Aviation Investigation Final Report

Location:	SOMERVILLE, Tennessee	**Accident Number:**	MIA97LA028
Date & Time:	November 23, 1996, 15:45 Local	**Registration:**	N3178U
Aircraft:	North American T28B	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A witness observed the airplane in aerobatic flight, above a private airstrip, which was less than a mile from the crash site. According to the witness, the airplane flew down the runway about 200 to 400 feet above the ground in straight and level flight. The witness said that he stepped inside for less then a minute, and when he returned outside, the airplane had crashed and was burning. This was a common area for this pilot and others to 'perform and practice low altitude maneuvers and aerobatics.' The area surrounding the accident site was level, but where the airplane first struck trees, the terrain was higher than most of the surrounding area. Based on witness accounts, there was evidence that the pilot miscalculated his altitude over the higher terrain, and that he was in 'inverted flight' before striking the trees. No discrepancies were found with the engine or airframe.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot misjudged his altitude/clearance above trees on terrain that was higher than the surrounding terrain, while performing an aerobatic maneuver.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: MANEUVERING

Findings

1. AEROBATICS - INITIATED - PILOT IN COMMAND
2. (F) TERRAIN CONDITION - RISING
3. (F) OBJECT - TREE(S)
4. (C) ALTITUDE/CLEARANCE - MISJUDGED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Factual Information

On November 23, 1996, about 1545 central standard time, a North American T28B, N3178U, registered to a private owner crashed while maneuvering near Somerville, Tennessee. Visual meteorological conditions prevailed, and no flight was filed. The personal flight was being conducted in accordance with Title 14 CFR Part 91. The airplane was destroyed and the airline transport-rated pilot was fatally injured.

A witness observed the airplane performing aerobatics, above a private airstrip, located less than a mile from the crash site. According to the witness the airplane flew down the runway about 200 to 400 feet above the ground, in straight and level flight. The witness said that he stepped inside for less then a minute, and when he returned outside the airplane had crashed and was burning.

According to the FAA inspector's report, this was a common area for this pilot and others to "perform and practice low altitude maneuvers and aerobatics." N3178U had been seen in the area for awhile performing aerobatic maneuvers. The area surrounding the accident was level, but the area where "the airplane first struck, was on higher terrain, than most of the surrounding area, and the trees just added to that."

The FAA inspector further stated, based on witness accounts, the pilot "miscalculated" his altitude over the higher terrain, and was in "inverted flight" before striking the trees. Additionally, a witness told the FAA that the engine "cutout" or hesitated just before impact. No discrepancies were found with the engine and it was the conclusion of the FAA inspector that, "...these engines are known to momentarily cutout when performing these kinds of maneuvers due to no inverted fuel systems."

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot, on November 25, 1996, at the University of Tennessee, in Memphis, Tennessee, by Dr. O.C. Smith.

Toxicological tests were conducted at the Federal Aviation Administration, Research Laboratory, Oklahoma City, Oklahoma, and revealed, " no drugs or alcohol."

Toxicological tests on the pilot were also conducted at the University of Tennessee, in Memphis, Tennessee, and revealed, "no drugs or alcohol."

Pilot Information

Certificate:	Airline transport	**Age:**	42,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	**Toxicology Performed:**	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	March 1, 1996
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	13300 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	North American	**Registration:**	N3178U
Model/Series:	T28B T28B	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Aerobatic	**Serial Number:**	137765
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	7150 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	R-1820-86B
Registered Owner:	JAMES PRICE	**Rated Power:**	1425 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:	JAMES PRICE AIRCRAFT	**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	MEM	**Distance from Accident Site:**	
Observation Time:	14:50 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	12 miles
Lowest Ceiling:	Broken / 5500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	140°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	17°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	OLIVE BRANCH , MS	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	00:00 Local	**Type of Airspace:**	

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:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	35.22937,-89.350387(est)

Administrative Information

Investigator In Charge (IIC):	Yurman, Alan
Additional Participating Persons:	GARY MYERS; MEMPHIS , TN
Original Publish Date:	May 23, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=38180