Aviation Investigation Final Report

Location:	Plainville, Connecticut	**Accident Number:**	ATL07CA091
Date & Time:	June 18, 2007, 13:00 Local	**Registration:**	N67248
Aircraft:	Beech C-23	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated he touched down on runway 02 with a right crosswind at about 20 degrees, full flaps, and with a crosswind correction. Upon touch down, the airplane began to veer to the left. The pilot applied full right rudder, the airplane turned back to the right, and required full right rudder for the airplane to remain straight. The pilot stated it felt like a left force was holding on to the airplane from behind, the force released, the airplane veered to the right with full right rudder applied, and the pilot lost directional control of the airplane. The airplane turned to the left off the runway, and started sliding sideways towards the right, the main landing gear collapsed, and the airplane came to a complete stop. The pilot stated he did not apply any brakes during the landing sequence. An e-mail received from a previous owner of the airplane before the accident stated, "Nose wheel landings probably rank pretty high on the Sundowner "stupid pilot tricks" list. Also, be prepared for a pull to the left. Two different ATP's and I experienced a sudden pull to the left upon landing. It kind of feels like the left brake is stuck then brakes loose. We had the plane gone over by several mechanics and found nothing. Wind and runway condition was not a factor. It wasn't what I would call severe, but it will grab your attention." The pilot stated this event occurred before on March 27, 2007, when he was on a check ride. That event was not as severe as the accident flight, and the pilot attributed the event to his inexperience with the airplane. Examination of runway 02 by an FAA inspector revealed a 6 foot length tire thread skid (nose wheel) was present on the runway at the initial touchdown point approximately 9 feet to the left of the centerline. The tire tread skid extended beyond the initial point of initial contact in a faint tire scuff extending in a right arc approximately to 300 to 400 feet in length before exiting the right edge of the runway onto the grass. Another tire tread scuff (left main tire) was located adjacent to the nose tire tread scuff. Both tire scuffs ran parallel to each other on pavement until the aircraft reached the right-hand edge of the runway. The aircraft departed runway 02 at the mid-point section, as made evident by nose and main tire tread marks disrupting gravel, grass, and a broken runway identification lamp. Examination of the airplane by the FAA revealed structural damage to the airframe. Examination of the lower strut wheel, brake and tire assemblies exhibited no apparent tread

loss, the brake pad and wheel cylinders moved freely with no binding effect. Flight control surfaces were examined for continuity, there was no discrepancies noted. A review of maintenance documentation included research of airworthiness directives and applicable service bulletins that were factors relating to the accident. Service Bulletin No. 2014, Landing Gear-Removal of Free Play In Main Landing Gear issued in April 1984 had been accomplished on the airplane. Visual inspection of the left wing skin at the left gear attachment point revealed no evidence of failure or movement that would have attributed to the airplane departing runway 02 to the right side at mid-point length. Review of the airplane logbooks revealed the new brake discs were installed on November 28, 1998. All replaced components listed for use in the Beechcraft Illustrated Parts Catalog were visually verified by the FAA, and no anomalies were noted. Service Instruction No. 1168 pertaining to the installation of an improved grease seal and axle spacer was reviewed by the FAA. The accident airplane was not included in the serial numbers affected by the Service Instruction.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper use of rudder and brakes on landing roll out resulting in a loss of directional control, and collapse of the main landing gear.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings
1. (C) BRAKES(NORMAL) - IMPROPER USE OF - PILOT IN COMMAND
2. (C) RUDDER - IMPROPER USE OF - PILOT IN COMMAND
3. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

The pilot stated he touched down on runway 02 with a right crosswind at about 20 degrees, full flaps, and with a crosswind correction. Upon touch down, the airplane began to veer to the left. The pilot applied full right rudder, the airplane turned back to the right, and required full right rudder for the airplane to remain straight. The pilot stated it felt like a left force was holding on to the airplane from behind, the force released, the airplane veered to the right with full right rudder applied, and the pilot lost directional control of the airplane. The airplane turned to the left off the runway, and started sliding sideways towards the right, the main landing gear collapsed, and the airplane came to a complete stop. The pilot stated he did not apply any brakes during the landing sequence.

