



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: August 5, 2020
Person Contacted: Eric Javier Rivera Llorens
NTSB Accident Number: ERA20LA261

Narrative:

Mr. Rivera Llorens and FAA inspector Josue Marrero-Berrios contacted NTSB by phone on August 4, 2020, at 1706 EDT. The call was made from [REDACTED] Mr. Rivera Llorens provided an e-mail address of [REDACTED]

At the beginning of the interview Mr. Rivera Llorens was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

At the beginning the call Mr. Rivera Llorens was asked about the status of the NTSB Pilot/Operator Aircraft Accident/Incident report that was provided by inspector Marrero-Berrios. He indicated that he was working on it. He was advised that he had 10 business days from the date it was provided to return to NTSB, and if he needed more time please advise.

Mr. Rivera Llorens indicated that he had about 400 hours total time, with an estimated 100 hours in the accident airplane since purchase.¹

He was asked by NTSB the following questions –

What was the purpose of the flight?

He indicated getting piston single engine insurance in PR is very difficult besides not having flown the airplane in a long time. Because he had not flown it in a long time, he agreed to fly 15

¹ According to FAA records, he purchased the airplane on April 30, 2015.

hours in the airplane with a flight instructor before he could be added to the insurance as pilot-in-command with having a flight instructor on-board. The accident flight was his second flight in the airplane with an instructor since the airplane was returned to service to accrue the 15 hours. The first flight was February 19, 2020, and the accident flight was July 24, 2020. The flight was also because he was a ‘perfectionist’ and wanted to check the avionics installed were perfectly working.

How long was the first flight?

He indicated that he made several stops. The insurance company needed 10 touch-and-go landings to a full stop. After takeoff from Fernando Luis Ribas Dominicci Airport (TJIG), San Juan, Puerto Rico, the flight remained in the traffic pattern and he performed 3 landings. Two were to a full-stop taxi back to runway 09, and the remaining was a no flaps touch-and-go landing. The flight then proceeded to Jose Aponte de la Torre Airport (TJRV), Ceiba, Puerto Rico, where the flight landed and he waited on the ramp for about 10 minutes with the engine off. The certified flight instructor had a check to get or deliver. He started the engine, performed a run-up, then the flight departed TJRV and flew to Lajas Agricultural Airfield, Lajas, Puerto Rico², where the airplane was secured. After landing the intention was to return to TJIG. During a preflight inspection in advance of the return flight to TJIG, he noticed the left fuel tank was almost empty while the right fuel tank was almost full. During a check of the fuel vents³ as part of his preflight inspection, he noted that the vent on the left wing, which is for the right wing fuel tank, was most likely obstructed since did not return any vapors when attempting to blow into it, while the vent on the right wing, which is for the left fuel tank was fine. The fuel consumed up to that point was from the left wing.⁴ He called the service manager of Million Air at San Juan and informed him of the finding of the blocked fuel vent. Knowing that one vent was clear, the manager suggested that he transfer some fuel from the nearly full tank to the nearly empty tank, which was done using a small clean container. He poured the fuel from the right wing fuel tank into the left wing fuel tank. Since the remainder of the preflight was ok he started the engine but noted it started like it was “flooded” then appeared fine. He performed an engine run-up with no discrepancies and after takeoff noticed drag even though the landing gear was retracted. Knowing they had to fly over mountains to their destination (TJIG), he talked with the flight instructor and decided to fly to Mercedita Airport (TJPS), Ponce, Puerto Rico where the airplane was landed uneventfully. He planned to leave the airplane until it was fixed. That same day Jorge Garcia (his instructor) and Jorge’s wife drove him to Million Air at San Juan, PR, in order for him to get his car.

On February 20, 2020, he drove to Ponce, and the mechanics drove from Million Air in San Juan to Ponce. During maintenance personnel checks they cleared the blocked fuel vent. They determined it was blocked by insects. They removed the engine cowling and inspected the engine, which included a check of the spark plugs. During their check of the engine they found a “blown gasket” of the exhaust manifold, and they also noted the attach for the nose landing gear

² A private airfield owned by the flight instructor’s family. Located at 18.00977°N,67.06244°W.

