



# Aviation Investigation Final Report

<b>Location:</b>	ARKANSAS CITY, Kansas	<b>Accident Number:</b>	MKC86LA149
<b>Date &amp; Time:</b>	July 13, 1986, 16:00 Local	<b>Registration:</b>	N7259Y
<b>Aircraft:</b>	PIPER PA-30	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

THE CERTIFIED FLIGHT INSTRUCTOR STATED THAT HIS INTENTIONS FOR THIS FLIGHT WERE TO SIMULATE AN ENGINE POWER LOSS DURING THE EARLY STAGES OF THE TAKEOFF ROLL AND HAVE THE STUDENT PERFORM A REJECTED TAKEOFF PROCEDURE. ACCORDING TO THE C.F.I., AT APPROXIMATELY 48 KNOTS HE REDUCED POWER ON THE LEFT ENGINE BY CUTTING OFF FUEL FLOW WITH THE MIXTURE CONTROL BUT THE STUDENT'S SLOW REACTION TO ABORT THE TAKEOFF, AND THE GUSTY CROSSWIND CONDITIONS CAUSED THE AIRCRAFT TO VEER OUT OF CONTROL, BEYOND CORRECTIVE ACTION. POST-ACCIDENT CALCULATIONS REVEAL THAT THE RUNWAY IN USE HAD A HEADWIND COMPONENT OF 17 KNOTS, A CROSSWIND COMPONENT OF 11 KNOTS, AND A DENSITY ALTITUDE OF 3,000 FEET ACTING ON NORMALLY ASPIRATED ENGINES.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

### Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: TAKEOFF - ROLL/RUN

#### Findings

1. (F) AIRCRAFT PERFORMANCE, TAKEOFF CAPABILITY - DISABLED

2. (F) MIXTURE - IMPROPER USE OF - PILOT IN COMMAND(CFI)
3. (F) OVERCONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND(CFI)
4. (F) ABORTED TAKEOFF - NOT PERFORMED - DUAL STUDENT
5. (F) LACK OF TOTAL EXPERIENCE IN KIND OF AIRCRAFT - DUAL STUDENT
6. (F) WEATHER CONDITION - CROSSWIND
7. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - DUAL STUDENT
8. (F) EXCESSIVE WORKLOAD (TASK OVERLOAD) - PILOT IN COMMAND(CFI)
9. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)
10. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND(CFI)
11. (C) REMEDIAL ACTION - INADEQUATE - PILOT IN COMMAND(CFI)

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

Findings

12. (C) GROUND LOOP/SWERVE - UNCONTROLLED - PILOT IN COMMAND(CFI)

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	51, 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>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	April 29, 1986
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	3882 hours (Total, all aircraft), 1119 hours (Total, this make and model), 3718 hours (Pilot In Command, all aircraft), 56 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N7259Y
<b>Model/Series:</b>	PA-30 PA-30	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	30-293
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 15, 1986 Annual	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>	25 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	4669 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-320-B1A
<b>Registered Owner:</b>	ALPHA AVIATION, INC.	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	
<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>	ICT ,1332 ft msl	<b>Distance from Accident Site:</b>	35 Nautical Miles
<b>Observation Time:</b>	14:50 Local	<b>Direction from Accident Site:</b>	315°
<b>Lowest Cloud Condition:</b>	Scattered / 8000 ft AGL	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	16 knots / 22 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	30°C / 22°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	ARKANSAS CITY , KS (WLD )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	DERBY , KS (K50 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:45 Local	<b>Type of Airspace:</b>	Class B

## Airport Information

<b>Airport:</b>	STROTHER WLD	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1159 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	17	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5510 ft / 150 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<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>	37.060626,-97.039161(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Vargas, Ramon
<b>Additional Participating Persons:</b>	MICHAEL E DUCHARME; WICHITA , KS
<b>Original Publish Date:</b>	March 10, 1988
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=34213">https://data.ntsb.gov/Docket?ProjectID=34213</a>

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