Aviation Investigation Final Report

Location:	Morrilton, Arkansas	**Accident Number:**	FTW01LA173
Date & Time:	August 3, 2001, 08:30 Local	**Registration:**	N5433
Aircraft:	Curtis-Travel Air 4000	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

During the takeoff roll on the private grass airstrip, at 50-60 knots, the pilot raised the tail of the vintage bi-plane to a takeoff attitude. The right main landing gear hit a bump, the airplane became airborne and banked left. The pilot over corrected back to the right, and the right wingtip hit the ground. The right wingtip drug along the ground, and the airplane turned right and went through a barbed wire fence. The pilot aborted the takeoff, and the airplane landed hard separating the main landing gear. The airplane then impacted a piece of farm equipment with the left wing and a fence post with the right wing before coming to rest upright. At the time of the accident, the pilot had logged a total flight time of 2300 hours, of which 500 hours were in tail-wheel equipped airplanes. The pilot had 0.6 hours in the accident airplane.

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 during takeoff. Contributing factors were the pilot's lack of experience in the accident airplane, and the rough/uneven runway.

Findings

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

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

2. (F) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
3. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - ABORTED

Findings
4. OBJECT - FENCE
5. OBJECT - FENCE POST

Factual Information

On August 3, 2001, at 0830 central daylight time, a Curtis-Travel Air 4000 vintage bi-plane, N5433, was substantially damaged following a loss of engine power during takeoff from a private grass airstrip near Morrilton, Arkansas. The airplane was owned and operated by a private individual. The airline transport pilot and his two passengers, one of whom was the owner, were not injured. Visual meteorological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 positioning flight. The cross-country flight was originating at the time of the accident from the Hetrick Ranch Turf Strip, and was destined for McAlester, Oklahoma.

The day prior to the accident, the pilot received flight training and a checkout in the accident airplane at Dennis F Cantrell Field Airport in Conway, Arkansas, from the airplane's previous owner, who was a certificated flight instructor. Due to mechanical problems, the pilot and previous owner flew the airplane back to the previous owner's ranch grass strip to make repairs.

The morning of the accident, the pilot calculated the weight and balance of the airplane to be 40 pounds under maximum gross weight. The airplane's new owner, who did not hold a certificate to act as a pilot-in-command, and his son occupied the two front seats. The pilot occupied the rear seat.

During the takeoff roll, at 50-60 knots, the pilot raised the tail to a takeoff attitude. The right main landing gear hit a bump, the airplane became airborne and banked left. The pilot over corrected back to the right, and the right wingtip hit the ground. The right wingtip drug along the ground, which "caused a directional change to the right," and the airplane went through a barbed wire fence. The pilot "chopped power" to abort the takeoff, and the airplane "pan caked in from about 8 feet," separating the main landing gear. The airplane slid forward, and the left wing struck a "large heavy steer handling implement." The airplane then pivoted to the left impacting a fence post with the right wing before coming to rest upright.

Examination of the airplane by the FAA inspector, who responded to the accident, revealed that the upper and lower wings sustained structural damage.

As of the day of the accident, the pilot had logged a total flight time of 2300 hours of which 500 hours were in tail-wheel equipped airplanes. The pilot had 0.6 hours in the accident airplane.

At 0853, the weather observation facility at the Little Rock International Airport, Little Rock, Arkansas, located 37 nautical miles southeast of the accident site, reported the wind from 210 degrees at 5 knots, visibility 7 statute miles, few clouds at 25,000 feet, temperature 88 degrees

Fahrenheit, dew point at 66 degrees Fahrenheit, and an altimeter setting of 30.13 inches of Mercury.

The pilot estimated the wind to be from 190-210 degrees at less than 5 knots at the time of the accident.

Pilot Information

Certificate:	Airline transport; Commercial	**Age:**	45,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Single
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	June 2, 2000
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	October 14, 2000
Flight Time:	2300 hours (Total, all aircraft), 1 hours (Total, this make and model), 2100 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Curtis-Travel Air	**Registration:**	N5433
Model/Series:	4000	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	522
Landing Gear Type:	Tailwheel	**Seats:**	3
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	2400 lbs
Time Since Last Inspection:	34 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	R680
Registered Owner:	On file	**Rated Power:**	225 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:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	190°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	31°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Morrilton, AR (NONE)	**Type of Flight Plan Filed:**	None
Destination:	McAlester, OK (MLC)	**Type of Clearance:**	None
Departure Time:	08:30 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Hetrick Ranch Turf Strip NONE	**Runway Surface Type:**	Grass/turf
Airport Elevation:	600 ft msl	**Runway Surface Condition:**	Dry;Rough
Runway Used:	20	**IFR Approach:**	None
Runway Length/Width:	1700 ft / 50 ft	**VFR Approach/Landing:**	None

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:**	35.150577,-92.739822(est)

Administrative Information

Investigator In Charge (IIC):	Wigington, Douglas
Additional Participating Persons:	Wilbur D Keith; FAA FSDO; Little Rock, AR
Original Publish Date:	February 5, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52947