



Aviation Investigation Final Report

Location:	AVON PARK, Florida	Accident Number:	ATL97FA014
Date & Time:	October 31, 1996, 12:25 Local	Registration:	N8353P
Aircraft:	Piper PA-24-250	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During the taxi to the runway for takeoff, the pilot was observed adjusting the ceiling mounted elevator trim. On takeoff, the nose of the airplane porpoised, and the propeller contacted the runway. After becoming airborne, the airplane turned left and entered a steep nose down dive until it impacted in an orange tree nursery. Subsequently, multiple propeller slash marks were found in the runway, where a witness observed a cloud of debris, created by the airplane on its takeoff roll. The elevator trim was found in the fully deflected position for nose down trim. The propeller blades exhibited abrasions on the cambered face at the tips, which were curled aft 90 degrees.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper use of the elevator trim, which resulted in runway contact by the propeller during the takeoff roll and subsequent loss of aircraft control.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) ELEVATOR TRIM - IMPROPER USE OF - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

2. TERRAIN CONDITION - CROP

Factual Information

HISTORY OF FLIGHT

On October 31, 1996, about 1225 eastern standard time, a Piper PA-24-250, N8353P, collided with the ground during an uncontrolled descent, following takeoff from the Avon Park Airport, Avon Park, Florida. The airplane was operated by the pilot under the provisions of Title 14 CFR Part 91, and visual flight rules. A flight plan was not filed for the personal flight. Visual meteorological conditions prevailed. There were fatal injuries to the commercial pilot, and his two passengers, and the airplane was substantially damaged. The flight was originating at the time of the accident.

Local law enforcement personnel stated that the airplane had departed Summerland Key, Florida, earlier in the day, and had proceeded to Naples, Florida. Federal Aviation Administration air traffic records indicated that N8353P contacted the Miami International Flight Service Station at 0812 on October 31, 1996, and stating he had departed Summerland Key and was en-route to Naples, Florida.

Later, at 1142, the airplane contacted Miami Enroute Air Traffic Control Center reporting that he was eight miles north of the Labelle navigational facility . The flight was provided vectors toward Avon Park, Florida.

Subsequently, the airplane landed and was fueled with 58 gallons of 100LL fuel at Avon Park. The flight instructor who fueled the airplane stated that the pilot commented to him, following the passengers' complaints about "bouncy" flying, that he was at 1500 feet, turned onto final approach, but forgot to descend.

Another witness stated that during the taxi to takeoff, the pilot was observed adjusting the overhead mounted elevator trim control. The witness observed the airplane on the takeoff roll create a cloud of dust and emit an unidentified noise. After takeoff, the witness saw the nose of the airplane porpoise as the airplane climbed to about 200 feet above the runway. The airplane then pitched up, and rolled left into a steep descending turn. Additional witnesses saw the airplane impact an orange nursery in a near vertical nose-down attitude. During the post accident examination of the airplane, and the runway, the propeller tips exhibited chordwise scrapes consistent with asphalt contact, and the runway exhibited slash marks in the vicinity of the dust cloud observed during the takeoff roll. The elevator trim was found in the full nose down position.

PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with a date of issue of August 1, 1968. He

held airplane single engine, airplane multi-engine, and airplane instrument ratings. Additionally, he held a certified flight instructors certificate that had expired December 31, 1968. He was issued a mechanics certificate on October 21, 1964. His last medical certificate, third class, was dated June 25, 1995, and contained the restriction that corrective lenses for near and distant vision must be worn while exercising the privileges of the airman's certificate. He listed his total flight hours on the last application for a medical certificate as 2914. A pilot logbook for the pilot was not located.

AIRCRAFT INFORMATION

The maintenance records for the airplane were reviewed. There were no outstanding discrepancies discovered. The airplane log indicated that an annual inspection had been completed on August 3, 1996, at an aircraft total time of 5083.13 hours, which corresponded to the tachometer time. According to the engine log, it was inspected on the same date. At the accident site, the tachometer hour meter indicated 5101.55 hours.

Fuel records at the fixed base operator at Avon Park Municipal Airport indicated that the airplane was fueled with 58 gallons of 100LL aviation gasoline. The person who fueled the airplane verbally indicated that the tanks were filled to capacity. The airplane was equipped with a main and an auxiliary fuel tank in each wing, with a capacity of 30 gallons in each main tank and 15 gallons in each auxiliary tank. No baggage was discovered in the airplane, therefore the weight of the airplane was calculated to be less than the maximum gross weight, and the center of gravity was within limits.

METEOROLOGICAL INFORMATION

Weather information is contained in this report on pages three and four under the section titled Weather Information.