³ He reported the fuel vents are located at the outer part of each wing. The vent on the left wing is for the right fuel tank and the vent on the right wing is for the left fuel tank.

⁴ Procedurally he blew into the vents and if clear expected fuel vapors to exit the vent. That did not occur with the vent at the right wing.

fairing was broken. The items were corrected. The fuel tanks were topped off, and that same day he and his flight instructor flew from TJPS to Fernando Luis Ribas Dominicci Airport (TJIG), San Juan, Puerto Rico, and landed uneventfully. His flight instructor flew him in the Piper Aztec to TJPS, where he picked up his vehicle and drove back to San Juan, PR.

Was the same instructor on the accident flight as the instructor on the February 19th and 20th, 2020 flights?

Yes. He was flying without pay. He happened to be his first flight instructor, who was on his insurance policy since the airplane was purchased. The airplane was out-of-service (OTS) since 2017, and it was not insured when it was OTS. The airplane was not flown between the last flight on February 20, 2020, and the accident flight. The airplane was delivered for the avionics upgrade by the end of the first quarter of 2017. According to invoices, job and annual were completed by October/November 2019. The airplane was insured on January 28, 2020, and the first flight was on February 19, 2020. Between February 20, 2020, and July 24, 2020, maintenance issues were being attended to in addition to some avionics issues related to the installation.

The insurance company required him to also fly with an instructor because of the inherent historical accident rate with the make and model airplane having landing issues with the tail and tail strikes. Because of that they required the 10 takeoffs-and-landings.

Was there a briefing before departure of the accident flight?

The night before he checked the weather using a Foreflight APP and went over the emergency procedures with emphasis in ditching. When flying east bound just before the event, I would normally be looking for suitable landing sites in case of the need for a forced landing. They did not discuss/have any briefing about the intended flight before departure, other than in the event of an engine failure upon takeoff to level off and ditch into the Condado Lagoon. Based on the previous Aztec accident.

Describe the accident flight in terms of where he flew and the duration?

After departure from TJIG they flew directly to the Dorado Practice area. He then intended to fly to TJPS for touch-and-go landings. The flight instructor flies for a doctor in a Beech Baron, which was being cleaned at the same time of the accident flight.

Who was the pilot-in-command (PIC)?

I was.

Was there a briefing before departure as to who would be PIC?

Yes. The instructor told me I was the PIC for the flight. Mr. Rivera Llorens indicated that he got his FAA medical certificate at 16 years of age. His normal routine was to fly to Humacao, over Vieques, Culebra, to the eastern shoreline and Ponce, where the flight instructor lives.

Describe what happened with detail concerning the accident flight beginning with preflight inspection up to the after coming to rest?

On July 23, 2020, he called a mechanic at Million Air at TJIG and asked him to check the airplane and top off the fuel tanks, since he planned an early morning departure. The airplane

was moved from the west ramp of Million Air to Million Air the morning of the accident flight. By agreement the flight instructor needed to get the Beech Baron cleaned and planned to fly to TJIG. He (Mr. Rivera Llorens) arrived early and asked the fixed base operator (FBO) for a 5-gallon white bucket. Since he had previous fuel contamination issues due to water, the white bucket is what he needed to be able to detect if there was water in the fuel system. He had been working with fuel for 30 years. He also asked for the 5-gallon bucket because it fit beneath the fuselage fuel drain and that was his habit whenever possible.

He turned the master switch on and verified that the landing gear selector was in the down and locked position, the circuit breakers were in, the avionics were off, and he checked the fuel quantity on the JPI engine monitor. He turned on all lights and lowered the flaps then started his walk around and verified all lights were working. He then turned off the lights and master switch and raised the flaps. He then checked the fuel drain below the fuselage, followed by each wing fuel tank sump drain followed by the airframe fuel strainer in the engine compartment. He held the fuel drain below the pilot's seat and also the airframe fuel strainer for 5 seconds by habit and did not detect any water⁵. He dumped the fuel on the ground near the hangar.

