



National Transportation Safety Board Aviation Accident Data Summary

Location:	PLYMOUTH, MA	Accident Number:	NYC94LA050
Date & Time:	03/01/1994, 1535 EST	Registration:	N7043J
Aircraft:	BELL 47G-5	Injuries:	1 Serious, 1 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Analysis

THE STUDENT PILOT WAS RECEIVING INSTRUCTION IN THE BELL 47 HELICOPTER FROM A CERTIFIED FLIGHT INSTRUCTOR (CFI). AFTER A 1.5 HOUR DUAL INSTRUCTION FLIGHT, THE STUDENT AND THE CFI RETURNED TO THE DEPARTURE AIRPORT TO REFUEL, AND WERE PLANNING TO DEPART AGAIN FOR ANOTHER TRAINING FLIGHT. AFTER LANDING, THE HELICOPTER WAS LEFT IDLING WITH THE RSP AT THE CONTROLS WHILE THE CFI EXITED THE HELICOPTER TO RETRIEVE THE FUEL TRUCK. THE CFI RETURNED WITH THE FUEL TRUCK, RE-FUELED THE HELICOPTER AND WAS RETURNING THE FUEL HOSE TO THE TRUCK WHEN THE TURNING ROTOR BLADES STRUCK THE HOSE AND FUEL TRUCK. THE HOSE IN TURN STRUCK THE CFI. THE INVESTIGATION REVEALED THAT THE TRUCK HAD BEEN PARKED ABOUT 3.5 FEET FROM THE TURNING ROTOR BLADES, AND COMPANY POLICY MANDATED A MINIMUM OF A 10 FOOT CLEARANCE. RE-ENACTMENT OF THE HOSE STOWAGE TO THE SIDE OF THE FUEL TRUCK SHOWED A TENDENCY FOR THE HOSE TO DEFLECT UP INTO THE ROTOR TIP PATH PLANE.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain adequate clearance of the fuel truck from the aircraft, which resulted in the main rotor striking the fuel hose and truck during refueling operation. A factor was the pilot's failure to follow company policy pertaining to the refueling of aircraft.

Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: STANDING - IDLING ROTORS

Findings

1. OBJECT - VEHICLE
2. (C) CLEARANCE - NOT MAINTAINED - FLIGHT INSTRUCTOR(ON GROUND)
3. (F) PROCEDURES/DIRECTIVES - NOT FOLLOWED - FLIGHT INSTRUCTOR(ON GROUND)

Pilot Information

Certificate:	Commercial	Age:	51
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Helicopter
Flight Time:	8000 hours (Total, all aircraft), 8000 hours (Pilot In Command, all aircraft), 80 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N7043J
Model/Series:	47G-5 47G-5	Engines:	1 Reciprocating
Operator:	PAC LEASING CORP	Engine Manufacturer:	LYCOMING
Operating Certificate(s) Held:	None	Engine Model/Series:	VO-435-B1A
Flight Conducted Under:	Part 91: General Aviation - Instructional		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	NZW, 162 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	7 knots / , 320°
Temperature:	2°C	Visibility	7 Miles
Precipitation and Obscuration:			
Departure Point:			Destination:

Airport Information

Airport:	PLYMOUTH (PYM)	Runway Surface Type:	Asphalt
Runway Used:	0	Runway Surface Condition:	Dry
Runway Length/Width:			

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): ROBERT L PEARCE

Adopted Date: 11/18/1994

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/>.

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.