



# National Transportation Safety Board Aviation Accident Final Report

---

|                                |                                       |                         |                  |
|--------------------------------|---------------------------------------|-------------------------|------------------|
| <b>Location:</b>               | Taylorville, IL                       | <b>Accident Number:</b> | CEN12FA534       |
| <b>Date &amp; Time:</b>        | 08/11/2012, 1124 CDT                  | <b>Registration:</b>    | N697Q            |
| <b>Aircraft:</b>               | BEECH G18 - S                         | <b>Aircraft Damage:</b> | Substantial      |
| <b>Defining Event:</b>         | Aerodynamic stall/spin                | <b>Injuries:</b>        | 1 Fatal, 12 None |
| <b>Flight Conducted Under:</b> | Part 91: General Aviation - Skydiving |                         |                  |

---

## Analysis

The airplane had climbed to an altitude of about 11,000 feet mean sea level (msl) with 12 parachutists seated inside the airplane on two rear-facing “straddle benches.” The airplane was flying at an indicated speed of 100 mph with the flaps retracted. The operator’s written guidance for “skydiving jump runs” indicated that the airspeed should be maintained at 110 to 120 mph and that the flaps should be set at 30 degrees. As the airplane arrived at the planned drop location, the parachutists stood up, opened the door, and moved farther aft in the airplane to prepare for their jump. Five of the parachutists were positioned aft of the straddle benches and were hanging onto the outside of the airplane, several of the other parachutists were standing in the door, and the remainder of the parachutists were standing in the cabin forward of the door. According to instructions on the operator’s skydiver briefing card, no more than four jumpers should be allowed to occupy the door area during exit. Several parachutists heard the sounds of the airplane’s stall warning system, and the airplane then suddenly rolled and began to descend. All 12 parachutists quickly exited the airplane. Several witnesses reported seeing the airplane turning and descending in an inverted nose-down attitude and then appear to briefly recover, but it then entered a nearly vertical dive, which is consistent with a loss of control event as a result of an aerodynamic stall and subsequent entry into a spin.

Federal Aviation Administration (FAA) guidance indicates that the pilot-in-command (PIC) must know the weight and location of jumpers during each phase of the flight to assure that the aircraft stays within center of gravity (CG) limits and that the PIC must remain aware of CG shifts and their effects on aircraft controllability and stability as jumpers move into position for exiting the aircraft. Further FAA guidance indicated that, if a stall recovery is not promptly initiated, the airplane is more likely to enter an inadvertent spin, which can degenerate into a spiral. It is likely that the number of parachutists near the door area during exit shifted the CG aft and contributed to the aerodynamic stall/spin.

The pilot suffered a serious traumatic brain injury in September 2005 as a result of colliding with a truck while bicycling; however, he did not report that injury during all subsequent FAA medical certificate applications. Persons with an injury of this severity will likely have long-term issues with cognition, attention, executive functioning, sleep disturbance, and

impulsivity. However, without the results of any postinjury neuropsychological testing, the status of the pilot's cognition and decision-making during the accident flight could not be determined.

## 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 adequate airspeed and use the appropriate flaps setting during sport-parachuting operations, which resulted in an aerodynamic stall/spin and a subsequent loss of control. Contributing to the accident was the pilot's failure to follow company guidance by allowing more than four passengers in the door area during exit, which shifted the airplane's center of gravity aft.

### Findings

|                         |   |
|-------------------------|---|
| <b>Aircraft</b>         | Airspeed - Not attained/maintained (Cause)  |
| <b>Personnel issues</b> | Lack of action - Pilot (Cause)<br>Neurological - Pilot<br>Use of equip/info - Pilot (Cause)<br>Action/decision - Pilot (Factor) |

## Factual Information

### HISTORY OF FLIGHT

On August 11, 2012, about 1124 central daylight time, a Beech Aircraft Company G18S multi-engine airplane, N697Q, was substantially damaged when it impacted terrain in a residential neighborhood in Taylorville, Illinois. The commercial pilot sustained fatal injuries. Twelve parachutists on-board the airplane exited and were not injured. No persons on the ground were injured. The airplane was registered to Barron Aviation, LLC; Perry, Missouri, and operated by Barron Aviation Private Flight Services, LLC; Hannibal, Missouri, under the provisions of 14 Code of Federal Regulations Part 91, as a sport parachuting flight. Day visual meteorological conditions prevailed and no flight plan was filed. The local flight originated from Taylorville Municipal Airport (TAZ), Taylorville, Illinois, about 1100.

