



Aviation Investigation Final Report

| | | | |
|--------------------------------|--------------------------------------|-------------------------|------------|
| Location: | Hilton Head Island, South Carolina | Accident Number: | ERA11LA043 |
| Date & Time: | October 29, 2010, 14:30 Local | Registration: | N8ZT |
| Aircraft: | AVIAT INC PITTS S-2B | Aircraft Damage: | Minor |
| Defining Event: | Ground collision | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The pilot of the tailwheel-equipped Pitts airplane was taxiing to the runway for takeoff when he impacted a Cirrus airplane that was holding short of the runway. The Pitts pilot stated that he did not see the Cirrus prior to the collision, claiming that the narrow taxiway limited his ability to make "s" turns. A Federal Aviation Administration inspector reported that the propeller of the Pitts struck the right outboard section of wing spar of the Cirrus, resulting in substantial damage to the Cirrus.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The Pitts pilot's inadequate visual lookout and failure to maintain clearance from the Cirrus airplane.

Findings

| | |
|-------------------------|-----------------------------------|
| Personnel issues | Monitoring other aircraft - Pilot |
|-------------------------|-----------------------------------|

Factual Information

History of Flight

Taxi-to runway

Ground collision (Defining event)

On October 29, 2010, about 1430 eastern daylight time, a Cirrus SR22, N876CP, was substantially damaged when it was struck by a taxiing Aviat Inc. Pitts S-2B, N8ZT, at Hilton Head Airport (HXD), Hilton Head Island, South Carolina. The certificated commercial pilot and two passengers of the Cirrus, and the certificated private pilot of the Pitts, were not injured. Visual meteorological conditions prevailed at the time of the accident. Neither the Cirrus pilot nor the Pitts pilot had filed flight plans for the personal flights, which were conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

According to the pilot of the Pitts, he was taxiing south to runway 03 and "the ability to S turn during taxi is limited" due to the narrow taxiway. As he began turning his airplane to the right, toward the runway, the propeller impacted the right wing of the Cirrus. The pilot stated that he "did not see the Cirrus before the impact." Following the collision, the engine experienced a "sudden stop" and the pilot exited the airplane without incident.

According to the pilot of the Cirrus, he was cleared to taxi to runway 03. While holding short of the runway, he conducted an engine run-up and the before takeoff checklist. As he was completing the checklist, he heard one passenger yell "he's going to hit us." The pilot turned to look over his right shoulder as the propeller of the Pitts struck the right wing of the Cirrus.

After the airplanes were towed to the ramp area of the airport, they were examined by a Federal Aviation Administration (FAA) inspector. Examination revealed that the propeller of the Pitts had struck the right outboard section of wing spar of the Cirrus, resulting in substantial damage to the Cirrus. According to the FAA, control continuity was confirmed throughout both airplanes and there were no brake anomalies.

According to FAA records, the pilot of the Pitts held a private pilot certificate with a rating for single-engine land. He noted that his total flight experience was approximately 2,200 hours; of which, about 940 hours were in the same make and model as the accident airplane. His most recent FAA third-class medical certificate was issued in June, 2009.

According to FAA records, the pilot of the Cirrus held a commercial pilot certificate with ratings for single-engine land, multiengine land, and instrument airplane. In addition, he held a flight instructor certificate for airplane single-engine, multiengine, and instrument airplane. He noted that his total flight experience was approximately 2,700 hours; of which, 1,465 were in the same make and model as the accident airplane. His most recent FAA first-class medical certificate was issued in August, 2010.

FAA records indicated that the Pitts was manufactured in 1993, and its registration certificate was issued in 1994. The airplane was a two-place, single-engine, cantilever biplane that was equipped with tailwheel-type landing gear. According to the owner, the airplane had accumulated approximately 943 total hours and the last annual inspection was on July 1, 2010.

FAA records indicated that the Cirrus was manufactured in 2008, and its registration certificate was issued in 2008. It was equipped with a 310 horsepower, Teledyne-Continental Motors IO-550 series engine. The airplane was a four-place, low-wing, single-engine, cantilever monoplane with fixed tricycle landing gear. According to the pilot, the airplane had accumulated approximately 510 total hours and the last annual inspection was on September 24, 2010.

Weather conditions reported at HXD, at 1350, included winds from 350 degrees at 9 knots, gusting to 16 knots, 10 statute miles visibility, clear skies, temperature 21 degrees C, dewpoint 7 degrees C, and an altimeter setting of 30.13 inches of mercury.

