

These photos were taken right after the incident on, December 5, 2017 by Michael Schubert. We have highlighted the skid marks made by the left main landing gear tire on the image below which indicates that the gear has not failed at this point due to the width of skid marks.



This picture shows that the runway distance marker was taken out by the left prop/nose of aircraft.

The rest of the images were taken by Al Merrill.

I took this picture December 11, 2017. At this point, you can see that they were clearly off of the center line several hundred feet from the approach end of the runway.



Fg. 3



Fg. 4

These photos were taken December 11, 2017 after the airport removed the runway light. You can see the prop mark on the shaft of the light in the photo above.



Fg. 5



These are the first prop strike marks after the runway light and prior to the runway distance marker.

Photos taken December 5, 2017.

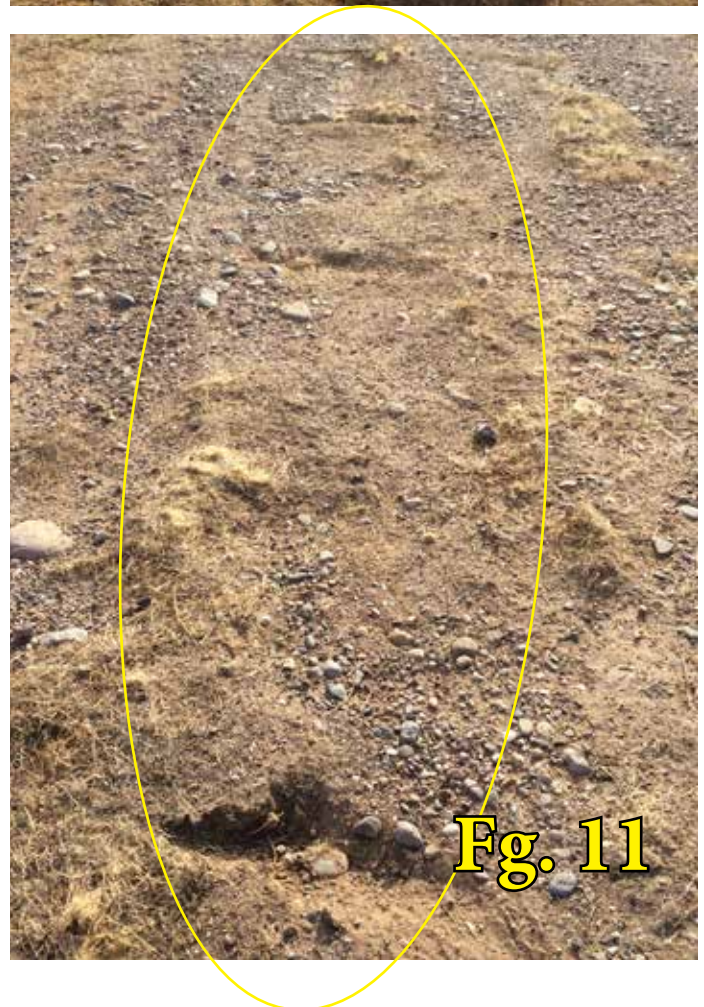


Fg. 9



Fg. 10

These pictures were taken December 11, 2017 with the new runway edge light installed. The first signs of any prop strikes between where the nose gear apparently hit the runway light and where the runway marker is.



