National Transportation Safety Board
Aviation Accident Final Report

Location:	Marble Canyon, AZ	**Accident Number:**	LAX05LA203
Date & Time:	06/13/2005, 1500 MST	**Registration:**	N49LL
Aircraft:	Beech C90	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane descended to ground impact while maneuvering during a go-around. The pilot was meeting friends at the airport. The friends and their pilot arrived first, and were waiting at the departure end of runway 03. The airplane approached on a straight-in to runway 03. They thought that everything looked good on the approach. Due to a hump in the runway, they lost sight of the airplane just before it would have touched down. They then saw the airplane climbing back up on a go-around. As the airplane came abeam of their position, they saw it enter a steep banked left turn at an angle of bank they estimated between 60 and 80 degrees. At this point the landing gear was still down and the altitude was 200 feet above the ground. The witnesses saw the airplane's nose suddenly drop and the airplane then descended rapidly to the ground. No evidence of a preimpact mechanical malfunction or failure was found during detailed examination of the airframe systems and engines.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain an adequate airspeed while maneuvering during a go-around, which resulted in a stall.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: GO-AROUND (VFR)

Findings
1. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. (C) STALL - ENCOUNTERED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
3. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On June 13, 2005, about 1500 mountain standard time, a Beech King Air C90, N49LL, collided with terrain while maneuvering near Marble Canyon, Arizona. The pilot/owner was operating the airplane under the provisions of 14 CFR Part 91. The private pilot and one passenger sustained serious injuries; the airplane sustained substantial damage. The cross-country personal flight departed Bermuda Dunes, California, at an unknown time with a planned destination of Marble Canyon. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot and friends from Colorado were planning to meet at Page, Arizona. They learned that the Page airport was closed for maintenance, so they decided to meet at Marble Canyon. The friend's pilot read the airport data to the accident pilot; neither one of them had ever been to Marble Canyon.

The friends and their pilot arrived first, and were at the departure end of runway 03. They reported that they talked to the pilot via a handheld radio. The airplane approached on a straight in to runway 03. They stopped talking to the pilot about 4 miles out. They thought that everything looked good on the approach. Due to a hump in the runway, they lost sight of the airplane just before touchdown. They then saw the airplane climbing back up.

As the airplane became abeam their position, they observed the aft end of the airplane as it was in a left turn. They noted that the gear was still down. They estimated that the altitude was 200 feet above the ground, and the airplane was in a 60- to 80-degree angle of bank.

The witnesses reported that the airplane quickly descended into the terrain as the nose dropped. The airplane was upright as they lost sight of it just prior to impact. When they arrived at the scene, the airplane had nosed over.

PERSONNEL INFORMATION

A review of Federal Aviation Administration (FAA) airman records revealed that the pilot held a private pilot certificate with ratings for airplane single engine land, multiengine land, and instrument airplane. The pilot held a second-class medical certificate issued on December 1, 2003. It had the limitations that the pilot must possess glasses for near and intermediate vision. The FAA reported that the pilot had a total flight time of 2,025 hours.

AIRCRAFT INFORMATION

The airplane was a Beech C90, serial number LJ-1316. The engines were both Pratt and Whitney PT6-21A's.

AIRPORT INFORMATION

The Airport/ Facility Directory, Southwest U. S., indicated that Marble Canyon runway 03 was 3,605 feet long and 35 feet wide. The runway surface was asphalt.

TESTS AND RESEARCH

The FAA, Pratt and Whitney, and Beech were parties to the investigation. Investigators examined the wreckage at Air Transport, Phoenix, Arizona, on June 21, 2004, under the supervision of the National Transportation Safety Board investigator-in-charge (IIC).

LEFT ENGINE

The Pratt & Whitney investigator pointed out buckling on the exhaust casing in a twisting direction that was opposite propeller rotation. All four propeller blades were in a corkscrew position. He removed one of the fuel nozzles, and investigators observed sand on the nozzle. The power section was intact. A borescope examination showed that all compressor turbine blades were intact. The fuel control was in about the 80 per cent power position. The fuel control device was bent. The propeller governor was in the governing position. The fire bottle had not been discharged.

