



Aviation Investigation Final Report

Location:	SPRING ARBOR, Michigan	Accident Number:	CHI83LA214
Date & Time:	May 15, 1983, 19:00 Local	Registration:	N3242Z
Aircraft:	PIPER PA-22	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE ACFT MADE A FORCED LANDING OFF THE ARPT WHEN THE ENGINE QUIT DURING TAKEOFF CLIMB. THE ACFT HAD ABOUT 1/2 A TANK OF FUEL IN BOTH RIGHT AND LEFT TANK BEFORE TAKEOFF. THE PLT WAS USING THE RIGHT TANK FOR TAKEOFF. THE PLT HAD DONE A 180 DEGREE LEFT TURN ON THE RWY FOR TAKEOFF. THE ENGINE QUIT AT ABOUT 200 FT AGL DURING TAKEOFF. A MAINTENANCE INSPECTOR FORFAA STATES THAT 'WHEN FUEL IS BEING USED FROM A TANK ON THE OUTSIDE OF A TURN, THE ENGINE MAY QUIT.' WITH LESS THAN A FULL TANK OF FUEL IN THE RIGHT TANK AND A TURN TO THE LEFT THE CENTRIFUGAL FORCE WOULD MOVE THE FUEL OUTWARD CAUSING AN INTERRUPTION IN THE FUEL SUPPLY. THIS LEAVES AN AIR BUBBLE IN THE FUEL LINE. WHEN THIS BUBBLE REACHES THE CARBURETOR THEENGINE QUILTS. NO OTHER REASON WAS FOUND FOR THE ENGINE STOPPAGE IN THIS ACCIDENT.

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: TAKEOFF - INITIAL CLIMB

Findings

1. (F) FLUID,FUEL - STARVATION
2. (C) PERFORMANCE DATA - NOT FOLLOWED - PILOT IN COMMAND
3. (C) FUEL TANK SELECTOR POSITION - NOT CORRECTED - PILOT IN COMMAND
4. (C) REFUELING - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Private	Age:	44, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	July 9, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	450 hours (Total, all aircraft), 450 hours (Total, this make and model), 430 hours (Pilot In Command, all aircraft), 22 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N3242Z
Model/Series:	PA-22 PA-22	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-7189
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	October 1, 1982 Annual	Certified Max Gross Wt.:	1950 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2000 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated	Engine Model/Series:	O-320-A1A
Registered Owner:	JERRY MAROWELLI	Rated Power:	150 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:	JXN ,1000 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	20:00 Local	Direction from Accident Site:	40°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	11°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:	JACKSON , MI (JXN)	Type of Clearance:	None
Departure Time:	19:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	CORN STUBBLE	Runway Surface Type:	Grass/turf
Airport Elevation:	1000 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	1600 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	42.199882,-84.550811(est)

Administrative Information

Investigator In Charge (IIC): Mcavoy, E.

Additional Participating Persons:

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=12174>

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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](#).