



Aviation Investigation Final Report

Location:	VINTON, Iowa	Accident Number:	MKC88FA012
Date & Time:	October 31, 1987, 09:50 Local	Registration:	N76EM
Aircraft:	MERCHANT 1S	PITTS S-	Aircraft Damage: Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Ferry		

Analysis

THE PLT WAS RPRTD TO BE ON A MAINT FERRY FLT TO ANOTHER STATE. HE RPRTD THAT BEFORE THE FLT, HE TOPPED OFF THE FUEL TANK & THAT THE PREFLT, TAKEOFF & DEPARTURE WERE NORMAL. DUE TO LOW CLOUDS, HE LEVELED OFF AT APRX 2000' AGL. SHORTLY THEREAFTER, THE ENG RPM BEGAN TO GRADUALLY DECREASE UNTIL THE ENG STOPPED RUNNING. AN EMERG LANDING WAS MADE IN AN OPEN FIELD, BUT THE ACFT NOSED OVER & WAS DMGD. DURING AN EXAM OF THE ACFT FUEL SYS, DIRTY RESIDUE WAS FOUND IN THE FUEL FILTER BOWL & DEBRIS WAS FOUND IN THE FUEL FILTER ELEMENT & FUEL INJECTOR CONTROL VALVE.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) FLUID,FUEL - CONTAMINATION

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

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings

2. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	61, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	July 13, 1987
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	2600 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MERCHANT	Registration:	N76EM
Model/Series:	PITTS S-1S PITTS S-1S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:		Serial Number:	1976
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	June 20, 1987 AAIP	Certified Max Gross Wt.:	1100 lbs
Time Since Last Inspection:	9 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	440 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	IO-360-B4A
Registered Owner:	JERRY MERCHANT	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CID ,864 ft msl	Distance from Accident Site:	24 Nautical Miles
Observation Time:	10:00 Local	Direction from Accident Site:	141°
Lowest Cloud Condition:	Scattered	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots / 14 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	9°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(VTI)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:45 Local	Type of Airspace:	Class G

Airport Information

Airport:	VTI	Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	42.160961,-92.019638(est)

Administrative Information

Investigator In Charge (IIC):	Vargas, Ramon
Additional Participating Persons:	ROBERT A HILLOCK; DES MOINES , IA
Original Publish Date:	June 7, 1989
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=34469

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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](#).