



National Transportation Safety Board Aviation Accident Final Report

Location:	Rockford, IL	Accident Number:	CHI03FA041
Date & Time:	12/17/2002, 2251 CST	Registration:	N277PM
Aircraft:	Cessna 208B	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The airplane collided with trees and terrain following a loss of control during an Instrument Landing System (ILS) approach at night. The impact occurred approximately 2.1 miles from the approach end of the runway. A witness reported hearing the airplane at "mid-throttle" as it flew over. He then heard the power increase followed by the impact. The witness stated there was no precipitation at the time of the accident and there were "severe winds, mostly from the south, shifting volatile directly from the east." He also stated the visibility was "extremely poor." Statements were received from five pilots who landed in transport category airplanes around the time of the accident. Three of these pilots reported experiencing a crosswind that varied from 15 to 50 knots during the approach. Four of the pilots reported airspeed fluctuations that varied between +/- 8 knots to +/- 10 knots during the approach. Three of the pilots reported breaking out of the clouds between 200 and 300 feet agl. Radar data indicates the airplane was high on the glideslope until it entered a rapid descent from an altitude of about 2,300 feet. Examination of the airframe, engine, and propeller governors failed to reveal any failures/malfunctions that would have resulted in the loss of control.

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 control of the airplane during the ILS approach. Factors associated with the accident were the low ceilings, high winds, crosswind, and wind shear conditions that existed.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

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

Findings

1. LIGHT CONDITION - DARK NIGHT
2. (F) WEATHER CONDITION - LOW CEILING
3. (F) WEATHER CONDITION - HIGH WIND
4. (F) WEATHER CONDITION - CROSSWIND
5. (F) WEATHER CONDITION - WINDSHEAR
6. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - UNCONTROLLED

Findings

7. OBJECT - TREE(S)

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

8. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On December 17, 2002, at 2251 central standard time, a Cessna 208B, N277PM, operated by Planemasters LTD as flight 1627 (PMS1627), collided with the trees and terrain while on the Instrument Landing System (ILS) Runway 7 approach to the Greater Rockford Airport (RFD), Rockford, Illinois. The pilot received fatal injuries and the airplane was destroyed. The 14 CFR Part 135 non scheduled domestic cargo flight was transporting cargo for United Parcel Service (UPS) at the time of the accident. The flight was operating in instrument meteorological conditions on an instrument flight rules (IFR) flight plan. The flight departed Decatur, Illinois, at 2154.

A Trip Log that was provided by Planemasters shows the pilot departed the DuPage Airport (DPA), West Chicago, Illinois, at 1835, on December 16, 2002, en route to the Decatur Airport (DEC), Decatur, Illinois, where he landed at 1935. He then departed DEC at 2150 en route to RFD, where he landed at 2245. The trip continued with a departure from RFD at 0355 on December 17, 2002, en route to the Williamson County Regional Airport (MWA), Marion, Illinois, where he landed at 0550. The pilot then departed MWA at 0705 en route to DEC, arriving at 0750. The pilot then took off from DEC at 2154.

At 2230:47, PMS1627 contacted RFD approach control and reported being at 6,000 feet with information Zulu. The approach controller issued the ILS Runway 7 approach to PMS1627.

At 2233:42, PMS1627 was issued a 10 degree heading change for vectors to base. The pilot acknowledged this transmission.

At 2236:48, the approach controller instructed PMS1627 to fly a heading of 310 degrees and to descend to and maintain 3,000 feet. The pilot acknowledged this transmission.

At 2243:15, the approach controller instructed PMS1627 to turn left to a heading of 290 degrees. The pilot acknowledged this transmission.

At 2243:59, the approach controller asked PMS1627 if he could operate at 170 knots. The pilot responded, "ah be pushing it sir." The controller then asked if he could maintain 150 knots. The pilot responded affirmatively.

At 2244:37, the approach controller issued a heading of 320 degrees and a caution for wake turbulence. The pilot acknowledged this transmission.