The airplane had climbed to an altitude of about 11,000 feet mean sea level (msl) and the parachutists were seated inside the airplane on two rear facing "straddle benches". As the airplane arrived at the planned drop location, the parachutists stood up, opened the door, and moved further aft in the airplane in preparation for their jump. Five of the parachutists were positioned hanging on to the outside of the airplane with several others standing in the door and the remainder were standing in the cabin forward of the door. Several parachutists reported that they were almost ready to jump when they heard the sounds of the airplane's stall warning system. The airplane then suddenly rolled and all twelve parachutists quickly exited the airplane. Several of those who were last to exit reported that the airplane was inverted or partially inverted as they went out the door. The pilot, seated in the left front cockpit seat, did not exit the airplane. Several witnesses reported seeing the airplane turning and descending in an inverted attitude when the airplane appeared to briefly recover, but then entered a nearly vertical dive.

The airplane impacted a tree and terrain in the back yard of an occupied residence. Emergency personnel who first responded to the accident scene reported a strong smell of gasoline and ordered the evacuation of several nearby homes. There was no postimpact fire.

### PERSONNEL INFORMATION

The pilot, age 30, held a commercial pilot certificate with ratings for airplane single and multi-engine land, and instrument airplane. His private pilot certificate was initially issued on December 1, 1999, and his first rating as a commercial pilot was initially issued on January 7, 2003.

The pilot's two logbooks showed entries beginning on August 7, 1999, with the last entry in pilot's logbook number two on July 22, 2012. An endorsement showed a flight review was completed on June 26, 2012. A high-performance airplane endorsement was entered on March 11, 2000. A tail wheel airplane endorsement was entered on October 28, 2001. A complex airplane endorsement was entered on December 21, 2002. On December 8, 2003, the pilot successfully completed a practical test and was issued an additional rating for airplane multi-engine land on his commercial pilot certificate.

A review of the logbooks showed that as of August 22, 2012, the pilot had logged 1,425.1 hours of total flight experience in airplanes, with 33.7 of those hours in multi-engine airplanes, and a total of 255.1 of those hours in single engine airplanes with conventional gear. There was no record that the pilot had any experience prior to August 20, 2012, in any multi-engine

airplanes with conventional gear.

The pilot's logbook showed that his most recent flight instruction in multiengine airplanes was logged on June 10, 2005. As of March 7, 2006, the logbook showed a total of 27.8 hours of experience in multiengine airplanes. During the period from 2006 until August 20, 2012, the pilot logged two flights in multiengine airplanes. On August 23, 2008, the logbook showed 1.3 hours of pilot-in-command experience in a Piper PA-23 multiengine piston airplane with the notation that it was a "check-out flight". Another flight, estimated to be in 2008, showed 1.0 hours of pilot-in-command experience in a Beech 99 multiengine turboprop airplane with the notation "fly right seat for multi/turbine time".

There were no other flights logged in multiengine airplanes until the pilot's first flight in the accident airplane, which was logged as a "familiarization and skydive checkout flight" of 0.5 hours of pilot-in-command experience on July 20, 2012. The last pilot logbook entry on July 22, 2012, showed the pilot flew the accident airplane for 3.1 hours on six skydiving flights.

Based on conversations with family members, the aircraft owner, skydiver load records, and billing records from the operator, it is estimated that the pilot flew the accident airplane for an additional 2.0 hours on August 10, 2012, and an additional total of 1.5 hours on August 11, 2012.

