National Transportation Safety Board
Aviation Accident Final Report

Location:	Ames, IA	**Accident Number:**	CHI02LA075
Date & Time:	01/30/2002, 1810 CST	**Registration:**	N66MT
Aircraft:	Piper PA-42-720	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	7 None
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The pilot said he was on the glide slope for an ILS approach. The pilot said, "The auto pilot was coupled on to the approach. The autopilot also coupled on to the Glide slope. Approximately 2-1/2 to 3 miles out, we visually had approach lights and runway lights. I then disconnected the auto pilot and yaw damper, and hand flew a visual approach using the glide slope indicator as a cross check for a correct glide path to the airport. Continuing visually on the approach, I checked the GS (glide slope) and it indicated we were slightly above glide path, but was corrected, and seconds later hit a pole going through electrical wires, coming to rest short of the approach lights and to the right." An examination of the airplane revealed no anomalies. An examination of the ILS approach to the runway showed the facility operated satisfactorily.

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 the proper glide path during the final portion of the approach. Factors relating to this accident were the low altitude and the utility pole.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings
1. (C) PROPER GLIDEPATH - NOT MAINTAINED - PILOT IN COMMAND
2. (F) OBJECT - UTILITY POLE(MARKED)
3. (F) ALTITUDE - LOW

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On January 30, 2002, at 1810 central standard time, a Piper PA-42-720, N66MT, piloted by a commercial pilot, sustained substantial damage during an ILS approach for landing on runway 01 (5,700 feet by 100 feet, dry concrete) at the Ames Municipal Airport, Ames, Iowa, when the airplane struck a power pole, subsequent power lines, and then impacted the terrain. Night instrument meteorological conditions prevailed at the time of the accident. The business flight was operating on an instrument flight rules plan under the provisions of Title 14 CFR Part 91. The pilot, a pilot-rated passenger in the right seat, and 5 passengers in the cabin reported no injuries. The cross-country flight originated in Denver, Colorado, at 1530 mountain standard time, and was en route to Ames, Iowa.

In his written statement, the pilot said he was on the glide slope for the approach. The pilot said, "The auto pilot was coupled on to the approach. The autopilot also coupled on to the Glide slope. Approximately 2-1/2 to 3 miles out, we visually had approach lights and runway lights. I then disconnected the auto pilot and yaw damper, and hand flew a visual approach using the glide slope indicator as a cross check for a correct glide path to the airport. Continuing visually on the approach, I checked the GS (glide slope) and it indicated we were slightly above glide path, but was corrected, and seconds later hit a pole going through electrical wires, coming to rest short of the approach lights and to the right."

A Federal Aviation Administration (FAA) inspector examined the airplane at the accident scene. The airplane had come to rest approximately 1/2 mile south of the approach end of the runway. Approximately 0.9 mile south of the approach end of the runway, a 26 foot high, 8 inch diameter power line pole was knocked over. Additional broken power poles and downed power lines were located 0.8 mile south of the runway. Tire marks in the terrain were observed approximately 0.7 mile south of the runway. The airplane was resting upright in a field and was oriented on an approximate magnetic heading of 160 degrees. An 8-inch wide, 12-inch deep gash was observed in the leading edge of the airplane's right wing, outboard of the engine nacelle. The right wing fuel tank was broken open. Soot and heat signatures were observed on the airplane's right wing, right side of the aft fuselage, right side of the vertical stabilizer, and on the outboard side of the right engine nacelle. A gash was observed in the leading edge of the left wing at approximately mid-span between the left engine nacelle and the wing tip. The right main landing gear and nose gear were broken aft. The top portion of the airplane's rudder was torn aft. Both propellers showed torsional bending and chordwise scratches. Flight control continuity was confirmed. An examination of the airplane's engines, engine controls, and other systems revealed no anomalies.

On February 7, 2002, the FAA conducted a flight inspection of the ILS approach to runway 01 at the Ames Municipal Airport. The inspection showed the facility operated satisfactorily.

Pilot Information

Certificate:	Flight Instructor; Commercial	**Age:**	63, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	04/27/2001
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N66MT
Model/Series:	PA-42-720	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	42-5501009
Landing Gear Type:	Retractable - Tricycle	**Seats:**	11
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	9050 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo Prop
Airframe Total Time:		**Engine Manufacturer:**	Pratt & Whitney
ELT:	Installed	**Engine Model/Series:**	PT6A-41
Registered Owner:	Manatt's Incorportated	**Rated Power:**	500 hp
Operator:	Manatt's Incorportated	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Night
Observation Facility, Elevation:	AMW, 955 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	1821 CST	**Direction from Accident Site:**	10°
Lowest Cloud Condition:		**Visibility**	1.25 Miles
Lowest Ceiling:	Overcast / 1200 ft agl	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	30°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.21 inches Hg	**Temperature/Dew Point:**	-3°C / -3°C
Precipitation and Obscuration:			
Departure Point:	Denver, CO (BJC)	**Type of Flight Plan Filed:**	IFR
Destination:	Ames, IA (AMW)	**Type of Clearance:**	IFR
Departure Time:	1530 MST	**Type of Airspace:**	Class D

Airport Information

Airport:	Ames Municipal Airport (AME)	**Runway Surface Type:**	Concrete
Airport Elevation:	955 ft	**Runway Surface Condition:**	Wet
Runway Used:	01	**IFR Approach:**	ILS
Runway Length/Width:	5700 ft / 100 ft	**VFR Approach/Landing:**	Full Stop; Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	6 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	7 None	**Latitude, Longitude:**	41.988611, -93.619722

Administrative Information

Investigator In Charge (IIC):	David C Bowling	**Report Date:**	10/24/2002
Additional Participating Persons:	Tom Clifton; Federal Aviation Administration; Ankeny, IA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		

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