RIGHT ENGINE

The Pratt & Whitney investigator pointed out buckling on the exhaust casing in a twisting direction that was opposite of propeller rotation. All four propeller blades were in a corkscrew position. The turbine wheel and power section were undamaged. He removed one of the fuel nozzles, and investigators observed sand on the nozzle. A borescope examination showed that all compressor turbine blades and squealer tips were undamaged. The fuel control was in about the 80 per cent power position. The fuel control device was bent. The propeller governor was in the governing position. The fire bottle had been discharged.

COCKPIT

The left and right power levers were in a high midrange position.

Both propeller controls were in the full forward position.

The left fuel condition lever indicated a midrange, high idle position. The right fuel condition lever indicated a full forward, high idle position.

All of the circuit breakers, except for the power warning enunciator, were in the operating position.

The airframe manufacturer's representative reported that the landing gear control lever was in the up position, and the outer surface of the landing gear doors exhibited sanding that continued onto the lower aft portion of the wing. He determined that this was consistent with the landing gear being in the retracted position. The representative measured the inboard flap actuators at 4.5 inches and the outboard flap actuators at 3.8 inches. He reported that this corresponded to the full up position. Visual examination indicated that both of the inboard and outboard wing flaps were in the up position. The elevator trim wheel indicated 4 degrees tab up. Visual examination indicated that the elevator tab was in the 0-degree position. The rudder trim wheel indicated a 0-degree position. The rudder tab visually appeared to be in the 5-degree position. Aileron trim wheel indicated 3/4-degree right wing down. The aileron tab visually appeared to be in the 10-degree down position.

Investigators established flight control continuity for the ailerons, elevators, rudder, aileron trim, elevator trim, and rudder trim systems.

The representative from Beech examined the emergency exit door. He reported that the row of rivets, which connect the door to the airplane, had been pried out. Pry marks were also on the upper left-hand portion of the door. Investigators tested the door's emergency exit handle, and the emergency exit door latch hooks exhibited movement in relation with the handle. The door exhibited continuity.

Investigators examined the airplane's entrance door. The representative from Beech was

unable to open the door from the outside. He pointed out that the outer door handle had been sheared off at the rotary torque shaft location as a result of a prying force. The door also exhibited pry marks on the upper and lower right-hand corners. The door could only be opened from the inside with the use of the cabin entrance door operating handle.

Examination of the pilot and copilot seats revealed that both of the seats separated at the bench portion. The front halves of both seats separated, and were hanging down at the support tubes on both sides of the bench portion of the seat.

The pilot operator did not submit a Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2).

Pilot Information

Certificate:	Private	**Age:**	58, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2	**Last FAA Medical Exam:**	12/01/2003
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	2025 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N49LL
Model/Series:	C90	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	LJ-1316
Landing Gear Type:	Retractable - Tricycle	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	10160 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo Prop
Airframe Total Time:	3655 Hours	**Engine Manufacturer:**	Pratt & Whitney Canada
ELT:		**Engine Model/Series:**	PT6A-21
Registered Owner:	Davis Capital LLC	**Rated Power:**	550 hp
Operator:	Davis Capital LLC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	PGA, 4316 ft msl	**Distance from Accident Site:**	11 Nautical Miles
Observation Time:	1356 MST	**Direction from Accident Site:**	40°
Lowest Cloud Condition:	Clear	**Visibility**	10 Miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	50°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.04 inches Hg	**Temperature/Dew Point:**	28°C / 0°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bermuda Dunes, CA (UDD)	**Type of Flight Plan Filed:**	None
Destination:	Marble Canyon, AZ (L41)	**Type of Clearance:**	None
Departure Time:	PDT	**Type of Airspace:**	

Airport Information

Airport:	Marble Canyon (L41)	**Runway Surface Type:**	Asphalt
Airport Elevation:	3603 ft	**Runway Surface Condition:**	Dry
Runway Used:	3	**IFR Approach:**	Visual
Runway Length/Width:	3715 ft / 35 ft	**VFR Approach/Landing:**	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Serious	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Serious	**Latitude, Longitude:**	36.812500, -111.646389

Administrative Information

Investigator In Charge (IIC):	Howard D Plagens	**Report Date:**	05/29/2007
Additional Participating Persons:	Linda Williams; Federal Aviation Administration; Las Vegas, NV Eddie Webber; Raytheon Beech; Wichita, KS Douglas Whitehurst; Pratt & Whitney; Phoenix, AZ		
Publish Date:			
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/.		