



Aviation Investigation Final Report

Location:	Wesley Chapel, Florida	Accident Number:	MIA04LA092
Date & Time:	June 3, 2004, 12:10 Local	Registration:	N261FM
Aircraft:	North American T-28B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane was observed to depart from runway 32, and according to one witness, about 6 seconds after take off, "something small and rather dark fell from the plane." Another witness stated that a tarp of some kind came out from the plane." The airplane was then observed to roll left, and pitch down. The flight duration from takeoff to the time of the accident was estimated to be approximately 15-20 seconds. The airplane crashed into a wooded area. Examination of the wreckage, accident site, and departure end of the runway by an FAA inspector revealed several pieces of Plexiglas as well as the "Hinge, Engine side cowl forward" from the engine cowl assembly left hand side were found near the departure end of runway 32. Examination of the wreckage revealed the left hand side engine cowling was found farthest from the main wreckage, and a gash was noted in the vertical stabilizer from the leading edge aft to the main spar. Examination of the rear canopy revealed the Plexiglas was fractured with orange paint transfer near the fracture surface. The left hand side engine cowling was noted to be mostly orange in color, and was noted to have the "Hinge, Engine side cowl forward" and the aft upper section of cowling separated. No evidence of engine preimpact failure or malfunction was noted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to verify security of the left engine cowling and its subsequent separation in-flight and collision with the vertical stabilizer resulting in the loss of aircraft control.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. COOLING SYSTEM, COWLING - SEPARATION
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. VERTICAL STABILIZER - FOREIGN OBJECT DAMAGE

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

4. AIRCRAFT CONTROL - NOT POSSIBLE

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On June 3, 2004, about 1210 eastern daylight time, a North American T-28B, N261FM, registered to a private individual, collided with the ground shortly after takeoff from the Tampa North Aero Park, Wesley Chapel, Florida. Visual meteorological conditions prevailed at the time and no flight plan was filed for the 14 CFR Part 91 personal local flight. The airplane was substantially damaged and the commercial-rated pilot, the sole occupant, was fatally injured. The flight was originating at the time of the accident.

The pilot was observed by a witness working on the throttle quadrant before departure to clear a previous discrepancy related to the friction device. The airplane was observed to depart from runway 32, and one witness reported that about 6 seconds after take off, "...something relatively small and rather dark fell from the plane." The witness and another individual made a comment about the separating object and noted the airplane was in an "...extreme" bank angle. The witness noted that the airplane was pitched nose down and lost sight of it behind obstructions; he estimated the flight duration was approximately 15 to 20 seconds. Another witness reported that approximately 2-3 seconds after becoming airborne, a "tarp of some kind, I think came out of the back seat." The witness further reported the airplane then went straight up and to the left. He also noted the empennage moved to the left and right very rapidly. He called 911, and the airplane went to the left before disappearing from his view behind obstructions.

PERSONNEL INFORMATION

The pilot was the holder of a commercial pilot certificate with airplane single and multi-engine land, instrument airplane ratings, issued on October 29, 1986. He was issued a third class medical certificate on June 18, 2002, with the limitation, "Holder shall possess glasses that correct for near vision while exercising the privileges of his/her airman certificate." On the application for his last medical certificate, he listed a total time civilian flight time of 1,333 hours.

A review of the pilot's logbook that contained entries between March 23, 2000, and March 30, 2004, revealed his total flight time was approximately 1268 hours. Between these dates he logged approximately 64 hours, of which, approximately 56 hours were as pilot-in-command in single-engine airplanes. Within the last 90 days, he logged one flight which occurred on March 30, 2004; the logbook did not indicate whether it was as pilot in command or dual. There were no logged flights in the accident aircraft.

AIRCRAFT INFORMATION

The airplane was manufactured by North American Aviation (North American) as model T-28B, and was designated serial number 137655. It was equipped with a Wright 1820-86B engine rated at 1,425 horsepower. Review of the airplane maintenance records revealed the airplane was last inspected in accordance with a conditional inspection on May 1, 2004. No determination was made as to how many hours the airplane had been operated since the time of the inspection.

METEOROLOGICAL INFORMATION

A METAR weather observation taken at the Tampa International Airport on the day of the accident at 1153 (approximately 17 minutes before the accident), indicates that the wind was from 230 degrees at 8 knots, few clouds existed at 4,200 feet mean sea level (msl), scattered clouds existed at 25,000 feet msl, the temperature and dew point were 31 and 19 degrees Celsius, respectively, and the altimeter setting was 30.16 inHg. The airport was located 17.2 nautical miles and 032 degrees from the accident site.

AIRPORT INFORMATION

The Tampa North Aero Park Airport has a asphalt runway designated 14/32, which is 3,541 feet in length and 50 feet in width. The airport elevation is 68 feet mean sea level.

