



Memorandum For Record

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NTSB Accident Number: ERA22LA420

As part of the investigation, the pilot responded by e-mail with answers to questions that were asked either by the Federal Aviation Administration or the National Transportation Safety Board. The questions and answers are provided below with the dates and times of each e-mail.

On October 12, 2022, at 1853 EDT, the pilot provided the following:

“Good evening Monville Here is report that I sent to Pauline at first time.

This is to report an aircraft accident occurred yesterday morning which I was the pilot-in-command. Aircraft was damaged during an emergency landing off airport near Keystone height airport (42J). The flight is FAA part 91 flight in VFR conditions.

In the morning of September 15, 2022, I took off from Crystal River airport (KCGC) around 7:20am after a through pre-flight, the weather was clear, wind calm, aircraft run up was satisfactory. The temperature was a little lower, so I almost spent 5 more minutes in run up area to warm the engine with 40% of the power before run up the engine. In the air, the ground speed was about 108 knots, there must be headwind, because The normal ground speed was about 125 knots with no wind before. And the whole flight always last no more than 30 minutes before. Approx 7:50am, 5 mile from the destination airport I noticed the fuel pressure gauge went down and the engine began to lose power rapidly, At the altitude of 2700 feet. I determined that I could not land in the keystone height airport, so I turned to left immediately, then the engine lost power, but the engine was still rotating slowly. The oil pressure gauge showed 0, I thought there must be no fuel in the tank. I avoided the forest area and chose a open farmland to execute the emergency landing. I landed safely, but the aircraft flipped due to the soft grass. After I did the emergency landing I began to recall the whole process of that flight. I thought I should calculate wrong fuel load.

And Pauline asked me several questions,
Here are the questions and answers.

1. Does this aircraft have a fuel gauge and if so, do you happen to remember what is read prior to take off or at the time of the power loss?

It has two fuel gauges on the each side of wings, they are not in the cockpit, it indicates in liter as this aircraft is Russian style. Because vibration of engine and aircraft, the fuel gauge always shook a little bit, and the indication is liters, I made a habit of checking the fuel without the fuel gauge on the wings, I always used a plastic tube fuel gauge to measure the fuel left in the two tanks on each wing. When I noticed the engine was losing power, I checked the engine indicators immediately, and then I found the fuel pressure went down, the speed was decreasing, after I turned to left I checked fuel pressure indicated 0, I remembered I glanced at the fuel gauge only one time after I thought there was no fuel in the tank, they all showed 0.

2. You stated before that you dipped the aircraft fuel tanks and it had 15 gallons, what do you use to dip the tanks?

As I answered on last question, I always used a plastic tube fuel gauge which we got from previous owner to measure the fuel left in the tanks. I checked fuel in the early morning on September 15th, it was a little dark, and I added some oil at same time, I think I measured wrong indication by that plastic tube fuel gauge and calculated total fuel load wrong. I had been realized there were 15 gallons fuel total in two tanks, the truth was not 15 gallons, I was distracted by myself.

3. Is the bill of sale you emailed us the original signed one, or did you fix anything because it got wet?

The picture I sent was the original bill of sale signed by David. I always took it in the cockpit, and just let it dry after that landing without any fix.

4. Is there an electrical system on this aircraft?

There are two batteries for start the engine and it has electrical system, I will show you on the picture of the flying manual.

5. Can I please get the page from your Operating Handbook for aircraft fuel capacity and fuel burn charts?

I will give you a picture of it.

6. What altitude were you cruising at on the flight to Keystone Heights prior to the engine power loss?

I remembered I flew 3000 feet as cruise altitude to Keystone Heights airport on September 15th.

7. What time did you start the aircraft, take off from Crystal River, and enroute cruise time?

I started engine at around 7:05 AM, the temperature was a little lower in the morning, I spent 5 more minutes to stay in run-up area to warm the engine and oil, because the the flying manual instructed the temperature of engine is at least 120 degrees Celsius and the temperature of oil is at least 40 degrees Celsius before run-up the engine. I took off from Crystal river at around 7:20 AM, and enroute cruise time was about 28 minutes.

And then, Pauline asked: I was reviewing your answers to the questions below and your response to number 2 is not very clear to me. Can you please clarify what you mean by “I had been realized there were 15 gallons fuel total in two tanks, the truth was not 15 gallons, I was distracted by myself.”

