National Transportation Safety Board
Aviation Accident Final Report

Location:	Daleville, IN	**Accident Number:**	CHI02FA094
Date & Time:	03/17/2002, 2306 EST	**Registration:**	N125TT
Aircraft:	Piper PA-31P	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane was destroyed by impact forces and fire, when it impacted the ground about 3.7 miles from the destination airport. The airplane had been cleared for an ILS approach to the airport. No anomalies were found during the on-scene examination of the airframe, engine or gyroscopic flight instruments that could be associated with a pre-existing condition. The minimum descent altitude for the approach is 243 feet above ground level. The inbound course for the instrument approach is 298 degrees magnetic. The radar data shows that the airplane headed in a northerly direction prior to commencing a left turn onto the inbound course of the instrument approach. The last radar return, was received prior to the airplane reaching the locator outer marker for the approach. Altitude returns show the airplane descending from a pressure altitude of 4,000 feet to a pressure altitude of 2,800 feet. The 2,800-foot return was the final return received. The wreckage path was distributed on a magnetic heading of approximately 145 degrees. The weather reporting station located at the destination airport recorded a 100 foot overcast ceiling with 1 statute mile of visibility about 20 minutes prior to the accident. The current weather was available to the pilot via the Automated Weather Observing System at the destination airport. No communications were received from the airplane after controllers authorized the pilot to change to the destination airport's advisory frequency.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilots failure to maintain control of the airplane during the instrument approach. The low overcast ceiling and the pilot's in-flight decision to execute the instrument approach in below minimum weather conditions were factors.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: APPROACH

Findings
1. (F) WEATHER CONDITION - LOW CEILING
2. (F) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
3. (F) WEATHER CONDITION - BELOW APPROACH/LANDING MINIMUMS
4. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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

Findings
5. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On March 17, 2002, at 2306 eastern standard time, a Piper PA-31P, N125TT, piloted by a commercial pilot, was destroyed by impact forces and fire, when it impacted the ground about 3.7 nautical miles and 105 degrees magnetic from the Anderson Municipal/Darlington Field Airport (AID), Anderson, Indiana. The airplane had been cleared for the ILS runway 30 approach to AID. The 14 CFR Part 91 personal flight was operating on an instrument flight rules flight plan in instrument meteorological conditions. The pilot and passenger were fatally injured. The flight originated from the Callaway Airport, LaGrange, Georgia at 2056, and was en route to AID.

PERSONNEL INFORMATION

The pilot, age 52, held a commercial pilot certificate, issued on February 24, 2002, with single-engine land, multiengine land, and instrument airplane ratings. The pilot also held a second-class medical certificate that was issued on September 11, 2001. The limitations section of the medical certificate stated, "Holder must wear corrective lenses."

According to a pilot logbook found at the accident site, the pilot had accumulated the following flight experience:

Total flight experience: 1011.2 hours

Pilot in command: 927.4 hours

Dual received: 144.3 hours

Second in command: 84.1 hours

Airplane multiengine land: 680.7 hours

Airplane single-engine land: 320.9 hours

Simulated instrument: 62.3 hours

Actual instrument: 193.8 hours

Night: 256.7 hours

Cross-country: 796.1 hours

The recovered logbook shows that the pilot had performed 6 precision instrument approaches, 3 non-precision instrument approaches, and had accumulated 12.5 hours of instrument flight time in actual instrument conditions between February 06, 2002, and March 07, 2002. The first recorded entry in the logbook was dated January 28, 2002. The last recorded logbook entry was dated March 07, 2002. Pilot flight records prior to January 28, 2002 were not recovered.

AIRCRAFT INFORMATION

The airplane was a twin-engine 1974 Piper PA-31P, serial number 31P-7400187. Two geared Lycoming TIGO-541-E1A engines powered the airplane. Each engine was rated for 425 horsepower.

According to maintenance records, the airplane received its most recent annual inspection on

May 04, 2001. The logbook entry indicated that, on the date of the annual inspection, the airplane had accumulated 3960.4 hours time in service at a recording hour meter reading of 245.6 hours.

According to a maintenance record entry dated June 11, 1999, the left engine, serial number RL-554-62, had accumulated 1,070.7 hours since overhaul. The recording hour meter reading was 0.0 hours as of the date of this inspection. The records show that the engine was inspected in accordance with an annual inspection on May 04, 2001, at an hour meter reading of 245.6 hours. The most recent maintenance entry for the left engine was dated November 05, 2001, and the hour meter reading was recorded to be 278.1 hours.

