Aviation Investigation Final Report

Location:	FREDERICK, Maryland	**Accident Number:**	BFO92LA087
Date & Time:	July 6, 1992, 08:05 Local	**Registration:**	N92668
Aircraft:	PIPER J3C	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

THE CERTIFICATED FLIGHT INSTRUCTOR (CFI) STATED THAT THE FLIGHT WAS AN INTRODUCTION FLIGHT. HE STATED THAT AFTER THE PREFLIGHT, HE AND THE STUDENT SPENT SOME TIME TAXIING THE AIRPLANE AND PERFORMED SOME GROUND HANDLING EXERCISES. THE CFI STATED PRIOR TO TAKEOFF, TWO ENGINE RUN-UP'S WERE PERFORMED, AND NOTHING UNUSUAL WAS NOTED. THE CFI STATED THAT SHORTLY AFTER LIFTOFF THE ENGINE LOST PARTIAL POWER. HE STATED THAT A STRAIGHT AHEAD LANDING WAS NOT POSSIBLE DUE TO TREES AND HOMES, SO A LEFT TURN WAS MADE. THE CFI SAID HE CHECKED THE MAGNETOS, FUEL, AND APPLIED CARBURETOR HEAT. HE STATED THAT THE ENGINE CONTINUED TO LOSE POWER. THE CFI SAID HE EXECUTED AN OFF AIRPORT EMERGENCY LANDING AND SHORTLY AFTER TOUCHDOWN THE AIRPLANE'S LEFT WING STRUCK A TREE CAUSING SUBSTANTIAL DAMAGE. THE ON SCENE INVESTIGATION BY THE FAA REVEALED THE AIRPLANE WAS FUELED AND NO ENGINE ANOMALIES WERE FOUND. THE CFI REPORTED THE TEMPERATURE AT THE TIME OF THE ACCIDENT WAS 64 DEGREES F, AND THE DEW POINT WAS 63 DEGREES F.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER USE OF CARBURETOR HEAT RESULTING IN THE FORMATION OF CARBURETOR ICE. CARBURETOR ICING WEATHER CONDITIONS WAS A FACTOR.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: TAKEOFF

Findings
1. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS
2. FUEL SYSTEM,CARBURETOR - ICE
3. (C) CARBURETOR HEAT - IMPROPER USE OF - PILOT IN COMMAND

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

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings
4. OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Flight instructor	**Age:**	30,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Glider	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	March 25, 1991
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	1499 hours (Total, all aircraft), 2 hours (Total, this make and model), 1414 hours (Pilot In Command, all aircraft), 81 hours (Last 90 days, all aircraft), 43 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	**Registration:**	N92668
Model/Series:	J3C J3C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	17043
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	June 20, 1992 Annual	**Certified Max Gross Wt.:**	1220 lbs
Time Since Last Inspection:	33 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2907 Hrs	**Engine Manufacturer:**	CONTINENTAL
ELT:	Installed, not activated	**Engine Model/Series:**	A-65-8
Registered Owner:	DENIS C. BERAN	**Rated Power:**	75 Horsepower
Operator:	CONTROL AERO	**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:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 6000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	280°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	18°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(FDK)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	08:05 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	FREDERICK MUNICIPAL FDK	**Runway Surface Type:**	Asphalt
Airport Elevation:	304 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	23	**IFR Approach:**	None
Runway Length/Width:	5220 ft / 100 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	39.419471,-77.409507(est)

Administrative Information

Investigator In Charge (IIC):	Napolitan, Margaret
Additional Participating Persons:	JOHN BARRY; BALTIMORE , MD
Original Publish Date:	June 30, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=11810