



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	MARLIN, TX	<b>Accident Number:</b>	FTW87FA088
<b>Date &amp; Time:</b>	03/30/1987, 1257 CST	<b>Registration:</b>	N8191V
<b>Aircraft:</b>	PIPER PA-28-181	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal

**Flight Conducted Under:** Part 91: General Aviation - Aerial Observation

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## Analysis

THE ACFT HAD BEEN INVOLVED IN PIPELINE PATROL THROUGHOUT ITS HISTORY OF 7490 FLT HRS. JUST BEFORE THE ACDNT, THE ACFT WAS OBSERVED IN STRAIGHT & LVL FLT ALONG A PIPELINE RIGHT-OF-WAY. ACCORDING TO WITNESSES, THE ACFT WAS AT LOW ALT WHEN A WING SEPARATED & THE ACFT PLUNGED TO THE GROUND. THE LEFT WING WAS FND 588' FROM THE MAIN WRECKAGE. AN INVESTIGATION REVEALED IT HAD SEPD AT THE WING ROOT FROM FATIGUE FAILURE. THE FATIGUE HAD ORIGINATED NEAR ONE OF THE OUTBOARD CARRY-THROUGH ATTACHMENT BOLT HOLES.

## Probable Cause and Findings

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

### Findings

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Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: CRUISE

#### Findings

1. (C) WING,SPAR - FATIGUE
2. WING,SPAR - SEPARATION

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	45, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	05/30/1986
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	9144 hours (Total, all aircraft), 2500 hours (Total, this make and model), 7630 hours (Pilot In Command, all aircraft), 352 hours (Last 90 days, all aircraft), 127 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N8191V
<b>Model/Series:</b>	PA-28-181 PA-28-181	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	28-8090115
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	04/15/1986, Annual	<b>Certified Max Gross Wt.:</b>	2550 lbs
<b>Time Since Last Inspection:</b>	1082 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	7490 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-360-A4M
<b>Registered Owner:</b>	M. E. GRIFFIN	<b>Rated Power:</b>	180 hp
<b>Operator:</b>	GRIFFIN PIPELINE PATROL CO.	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	ACT, 516 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	1330 CST	Direction from Accident Site:	310°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	20 knots / 27 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	8° C / -9° C
Precipitation and Obscuration:			
Departure Point:	CLEBURNE, TX (F18)	Type of Flight Plan Filed:	None
Destination:	CONROE, TX (CXO)	Type of Clearance:	None
Departure Time:	1230 CST	Type of Airspace:	Class G

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	WARREN V WANDEL	Adopted Date:	06/07/1989
Additional Participating Persons:	DAVY CROCKER; DALLAS, TX		
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:pubinquiry@ntsb.gov">pubinquiry@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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