



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Safety

Flight Standards District Office
[REDACTED]
Allentown, Pennsylvania 18109
[REDACTED]

July 23, 2020

Subject: N4092D Accident Synopsis – Airworthiness

To Whom It May Concern:

On the morning of July 21, I was assigned to the investigation of the occurrence involving Cessna 182A, registration N4092D landing on Highway 422 in Exeter, PA, and was provided contact information for Lieutenant Steve Schaeffer of the Exeter Township Police Department. I contacted Lt. Schaeffer, who provided me with the police report and contact information for Raymond Sany, identified as the co-pilot who made the initial call from the accident scene on July 20.

I contacted Mr. Sany to retrieve contact information for Mr. Travis Robbins, who was identified as the pilot in the Exeter Township Police Report. Mr. Sany identified himself as PIC, and stated that Mr. Robbins was being “checked out”, and from the time the occurrence began, Mr. Robbins was only working the radios and communicating with ATC.

I requested to set-up a time to interview Mr. Sany with Operations Inspector Johnny Williams, and we scheduled for 1500 local on that day.

At 1500, Inspector Williams and I contacted Mr. Sany, who now had council present. Inspector Williams carried-out most of the interview while I took notes and asked a few questions. Mr. Sany described the day’s trip to Portsmouth and back, explaining that he left Portsmouth with 55 gallons of fuel and, flying direct to Smoketown Airport (N37), began to experience a gradual, continuous loss of engine power, accompanied by an RPM and manifold pressure drop, at 22.1 miles from Smoketown. Mr. Sany described how he richened the mixture thinking he had leaned the engine excessively and turned on the carburetor heat to ensure there was no accumulation of carburetor ice, yet the power loss continued. Declaring an IFE, he descended from 4500 to 3700 ft. in one minute and determined he would not be able to make any field, so decided to land on Highway 422. He stated the engine would only achieve 1200 RPM at touchdown. When asked how long the “gradual” power loss happened, he stated it began 5-10 minutes before touchdown. When asked if there were any accompanying gauge anomalies, he stated none. When asked about fuel quantity indication, he stated it was normal.

On the morning of July 22, I arrived at Smoketown Airport, where the aircraft had been transported and is being stored. I found the aircraft with the wings removed as it was required for ground transport. Due to this, there was no ability to check the remaining fuel quantity. As

the aircraft is operated for a skydiving operation, the owner and "Chief Pilot" were there to support. Chief Pilot, Jeff Ethridge stated that he was on-site during wing removal and that 5-6 total gallons of fuel was removed from the left wing, while the right wing was empty. I asked to interview Mr. Kendall Horst, the A&P who removed the wings. During interview, Mr. Horst stated that he estimated 4-5 gallons were removed from the left wing, and the right was dry. Both airmen have supplied written statements similar to this. A visual inspection of the wings revealed fuel dampening on the left wing feed hose; however, the right wing hose was dry with no dampening.

Further investigation revealed visible wing damage primarily contained to both outboard leading edges and tip caps, with minor denting of the leading edge farther inboard. Damage was also noted on the left horizontal stabilizer leading edge; however, no wing or stab. spars were visibly damaged. No primary flight controls appeared to be damaged. Fuselage damage was found surrounding the left cabin door and main landing gear box area, with deformed skin from the left side of the wing carry-through around to the belly to the right main landing gear box area. This includes deformation of the left cabin floor and supporting structure. The left cabin door was not installed, the lower hinge broken, and aft lower corner deformed, suggesting fuselage deformation in that area. The fuselage attachment for the left wing strut had been cut due to not being able to remove the bolt, and the wing end attachment bolt threads had gouged the fitting during removal, suggesting it was removed under strain.

Due to the wings being previously removed, the fuel selector was found in the "BOTH OFF" position. The fuel strainer was found full and clean, with fuel consistent with 100LL, and containing no water. The oil filter was removed, cut open, and inspected for metallic particles with none noted. The oil level was correct and no discrepancies were noted with the condition. The air filter was removed and found to be serviceable, and the carburetor throat was clear of obstructions. The throttle, mixture control, and carburetor heat controls were checked for continuity with no discrepancies noted. The spark plugs were removed and both magnetos checked for operation with no discrepancies noted. A field compression check of all 6 cylinders was accomplished (using my thumb), and all cylinders appear to have good compression. The on-site mechanic assembled a 1-quart fuel can and attached it to the right wing fuel pick-up for engine runs. Engine runs were accomplished twice, with the second run going to power at 2400+rpm, and no anomalies. All indications were found to be normal.