Pilot Information

| | | | |
|----------------------------------|---|--|---------------|
| Certificate: | Private | Age: | 66, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Rear |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | June 18, 2009 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | July 4, 2009 |
| Flight Time: | 2200 hours (Total, all aircraft), 940 hours (Total, this make and model), 1800 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|--------------------------------------|-------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | AVIAT INC | Registration: | N8ZT |
| Model/Series: | PITTS S-2B | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Aerobatic; Normal | Serial Number: | 5293 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | July 1, 2010 Annual | Certified Max Gross Wt.: | 1700 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 943 Hrs as of last inspection | Engine Manufacturer: | Lycoming |
| ELT: | Installed, not activated | Engine Model/Series: | AE IO-540 D4A |
| Registered Owner: | O G CO | Rated Power: | 260 Horsepower |
| Operator: | O G CO | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

| | | | |
|---|----------------------------------|---|------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | HXD,19 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 13:50 Local | Direction from Accident Site: | |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 9 knots / 16 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 350° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.12 inches Hg | Temperature/Dew Point: | 21°C / 7°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Hilton Head Island, SC (HXD) | Type of Flight Plan Filed: | None |
| Destination: | Vero Beach, FL (VRB) | Type of Clearance: | None |
| Departure Time: | 14:30 Local | Type of Airspace: | Class D |

Airport Information

| | | | |
|-----------------------------|-------------------------|----------------------------------|------|
| Airport: | Hilton Head Airport HXD | Runway Surface Type: | |
| Airport Elevation: | 19 ft msl | Runway Surface Condition: | |
| Runway Used: | | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | None |

Wreckage and Impact Information

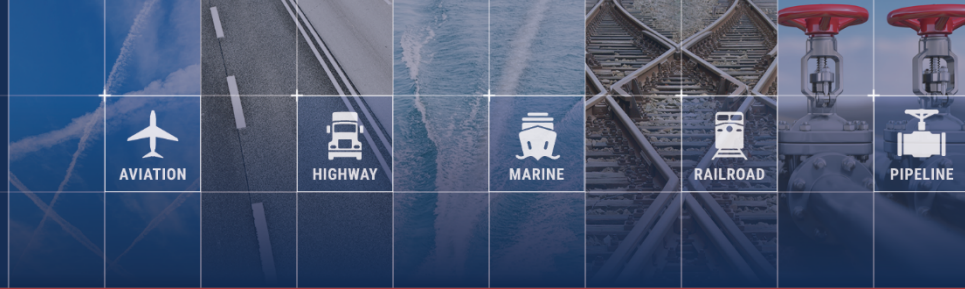
| | | | |
|----------------------------|--------|-----------------------------|---------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Minor |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 None | Latitude, Longitude: | 32.224445,-80.696945(est) |

Administrative Information

| | |
|--|---|
| Investigator In Charge (IIC): | Hicks, Ralph |
| Additional Participating Persons: | Sean Mosher; FAA/FSDO; Columbia, SC |
| Original Publish Date: | July 21, 2011 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=77692 |

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).



Aviation Investigation Final Report

| | | | |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | Hilton Head Island, South Carolina | Accident Number: | ERA11LA043 |
| Date & Time: | October 29, 2010, 14:30 Local | Registration: | N876CP |
| Aircraft: | CIRRUS DESIGN CORP SR22 | Aircraft Damage: | Substantial |
| Defining Event: | Ground collision | Injuries: | 3 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The pilot of the tailwheel-equipped Pitts airplane was taxiing to the runway for takeoff when he impacted a Cirrus airplane that was holding short of the runway. The Pitts pilot stated that he did not see the Cirrus prior to the collision, claiming that the narrow taxiway limited his ability to make “s” turns. A Federal Aviation Administration inspector reported that the propeller of the Pitts struck the right outboard section of wing spar of the Cirrus, resulting in substantial damage to the Cirrus.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The Pitts pilot's inadequate visual lookout.

Findings

| | |
|-------------------------|---|
| Personnel issues | Monitoring other aircraft - Pilot of other aircraft |
|-------------------------|---|

Factual Information

History of Flight

Taxi-to runway

Ground collision

On October 29, 2010, about 1430 eastern daylight time, a Cirrus SR22, N876CP, was substantially damaged when it was struck by a taxiing Aviat Inc. Pitts S-2B, N8ZT, at Hilton Head Airport (HXD), Hilton Head Island, South Carolina. The certificated commercial pilot and two passengers of the Cirrus, and the certificated private pilot of the Pitts, were not injured. Visual meteorological conditions prevailed at the time of the accident. Neither the Cirrus pilot nor the Pitts pilot had filed flight plans for the personal flights, which were conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

According to the pilot of the Pitts, he was taxiing south to runway 03 and "the ability to S turn during taxi is limited" due to the narrow taxiway. As he began turning his airplane to the right, toward the runway, the propeller impacted the right wing of the Cirrus. The pilot stated that he "did not see the Cirrus before the impact." Following the collision, the engine experienced a "sudden stop" and the pilot exited the airplane without incident.

