



Aviation Investigation Final Report

Location:	MCALESTER, Oklahoma	Accident Number:	FTW91DPJ03
Date & Time:	July 25, 1991, 12:00 Local	Registration:	N413P
Aircraft:	GRIMM SA102.5	Aircraft Damage:	Destroyed
Defining Event:	CAVALIER	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

DURING A DAYLIGHT FLIGHT FROM ENNIS, OKLAHOMA, TO OSHKOSH, WISCONSIN, THE NON-INSTRUMENT RATED PILOT TRANSITIONED FROM VFR TO IFR FLIGHT. THE PRIVATE PILOT WAS FULLY AWARE OF THE FORECASTED INSTRUMENT CONDITIONS AND EXPRESSED HIS CONCERN AS TO THE WEATHER. HE DISCUSSED THE WEATHER WITH OTHER PILOTS, AND THEY RECOMMENDED THAT HE NOT PROCEED WITH THE FLIGHT UNTIL THE WEATHER FRONT HAD PASSED. THE AIRPLANE IMPACTED THE GROUND IN A LEVEL ATTITUDE WITH NO FORWARD MOVEMENT AND WITH EVIDENCE OF SOME ROTATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S ATTEMPTED FLIGHT INTO IMC AND HIS SUBSEQUENT LOSS OF CONTROL DUE TO SPATIAL DISORIENTATION.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings

1. (F) WEATHER CONDITION - LOW CEILING

2. WEATHER CONDITION - FOG
3. (F) WEATHER CONDITION - RAIN
4. (C) FLIGHT INTO KNOWN ADVERSE WEATHER - ATTEMPTED - PILOT IN COMMAND
5. (F) LACK OF TOTAL INSTRUMENT TIME - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
7. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Private	Age:	46,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 10, 1991
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	553 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRIMM	Registration:	N413P
Model/Series:	CAVALIER SA102.5 CAVALIER S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	SA1025-72215
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	June 10, 1991 Unknown	Certified Max Gross Wt.:	1800 lbs
Time Since Last Inspection:	79 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2301 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	O-290-D
Registered Owner:	GRIMM, LARRY W.	Rated Power:	125 Horsepower
Operator:	GRIMM, LARRY W.	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	MLC ,770 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	11:50 Local	Direction from Accident Site:	167°
Lowest Cloud Condition:	Scattered / 600 ft AGL	Visibility	6 miles
Lowest Ceiling:	Broken / 900 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24°C / 22°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	ENNIS (F41)	Type of Flight Plan Filed:	None
Destination:	OSHKOSH (OSH)	Type of Clearance:	None
Departure Time:	10:00 Local	Type of Airspace:	

Airport Information

Airport:	MCALESTER MLC	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	34.92073,-95.759391(est)

Administrative Information

Investigator In Charge (IIC): Nowe, Edward

Additional Participating Persons:

Original Publish Date: April 8, 1993

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=23212>

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](#).