The pilot's flight experience in the accident airplane at the time of the accident was estimated as a total of 7.1 hours. There were no logbook entries or endorsements from a flight instructor, or any other evidence to show that the pilot had ever received any flight instruction in the accident airplane.

#### AIRCRAFT INFORMATION

The low-wing, retractable conventional landing gear, multi-engine airplane, serial number (s/n) BA-468, was manufactured in 1959. It was powered by two 450-horsepower Pratt and Whitney model R-985-AN-14B engines; s/n 89634, and s/n 203495. Each engine drove a Hamilton Standard; model 22D30, 2-blade metal alloy full feathering propeller.

The cockpit had a pilot station on the left seat and a co-pilot station or passenger seat on the right side, with each seat equipped with a 3-point shoulder harness system. The passenger cabin had been modified with two "straddle benches" which provided aft facing seating for a total of twelve parachutists.

The main cabin door had been modified for sport parachuting operations with the installation of an upward opening "roll-up" door. With the door in the open position it stowed on the inside surface of the cabin ceiling and the upper right side wall.

The original maintenance records were not recovered. The aircraft owner reported that all aircraft maintenance records and logbooks had been onboard at the time of the accident and were destroyed. After the accident, the aircraft owner provided unsigned copies of reconstructed maintenance record entries which showed that an annual inspection was completed on August 5, 2012, at an aircraft total time of 13,833.0 hours. Entries on that date also noted that both engines had accumulated a total of 46.9 hours since the most recent engine overhaul.

The operator estimated that the airplane had been operated for about 10 hours or less since the annual inspection was completed on August 5, 2012.

## METEOROLOGICAL INFORMATION

At 1115, the automated weather observation station at TAZ reported wind from 330 degrees at 9 knots; skies clear of clouds, temperature 24 degrees Celsius (C), dew point temperature 9 degrees C, and an altimeter setting of 30.03 inches of Mercury.

A review of pilot reports (PIREPs) for the area showed no suggestion of turbulence in the altitudes below about flight level (FL) 290. A review of the wind aloft reports also did not suggest significant shearing of the horizontal flow below about FL300, and there were no thunderstorms nearby for gravity wave generation.

Further review of winds aloft reports for the area showed the wind at 10,250 feet pressure altitude was from 347 degrees true at 19 knots; the wind at 9,309 feet pressure altitude was from 348 degrees true at 22 knots; and the wind at 12,221 feet pressure altitude was from 348 degrees true at 27 knots.

## COMMUNICATIONS AND RADAR AND ON-BOARD VIDEO

Following is a timeline of selected communications between the pilot of N697Q and Federal Aviation Administration (FAA) Air Traffic Control (ATC). A summary of the FAA ATC radar contacts is included. Also included are selected observations from the three on-board parachutist helmet mounted video cameras.

1104: N697Q made initial contact with the ATC controller, and radar showed N697Q was at a transponder reported altitude of 2,200 feet.

1120: parachutist video camera panned toward the cockpit, the altimeter indicated 10,400 feet, the flap handle was up, the landing gear handle was up, and the indicated airspeed was about 100 miles per hour. The pilot was sitting in the left pilot seat, and was wearing glasses, a parachute, and a headset with a boom microphone. The pilot was wearing a single shoulder harness over his left shoulder. The pilot's feet were both flat on the floor.

1121:45: N697Q reported to the ATC controller "... one minute prior to jumper release"

1121:50: the ATC controller instructed N697Q to report jumpers away, and N697Q responded.

There were no further transmissions heard from N697Q.

1122:02: parachutist video camera showed a parachutist pointing at the aft bulkhead and a parachutist said "green light", two parachutists adjacent to the door rolled the jump door to the open position.

1122:17: parachutist video camera showed the left flap was retracted and the left aileron was neutral.

1123: parachutist video camera showed two parachutist started to move outside the airplane, three other parachutist were moving toward the door and all parachutists had started to stand up.

1123:09: radar showed N697Q was at a transponder reported altitude of 11,200 feet.

