



Aviation Investigation Final Report

Location:	Ithaca, New York	Accident Number:	NYC01LA120
Date & Time:	May 12, 2001, 09:36 Local	Registration:	N36127
Aircraft:	Piper PA-32RT-300	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was assigned a cruise altitude of 6,000 feet msl. Radar recorded the airplane at 5,900 feet msl. While in IMC, the airplane was vectored on to the final approach course for an ILS approach. At localizer intercept, the airplane was descending approximately 500 fpm. When the airplane was 5 miles from the LOM, the controller advised the pilot he was cleared for the approach, and that radar services were terminated. The airplane crossed the LOM approximately a 1/4 mile right of course, and within 100 feet of the glide-slope crossing altitude of 2,837 feet msl. After the LOM, the decent rate slowed to approximately 400 fpm, and the airplane continued to descend for about 1 minute 38 seconds. The airplane leveled at 2,200 feet msl, and remained at that altitude until radar contact was lost about a minute later. Approximately 2 miles from the airport, the pilot looked outside, to see if he could acquire the ground visually. He saw the ground approaching from the front of the airplane seconds before impact. The airplane impacted the ground, and came to rest about 80 feet below the elevation of the runway. Prior to impact, the pilot thought the airplane was in level flight approximately 1,000 feet agl. The pilot reported no failure or malfunctions with the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to follow the published instrument approach procedure.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings

1. TERRAIN CONDITION - OPEN FIELD
2. (C) IFR PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND

Factual Information

On May 12, 2001, at 0936 eastern daylight time, a Piper PA-32RT-300, N36127, was substantially damaged when it collided with terrain, while executing an instrument landing system (ILS) approach to Tompkins County Airport (ITH), Ithaca, New York. The certificated private pilot and one of the two passengers were not injured. The remaining passenger received minor injuries. Instrument meteorological conditions prevailed for the personal flight that departed Teterboro Airport (TEB), Teterboro, New Jersey. An instrument flight rules (IFR) flight plan was filed and activated for the flight conducted under 14 CFR Part 91.

According to the pilot, the day before the accident he filed an IFR flight plan and checked the weather. He then checked the weather again the next morning before driving to the airport. The pilot arrived at the airport between 0715 and 0730. By 0745, he had completed the preflight, identifying no anomalies with the airplane. The pilot loaded and briefed his passengers, started the engine, and taxied to runway 19 for departure. The airplane departed and ultimately reached a cruise altitude of 6,000 feet msl. Approximately 10 miles north of Binghamton, New York, the airplane entered IMC. En route, the pilot checked the weather, and then the automatic terminal information service (ATIS), once in the terminal area.

While being vectored for the ILS Runway 32 approach, the pilot had the autopilot engaged and was using the heading and altitude mode. When cleared for the approach, the pilot disengaged the altitude mode, because it did not have the ability to capture a new altitude. He started a descent, and intercepted the final approach course using the autopilot in the heading mode. When the airplane passed the locator outer marker (LOM), the pilot disengaged the autopilot, and remembers being on course, but above the glide slope. After the LOM, the pilot continued the descent. Because he was not familiar with the airport, the pilot did not feel comfortable continuing the approach to the published decision height, which was 1,349 feet msl, so he decided not to go below 2,000 feet msl. His intention was to fly the approach until reaching his modified minimums, and then to track the localizer until seeing the runway environment. If he did not acquire the runway visually, or was not in a position to land, he was going to execute the missed approach, and wait for the weather to improve.

With 10 degrees of flaps, and the GPS indicating 82 knots, the pilot looked outside to acquire the ground visually. Instead of seeing the ground below the airplane, he noticed it approaching from the front. The airplane impacted the ground about 2 miles from the runway, bounced back into the air, and flew about 1,110 feet before coming to a stop. After the accident, the avionics were still functioning, so the pilot attempted to report the accident and request help, but with no success. The pilot then secured the avionics and electrical system before exiting the airplane.

In addition, the pilot stated that he added 00.03 to the altimeter setting; so indicated altitude

would more closely match actual altitude. This was a procedure the pilot preformed whenever he changed the altimeter setting. During the flight, the pilot noted that the altimeter matched the altitude readout on the GPS. He does not remember ever going below glide slope during the approach. The pilot also stated that he experienced no malfunctions or failures that could have contributed to the accident.

According to a passenger, when the airplane was about 30 miles form the airport, the pilot handed him a GPS and asked him to callout the distance from the airport while they executed the approach. The passenger advised the pilot when the airplane was 5 miles, 4 miles, 3 miles, and then 2 miles from the airport. The airplane then came out of the clouds, and impacted a field.

