

# **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	Ago:	45.Male
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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

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Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
<b>Observation Facility, Elevation:</b>		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 Precipita	ation	
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:	<u>Class</u>
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52947

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.