Aviation Investigation Final Report

Location:	Sprakers, New York	**Accident Number:**	NYC02LA129
Date & Time:	July 3, 2002, 18:30 Local	**Registration:**	UNREG
Aircraft:	Pank KitFox	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

After recently finishing the airplane, the pilot conducted some taxi test, made some modifications to the airplane, and then flew it for the first time. The pilot completed four right traffic patterns, the airplane was unstable during the flight, and the pilot had trouble landing the airplane. The pilot tightened the engine mounts, and then flew the airplane for a second time. Stability improved on the second flight, and once again, the pilot executed right traffic. On the pilot's forth landing attempt, the airplane bounced four times, engine noise increased, and the airplane entered a "very aggressive climb." Pitch angle then reduced to about 10 to 15 degrees, and the airplane turned left crosswind about 300 feet agl. The airplane continued to climb at a "very slow airspeed, and "entered a left bank. Bank angle increased to 60 degrees, and the airplane entered a left spin before impacting the ground. The wind was from the west at 10 to 15 knots. The pilot never held a pilot rating, and had approximately 200 hours of flight experience in ultralight airplanes.

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 aircraft control. A factor in the accident was the pilot's lack of experience in category of aircraft.

Findings

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

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) LACK OF EXPERIENCE - PILOT IN COMMAND
3. (F) LACK OF CERTIFICATION - PILOT IN COMMAND

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

Findings
4. TERRAIN CONDITION - GROUND

Factual Information

On July 3, 2002, about 1830 eastern daylight time, an unregistered homebuilt KitFox airplane was substantially damaged when it impacted terrain while in the traffic pattern at a private airstrip near Sprakers, New York. The non-certificated pilot was fatally injured. Visual meteorological conditions prevailed for the local personal flight that departed from the private airstrip. No flight plan was filed and the flight was conducted under 14 CFR Part 91.

According to a witness who helped build the airplane, he arrived at the pilot's farm on the day of the accident about 0900, to prepare the airplane for an engine run and possible taxi test. About 1300, the airplane was removed from the shop where it was built, and the pilot taxied it to a 1,700-foot long grass runway located on his property. The pilot taxied the airplane for about 30 minutes. Afterwards, he advised the witness that the seat would dislodge from the seat channels whenever pressure was applied to both pedals. The witness determined that a wooden cover installed over the base of the control stick was interfering with the seat, so he removed the cover.

The pilot restarted the engine, and resumed taxiing the airplane. After approximately 15 minutes, the pilot taxied up to the witness, and told him he was "going to go for it," which surprised him because he did not think the pilot had planned to fly the airplane that day. The pilot taxied the airplane onto runway 27, engine noise increased, and the airplane accelerated down the runway. The airplane did four right traffic patterns. During all the traffic patterns, bank angle varied between 30 and 45 degrees. The downwind leg for the first two traffic patterns was flown between 800 and 1,000 feet agl, and for the second two, between 500 to 800 feet agl. During all the traffic patterns, the engine ran rough during low power settings, and pitch attitude oscillated between nose high and nose low while the airplane was on final. The witness estimated that during the oscillations aircraft loading varied between 0.0 G and 2.0 G.

During the first traffic pattern, the airplane did a low pass. During the second and third traffic patterns, the pilot made two attempts to land. In both cases, the airplane touched down and then bounced about three times before the pilot executed a go around. On the fourth traffic pattern, the airplane touched down, and once again, started to bounce. About the fourth bounce, the airplane ground looped to the right, the left wing contacted the ground, and the airplane came to a stop.

The pilot shut down the engine, and the witness walked over to the airplane to examine the wing, and to talk with the pilot. The witness determined that the wing was not damaged, and he and the pilot talked about the engine running rough. The pilot then started the engine and taxied the airplane back to the shop. Once at the shop, the pilot called the dealer who sold him the engine. The dealer advised the pilot that he needed to tighten the engine mounts, and to

adjust the carburetor cables, which the pilot did with the assistance of the witness and some mechanics who worked on the pilot's farm.