A review of the aircraft, engine and propeller logbooks reveals no maintenance issues, and all inspections are up-to-date. The last annual inspection was accomplished on July 16, 2020.

Sincerely,

Gary L. Brown
Aviation Safety
Principal Maintenance Inspector

From: Kendall Horst [REDACTED]
Sent: Thursday, July 23, 2020 9:56 AM
To: Brown, Gary L (FAA) [REDACTED]
Cc: Jeff Ethriedge [REDACTED]
Subject: Re: Fwd: N4092D fuel receipts

Hello Gary,

I would be happy to put into writing what I witnessed on the night of July 20, 2020.

When we arrived at the scene the airplane had been pushed off the road and was in a nose low, tail high attitude due to the unlevel ground. We started the disassembly work almost immediately. My first order of business was to determine the amount of fuel remaining in the aircraft.

The right wing was completely dry and the left wing was measuring on my dip test about 1/2. We removed the right wing fuel hose and did not even receive a drop of fuel from the port. On the left wing I pulled the sump and was able to drain what I guessed to be about 3-4 gallons of Avgas. We used a large Tupperware storage tube so therefor I was not able to measure it accurately because of this. When we pulled the wing I would guess we lost an additional gallon.

Apparently it is common to use right rudder trim in jump planes and this could explain why the fuel had sloshed to the left wing.

The older Cessna aircraft have only 1 fuel port per fuel tank, and thus have much more unusable fuel then later models do. Descending from altitude makes this situation worse, because the fuel pick up is fairly far aft in the tank. My observation would be that the pilot failed to understand this information. Additionally if the pilot did not properly trim the rudder in cruise flight, an out of trim aircraft could have exasperated this situation, by sloshing remaining fuel to the outboard of the left tank,

Sincerely,

Kendall Horst
- Owner, A&P/IA
Lancaster Aero
Web: [REDACTED]
phone: [REDACTED]

From: Jeff Ethridge [REDACTED]
Sent: Thursday, July 23, 2020 11:05 AM
To: Brown, Gary L (FAA) [REDACTED]
Cc: George Grove III [REDACTED]; Kendall Horst [REDACTED]; August Haeuser [REDACTED] >
Subject: Jeff Ethridge written statment

Gary here is my statement regarding what I witnessed during the incident involving N4092D.

Around 21:30 local I received a call from Ray Sunny. He was distraught and yelling that I need to go to route 422 and Daniel Boone intersection that he had experienced an engine failure and made an emergency landing on the highway. I called the aircraft owner George Grove and we coordinated our response, including Kendall Horst the aircraft Maintenance provider. I also spoke with August Haeuser as he lives in that vicinity and could respond within 10 min. August is also a pilot that operates 4092D, and is a key individual in the operation of the aircraft.

I asked August, when he arrived to please dip the tanks. He did so and with the aircraft still located on level ground found that no fuel showed on the dip stick in the right tank and 3/4 of an inch in the left tank. 1 inch of dipstick equals approximately 6 gallons of fuel. It's estimated that 4 gallons remained in the left tank.

I aided Kendall Horst with the removal of the aircraft wings. I was at the wing root when we pulled the right wing free from the Fuselage and witnessed no fuel from the right wing port. We then removed the left wing, I again was located at the wing root and witnessed approximately 2-3 gallons that drained from the left wing sump when removed. We then proceeded to pull the left wing from the fuselage, roughly a gallon of fuel spilled from the wing port.

Attached is a picture of the POH page (located in the cabin of the aircraft) regarding usable fuel in level flight showing the large amount of unusable fuel when the aircraft is not in level flight. This subject was discussed with Mr Sunny during his training as a jump pilot.