1123:12: parachutist video camera showed the left flap deflected downward to an estimated deflection of less than 10 degrees.

1123:14: radar showed N697Q was at a transponder reported altitude of 11,300 feet.

1123:18: parachutist video camera captured the sound of the engines decreasing, the propeller

sound remained synchronized.

1123:19: radar showed N697Q was at a transponder reported altitude of 11,400 feet.

1123:21: parachutist video camera showed the left flap returned to a zero deflection, five parachutists were on the exterior jump platform, and seven parachutists were still in the airplane.

1123:25: radar showed N697Q was at a transponder reported altitude of 11,300 feet.

1123:29: radar showed N697Q was at a transponder reported altitude of 11,200 feet.

1123:33: parachutist video camera captured the sound of a warbly, high pitch tone, similar to stall warning and several parachutists began to yell "go go go" "get out" ... "go go go" "get out".

1123:33: radar showed N697Q was at a transponder reported altitude of 10,700 feet.

1123:34: parachutist video camera showed parachutists began to jump with the airplane in a steep left bank, the left aileron was deflected down, and the left flap was zero.

1123:38: radar showed N697Q moving northeast at a transponder reported altitude of 9,600 feet.

1123:39: parachutist video camera showed the last parachutist exited the airplane. The airplane was in a left hand turn past inverted with the nose oriented nose down approximately 40 to 60 degrees.

1123:43: radar showed N697Q moving northeast – the transponder reported altitude was missing.

1123:43: parachutist video camera showed the airplane was oriented nose down of about 40 to 70 degrees and then exited the field of view of the camera.

1123:48: radar showed N697Q was at a transponder reported altitude of 7,400 feet.

1123:54: the last radar return from N697Q – the transponder reported altitude was missing.

Radar contact was then lost.

#### WRECKAGE AND IMPACT INFORMATION

The wreckage location was about 1 and 1/2 miles northeast of TAZ, in the back yard of a private residence at an estimated elevation of about 620 feet mean seal level (msl). The residence about 30 feet east of the impact location, and several other buildings about 50 feet in all directions did not display substantial damage from the wreckage impact.

The large tree impacted by the wreckage had numerous broken branches and evidence of paint smearing on the branches and on the east side of the main trunk of the tree. The paint smears on the tree were the same color as the reddish orange color of the wreckage, and parts of airplane wreckage were lodged in several forks of the tree. A main impact crater about ten feet in diameter was immediately adjacent to the north edge of the trunk of the tree. Piles of impact compressed and fragmented aircraft wreckage were located on and next to that impact crater. Extensive impact crushing damage and fragmentation was observed on most of the components of the wreckage.

A prominent ground scar on the north side of the tree was oriented on a bearing of 197 degrees. Fragmented parts of the wing tip and broken pieces of red glass were found in the north end of

that ground scar. Impact compressed and fragmented parts of the leading edge of the left wing were located nearby and corresponded to the ground scar. The ground scar and damage to the wreckage was consistent with the airplane being in nearly vertical nose down attitude with the top of the airplane oriented to the east at the time of impact.

The left wing was fragmented and was found at the main crash site with the left flap and aileron. The leading edge displayed compression impact damage and fragmentation along the entire leading edge that penetrated aft to the trailing edge of the wing.

Both wings, both flaps, both ailerons, both vertical fins, both rudders, the elevator, and all three landing gear legs were all observed at the scene. The position of the flaps, and the position of the landing gear could not be determined because of the fragmentation and impact damage. The position of the trim tabs on the control surfaces could not be determined because of the fragmentation and impact damage. Flight control continuity could not be determined because of the fragmentation and impact damage.

Useful documentation of cockpit instruments could not be determined because of fragmentation and impact damage. An emergency locator transmitter (ELT) was not identified at the scene.

Fragmented portions of the right wing were found with the main wreckage and displayed impact compression damage from the leading edge aft. Fragmented portions of the main fuselage and empennage were observed at the scene and displayed impact compression damage.