At 2245:42, PMS1627 was instructed to turn to a heading of 120 degrees to intercept the localizer. The pilot acknowledged this transmission.

At 2248:48, the approach controller instructed the pilot to turn back left to a heading of 120 degrees to join the localizer. The pilot acknowledged the transmission.

At 2249:30, PMS1627 was cleared for the ILS Runway 7 approach.

At 2249:42, PMS1627 was instructed to contact the tower.

At 2250:58, PMS1627 contacted the tower. The local controller issued the winds as 140 degrees at 18 knots and PMS1627 was cleared to land. The pilot acknowledged this transmission. This was the last contact with PMS1627.

At 2252:09, the local controller issued the winds as 110 degrees at 15 knots.

At 2252:47, the local controller instructed PMS1627 to report being on the runway.

Between 2253:03 and 2254:28, the local controller made four attempts to contact PMS1627. At 2256:22, the local controller asked UPS487 if they would look for a Cessna 208 when they were taxiing in. At 2301:40, UPS487 reported to local controller that their operations stated a Planemaster had landed just prior to them and that it was over at the remote ramp by the terminal.

At 2257, the Winnebago County Sheriff's Police received a report of the airplane crash. Officers met with the caller who directed them to the area where he heard the noise. The officers began searching the area. They stated they were able to smell a strong odor of fuel in the area. The Sergeant in charge of the investigation reported that at 2303, a 911 dispatcher contacted the RFD control tower regarding the call they received reporting an accident. The tower personnel advised the dispatcher that they were missing an airplane. At 2309, the tower advised the dispatcher, that they had located the airplane on the airport. The Sheriff's Police continued to search the area. The Sergeant stated that at 0045 the tower contacted the Sheriff's Police and stated that they were in fact missing a Cessna 208. The Sheriff's Police located the wreckage at 0053. (See ATC Group Chairman's Factual Report for additional details.)

The witness who called the Sheriff's Police stated during an interview that he lives approximately 2 miles west of the airport and one-half mile north of the accident site. He stated he has lived there for 14 years, so he is accustomed to the sound of airplanes. He stated he heard the airplane fly over at a "mid-throttle" power setting. He then heard a sound for about 3 seconds that he likened to an airplane "falling" with the same engine sounds as before. He then heard the engine sound increase "when the pilot throttled it." Based on the sound, he estimated the airplane was about 70 feet above the ground. He heard the increase in engine noise for about 4 to 5 seconds followed by the sound of the airplane hitting, then silence. He stated the sounds were south of his location. The witness stated there was no precipitation at the time of the accident and there were "severe winds, mostly from the south, shifting volatile directly from the east." He also stated the visibility was "extremely poor."

PERSONNEL INFORMATION

The pilot received a private pilot certificate with a single engine land rating on September 30, 1994. On November 20, 1996, the pilot failed the flight portion of an instrument airplane check ride. The pilot took the test again, passed, and was issued an instrument airplane rating on December 21, 1996. On June 7, 1999, the pilot failed the flight portion of his commercial pilot check ride. He retested and passed on July 31, 1999. On April 13, 2001, the pilot was issued a multi-engine rating on his commercial pilot certificate.

On February 15, 2002, the pilot was issued a Federal Aviation Administration second class medical certificate. The medical certificate contained a limitation for corrective lenses.

The pilot had been employed at Planemasters LTD since March 2002. The aircraft operator provided a Pilot Profile, which was last updated on November 19, 2002. The profile indicates the pilot had a total flight time of 1,841 hours, of which 1,686 hours were pilot-in-command. The profile also indicated the pilot had 1,497 hours of Cessna 208 flight time, 257 hours of actual instrument time, and 1,065 hours of night flight time.

A computer-generated logbook was provided by Planemasters LTD, which showed the pilot flew 19.8 hours between November 19, 2002 and November 26, 2002. The log indicated 16.9 of these hours were in a Cessna 208, 2.4 hours were instrument flight time, and 13.8 hours

were at night.