Fuel receipts from KPSM shows Travis Robbins filling out the fuel form requesting 10 Gallons of fuel per tank. When I asked Mr Sunny if he dipped the tanks after getting fueled he said he didn't remember. He was simply estimating the amount of fuel remaining based on the length of flight time inbound to KPSM. He had incorrectly stated that the aircraft has 60 gallons of usable fuel when in fact only 55 gallons are available in all flight attitudes and was thinking he had a lot more fuel than he actually had.

Ray admitted to me that he messed up and should have topped off the tanks. Mr Sunny also stated to me that the engine was surging while in a nose low attitude, but was not developing enough power to make it to the nearest airport.

Figure 1) is mounted on the engine instrument cluster on the right side of the instrument panel. A green arc on the gage dial indicates the normal operating range of oil temperatures. Refer to Section IV for instrument markings.

OIL PRESSURE GAGE.

An oil pressure gage (12, figure 1) is mounted within the engine instrument cluster on the right side of the instrument panel. The gage is calibrated in pounds per square inch. Refer to Section IV for instrument markings.

AIR INDUCTION SYSTEM.

Air is ducted to the carburetor from an air scoop located on the bottom of the engine cowl. Dirt and other foreign matter is filtered from the incom-

mended. Refer to the servicing instructions stamped on the carburetor air filter for the servicing procedure to be used.

FUEL SYSTEM.

Fuel is supplied to the engine from two rubberized, bladder-type fuel cells, one located in each wing. From these tanks, fuel is gravity-fed through a fuel selector valve and fuel strainer to the engine carburetor.

FUEL SPECIFICATION AND GRADE.

Aviation grade fuel should always be used except under emergency conditions. The recommended fuel is 80 octane minimum rating. Highly leaded fuels are not recommended.

FUEL QUANTITY DATA (U. S. GALLONS).

TANKS	NO	USABLE FUEL ALL FLIGHT CONDITIONS	ADDITIONAL USABLE FUEL FOR LEVEL FLIGHT ONLY	UNUSABLE FUEL	TOTAL FUEL VOLUME EACH
LEFT WING	1	27.5 gal.	3.5 gal.	1.5 gal.	32.5
RIGHT WING	1	27.5 gal.	3.5 gal.	1.5 gal.	32.5



MEMORANDUM FOR RECORD

Todd Gunther
Air Safety Investigator
Eastern Region

Date: July 24, 2020
Subject: Information Obtained from Raymond Sany (Pilot)
NTSB Case Number: ERA20LA258

According to Mr. Sany they were at 4,500 feet and approaching the Harrisburg, Pennsylvania area, when the engine began to "sputter". The power had been set at 22" of manifold pressure and 2,300 rpm, then it "spiked" to 2,600 rpm, and then dropped back down to 2,300 rpm. He tried to "troubleshoot" using the mixture control, but the rpm and manifold pressure continued dropping. Applying carburetor heat had no effect. When this occurred, the pilot-rated passenger declared an emergency with Harrisburg tower.

Mr. Sany recalled avoiding powerlines and saw a lighted area and "set down" on a road. The airplane then struck a car, hitting the right side of the vehicle.

He did not recall any other part of the flight that engine roughness occurred.

He stated that: "I thought it was carburetor ice" and to "Look at the JPI Data."



MEMORANDUM FOR RECORD

Todd Gunther
Air Safety Investigator
Eastern Region

Date: July 24, 2020
Subject: Information Obtained from Jeff Ethriedge (Chief Pilot-Skydive Lancaster)
NTSB Case Number: ERA20LA258

According to Mr. Ethriedge, skydive Lancaster was trying to help them out by allowing Mr. Sany and Mr. Robbins, opportunities to fly the airplane.

Mr. Sany had come to them wanting to fly "Jumpers" (Sky divers). The requirement to do so was that the pilot had to have 25 hours in type, and 25 jump runs.

Mr. Robbins wanted to fly jumpers also and needed to build flight time.

Mr. Sany observed Mr. Ethriedge for 10 jump runs, then Mr. Ethriedge observed Mr. Sany during 2-days of flying.