The fuselage was substantially compressed and fragmented. Both engines and both propellers were observed at the scene and had penetrated into the impact crater immediately north of the large tree.

During on-scene examination of the wreckage the main impact crater was excavated to a depth of about six feet and to a diameter of about eight feet. Both engines and both propellers were recovered from the impact crater. The position of the two engines in the crater was consistent with the airplane being in a slightly sideways attitude at the time of impact. Both engines were fragmented and impact compressed. Both propellers, including both spinners, both hubs and all four propeller blades were observed in the impact crater adjacent to the engines. Fragmentation and impact damage prevented a useful examination of the propellers.

During the retrieval and excavation of the main impact crater all retrieval participants had been briefed in advance to be particularly alert for the presence of any aircraft maintenance documents or for the presence of any personal effects. No aircraft maintenance documents and no personal effects were found at the scene.

Most of the wreckage components were observed within about a 25 foot radius from the main impact crater, however about 25 pounds of numerous pieces of small fragmented wreckage components were recovered as far away as about 300 feet to the west. An additional few other pieces of lightweight materials from the wreckage were recovered from about 100 feet to the northeast.

The on-scene examination of the wreckage revealed no evidence of preimpact mechanical malfunctions or failures that would have precluded normal operation.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by the McLean County Coroner's Office Regional Autopsy Facility; Bloomington, Illinois. The cause of death was listed as "multiple injuries due to an airplane crash".

Forensic toxicology was performed on specimens from the pilot by the FAA, Aeronautical Sciences Research Laboratory, Oklahoma City, Oklahoma.

The toxicology report stated that tests were not performed. Submitted samples were not suitable for analyses.

FAA records showed the pilot's most recent second class airman medical certificate, was issued on May 10, 2010, with a restriction: "must wear corrective lenses".

Personal medical records reveal the pilot had suffered a traumatic brain injury in September, 2005, as a result of colliding with a truck while bicycling. The pilot failed to report that injury during all subsequent FAA medical certificate applications.

The head injuries in 2005 included fracture of the frontal bone and bilateral temporal lobe contusions. The pilot had an initial Glasgow Coma Score of twelve (of a possible 15) but was combative as a result of the brain injury and required several days of a medically induced coma. After about a week in the hospital, he spent more than three weeks in an inpatient rehabilitation unit and several months in outpatient rehabilitation for his brain injury. In addition to balance and endurance problems, while in rehabilitation he had issues with attention, concentration, and executive functioning and the family reported impulsive, sometimes unsafe, behaviors.

Three months later, he had not been cleared to drive as a result of his impaired judgment. The available records incompletely document the outcome from the traumatic brain injury as the pilot moved away approximately three months after his injury. No records regarding follow up in-depth neuropsychological testing were identified by the investigation.

#### ADDITIONAL INFORMATION

According to the Beech Aircraft Corporation Model G18S Landplane Airplane Flight Manual; Part No. 18-001020, Revised: January 30, 1961: "... Stalling Speed with power at zero thrust is 89 mph with gear and flaps up and zero degrees angle of bank; maximum pitch angle during recovery is 25 degrees ... maximum altitude lost during a stall is 600 feet ... stall warning indicator is triggered at a minimum of 6 mph above stall speed".

According to the operator's cockpit checklist instructions for "Skydiving Jump Run"; the engine power should be slowly decreased to idle, the airspeed should be maintained at 110 – 120 MPH, and the flaps should be set at 30 degrees. While the jumpers are exiting the speed should be maintained at 110 – 120 MPH.

According to instructions on the operator's "Skydiver Briefing Card"; during exit no more than 4 jumpers should be allowed to occupy the door area.

According to FAA Advisory Circular AC No: 105-2D; Subject: Sport Parachuting; Section 8. c. "The PIC is solely responsible for assuring that the aircraft being flown is properly loaded and operated so that it stays within gross weight and CG limitations. The PIC must ensure that the aircraft is operated within the aircraft W&B limitations ... The PIC is also responsible for reviewing these records and the flight manual to be familiar with an aircraft's W&B procedures and flight characteristics.