A Pilot Duty Record provided by Planemasters LTD showed the pilot flew 11.3 hours between December 9, 2002 and the date of the accident.

The Pilot Ground Training Log provided by Planemasters LTD indicates the pilot received recurrent training on August 21, 2002. The type aircraft is listed as a Cessna 208 and the remarks state "135 PIC Oral." The remarks section on a Pilot Flight Training Log for this same date states "135 PIC Checkride."

AIRCRAFT INFORMATION

The aircraft was a single engine Cessna 208B, s/n 208B0143. In February 2001, the aircraft registration number was changed from N9648B to the current number of N277PM. The Hobbs meter in the airplane indicated a time of 5,320.2 hours. The airplane was maintained in accordance with an Approved Aircraft Inspection Program (AAIP). Records show the last maintenance performed on the airplane was on November 21, 2002, when the Bendix/King radar was repaired. On this date the aircraft total time was listed as 10,119.6 hours.

The engine was a Pratt & Whitney PT6-A-114, s/n PCE 17294. The Aircraft Flight Log completed by the pilot showed the engine power section had a total time of 9,950.8 hours prior to the flight from RFD to MWA, on December 16, 2002. The engine was maintained in accordance with an AAIP. The maintenance records show the last maintenance performed on the engine was on November 5, 2002. These records indicate that at that time the engine had 10,000 hours of total time and 1,200 hours of time since major overhaul. The engine was overhauled in October 1995, at a total time since new of 4,398.8 hours. The engine was overhauled again in October 2000, at a total time of 8,800 hours.

Planemasters reported N277PM was fueled with 1,200 pounds of Jet A aviation fuel prior to its departure from DPA on December 16, 2002. The Trip Log shows the airplane received 40 gallons of fuel at RFD and 60 gallons of fuel at MWA. A fuel log provided by Decatur Aviation shows that N277PM took on 110 gallons of fuel prior to the accident flight. According to Decatur Aviation, the fuel added to N277PM was Jet A aviation fuel and that the 110 gallons did not completely fill the fuel tanks.

The load manifest for the flight showed the airplane was carrying 3 bags and 156 loose packages during the flight. The scale weight for this cargo was listed as 1,942 pounds.

METEOROLOGICAL INFORMATION

A weather observation station, located at RFK, recorded the weather as:

Observation Time: 2254 cst

Wind: 110 degrees at 17 knots, gusting to 20 knots

Visibility: 1.25 statute miles

Precipitation: Light rain and mist

Sky Condition: 300 Overcast

Temperature: 2 degrees Celsius

Dew Point: -1 degree Celsius

Pressure: 29.73 inches of Mercury

The National Weather Service (NWS) Surface Analysis Chart for 0600Z (0000) depicted a stationary front extending northeast from eastern Kansas into northwestern Missouri. This stationary front turned into a warm front across the Iowa and Missouri border, across central Illinois, Indiana, and southern Ohio, into Kentucky.

The NWS 850-mb Constant Pressure Chart for 0000Z (1800) depicted a band of southerly low-level winds of 40 knots in the vicinity of the accident site. The station models near the accident site indicated winds from the south at 30 to 40 knots, which resulted in an approximate 90 degree shift from the surface winds north of the warm front.

The NWS Weather Depiction Chart for 0400Z (2200) showed a large area of IFR conditions, which covered several states including Illinois. The station models over northern Illinois indicated ceilings ranging from 100 to 500 feet above ground level (agl) and visibilities ranging from 1 to 4 statute miles with continuous light rain and fog/mist.

The NWS Radar Summary Chart for 0515Z (2315) showed an area of very strong (VIP 3 to 4) echoes of thunderstorm and rain showers, with several embedded areas of intense to extreme intensity (VIP 5 to 6) echoes in the vicinity of the accident site.