WRECKAGE AND IMPACT INFORMATION

The NTSB did not examine the accident site or the wreckage. Examination of the accident site, airplane, and engine was performed by personnel from the Federal Aviation Administration (FAA). The airplane crashed in a wooded area behind a residential area; the crash site was located at 28 degrees 13.744 minutes North latitude and 082 degrees 22.980 minutes West longitude, or approximately .322 nautical mile and 314 degrees from the departure end of runway 32.

Examination of the accident site revealed damage to trees of various diameters in decreasing heights; the angle of which was estimated to be approximately 45 degrees. An impact crater measuring 2.5 to 3 feet deep and 5 feet in diameter was noted near where the airplane came to rest.

Examination of the wreckage revealed the engine came to rest approximately 3-5 feet forward of the main wreckage location. The fuselage was separated just aft of the cockpit and was located approximately 5 feet from the main wreckage. The canopy was separated and was found approximately 8 feet from the main wreckage. Examination of the vertical stabilizer revealed a gash from the leading edge aft to the main spar. Examination of the rear canopy revealed the Plexiglas was fractured with orange paint transfer near the fracture surface. The engine cowling left hand side, was noted to be orange in color on the exterior surface for the majority of the cowling. The left cowl was found the furthest from the wreckage while the right

cowl was found with the main wreckage and was destroyed. Examination of the engine cowl assembly left hand side revealed the "Hinge, Engine side cowl forward", and a section of cowling at the aft upper end were separated.

Examination of the engine with FAA oversight revealed the front nose case was impact damaged. The crankshaft would turn approximately 1/4 in each direction; no evidence of internal engine failure was noted. The magnetos were removed from the engine, placed on a test bench, and noted to spark at all ignition towers. There was no evidence of oil in the blower unit of the supercharger. The oil pump and oil screens were clean. The carburetor was retained for further examination.

Examination of the departure end of the runway 32 revealed several pieces of Plexiglas as well as a "Hinge, Engine side cowl forward", P/N 199-31544, from the engine cowl assembly left hand side.

MEDICAL AND PATHOLOGICAL INFORMATION

A postmortem examination of the pilot was performed by the District 6 Medical Examiner's Office (M.E.'s Office). The cause of death was listed as blunt trauma. The M.E.'s Office also performed toxicological testing of specimens of the pilot. The drug screen results were negative for the immunoassay in chest blood, and TLC Basic. Caffeine was detected in the Gas Chromatography/Mass Spectrometry (GCMS) screen. The results were also negative for ethanol in the chest blood and vitreous fluid.

Toxicological analysis of specimens of the pilot was also performed by the FAA Toxicology and Accident Research Laboratory. Testing for carbon monoxide, and cyanide was not performed. The results was negative for ethanol, while metoprolol was detected in the liver and kidney.

TESTS AND RESEARCH

Examination of the carburetor which was performed with FAA oversight revealed that test points 7 through 14 which relate to fuel flow at specified points, were above the rich limits, and test points 17, 18, and 22 were under the lean limit as defined in the manufacturer's calibration limits. All other test points were within specification. The carburetor did not have incorporation of vapor vents bleeds or both vapor vents removed. The teardown did not reveal any damage or deterioration to the diaphragms or worn out parts.

ADDITIONAL INFORMATION

The airplane minus the retained engine and the carburetor was released to the pilot's son, Robert J. Rendzio, on September 13, 2004. The retained engine and carburetor were released to Robert J. Rendzio on January 14, 2005.

Pilot Information

Certificate:	Commercial	Age:	74, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	June 18, 2002
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1300 hours (Total, all aircraft), 2 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	North American	Registration:	N261FM
Model/Series:	T-28B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	137655
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	May 1, 2004 Condition	Certified Max Gross Wt.:	9000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	19610.8 Hrs	Engine Manufacturer:	Wright
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	1820-86B
Registered Owner:	Joseph J. Rendzio	Rated Power:	1425 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KTPA,26 ft msl	Distance from Accident Site:	17 Nautical Miles
Observation Time:	11:53 Local	Direction from Accident Site:	212°
Lowest Cloud Condition:	Few / 4200 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	31°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wesley Chapel, FL (X39)	Type of Flight Plan Filed:	None
Destination:	Wesley Chapel, FL (X39)	Type of Clearance:	None
Departure Time:	12:10 Local	Type of Airspace:	Class G

Airport Information

Airport:	Tampa North Aero Park X39	Runway Surface Type:	Asphalt
Airport Elevation:	68 ft msl	Runway Surface Condition:	Dry
Runway Used:	32	IFR Approach:	Unknown
Runway Length/Width:	3541 ft / 50 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	28.229166,-82.383056

Administrative Information

Investigator In Charge (IIC):	Monville, Timothy
Additional Participating Persons:	Stephen G Hull; FAA Flight Standards District Office; Tampa, FL Robert J Nutt; FAA Flight Standards District Office; Tampa, FL William D Shinn; FAA Flight Standards District Office; Renton, WA David Owen; Precision Engines Corporation; Everett, WA
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Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=59369

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