



MEMORANDUM FOR RECORD

Pilot-Rated Student Statement

Lynn Spencer
Air Safety Investigator
Eastern Region Aviation

Date: February 19, 2021
Person Contacted: Dr. Tim Coty (Pilot-rated student)
Contact # [REDACTED]
NTSB Accident Number: ERA21LA132

Narrative:

The following is a summary of a conversation that occurred with the individual named above:

Dr. Coty was contacted by phone on February 19, 2021. He was called at [REDACTED]. He confirmed an e-mail address of [REDACTED].

- Dr. Coty stated that his flight instructor was 7 months pregnant; he was getting ready for his CFI checkride which was scheduled for tomorrow, but which has been cancelled.
- He stated that the preflight inspection was unremarkable except for water sumped from the belly drain. He indicated that he had experienced this issue previously and had replaced gaskets on the fuel caps. He had rocked the wings prior to taking the fuel samples.
- After he drained "about half a tube" of water from belly there was pure fuel.
- He also noted that when he sumped the right wing tank, "there was only a dribble of fuel in right wing and so it took longer to get fuel and it was fuel."
- I inquired about the fuel tank vents on his airplane and he stated that there is a tank vent on one side and a vented cap on the other, but he could not recall which was on which side.
- He stated that they flew to the practice area for about 90 minutes, and when he executed a left chandelle maneuver, the engine sputtered.
- He applied carburetor heat and since they were only 10 miles from 2W5, they requested clearance to enter the Class Bravo airspace and climbed from 2500 to 4000 ft MSL.
- They decided to land on RWY20. The airport had a left traffic pattern; however, since there was no one in the pattern he descended over the airport in right turns until he arrived on a right downwind.
- He stated that upon arriving on the right downwind, they were too high, and his instructor took the controls to perform a right-wing-low "aggressive slip."
- They did not use flaps.
- By mid-field, the airplane was indicating 100 knots and he suggested a go-around maneuver. She agreed, pushed the throttle full forward, and pushed in the carburetor heat.
- He stated that the airplane climbed to 400 feet then the engine stopped producing power.

- He pulled carburetor heat as a last ditch effort; however, power was not restored.
- They made the decision to go straight ahead into the tree canopy, making sure to maintain airspeed at 70-80 KIAS.
- The treetops slowed them down and then they descended nose-first and crashed through branches as they approached the ground.
- He received small cuts and bruises and Katrina was admitted to the hospital for observation since she was 7 months pregnant.

On February 22 and 23, I followed up to this conversation with questions for Dr. Coty, to which he responded via email:

Q: When you refer to the belly drain, are you referring to the fuel strainer drain at the engine?

A: Exactly, the small metal tube underneath the engine which, when one pulls the black knob in the engine compartment, will drain any water from the lowest segment of the fuel system.

Q: How long after you rocked the wings did you sump the fuel?

A: About 30 seconds, then drained from both sumps and the belly.

Q: When did you last fuel your airplane before this flight?

A: Immediately before the flight, there at KVKX. There is a system there for unique member cards and David Wartofsky can validate that I bought about 10 gallons which filled it from the previous flight.

Q: Could you tell me when you had the fuel cap seals replaced?

A: The log entries are turned over to FAA already. I can't give you the exact dates, and in truth I did look but couldn't find that particular log entry in the book. You might find it. However, I do know that those gaskets were replaced (I inspected the gaskets and saw they were new) and I was invoiced for the work and I already did pay for the work. There will be records for all of that if it comes down to it. It is possible that Tim Poole, my A/P printed out a sticky label and I misplaced it, or possible that I overlooked the entry on my last examination.

Q: When you noted that the right wing sump did not drain as freely as the left, was this a new issue, or was this normal for your airplane?

A: It has happened before in the past few months on cold days. Fuel dribbled, rather than streamed out of the right wing sump, when the probe was inserted. It also seemed the probe could not be as fully inserted into the sump drainage valve. However, fuel did not continue to dribble after the sump was withdrawn, so I had no worries about losing fuel enroute. I had presumed the sump valve was mechanically dysfunctional on its own but in retrospect, do wonder if ice obstructed valve operation and fuel flow, rather than innate mechanical obstruction.