The upper air sounding for the area at 0000 (1800) indicated a freezing level was approximately 885 feet with temperatures below freezing to 2,100 feet where a frontal inversion was identified to 2,700 feet. A second freezing level was present at 9,400 feet. The sounding depicted favorable conditions for elevated convection, with a defined frontal inversion, strong warm air advection at low levels, strong wind shear, and a relatively stable atmosphere based on the standard stability indices.

AIRMET Sierra, which encompassed RFD, was issued at 0254Z (2054) and was valid until 0900Z (0300 on December 18, 2002). This AIRMET warned of occasional ceilings below 1,000 feet agl and visibilities below 3 miles in precipitation and mist.

AIRMET Tango, which encompassed RFD, was issued at 0253Z (2053) and was valid until 0900Z (0300 on December 18, 2002). This AIRMET warned of occasional moderate turbulence below 18,000 feet.

AIRMET Zulu, which encompassed RFD, was issued at 0253Z (2053) and was valid until 0900Z (0300 on December 18, 2002). The AIRMET was for occasional moderate rime to mixed icing-in-clouds and in-precipitation above the freezing level to 18,000 feet. The freezing level was identified at the surface over the northern portions of the area, from 4,000 to 8,000 feet over the central portions, and from 8,000 to 10,000 feet over the southern portion of the forecast area. RFD is in the central portion of the coverage area.

The Terminal Aerodrome Forecast for RFD issue at 0305Z (2105) expected winds from 110 degrees at 15 knots gusting to 20 knots, visibility 4 miles in mist, ceiling overcast at 800 feet agl. A temporary condition was forecast for the period between 0300Z (2100) and 0500Z (2300). This forecast was for visibility 2 miles in light rain showers and mist, ceiling overcast at 500 feet agl.

The pilot received a weather briefing from the St. Louis Automated Flight Service Station (AFSS) between 0207Z (2007) and 0218Z (2018). The pilot filed an IFR flight plan for 8,000 feet with an en route time of 1 hour. The pilot received a synopsis of current conditions, current in-flight advisories, observations, route forecast, winds aloft, terminal aerodrome

forecast for RFD, and current Notices to Airmen (NOTAM) for the departure and destination airports. The pilot filed DEC as his alternate landing airport.

The AFSS briefer advised the pilot of AIRMETs for occasional moderate turbulence below 18,000 feet, light to moderate rime to mixed icing from the freezing level at 9,000 feet to 18,000 feet, and for extensive IFR conditions due to low ceilings and restricted visibilities. The briefer also advised the pilot of a Convective SIGMET that was current for an area of thunderstorms over central and eastern Missouri, moving to the northeast. (See NTSB Meteorology Factual Report for additional details.)

The assistant chief pilot for UPS Flight Operations at RFD reported that he asked other flight crews who landed around the time of the accident if they had encountered any icing conditions during their approach. They all replied that they did not encounter icing conditions.

The pilot of UPS0487, a McDonnell Douglas DC8, reported they flew the ILS Runway 7 approach in front of PMS1627. He stated that because of their intercept angle and the 45-knot right to left direct crosswind, they overshot the final approach course. He stated, "After numerous overshoots by the autopilot trying to capture the course, we went around." He stated they were vectored back around behind the "Planemaster" flight. He stated they heard a previous report of windshear, and they experienced a 10 to 15 knot airspeed fluctuation while on final approach between 1,000 feet and 500 feet agl.

The pilot of UPS0555, a Boeing 767, that landed at RFD at 0505Z (2305) reported they experienced a "strong" crosswind while on the glideslope. He stated the wind was around 40 knots and about 20 knots at touchdown. This pilot stated that between 1,200 agl to 500 agl, they experienced airspeed fluctuations of +1 knot to -7 knots off of their target approach speed. He reported that they broke out of the clouds around 300 feet agl and the visibility was less than one mile.

