



National Transportation Safety Board Aviation Accident Final Report

Location:	SANDSTON, VA	Accident Number:	BF092FA011
Date & Time:	12/01/1991, 1834 EST	Registration:	N5174P
Aircraft:	PIPER PA-24-180	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE PILOTS DEPARTED WITH FULL FUEL TANKS FOR THEIR FIVE HOUR FLIGHT. THEY WERE GIVEN SEVERAL ALTITUDE CHANGES WHICH AT TIMES, PUT THEM INTO GREATER THAN EXPECTED HEAD WINDS. THEY ALSO WERE GIVEN ONE SIGNIFICANT OFF COURSE VECTOR. LATER IN THE FLIGHT, THEY ELECTED TO STOP SHORT OF THEIR DESTINATION FOR FUEL. DURING THEIR ILS APPROACH IN IMC CONDITIONS. THE AIRCRAFT RAN OUT OF FUEL AND THEY CRASHED INTO A PARTIALLY WOODED AREA.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE LOSS OF ENGINE POWER DUE TO FUEL EXHAUSTION AND THE PILOTS SELECTION OF UNSUITABLE TERRAIN FOR THE FORCE LANDING. A FACTOR WAS THE PILOT'S IMPROPER INFLIGHT DECISION.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: APPROACH - IAF TO FAF/OUTER MARKER (IFR)

Findings

1. (F) FUEL - EXHAUSTION
2. (F) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
3. (C) REFUELING - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	60, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Unknown	Last FAA Medical Exam:	06/30/1991
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	4807 hours (Total, all aircraft), 56 hours (Total, this make and model), 4550 hours (Pilot In Command, all aircraft), 74 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N5174P
Model/Series:	PA-24-180 PA-24-180	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	24-193
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	11/04/1991, Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	0 Hours	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A1A
Registered Owner:	MICHAEL KROLL	Rated Power:	180 hp
Operator:	MICHAEL KROLL	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	RIC, 168 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	1830 EST	Direction from Accident Site:	340°
Lowest Cloud Condition:	Scattered / 400 ft agl	Visibility	5 Miles
Lowest Ceiling:	Overcast / 1700 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	15° C / 15° C
Precipitation and Obscuration:			
Departure Point:	MIDDLEBURY, UT (6B0)	Type of Flight Plan Filed:	IFR
Destination:	JACKSONVILLE, NC (OAJ)	Type of Clearance:	IFR
Departure Time:	1345 EST	Type of Airspace:	

Airport Information

Airport:	RICHMOND INT. (RIC)	Runway Surface Type:	
Airport Elevation:	0 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	ILS
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ALBERT G REITAN	Report Date:	03/24/1993
Additional Participating Persons:	J. WAGER HARMS; RICHMOND, VA		
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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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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](#).