The pilot stated he received an e-mail from one of the previous owner's of the airplane on June 3, 2007. This previous owner stated, "Nose wheel landings probably rank pretty high on the Sundowner "stupid pilot tricks" list. Also, be prepared for a pull to the left. Two different ATP's and I experienced a sudden pull to the left upon landing. It kind of feels like the left brake is stuck then brakes loose. We had the plane gone over by several mechanics and found nothing. Wind and runway condition was not a factor. It wasn't what I would call severe, but it will grab your attention." The pilot stated this event occurred before on March 27, 2007, when he was on a check ride. That event was not as severe as the accident flight, and the pilot attributed the event to his inexperience with the airplane.

Examination of runway 02 by an FAA inspector revealed a 6 foot length tire thread skid (nose wheel) was present on the runway at the initial touchdown point approximately 9 feet to the left of the centerline. The tire tread skid extended beyond the initial point of initial contact in a faint tire scuff extending in a right arc approximately to 300 to 400 feet in length before exiting the right edge of the runway onto the grass. Another tire tread scuff (left main tire) was located adjacent to the nose tire tread scuff. Both tire scuffs ran parallel to each other on pavement until the aircraft reached the right-hand edge of the runway. The aircraft departed runway 02 at the mid-point section, as made evident by nose and main tire tread marks disrupting gravel, grass, and a broken runway identification lamp.

Examination of the airplane by the FAA revealed structural damage to both wings, flaps, landing gear, lower fuselage, engine mount, nacelle and lower firewall. Both main landing gear were detached at the mid-point section of each strut, and then collapsed. The nose gear had shifted aft to the firewall, the nose wheel and tire assembly was still intact. The engine received sudden stoppage. Examination of the lower strut wheel, brake and tire assemblies exhibited no apparent tread loss, the brake pad and wheel cylinders moved freely with no binding effect. Flight control surfaces were examined for continuity, there was no discrepancies noted. A review of maintenance documentation included research of airworthiness directives and applicable service bulletins that were factors relating to the

accident. Service Bulletin No. 2014, Landing Gear-Removal of Free Play In Main Landing Gear issued in April 1984 had been accomplished on the airplane. Visual inspection of the left wing skin at the left gear attachment point revealed no evidence of failure or movement that would have attributed to the airplane departing runway 02 to the right side at mid-point length. Review of the airplane logbooks revealed new brake discs were installed on November 28, 1998. All replaced components were listed for use in the Beechcraft Illustrated Parts catalog were visually verified by the FAA, and no anomalies were noted. Service Instruction No. 1168 pertaining to the installation of an improved grease seal and axle spacer was reviewed by the FAA. The accident airplane was not included in the serial numbers affected by the Service Instruction.

Hawker Beechcraft Corporation stated in an e mail to the NTSB and FAA on July 17, 2007, that a review of the Service File for serial number M-2392, N67248, revealed Hawker Beechcraft Corporation has not had any contact with the registered owners of M-2392 since the airplane left the factory new concerning tire/wheel/brake issues or questions concerning the airplane swerving on touchdown other than the current registered owners call to Hawker Beechcraft Corporation on June 28, 2007.

Pilot Information

Certificate:	Private	**Age:**	53,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	January 1, 2006
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	September 1, 2006
Flight Time:	222 hours (Total, all aircraft), 59 hours (Total, this make and model), 155 hours (Pilot In Command, all aircraft), 63 hours (Last 90 days, all aircraft), 19 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N67248
Model/Series:	C-23	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	M2392
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	June 1, 2007 Annual	**Certified Max Gross Wt.:**	2450 lbs
Time Since Last Inspection:	10 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5232 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-360
Registered Owner:	Michael L. Roberge	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KHFD,200 ft msl	**Distance from Accident Site:**	200 Nautical Miles
Observation Time:	13:53 Local	**Direction from Accident Site:**	70°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	40°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.02 inches Hg	**Temperature/Dew Point:**	26°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Millbrtook, CT (44N)	**Type of Flight Plan Filed:**	None
Destination:	Plainville, CT (4B8)	**Type of Clearance:**	None
Departure Time:	12:30 Local	**Type of Airspace:**	

Airport Information

Airport:	Robertson Field 4B8	**Runway Surface Type:**	Asphalt
Airport Elevation:	200 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	02	**IFR Approach:**	None
Runway Length/Width:	3612 ft / 75 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	41.690277,-72.86

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol
Additional Participating Persons:	David Carreau; Windsor Lochs FSDO-63
Original Publish Date:	July 25, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=66014