



# Aviation Investigation Final Report

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<b>Location:</b>	DEER, Arkansas	<b>Accident Number:</b>	FTW96LA032
<b>Date &amp; Time:</b>	October 22, 1995, 14:30 Local	<b>Registration:</b>	N7421M
<b>Aircraft:</b>	CESSNA 175	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	4 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

AFTER LOCATING THE 2,000-FOOT GRASS AIRSTRIP, THE PILOT CIRCLED AT 1,000 FEET ABOVE THE GROUND AND ENTERED A LEFT HAND PATTERN FOR RUNWAY 27. THE PILOT ESTIMATED THAT THE SURFACE WINDS WERE FROM 200 TO 220 DEGREES AT APPROXIMATELY 20 KNOTS. THE PILOT ENCOUNTERED MODERATE TURBULENCE WHILE IN THE TRAFFIC PATTERN AND REPORTED ENCOUNTERING SEVERE TURBULENCE AND A DOWNDRAFT PRIOR TO TOUCHING DOWN. THE PILOT STATED THAT HE MANAGED TO CONTROL THE AIRPLANE AND TOUCHED DOWN AT ABOUT THE MIDPOINT OF THE STRIP. AFTER TOUCHDOWN THE PILOT ATTEMPTED TO STOP THE AIRPLANE; HOWEVER, THE AIRPLANE OVERRAN THE END OF THE RUNWAY AND IMPACTED BRUSH. THE PILOT STATED THAT 'THE WIND MUST HAVE CHANGED TO A TAILWIND,' AND 'JUST FELT LIKE A DOWNWIND LANDING BUT IT STILL LOOKED LIKE I HAD ROOM TO GET IT STOPPED.' THE WINDS AT HARRISON, ARKANSAS, 29 MILES NORTH, WERE REPORTED FROM 170 DEGREES AT 18 KNOTS, GUSTING TO 26 KNOTS.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S SELECTION OF A DOWNWIND RUNWAY FOR LANDING. FACTORS WERE THE TAILWIND AND THE PILOT'S MISINTERPRETATION OF THE WIND CONDITIONS.

## Findings

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Occurrence #1: OVERRUN

Phase of Operation: LANDING - ROLL

### Findings

1. (F) WEATHER CONDITION - HIGH WIND
2. (F) WEATHER EVALUATION - IMPROPER - PILOT IN COMMAND
3. (F) WEATHER CONDITION - TAILWIND
4. (C) WRONG RUNWAY - SELECTED - PILOT IN COMMAND

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

### Findings

5. AIRPORT FACILITIES, RUNWAY OVERRUN AREA - HIGH VEGETATION

## Factual Information

On October 22, 1995, at 1430 central daylight time, a Cessna 175, N7421M, was substantially damaged while landing near Deer, Arkansas. The commercial pilot and his 3 passengers escaped uninjured. The airplane was being operated as a personal flight under Title 14 CFR Part 91. The flight originated in Dover, Arkansas, at 1400. Visual meteorological conditions prevailed for the cross country flight for which a flight plan was not filed.

According to the pilot, after locating his destination airport he circled the airport at 1,000 feet above the ground and entered a left hand pattern for runway 27. He configured the airplane for a powered approach with 10 degrees of flaps, while maintaining 65 miles per hour. The pilot further stated that he estimated that the winds were from 200 to 220 degrees at approximately 20 knots. The pilot stated that he encountered moderate turbulence while in the pattern, and "while over the first 1/4 of the runway he encountered severe turbulence and a downdraft"; however, he managed to control the airplane and "touch down about the midfield point."

The pilot stated that "the wind must have changed to a tailwind," and "just felt like a downwind landing but it still looked like I had room to get it stopped." The pilot stated that the "tailwind extended my roll out and I went beyond the mowed runway into the rough area." The airplane overran the end of the 2,000 foot mowed grass runway, impacting brush. The nose landing gear collapsed and the engine firewall and the fuselage were damaged.

The winds at Harrison, Arkansas, located 29 nautical miles north of the accident site, were reported from 170 degrees at 18 knots, gusting to 26 knots. The density altitude was estimated at 3,500 feet.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	68, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<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>	April 23, 1994
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	3075 hours (Total, all aircraft), 200 hours (Total, this make and model), 2981 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N7421M
<b>Model/Series:</b>	175 175	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	55721
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	June 6, 1995 Annual	<b>Certified Max Gross Wt.:</b>	2350 lbs
<b>Time Since Last Inspection:</b>	2 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2142 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	GO-300-A
<b>Registered Owner:</b>	F.L. & BONITA J. MOSLEY	<b>Rated Power:</b>	175 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>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	HRO ,2100 ft msl	<b>Distance from Accident Site:</b>	29 Nautical Miles
<b>Observation Time:</b>	13:50 Local	<b>Direction from Accident Site:</b>	350°
<b>Lowest Cloud Condition:</b>	Scattered / 2000 ft AGL	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	18 knots / 26 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	170°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	22°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	DOVER , AR (AR89)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	TAYLOR AIRSTRIP NONE	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	2160 ft msl	<b>Runway Surface Condition:</b>	Wet
<b>Runway Used:</b>	27	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2000 ft / 150 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	3 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	4 None	<b>Latitude, Longitude:</b>	35.839435,-93.2798(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Casanova, Hector
<b>Additional Participating Persons:</b>	ROBERT E TALMADGE; LITTLE ROCK , AR
<b>Original Publish Date:</b>	February 14, 1996
<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=19699">https://data.nts.gov/Docket?ProjectID=19699</a>

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