



# Aviation Investigation Final Report

<b>Location:</b>	Fredericksburg, Texas	<b>Accident Number:</b>	DFW05CA107
<b>Date &amp; Time:</b>	April 18, 2005, 15:30 Local	<b>Registration:</b>	N6968
<b>Aircraft:</b>	Bell P39	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The 5,753-hour commercial pilot lost directional control during the landing roll, and the vintage airplane drifted off of the runway and struck a fence 200-feet beyond the departure end of the runway. During the straight-in approach to the 5,002-foot long by 75- feet wide runway, the pilot noticed that the airplane's airspeed was above the flap extension speed of 140 mph, and "elected to continue with a no-flap landing." A witness at the airport ramp reported that the airplane "appeared to be at an excessive rate of speed" on final approach. He further reported that the observed the nose wheel touched the runway prior to the main wheels. The pilot added that as he applied brakes after landing, the left brake "was not responding normally." Examination of the airplane brake system by the operator did not reveal any anomalies.

## 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 directional control during the landing roll. A contributing factor was the reported partial failure of the left wheel brake.

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: LANDING - ROLL

### Findings

1. (F) LANDING GEAR,NORMAL BRAKE SYSTEM - FAILURE,PARTIAL

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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

2. AIRSPEED(VREF) - HIGH - PILOT IN COMMAND

3. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

4. OBJECT - FENCE

## Factual Information

On April 18, 2005, approximately 1530 central daylight time, a vintage Bell P39 single-engine airplane, N6968, was substantially damaged when it struck a fence following a loss of control during the landing roll at the Gillespie County Airport (T82), near Fredericksburg, Texas. The commercial pilot, sole occupant of the airplane, was not injured. The airplane was registered to and operated by the American Airpower Heritage Flying Museum, near Midland, Texas. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight. The 197-nautical mile cross-county flight originated from the Midland International Airport (MAF), near Midland, Texas, at 1423, with T82 as its intended destination.

The 5,753-hour pilot reported in the Pilot/Operator Aircraft Accident Report Form (NTSB Form 6120.1/2) that upon locating the airport, he elected to execute a straight-in approach to Runway 14 (5,002-feet long by 75-feet wide). After slowing the airplane below 200 miles per hour (mph), the pilot extended the landing gear and continued the approach. During the approach, the pilot noticed that his airspeed exceeded the aircraft's flap extension speed of 140 mph, so he "elected to continue with a no-flap landing."

The pilot stated that after the airplane touched down within the first 400 feet of the runway, he applied brakes and noticed that the left brake "was not responding normally." The airplane then drifted to the right of centerline, exited the runway, and traveled down an embankment before striking a fence.

A witness, located on the ramp area of T82, reported in a written statement to the NTSB that he observed the airplane travel past the approach end of runway 14 "at what appeared to be an excessive rate of speed." The witness added that the airplane touched down on the nose wheel just before the main wheel landing gears touched down.

At 1525, the automated weather observing station at T82 reported wind from 190 degrees at 11 knots, visibility 5 statute miles, overcast cloud ceiling at 1,100 feet, temperature 64 degrees Fahrenheit, dew point 61 degrees Fahrenheit, and an altimeter setting of 30.05 inches of Mercury.

Examination of the airplane by an Federal Aviation Administration (FAA) inspector, who responded to the accident site, revealed that the left wingtip was damaged and the left wing aft spar was bent. Examination of the runway revealed that the right main landing gear and nose gear exited the runway approximately 1,400 feet from the approach end of the runway. Two runway lights were damaged between 1,400 feet and 2,000 feet. A ground track from 2,000 feet to 3,000 feet was consistent with the right main landing gear being off the runway. Ground tracks indicated that the airplane traveled between the Precision Approach Path

Indicator (PAPI) lights and the runway, approximately 200 feet beyond and 200 feet southeast of the departure end of the runway.

Examination and testing of the aircraft braking system by maintenance technicians of the Commemorative Air Force did not revealed any anomalies.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	72, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	October 1, 2004
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	April 1, 2004
<b>Flight Time:</b>	5753 hours (Total, all aircraft), 121 hours (Total, this make and model), 5640 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bell	<b>Registration:</b>	N6968
<b>Model/Series:</b>	P39	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	219597
<b>Landing Gear Type:</b>	Retractable - Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	May 1, 2004 Condition	<b>Certified Max Gross Wt.:</b>	8100 lbs
<b>Time Since Last Inspection:</b>	18.7 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1096.7 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Allison
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	V1710-63
<b>Registered Owner:</b>	American Airpower Heritage Flying Museum	<b>Rated Power:</b>	1200 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	T82	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	15:25 Local	<b>Direction from Accident Site:</b>	0°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	5 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	11 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	190°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 16°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Midland, TX (MAF )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Fredericksburg, TX (T82 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:23 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Gillespie County Airport T82	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	14	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5005 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop;Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	30.243055,-98.909164

## Administrative Information

<b>Investigator In Charge (IIC):</b>	McGill, C Frank
<b>Additional Participating Persons:</b>	Faye S Makarsky; Federal Aviation Administration; San Antonio, TX
<b>Original Publish Date:</b>	September 13, 2005
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=61352">https://data.nts.gov/Docket?ProjectID=61352</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](#).