Fg. 11



Fg. 12



Fg. 13



Fg. 14



Fg. 15



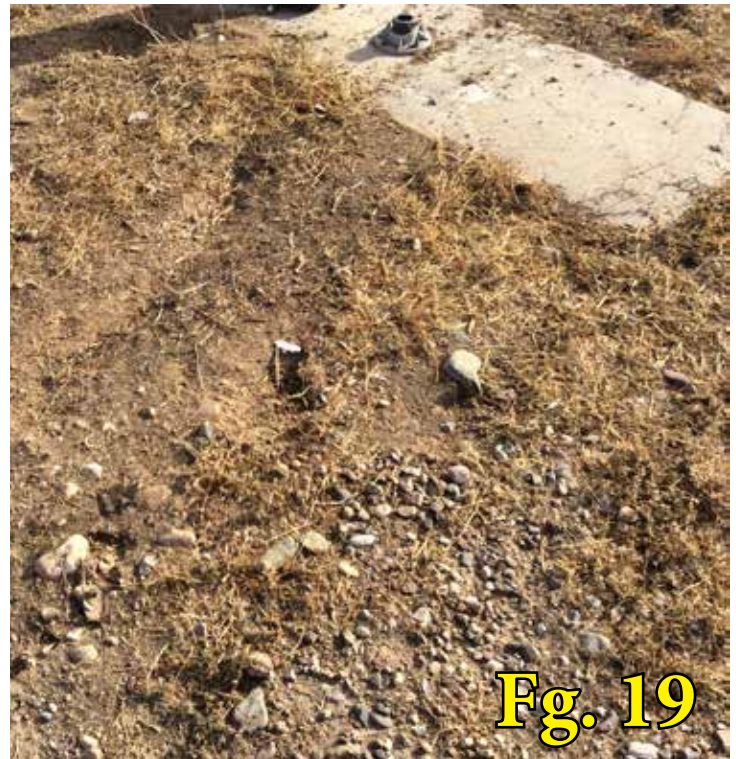
Fg. 16



Fg. 17



Fg. 18



Fg. 19

It appears that this is where the nose gear and the left main gear impacted the runway sign.

Photos were taken December 5, 2017.



Fg. 20

Nose cone damage and left wing root fairing damage apparently from the runway sign.



Prop strike damage to the runway sign which clearly shows that there was not gear failure at this point of the incident.





This is the debris from the runway sign and the horizontal stabilizer (mainly the horizontal stabilizer) so the tail of the airplane was still undamaged until it hit the runway sign.



Fig. 24

The airport crew picked up the debris from the runway sign and stabilator (in the cardboard box) which are shown in the photo above.



This photo was taken December 5, 2017 the night of the incident, looking back toward the runway sign.

You can clearly see the marks from the nose gear and the right main landing gear are the correct size of a tire. But the left side is much wider because the left landing gear is now riding completely on the side wall, after the plane hit the runway sign.



Photo taken December 11, 2017 and you can see on the right-hand side of the photo, the nose gear is the correct tire width. In the center of the photo, you can see how extremely wide the mark is from the left main landing gear because the aircraft is now riding on the sidewall of the tire. v



This photo was taken December 11, 2017, Fig. 27 is looking towards where the aircraft came to a stop and Fig. 28 is looking back toward the runway. This is the first sign of the wing and aileron bracket contacting the ground after the aircraft impacted the runway distance marker.



Fig. 29

This photo was taken December 11, 2017, showing where BOTH left wing aileron brackets are digging into the ground after the aircraft hit the runway sign.

Here is our statement for the events that occurred on the night of December 5th, 2017 to N47536, a 1977 Piper Seneca II, aircraft total time since new was approximately 1,700 hours. Our comments at the end of the statement are to bring light on what the statements and comments are from the other parties involved and from what the evidence shows in the pictures. This is supplemented with the extensive experience we have operating these specific type of aircraft in the flight training environment.

Flight Details and Commentary:

The aircraft departed as an instructional flight at approximately 1500 local with Kate Donovan as the student in the left seat and Michael Schubert as the instructor in the right seat.

Kate Donovan is a Certified Flight Instructor with Airplane Single Engine Instrument Airplane ratings

Kate was training for her Commercial Airplane, Multi Engine Land Add-on rating and had about 3-5 hours in N47536.

Michael Schubert attained his Multi Engine Instructor rating in N47536 in April 2017. He began instructing in N47536 shortly after becoming an MEI and acquired about 75 hours in the aircraft.

My first contact with Mr. Schubert regarding the accident was on December the 7th to discuss a few details of that flight.