He then began the remainder of his thorough preflight which included a check of each main landing gear strut for proper extension, the tire for cuts and condition, the brakes and rotors for condition and leaks. He then ran his hands on the empennage to the emergency locator transmitter (ELT) antenna which he checked. He also checked whether there was oil on the fuselage. He checked the horizontal and vertical stabilizers, primary and secondary flight controls and any and all attach hardware for the primary and secondary flight controls. He verified no static wicks were loose, and the flaps were not seized. He verified the fuel vents were clear which had been a previous maintenance issue. Since then he bought covers for the fuel vents. He checked each wingtip, each wing leading edge, and each wing primary flight control surface for condition and attachment. He then checked the engine oil, followed by the engine compartment. While there he checked the alternator belt and felt by hand the propeller leading edges for nicks, and dents. He then checked the nose landing gear strut for proper extension.

Was the preflight done by him or the flight instructor?

By him because at that time the flight instructor was just landing in the Beech Baron. After he landed they got coffee, then went to the airplane. Since he was working on getting his commercial pilot certificate, he called aloud the checklist items. He then started the engine and checked for immediate oil pressure, then increasing oil temperature. He added that he made all call-outs for the entire flight. The flight instructor asked him if he could make the radio calls to let him concentrate on flying the airplane. He began to taxi, checked the brakes, and while taxiing to the runway moved the airplane to the left and right checking the avionics and instruments for appropriate response. He did an engine run-up before takeoff reporting it was normal. He called aloud that the takeoff and landing area was clear and taxied onto the runway into position where he held the brakes and applied power. When the engine instruments were in the green arc he called aloud the flight was departed and initiated takeoff. He called airspeed

⁵ He indicated that "between the February and the July 24th flight [he] warmed up the engine on several occasions draining water before starting the engine determining not to fly again until the problem was solved."

alive, rotated at 65 miles-per-hour (mph) and upon reaching 85 mph and clearing the control tower, he retracted the landing gear and flaps. They flew to Dorado below Class Charlie airspace, and when at Dorado, he called aloud all engine instruments were in the green arc and the manifold pressure and engine rpm were 24 inches and 2,400. He verified the fuel pressure, oil pressure, and oil temperature were in the green arc. While in the Dorado area he performed turns, then climbed to 4,000 ft mean sea level (msl) and flew towards TJPS. At TJPS he performed 3 touch-and-go landings with full flaps; two of them were to land within the first 500 ft of the runway. After the last landing he flew east towards the east coast with plans to fly to TJRV where the flight instructor needed to get parts for his airplane. While flying eastbound he and the flight instructor were talking about the avionics and comparing the data from the Garmin GNS430 with the Aspen, and also talked about how smooth the engine was running and “everything was nice.”

They were having a “good ride”, then he told the flight instructor everything was fine, which was a habit of his every 5 to 10 minutes. While flying about 1,100 ft mean sea level at an indicated airspeed between 120 and 130 miles-per-hour (mph), with a wind from the southeast at about 21 knots (best recollection), he “felt this very mild, very mild vibration”, but he didn’t say this out loud, followed by a, ...”very smooth gradual loss of engine power.” He then told the flight instructor that the engine was losing power, and while flying at 84 or 85 mph, he turned on the auxiliary fuel pump, but that did not restore engine power. He noticed the JPI was indicating that the engine was experiencing “shock cooling”, with corresponding decrease of exhaust gas temperature (EGT) and cylinder head temperature (CHT) readings. The immediate sight picture to his left was a field, while a racetrack was forward and below his eyesight (not suitable). At that moment he remembered a previous Piper PA-23-250 (Aztec) accident in which the pilot loss in-flight control and crashed. At this point of the conversation he mentioned that he reads accident reports to learn. He told the flight instructor that the flight was going down. He landed in an open field and on touchdown the airplane was decelerating normally. While nearly stopped, the airplane did a very slow, gentle nose-over. He asked the flight instructor if he was OK. He then called his wife.

What was the configuration of the airplane at touchdown?

