



Aviation Investigation Final Report

Location:	Viburnum, Missouri	Accident Number:	CHI02LA123
Date & Time:	April 25, 2002, 15:45 Local	Registration:	N36555
Aircraft:	Piper PA-32RT-300	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane was substantially damaged when it impacted a hill during an aborted takeoff from runway 27. The pilot stated that he used an informal short field takeoff procedure using 10 degrees of trailing edge flaps. He also stated that the airplane was 80 lbs over its gross weight limit. After realizing the airplane had a less than expected climb rate, the pilot performed an aborted takeoff on the remainder of runway 27 in an attempt to avoid hitting a church along the climb path. The landing gear was sheared from the airplane, and the right main landing gear impacted the horizontal stabilizer. According to the Pilot's Operating Handbook, 25 degrees of flaps is the flap setting for short field takeoff. There is no published takeoff performance data for 10 degrees of flaps.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper short field takeoff planning and procedure. The takeoff weight above the maximum gross weight and the hill were contributing factors.

Findings

Occurrence #1: OVERRUN
Phase of Operation: TAKEOFF - ABORTED

Findings

1. (C) SHORT FIELD TAKEOFF/PROCEDURE - IMPROPER - PILOT IN COMMAND

2. (F) PREFLIGHT PLANNING/PREPARATION - IMPROPER - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ABORTED

Findings

3. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

On April 25, 2002, at 1545 central daylight time, a Piper PA-32RT-300, N36555, owned and piloted by a private pilot, was substantially damaged when it impacted a hill during an aborted takeoff on runway 27 (3,195 feet by 47 feet, asphalt) at the Viburnum Airport, Viburnum, Missouri. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 personal flight was not operating on a flight plan. The pilot and three passengers were uninjured. The flight was originating at the time of the accident.

The pilot stated that he used an informal short field takeoff procedure using 10 degrees of trailing edge flaps. He also stated that the airplane was 80 lbs over its maximum gross weight. After realizing the airplane had a less than expected climb rate, the pilot performed an aborted takeoff on the remainder of runway 27 in an attempt to avoid hitting a church along the climb path. The airplane's landing gear was sheared off by contact with a hill. The right main landing gear impacted the horizontal stabilizer.

According to the Pilot's Operating Handbook (POH) for the airplane, 25 degrees of flaps is the proper flap setting for a short field takeoff. The POH does not contain takeoff performance data for a takeoff with 10 degrees of flaps.

Pilot Information

Certificate:	Private	Age:	43, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Unknown
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	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	November 9, 2001
Flight Time:	165 hours (Total, all aircraft), 55 hours (Total, this make and model), 55 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N36555
Model/Series:	PA-32RT-300	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	32R-7885194
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:		Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3250 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-540-K1G5D
Registered Owner:	Wom Aviation Incorporated	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	Code

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	FAM,947 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	15:35 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / 15 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.27 inches Hg	Temperature/Dew Point:	18°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Viburnum, MO (M084)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	15:45 Local	Type of Airspace:	Class G

Airport Information

Airport:	Viburnum Aiport M084	Runway Surface Type:	Asphalt
Airport Elevation:	1272 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	3195 ft / 47 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	37.710304,-91.120498(est)

Administrative Information

Investigator In Charge (IIC): GALLO, MITCHELL

Additional Participating Persons: Robert G Linenweber; Federal Aviation Administration; St. Ann, MO

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Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=54663>

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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](#).