Aviation Investigation Final Report

Location:	PECKVILLE, Pennsylvania	**Accident Number:**	IAD01LA033
Date & Time:	February 6, 2001, 17:03 Local	**Registration:**	N1914Y
Aircraft:	Mooney M20C	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The flight was en route from Glen Falls, New York, to Smoke Town, Pennsylvania. The pilot had just been cleared to descend from 10,000 feet to 8,000 feet in IMC conditions, when a partial loss of engine power was experienced. The pilot reported the partial loss of power to ATC, and was cleared for the LOC Runway 22 approach to the Wilkes-Barre/Scranton Airport. The airplane was unable to maintain altitude, and the pilot made a forced landing to a field. Examination of the engine did not reveal the cause of the loss of engine power.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: loss of engine power for undetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED

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

Factual Information

On February 6, 2001, about 1703 eastern standard time, a Mooney M20C, N1914Y, was substantially damaged during a forced landing near Peckville, Pennsylvania. The certificated private pilot/owner and passenger were not injured. Instrument meteorological conditions prevailed for the personal flight that originated at Floyd Bennett Memorial Airport (GFL), Glen Falls, New York, at 1528, destined for the Smoke Town Airport (Q08), Smoke Town, Pennsylvania. An instrument flight rules flight plan was filed for the flight conducted under 14 CFR Part 91.

Prior to departure, the pilot contacted the Burlington FSS, received a weather briefing, and filed an IFR flight plan. When he arrived at the airport, he performed a pre flight inspection, and fueled the airplane. The pilot then started the airplane, obtained an IFR clearance and departed GFL at 1528. The pilot reported that conditions en route were marginal, visibility was about 5 miles, and there was no visible precipitation. However, he reported that there was no reference to the ground and was flying in 'low density clouds.' The pilot reported that he was level at 10,000 feet, and communicating with Wilkes-Barre approach control (AVP), Wilkes-Barre, Pennsylvania, when he was asked to descend to 8,000 feet. In a written statement, he said:

"AVP APPCH requested descent to 8,000 ft. Set up for normal descent (i.e. reduced power to 20 in HG and applied full carb heat). Noticed first slight indication of 'rough' running engine. Continued descent to 8,000 and AVP APPCH asked if we wanted vectors around 5 mile 'cell' of precip. Acknowledged-'yes'. At 8,000 feet, I requested descent to 6,000 feet and revision to flight plan for vectors direct to AVP. Advised AVP APPCH of partial loss of power. They cleared me for a LOC APPCH RWY 22. I advised inability to maintain altitude. They cleared me to 4,000. I requested suggestion for alternate airports-none available. I advised unable to maintain 4,000, they cleared to 3,500. We were IMC from 10,000. Still unable to maintain altitude, we broke out of clouds at ~3,000. Immediately looked for 'ditch' sites. I advised AVP APPCH of impending ditch. Throughout descent went through (mentally) emergency descent checklist (i.e. established best glide, switched fuel tanks, mixture rich, boost pump on, carb heat). But, motor continued to lose power. In the final moment I lined up with a highway (Route 6), but focused on ~5 acre field to the south of highway. Left the gear up and lined up for touch down in widest portion of site. At time of touch down, the engine was nearly silent w/slow rotation on prop. Skidded on snow covered area for ~300'. Came to rest against earth berm. Turned off master and mags and deplaned with no injuries."

In a telephone interview, the pilot stated that during the descent from 10,000 feet, he noted that the outside air temperature (OAT) was -12 degrees Celsius. The pilot reported that the cabin heat was on, and hot air entered the cabin through the air duct during the flight. He did not recall if hot air continued to enter the cabin as the engine power diminished.

According to the pilot, the cabin heat was drawn from the same source as the carburetor heat, upstream of the carburetor.

The pilot also stated that he did not have a carburetor ice detector installed in the airplane.

Two Federal Aviation Administration (FAA) inspectors performed and on-site examination on the evening of the accident. According to one of the inspectors, the on-scene examination was limited due to darkness and poor weather. Examination of the airplane revealed that the propeller was bent aft at the tips, the right wing sustained impact damage, and the left fuel tank was filled with fuel. No ice was found on the wings or around the engine air inlets.

An FAA inspector examined the airplane at the salvage facility on February 14, 2001. According to an inspector, the airplane was sitting outside on the ramp with the gear extended. Examination of the fuel, which had been drained from the wing tanks, revealed it was absent of debris and contamination. The firewall was wrinkled and the right wing fuel tank was found breached.

The engine was test run under the supervision of the FAA on February 21, 2001. According to an inspector, a test propeller was placed on the engine, and fuel was added to the left fuel tank. The engine started immediately and ran continuously without interruption.

The inspector also examined the carburetor heat system and found no anomalies.

Weather at AVP, at 1654, was wind from 250 degrees at 7 knots, visibility 10 SM, ceiling broken at 6,000 feet, broken 7,500 feet, temperature 2 degrees C, dew point 2 degrees C, and altimeter setting of 29.88 inHG.

Pilot Information

Certificate:	Private	**Age:**	39,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	December 12, 2000
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	December 22, 1999
Flight Time:	765 hours (Total, all aircraft), 503 hours (Total, this make and model), 765 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	**Registration:**	N1914Y
Model/Series:	M20C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	209
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	May 5, 2000 Annual	**Certified Max Gross Wt.:**	2575 lbs
Time Since Last Inspection:	34 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	4152 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-360-A2D
Registered Owner:	FREDERICK D. TROELSTRA	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Dusk
Observation Facility, Elevation:	AVP,962 ft msl	**Distance from Accident Site:**	
Observation Time:	16:54 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:		**Visibility**	10 miles
Lowest Ceiling:	Broken / 6000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	250°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.87 inches Hg	**Temperature/Dew Point:**	2°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	GLEN FALLS, NY (GFL)	**Type of Flight Plan Filed:**	IFR
Destination:	SMOKE TOWN, PA (Q08)	**Type of Clearance:**	IFR
Departure Time:	15:28 Local	**Type of Airspace:**	Class C

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:**	41.480422,-75.590225(est)

Administrative Information

Investigator In Charge (IIC):	Yeager, Leah
Additional Participating Persons:	STEVE HUDAK; ALLENTOWN, PA
Original Publish Date:	December 18, 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=51714