He lowered the flaps and landed with the gear-down. He did not get a chance to open the doors prior to touchdown.

At his preflight were the tanks full?

Yes, the total capacity was 50 gallons with 25 gallons in each wing fuel tank.

Was he or the flight instructor injured?

No. He had his seatbelt and shoulder harness very tight, and the shoulder harness “did the job.”

What seat was he in?

The instructor was seated in the right seat. I was in the left (Pilot) seat.

Explain the landings at TJPS?

The 1st landing was a touch-and-go and the 2nd and 3rd were full stop landings.

What is your business?

I have 31 years in the Marine Transportation industry. Mainly fuel transportation and delivery. Currently, I am the Operations Manager for a Molasses Transportation Company servicing alcohol distillers. I hold a Master's License. I also was a track vehicle mechanic in the Army.

What flaps were extended for the forced landing?

Full. During the landing roll he raised them. He measured the track length on the ground and they were 364 ft. At the end of the landing roll he was close to bushes/shore and because of that raised the flaps to increase drag and make the brakes more effective.

What was the fuel pressure when the event 1st occurred?

He had never had fuel pressure issues. He did have a slightly high CHT for the No. 1 cylinder. The temperature delta was not an issue. He never had any alarms. It seemed to him like it was consistent with running out of fuel. No detonation or loud noise. It was like he was losing fuel. The gauges were working. He verified the position of the fuel shutoff valve. He clarified it was a "very mild vibration" first then a gradual loss of engine power. At the time he was wearing a David Clark headset that wasn't noise cancelling but the flight instructor was wearing his noise cancelling headset.

Was the airplane equipped with a fuel flow transducer?

He was not sure. Josue chimed in and added that the JPI used fuel pressure to calculate fuel flow and there isn't an actual fuel flow transducer. Mr. Rivera Llorens indicated that with the new installation of the JPI engine monitor, he planned to make 3 flights, and correlate fuel burn by using a calibrated dispstick and then adjust the "K" factor.

Where is fuel pressure read at?

At a fitting at the manifold valve.

Josue any questions for Mr. Rivera Llorens?

No.

The call ended at 1821 EDT.

Clarifying questions were e-mailed to the pilot on August 5, 2020, and also August 6, 2020. He replied and the answers were incorporated into the digest.

The digest was e-mailed to him for review on August 6, 2020. He replied on August 7, 2020, at 1134 EDT with comments that were incorporated into the narrative. The corrected digest was e-mailed to him the same day for his review and comment. He replied on August 9, 2020 at 1858 EDT with, "...I will be reviewing the latest revision of the Record of Conversation tomorrow." He did not reply. The corrected digest was e-mailed again to him on January 4, 2021. He did not reply. The corrected digest was e-mailed to him on July 2, 2021.



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: August 26, 2020
Person Contacted: Alexander Gonzalez
NTSB Accident Number: ERA20LA261

Narrative:

Mr. Alexander Gonzalez and FAA Inspector Josue Marrero-Berrios were contacted by conference call on August 17, 2020, at 1432 EDT. The call was made by FAA inspector Marrero-Berrios. Mr. Gonzalez provided an e-mail address of [REDACTED]

At the beginning of the call he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He indicated that he was employed by Million Air as an aircraft mechanic. He was hired about 1 year 10 months earlier. He provided an Airframe and Powerplant certificate number of [REDACTED]. It was renewed on March 6, 2020. He indicated that he was not a pilot, and did casually know the pilot-in-command/owner (PIC/owner) of N1813Q.

He was asked to tell us what he knew first hand about N1813Q from the end of April to the middle of June 2020.¹

He indicated that the right wing fuel tank sump drain was not draining like the left wing fuel tank sump drain, which was a complaint of the PIC/Owner. In addition, the owner complained of having water in the right wing fuel tank. He drained the right wing fuel tank and only found maybe a capful of water. He then removed the fuel cap and fuel cap flange and inspected the

¹ The accident date was July 24, 2020.

right fuel tank. When he did he noticed the fuel tank sump drain boss which has by design 4 holes were clogged with fuel tank sealant. The 4 holes allow fuel/water to flow out of the valve when checked as part of a preflight inspection. After he cleaned the sealant away the fuel drained from the fuel tank sump drain valve ok.

