



Aviation Investigation Final Report

Location:	PLYMOUTH, Michigan	Accident Number:	CHI90FA190
Date & Time:	July 23, 1990, 09:34 Local	Registration:	N55354
Aircraft:	PIPER PA-28	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

A PIPER PA-28, N55354, HAD DEPARTED PLYMOUTH, MI & WAS CLIMBING FROM 1300' MSL ON A COURSE OF ABOUT 282 DEG WITH A GND SPEED OF 80 KTS. AT ABOUT THE SAME TIME, A PIPER PA-60, N8060J, WAS CRUISING AT 2100' MSL ON A FLT FROM DETROIT TO JACKSON, MI, ON A COURSE OF ABOUT 258 DEG WITH A GND SPEED OF 165 KTS. SUBSEQUENTLY, THE 2 ACFT CONVERGED & COLLIDED AT 2100' MSL. BOTH ACFT THEN PLUNGED TO THE GND & CRASHED. RADAR DATA & WRECKAGE EXAM REVEALED THE PA-60 HAD CONVERGED FROM THE RIGHT REAR OF THE PA-28; THE PA-28 CONVERGED ON THE PA-60 FROM ITS LOWER, LEFT, FORWARD AREA. THE PA-28 WAS ON AN INSTRUMENT TRAINING FLT WITH A RATED PVT PLT & AN INSTRUCTOR PLT (CFI) ABOARD. THE INVESTIGATION DID NOT REVEAL WHICH SEAT THE CFI WAS OCCUPYING. NO FLT PLAN HAD BEEN FILED FOR EITHER FLT, NOR WAS THERE ANY INDCN THAT EITHER FLT CREW HAD OBTAINED ATC/RADAR ASSISTANCE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE VISUAL LOOKOUT BY THE PILOT OF THE PA-60. A FACTOR RELATED TO THE ACCIDENT WAS THAT NEITHER OF THE FLIGHT CREWS HAD OBTAINED ATC/RADAR ASSISTANCE.

Findings

Occurrence #1: MIDAIR COLLISION

Phase of Operation: CLIMB - TO CRUISE

Findings

1. (F) RADAR ASSISTANCE TO VFR AIRCRAFT - NOT OBTAINED - PILOT IN COMMAND(CFI)
2. (F) RADAR ASSISTANCE TO VFR AIRCRAFT - NOT OBTAINED - PILOT OF OTHER AIRCRAFT
3. (C) VISUAL LOOKOUT - INADEQUATE - PILOT OF OTHER AIRCRAFT

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	65, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	July 25, 1988
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	4200 hours (Total, all aircraft), 1200 hours (Total, this make and model), 4000 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N55354
Model/Series:	PA-28 PA-28	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	28-7325383
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-E3D
Registered Owner:	ROBERT G. GUNN	Rated Power:	150 Horsepower
Operator:		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:	YIP ,716 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	08:45 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	18°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	PLYMOUTH , MI (1D2)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:30 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:	None

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	42.329471,-83.479553(est)

Administrative Information

Investigator In Charge (IIC): Doub, Mark

Additional Participating Persons:

Original Publish Date: September 30, 1991

Last Revision Date:

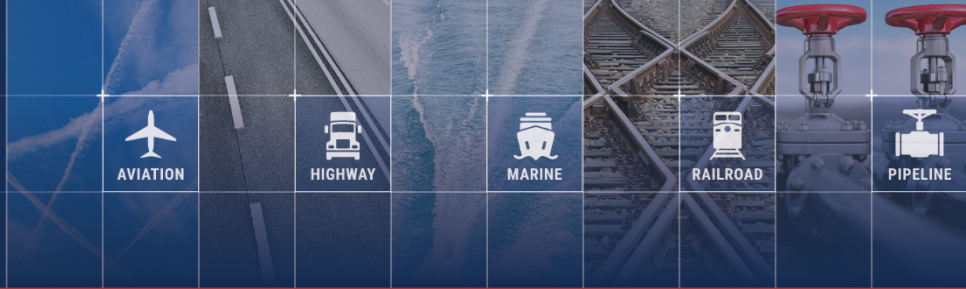
Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=14538>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).



Aviation Investigation Final Report

Location:	PLYMOUTH, Michigan	Accident Number:	CHI90FA190
Date & Time:	July 23, 1990, 09:34 Local	Registration:	N8060J
Aircraft:	PIPER PA-60-600	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

A PIPER PA-28, N55354, HAD DEPARTED PLYMOUTH, MI & WAS CLIMBING FROM 1300' MSL ON A COURSE OF ABOUT 282 DEG WITH A GND SPEED OF 80 KTS. AT ABOUT THE SAME TIME, A PIPER PA-60, N8060J, WAS CRUISING AT 2100' MSL ON A FLT FROM DETROIT TO JACKSON, MI, ON A COURSE OF ABOUT 258 DEG WITH A GND SPEED OF 165 KTS. SUBSEQUENTLY, THE 2 ACFT CONVERGED & COLLIDED AT 2100' MSL. BOTH ACFT THEN PLUNGED TO THE GND & CRASHED. RADAR DATA & WRECKAGE EXAM REVEALED THE PA-60 HAD CONVERGED FROM THE RIGHT REAR OF THE PA-28; THE PA-28 CONVERGED ON THE PA-60 FROM ITS LOWER, LEFT, FORWARD AREA. THE PA-28 WAS ON AN INSTRUMENT TRAINING FLT WITH A RATED PVT PLT & AN INSTRUCTOR PLT (CFI) ABOARD. THE INVESTIGATION DID NOT REVEAL WHICH SEAT THE CFI WAS OCCUPYING. NO FLT PLAN HAD BEEN FILED FOR EITHER FLT, NOR WAS THERE ANY INDCN THAT EITHER FLT CREW HAD OBTAINED ATC/RADAR ASSISTANCE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE VISUAL LOOKOUT BY THE PILOT OF THE PA-60. A FACTOR RELATED TO THE ACCIDENT WAS THAT NEITHER OF THE FLIGHT CREWS HAD OBTAINED ATC/RADAR ASSISTANCE.

Findings

Occurrence #1: MIDAIR COLLISION

Phase of Operation: CRUISE

Findings

1. (F) RADAR ASSISTANCE TO VFR AIRCRAFT - NOT OBTAINED - PILOT IN COMMAND
2. (F) RADAR ASSISTANCE TO VFR AIRCRAFT - NOT OBTAINED - PILOT OF OTHER AIRCRAFT
3. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Airline transport; Commercial	Age:	34, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	February 27, 1990
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	7000 hours (Total, all aircraft), 2000 hours (Total, this make and model), 6800 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 60 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N8060J
Model/Series:	PA-60-600 PA-60-600	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	60-0543-175
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	5500 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-540-K1J5
Registered Owner:		Rated Power:	290 Horsepower
Operator:	FEDERAL ARMORED SERVICE	Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	ECBA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	YIP ,716 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	08:45 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	18°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	DETROIT , MI (DET)	Type of Flight Plan Filed:	None
Destination:	JACKSON , MI (JXN)	Type of Clearance:	None
Departure Time:	09:25 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:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	42.329471,-83.479553(est)

Administrative Information

Investigator In Charge (IIC): Doub, Mark

Additional Participating Persons:

Original Publish Date: September 30, 1991

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=14538>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).