According to a maintenance record entry dated June 11, 1999, the right engine, serial number RL-508-62, had accumulated 32.56 hours since overhaul. The records show that the engine was inspected in accordance with an annual inspection on May 04, 2001, at an hour meter reading of 245.6 hours. The most recent maintenance entry for the right engine was dated January 31, 2002, and the hour meter reading was recorded to be 281.1 hours.

The recording hour meter was severely damaged and the core of the hour meter read 276.8 hours when the airplane was examined after removal from the accident site.

METEOROLOGICAL INFORMATION

The destination airport is served by an Automated Weather Observing System that allows pilots to obtain current weather while in-flight. The Aviation Routine Weather Report (METAR) for AID listed the weather at 2145 as:

Wind direction: 190 degrees

Wind speed: 7 knots

Visibility: 1 3/4 statute mile with mist

Sky condition: 300 feet overcast

Temperature: 6 degrees Celsius

Dewpoint: 5 degrees Celsius

Altimeter setting: 30.02 inches of mercury.

The METAR for AID listed the weather at 2245 as:

Wind direction: 190 degrees

Wind speed: 6 knots

Visibility: 1 statute mile with mist

Sky condition: 100 feet overcast

Temperature: 6 degrees Celsius

Dewpoint: 5 degrees Celsius

Altimeter setting: 30.00 inches of mercury.

The METAR for AID listed the weather at 2345 as:

Wind direction: 210 degrees

Wind speed: 6 knots

Visibility: 1 statute mile with mist

Sky condition: 100 feet overcast

Temperature: 6 degrees Celsius

Dewpoint: 5 degrees Celsius

Altimeter setting: 30.02 inches of mercury.

AIDS TO NAVIGATION

AID is served by an instrument landing system (ILS) approach procedure for runway 30. The ILS approach provides both lateral and vertical guidance for alignment for landing. The inbound magnetic heading for the approach is listed as 298 degrees. The instrument procedure lists a decision height altitude of 1,162 feet above sea level (MSL). The airport elevation is 919 feet. The missed approach procedure is listed as; "Climb to 2000 then climbing right turn to 2700 direct VIDEO LOM/Int and hold." VIDEO is depicted on the approach procedure as the locator outer marker. The approach procedure shows that VIDEO is located 4.9 nautical miles and 118 degrees from the runway threshold. The initial impact point is about 1.9 nautical miles and 325 degrees from VIDEO.

COMMUNICATIONS

The aircraft was in communication with the Indianapolis air route traffic control center (ARTCC). The following excerpts are from transcripts of the recorded conversations between the Indianapolis ARTCC and N125TT. The agencies making transmissions are: N125TT (N125TT); Indianapolis ARTCC Nabb Sector Radar Position (ABB R); Indianapolis Approach (IND); Indianapolis ATRCC Shelbyville Sector Radar Position (SHB R); Indianapolis ATRCC Shelbyville Sector Radar Position Relieving Controller (SHB R/R); Dayton Automated Flight Service Station (DAY). The full transcripts are contained in the public docket of this accident report.

2217:24 N125TT indy center good evening navajo one two five tango tango checkin on one four fourteen thousand

2217:29 ABB R one two five tango tango indy center roger louisville altimeter three zero zero six

2217:35 N125TT double oh six thanks

2220:30 N125TT and indy navajo one two five tango tango request

2220:35 ABB R ah one tango tango say again

2220:37 N125TT yeah we just got the weather there fir indianapolis it doesn't look too good for ah approaches what's anderson doing can you get the weather for me

2220:44 ABB R ah let me see what i can find standby

2221:05 ABB R ah november five tango tango anderson ah zero two four five observation ah winds one niner zero at nine knots ah visibility one mile---ah---ah broken overcast three hundred---um---and ah---altimeter is three zero zero one there

2221:24 N125TT any better weather anyplace else uh---you guys are half a mile

and---and ah hundred feet that isn't gonna work

2222:23 ABB R ah november five tango tango ah---well louisville is uh--- visibility five miles with light rain broken ah sixty five hundred---ah overcast eight thousand five hundred

2222:40 N125TT well---i suppose we could make a try at anderson and see what happens and then come back to louisville i guess i got plenty of fuel

2222:48 ABB R yeah it looks like it's as far south as bloomington from what i'm looking at but the different weather here ah bloomington is a quarter mile with fog also

