Aviation Investigation Final Report

Location:	Aguila, Arizona	**Accident Number:**	LAX05LA009
Date & Time:	October 15, 2004, 15:30 Local	**Registration:**	N543BP
Aircraft:	BRACKETT AND PELTZ Kit Fox III	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane impacted a concrete ravine after performing a series of erratic maneuvers. While nearing the intended destination, and in company with another airplane, the pilot radioed that he wanted to divert to a nearby airport to stretch his legs. The occupants of the other airplane said they wanted to continue to the original destination. The airplane then made several erratic turns, and as the airplane's altitude decreased, the pilot announced over the radio "I'm having a problem." With several expansive farm fields below, the airplane flew in one direction and then traversed in another direction, which a witness pilot thought was unusual for a pilot setting up for an emergency landing. While making these erratic turns, about 500 feet above ground level (agl), the airplane stalled, diving nose first into a concrete ravine. A Federal Aviation Administration (FAA) inspector examined the airframe and engine at the accident site. He noted no anomalies or preimpact mechanical malfunctions with the airplane. A second examination was conducted after the airplane was recovered by a mechanic very familiar with the aircraft and it's systems and no mechanical malfunctions or failures were found with the airplane's control system. The Medical Examiner who preformed an autopsy on the pilot did not note any evidence of pre-existing disease.

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 adequate airspeed while maneuvering, which resulted in a stall. The nature and scope of the problem reported by the pilot is undetermined.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings
1. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - INADVERTENT - 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 October 15, 2004, about 1530 mountain standard time, a Brackett and Peltz Kitfox III, N543BP, impacted a concrete ravine near Eagle Roost Airpark, Aguila, Arizona. The pilot/owner was operating the airplane under the provisions of 14 CFR Part 91. The private pilot, the sole occupant, sustained fatal injuries; the airplane sustained substantial damage. The personal cross-country flight departed from a private airstrip in Bouse, Arizona, about 1445, with a planned destination of Wickenburg, Arizona. Visual meteorological conditions prevailed, and a flight plan had not been filed.

In a telephone conversation with a National Transportation Safety Board investigator, a witness reported that he and his wife were flying next to the pilot in their own Kitfox airplane. He stated that both planes had departed Eagle Airpark, Bullhead City, Arizona, earlier that day. They flew alongside one another over the course of the morning, stopping for lunch at a private dirt airstrip in Bouse. After lunch, they departed Bouse and continued en route to Wickenburg, communicating with one another via radio transmissions. While in the vicinity of Aguila, about 2,000 feet above ground level (agl), the accident pilot asked if they wanted to land and stretch their legs. Being so close to Wickenburg, the intended destination, they declined and observed the airplane make a left bank.

The witness further stated that after making the left turn, the airplane continued maneuvering, making several changes in flight path direction. While decreasing in altitude and making numerous turns, the accident pilot announced over the radio "I'm having a problem." The witness assured him that he would circle over the distressed airplane and make certain that the pilot was safe. He noted that there were several expansive fields where the pilot could execute a forced landing. The airplane flew in one direction and then traversed in another direction, which he thought was unusual behavior for a pilot setting up for an emergency landing. While making these erratic turns, he noticed a white puff of smoke emitting from the airplane's cowling, which he thought was consistent with the engine being overpowered. About 500 feet agl, the airplane appeared to stall, and dove nose first into a concrete ravine. He noted that the airplane appeared to be in control throughout the whole accident sequence.

PERSONNEL INFORMATION

The pilot's personal flight records were not provided to the Safety Board investigator for examination. A review of Federal Aviation Administration (FAA) airman records revealed that the pilot held a private pilot certificate with ratings for single engine land and single engine sea. On January 29, 2003, when the pilot was issued a third-class medical certificate, his self-reported total civilian flight time was 3,000 hours.

MEDICAL AND PATHOLOGICAL INFORMATION

The Office of the Medical Examiner in Phoenix, Arizona, completed an autopsy on October 16, 2004. The Medical Examiner determined the cause of death to be, "blunt force injuries of torso," and did not note any evidence of pre-existing disease. The FAA Bioaeronautical Sciences Research Laboratory performed toxicological testing of specimens of the pilot. The results of analysis of the specimens were negative for carbon monoxide, cyanide, ethanol, and tested drugs.

TESTS AND RESEARCH

An FAA inspector examined the airframe and engine at the accident site. He noted no anomalies or preimpact mechanical malfunctions with the airplane.

An airplane mechanic, who is also a Kitfox builder and expert, examined the wreckage at a hangar in Kingman, Arizona. The rudder control cable remained intact, and moved freely from the pedal to the lower rudder attachment points. Both the left and right struts remained attached to the fuselage, secured in their respective locations. He established continuity from the elevator control surface to the forward tail section, where the push-pull tube separated. The end of the tube's surface was buckled, consistent with that of a material that had undergone compression forces, and what he attributed to a post-impact separation. The left wing flaperon and aileron push-pull tubes remained intact and displayed control continuity. The right wing sustained major impact damage and its respective flaperon separated, which he attributed to the impact velocity. The mechanic stated that he found no mechanical malfunctions or failures with the airplane's control system.

The propeller hub remained attached to the crankshaft flange, and the attaching bolt holes were symmetrical and circular in shape; the bolts attached to the flange were intact and showed no deformation. On both sides of the propeller hub a portion of each nonmetallic propeller blade remained attached.

Pilot Information

Certificate:	Private	**Age:**	69,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Unknown
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	January 1, 2003
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	3000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BRACKETT AND PELTZ	**Registration:**	N543BP
Model/Series:	Kit Fox III	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	877
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:		**Engine Model/Series:**	C-80A
Registered Owner:	On file	**Rated Power:**	80 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	LUF,1085 ft msl	**Distance from Accident Site:**	47 Nautical Miles
Observation Time:	22:56 Local	**Direction from Accident Site:**	135°
Lowest Cloud Condition:	Scattered / 25000 ft AGL	**Visibility**	20 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	4 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	200°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.79 inches Hg	**Temperature/Dew Point:**	33°C / 0°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bouse, AZ	**Type of Flight Plan Filed:**	None
Destination:	Wickenburg, AZ (E25)	**Type of Clearance:**	None
Departure Time:	14:45 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	33.942501,-113.215553

Administrative Information

Investigator In Charge (IIC):	Plagens, Howard
Additional Participating Persons:	Gary Martin; Federal Aviation Administration; Scottsdale, AZ
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Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=60364