

Accident Report

Date: September 16, 2016
Student Pilot: Skye P. Merriam
Aircraft: Cessna 172S Skyhawk
Registration: N461SP
Location: Tooele Valley Airport, Utah

1. Purpose. The purpose of this report is to provide a description of events prior to, during and after an accident while I was landing a Cessna 172 aircraft as a student pilot on Friday, September 16, 2016 at the Tooele Valley Airport (KTVY), also known as Bolinder Field, located in Erda, Utah.

2. My background. My name is Skye P. Merriam, and I am 17 years old. My date of birth (DOB) is [REDACTED]

I am currently a student pilot taking flying lessons through Cornerstone Aviation based next to the Salt Lake City International Airport (KSLC). I began ground school training on or about March 26, 2016 and finished on or about June 7, 2016. I passed my Airman Knowledge Written Exam on July 27, 2016 with a [REDACTED]. I hold a Medical Certificate Third Class, dated March 22, 2016, with no limitations stated. The Certificate number is [REDACTED]

I began flying lessons on August 1, 2016. My primary Certified Flight Instructor (CFI) is Amanda Daniel, CFI number [REDACTED]. I soloed on September 6, 2016. Since that time but prior to September 16th, I have flown solo two other times. In total, also prior to September 16th, I have flown 33.6 dual flight hours and 5.5 solo flight hours, and I have completed 135 take-offs and landings with an instructor pilot and 25 take-offs and landings as a solo pilot.

3. Endorsements. I have received the following endorsements by my primary CFI:

- a. Initial Solo Endorsements, dated September 6, 2016, with expirations of November 16, 2016;
- b. Additional Airport Within 25NM Solo Endorsements at KTVY and KSLC airports, dated September 8, 2016, with expirations of November 16, 2016;
- c. Class B Solo Endorsements in Salt Lake City airspace and at KSLC, dated September 8, 2016, with an expiration of November 16, 2016;
- d. Repeat X/C Solo (Less than 50NM – Nautical Miles) between and at KSLC and KTVY, dated September 12, 2016, with an expiration of November 16, 2016; and
- e. Certificated Instructor's Endorsement for Student Pilots to solo in a Cessna 172 aircraft, dated September 6, 2016, with an expiration of November 16, 2016.

4. Weather Conditions. The weather conditions reported at KSLC before my take-off were clear skies, no ceilings, visibility more than 10 statute miles and winds of 8 knots coming from a direction of 290 degrees.

5. My plan. I was operating the aircraft under visual flight rules (VFR), and I was not required to, nor did I, file a flight plan. My intent for the afternoon was to fly for approximately two hours, which included taking off from KSLC, conducting touch-and-go landings at KTVY, practicing ground reference maneuvers in the vicinity of KTVY, and then returning to KSLC.

6. Chronology of Events. All stated times are my best approximations.

a. Pre-flight.

(1510 hours) I arrived at the aircraft. I was accompanied by my father, Scott A. Merriam, since I asked him for assistance in pushing the aircraft out of the tie-down position. I noted from the Aircraft Flight Log that N461SP had been flown once earlier in the day on September 16th. I performed my pre-flight inspection as normal. I called TAC Air during pre-flight and requested fuel. A fuel truck arrived about 5 or 10 minutes later, and the driver added a combined 26.4 gallons of fuel to fill both tanks. The nose landing gear appeared to be a little under-inflated, but I did not check

the air pressure, so I do not know the air pressure reading. I noted no discrepancies during my pre-flight inspection. Upon completion of pre-flight, I escorted my father back outside the secure area and walked back to the aircraft.

(1535 hours) I started the aircraft engine. I completed normal run-up procedures prior to taxiing at KSLC. I called Salt Lake Clearance, I moved the aircraft to Spot 33, and then I called Salt Lake Ground advising that I was ready for departure. Salt Lake Ground told me to taxi to Runway 34R via Taxiways Kilo and Kilo1 and then to hold short at Runway 35. I reported my arrival at Runway 35, and Salt Lake Ground told me to switch to Salt Lake Tower frequency 119.05, which I did. Then I called the Tower and advised I was holding short of Runway 35. Salt Lake Tower told me to cross Runway 35, use Taxiway Mike, and then lineup and wait at Runway 34R. I waited at Runway 34R for approximately 30 minutes for aircraft in front of me.