2223:03 N125TT well is it gettin worse or is it gonna get better cause it's not gonna get any better then i might as well go to louisville

2223:10 ABB R ah let me ah let me call indy approach see what they have to say standby

2223:16 ABB R indy south nabb ah sixty seven question

2223:18 IND yes sir

2223:19 ABB R i've got a ah november five tango tango here he's over louisville right now ah headin to anderson he's lookin at the weather up there uh---is is it supposed to be gettin any better do you know ah i don't really know what to tell him

2223:30 IND well i'll tell you what i gotta guy going into metro i'll ask about---he's trying to make an approach there right now about twenty miles southwest we'll see what it looks like

2223:36 ABB R okay

2223:36 IND what's muncies weather up there

2223:38 ABB R well i hadn't looked at muncie i was looking to the south--- muncies three quarters of a mile

2223:43 IND muncies three quarters of a mile

2223:44 ABB R yeah

2223:44 IND i'd say andersons probably closer or better than what we are

2223:47 ABB R well i just looked up the anderson i'm trying to remember what that was it wasn't much better lets see ah it's a it's a mile i guess but he said that wasn't good enough either

2223:54 IND okay

2223:55 ABB R so i don't know what he's

2223:55 IND well ours not that good i'll guarantee ya a half mile here and twenty eight hundred r v r

2223:58 ABB R yeah yeah okay i'll let him know

2224:00 IND okay

2224:01 ABB R yeah bye

2224:34 ABB R and five tango tango i just talked to indy approach ah they said that ah---that andersons obviously better than what they've got ah here---and ah they didn't exp they didn't know whether it was gonna get any better or not and ah and didn't really expect it to anytime soon

2224:51 N125TT well we can go to anderson and try the approach and---if it doesn't work ah is it going south like toward louisville or is it---gonna stay up in our area

2225:02 ABB R well it looks like the whole line of weather is moving to the southeast

2225:13 N125TT (unintelligible) three hundred and a mile at anderson

2225:21 ABB R ah---yes it is---and uh at indy it was ah quarter mile---fog

2228:56 IND hey nabb the guy into metro made a missed approach for your guy going into anderson theres a lot of fog up there

2229:01 ABB R all right thank you bud appreciate it

2229:02 IND yep

2229:04 ABB R and november five tango tango indy approach just called me back said they had a guy ah ah shoot an approach into metro that thah that missed ah---up ah east of ah indianapolis there

2229:15 N125TT yeah i just got ah---just got muncies v o r and it said two hundred and a mile and a half---well well i think we'll try it and---so i guess we'll have to come back to louisville

2229:29 ABB R uh five tango tango roger---yeah i'm showing a mile and a quarter at ah muncie right now

2229:38 N125TT is everything movin that way

2229:40 ABB R like i said i think the whole ah---the whole---systems moving to the southeast so it it may clear up

2229:50 ABB R it doesn't look like it's moving real fast though

2231:28 ABB R five tango tango traffic out at ah nine to ten o clock and twelve miles northeast bound descending to one five thousand---it's a ah---delta m d eighty

2233:30 N125TT and indy ah navajo one two five tango tango i'd like to start

down as soon you can

2233:35 ABB R five tango tango roger descend and maintain one one thousand

2233:38 N125TT one one eleven thousand for five t t

2236:18 N125TT and indy ah navajo one two five tango tango if you could vector me so i have like five miles from the outer marker i'd appreciate it

2236:27 ABB R ah five tango tango you can talk to indy approach about that they're gonna be doing that when you get closer

2236:31 N125TT thank you

2237:43 ABB R november five tango tango descend and maintain seven thousand

2237:46 N125TT seven thousand for five t t

2240:16 ABB R five tango tango contact indy approach now---on uh---or november five tango tango maintain seven thousand i can't remember if i gave you seven or not maintain seven thousand

2240:25 N125TT stop at seven for five tango tango

2240:27 ABB R five tango tango you can contact indy approach now---on uh--- let's make it one one niner point three

2240:33 N125TT one one niner point three thanks for your help so long

2240:36 ABB R see ya

2249:34 SHB R muncie and anderson have gone home

2249:36 SHB R/R ohhh (unintelligible)

2249:38 SHB R the visibility and the weather is really crappy in the muncie anderson complex had one guy go missed approach three times

2249:46 SHB R/R wow

2249:46 SHB R and then he went up to fort wayne where the visibilitys about three miles better you've got an inbound to anderson right there that thirty one seventy code---i expect for him to have a little bit of trouble gettin in there (unintelligible)