Did he do anything with the right fuel tank cap cover/flange?

Yes, because he found some water in the right fuel tank when he drained it before accessing the tank, and the PIC/Owner's complaint about water in the right fuel tank, he suspected the cover/flange was not sealed properly. He indicated that he re-sealed it after the right fuel tank was cleaned.

What was the PIC/Owner's complaint about water in the right wing fuel tank about?

The PIC/Owner was thinking maybe the fuel cap cover/flange was bad and not sealing properly. He re-sealed it.

What side did he work on?

The right side only.

What did he do on the right side and what did he seal?

He sealed the flange/cover around the big screws.

What kind of sealant did he use to seal the cover/flange?

Pro-Seal.

When he was done did he secure the cover/flange with all the screws?

Yes.

Describe how he took off the right fuel tank cover/flange?

He described that when he first removed it he found it to be properly sealed and was hard to remove.

What did he use to raise or lift the cover/flange?

He used a plastic spatula, then used rags and MEK to clean the sealing surface.

Was the cover/flange ever not sealed awaiting parts, etc?

It was sealed when he began his work and he sealed it when he was done. There was no time when it was not sealed.

When was the work that he did on the right fuel tank cover/flange?

Maybe May or June 2020.

FAA inspector Marrero-Berrios was asked if he had any questions for Mr. Gonzalez. He indicated he did not.

The call was disconnected at 1449 EDT, and was reconnected at 1458 EST.

Additional NTSB Questions:

How did the fuel cap o-ring look or did he replace it?
He inspected it and did not replace it.

Who did the work and was anybody with him?
He did the work and Robert Nieves was next to him.

How was water getting into the right wing fuel tank?
He did not know. He thought it could be because of condensation, but there was only a slight amount when he checked it.

Did he work on the left side?
No. Only the right side.

FAA Inspector Marrero-Berrios was asked if he had any questions and he did not.

The time the call ended was not recorded.

The digest was e-mailed to him for review on August 26, 2020. He did not reply. The corrected digest was e-mailed to him on July 6, 2021.



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: August 26, 2020
Person Contacted: Jose Roberto Nieves
NTSB Accident Number: ERA20LA261

Narrative:

Mr. Jose Roberto Nieves and FAA Inspector Josue Marrero-Berrios were contacted by conference call on August 18, 2020, at 1028 EDT. The call was made by FAA inspector Marrero-Berrios. Mr. Nieves provided an e-mail address of [REDACTED]

At the beginning of the call he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

Mr. Nieves indicated that he is an airframe and powerplant mechanic with inspection authorization (A&P/IA) certificate number [REDACTED]. He has been with Million Air for about 20 years and his title is Director of Maintenance (DOM). He has been the DOM with Million Air for about 18 years, and an A&P mechanic for about 25 years. He is not a certificated pilot but has about 250 hours flight time.

Does he know the pilot personally and how would you describe him with respect to having maintenance performed?

Yes. He has been one of their clients for the past 3 years. He was very safe, and was OK spending money on maintenance.

Describe his involvement with N1813Q since the start of this year?

The first thing they did was an annual inspection, then installed avionics. They also worked on the wing fuel tank drain valves, and other small maintenance items.

Did he do the annual inspection himself?

He did the inspection. He indicated that they have a big fleet of airplanes and they have 6 to 7 A&P's and 3 to 4 workers (helpers). He had mechanics assist him and he did the repairs and re-inspected work that was done by others.

What did he use as an inspection guide?

He used 14 CFR Part 43 Appendix D and the Cessna Shop Manual. They used the Cessna Shop Manual for that airplane.

When was the annual inspection completed or signed off?

November 8, 2019.

Did he check the fuel tanks at the annual inspection and if so what did he find?

He did notice some corrosion on the engine.

Can he provide discrepancy sheets with corrective action for the last annual inspection?

Yes.

Did he recall any water contamination in the airplane at the last annual inspection?

