



RECORD OF EMAIL

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Western Pacific Region

Date: July 15, 2016
Person Contacted: Mr. Loren Smith (pilot)
NTSB Accident Number: WPR16LA171

Narrative:

During an email Conversation the pilot, Mr. Loren Smith reported the following to the FAA Inspector, Cliff Carpenter:

The following describes the incident with my T310R, N455TB, (S/N: 310R-1860). This is an "R" Model 310, manufactured in 1980.

Cliff I like to numerate my thoughts, hence the following. However, they are in no order of importance.

1. What Happened?

A. We were flying into Shafer Meadows lightly loaded (approximately half of the total net weight that the aircraft will carry approximately 1000lbs). In short, we were light on fuel as well as the items we were taking into Shafer. Some friends of mine were floating out of Shafer and we were making the last trip in of which we had two coolers in the airplane. Also, as previously mentioned, we were light on fuel.

B. We were landing on Runway 7 which is landing to the east. If when landing to the east, you are landing going uphill. However, you need relatively calm winds to do so. The wind was calm, the sky was blue, and it was a beautiful day with about 65°F weather as it was about 10:00 a.m. This was my second trip in.

C. We made a normal landing, which means landing near the beginning of the runway which gives you plenty of time to brake and bring the airplane to a halt. Flying a 310 into Shafer is not a difficult task, but it generally requires some braking and you don't want to land $\frac{3}{4}$ of the way down the runway. After landing at the beginning of the runway the following unfolded:

- Upon touchdown, the airplane veered slightly to either the left or the right (when incidents like this happen, no one can remember the specific details). The veering could have been a lighter or heavier application of the brakes, but in any case, it was nothing abnormal.
- The airplane then yawed to the other direction and yawed back. At that point the airplane started to track off to the left off of the runway. The airplane tracked off of the runway (to the left side) and came to rest approximately 50' to the left hand side (the north side) of Runway 7.
- In short, the left landing gear had collapsed. The good news is that the tip of the wing slid on grass as the airplane came to a halt.
- We opened the door and got out of the aircraft. The people already at Shafer came up and unloaded the balance of their floating gear and suggested that I should float out with them. My response was that it was too dangerous, as I had floated it several times myself and I would get a ride out from someone. Red Eagle Aviation flew in (they were also flying in floaters that day) about 10 minutes behind me. I had previously been visiting with them as both of us were doing the same thing that morning (bringing in floaters). In my case, I was bringing in friends while Red Eagle is doing it as a business. I believe the Pilot for Red Eagle was Jim. Jim gave me a ride back to Kalispell City Airport and then from there used their 206 and flew me back to Great Falls. It was nice to be home. However, now the work begins.

2. So what failed on the landing gear? (See photo 1)

A. Photo 1 shows the side braces for the left landing gear. The pencil is pointing at the connection on the upper end which is up in the wing structure on the left wing. For reference, the other end (doesn't have the pencil pointing at it) attaches directly to the landing gear strut.

B. We do not know why the side brace failed. It may have been a previous crack, etc. As previously mentioned, we completely refurbished this aircraft over the past four years. Interestingly, it had a right landing gear collapse upon landing in Great Falls (a different owner) approximately five years ago. I, Loren, purchased the aircraft from the salvage company and rebuilt it here in Great Falls. Perhaps this side brace had been previously damaged, etc. In any case, it appears to have failed, which allowed further failures to take place.

C. For reference, the parts you see in these photos are all here in Great Falls and are available for inspection.

3. Left Landing Gear Upper Trunnion. (See photo 2)

A. The upper trunnion may have also been the first to fail. In any case, it was split in half and it allowed the landing gear complete with strut assembly, to be pulled from the aircraft. Interestingly enough, the complete strut assembly along with the barrel, tire, brakes, etc. is in perfect shape. In short, the old strut could be reused but it would have to be installed in a new trunnion assembly where it

attaches to the left wing.

B. Again, these parts are available for inspection in Great Falls.

4. Photos of the Aircraft resting in the grass well off of Runway 7 in Shafer Meadows. (See photos 3, 4, 5, & 6)

A. These photos show the aircraft as it came to rest in Shafer Meadows. Obviously the left propeller was bent. As previously mentioned, we plan to fly the aircraft out actually in an airworthy state and we will replace the propeller.

B. The other 310 (N355SC) shown in photo 5 is the other 310 that I own. We are using it to ferry ourselves in and out to repair N455TB.

5. Trunnion assembly remained in the wing, although cracked in half. (See photo 7)

A. This photo shows the trunnion assembly still in the wing. It was easily removed and remarkably no damage or wrinkling can be seen anywhere in the wing structure where this trunnion assembly attaches.

B. In this photo we have jacked the aircraft up, hence, we are now able to inspect the trunnion assembly.

C. At this point in time, we have a new landing gear and trunnion assembly which we are going to install and get the aircraft flyable.

6. Left Wing and Aileron (See photo 8)

A. The left wing was not damaged. There is a small dent in the bottom of the aft faring on the tip tank which we will be able to easily "push out".

B. The left aileron has slight wrinkling as you can see in this photo. At this time, we have a spare aileron which we will install on the aircraft prior to flying it out.

7. Stabilizer and Elevator (See photos 9, 10, 11, & 12)

A. The following photos show the stabilizer and the elevator. The damage is minimal and, since we have rebuilt two or three of these aircraft, we have a good sense of what it will take to rebuild these pieces. It will be minimal.

B. To fly the aircraft out we are taking in a replacement stabilizer and elevator which we will install on the aircraft prior to flying it out.

C. For further reference, we are also putting on a tail cone and stinger assembly which was also damaged.

8. Additional Details

A. We plan to get everything ready to fly the aircraft out and then we are going to borrow the aileron from the "Q" Model 310; namely N355SC. We are going to fly the aileron into Shafer using Eric Torgeson's 206, install the aileron, and fly the aircraft out.

B. At this present time, the aircraft is on one jack waiting for us to put the landing gear under it. After installing the landing gear and hooking up the linkages and associated wiring, we are going to fly in two additional jacks, jack the aircraft, and do a full retraction test and rigging. We are doing this so that on departure we will be able to safely retract the landing gear and fly the aircraft back to Great Falls.

Cliff, I hope this takes care of your needs and feel free to call me if there is anything else I can supply. Thanks for all of your patience and help.

Attached are two copies out of the Cessna Parts Book that show which parts are broken. Figure 93 points to the trunnion and Figure 97 points to the side brace. Call if you have any questions.

END.

Submitted by: Samantha Link