Q: Did the 10 gallons go equally into both tanks or do you know how many gallons each tank received?

A: Honestly, I do not remember how much went in each one. But I do remember that it is always my custom to fill both tanks, and I did that.

Q: Before the accident flight, how many days had the airplane been on the ramp with less than full tanks since you last flew?

A: I flew in the 150 on 2/6 2.3hrs and on 2/10 1.7hrs then didn't fly again until the crash date.

Q: When you briefed your instructor on your preflight inspection, did you happen to mention the behavior of the right wing sump in addition to the water found in the belly sump?

A: I believe I did mention it on the ground. When the engine "hiccupped", the first sign of engine malfunction 10 miles out from 2W5, she immediately brought it up as a potential reason and I agreed it was possible. We also agreed that carb icing was also possible, she pulled the carb heat and as noted previously, I detected a subtle improvement in a subtle engine roughness. Post hiccup and before the go around, if engine performance was limited that limitation was subtle. For example, we were able to climb 1500'.

Q: Can you also tell me exactly when your instructor took over the controls to fly the airplane?

A: She took over on right downwind into Rwy 20 just before reaching the numbers. We didn't do the formal my controls/your controls/my controls, but we talked about her taking it into the slip and there was never any confusion that it was "her plane". The slip was aggressive and begun coincident with the 180 turn and the desired rapid loss of altitude, but in retrospect was likely initiated too early, as evidenced by the high speed at midfield. Again, flaps were not deployed.

RECORD OF ☐ VISIT ☐ CONFERENCE OR ☒ TELEPHONE CALL		TIME 0945L	DATE 02/18/2021
NAME (S) OF PERSON (S) CONTACTED OR IN CONFERENCE AND LOCATION		ROUTING	
		SYMBOL	INITIALS
Dr. Timothy Cote, Commercial Pilot [REDACTED] pilot receiving instruction			
[REDACTED]			
SUBJECT Aircraft Accident - N8428J			
38 Minute Phone Interview			
DIGEST			
Dr. Cote stated that he was conducting a training flight on 2/17/21 with the intent of preparing for his initial CFI checkride that was scheduled for 2/20/21. His flight instructor was Ms. Katrina Emery, who he had been flying with for some time. Dr. Cote conducted the preflight inspection at the Potomac Airfield (KVKX) where he kept his C-150, N8428J, tied down. The preflight inspection was unremarkable with no mechanical abnormalities noted. Fuel was drained from all 3 sumps and there was water drained from the belly sump. There was no water observed in the wing sumps but Dr. Cote stated that the right tank did not "flow as freely" as the left. Additionally, prior to sumping the wing tanks, Dr. Cote stated that he rocked the wings in an attempt to free any water that might have been trapped in the fuel bladders. Dr. Cote also stated that the aircraft had a history of having water in the right tank and that his mechanic had replaced the fuel cap seals a few months prior to the accident flight. The flight went as planned for the first "hour or hour and a half" and then, while performing a chandell, the engine "hiccuped" momentarily and then began to run again. The carb heat was applied but did not have much of an effect on the engine operation but was left on and the engine continued to produce power. They were approximately 10 miles away from the Maryland Airport (2W5) so a decision was made to proceed directly there for landing. The pilot requested a Class B clearance from Potomac Approach to be able to gain altitude during the transit to 2W5. An emergency was not declared. Upon arriving in the vicinity of the 2W5 airport, the aircraft was approximately 4,000 feet and the engine was running normally. The flight instructor took the flight controls and continued to fly the airplane for the rest of the flight. Dr. Cote stated that they were on a very high right downwind and they had to circle "a few times" to lose altitude to get the airplane in a position to land. Starting at a point abeam the numbers for Runway 20, the flight instructor put the plane into an "aggressive" slip to lose altitude and turned towards the runway. During the slip, the engine was still creating power, approximately			
CONCLUSION, ACTION TAKEN, OR REQUIRED			
DATE 2/19/2021	TITLE Spencer Watson, ASI, GA Ops	SIGNATURE  Digitally signed by Spencer Reed Watson Date: 2021.02.19 10:57:19 -05'00'	