Skydive Lancaster came to an agreement with them that after they were checked out to fly sky divers, they would fly for Skydive Lancaster for 85 hours.

Regarding the accident flight, Mr. Ethriedge advised that as far as he knew, Mr. Sany and Mr. Robbins, had topped off at Smoketown Airport before departing. They purchased about 7-gallons of fuel at Brandywine Regional Airport. He further advised that you have about 7-gallons of unusable fuel in the airplane unless you are in level flight. He advised that after the accident, Mr. Sany could not tell him if he had dipped the tanks.

From: John Kassab [REDACTED]
Sent: Tuesday, July 28, 2020 10:37 AM
To: Gunther Todd [REDACTED]
Subject: N409D fueling

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Dear Todd,

Upon hearing of the accident of N409D we did the following test of our avgas 100LL fueling truck. The tests were done on 7/21/20

-sumped the tank and filter which we check daily anyway, no water found, clear and bright, no contamination

-API test, was in compliance

-retained a 5 gallon sample of fuel

Please do not hesitate to contact me at anytime if I can assist.

Sincerely,

John S. Kassab
Manager, Brandywine Regional Airport
Serving the community for over 75 years
Airport [REDACTED]
Cell [REDACTED]

RECEIVED 7/28/20

Date of the accident: July 20, 2020

Background:

Ray Sunny contacted me several times over the preceding months inquiring about an opportunity to fly skydivers for SkyDive Lancaster. I invited him to our operation to observe and see if it is something that would interest him. I met with Ray and after a lengthy discussion regarding skydive operations, he was very eager to learn and help out. So I had him observe me for approximately 8-10 jump runs. In a 182 it is difficult to train a jump pilot because there is only 1 pilot seat. This requires the applicant to wear a parachute and sit on the floor behind the pilot for take off and landing but kneel behind the pilot observing the operation. When the time comes to have the applicant demonstrate ability, I have to then sit behind him and observe. Ray was extra cautious for his training. He requested extra time to make sure he was doing everything properly. We flew additional jump runs to fulfill the 25 required for insurance purposes. Ray completed training and began flying skydivers. He quickly found out that it's a demanding and tiring job. He suggested to me that he had a friend that would also like to fly skydivers. So he introduced me to Travis Robbins. Travis as well was very eager to fly for us but he was short on 182 time that insurance required. This put us in a situation where we needed to build time before I could start training him.

I created an opportunity for both Ray and Travis to build time at a cost effective rate. Myself and George Grove (aircraft owner) came to an agreement that they would take the aircraft on a trip to build time. It was agreed that they would pay for their fuel and we would allow them to fly off the operating expense of the aircraft. When you worked for us for an equal amount of time that they flew the airplane we would then be even and begin paying them for flying skydivers. Ray and Travis decided that they would split this monetary value.

I asked Ray and Travis to keep me in the loop with their trip. I also was following them on FlightAware from the time they departed S37 (smoketown airport). Travis and Ray asked if they could take a friend with them and I said that's fine. They topped the aircraft fuel tanks at S37 and departed for Brandywine airport OQN. I later found out that they topped the aircraft off again and took 7 gallons of fuel. That flight appears on FlightAware as a 20min duration.

The next leg was from OQN to KPSM. This flight took approximately 2:02. I had a brief conversation with Ray while they were in PSM. They departed PSM around 1900 local. I had been checking on their progress through the evening. Around 2115 I saw that they were about 15 min from S37 so I had just started to go to bed. At about 2130, I received a phone call from Ray. He was very distraught and yelling into the phone that I needed to get to the intersection of 422 and Daniel Boone. That they had an engine failure and landed on the highway.

At this point I contacted George Grove (owner) and Kendall Horst (Maintenance shop). We coordinated with local authorities as to when we could remove the aircraft from the road. I spoke with August Hauser as he lives within 10 min of the site. I asked him to get there quickly and dip the tanks to see how much fuel was on board. With the aircraft level he found no fuel in the right tank and 3/4 of an inch in the left tank. 1 inch of fuel equals 6 gallons.