Before the pilot reboarded, the witness asked about the handling characteristics of the airplane. The pilot responded that it was a "handful" and "very touchy." The witness told the pilot that he did not need to fly the airplane again, and urged him to just do some more taxi work. The witness thought the pilot agreed. The pilot then reboarded the airplane, started the engine, and taxied backed to the runway. Before the witness could get there, the airplane departed.

Once at the runway, the witness observed the airplane make five right traffic patterns for runway 27. During all the traffic patterns, bank angle never exceeded 30 degrees, the engine ran as expected, and the pilot appeared to manage pitch attitude better, while on final. The pilot conducted one low pass, and then made four attempts to land. During the first three attempts, the airplane touched down and then bounced down the runway about three times, before the pilot would execute a go-around. On the fourth landing attempt, the airplane bounced four times. Engine noise increased, and the airplane entered a "very aggressive climb." Pitch angle then reduced to about 10 to 15 degrees, and the airplane turned left crosswind about 300 feet agl. The airplane continued to climb at a "very slow airspeed," and then entered a left bank. Bank angle increased to 60 degrees, and the airplane entered a left spin. Because of terrain, the witness lost sight of the airplane when it was approximately 75 feet agl, but believes he saw it make one complete revolution. The airplane impacted the ground, and the witness, along with several other individuals, rushed to the accident site. Within a minute, local authorities were notified, and within 10 minutes, emergency medical personnel were on scene.

A weather observation was taken 21 minutes after the accident at the Albany International Airport (ALB), Albany, New York. Albany had a field elevation of 285 feet msl, and was located 36 miles to the southeast of the accident site. According to the observation, the wind was calm, visibility was 10 miles, sky clear, temperature was 89 degrees Fahrenheit, dew point was 72 degrees Fahrenheit, and the altimeter setting was 29.82 inches of mercury. In addition, a witness at the accident site estimated the winds were out of the west between 10 and 15 knots.

According to Federal Aviation Administration (FAA) records, the pilot's last third class medical certificate was dated August 9, 1993. No other records associated with the pilot were identified. In addition, a witness reported that the pilot had approximately 200 hours of total flight experience in an ultralight airplane, and that he did not maintain a pilot logbook.

According to an FAA inspector, the airplane impacted the ground in an open field. The left and right wings were intact, and attached to the fuselage. Both displayed impact damage, and their associated flight control surfaces were attached. The tail section was attached to the fuselage. It also displayed impact damage, and was bent right about 45 degrees. The horizontal and vertical stabilizers, along with their associated flight control surfaces, were

attached. Flight control continuity was verified from the tail section to the cockpit and from both wings to the cockpit. Examination of the pilots seat revealed no evidence of slippage or malfunction. In addition, no preimpact failures with either the airframe or the engine were identified.

An autopsy was performed on the pilot at the St. Mary's Hospital in Amsterdam, New York, on July 5, 2002. Toxicological testing was not conducted.

Pilot Information

Certificate:	None	**Age:**	37,Male
Airplane Rating(s):	None	**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 Expired	**Last FAA Medical Exam:**	August 9, 1993
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	200 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Pank	**Registration:**	UNREG
Model/Series:	KitFox	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	1200 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	1 Hrs at time of accident	**Engine Manufacturer:**	Rotax
ELT:	Not installed	**Engine Model/Series:**	582
Registered Owner:	Michael Pank	**Rated Power:**	65 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:	ALB,285 ft msl	**Distance from Accident Site:**	37 Nautical Miles
Observation Time:	18:51 Local	**Direction from Accident Site:**	119°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.81 inches Hg	**Temperature/Dew Point:**	31°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sprakers, NY (NONE)	**Type of Flight Plan Filed:**	None
Destination:	(NONE)	**Type of Clearance:**	None
Departure Time:	18:15 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	NONE	**Runway Surface Type:**	Grass/turf
Airport Elevation:		**Runway Surface Condition:**	Dry
Runway Used:	27	**IFR Approach:**	None
Runway Length/Width:	1700 ft / 50 ft	**VFR Approach/Landing:**	Go around;Traffic pattern

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:**	42.891109,-74.51361

Administrative Information

Investigator In Charge (IIC):	Muzio, Dave
Additional Participating Persons:	Ernest Maffei; FAA\FSDO; Albany, NY
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Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=55138