Section 8. d. Computing W&B. "The PIC must include the following factors:

...

(4) The weight and location of jumpers during each phase of the flight in order to assure that the aircraft stays within CG limits. The PIC must remain aware of CG shifts and their effects on aircraft controllability and stability as jumpers move into position for exiting the aircraft and as they exit."

According to FAA Advisory Circular AC No: 61-67C; Subject: Stall and Spin Awareness Training: Chapter 1: " ... The possibility of inadvertently stalling the airplane by increasing the load factor (i.e., by putting the airplane in a steep turn or spiral) is much greater than in normal cruise flight ... Excessively steep banks should be avoided because the airplane will stall at a much higher speed ... If the nose falls during a steep turn, the pilot might attempt to raise it to the level flight attitude without shallowing the bank. This situation tightens the turn and can lead to a diving spiral. ...

The Center of Gravity (CG) ... location has a significant effect on stability and stall/spin recovery. As the CG is moved aft, the amount of elevator deflection needed to stall the airplane at a given load factor will be reduced. An increased AOA will be achieved with less elevator control force. This could make the entry into inadvertent stalls easier, and during the subsequent recovery, it would be easier to generate higher load factors due to the reduced elevator control forces. In an airplane with an extremely aft CG, very light back elevator control forces may lead to inadvertent stall entries ...

If recovery from a stall is not made properly, a secondary stall or a spin may result. A secondary stall is caused by attempting to hasten the completion of a stall recovery before the aircraft has regained sufficient flying speed ...

The primary cause of an inadvertent spin is exceeding the critical AOA while applying excessive or insufficient rudder and, to a lesser extent, aileron. Insufficient or excessive control inputs ... could aggravate the precipitation of a spin ... If a stall recovery is not promptly initiated, the airplane is more likely to enter an inadvertent spin ...

The spiral mode is an autorotation mode similar to a spin. The center of rotation is close to the centerline of the airplane but the airplane is not stalled ... Many airplanes will enter a spin but the spin will become more vertical and degenerate into a spiral (and) the airspeed will increase as the nose goes down to near vertical. The side forces on the airplane build very rapidly and recovery must be effected immediately before exceeding the structural limits of the airplane".

## History of Flight

|                      |  |
|----------------------|--|
| Maneuvering          | Aerodynamic stall/spin (Defining event)<br>Loss of control in flight |
| Uncontrolled descent | Collision with terr/obj (non-CFIT)                                   |

## Pilot Information

|                                  |  |  |                            |
|----------------------------------|--|--|----------------------------|
| <b>Certificate:</b>              | Commercial   | <b>Age:</b>                              | 30                         |
| <b>Airplane Rating(s):</b>       | Multi-engine Land; Single-engine Land  | <b>Seat Occupied:</b>                    | Left                       |
| <b>Other Aircraft Rating(s):</b> | None   | <b>Restraint Used:</b>                   | Seatbelt, Shoulder harness |
| <b>Instrument Rating(s):</b>     | Airplane   | <b>Second Pilot Present:</b>             | No                         |
| <b>Instructor Rating(s):</b>     | None   | <b>Toxicology Performed:</b>             | Yes                        |
| <b>Medical Certification:</b>    | Class 2 With Waivers/Limitations   | <b>Last FAA Medical Exam:</b>            | 06/08/2010                 |
| <b>Occupational Pilot:</b>       | Yes  | <b>Last Flight Review or Equivalent:</b> | 06/26/2012                 |
| <b>Flight Time:</b>              | (Estimated) 1429 hours (Total, all aircraft), 7 hours (Total, this make and model), 16 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft) |  |                            |