Upon arriving I worked under Kendall at removing the wings. I was located at the wing root when both wings were taken off the fuselage... I witnessed no fuel spilling from the wing port when the right wing was taken off. Knowing there was some fuel in the left wing, we removed the fuel sump and I witnessed roughly 4 gallons draining from the sump into a basin container that we had to catch fuel.

When I talked to the pilots they both told me that they requested 10 gallons per side in PSM. When I asked them if they dipped the tanks Ray said, "I don't remember". When I asked him

how much fuel he had when he left PSM, he gave me estimates based on the fuel used on the JPI engine monitor. When I asked why he didn't top off the tanks he began to tell me how expensive fuel was in PSM. But moments later told me he made the wrong decision and should have topped the tanks. Ray mentioned that the engine was surging and he thought it was carb ice. However activating the carb heat did nothing and probably made the engine run worse. The surging is a characteristic of the fuel starvation as the fuel is being unported and then recovered as the fuel sloshes around in the tank. Had the pilot pitched the aircraft up to level flight the engine would have had enough fuel to get over the nearest airport about 7 miles away.

The older model skylines have a limitation in the POH that states 7 Gallons of fuel are unusable when the aircraft is not in level flight. This is in addition to the 3 gallons that are always unusable. This fact was discussed with Ray during his training to be a skydiver pilot.

I have flown this aircraft for roughly 200-230 hours. I know that the fuel gauges are accurate to some degree. I know that the JPI Fuel flow reads lower than what its actually pulling. This is due to a calibration issue. As a pilot of this aircraft I always dip the tanks. I never rely on any airplane fuel totalizer as a means of knowing how much fuel I have on board.

If there are any questions, I would be happy to answer them.

Jeff Ethriedge

Travis Robbins

7/31/20

On 7/20/20 I operated parts of an FAR Part 91 flight from KOQN to KPSM, and from KPSM to S37, in aircraft registration number N4092D. The purpose of the flight was to gain flight time and experience in the Cessna 182 pursuant to the request of Skydive Lancaster in order to operate the aircraft for its business upon completion of the necessary training. The pilot in command of for the subject training flight was Ray Sunny ("PIC").

Weather reports that were obtained prior to the flight forecasted VFR conditions the entire route through the day. Upon the preflight inspection we found nothing wrong or unusual about the aircraft. The PIC appeared to be in good condition to conduct the flight. I did not notice any factors or conditions that would have suggested that the aircraft was unsafe for flight

We did not experience any issues on the first leg of the flight from KOQN to KPSM. The incident occurred on the return flight from KPSM to S37. At the start of the incident, I noticed the engine begin to surge and a loss of power followed. At this time, I immediately handed the controls of the aircraft back to the PIC (which the PIC audibly confirmed), declared an emergency, and completed the appropriate checklists. When we noticed we were not in gliding distance of any airport we found a suitable road to land on. The PIC maneuvered the aircraft appropriately to avoid any obstacles and set the aircraft on a proper approach path

for the highway we chose. Upon landing, we maintained directional control of the aircraft, secured the plane, and exited. I did not sustain any injuries. To my knowledge, the PIC did not sustain any injuries, nor did any other third parties.

Gunther Todd

From: August Haeuser [REDACTED]
Sent: Thursday, August 6, 2020 8:20 PM
To: Gunther Todd
Subject: N4092D (August Haeuser & Kelli Wilson) Statements

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Hi Todd,

I apologize I did not get these to you sooner.

Written Statement of Kelli Wilson from July 20, 2020

When we arrived on scene, August and I immediately went up to Travis, because Ray was on the phone. I don't remember everything that was said between the three of us, but Travis did say that there was an engine failure and that he couldn't make it to either Reading airport or Pottstown (he had stated that he couldn't remember the name, but mentioned "N something"; N47 is Pottstown airport.) August had asked one of the boys about fuel and they said they got 20 gallons of fuel in Rhode Island. Almost immediately, August took the wooden dipstick out of the plane and reached up to check the fuel on both wings. He said "three quarters of an inch in the left wing" and then "the right wing is empty". Immediately, Ray put his hands on his face and head and appeared very upset. Ray was on the phone stating over and over how it didn't make sense that they ran out of fuel. Immediately, the officers were asking if anyone was in touch with the FAA. I interrupted Ray and asked if he was speaking with the FAA, but he said he was on the phone with his lawyer but was given the phone number for the FAA by his lawyer. He gave me the number. August was in touch with Philly approach and was gathering information from them. August was given contact information for the FAA from Philly approach, as well. August then was on the phone with the FAA with a police officer present. In the meantime, Travis had stepped away from the road and was on the phone. Throughout the time the plane was on the road, Ray and Travis were mostly on the phone.

