



National Transportation Safety Board Aviation Accident Final Report

Location:	COTULLA, TX	Accident Number:	FTW96LA002
Date & Time:	10/01/1995, 1415 CDT	Registration:	N7247W
Aircraft:	BEECH A36	Aircraft Damage:	Substantial
Defining Event:		Injuries:	5 None

Flight Conducted Under: Part 91: General Aviation - Business

Analysis

THE AIRPLANE IMPACTED TREES AFTER IT OVERRAN THE DEPARTURE END OF THE 2,200-FOOT GRASS STRIP DURING TAKEOFF. THE PILOT STATED THAT INITIALLY THE AIRPLANE ACCELERATED NORMALLY FOR THE SHORT FIELD TAKEOFF UNTIL ROTATION SPEED WAS ATTAINED. SOON AFTER LIFTOFF THE AIRPLANE NEVER GAINED MORE AIRSPEED 'LIKE IF SOMETHING WAS HOLDING THE AIRPLANE DOWN.' THE PILOT FURTHER STATED THAT WHEN HE REALIZED THAT HE WAS NOT GOING TO BE ABLE TO CLEAR THE TREES AT THE DEPARTURE END OF THE STRIP, HE ELECTED TO ABORT THE TAKEOFF. HE DETERMINED THAT THE AIRPLANE WAS WITHIN WEIGHT AND BALANCE LIMITS, AND HE CALCULATED THE TAKEOFF DISTANCE AND DETERMINED THAT 'THEY HAD AMPLE TAKEOFF DISTANCE.' A REVIEW OF THE TAKEOFF DISTANCE CHARTS IN THE PILOT'S OPERATING HANDBOOK REVEALED THAT TO CLEAR A 50-FOOT OBSTACLE REQUIRED 2,350 FEET WITH THE FLAPS DOWN, AND 2,950 FEET WITH THE FLAPS UP.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S DELAY IN ABORTING THE TAKEOFF. A FACTOR WAS THE PILOT'S IMPROPER USE OF THE AIRCRAFT PERFORMANCE DATA.

Findings

Occurrence #1: OVERRUN

Phase of Operation: TAKEOFF - ABORTED

Findings

1. (F) PERFORMANCE DATA - IMPROPER USE OF - PILOT IN COMMAND
2. SHORT FIELD TAKEOFF/PROCEDURE - PERFORMED - PILOT IN COMMAND
3. (C) ABORTED TAKEOFF - DELAYED - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: TAKEOFF - ABORTED

Findings

4. OBJECT - TREE(S)

Factual Information

On October 1, 1995, at 1415 central daylight time, a Beech A36, N7247W, was substantially damaged during takeoff from a private airstrip near Cotulla, Texas. The private pilot and his 4 passengers were not injured. The airplane, owned by Excellent Aviation Rentals Inc., of Houston, Texas, was being operated under Title 14 CFR Part 91. Visual meteorological conditions prevailed for the business flight for which an IFR flight plan was filed.

According to the pilot, the winds were light and variable when he taxied to the northwest end of the 2,200 foot grass airstrip for a departure to the southeast. The pilot added that after completing the run-up and configuring the airplane in a short field takeoff configuration, he applied full power for takeoff.

The pilot further stated that initially the airplane accelerated normally until rotation speed was attained for the short field takeoff. The pilot added that after becoming airborne, "the airplane never gained any more airspeed after liftoff, like if something was holding the airplane down."

The pilot stated that when he realized that the airplane was not going to be able to clear the trees at the departure end of the airstrip, he elected to abort the takeoff. The airplane came to rest about 200 to 300 feet into the trees.

Prior to departing the airstrip, the pilot stated that he had determined that the airplane was within takeoff and CG limits. Additionally, he reported that he calculated the takeoff distance for the prevailing configuration and determined that "they had ample takeoff distance."

A review of the performance charts for takeoff distance from the pilot's operating handbook (copies enclosed) revealed the takeoff ground run distance with flaps down and up to be 1,200 and 1,500 feet respectively. Likewise, it was determined that 2,350 and 2,950 feet respectively would be required to clear a 50 foot obstacle with flaps down and up. The height of the obstacles at the departure end of the airstrip was not provided by either the pilot or the operator.

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	21, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/23/1995
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	799 hours (Total, all aircraft), 64 hours (Total, this make and model), 639 hours (Pilot In Command, all aircraft), 274 hours (Last 90 days, all aircraft), 133 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	Registration:	N7247W
Model/Series:	A36 A36	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	E-2272
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	08/17/1995, 100 Hour	Certified Max Gross Wt.:	3650 lbs
Time Since Last Inspection:	56 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2121 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-550-B6A
Registered Owner:	EXCELLENT AVIATION RENTALS	Rated Power:	300 hp
Operator:	EXCELLENT AVIATION RENTALS	Operating Certificate(s) Held:	None
Operator Does Business As:	WEST HOUSTON AIRPORT CORP,	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	COT, 400 ft msl	Distance from Accident Site:	29 Nautical Miles
Observation Time:	1400 CDT	Direction from Accident Site:	115°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	Broken / 4500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	33° C / 22° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	HOUSTON, TX (IWS)	Type of Clearance:	None
Departure Time:	1415 CDT	Type of Airspace:	Class G

Airport Information

Airport:	PRIVATE RANCH AIRSTRIP (NONE)	Runway Surface Type:	Grass/turf
Airport Elevation:	460 ft	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	2200 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	HECTOR R CASANOVA	Report Date:	02/14/1996
Additional Participating Persons:	JESSE CAVAZOS; SAN ANTONIO, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).