WRECKAGE AND IMPACT INFORMATION

The wreckage was located in an orange tree nursery about 1000 feet southeast of runway 22, Avon Park Municipal Airport. The wreckage was distributed along a 060 degree azimuth for a total distance of about 90 feet. The initial piece of debris was the left wing tip with the navigation light attached. Continuing northeast, a ground crater was observed that contained the left wing tip landing light and windscreen material. The left wing outboard panel was separated from the airframe and was located adjacent to the crater. On the northeast end of the crater, one propeller blade was found, separated from the propeller hub. The tip of the separated propeller blade was bent aft, about 90 degrees, and exhibited a rough patterned abrasion on the cambered back, with chordwise scrapes, that was consistent with having contacted asphalt. About 30 feet northeast of the crater, the main wreckage, consisting of the remainder of the airplane, was located.

The opposing propeller blade, still attached to the propeller hub, exhibited similar

damage with the tip curled aft and an abraded cambered back. One side of the propeller spinner was crushed toward its centerline against the hub. The engine and firewall were displaced aft, about four inches.

The nose landing gear lower torque link, lower left drag link, and upper right drag link were fractured, as if the nose gear had been forced rearward while extended. The nose gear was extended.

The fuselage floor was bucked up beneath the front seats while the fuselage side skin exhibited accordion-like compression damage, longitudinally. The cabin roof had been peeled up and aft by emergency rescue personnel. The tail cone was bent about 90 degrees to the left. There was little damage to the vertical stabilizer, rudder, left horizontal stabilizer, and elevator. The outboard half, approximately, of the right horizontal stabilizer and elevator was bent up about 90 degrees, and the tip was curled up.

As noted earlier, the left wing tip and outboard panel were separated. The leading edge of the remaining 3/4 of the left wing was deformed upward, in a broad arc, about the spar. The entire wing exhibited chordwise compression damage. The forward wing to fuselage attachment was fractured and the wing was displaced aft with concurrent fracturing of the main spar. The left aileron remained with the main wreckage. The left landing gear was extended with the push pull cable compressed and the pivot bolt bent 90 degrees, consistent with forcing the landing gear inboard, while extended.

The right wing leading edge was deformed upward and the top wing skin exhibited compression buckles. The right main landing gear strut was broken off at the barrel.

The flaps were retracted. There was continuity of the flight controls from the cockpit to the flight control surfaces. The elevator trim indication in the cockpit indicated full nose down trim and the elevator trim jackscrew was found in a corresponding position.

The engine was removed to a hangar at the Avon Park Municipal Airport and examined. There was mechanical continuity of the engine when rotated by hand. The intake and exhaust system was unobstructed. The oil screen was clean and clear, Hand pumping of the engine driven fuel pump resulted in the pumping of air. The carburetor throttle valve was open and the mixture was set at rich. Composite floats were found in the carburetor with the venturi in place and the carburetor screen clean. Both magnetos were rotated using a drill and a spark observed at each distributor tower.

MEDICAL AND PATHOLOGICAL INFORMATION

A post mortem examination of the pilot was conducted by the District Ten Medical Examiner Post Office Box 9005 Bartow, Florida, 33831-9005.

Toxicological examinations of the pilot were conducted by the Toxicology and Accident

Research Laboratory, FAA. The reports were negative for ethanol and other drugs.

ADDITIONAL INFORMATION

The wreckage and the aircraft records were released to the insurance representative, Richard J. Sample of Sample International 555 W. Granada Blvd., G-3 Ormond Beach, Florida 32174.

Pilot Information

Certificate:	Commercial	Age:	66, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	June 25, 1995
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	2914 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8353P
Model/Series:	PA-24-250 PA-24-250	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	24-3610
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	August 3, 1996 Annual	Certified Max Gross Wt.:	2900 lbs
Time Since Last Inspection:	18 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5102 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-540-A1D5
Registered Owner:	ALBERT BALTAEFF	Rated Power:	250 Horsepower
Operator:	HOTCHEE BALTAEFF	Operating Certificate(s) Held:	None
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:	BOW ,128 ft msl	Distance from Accident Site:	28 Nautical Miles
Observation Time:	12:50 Local	Direction from Accident Site:	320°
Lowest Cloud Condition:	Scattered / 3000 ft AGL	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	29°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(AVO)	Type of Flight Plan Filed:	None
Destination:	SUMMERLAND KEY (NONE)	Type of Clearance:	None
Departure Time:	12:23 Local	Type of Airspace:	Class G

Airport Information

Airport:	AVON PARK MUNICIPAL AVO	Runway Surface Type:	Asphalt
Airport Elevation:	155 ft msl	Runway Surface Condition:	Dry
Runway Used:	22	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	27.58974,-81.499481(est)

Administrative Information

Investigator In Charge (IIC): Hicks, Preston

Additional Participating Persons: BILLY PHILLIPS; ORLANDO , FL
JOHN MURPHY; ORLANDO , FL

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Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=3769>

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