## Aircraft and Owner/Operator Information

|                                      |  |                                       |                 |
|--------------------------------------|--|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | BEECH  | <b>Registration:</b>                  | N697Q           |
| <b>Model/Series:</b>                 | G18 - S                                      | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |  | <b>Amateur Built:</b>                 | No              |
| <b>Airworthiness Certificate:</b>    | Normal                                       | <b>Serial Number:</b>                 | BA-468          |
| <b>Landing Gear Type:</b>            | Retractable - Tailwheel                      | <b>Seats:</b>                         | 14              |
| <b>Date/Type of Last Inspection:</b> | 07/05/2012, Annual                           | <b>Certified Max Gross Wt.:</b>       | 9700 lbs        |
| <b>Time Since Last Inspection:</b>   |  | <b>Engines:</b>                       | 2 Reciprocating |
| <b>Airframe Total Time:</b>          | 13833 Hours as of last inspection            | <b>Engine Manufacturer:</b>           | P&W             |
| <b>ELT:</b>                          | Not installed                                | <b>Engine Model/Series:</b>           | R-985-AN-14B    |
| <b>Registered Owner:</b>             | Barron Aviation LLC                          | <b>Rated Power:</b>                   | 450 hp          |
| <b>Operator:</b>                     | Barron Aviation Private Flight Services, LLC | <b>Operating Certificate(s) Held:</b> | None            |

## Meteorological Information and Flight Plan

|                                  |                                  |   |                  |
|----------------------------------|----------------------------------|---|------------------|
| Conditions at Accident Site:     | Visual Conditions                | Condition of Light:                     | Day              |
| Observation Facility, Elevation: | KTAZ, 622 ft msl                 | Distance from Accident Site:            | 1 Nautical Miles |
| Observation Time:                | 1115 CDT                         | Direction from Accident Site:           | 240°             |
| Lowest Cloud Condition:          | Clear                            | Visibility                              | 10 Miles         |
| Lowest Ceiling:                  |                                  | Visibility (RVR):                       |                  |
| Wind Speed/Gusts:                | 9 knots /                        | Turbulence Type<br>Forecast/Actual:     | /                |
| Wind Direction:                  | 330°                             | Turbulence Severity<br>Forecast/Actual: | /                |
| Altimeter Setting:               | 30.03 inches Hg                  | Temperature/Dew Point:                  | 24° C / 9° C     |
| Precipitation and Obscuration:   | No Obscuration; No Precipitation |   |                  |
| Departure Point:                 | Taylorville, IL (TAZ)            | Type of Flight Plan Filed:              | None             |
| Destination:                     | Taylorville, IL (TAZ)            | Type of Clearance:                      | Traffic Advisory |
| Departure Time:                  | 1200 CDT                         | Type of Airspace:                       | Class E          |

## Airport Information

|                      |                                     |                           |      |
|----------------------|-------------------------------------|---------------------------|------|
| Airport:             | Taylorville Municipal Airport (TAZ) | Runway Surface Type:      |      |
| Airport Elevation:   | 622 ft                              | Runway Surface Condition: |      |
| Runway Used:         | N/A                                 | IFR Approach:             | None |
| Runway Length/Width: |                                     | VFR Approach/Landing:     | None |

## Wreckage and Impact Information

|                     |                  |                      |                             |
|---------------------|------------------|----------------------|-----------------------------|
| Crew Injuries:      | 1 Fatal          | Aircraft Damage:     | Substantial                 |
| Passenger Injuries: | 12 None          | Aircraft Fire:       | None                        |
| Ground Injuries:    | N/A              | Aircraft Explosion:  | None                        |
| Total Injuries:     | 1 Fatal, 12 None | Latitude, Longitude: | 39.539722, -89.302222 (est) |

## Administrative Information

|                                   |   |              |            |
|-----------------------------------|---|--------------|------------|
| Investigator In Charge (IIC):     | Thomas Latson   | Report Date: | 07/23/2014 |
| Additional Participating Persons: | Kerry J Gambrel; FAA Springfield FSDO; Springfield, IL  |              |            |
| Publish Date:                     | 07/23/2014  |              |            |
| Investigation Docket:             | <a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=84626">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=84626</a> |              |            |

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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).