Another pilot flying a SD3-Shorts 330 that landed at 0515Z (2315) reported conditions over the outer marker were windy and turbulent with airspeed fluctuations of +/- 10 knots. He stated they saw the approach lights right at decision height and after descending an additional 100 feet, they saw the runway lights.

The pilot of UPS0061, a McDonnell Douglas DC8, that landed at 0512Z (2312) reported they experienced airspeed fluctuations of +/- 10 knots between 1,400 feet and 1,200 feet agl after they passed the outer marker.

The pilot of UPS0077, a McDonnell Douglas DC8, that landed at 0440Z (2240) reported experiencing a 33-knot crosswind while on the approach. This pilot also reported a low ceiling and turbulence.

The pilot of UPS0439, a McDonnell Douglas DC8, that landed at 0515Z (2315) stated they encountered rain showers during the approach and a 50-knot crosswind at 3,000 feet, which decreased to about 15 knots at touchdown. This pilot reported the gusty conditions lasted until they landed with +/- 10-knot airspeed fluctuations. He also reported the approach lights were visible at 300 agl feet, and the runway threshold light were visible at 200 feet agl.

NAVIGATION AIDS AND RADAR DATA

PMS1627 was flying the ILS runway 7 approach. The approach procedure is to intercept the glideslope at 2,500 feet and to cross the outer marker at 2,355 feet above mean sea level (msl). The approach plate shows the outer marker is 4.8 nautical miles from the approach end of the

runway. The decision height for the approach is listed as 942 feet msl.

A review of the radar data shows PMS descended and crossed the outer marker at an altitude of about 2,788 feet msl. The airplane continued the descent and leveled off twice prior to entering a rapid descent at a distance approximately 3 nautical miles from the approach end of the runway.

WRECKAGE AND IMPACT INFORMATION

The National Transportation Safety Board's (NTSB) on-scene investigation began on December 18, 2002.

A global positioning system (GPS) receiver recorded the position of the main wreckage as 42-degrees 10-minutes 07-seconds north latitude, 89-degrees 9-minutes 05-seconds west longitude. This location is on the property of the SM and SF Park located at 7625 Kishwaukee Road, approximately 2.1 miles southwest of the approach end of runway 7. The main wreckage was located in a plowed cornfield at the edge of a wooded area on the south side of the Rock River. The south side of the river near the accident site is bordered by approximately 200 feet of flat terrain. The terrain then rises approximately 50 feet over a distance of about 200 feet to flat terrain on top of the ravine where the wreckage was located. The riverbank is heavily wooded with trees that were approximately 40 to 50 feet tall.

Broken tree limbs and trunks were located approximately 300 feet southwest of the main wreckage toward the bottom of the ravine. The path of broken trees and wreckage continued up the ravine on a magnetic heading of 78 degrees ending at the main wreckage. The broken trees varied in diameter up to approximately 12 inches.

The initial pieces of wreckage along the flight path were pieces of shattered propeller blades located approximately 200 feet from the main wreckage. The right main landing gear tire was located along the wreckage path, approximately 75 feet from the main wreckage. Approximately 35 feet from the main wreckage, a 4-foot section of the right wing flap was located. The empennage was separated from the main wreckage and was located approximately 20 feet from the main wreckage. An 8-foot long section of the right wing was located near the empennage. Additional sections of both wings were located approximately 20 feet west of the main wreckage. The main wreckage included the engine, cockpit and fuselage back to the empennage, and the inboard section of both wings. The engine cowling was located approximately 36 feet beyond the main wreckage as was small pieces of scattered wreckage. The main wreckage came to rest with the nose on a magnetic heading of 360 degrees.