During our conversation Michael made a specific comment that Kate arrived and flew the training flight with flip flops as her footwear.

Michael had stated that they were doing simulated one engine inoperative approach and landings on Runway 01 at Glendale Municipal Airport

On this particular approach, Michael stated they had the #2/right engine as the simulated inoperative engine.

Michael then told me that Kate moved the landing gear lever to the down position on the base leg of their approach to Runway 01.

Michael also made a specific comment at this point that when they rolled wings level on final approach they were below the PAPI glidepath with 0 degrees of flaps.

Michael had commented to Kate about flaps and she selected flaps at this point.

Michael stated the rest of the approach was on glidepath and they made a smooth landing on centerline.

At this point he said he noticed the left wing settled once they were on the ground and elected to apply takeoff power to both engines to go around.

The aircraft was then airborne and he said he noticed the left wing and nose dropped and the aircraft returned to the ground.

Concerns with flight details and commentary:

- We question why the aircraft was taken back off the ground after a smooth landing if he suspected there was something wrong with the airplane.

- On takeoff, a landing gear oleo strut will fully extend and remain in full extension until the aircraft touches back down on landing.
- The landing gear oleo struts must compress on touchdown which will cause the aircraft to settle during the landing rollout.
- The Piper Seneca aircraft are difficult to land due to an engineered forward empty CG and the limited stabilator authority on landing with flaps in the down position.
- It is common for pilots to retract flaps upon landing to increase brake effectiveness for the landing rollout.
- It is not shown, but the flaps were in the up position and only damaged where the flaps were resting on the left main tire when the aircraft came to a stop indicating either flaps were not in the down position for landing or they were retracted during the landing rollout.
- By retracting flaps upon touchdown the pilot is essentially putting the entire weight of the aircraft on the main landing gear and tires to assist in aerodynamic braking as well as wheel brake effectiveness.
- In doing this procedure this will cause the landing gear oleo struts to compress and the aircraft to settle.
- If the aircraft is at high speeds on landing rollout, the flaps have not been retracted and the weight of the aircraft has not been able to settle on the landing gear, the pilot's brake effectiveness will be limited and will cause the aircraft tire to "chirp", possibly leaving skid marks, when braking is applied. This can be seen in figure 1 and 3
- We point out that if the student still had left rudder applied when Michael applied power and the aircraft became airborne again that this would cause the aircraft to yaw to the left and the nose drop.
- If an aircraft stays on the PAPI glidepath until touchdown, the aircraft will either touchdown on or after the runway 1000' markings.
- In figure 1 and 3 you can clearly see where the tire skid marks from the left main landing gear tire begin which are well before the Runway 01 1000' markings and well left of centerline.
- This would indicate there is still no failure of any aircraft component, mainly the landing gear and the aircraft is still on the runway.
- If there was any landing gear failure at this point we would see prop strike marks in the runway asphalt like you only see well after the aircraft has departed the runway surface in Figures 6-17.
- In figure 2, you can see the aircraft has now departed the hard runway surface and the left landing gear is now in the runway infield dirt.
- It can be seen in figure 2, distinct tire marks in the dirt from the right hand main landing gear and the location where the aircraft struck a runway edge light and the runway distance marker with the left prop/nose of the aircraft.
- There is still no indication of aircraft component failure.
- From this point forward, the aircraft is no longer on the hard runway surface, it is now on unimproved, uneven surface.

- Figure 4 is the first indication that the prop struck the runway edge light.
- Figure 9-11 shows that due to the uneven surface and slope of the runway infield, the propeller has now begun to strike the ground but still no indication of aircraft component failure.
- The first and only indication that the left main landing gear has failed is after the aircraft struck the runway distance marker. See figure 25 and 26.
- The aircraft had to be traveling at a very high speed to land, veer off the runway, contact the runway distance marker, collapse the left main landing gear and then travel across the entire runway infield.

