Aviation Investigation Final Report

Location:	Dulles, Virginia	**Accident Number:**	NYC05LA009
Date & Time:	October 26, 2004, 09:43 Local	**Registration:**	N888TR
Aircraft:	Beech BE-200	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

The pilot approached the destination airport and entered a holding pattern to wait for the weather to improve. After about 20 minutes, the weather seemed to improve, and because the pilot could occasionally see the ground, he decided to conduct an instrument approach. About 50 feet above decision height, the pilot had the runway environment in sight, and estimated the in-flight visibility was about 1/2 mile. During the landing, the pilot lost all forward visibility and executed a missed approach, but before a positive rate of climb could be established, the airplane touched down left of the runway on grass, and the left main landing gear struck a taxiway sign. About 10 feet past the sign, the airplane became airborne, and the pilot continued the missed approach. The pilot then diverted to an alternate airport, and during the landing the left main landing gear collapsed, resulting in substantial damage. The automated surface observation system and a witness both reported that the weather at the time of the accident was below the minimums prescribed in the instrument approach procedure.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper in-flight decision to continue the instrument approach and landing, which resulted in a collision with a sign. A factor was the below instrument approach landing minimum weather conditions.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: MISSED APPROACH (IFR)

Findings
1. OBJECT - SIGN
2. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
3. (F) WEATHER CONDITION - BELOW APPROACH/LANDING MINIMUMS

Occurrence #2: GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Factual Information

On October 26, 2004, at 0943 eastern daylight time, a Beech BE-200, N888TR, was substantially damaged during landing at the Washington Dulles International Airport (IAD), Dulles, Virginia. The certificated airline transport pilot and the two passengers were not injured. Day instrument meteorological conditions prevailed for the business flight that departed Piedmont Triad International Airport (GSO), Greensboro, North Carolina, destined for Eastern WV Regional Airport (MRB), Martinsburg, West Virginia. An instrument flight rules (IFR) flight plan was filed for the flight conducted under 14 CFR Part 91.

According to the pilot, after departing Greensboro, the flight progressed without incident until reaching the Martinsburg area. He then completed several holding circuits to allow the weather to improve. While holding, the pilot checked the automated surface observing system, which reported 1/4 mile visibility in fog, and 100 feet of vertical visibility. After about 20 minutes, the weather seemed to improve, and because the pilot could occasionally see the ground, he requested an approach clearance.

The flight was subsequently cleared for the ILS RWY 26 approach. About 50 feet above the decision height, the pilot had the runway environment in sight, and reported that the in-flight visibility was about 1/2-mile. He then maneuvered the airplane, and initiated a flare for landing; however, prior to touching down, the pilot lost all forward visibility and initiated a missed approach. He advanced the power levers, and as the engines responded, he felt the airplane contact "something." The airplane continued to accelerate and climb, but when the pilot selected the landing gear handle to the up position, only the nose wheel and right main landing gear indicators indicated gear up, while the left main landing gear remained in a transient condition.

The pilot declared a missed approach and diverted to Dulles. There, he executed a "low-pass" so the tower controller could inspect the landing gear. The controller advised the pilot that it appeared the left landing gear was damaged, and issued a landing clearance. The airplane touched down on runway 1 and began to roll-out, but at approximately 40 knots, the left main landing gear collapsed. The airplane skidded to a stop on the runway, and the pilot, along with the passengers, exited without further incident.

According to a Federal Aviation Administration inspector, examination of the wreckage revealed damage to the left engine firewall and forward pressure bulkhead.

A weather observation taken about 13 minutes before the accident at the Martinsburg Airport recorded the wind as calm, visibility 1/4 mile in fog, vertical visibility 100 feet, temperature 45 degrees Fahrenheit, dew point 45 degrees Fahrenheit, and an altimeter setting of 30.22 inches of mercury.

A witness, who was holding short of runway 26 in a vehicle at Martinsburg, stated that after the pilot of the accident airplane declared a missed approach, he was cleared by the control tower to conduct a runway sweep. During the sweep, forward visibility was limited to "two to three runway lights," which equated to between 400 and 600 feet. About halfway down the runway, the witness found debris from a taxiway sign and various aircraft parts. Because of poor visibility, he could not see the source of the debris, so he parked his vehicle and began to search on foot. He found that a taxiway sign on the left side of the runway had been struck, and there were three tire marks in the grass that paralleled the runway. The marks were approximately 100 feet long, and ended approximately 10 feet past the base of the sign. In addition, the left and center tire marks transitioned over the 6-inch high concrete base the sign was mounted on.

According to the instrument approach procedure for the ILS RWY 26 approach at Martinsburg Airport, decision height was 200 feet agl, and required visibility was at least 1/2 mile.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	55,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):		**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	July 1, 2004
Occupational Pilot:		**Last Flight Review or Equivalent:**	September 1, 2004
Flight Time:	3630 hours (Total, all aircraft), 120 hours (Total, this make and model), 3092 hours (Pilot In Command, all aircraft), 108 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N888TR
Model/Series:	BE-200	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	
Landing Gear Type:	Retractable - Tricycle	**Seats:**	10
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	12500 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo prop
Airframe Total Time:		**Engine Manufacturer:**	Pratt & Whitney
ELT:		**Engine Model/Series:**	PT6A-41
Registered Owner:	Twin County Aviation LLC	**Rated Power:**	850 Horsepower
Operator:	Twin County Aviation LLC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	
Observation Facility, Elevation:	IAD	**Distance from Accident Site:**	
Observation Time:	09:51 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Few / 100 ft AGL	**Visibility**	6 miles
Lowest Ceiling:	Broken / 250 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots / 0 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	340°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.2 inches Hg	**Temperature/Dew Point:**	13°C / 10°C
Precipitation and Obscuration:			
Departure Point:	GREENSBORO, NC (GSO)	**Type of Flight Plan Filed:**	IFR
Destination:	MARTINSBURG, WV (MRB)	**Type of Clearance:**	IFR
Departure Time:	08:00 Local	**Type of Airspace:**	

Airport Information

Airport:	WASHINGTON DULLES INTERNATIONA IAD	**Runway Surface Type:**	Concrete
Airport Elevation:	313 ft msl	**Runway Surface Condition:**	
Runway Used:	010	**IFR Approach:**	
Runway Length/Width:	11500 ft / 150 ft	**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	2 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	38.944442,-77.455558

Administrative Information

Investigator In Charge (IIC):	Muzio, David
Additional Participating Persons:	Bruce McGray; FAA/FSDO; Dulles, VA
Original Publish Date:	July 31, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=60436