The left main gear was bent rearward, but remained attached to the fuselage. The top left side of the fuselage was crushed in above the main rear cargo door. The fuselage was crushed in forward of the aft cargo door up to the mid cabin bulkhead near the wing aft attach point. The windshield was broken out. The windshield center post was unattached and bent upward at the lower portion of the windshield. Both cockpit doors were bent, but still attached to the fuselage. The firewall was pulled forward. The engine mounts were partially attached to the firewall. The engine was free from the mounts. The right side of the fuselage was split open from a point under the wing down to the floorboards. The right main landing gear strut was bent and remained attached to the fuselage. The tire was off of the wheel, which remained attached to the strut. The lower section of the fuselage was crushed. The elevator and rudder control cables ripped through the lower portion of the aft bulkhead during the impact. The

separated ends of the cables exhibited broom straw characteristics.

The flap actuator in the cockpit was set to 10 degrees. The power lever, propeller control, and emergency power control were all full forward. All circuit breakers were in. The starter switch was in the start position, the standby power was on, and the fuel boost pump was off.

The inboard 2 feet of the left wing remained attached to the fuselage. This portion of the wing was bent up approximately 45 degrees except for the inboard trailing edge. The lift strut was attached to a portion of the wing. The leading edge of the strut was separated from the aft edge. The fuselage attach fitting remained attached to the bottom of the strut. The left wing was separated into four main pieces. The inboard section of these four pieces contained a four-foot section of the flap, the flap hinge, wing spar, and upper skin. The outboard section of the spar was bent forward about 30 degrees. The middle section consisted of the wing strut and its attach point along with a four-foot section of the flap. The middle outboard section of the wing was about five feet long and it contained the fuel filler cap, which was in place. An eight-foot section of the flap remained attached to this piece of the wing by the outboard hinge. The inboard portion of this section of the flap was crushed rearward about six inches. A section of the aileron was attached by its inboard attach point. The aileron was bent upward in two places. The outboard section of the wing was approximately six feet long and it contained the wing tip. This section of the wing was crushed. The flap actuator was measured at 3 3/8 inches, which equates to 10 degrees of flaps.

The right wing was separated into four major sections. The inboard section was approximately six feet long and it consisted of the leading edge, which was crushed, and the flap slide track, which was bent outboard. The outboard section of this piece was severely crushed. The lift strut was detached, but was mainly intact except for the leading edge boot, which was partially separated. The outboard middle section of the wing was approximately eight feet long. The flap and aileron were detached. This section of the wing was severely crushed. A four-foot section of the wing tip sustained crush damage. The right wing flap was found separated and the aileron was located intact, but damaged. The inboard section of the right wing remained attached to the fuselage. This section was bent rearward and down.

The control cables to both wings were not intact. The fractured ends of these cables exhibited broom straw characteristics.

The propeller spinner was separated from the hub and none of the propeller blades were intact. The portion of the blades that remained attached to the hub were shredded.

The empennage was separated from the fuselage at the aft cabin bulkhead. The right horizontal stabilizer remained attached. The inboard section was relatively intact. The outboard section was bent downward approximately 100 degrees. The left horizontal stabilizer was intact with leading edge crush damage. The stabilizer contained two impact areas, one near the inboard root and the other outboard near the elevator tip. The top two feet of the vertical stabilizer were crushed and bent. The top 4 1/2 feet of the rudder was detached from the vertical stabilizer and bent downward approximately 135 degrees to the right. The elevator trim actuator was measured to be 1.9 inches. This measurement equates to a neutral trim setting.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot at the Winnebago County Coroner's facility, Rockford, Illinois, on December 18, 2002.

A Forensic Toxicology Fatal Accident Report was prepared by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma, for the pilot. The toxicology results for the pilot were negative for all tests performed.

TESTS AND RESEARCH

The engine was shipped to Pratt & Whitney Canada for a teardown inspection. The engine sustained impact damage, which precluded a test run. All of the power turbine blades were fractured at the root. The turbine housing exhibited score marks opposite the blades. The turbine stator blades were damaged with a portion of the blades being found in the compressor section. The power turbine drive shaft was bent at the number 4 bearing.

The first, second, and third stage compressor blades were intact with leading edge damage on all blades. The centrifugal compressor was intact with scoring marks on the leading edge of the blades. The compressor stator blades were intact and some of the blades were bent with leading edge nicks. Dirt and debris was found in all stages of the compressor section and along the outside of the compressor housing.