I answered:

It was about 6:15 Am when I did the preflight. I checked the oil at first, and I put the oil bottle upside down on the oil tank filler to add oil, and then I began to measure fuel. Because it was a little dark, and I kept thinking I should take 8 more bottles oil in the cockpit due to the oil consumption was a little higher. So I was distracted by my thoughts and the dark morning. I calculated there were 15 gallons total left in the fuel tank, I didn't realize that I measured the wrong indication of fuel and made the wrong calculation of the total fuel load. That was a wrong result of the calculation, because I was still thinking about the oil consumption and how much the oil I should take while measuring and calculating.

After I did the emergency landing, I recalled the whole process of that flight, so I said I had been realizing there were 15 gallons fuel total in two tank, the truth was not 15 gallons, I was distracted by myself.

Sorry for these information, I don't want you miss any details about this emergency landing, so I send most of questions and answers to you. I will be free tomorrow 10 AM, my phone number is 8402346890.”

On October 12, 2022, at 2154 EDT, he provided the following information to NTSB:

“Good evening Monville

Here are the answers.

1. What is the brand/name of the fuel dipstick and please send a picture as a jpg attachment?

I don't know the brand/name of the fuel dipstick. The previous owner gave it to us. Please check the attachment for the dipstick [Figure 1]

2. Did you calibrate the plastic dipstick?

I didn't calibrate it, I just used it, it measured correctly. There are 5, 10, 15 indicating numbers on the tube. It has been worn unclearly, because I used it very often and put them in my flight bag.

3. What is the total capacity of each fuel tank in gallons and liters?

Each fuel tank has 24 gallons, 90.5 liters.

4. Send me a complete description of the fuel supply system

Please check the attachment.

5. When you used the fuel dipstick that morning how much fuel was actually in the Left Fuel Tank?

6. When you used the fuel dipstick that morning how much fuel was actually in the Right Fuel Tank?

I can't remember clearly the sequence of measuring the fuel tanks and exact measurements of two fuel tanks, I just remembered there were 15 gallons in total, because I was thinking about oil

consumption during I measured fuel, I was distracted by myself, I think I could be wrong in my measurements and calculation.

7. What did the left fuel indicator indicate when you looked at it immediately after the engine lost power?

I remembered it was almost 0.

8. What did the right fuel indicator indicate when you looked at it immediately after the engine lost power?

I remembered it was almost 0.

9. Why did the engine quit?

I thought there were not enough fuel in the tank, but the engine was still rotating very slowly during the whole emergency landing. The aircraft didn't have energy at that time.

10. How much fuel was remaining in the airplane fuel tanks after the forced landing?

I didn't check the fuel left in the tank. It was upside down in the farmland.

11. Was the mixture control leaned during cruise flight or were you operating full rich?

This aircraft is Yak55M, Russian style aircraft, it doesn't have mixture control knob in the cockpit."

On October 13, 2022 at 1342 EDT, he provided an e-mail to NTSB with the following:

"Good afternoon Monville

I received the NTSB report yesterday, I will finish it as soon as possible.

Here are answers to your questions:

1. Your relationship to the airplane owner Wu Chen.

Wu Chen is the president of Crystal Aero group which is a flight school, I'm a student of this flight school.

2. Provide a copy of the entry in the airframe, engine, and propeller logbooks for the last annual inspection

Please check the attachment

3. What was the purpose of the accident flight

It was pleasure flight from Crystal River airport (CGC) to Keystone Heights airport (42J).

4. What type of fuel was in the airplane

100LL

5. Is the stick calibrated in Liters or gallons?

It indicates in gallons.

6. Hold the stick in your hand point to the area where the left fuel tank reading was during the preflight and take a picture

7. Hold the stick in your hand point to the area where the right fuel tank reading was during the preflight and take a picture

I remembered the readings of left and right were probably all like this [Figure 2]. The lowest marker is 5 gallons, the central is 10 gallons, the highest is 15 gallons.

9. Provide a copy of the Bill of Sale

Please check the attachment.”



Figure 1: Digital Photograph Provide by Pilot. View of the Dipstick Used by the Pilot During His Preflight Inspection.



Figure 2: Digital Photograph Provide by Pilot. View Depicting the Level in Both Fuel Tanks During the Pilot's Preflight Inspection.