



Aviation Investigation Final Report

Location:	PORTSMOUTH, Ohio	Accident Number:	NYC92LA163
Date & Time:	August 12, 1992, 10:30 Local	Registration:	N87945
Aircraft:	PIPER J-3	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT SAID, 'WE WERE AT 2500 FEET MEAN SEA LEVEL. ALL OF A SUDDEN WE STARTED EXPERIENCING A VERY VIOLENT VIBRATION....IT WAS VIBRATING SO BADLY I WAS AFRAID IT WAS GOING TO SHAKE THE ENGINE OFF THE AIRPLANE...I SHUT THE ENGINE OFF.' HE MADE A FORCED LANDING IN A FIELD WITH HIGH VEGETATION. THE FAA REPORT SAID, '...THE ENGINE VIBRATION WAS DUE TO WOOD PROPELLER DELAMINATION OVER ONE BLADE LEADING EDGE AND TIP. TRACES OF RUST WERE FOUND ON THE WOOD WHERE THE METAL INLAY WAS ATTACHED WITH STEEL SCREWS TO THE WOOD.' THE PROPELLER MANUFACTURER CONFIRMED THAT STEEL SCREWS ARE USED TO SECURE THE LEADING EDGE TO THE WOOD BLADE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PROPELLER LEADING EDGE AS THE RESULT OF CORROSION AND THE SUBSEQUENT FORCED LANDING ON UNSUITABLE TERRAIN.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) PROPELLER SYSTEM/ACCESSORIES, LEADING EDGE CAP - CORRODED

2. (C) PROPELLER SYSTEM/ACCESSORIES, LEADING EDGE CAP - DELAMINATION

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING

Findings

3. TERRAIN CONDITION - HIGH VEGETATION

Factual Information

Pilot Information

Certificate:	Private	Age:	47, Male
Airplane Rating(s):	None	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	August 23, 1991
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	325 hours (Total, all aircraft), 107 hours (Total, this make and model), 276 hours (Pilot In Command, all aircraft), 23 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N87945
Model/Series:	J-3 J-3	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	15563
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	September 28, 1991 Annual	Certified Max Gross Wt.:	1270 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2290 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:		Engine Model/Series:	A-65-8
Registered Owner:	KYLE W. KNORE	Rated Power:	65 Horsepower
Operator:	KYLE W. KNORE	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	1

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	2 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MINFORD , OH	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	10:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		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 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.749923,-82.94947(est)

Administrative Information

Investigator In Charge (IIC):	Leonard, Charles
Additional Participating Persons:	ERIC M APONTE; CINCINNATI , OH
Original Publish Date:	September 14, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=37207

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).