



National Transportation Safety Board Aviation Accident Final Report

Location:	MATTAPAN, MA	Accident Number:	NYC90FA199
Date & Time:	08/24/1990, 0633 EDT	Registration:	N85HB
Aircraft:	PIPER PA-31T2	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE PLT NOTED AN OVER TORQUE CONDITION IN THE LEFT ENG AS THE ACFT WAS ON AN ILS APCH. HE MADE A GO-AROUND & INITIATED ANOTHER APCH WITH THE ENG SHUT DOWN. HE WAS UNABLE TO MAINTAIN ALT & THE ACFT BEGAN A DESCENT THAT WAS NOT ARRESTED. SUBSEQUENTLY, IT CRASHED INTO 2 HOMES, APRX 6 MI FROM THE ARPT. AN EXAM OF THE LEFT ENG REVEALED THE DRIVE SHAFT FROM THE FUEL PUMP TO THE FUEL CONTROL WAS SHEARED AT THE PLASTIC COUPLING. FURTHER EXAM REVEALED THE TWIN BEARINGS THAT SUPPORTED THE DRIVESHAFT HAD FAILED. ALSO, THERE WAS EVIDENCE THE DRIVE SHAFT HAD SHIFTED & SUBSEQUENTLY AN OVERTORQUE CONDITION RESULTED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER IN-FLIGHT PLANNING/DECISION, WHICH RESULTED IN HIS FAILURE TO MAINTAIN CONTROL OF THE AIRCRAFT. FACTORS RELATED TO THE ACCIDENT WERE: FAILURE OF THE LEFT FUEL CONTROL UNIT, AND THE ADVERSE WEATHER CONDITIONS.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: APPROACH - IAF TO FAF/OUTER MARKER (IFR)

Findings

1. (F) FUEL SYSTEM,FUEL CONTROL - FAILURE,PARTIAL
2. POWERPLANT - OVERTORQUE
3. PROPELLER FEATHERING - PERFORMED - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

4. (F) WEATHER CONDITION - LOW CEILING
5. (F) WEATHER CONDITION - FOG
6. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
7. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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

Findings

8. (C) OBJECT - RESIDENCE

Factual Information

Pilot Information

Certificate:	Commercial	Age:	49, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	04/26/1990
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	2926 hours (Total, all aircraft), 536 hours (Total, this make and model), 2715 hours (Pilot In Command, all aircraft), 92 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N85HB
Model/Series:	PA-31T2 PA-31T2	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	31T-812021
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	06/20/1990, Unknown	Certified Max Gross Wt.:	9000 lbs
Time Since Last Inspection:	0 Hours	Engines:	2 Turbo Prop
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	PT6A-28
Registered Owner:		Rated Power:	620 hp
Operator:	MICHAEL D. SPEAR	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BOS, 20 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	0629 EDT	Direction from Accident Site:	61°
Lowest Cloud Condition:	Partial Obscuration / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Overcast / 300 ft agl	Visibility (RVR):	6000 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	17° C / 17° C
Precipitation and Obscuration:			
Departure Point:	CHATHAM, MA (OB6)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	0600 EDT	Type of Airspace:	

Airport Information

Airport:	GENERAL EDWARD LAWRENCE LOGAN (BOS)	Runway Surface Type:	Macadam
Airport Elevation:	20 ft	Runway Surface Condition:	Wet
Runway Used:	4R	IFR Approach:	ILS
Runway Length/Width:	10005 ft / 150 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	3 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ALAN J YURMAN	Report Date:	10/10/1991
Additional Participating Persons:			
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 pubinquiry@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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).