



Aviation Investigation Final Report

Location:	Jacksonville, Florida	Accident Number:	MIA02LA122
Date & Time:	July 1, 2002, 11:20 Local	Registration:	N1693A
Aircraft:	Piper PA-22-20	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot/owner of the accident airplane said he possesses a solo endorsement to operate the airplane, and that there was a flight instructor with him in the airplane who had not yet received a tail wheel endorsement to operate the airplane. He said the touch-and-go landing had been uneventful, but during takeoff the airplane began to "weather vane", so he retarded the throttle control to idle and applied left rudder control input in an attempt to maintain control, but the airplane veered off the runway, hitting a runway light, and then swung around incurring substantial damage. The flight instructor seated next to pilot/owner stated that when the airplane started to veer off the runway he also applied rudder control input but the airplane continued toward the right edge of the runway and within 5 to 8 seconds swung through an arc of 180 degrees and he was unable to maintain directional control. Both occupants of the airplane said that prior to the accident there had been no failure or malfunction to the airplane or any of its systems.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the solo student/owner to maintain directional control of the airplane during takeoff in a crosswind, which resulted in the airplane veering off the runway, a collision with a runway light, and a ground loop.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. WEATHER CONDITION - CROSSWIND
2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: TAKEOFF - ABORTED

Findings

4. OBJECT - RUNWAY LIGHT

Factual Information

On July 1, 2002, about 1120, eastern daylight time, a Piper PA-22-20, N1693A, registered to and operated by a private individual as a Title 14 CFR Part 91 training flight, crashed during takeoff at Cecil Field, Jacksonville, Florida. Visual meteorological conditions prevailed and no flight plan was filed. The airplane incurred substantial damage, and the student-rated pilot and a commercial-rated flight instructor received no injuries. The flight originated from Herlong Airport, Jacksonville, Florida, the same day, about 1114.

The student pilot/owner stated that he possesses a current solo endorsement to operate the accident airplane, and that a flight instructor who had never received a tail wheel endorsement was with him in the airplane when the accident occurred. He further stated that he had performed a touch-and-go landing which had been uneventful, and as he was taking off, the airplane initially tracked along the centerline of the runway, but as it accelerated to about 45 or 50 knots it began to "weather vane" toward the right edge of the runway. He said he retarded the throttle to idle and applied left rudder control input, but rudder effectiveness was reduced and the airplane continued to veer to the right, where it collided with a runway edge light, swung around, and incurred damage to the left wing, left elevator, and horizontal stabilizer.

The flight instructor said that he also tried to apply rudder control input when the airplane started to veer from the centerline of the runway, but that the aircraft turned through an arc of 180 degrees within about 5 to 8 seconds, and his attempts to maintain directional control were unsuccessful.

Both occupants of the accident airplane said that prior to the accident there had been no mechanical failure or malfunction to the airplane or to any of its systems.

Student pilot Information

Certificate:	Student	Age:	50, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	May 22, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	71 hours (Total, all aircraft), 22 hours (Total, this make and model), 25 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	30, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	August 6, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	December 10, 2001
Flight Time:	1270 hours (Total, all aircraft), 0 hours (Total, this make and model), 1090 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N1693A
Model/Series:	PA-22-20	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	22-449
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	August 1, 2001 Annual	Certified Max Gross Wt.:	1800 lbs
Time Since Last Inspection:	46.4 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2263.6 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-290-D
Registered Owner:	Kenneth F. Harp	Rated Power:	125 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:	VQQ,81 ft msl	Distance from Accident Site:	
Observation Time:	10:48 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 2000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.17 inches Hg	Temperature/Dew Point:	28°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Jacksonville, FL (HEG)	Type of Flight Plan Filed:	None
Destination:	Jacksonville, FL (VQQ)	Type of Clearance:	Unknown
Departure Time:	11:14 Local	Type of Airspace:	Class D

Airport Information

Airport:	Cecil Field Airport VQQ	Runway Surface Type:	Asphalt;Concrete
Airport Elevation:	81 ft msl	Runway Surface Condition:	Dry
Runway Used:	36L	IFR Approach:	None
Runway Length/Width:	8000 ft / 200 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	30.21861,-81.876663

Administrative Information

Investigator In Charge (IIC):	Lovell, John
Additional Participating Persons:	Alan Nemcik; FAA FSDO; Orlando, FL
Original Publish Date:	November 4, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=55124

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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](#).