According to the pilot of the Cirrus, he was cleared to taxi to runway 03. While holding short of the runway, he conducted an engine run-up and the before takeoff checklist. As he was completing the checklist, he heard one passenger yell "he's going to hit us." The pilot turned to look over his right shoulder as the propeller of the Pitts struck the right wing of the Cirrus.

After the airplanes were towed to the ramp area of the airport, they were examined by a Federal Aviation Administration (FAA) inspector. Examination revealed that the propeller of the Pitts had struck the right outboard section of wing spar of the Cirrus, resulting in substantial damage to the Cirrus. According to the FAA, control continuity was confirmed throughout both airplanes and there were no brake anomalies.

According to FAA records, the pilot of the Pitts held a private pilot certificate with a rating for single-engine land. He noted that his total flight experience was approximately 2,200 hours; of which, about 940 hours were in the same make and model as the accident airplane. His most recent FAA third-class medical certificate was issued in June, 2009.

According to FAA records, the pilot of the Cirrus held a commercial pilot certificate with ratings for single-engine land, multiengine land, and instrument airplane. In addition, he held a flight instructor certificate for airplane single-engine, multiengine, and instrument airplane. He noted that his total flight experience was approximately 2,700 hours; of which, 1,465 were in the same make and model as the accident airplane. His most recent FAA first-class medical certificate was issued in August, 2010.

FAA records indicated that the Pitts was manufactured in 1993, and its registration certificate was issued in 1994. The airplane was a two-place, single-engine, cantilever biplane that was equipped with tailwheel-type landing gear. According to the owner, the airplane had accumulated approximately 943 total hours and the last annual inspection was on July 1, 2010.

FAA records indicated that the Cirrus was manufactured in 2008, and its registration certificate was issued in 2008. It was equipped with a 310 horsepower, Teledyne-Continental Motors IO-550 series engine. The airplane was a four-place, low-wing, single-engine, cantilever monoplane with fixed tricycle landing gear. According to the pilot, the airplane had accumulated approximately 510 total hours and the last annual inspection was on September 24, 2010.

Weather conditions reported at HXD, at 1350, included winds from 350 degrees at 9 knots, gusting to 16 knots, 10 statute miles visibility, clear skies, temperature 21 degrees C, dewpoint 7 degrees C, and an altimeter setting of 30.13 inches of mercury.

Pilot Information

| | | | |
|----------------------------------|---|--|------------------|
| Certificate: | Commercial; Flight instructor | Age: | 26, Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | Airplane multi-engine; Airplane single-engine; Instrument airplane | Toxicology Performed: | No |
| Medical Certification: | Class 1 Without waivers/limitations | Last FAA Medical Exam: | August 18, 2010 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | January 10, 2009 |
| Flight Time: | 2708 hours (Total, all aircraft), 1465 hours (Total, this make and model), 2665 hours (Pilot In Command, all aircraft), 96 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|--------------------------------------|-------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | CIRRUS DESIGN CORP | Registration: | N876CP |
| Model/Series: | SR22 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 3271 |
| Landing Gear Type: | Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | September 24, 2010 Annual | Certified Max Gross Wt.: | 3400 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 510 Hrs as of last inspection | Engine Manufacturer: | CONT MOTOR |
| ELT: | Installed, not activated | Engine Model/Series: | IO-550-N |
| Registered Owner: | CAPITAL HOLDINGS 200 LLC | Rated Power: | 310 Horsepower |
| Operator: | CAPITAL HOLDINGS 200 LLC | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

| | | | |
|---|----------------------------------|---|------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | HXD,19 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 13:50 Local | Direction from Accident Site: | |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 9 knots / 16 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 350° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.12 inches Hg | Temperature/Dew Point: | 21°C / 7°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Hilton Head Island, SC (HXD) | Type of Flight Plan Filed: | None |
| Destination: | Daytona Beach, FL (DAB) | Type of Clearance: | None |
| Departure Time: | 14:30 Local | Type of Airspace: | Class D |

Airport Information

| | | | |
|-----------------------------|-------------------------|----------------------------------|------|
| Airport: | Hilton Head Airport HXD | Runway Surface Type: | |
| Airport Elevation: | 19 ft msl | Runway Surface Condition: | |
| Runway Used: | | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | None |

Wreckage and Impact Information

| | | | |
|----------------------------|--------|-----------------------------|---------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 2 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 3 None | Latitude, Longitude: | 32.224445,-80.696945(est) |

Administrative Information

| | |
|--|---|
| Investigator In Charge (IIC): | Hicks, Ralph |
| Additional Participating Persons: | Sean Mosher; FAA/FSDO; Columbia, SC |
| Original Publish Date: | July 21, 2011 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=77692 |

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).