



# Aviation Investigation Final Report

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<b>Location:</b>	MONOGAHELA, Pennsylvania	<b>Accident Number:</b>	NYC95LA145
<b>Date &amp; Time:</b>	July 9, 1995, 12:55 Local	<b>Registration:</b>	N2763W
<b>Aircraft:</b>	Mooney M-20C	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

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## Analysis

THE MOONEY M20C, N2763W, ON A DUAL INSTRUCTIONAL FLIGHT, WAS INBOUND TO THE UNCONTROLLED AIRPORT FOLLOWING THE VOR FINAL APPROACH COURSE OF 119 DEGREES AT 2,000 FT. THE PIPER PA-28, N7416R, HAD DEPARTED THE AIRPORT, TURNED NORTHWEST, AND CLIMBED TO 2,000 FT. THE AIRPLANES COLLIDED 2 MILES NORTHWEST OF THE AIRPORT. ONE OF THE MOONEY PILOTS DESCRIBED THE COLLISION AS 'A SHADOW APPEARED ON THE RIGHT AND CRASHING NOISE AS THE CABIN RIPPED OPEN.' THE PIPER PILOT DESCRIBED THE COLLISION AS A 'LOUD BANG ON THE LEFT SIDE OF THE ENGINE COMPARTMENT AND I SAW COWL BADLY MANGLED.' THE MOONEY WAS NOT ABLE TO MAINTAIN FLIGHT AND MADE A FORCED LANDING IN AN OPEN FIELD. THE PIPER PILOT WAS ABLE TO CONTINUE FLIGHT AND RETURN TO THE DEPARTURE AIRPORT. EXAMINATION OF THE MOONEY REVEALED SEPARATION OF THE UPPER FUSELAGE, TOP VERTICAL STABILIZER AND RUDDER. EXAMINATION OF THE PIPER FIREWALL REVEALED THE MOONEY'S RUDDER BALANCE WEIGHT WAS IMBEDDED. NO EVASIVE ACTION WAS TAKEN BY THE PILOTS PRIOR TO THE COLLISION.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PILOTS OF THE MONNEY M20C, N2763W, AND THE PIPER PA-28, N7416R, TO SEE AND AVOID EACH OTHER.

## Findings

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Occurrence #1: MIDAIR COLLISION

Phase of Operation: APPROACH

### Findings

1. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND(CFI)
2. (C) VISUAL LOOKOUT - INADEQUATE - DUAL STUDENT
3. (C) VISUAL LOOKOUT - INADEQUATE - PILOT OF OTHER AIRCRAFT

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY LANDING

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

## Factual Information

On July 9, 1995, at 1255 eastern daylight time, a Mooney M- 20C, N2763W, and a Piper PA-28-140, N7416R, collided in flight, about 2 miles northwest of the Rostraver Airport, Monongahela, Pennsylvania. The two commercial pilots in N2763W received serious injuries, and the airplane was destroyed. The commercial pilot in N7416R was not injured, and the airplane was substantially damaged. Visual meteorological conditions prevailed, and both flights had departed from the Rostraver Airport within the preceding 25 minutes. No flight plans had been filed for the local flights, which were conducted under 14 CFR Part 91.

A flight instructor was providing dual instruction to the new owner of N2763W. After a 1 hour flight, they landed at Rostraver, and then departed. In the NTSB Accident Report, the pilot of N2763W stated:

It was decided to start the second flight with a visual (no hood) flight of the AGC VOR A approach to Rostraver airport...At the five mile fix commencing descent to minimum I broadcast on 122.8, Rostraver Unicom, my position and intentions...level off at 2,000 [feet], pattern altitude for Rostraver and commenced inbound. At 3 or 4 miles out my instructor made a sound and moved towards me with his head down, as a shadow appeared on the right and crashing noise as the cabin ripped open.

Aircraft control with high engine power was minimal, combined with limited sight in my left eye, made continued flight to Rostraver Airport not an option. An emergency landing was made....

The pilot of N7416R had completed 2 full stop landings on runway 25 at the Rostraver Airport, and then departed on his third takeoff. In the NTSB Accident Report, the pilot stated:

...[I] Made third takeoff and after exiting pattern with 45 turn toward Donora.

...Fly at 2,000 [feet] MSL up toward Monongahela turned at about new eagle toward Elizabeth.

...I experienced loud bang on left side of engine compartment and saw cowl badly mangled...After aircraft kept flying and no oil smell, with tac [tachometer] showing eng. [engine] still running called several MayDays on 122.8 as I proceeded to Rostraver, now about 1 or 2 miles from that point. Saw nothing prior, at, or after the loud "bang."

...Arriving at Rostraver at 2,000 [feet] MSL, pattern altitude...I landed on Rwy 7, not knowing gear missing....

According to a written report from an FAA Airworthiness Inspector:

...the mooney received damage to the top of the fuselage from the windshield to the bulkhead aft of the baggage door. It also had damage to the vertical stabilizer and the rudder was missing. It had tire marks on top of the right horizontal stabilizer.

The Piper had damage to the left cowling and the left side of the firewall, the nose and right landing gear were missing.

The weather at the Allegheny County Airport, West Mifflin, Pennsylvania, located 8 miles northwest of the accident site, was clear skies, visibility 15 miles.

