Aviation Investigation Final Report

Location:	LUMBERTON, New Jersey	**Accident Number:**	NYC01LA032
Date & Time:	November 8, 2000, 14:00 Local	**Registration:**	N675JM
Aircraft:	Navion A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

As the airplane was in the traffic pattern, the engine lost all power. The pilot turned towards the airport, and observed an airplane at the approach end of the runway. The airplane on the ground appeared to be "in position" on the runway and was not moving, so the pilot extended the flaps to full, and lowered the landing gear to slow the airspeed. Realizing that the increased drag would prohibit a glide to the runway, the pilot performed a forced landing to a field. The airplane had been in restoration for about 10 years. During the restoration, the fuel tanks were removed, drained, pressurized, and inspected before being reinstalled in the airplane. Upon completion of the restoration, the pilot sought out a mechanic to perform an annual inspection on the airplane; however, due to problems with the airplane, the mechanic refused to "sign off" the annual inspection, and the airplane was flown without it. Examination of the engine after the accident revealed a brown stained liquid, similar to automotive fuel, draining from fuel lines as they were removed. Debris was also observed in the liquid. The pilot stated that he had never put automotive fuel into the airplane; however, "dried auto fuel" may have been present in the fuel tanks, and loosened as new aviation fuel was added to the tanks. The engine had accumulated about 5 total hours since the restoration.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's misjudgment of altitude and distance to the runway while performing a forced landing after an engine failure. Factors related to the accident were the pilot's inadequate rebuilding procedures and maintenance inspection, which resulted in contamination of the fuel supply.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: APPROACH - VFR PATTERN - BASE TURN

Findings
1. (F) FLUID,FUEL - CONTAMINATION
2. (F) MAINTENANCE,REBUILD/REMANUFACTURE - INADEQUATE - OWNER/PILOT MECHANIC
3. (F) MAINTENANCE,ANNUAL INSPECTION - INADEQUATE - OWNER/PILOT MECHANIC

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

Findings
4. (C) DISTANCE/ALTITUDE - MISJUDGED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - EMERGENCY

Findings
5. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

On November 8, 2000, about 1400 eastern standard time, a Navion A, N675JM, was substantially damaged during a forced landing at the Flying W Airport (N14), Lumberton, NJ. The certificated airline transport pilot was seriously injured, and the passenger received minor injuries. Visual meteorological conditions prevailed and no flight plan was filed for the personal local flight conducted under 14 CFR Part 91.

According to the pilot, the airplane departed the Red Lion Airport, Vincentown, New Jersey, at 1350, and proceeded to N14. As the airplane was in the traffic pattern, on a base leg, the engine lost all power. The pilot turned towards runway 01 and observed an airplane at the end of the runway. The airplane on the ground appeared to be "in position" on the runway and was not moving, so the pilot extended the flaps to full, and lowered the landing gear to slow his airspeed. Realizing that the increased drag would prohibit the glide to the runway, the pilot performed a forced landing to a field. The airplane touched down in a small valley, impacted a raised bank, and came to rest in brush.

The pilot, who was also a certificated airplane mechanic, stated that the airplane had been in restoration for about 10 years. During the restoration the fuel tanks were removed, drained, pressurized, and inspected before being reinstalled. Upon completion of the restoration, the pilot sought out a mechanic to perform an annual inspection on the airplane; however, due to problems with the airplane, the mechanic refused to "sign off" the annual inspection, and the airplane was flown without it. The pilot additionally added that just after the restoration, the engine had been "running rich," and he had to "lean it out." Later test flights revealed no indications of a rich mixture, and the "stacks were burning real clean."

The engine had accumulated about 5 total hours since the restoration.

The engine was examined on November 17, 2001. As the carburetor was removed from the engine, a brown stained liquid, similar to automotive fuel, was observed draining from the fuel lines as they were removed. Debris was also observed in the liquid when placed into a specimen jar.

The pilot was questioned about the liquid drained from the fuel lines. He stated that he had never put automotive fuel into the airplane; however, "dried auto fuel" may have been present in the fuel tanks, and loosened as new aviation fuel was added to the tanks.

The carburetor was forwarded to Precision Aviation Products Corporation, Everett, Washington, and examined on February 7, 2001, in the presence of a Safety Board investigator. The examination determined that there was no external damage to the carburetor, and all fittings and levers were present and undamaged. When the carburetor was flow tested, no

external leaks were noted, and all tests were to manufacturer's specifications.

When the carburetor was disassembled, the inlet screen, jets, and passages, were all absent of contamination. All gaskets and diaphragms were accounted for and undamaged. No unusual contamination was observed inside the carburetor.

The pilot of the airplane, which was located at the end of runway 01 at the time of the accident, stated that he was "short" of the runway, when he heard another airplane transmit on the radio that an aircraft was down in the trees. He shut down his airplane and proceeded to the accident site to offer assistance. The pilot added that he had never taxied his airplane onto the active runway.

Pilot Information

Certificate:	Airline transport	**Age:**	62,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	None Invalid Medical for flight	**Last FAA Medical Exam:**	July 11, 1998
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	31300 hours (Total, all aircraft), 70 hours (Total, this make and model), 25100 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Navion	**Registration:**	N675JM
Model/Series:	A A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	4-989
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	2750 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	E-185
Registered Owner:	JOHN H. MULVEY	**Rated Power:**	185 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:	WRI ,133 ft msl	**Distance from Accident Site:**	10 Nautical Miles
Observation Time:	13:55 Local	**Direction from Accident Site:**	50°
Lowest Cloud Condition:	Scattered / 15000 ft AGL	**Visibility**	7 miles
Lowest Ceiling:	Broken / 25000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	63°C / 41°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	VINCENTOWN , NJ (N73)	**Type of Flight Plan Filed:**	None
Destination:	(N14)	**Type of Clearance:**	None
Departure Time:	13:45 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	FLYING W AIRPORT N14	**Runway Surface Type:**	Asphalt
Airport Elevation:	49 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	1	**IFR Approach:**	None
Runway Length/Width:	3496 ft / 75 ft	**VFR Approach/Landing:**	Forced landing;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious, 1 Minor	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Demko, Stephen
Additional Participating Persons:	PAUL BASILOTTO; PHILADELPHIA , PA
Original Publish Date:	November 14, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=50612