(1610 hours) Salt Lake Tower notified me I was cleared for departure off Runway 34R. I pulled the aircraft onto the runway and took-off on Runway 34R, departing from KSLC.

b. Flight.

(1612 hours) After take-off from KSLC, I began climbing to an altitude of 5,500 feet Mean Sea Level (MSL). During this time, Salt Lake Tower advised me to contact Salt Lake Departure at frequency 120.9, which I did. Departure told me to follow Interstate-80 (I-80) to Tooele and to climb to an altitude of 6,500 feet MSL. At that point, I turned westbound to follow I-80 toward Tooele and leveled out when I reached 6,500 feet MSL.

(1620 hours) When I cleared KSLC airspace, Salt Lake Departure contacted me and told me to switch frequencies and squawk VFR. I switched to the Tooele traffic frequency of 123.0 and pushed the VFR squawk button. I listened to Tooele's weather advisory information on frequency 119.725. I then contacted Tooele traffic and advised that I was inbound to conduct touch-and-go landings. I was about 10 NM from the airport at an altitude of 6,500 MSL.

c. Weather Conditions.

The weather conditions reported at KTVY before my first landing were clear skies, no ceilings, visibility more than 10 statute miles and winds of 5 to 7 knots coming from a direction of 350 degrees.

d. Events at Tooele Valley Airport.

(1628 hours) I entered the KTVY traffic pattern normally on the downwind leg of the left pattern for Runway 35 and completed two touch-and-go landings. I called in to Tooele traffic on each leg of the traffic patterns.

(1640 hours) I was on final approach and was preparing for my third touch-and-go landing. On entering final, I advised Tooele traffic I was on final approach. I then put the flaps down to 30 degrees, I maintained between 65 and 70 knots airspeed, and I experienced a normal glide slope as I approached the end of Runway 35.

e. Accident.

(1642 hours) I pulled the throttle back to idle as I flew over the runway numbers and focused on keeping the plane over the runway centerline with the rudder pedals. I was aiming to land at the 1,000 foot markers on the runway. My left hand was on the yoke, and my right hand was on the throttle. When passing over the runway numbers, I was approximately 60 to 80 feet above the runway.

Over the runway numbers, I believe the aircraft was still in a slightly nose-down attitude because I could still clearly see all the way down the runway. When I was approximately 25 to 30 feet above the runway, I remember seeing the 1,000 foot runway markers begin to pass out of sight under the nose of the aircraft. I believe I had the aircraft level to the horizon at this point.

I continued rearward pressure on the yoke and started to flare when the aircraft was about 8 to 10 feet off the ground. At this point, I did not feel as though I was too low to start flaring compared to my experiences with other landings. Within a few seconds, I felt the landing gear touch down on the runway. I do not feel as though the nose of the aircraft was pitched-up as high as it should have been, and the landing felt harder than it should have felt.

The plane bounced off the runway immediately after touching down. After the first bounce, the yoke was locked in the aft position, and I could not pull it any further back to me. The aircraft bounced another three or four times after the first bounce. I used the rudder pedals briefly to stay centered on the runway and then switched to the brakes to slow the aircraft down and steer as best I could. Each time the plane bounced, the noise was noticeably loud inside the aircraft. I did not feel or hear anything that indicated to me that the propeller struck the runway.

When the aircraft was no longer bouncing, I was continuing to use the brakes to slow the plane down. I noticed that I could not press the right brake fully and that resulted in the plane drifting toward the left side of the runway as I slowed down. I made a radio call to Tooele traffic to advise that I was having some trouble with the aircraft and that it would take me extra time to clear the runway. I heard another aircraft report on downwind and advise that if I was not clear of the runway for his landing, he would go around. I pressed the right brake pedal as hard as I could to maneuver the aircraft across the runway to the nearest taxiway, which was A4. I added a little power with the throttle to about 1,400 RPMs to cross the runway.

f. Post-landing procedures.