Not at that point. At that time the airplane was inside the hangar. The only issue they identified related to the wing fuel tanks were the wing tank fuel sump drains that needed to be replaced.

Please describe the symptoms pertaining to contamination of the fuel system?

The pilot complained of a rough running engine that was not producing full static engine rpm. They checked the fuel tanks and found water when they drained the fuel. They also checked the spark plugs and noted they were wet with water. They using shop air and blew the spark plugs, and did an engine run-up and noted it was producing power. They drained the fuel tanks, and removed water from the tanks. The first time they found about ½ gallon of water, or 1 liter. The second time they had small drops of water. They found one wing fuel tank drain clogged and put in a new wing tank sump drain valve. They had the same issue as the pilot who reported the right wing fuel tank sump drain was not draining. They began troubleshooting, and he was working with Alexander Gonzalez. They opened the right fuel tank from the top and noted all four ports of the wing tank sump drain boss were clogged by wing tank sealant. The ports were opened and the tank was then cleaned.

On the first time when ½ gallon of water was drained was that from both fuel tanks?

It was from both tanks but there was more in the right tank. They also drained the fuel selector sump drain. He indicated that the airplane was inside their hangar from March of April 2019, and then was moved outside. That is when they began having issues with water in the right wing fuel tank. He indicated that there is only 1 access plate on top of each wing fuel tank. At 1 point he sent a mechanic to reseal the tank access, and reported that the mechanic who did the work said it was sealed Ok when he removed it for re-sealing. He indicated that when the first time ½ gallon of water was drained from the fuel tanks that was too much to be associated from condensation.

He worked with Alexander Gonzalez when the right wing fuel cover/flange was opened. He reported there were no issues with left side and as such it was not opened. When the right flange was removed it was found to be properly sealed.

With respect to Work order 01011 were the fuel senders replaced?

No they were never replaced. The wiring harness for the fuel senders were repaired. The fuel tanks were opened and he reported they needed a harness from JPI. They did some work to the harness but did not have time to finish and install the senders. As a result, they calibrated the fuel senders that were installed. They had almost all work done to the airplane, so they decided to wait for the next inspection to finish the work with the fuel senders.

With respect to Work Order 01011 what fuel accessories were removed?

They accessed the fuel line at the servo fuel injector outlet and noted it had water inside. They also removed the spark plugs, and drained each fuel injector line from the flow divider to each fuel injector nozzle. The fuel line from the servo fuel injector to the flow divider had some drops of water.

Was there any water at the fuel injector nozzle lines at each fuel injector nozzle?

Only drops.

What line did he disconnect at the servo fuel injector?

The outlet.

Did he have any thoughts to check the engine-driven mechanical fuel pump?

No. He drained everything and checked the auxiliary fuel pump, servo fuel injector, drained the fuel injector nozzles, and cleaned the spark plugs then performed an engine run-up.

Was the engine run-up OK?

Yes. He took a video. He was asked to provide to NTSB and FAA.

At the annual inspection what did he do with respect to the servo fuel injector?

He checked for leaks, the inlet screen, lines and fittings for condition and security. The fuel inlet screen was clean at that time. At that time he did note that it had a little bit of corrosion in what described as a "normal" amount.

Does he have a notepad where he documents each day, hours worked, and airplane worked on?

They keep records of hours/time worked on each aircraft.

Did he go to Mercedita Airport (TJPS), Ponce, Puerto Rico on February 20, 2020, who was with him and describe what work was done?

Yes he did go and Jesus was with him. The pilot had complained about unequal fuel burn in the fuel tanks.¹ They blew/cleaned the fuel vent for the right wing fuel tank and got something out.

¹ Per the Record of Conversation with the pilot-in-command/owner (PIC/Owner), he indicated that while at Lajas Agricultural Airfield, Lajas, Puerto Rico, during his preflight inspection he noted the left fuel tank was almost empty and the right fuel tank was almost full. He called to Million Air and was told to transfer fuel into the left fuel tank from the right fuel tank. He decided to fly the airplane to Mercedita Airport (TJPS), Ponce, Puerto Rico, and left it until inspected by maintenance the next day.

