Date:</b>	June 30, 2004
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=56881">https://data.nts.gov/Docket?ProjectID=56881</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).