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	58, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	July 5, 1994
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5600 hours (Total, all aircraft), 300 hours (Total, this make and model), 5500 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Mooney	<b>Registration:</b>	N2763W
<b>Model/Series:</b>	M-20C M-20C	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	3353
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	June 19, 1995 Annual	<b>Certified Max Gross Wt.:</b>	2575 lbs
<b>Time Since Last Inspection:</b>	1 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2184 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	O-360-A1D
<b>Registered Owner:</b>	BRITTON WATTS	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	AGC ,1252 ft msl	<b>Distance from Accident Site:</b>	8 Nautical Miles
<b>Observation Time:</b>	12:50 Local	<b>Direction from Accident Site:</b>	345°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	340°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	24°C / 10°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(P53 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	12:45 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	ROSTRAVER P53	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1230 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	Practice;VOR
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

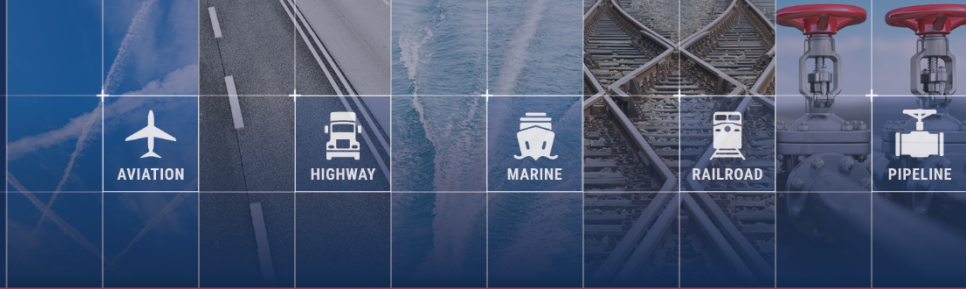
<b>Crew Injuries:</b>	2 Serious	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Serious	<b>Latitude, Longitude:</b>	39.780616,-79.989112(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	HANCOCK, ROBERT
<b>Additional Participating Persons:</b>	DENNIS FERENCZ; WEST MIFFLIN , PA
<b>Original Publish Date:</b>	November 25, 1996
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=38989">https://data.ntsb.gov/Docket?ProjectID=38989</a>

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

<b>Location:</b>	MONOGAHELA, Pennsylvania	<b>Accident Number:</b>	NYC95LA145
<b>Date &amp; Time:</b>	July 9, 1995, 12:55 Local	<b>Registration:</b>	N7416R
<b>Aircraft:</b>	Piper PA-28-140	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE MOONEY M20C, N2763W, ON A DUAL INSTRUCTIONAL FLIGHT, WAS INBOUND TO THE UNCONTROLLED AIRPORT FOLLOWING THE VOR FINAL APPROACH COURSE OF 119 DEGREES AT 2,000 FT. THE PIPER PA-28, N7416R, HAD DEPARTED THE AIRPORT, TURNED NORTHWEST, AND CLIMBED TO 2,000 FT. THE AIRPLANES COLLIDED 2 MILES NORTHWEST OF THE AIRPORT. ONE OF THE MOONEY PILOTS DESCRIBED THE COLLISION AS 'A SHADOW APPEARED ON THE RIGHT AND CRASHING NOISE AS THE CABIN RIPPED OPEN.' THE PIPER PILOT DESCRIBED THE COLLISION AS A 'LOUD BANG ON THE LEFT SIDE OF THE ENGINE COMPARTMENT AND I SAW COWL BADLY MANGLED.' THE MOONEY WAS NOT ABLE TO MAINTAIN FLIGHT AND MADE A FORCED LANDING IN AN OPEN FIELD. THE PIPER PILOT WAS ABLE TO CONTINUE FLIGHT AND RETURN TO THE DEPARTURE AIRPORT. EXAMINATION OF THE MOONEY REVEALED SEPARATION OF THE UPPER FUSELAGE, TOP VERTICAL STABILIZER AND RUDDER. EXAMINATION OF THE PIPER FIREWALL REVEALED THE MOONEY'S RUDDER BALANCE WEIGHT WAS IMBEDDED. NO EVASIVE ACTION WAS TAKEN BY THE PILOTS PRIOR TO THE COLLISION.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PILOTS OF THE MONNEY M20C, N2763W, AND THE PIPER PA-28, N7416R, TO SEE AND AVOID EACH OTHER.



## Findings

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Occurrence #1: MIDAIR COLLISION  
Phase of Operation: MANEUVERING

### Findings

1. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
2. (C) VISUAL LOOKOUT - INADEQUATE - PILOT OF OTHER AIRCRAFT

## Factual Information

See narrative report for NYC-95-L-A145A.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	72, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	February 7, 1995
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	7877 hours (Total, all aircraft), 54 hours (Total, this make and model), 7877 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N7416R
<b>Model/Series:</b>	PA-28-140 PA-28-140	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Utility	<b>Serial Number:</b>	2821940
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	September 1, 1994 Annual	<b>Certified Max Gross Wt.:</b>	2150 lbs
<b>Time Since Last Inspection:</b>	29 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4383 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-320-E2A
<b>Registered Owner:</b>	BERLYN E. LEWIS	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	RAYMOND F. SCHULER	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

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<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(P53 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	12:30 Local	<b>Type of Airspace:</b>	Class E

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<b>Runway Used:</b>	0	<b>IFR Approach:</b>	Practice;VOR
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
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