



National Transportation Safety Board Aviation Accident Final Report

Location:	Wellington, Florida	Accident Number:	ERA12LA250
Date & Time:	March 23, 2012, 17:45 Local	Registration:	N21EP
Aircraft:	Piper PA46	Aircraft Damage:	Substantial
Defining Event:	Collision during takeoff/land	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A witness reported that the airplane veered left during the takeoff roll and headed toward a large ditch that surrounded the runway. It appeared that the pilot did not attempt to stop the airplane or abort the takeoff. The airplane continued toward the ditch, and, upon reaching the ditch's edge, the airplane rotated and reached an altitude of about 50 feet. The airplane's left wing collided with trees. The airplane rolled left and then right before stalling and crashing. The pilot stated that the airplane seemed to pull left on takeoff, possibly due to a right quartering tailwind, and that he did not realize where he was positioned on the runway. Examination of the airplane and engine did not reveal any preimpact anomalies that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain directional control of the airplane during the takeoff roll, which resulted in a collision with a tree.

Findings

Personnel issues	Incorrect action sequence - Pilot
Aircraft	Takeoff distance - Incorrect use/operation
Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

On March 23, 2012, about 1745 eastern daylight time, a Piper PA-46-500TP, N21EP, was substantially damaged following a collision with trees at the Wellington Aero Club Airport (FD38), West Palm Beach, Florida. The airline transport pilot was seriously injured. The airplane was registered to Mascaro Air LLC and operated by the pilot under the provisions of Title 14 Code of Federal Regulations Part 91 as a personal flight. Visual meteorological conditions prevailed and no flight plan was filed. The flight was originating at the time of the accident.

A witness reported that they watched as the airplane began its takeoff roll on runway 33. The witness stated that the winds favored runway 15. As the airplane continued its takeoff roll, it veered to the left and headed towards a large ditch that surrounded the runway. It appeared that no attempts were made to stop the airplane or abort the takeoff. The airplane continued towards the ditch and upon reaching the ditch's edge, the airplane took off, reaching an altitude of approximately 50 feet. The airplane's left wing collided with trees, and the airplane rolled to the left and then right before stalling.

According to the owner of the airplane, the pilot was hired to give him instruction in the airplane. He stated that the airplane had approximately 40 hours of flight time since delivered. The purpose of the flight on the day of the accident was to fly the airplane to another airport for an avionics check. The owner watched as the pilot taxied to the turf runway for takeoff. The airplane lifted off approximately midfield and appeared to have directional and control problems. The airplane climbed to a height of 60-80 feet before brushing into palm trees. The airplane entered a steep downward left turn before impacting the ground.

In a statement from the pilot, he stated that after the accident he had no recollection of the flight due to a concussion. In the months that followed after the accident, knowing the circumstances he stated, that after lining up on runway 33, he applied power and was unable to maintain the airplane on the centerline, since it was not marked. He went on to say that the airplane seemed to pull to the left of the grass runway. He felt that the reason he did not abort the takeoff was because he was not aware of how far left of the centerline the airplane had gone. He also believed that the airplane reached the rotation speed for a soft field takeoff and he decided to lift off. Not realizing how far left he was of the centerline and with a nose high attitude right after takeoff, apparently the airplane brushed the top of a palm tree with the left wing tip and caused the airplane to yaw to the left and he lost control of the airplane.

The Wellington Aero Club Airport is a private airport located 5 miles west of West Palm Beach, Florida. The 4,000 foot by 100 foot lighted turf runway features short, firm Bermuda grass. The runway is oriented 33/15 and is at an elevation of 20 feet.

At 1753 EDT the Palm Beach, FL weather reporting station, located approximately 11 nautical miles east of the accident site, reported winds were 130 degrees at 9 gusting to 16 knots with 10 statute miles of visibility.

Examination of the airplane by the Federal Aviation Administration (FAA) and a representative from Piper revealed that the airplane came to rest inverted on a 320-degree heading on the patio decking of a residential home. All major aircraft components and control surfaces were identified and located at the wreckage site. Flight control continuity was established to all flight control surfaces except for impact

and recovery-related cable separations. Fuel was noted around the wreckage site and in the swimming pool. On initial examination the FAA inspector noted that the elevator trim was positioned near maximum nose up. It was also noted that the flaps were in the neutral position for takeoff; review of the flight manual recommends 20 degrees for grass runways.

Examination of the engine revealed that the firewall structure, engine mounts, exhaust stubs, starter/generator, auxiliary alternator, air conditioning pump, torque system, and the cowling remained attached with impact damage and deformation. All airframe to engine connections were connected and intact. Examination of the engine revealed that contact signatures within the internal components showed that it was developing power at the time of impact. Examination of the engine revealed no indications of any preimpact anomalies or distress that would of precluded normal engine operation prior to impact.

History of Flight

Takeoff	Loss of control on ground
Takeoff	Collision during takeoff/land (Defining event)

Pilot Information

Certificate:	Airline transport; Commercial	Age:	65
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 multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	April 30, 2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	10651 hours (Total, all aircraft), 10418 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N21EP
Model/Series:	PA46 500TP	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4697479
Landing Gear Type:	Retractable - Tricycle	Seats:	5
Date/Type of Last Inspection:		Certified Max Gross Wt.:	4100 lbs
Time Since Last Inspection:		Engines:	1 Turbo prop
Airframe Total Time:	40 Hrs at time of accident	Engine Manufacturer:	PRATT AND WHITNEY
ELT:	C91 installed, not activated	Engine Model/Series:	PT6A
Registered Owner:		Rated Power:	1940 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:	BCT, 13 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	17:47 Local	Direction from Accident Site:	157°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	23° C / 17° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wellington, FL (FD38)	Type of Flight Plan Filed:	None
Destination:	Vero Beach, FL (VRB)	Type of Clearance:	None
Departure Time:	17:45 Local	Type of Airspace:	

Airport Information

Airport:	Wellington FD38	Runway Surface Type:	Grass/turf
Airport Elevation:	20 ft msl	Runway Surface Condition:	Vegetation
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	4000 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	26.465555,-80.149719(est)

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	Linda A Burnett; FAA/FSDO; Miramar, FL Ronald Maynard; Piper; Vero Beach, FL
Original Publish Date:	June 11, 2014
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=83204

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