



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	BOZEMAN, MT	<b>Accident Number:</b>	DEN89LA114
<b>Date &amp; Time:</b>	05/03/1989, 1607 MDT	<b>Registration:</b>	N9858D
<b>Aircraft:</b>	PIPER PA-18-150	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

ACCORDING TO THE PLT, WHEN HE ARRIVED IN THE AREA OF THE ARPT, HE CONTACTED THE FLT SVC STATION (FSS) & WAS ADVISED THAT RWY 30 (A 9002' ASPHALT RWY) WAS ACTIVE & THAT THE WIND WAS FROM 210 DEG AT 10, GUSTING 15 KTS. THE ARPT ALSO HAD A TURF RWY (RWY 3/21) WHICH WAS 3400' LONG. THE PLT STATED THAT DRG TOUCHED DOWN ON RWY 30, A GUST OF WIND LIFTED THE LEFT WING & THE ACFT VEERED OFF THE RIGHT SIDE OF THE RWY. HE APPLIED POWER, BUT THE RIGHT WING HIT THE GROUND & THE ACFT CARTWHEELED. SHORTLY AFTER COMING TO REST, IT BEGAN BURNING & WAS DESTROYED BY FIRE.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER IN-FLIGHT PLANNING/DECISION BY THE PILOT WHICH LED TO HIS FAILURE TO MAINTAIN DIRECTIONAL CONTROL DURING THE LANDING. CONTRIBUTING FACTORS WERE: USE OF AN UNFAVORABLE RUNWAY, CROSSWIND, AND GUSTS.

## Findings

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Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) WRONG RUNWAY - SELECTED - PILOT IN COMMAND
3. (F) WEATHER CONDITION - CROSSWIND
4. (F) WEATHER CONDITION - GUSTS
5. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
6. GROUND LOOP/SWERVE - UNCONTROLLED

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Occurrence #2: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID  
Phase of Operation: LANDING

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	53, Male
<b>Airplane Rating(s):</b>	Single-engine Land; Single-engine Sea	<b>Seat Occupied:</b>	Unknown
<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>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	04/05/1988
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1200 hours (Total, all aircraft), 1100 hours (Total, this make and model), 1200 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	PIPER	<b>Registration:</b>	N9858D
<b>Model/Series:</b>	PA-18-150 PA-18-150	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	18-7026
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	05/08/1988, Annual	<b>Certified Max Gross Wt.:</b>	1750 lbs
<b>Time Since Last Inspection:</b>	30 Hours	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2911 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-320-A2A
<b>Registered Owner:</b>	MARLAR, CHARLES	<b>Rated Power:</b>	150 hp
<b>Operator:</b>	MARLAR, CHARLES H.	<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:	BZM, 4474 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1515 MDT	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	30 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots / 15 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	15° C / 1° C
Precipitation and Obscuration:			
Departure Point:	MISSOULA, MT (MSO)	Type of Flight Plan Filed:	VFR
Destination:	(MSO)	Type of Clearance:	VFR
Departure Time:	1415 MDT	Type of Airspace:	Class E

## Airport Information

Airport:	GALLATIN FIELD (BZN)	Runway Surface Type:	Asphalt
Airport Elevation:	4474 ft	Runway Surface Condition:	Dry
Runway Used:	30	IFR Approach:	None
Runway Length/Width:	9002 ft / 150 ft	VFR Approach/Landing:	Traffic Pattern

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	1 Minor	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	VERLIN B TRANTER	Report Date:	04/19/1990
Additional Participating Persons:	RICHARD F BROADWAY; HELENA, MT		
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](#).