Once on Taxiway A4, I slowed down and stopped about 25 feet off the runway. I made another radio call to advise that I was off the runway and that A4 would be unusable for some period of time while I tried to figure out if the plane was damaged. I put the aircraft flaps to zero degrees. I had my iPhone in my flight bag on the seat next to me and decided to Google search why the yoke would not move or why the brakes would not work properly. I searched for about two minutes and could not find anything useful.

(1644 hours) I placed a phone call to my instructor, Amanda Daniel, for some help, but there was no answer.

(1645 hours) I then called another of my flight instructors, Philip Williamson. He answered, and I explained briefly what had happened. He said to turn the plane off, take a look at the elevator for any damage and then get back in the plane and wait for assistance. I hung up the phone, went through the aircraft Shut-Down Checklist and turned off the plane. I got out the left side door and walked around to the tail end of the plane to look at the elevator. I did not see anything wrong, so I got back into the plane.

(1654 hours) I called Philip back and told him I saw no damage to the elevator. He said he would call Nelson at Cornerstone Aviation to see if someone was available to come help me. I hung up the phone.

(1659 hours) A white pickup truck with a yellow blinking warning light approached my aircraft. Two men got out of the truck and approached me. I exited the plane again and walked to the front of the plane, at which point I saw that the propeller blades were bent. One of the men said his name was Patrick, and I do not remember the other man's name. The men asked what had happened, which I told them. They then walked around the plane with me, and one of them pointed out that the front landing gear was not straight. At this point, I also saw that there was a gap between the right side engine cowl and the aircraft.

(1704 hours) I called Philip again. I told him that there was also damage to the front of the plane, at which point the man whose name I do not know asked to talk to Philip. They spoke on the phone for a couple minutes, and I ended the call with Philip. The man who spoke to Philip said it was okay to tow the plane further from the runway, so I opened the plane's baggage compartment, pulled out the tow bar and then hooked it up to the front landing gear. Patrick pushed from the right strut, I pushed from the left strut, and the other man pulled from the tow bar. We moved the plane about 20 feet further from the runway. I grabbed my flight bag and the plane's keys, got into their pickup truck, and they drove me to Skydive Utah at the edge of the airfield. When we pulled up, they said they both worked at Skydive Utah.

7. Points of Contact. Over approximately the next two hours, I met and spoke with several individuals in their official capacities at the airport or as investigators. Their names, positions and contact information are listed below, along with a brief description of my interaction with each of them:

a. David Teggin, General Aviation Manager, Salt Lake City Department of Airports, [REDACTED]

I met David next to Skydive Utah. He asked me what happened, and I told him. He then asked me to get into his vehicle and drive onto the runway with him to look for any marking where the propeller or the aircraft struck the ground. We did not find any. While we were looking, he was on the phone with Zoe Keliher. He told me she worked for the National Transportation Safety Board (NTSB). After a few minutes talking with Zoe, David handed his phone to me to speak with her.

b. Zoe Keliher, Air Safety Investigator, NTSB, [REDACTED]

I spoke with Investigator Keliher for a few minutes on David's phone. She asked me to explain what happened, which I did. She also asked for my name, DOB and phone number.

c. N. Douros, Police Officer, Badge Number 240V, Salt Lake City Airport Police, [REDACTED]

Police Officer Douros and his partner, whose name I do not have, questioned me about the accident and also asked me for my name. I filled out a Police Report for them, and they provided case number [REDACTED]. They also took digital photos of my flight endorsements, my flight medical certificate and the plane itself. I texted Officer Douros a picture of my passport as well as the plane's registration and the airworthiness certificate.

8. Additional Points of Contact.

a. Scott A. Merriam, [REDACTED].

My father assisted me in pushing the aircraft out of its tie-down location at KSLC after I conducted my pre-flight inspections and after the aircraft was fueled. After the accident, I contacted him at 1749 hours via text message to let him know I was in an accident. I also spoke to him on the phone. He arrived at KTVY at approximately 1847 hours to pick me up.

9. Photographs. Once the aircraft was in a safe location off the main runway and in an aircraft staging/parking area, I took the following photos:

a. Aircraft Ending Tachometer and Hobbs Times.



b. Aircraft Yoke.



c. Aircraft Front Landing Gear.



d. Aircraft Elevator.



e. Aircraft Propeller.



End of Report.