2250:05 SHB R towers are closed so

2250:07 SHB R/R okay

2254:40 IND muncie indianapolis tango tango there is on a three sixty vector for (unintelligible) a five mile lead on there your control

2254:55 SHB R you say t t is on a heading for the localizer

2254:57 IND yeah

2254:57 (unintelligible)

2254:58 IND three six your control

2254:58 SHB R (unintelligible)

2255:25 SHB R andersons ah airport beacons out whatever that means

2255:28 N125TT approach navajo one two five tango tango is four thousand on a heading of three six zero

2255:34 SHB R one two five tango tango indy center roger

2256:04 SHB R little airports are closed they're very very foggy ahh kochie was sittin here before he said he had a guy do ah---three misses at muncie and finally he went on to ah---fort wayne

2256:15 SHB R/R okay

2256:15 SHB R so teeter totter here might have a joy getting in there

2256:19 SHB R/R (unintelligible)

2257:33 SHB R november one two five tango tango on that heading join the ah i l s runway three zero to anderson

2257:38 N125TT intercept the localizer for five t t

2258:30 SHB R and november five tango tango pilots discretion maintain three thousand

2258:34 N125TT down to three thousand for five t t

2300:58 SHB R november five tango tango cleared for the straight in i l s runway three zero approach at anderson maintain three thousand until established on the approach

2301:05 N125TT we're established inbound for five t t

2301:08 SHB R five two tango roger two miles from video radar service terminated---and you can change to advisory frequency cancel with me with cancel with me on this frequency when you're on the ground or ah---flight service

2301:20 N125TT five t t

2301:22 SHB R roger and you should be able to get me on the ground too so ah appreciate if you'd try that first

2301:26 N125TT five t t

2301:28 SHB R so long

No further transmissions were received from the accident airplane.

WRECKAGE AND IMPACT INFORMATION

The initial impact point was located, using a global positioning system receiver, at 40-degrees 5.707-minutes north latitude, 85-degrees 32.105-minutes west longitude. The fuselage was at 40-degrees 5.648-minutes north latitude, 85-degrees 31.965-minutes west longitude. The wreckage was distributed in a fan shaped pattern. All major airframe components were located and identified between the initial impact point and the final resting place of the fuselage. The fuselage was located about 365 feet and 145 degrees magnetic from the initial impact point. The fuselage was resting partially on its left side. The left horizontal stabilizer and elevator were bent upward. The right horizontal stabilizer and elevator were bent downward. The top of the vertical stabilizer was bent to the right. The front of the fuselage was crushed rearward and upward. The crushed area extended into the cockpit area. The wings were separated from the fuselage at the root. Pieces of the right wing tip were found near the initial impact point. The left wing was resting inverted along the wreckage trail. The portion of the left wing outboard of the engine nacelle was destroyed by fire. A portion of the outboard right wing was found resting near the remains of the left wing. The inboard portion of the right wing was found along the wreckage trail. Both propellers were found between the initial impact point and the fuselage. One engine was found between the initial impact point and the fuselage. The other engine was found on the left side of the fuselage. The left and right main landing gear were found in the down position and the inner landing gear doors were found closed.

The aircraft wreckage was moved to a hangar at AID for further examination. The airplane's

control system was examined. Rudder and elevator control system continuity was verified from the control surfaces to their respective cockpit controls. The aileron control system continuity could not be verified due to the extent of damage; however, continuity was verified from the cockpit control to the wing roots where the cable breaks exhibited signatures consistent with overload failure. The cables, bellcranks and pushrods within the wings were examined and no evidence of a pre-impact failure was found. The wing flap position was not determined. No anomalies were found with with respect to the airframe that could be associated with a pre-existing conditon.

The right engine was examined. The engine remained attached to its mount. The output shaft of the gear drive, along with part of the gear housing separated from the engine. The propeller hub remained attached to the output shaft. The alternator was separated from the engine. Both magneto's were in-place and appeared undamaged. The turbocharger, fuel servo, and intake manifold were intact. All of the intake tubes except for the number 2 cylinder intake tube were intact. The number 2 cylinder intake tube was separated from the engine. Jumper cables and a starting battery from another airplane were used to crank the engine over. The engine rotated freely. Thumb compression and suction were felt on all cylinders. Accessory drive gear continuity was confirmed. Spark was confirmed on all 12 ignition leads. No anomalies were found with with respect to the right engine that could be associated with a pre-existing conditon.