They also disassembled the fuel tank vent line and blew air outside, and noted bees came out. They did a visual inspection of the engine and also did an engine run-up. He was not sure if he took a video of the engine run-up that day.

Do you know what was allowing the water into the fuel tank?

No. His first thought was from leakage past the fuel cap. When the inspection cover/flange was removed it was sealed. The tank was not leaking from any place, but it was re-sealed.

Is there anybody else we need to speak to about N1813Q?

No. it was only Alexander Gonzalez and him that worked on the airplane.

Describe his record keeping system?

Normally they open a work order, and the job is assigned to a mechanic. Once the job is finished, the paperwork goes from his assistant and an invoice is prepared. Once it is finished, the paperwork is passed to him and his assistant Miguel. They then prepare maintenance record entries at his computer. He confirmed he has maintenance record entries that are not in the permanent maintenance records. He was asked to provide copies of all work orders for work performed to this airplane.

Describe how he would get/determine what compound to use to seal the Monarch Fuel Tank Flange?

They checked the Shop Manual and it specified to use Pro-Seal.

I reviewed the work orders and don't see a specific charge for Pro-Seal. Why wasn't and how would that be charged?

When a charge is under \$100.00, they would put that under miscellaneous shop supplies and not list it specifically. The consumables come under miscellaneous. They have a small shop and do have a QC for supplies that have a shelf life. They have a due date on product and keep a list of supplies with the shop life.

He was asked if he would consider adding initials on the work order for the mechanic, inspector, etc?

Most of the airplanes they maintain are on the CAMP program, which does have a place for initials for the mechanic and inspector. The owner of Million Air does not want to work on piston aircraft. They want to focus of their fleet of corporate airplanes, adding that they cater to corporate aircraft. If they do consider to keep working on piston aircraft, he would consider incorporating adding initials to their system.

Inspector Marrero-Berrios was asked if he had any further questions?

He had none.

Mr. Nieves was asked if he had any questions for NTSB or FAA?

He indicated he did not.

The following action items were to be provided by Mr. Nieves:

1. Maintenance Record entries for work that was done by Million Air that is not listed in the permanent maintenance records.
2. Copy of the discrepancy sheets and correction action for the last annual inspection.
3. Provide NTSB and FAA the videos he took of the engine runs.

The call ended at 1132 EDT.

The digest was e-mailed to him for review on August 27, 2020, and October 20, 2020. He replied on October 20, 2020, at 1158 EDT with, "Good morning Inspector Monville, from our previous meeting and interview [I] have no [comments] please let me know if you need anything else from me please Sir." The corrected digest was e-mailed to him on October 20, 2020.



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: July 7, 2021
Person Contacted: Butch Hartwig
NTSB Accident Number: ERA20LA261

Narrative:

Mr. Butch Hartwig of Hartwig Aircraft Fuel Cell Repair was contacted by phone on August 18, 2020, at 1155 EDT. He was called at [REDACTED] He provided an e-mail address of [REDACTED] or [REDACTED]

He indicated that the sealant used to seal the inlet plate to the upper wing skin is specified to be CS-3300B2, which is not PRC. It is lighter bonding in case of the need for removal.

He indicated that the accident pilot/owner purchased new sealant from him on March 14, 2017, but he never replaced the fuel cap seals.¹

The original fuel cap design called for a rivet to secure the fuel level gauge to the inlet filler neck and inlet plate by a rivet but was subsequently changed to a bolt with Loctite applied to the threads and nut.

He was asked the following questions by NTSB –

Are there a continuous airworthiness instructions for Monarch Fuel Caps?

No. It is suggested to replace the seals every 3 to 5 years. He indicated that you have to remove the seal to inspect it. With his experience he knows mechanics are not thoroughly cleaning the seal area.

Does he have a test fixture to test the fuel cap?

No.

The digest was reviewed with him during the call and he agreed with the content.

¹ According to the maintenance records, the fuel caps were installed in accordance with Supplemental Type Certificate (STC) SA2458CE in June 2015.