



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	MUSKOGEE, OK	<b>Accident Number:</b>	FTW91FA027
<b>Date &amp; Time:</b>	01/05/1991, 2043 CST	<b>Registration:</b>	N421H
<b>Aircraft:</b>	CESSNA 421B	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	6 Fatal

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

A PLT (WHOSE INSTRUMENT CURRENCY COULD NOT BE DTRMD) TOOK OFF AT NGT IN IMC. SHORTLY AFTER TAKEOFF, THE ACFT CRASHED ABT 1.5 MI FM THE DEP END OF THE RWY. THERE WAS EVIDENCE THAT IT IMPACTED IN AN 85 DEG RGT BANK, NOSE DWN ATTITUDE AT HI SPEED. NO PREIMPACT PART FAILURE WAS FND DRG THE INVESTIGATION; HOWEVER, DRG A PRE-PURCHASE INSPN ON 10/16/90, SVRL DISCREPANCIES WERE NOTED. THESE INCLUDED AN INOP FLT DRCTR, AN AUTOPLT MALFUNCTION & A MISRIGGED FLT CTL SYS THAT ALLOWED THE CTRL WHEEL TO INDC A LEFT TURN WHEN THE ACFT WAS IN LVL FLT. THERE WAS NO RECORD OF THESE BEING REPAIRED. RECORDS SHOWED THE PITOT-STATIC SYS WAS LAST TESTED ON 3/24/88. THE PLT WAS TAKING SINE-AID & TYLENOL FOR A CHRONIC SINUS INFECTION. ALTHOUGH TOX CHECKS INDCD THE PRESENCE OF 50.7 UG/ML OF PSEUDOEPHEDRINE & 36.4 UG/ML OF ACETAMINOPHEN IN THE PLT'S URINE, NONE WAS FOUND IN HIS BLOOD. THE SINUS COND COULD HAVE AFFECTED THE PLT'S BALANCE & EQUILIBRIUM.

## 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 CONTROL OF THE AIRCRAFT, DUE TO SPATIAL DISORIENTATION. FACTORS RELATED TO THE ACCIDENT WERE: DARKNESS, ADVERSE WEATHER CONDITIONS, AND THE PILOT'S PHYSICAL IMPAIRMENT FROM THE CHRONIC SINUS INFECTION.

## Findings

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Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. (F) LIGHT CONDITION - DARK NIGHT
  2. (F) WEATHER CONDITION - FOG
  3. (F) WEATHER CONDITION - LOW CEILING
  4. (F) WEATHER CONDITION - RAIN
  5. MAINTENANCE - INADEQUATE - COMPANY/OPERATOR MANAGEMENT
  6. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
  7. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND
  8. (F) PHYSICAL IMPAIRMENT(OTHER ORGANIC PROBLEM) - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	42, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	04/11/1990
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	1820 hours (Total, all aircraft), 684 hours (Total, this make and model), 1522 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N421H
<b>Model/Series:</b>	421B 421B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	421B0516
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	7
<b>Date/Type of Last Inspection:</b>	05/22/1990, Annual	<b>Certified Max Gross Wt.:</b>	7200 lbs
<b>Time Since Last Inspection:</b>	117 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	2580 Hours	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	GTSIO-520-H2
<b>Registered Owner:</b>	SHANKS, RONNIE E	<b>Rated Power:</b>	375 hp
<b>Operator:</b>	SHANKS, RONNIE E	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	TUL, 677 ft msl	Distance from Accident Site:	40 Nautical Miles
Observation Time:	2050 CST	Direction from Accident Site:	330°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Overcast / 300 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.3 inches Hg	Temperature/Dew Point:	2° C / 2° C
Precipitation and Obscuration:			
Departure Point:	(MKO)	Type of Flight Plan Filed:	IFR
Destination:	ALBUQUERQUE, NM (ABQ)	Type of Clearance:	IFR
Departure Time:	2042 CST	Type of Airspace:	Class G

## Airport Information

Airport:	DAVIS FIELD (MKO)	Runway Surface Type:	Concrete
Airport Elevation:	612 ft	Runway Surface Condition:	Slush covered
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	7200 ft / 150 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	5 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	6 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Report Date:	06/02/1992
Additional Participating Persons:			
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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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](#).