According to air traffic control communication tapes, when the pilot contacted Binghamton Approach Control, he reported level at 6,000 feet msl. The controller then advised the pilot that the altimeter setting for Ithaca was 29.88 inches of mercury. The airplane was then handed off to Elmira Approach Control. The pilot advised the new controller he was maintaining 6,000 feet, and that he would like start a descent. The controller acknowledged the pilot's request, and instructed him to maintain 6,000 feet.

Approximately 30 seconds later, the control instructed the pilot to turn left to a heading of 270 degrees for sequencing, and to maintain 6,000 feet, adding to expect lower altitude "shortly," which the pilot acknowledged. After approximately 45 seconds, the control instructed the pilot to descend and maintain 5,000 feet, which the pilot also acknowledged.

The controller then advised the pilot that the current weather at Ithaca was winds 310 degrees at 8 knots, visibility 1/4-mile in fog, vertical visibility 300 feet, and an altimeter setting of 29.85 inches of mercury. The pilot acknowledged the information, and shortly afterwards, the control asked the pilot if the weather was below minimums for him, which the pilot responded "not yet."

The control asked the pilot to confirm he understood the visibility was a 1/4-mile, which the pilot did. The controller then stated "your number one now." The controller instructed the pilot to descend and maintain 4,300, and to turn right to a heading 020 degrees for vectors to final. An acknowledgement by the pilot was not recorded. About 1 minute 30 seconds later, the controller instructed the pilot to fly a heading of 350, and to join the localizer. The pilot responded, fly heading "357" and join the localizer. About 30 seconds later, the controller advised the pilot that he was 5 miles from the LOM, and cleared for the ILS 32 Approach, which the pilot acknowledged. The control then advised the pilot that radar services were terminated, and to contact Ithaca Tower, which the pilot also acknowledged. The pilot then contacted the tower, and was cleared to land

According to radar data, when the pilot contacted Binghamton Approach, the airplane's altitude read out was approximately 5,900 feet msl. When the airplane intercepted the localizer it was descending through about 4,600 feet msl, and had a descent rate of approximately 500 fpm.

The airplane crossed the LOM approximately a 1/4-mile right of course, and within 100 feet of the glide-slope crossing altitude of 2,837 feet.

After crossing the LOM, the decent rate slowed from 500 fpm to approximately 400 fpm. The airplane continued to descend for approximately 1 minute and 38 seconds after passing the LOM. The airplane then leveled at 2,200 feet msl, and remained at that altitude until radar contact was lost about a minute later.

About 26 minutes before the accident, Ithaca reported wind 310 degrees at 6 knots, visibility 3/4 mile in light rain and mist, 500 feet of vertical visibility, temperature 62 degrees Fahrenheit, dew point 60 degrees Fahrenheit, and an altimeter setting of 29.83 inches of mercury.

According to topographic information, the accident site was approximately 80 feet below the elevation of the runway, which was 1,099 feet. In addition, about 1.3 miles southeast of the accident site, the airplane passed over an area of higher terrain that was approximately 1,400 feet in elevation. The angle from that point to the accident site was about 3.3 degrees down.

Pilot Information

Certificate:	Private	Age:	56, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	November 28, 2000
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 29, 2001
Flight Time:	515 hours (Total, all aircraft), 96 hours (Total, this make and model), 377 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N36127
Model/Series:	PA-32RT-300	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	32R7885163
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	June 14, 2000 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2597 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-540
Registered Owner:	MMK Lance Corp.	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	ITH, 1099 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	09:10 Local	Direction from Accident Site:	325°
Lowest Cloud Condition:		Visibility	0.75 miles
Lowest Ceiling:	Indefinite (V V) / 300 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.82 inches Hg	Temperature/Dew Point:	17°C / 16°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	TETERBORO, NJ (TEB)	Type of Flight Plan Filed:	IFR
Destination:	ITHACA, NY (ITH)	Type of Clearance:	IFR
Departure Time:	08:05 Local	Type of Airspace:	Class E

Airport Information

Airport:	TOMPKINS COUNTY ITH	Runway Surface Type:	Asphalt
Airport Elevation:	1099 ft msl	Runway Surface Condition:	Wet
Runway Used:	32	IFR Approach:	ILS
Runway Length/Width:	6601 ft / 150 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor, 1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 2 None	Latitude, Longitude:	42.440795,-76.499168(est)

Administrative Information

Investigator In Charge (IIC):	Muzio, Dave
Additional Participating Persons:	Mark Kozlosky; FAA/FSDO; Rochester, NY
Original Publish Date:	October 9, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=52243

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