The compressor turbine blades were intact with leading edge nicks and gouges. Small twigs and branches were found forward of the compressor turbine. The engine oil filter was clean and intact.

The accessory section was broken off and the chip detector was intact and free of debris. (See Summary of Engine Teardown for further details.)

The propeller governor, a Woodward 821-002AE, s/n 1201073AE was removed from the engine during the engine teardown. A teardown inspection of the governor was conducted at the Woodward facility on February 12, 2003. Due to impact damage sustained by the governor a bench test of the unit could not be performed. (See Summary of Component Teardown Report for further details.)

The attitude indicators, directional gyro, and HSI were examined at the NTSB North Central Regional Office. The instruments were opened and the internal components were intact. No obvious rotational scoring was noted.

ADDITIONAL DATA/INFORMATION

Parties to the NTSB investigation included the FAA and Cessna Aircraft Company.

The main wreckage of N277PM was released to Planemasters, Director of Operations on December 24, 2002. The engine, attitude indicators, directional gyro, and HSI were retained. The engine minus the propeller governor was shipped from Pratt Whitney Canada to Poplar Grove Airmotive at the direction of a representative from Planemasters insurance company. The propeller governor, attitude indicators, directional gyro, and HSI were returned to a representative from Planemasters insurance company on January 12, 2004.

Pilot Information

Certificate:	Commercial	Age:	42, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
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 Medical Exam:	02/15/2002
Occupational Pilot:		Last Flight Review or Equivalent:	08/21/2002
Flight Time:	1872 hours (Total, all aircraft), 1525 hours (Total, this make and model), 1717 hours (Pilot In Command, all aircraft), 31 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Cessna	Registration:	N277PM
Model/Series:	208B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	208B0143
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	11/21/2002, AAIP	Certified Max Gross Wt.:	8750 lbs
Time Since Last Inspection:		Engines:	1 Turbo Prop
Airframe Total Time:	10120 Hours	Engine Manufacturer:	Pratt & Whitney
ELT:	Installed, not activated	Engine Model/Series:	PT6-A-114
Registered Owner:	Planemaster, Inc.	Rated Power:	675
Operator:	Planemaster, Inc.	Air Carrier Operating Certificate:	On-demand Air Taxi (135)
Operator Does Business As:	Planemasters	Operator Designator Code:	DPUA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night
Observation Facility, Elevation:	RFD, 742 ft msl	Observation Time:	2220 CST
Distance from Accident Site:	1 Nautical Miles	Direction from Accident Site:	70°
Lowest Cloud Condition:		Temperature/Dew Point:	-7° C / -18° C
Lowest Ceiling:	Overcast / 300 ft agl	Visibility	1.25 Miles
Wind Speed/Gusts, Direction:	17 knots/ 20 knots, 110°	Visibility (RVR):	
Altimeter Setting:	29.78 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	Decatur, IL (DEC)	Type of Flight Plan Filed:	IFR
Destination:	Rockford, IL (RFD)	Type of Clearance:	IFR
Departure Time:	2154 CST	Type of Airspace:	TRSA

Airport Information

Airport:	Greater Rockford Airport (RFD)	Runway Surface Type:	Unknown
Airport Elevation:	742 ft	Runway Surface Condition:	Unknown
Runway Used:	7	IFR Approach:	ILS
Runway Length/Width:	10000 ft / 150 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	42.168611, -89.151389

Administrative Information

Investigator In Charge (IIC):	Pamela S Sullivan	Adopted Date:	04/28/2004
Additional Participating Persons:	William Law; Federal Aviation Administration; West Chicago, IL Robert Luna; Federal Aviation Administration; West Chicago, IL Timothy N Sorensen; NTSB; West Chicago, IL Seth Buttner; Cessna Aircraft Company; Wichita, KS		
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.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.