



# **Aviation Investigation Final Report**

Location: Clover Bend, Arkansas Accident Number: DFW05CA137

**Date & Time:** May 26, 2005, 15:00 Local **Registration:** N93982

Aircraft: PZL-Mielec M18 Aircraft Damage: Substantial

**Defining Event:** 1 Minor

Flight Conducted Under: Part 137: Agricultural

### **Analysis**

In a written statement, the 25,960-hour commercial pilot reported that he taken approximately 10 loads (approximately 4,500-lbs per load) from the east-west, 2,500-foot long by 80-foot wide grass-gravel runway prior to the accident. On the accident run, the turbine powered airplane lifted-off approximately two-thirds of the way down the runway and subsequently encountered a "twister" just after braking ground. He further stated, that after encountering the twister, the airplane yawed to the right approximately 20 degrees and lost speed and lift. The pilot said he could not maintain altitude and the airplane touched down in a field 50-to-100 feet north of the runway, and slid until the airplane collided with a levee and a road.

## **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 directional control during takeoff. A contributing factor was the dust devil (whirlwind) encountered.

### **Findings**

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: TAKEOFF - INITIAL CLIMB

**Findings** 

#### 1. (F) WEATHER CONDITION - DUST DEVIL/WHIRLWIND

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Occurrence #2: LOSS OF CONTROL - IN FLIGHT Phase of Operation: TAKEOFF - INITIAL CLIMB

#### Findings

2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

#### **Findings**

3. TERRAIN CONDITION - GROUND

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#### **Factual Information**

On May 26, 2005, at 1500 central daylight time, a single-engine PZL-Mielec M18 tailwheel-equipped agricultural airplane, N93982, was substantially damaged following a loss of control during takeoff from a private airstrip near Clover Bend, Arkansas. The commercial pilot, the sole occupant of the airplane, received minor injuries. The airplane was registered to and operated by Hoxie Flying Service, Inc., of Walnut Ridge, Arkansas, under the provisions of Title 14 Code of Federal Regulations Part 137 as an aerial application flight. Visual meteorological conditions prevailed and a flight plan had not been filed for the local flight.

In a written statement, the 25,960-hour commercial pilot reported that he taken approximately 10 loads (approximately 4,500-lbs per load) from the east-west, 2,500-foot long by 80-foot wide grass-gravel airstrip prior to the accident. On the accident run, the turbine powered airplane lifted-off approximately two-thirds of the way down the runway and subsequently encountered a "twister" just after braking ground. The pilot added that after encountering the twister, the airplane yawed to the right approximately 20 degrees and lost speed and lift. The pilot said he could not maintain altitude and the airplane touched down in a field 50-to-100 feet north of the runway, and slid until the airplane hit a levee and a road.

An examination of the airplane by a Federal Aviation Administration (FAA) inspector, who traveled to the accident site, revealed structural damage to the fuselage and left wing. The engine, empennage, and landing gear were also damaged.

At 1455, the automated weather observing system at Walnut Ridge (ARG), approximately 10 miles northeast of the accident site, reported wind from 330 degrees at 7 knots, 8 statute miles visibility, few clouds at 4,300 feet, broken clouds at 5,500 feet and 7,000 feet, temperature 81 degrees Fahrenheit, dew point 59 degrees Fahrenheit, and an altimeter setting of 29.96 inches of Mercury.

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### **Pilot Information**

Certificate:	Commercial	Age:	58,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2	Last FAA Medical Exam:	April 1, 2005
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	25960 hours (Total, all aircraft), 200 hours (Total, this make and model), 90 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## **Aircraft and Owner/Operator Information**

Aircraft Make:	PZL-Mielec	Registration:	N93982
Model/Series:	M18	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	1Z007-03
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	February 1, 2005 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	112 Hrs	Engines:	1 Turbo prop
Airframe Total Time:	4079 Hrs	Engine Manufacturer:	Allied Signal
ELT:	Not installed	Engine Model/Series:	TPE-331-11U
Registered Owner:	Hoxie Flying Service, Inc	Rated Power:	1050 Horsepower
Operator:	Hoxie Flying Service, Inc	Operating Certificate(s) Held:	
Operator Does Business As:	Hoxie Flying Service, Inc.	Operator Designator Code:	KSGG

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## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	ARG	Distance from Accident Site:	
Observation Time:	14:55 Local	Direction from Accident Site:	
<b>Lowest Cloud Condition:</b>	Few / 4300 ft AGL	Visibility	8 miles
Lowest Ceiling:	Broken / 5500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	27°C / 15°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Clover Bend, AR	Type of Flight Plan Filed:	None
Destination:	Clover Bend, AR	Type of Clearance:	None
Departure Time:	15:00 Local	Type of Airspace:	

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	35.983333,-91.083335

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#### **Administrative Information**

Investigator In Charge (IIC):	Hatch, Craig
Additional Participating Persons:	Michael Wilson; Little Rock FSDO, SW11
Original Publish Date:	September 13, 2005
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=61578

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.

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