



# Aviation Investigation Final Report

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<b>Location:</b>	PLAINVILLE, Connecticut	<b>Accident Number:</b>	IAD00LA017
<b>Date &amp; Time:</b>	January 20, 2000, 09:32 Local	<b>Registration:</b>	N137TR
<b>Aircraft:</b>	Cessna T310R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation		

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## Analysis

The pilot was seated in the right co-pilot's seat, and the pilot rated passenger was seated in the left pilot's seat during the takeoff roll on a snow-covered runway. The pilot said the door on the right side of the airplane 'popped' open, and he attempted to close it without success. The pilot elected to abort the takeoff by reducing power and applying the brakes. The airplane overran the departure end of the runway, continued down a steep embankment, struck a fence and crossed a road. The pilot reported good braking action when he first aborted, but lost all braking and directional control at the departure end of the runway. A flight instructor who witnessed the accident said that the accident airplane left tracks in the snow the length of the runway, and that braking action was fair to poor. The runway was 3,612 feet long, and the approximate accelerate stop distance for the airplane at its given weight was 2,680 feet. Among the conditions outlined for the chart were wing flaps in the 'up' position and a level, hard surface, dry runway. The pilot said there were no mechanical deficiencies with the airplane.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper decision to attempt to close the pilot's door during the takeoff roll, which delayed the aborted takeoff and resulted in the overrun. A factor in the accident was the snow-covered runway.

## Findings

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Occurrence #1: OVERRUN

Phase of Operation: TAKEOFF - ABORTED

Findings

1. (F) AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION - SNOW COVERED
  2. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
  3. DOOR, PASSENGER - OPEN
  4. (C) ABORTED TAKEOFF - DELAYED - PILOT IN COMMAND
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Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: TAKEOFF - ABORTED

Findings

5. OBJECT - FENCE

## Factual Information

On January 20, 2000, at 0932 Eastern Standard Time, a Cessna T310R, N137TR, was substantially damaged when it collided with a fence during an aborted takeoff from the Robertson Field Airport (4B8), Plainville, Connecticut. The certificated commercial pilot and pilot rated passenger were not injured. Instrument meteorological conditions prevailed and an IFR flight plan was filed for the business flight conducted under 14 CFR Part 91, destined for Portland, Maine (PWM).

In a telephone interview, the pilot said the purpose of the flight was to travel to PWM to conduct business. He said he and his passenger arrived at 4B8 approximately 0800, and that snow was falling during the drive to the airport. The pilot said the airplane's engines and interior were pre-heated before his arrival. He said the pre-flight, engine start, and taxi checks were all performed by the checklist. The pilot taxied the airplane into position for take off from Runway 02 after he received his IFR clearance.

The pilot was flying the airplane from the right seat. He said flaps were set at 10 degrees and full engine power was applied before the brakes were released for the take off roll. During the takeoff roll, the pilot noticed the cockpit door was open. He said:

"I heard a 'clunk' and then I saw the door handle had popped half open. I noticed I could see a crack of daylight and heard a rushing sound of wind. We weren't half way down the runway, so I decided to abort. Initially, the braking was so good I didn't have any concerns about stopping. We got to the end but suddenly we weren't braking and we weren't turning. I tried to turn off at the taxiway but it wouldn't turn. It just went straight ahead. It didn't move a dot off centerline. We went off the edge and down the cliff."

In a written statement, the pilot said, "As the aircraft proceeded down the runway I tried to reclose the door latch, but against the door seal it would not relatch."

The airplane overran the departure end of the runway, continued down a steep embankment, struck a fence and crossed a road.

In a written statement, the pilot rated passenger said:

"[The pilot] heard a noise come from the door and saw visible light around the door seal. He immediately elected to abort the take-off before mid-field. The power was brought to idle and braking was commenced. There was plenty of runway left to stop the plane and initially braking was effective. Everything appeared normal and it seemed that the plane would stop in time. However, the brakes became ineffective towards the end of the runway and while the plane was not going very fast it went over the edge."

In a telephone interview, a flight instructor reported he was with a student and his airplane when they noticed N137TR on the runway. He said:

"We were parked facing the runway about 2/3 down and about 3 to 4 hundred feet off the runway. There was light snow, about 1/4 inch on all surfaces. I looked up and saw a 310 pass by about 30 or 40 knots. I said to my student, 'Geez, I hope he's taking off. I guess not. On no, I know what's gonna happen here so let's watch'."

The flight instructor said he and his student secured the airplane and drove to the accident site. He said:

"From the time we saw the airplane go by to the time we got there was maybe 3 to 5 minutes. There were tracks in the snow as far [down the runway] as I could see. If I had to estimate the braking, I would estimate it as fair. Fair to poor."

The pilot reported 1,548 hours of flight experience, 836 hours of which were in make and model.

The pilot rated passenger reported 600 hours of flight experience, 165 hours of which were in multi-engine airplanes. He reported approximately 90 hours in the Cessna 310.

When questioned about the performance and handling of the airplane, the pilot responded:

"Everything was working fine. The engines came right up and were working well. Everything was fine with the aircraft."

The pilot provided weight and balance information for the accident flight. According to the pilot, the airplane was 4,948 pounds at takeoff.

The weather reported at the Hartford-Brainard Airport, 10 miles east of 4B8, was visibility 2 1/2 miles in snow. The winds were variable at 3 knots, the temperature was 16 degrees, and the dewpoint was 7 degrees.

The runway at the Robertson Field Airport was 3,612 feet long.

According to the Accelerate Stop Distance chart in the Cessna Model 310 Owner's Manual, the approximate accelerate stop distance for the airplane at its given weight was 2,680 feet. Among the conditions outlined for the chart were wing flaps in the 'up' position and a level, hard surface, dry runway.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	July 30, 1998
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1548 hours (Total, all aircraft), 836 hours (Total, this make and model), 1352 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N137TR
<b>Model/Series:</b>	T310R T310R	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	T310R-0009
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	March 10, 1999 Annual	<b>Certified Max Gross Wt.:</b>	5300 lbs
<b>Time Since Last Inspection:</b>	20 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	3341 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	TSIO-520
<b>Registered Owner:</b>	ELMER J. TOMPKINS	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	HFD ,19 ft msl	<b>Distance from Accident Site:</b>	10 Nautical Miles
<b>Observation Time:</b>	09:53 Local	<b>Direction from Accident Site:</b>	90°
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	2.5 miles
<b>Lowest Ceiling:</b>	Broken / 3300 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	-9°C / -14°C
<b>Precipitation and Obscuration:</b>	Light - None - Snow		
<b>Departure Point:</b>	(4B8 )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	PORTLAND , ME (PWM )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	09:32 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	ROBERTSON FIELD AIRPORT 4B8	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	200 ft msl	<b>Runway Surface Condition:</b>	Snow;Wet
<b>Runway Used:</b>	2	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3612 ft / 75 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Rayner, Brian
<b>Additional Participating Persons:</b>	ROGER FORTUNE; WINDSOR LOCKS , CT
<b>Original Publish Date:</b>	May 8, 2001
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=48545">https://data.nts.gov/Docket?ProjectID=48545</a>

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](#).