



Aviation Investigation Final Report

Location:	VANDALIA, Ohio	Accident Number:	CHI82FA211
Date & Time:	June 6, 1982, 11:30 Local	Registration:	N7254Y
Aircraft:	PIPER PA-30	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

DURING DESCENT AT 215 MPH THE ACFT ENTERED VIOLENT BUFFETING. RECOVERY WAS INITIATED BY REDUCING POWER & THE ACFT LANDED WITHOUT ANY FURTHER INCIDENT. EXAMINATION REVEALED THE HORIZONTAL STABILATOR WAS PERMANENTLY BENT DOWNWARD ON BOTH SIDES. THE ACFT WAS MODIFIED WITH GAP SEALS ON 5/25/82 IAW STC SA516GL. EXAMINATION OF THE COUNTERBALANCE ARM ASSEMBLY SHOWED THAT TWO SMALL WEIGHTS (SLUGS) WERE USED TO OBTAIN A BALANCED CONDITION WHEN THE STC MODIFICATION WAS COMPLETED ON THE STABILATOR. THE STC CONTAINED A LIMITATION THAT IT SHOULD NOT BE INCORPORATED IN ANY ACFT HAVING OTHER APPROVED MODIFICATIONS UNLESS IT HAS BEEN DETERMINED THAT IT WILL NOT INTRODUCE ANY ADVERSE EFFECT UPON ACFT AIRWORTHINESS. THIS ACFT HAD 8 OTHER MODIFICATIONS. ON 7/10/82 THE OWNER OF THE STC ISSUED A SERVICE BULLETIN WHICH EFFECTIVELY REMOVED THE GAP SEALS ON ALL PA-30 & PA-39 TYPE.ACFT THAT HAD PREVIOUSLY BEEN MODIFIED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

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

Findings

1. FLIGHT CONTROL,STABILATOR - FLUTTER
2. (C) FLIGHT CONTROL,STABILATOR - IMPROPER
3. (C) RUDDERVATOR - IMPROPER - PRODUCTION/DESIGN PERSONNEL
4. (C) PERFORMANCE DATA - NOT ATTAINED - PRODUCTION/DESIGN PERSONNEL
5. (C) MAINTENANCE,DESIGN CHANGE - INADEQUATE - PRODUCTION/DESIGN PERSONNEL
6. (C) ACFT/EQUIP INADEQUATE,SUPPLEMENTAL TYPE CERT - MANUFACTURER

Factual Information

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	26, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	January 4, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	3304 hours (Total, all aircraft), 650 hours (Total, this make and model), 3314 hours (Pilot In Command, all aircraft), 153 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N7254Y
Model/Series:	PA-30 PA-30	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	30-280
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	80 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	3150 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	IO-360-C2C
Registered Owner:	MICHAEL I. MASSIMINI	Rated Power:	200 Horsepower
Operator:	MICHAEL I. MASSIMINI	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	

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	30 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	47°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	VANDALIA , OH	Type of Flight Plan Filed:	None
Destination:	VANDALIA , OH	Type of Clearance:	None
Departure Time:	10:50 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	39.800708,-84.320373(est)

Administrative Information

Investigator In Charge (IIC):

Additional Participating Persons:

Original Publish Date: June 6, 1983

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=72917>

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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](#).