



National Transportation Safety Board Aviation Accident Final Report

Location:	MORICHES, NY	Accident Number:	NYC98LA037
Date & Time:	12/01/1997, 1900 EST	Registration:	N758YR
Aircraft:	Cessna A152	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Serious

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

The instructor preflighted the airplane and measured the fuel quantity with a calibrated stick, with 8 gallons in one tank, and 7 gallons in the other tank. After takeoff, the airplane had been cruising at 2,700 feet for about 1 hour when the instructor reported that they lost all or most engine power. The engine backfired 4 or 5 times and all attempts to restore engine power were unsuccessful. The instructor performed a forced landing to a parking lot and the airplane's left wing struck a light pole. Examination of the airplane by a Federal Aviation Administration Inspector revealed that one wing fuel tank was ripped open, but neither wing fuel tank contained fuel and there was no odor of fuel on the ground. Refueling records revealed that after the airplane had been refueled to 20 total gallons, it was flown about 8/10 hours before the accident flight. The average fuel consumption of the engine had been 6.8 gallons per hour. According to a carburetor icing probability chart, the conditions at the time of the accident were conducive for 'serious icing at cruise power.'

Probable Cause and Findings

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

Findings

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

Findings

1. WEATHER CONDITION - CARBURETOR ICING CONDITIONS
2. (C) REASON FOR OCCURRENCE UNDETERMINED

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

3. OBJECT - POLE

Factual Information

On December 1, 1997, at 1900 eastern standard time, a Cessna A152, N758YR, was substantially damaged during a forced landing and collision with a light pole near Moriches, New York. The certificated flight instructor and private pilot received serious injuries. Visual meteorological conditions prevailed for the flight that originated at the Francis S. Gabreski Airport (FOK), New York, about 1745. No flight plan had been filed for the instructional flight conducted under 14 CFR Part 91.

According to the flight instructor, the purpose of the flight was to provide the private pilot with an area familiarization and begin "a week-long biennial flight review." The instructor preflighted the airplane and measured the fuel quantity with a calibrated stick. He measured 8 gallons of fuel in one tank, and about 7 gallons in the other tank.

The instructor stated that after cruising at 2,700 feet for about 1 hour, "...we lost all or most engine power output. All attempts to restore engine power were unsuccessful. The engine backfired 4 or 5 times after that." He tuned in the Brookhaven Airport frequency and turned on the runway light. He further stated, "I decided that I could not make the runway 33 fighting strong winds, and I turned toward a well lighted parking lot...turning short base I saw high trees on the west side of the site and elected to land on the east side which turned out to be a narrow road."

During the final approach the airplane's left wing struck a light pole and the instructor then "lost control."

According to a Federal Aviation Administration (FAA) Inspector, examination of the airplane revealed that one wing fuel tank was ripped open, but neither wing fuel tank contained fuel and there was no odor of fuel on the ground. The FAA Inspector also stated that one of the police officers that initially responded to the accident, also a pilot, reported no odor of fuel at the scene. Examination of the propeller revealed no rotational scoring on the blades.

The instructor reported that the airplane's fuel consumption was about 5.5 gallons per hour, and that of the 26 gallon fuel capacity, 24.5 gallons were useable.

The instructor provided a refueling summary of the accident airplane, which included Hobbs and engine tachometer hours, and the number of gallons added during the past 32 hours of operations. The summary did not include any dates; however, the instructor stated that this was the current refueling record of the airplane. Hand written notes on the summary revealed that most refuelings did not fill the tanks up, but refueled the airplane to 18, 19, or 20 gallons. At a Tach time of 48.9, the fuel tanks were filled. The next refueling of the tanks to a full level occurred at a Tach time of 56.6. During the 7.7 hours, 52.9 gallons of fuel were added. When divided out, this provided a rate of 6.87 gallons per hour (GPH). According to the summary, the last refueling occurred at a Tach time of 66.1, where the airplane was refueled to a total of 20 gallons. At the time of the accident, the approximate Tach time was 68.0.

According to a carburetor icing probability chart, the conditions at the time of the accident were conducive for "serious icing at cruise power."

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	38, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	10/06/1997
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	8200 hours (Total, all aircraft), 26 hours (Total, this make and model), 8000 hours (Pilot In Command, all aircraft), 110 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N758YR
Model/Series:	A152 A152	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Aerobatic; Utility	Serial Number:	A1521016
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	100 Hour	Certified Max Gross Wt.:	1670 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4868 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-235-N2C
Registered Owner:	DAEDALUS FLIGHT SCHOOL	Rated Power:	108 hp
Operator:	DAEDALUS FLIGHT SCHOOL	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	FOK, 67 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	1845 EST	Direction from Accident Site:	90°
Lowest Cloud Condition:	Scattered / 4000 ft agl	Visibility	8 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	15 knots / 25 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	3°C / -1°C
Precipitation and Obscuration:			
Departure Point:	WESTHAMPTON BCH, NY (FOK)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1745 EST	Type of Airspace:	Class E

Airport Information

Airport:	BROOKHAVEN (HWV)	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ROBERT L PEARCE	Report Date:	02/28/2000
Additional Participating Persons:	RONALD HUGHES; FARMINGDALE, NY		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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