1400 RPM, and the throttle lever was not fully retarded in an effort to ensure it did not quit. The approach was very fast and when the airplane was approximately half way down the runway, approximately 10-20 feet above the ground, airspeed indicating approximately 100 MPH, a decision was made to go-around. The throttle, mixture and carb heat levers were all pushed "full forward" during the go around procedure and upon reaching 300-400 feet, the engine went silent. There was no time to run any type of checklist or conduct troubleshooting due to the altitude of the aircraft and both pilots agreed that they were going to crash into the trees. The wings were kept level and the airspeed was maintained so that the aircraft wouldn't stall. The airplane flew into the trees and several significant impact shocks were felt until the airplane came to rest on the ground. The left door was jammed closed so both pilots egressed using the right door.

I advised Dr. Cote that I would be sending him an e-mail to request information concerning his flight times and aircraft logbooks.

RECORD OF ☐ VISIT ☐ CONFERENCE OR ☒ TELEPHONE CALL		TIME 1355L	DATE 02/18/2021
NAME (S) OF PERSON (S) CONTACTED OR IN CONFERENCE AND LOCATION		ROUTING	
		SYMBOL	INITIALS
Ms. Katrina Emery, Commercial Pilot # [REDACTED] Flight Instructor/Pilot-in-Command			
[REDACTED]			
SUBJECT Aircraft Accident - N8428J			
27 Minute Phone Interview			
DIGEST			
Ms. Emery stated that she was acting as a flight instructor giving her pilot rated student, Dr. Timothy Cote, instruction in preparation of his upcoming flight instructor checkride. Ms. Emery stated that when she arrived at the Potomac Airfield (KVKX), her student had already completed a preflight inspection of the aircraft, N8428J. Her student told her that he did drain some water that he extracted from the belly sump but that he was able to clear it to the point that he was getting pure fuel. Ms. Emery stated that this was not concerning because she had experienced this issue before and that she hadn't had any issues if the water was fully drained. She stated that she did not personally re-sump any of the fuel drains but that she did do a walk around inspection of the airplane that included inspecting the control surfaces and checking the engine oil level. She also stated that she did not visually check the fuel level in the tanks because it was difficult for her to physically climb up on the wing. Ms. Emery stated that the flight proceeded normally until the engine "stuttered" while the student was performing a left hand chandelle maneuver. After the stutter, carb heat was applied which gave some improvement but the engine still ran a bit "rough." She stated that carb heat remained on for the remainder of the flight. After considering the engine concerns, she opted to proceed to the Maryland Airport (2W5). They were able to climb to a higher altitude during their transit to 2W5 and ended up being in a "high downwind" to Runway 20. She prompted her student, who was flying the plane, that she observed them to be high and that he should take that into consideration during his approach. The base turn was made "a little earlier than normal" and a forward slip was used on final to help lose altitude - wing flaps were not used because their airspeed was "above the white arc." During the attempted landing, they determined that they were too fast to land and a go-around was initiated by increasing throttle. Ms. Emery was unable to recall the position of the carb heat lever at this point but, the engine stopped producing power at approximately 400'. The propeller windmilled for a few seconds			
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and then stopped entirely. Both pilots confirmed with each other that they were going to make a forced landing into the trees and care was taken to prevent the airspeed from decaying to the point of inducing a stall. The aircraft then crashed into the trees. Although she didn't feel injured, she spent the night in the hospital for observation.

I advised Ms. Emery that since she was the flight instructor, she was the pilot in command and responsible for the conduct of the flight. She stated that she only "touched the flight controls briefly" while they were practicing airwork and that her student manipulated the controls for the entire time after the engine issue. I told her that I would be sending her an e-mail to request information concerning her flight times. She asked about the possibility of a 44709 reexamination and I told her that the investigation was still ongoing and that no actions had been determined and she was still able to exercise the privileges of her pilot certificates.