The left engine was examined. The engine remained attached to its mount. The output shaft of the gear drive, along with part of the gear housing separated from the engine. The propeller hub remained attached to the output shaft. The alternator was separated from the engine. Both magneto's were in-place and appeared undamaged. The fuel servo, intake manifold, and intake tubes were intact. The turbocharger was separated from the engine. Jumper cables and a starting battery from another airplane were used to crank the engine over. The engine rotated freely. Thumb compression and suction were felt on all cylinders. Accessory drive gear continuity was confirmed. Spark was confirmed on all 12 ignition leads. No anomalies were found with respect to the left engine that could be associated with a pre-existing conditon.

The gyroscopic flight instruments were disassembled and examined. All of the rotating components within the instruments rotated freely. No anomalies consistent with a pre-impact malfunction were found.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was performed on behalf of the Delaware County Coroner, on March 18, 2002, in Muncie, Indiana.

A Final Forensic Toxicology Fatal Accident Report, prepared by the Federal Aviation Administration (FAA), listed negative results for all tests performed.

TESTS AND RESEARCH

Radar data was obtained for the approach segment of the flight. The data was plotted on an instrument approach chart for the AID ILS runway 30 approach. The radar plot shows that the airplane headed in a northerly direction prior to commencing a left turn onto the inbound course of the instrument approach. The last radar return, at 23:02:09.2, was received prior to the airplane reaching VIDEO, the locator outer marker for the approach. Altitude returns show the airplane descending from a pressure altitude of 4,000 feet to a pressure altitude of 2,800 feet. The 2,800-foot return was the final return received. Plots of the aircraft track and

altitude are included in the public docket of this report. The last radar return shows the airplane about 6 nautical miles and 114 degrees magnetic from the airprot, and 2.4 nautical miles and 125 degrees from the accident site.

ADDITIONAL INFORMATION

The New Piper Aircraft, Textron Lycoming, and the FAA were parties to the investigation.

The wreckage was released to a representative of the insurance company.

Pilot Information

Certificate:	Commercial	**Age:**	52, 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:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	01/23/2001
Occupational Pilot:		**Last Flight Review or Equivalent:**	02/24/2002
Flight Time:	1011 hours (Total, all aircraft), 927 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N125TT
Model/Series:	PA-31P	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	31P-7400187
Landing Gear Type:	Retractable - Tricycle	**Seats:**	8
Date/Type of Last Inspection:	05/04/2001, Annual	**Certified Max Gross Wt.:**	7800 lbs
Time Since Last Inspection:	31.2 Hours	**Engines:**	2 Reciprocating
Airframe Total Time:	3991.6 Hours at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	TIGO-541E1A
Registered Owner:	Floopie Flight Corp.	**Rated Power:**	425 hp
Operator:	Floopie Flight Corp.	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Night
Observation Facility, Elevation:	AID, 919 ft msl	**Distance from Accident Site:**	4 Nautical Miles
Observation Time:	2245 EST	**Direction from Accident Site:**	282°
Lowest Cloud Condition:		**Visibility**	1 Miles
Lowest Ceiling:	Overcast / 100 ft agl	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	190°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	6°C / 5°C
Precipitation and Obscuration:			
Departure Point:	LA GRANGE, GA (LGC)	**Type of Flight Plan Filed:**	IFR
Destination:	ANDERSON, IN (AID)	**Type of Clearance:**	IFR
Departure Time:	2056 EST	**Type of Airspace:**	Class G

Airport Information

Airport:	ANDERSON MUNICIPAL-DARLINGTON (AID)	**Runway Surface Type:**	Asphalt
Airport Elevation:	919 ft	**Runway Surface Condition:**	Wet
Runway Used:	30	**IFR Approach:**	ILS
Runway Length/Width:	5401 ft / 100 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	On-Ground
Ground Injuries:	N/A	**Aircraft Explosion:**	On-Ground
Total Injuries:	2 Fatal	**Latitude, Longitude:**	40.095000, -85.533611

Administrative Information

Investigator In Charge (IIC):	John M Brannen	**Report Date:**	09/30/2003
Additional Participating Persons:	Juan Ferres; FAA- Indianapolis, Indiana- FSDO; Indianapolis, IN Gregory Erikson; Textron Lycoming; Wayne, IL Paul Lehman; The New Piper Aircraft, Inc.; Vero Beach, FL		
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/.		