The rest of the time while the police officers and fire police were there, August was on the phone with the FAA dealing with removal of the airplane from the road because the police were putting pressure on us to remove it so they could reopen the highway. I was measuring the wheelbase to see the width in order to call a tow company. At one point, I went to all three of the individuals who were in the plane and asked them to please not speak to the media, because I noticed that the female who was in the plane was talking to the fire police telling them what had happened. I heard her say "engine failure" and there was a news reporter behind her. This is the point I went up to everyone to ask them to not speak to the media. They all agreed. I did not see either Travis or Ray speak to the media. They asked August for a statement and he declined..

Once we removed the plane off the road and everything calmed down, Ray was on the phone. I'm not sure what Travis was doing. After a bit of time, I walked over to see if anyone needed any food or water and that I'd go to Wawa. I sat down with Travis and his friend who came to pick him up. I asked how he was doing and Travis stated that he wanted to leave but he wasn't sure if he should stay and wait until George Grove and Jeff Ethriedge got there. I said that he should probably wait for them to arrive. He said more things along the lines of (not exact wording) I know they are probably furious at me and might freak out at me and that just want to be prepared. I informed him that George Grove and Jeff Ethriedge are both wonderful people and are 100% probably very angry but they will not yell at him and probably won't get too involved with a conversation tonight as there was a lot to deal with. I just told him that people make mistakes and this was a big mistake to make. I told him to just be honest and relaxed in his conversation with them when that happens. He said he would be honest and that he did everything correctly and had no regrets and was confident in the decisions he made and that it was an engine failure. I then spoke with Ray and had a similar conversation, however Ray stated he

had no plans to leave and would never think to leave before they arrived. Ray told me that they both decided to take controls and land the plane together. Ray appeared very upset and concerned. He was pacing constantly, sighing, being comforted by his girlfriend, and shaking his head. To be honest, I cannot state whether Ray did or did not say it was an engine failure, but as I stated earlier, he did mention over and over that it did not make sense that they ran out of fuel.

Once we all started to dismantle the airplane, Ray's girlfriend came over to talk to Heather Ethriedge and myself. Heather asked "How did the door get off the plane?". Ray's girlfriend said something along the lines of when they landed, Travis must have pushed it (overextended it) and broke it off and that Travis told her to get out of the plane first...that he moved his seat forward or leaned forward so that she could get out first.

Written Statement of August Haeuser from July 20, 2020

At 9:51PM EST, Jeff Ethriedge called me and notified me of the incident. Being that I live in Pottstown, I asked if it would be helpful if I went down to the scene. Jeff said that he thought it would be helpful if I could. My wife and I drove down to the scene and arrived a little after 10:03PM EST. As we walked up to the plane, the first person I came in contact with was Travis. He recognized me from being at Smoketown airport over the weekend. I asked Travis what happened. I don't remember exactly everything he said, but I remember him vividly saying that the engine started running rough after pitching down and starting his descent into Smoketown. That immediately made me think fuel exhaustion knowing that I fly that plane regularly and that the older Cessna's fuel pick up is toward the back of the wing. I was also warned of this by Jeff previously as an issue that these Cessna's have. After that, I dipped the tanks. I dipped the left wing first and verbally stated that there was $\frac{3}{4}$ of one inch on the dipstick. I went to the right wing and dipped it and stated that it was dry. I did not see the reaction of Travis or Ray when I stated this, as I was on the opposite side of the plane. Ray was on his phone with his lawyer for a while once we got there. I know this, because he told me when I asked. After that, I spent the rest of the time getting in touch with the FAA and coordinating between the police and FAA to get the plane off of the road. I did not speak with either for the rest of the night.

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Thank you,
August