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Subject: ERA25LA084 FAA Inspector Statement Summary

Contact: Inspector Boucher, FAA/FSDO Orlando

Inspector Boucher sent a summary of his statements and notes to the NTSB IIC on January 21, 2025. Within that document were statements provided by the flight crew of N76NN. The following are excerpts from the notes received from Inspector Boucher.

Statement by Blake Raymes:

"Detailed explanation of incident, accident, or damage: Prior to departing Rock Hill (KUZA), filed a VFR Flight plan for initial cruise of 3500' for a tailwind and VFR conditions. At KUZA, requested for the aircraft to be filled to the tabs which should be 30 gallons per side, of the aircraft. Using approximate table numbers for the calculations, as fast cruise on the checklist has a power setting of 23" MP/2300 RPM, which sits between two separate performance tables in the BE-76 POH. After getting a weather briefing through Foreflight, chose approximate Fuel Burn Rate of 8gph each side. The total for the trip at that number, indicated that we would have enough fuel for the trip with enough to also barely satisfy the VFR Fuel Reserve requirement. After a thorough preflight and sumping the tanks, we departed from KUZA for KMLB. After departure from KUZA, we climbed up to our initial cruising altitude of 3500' and throughout southern portion of South Carolina and much of Georgia, had to climb and descend to maintain VFR. At no point were the throttles adjusted to full, only to maintain our planned 23" MP/2300 RPM. At our highest altitude, I remember our MP only being at 22" MP but never higher than 23". Once in cruise, the flight went fairly well and without any issues. At some point, approximately half way into the flight, if not further, noticed the right fuel tank gauge was being erratic with indications of full

to empty and continued back and forth. Monitoring the fuel flow gauge which was not being erratic, suggested a faulty sensor. Eventually the right fuel tank gauge settled on empty, yet the right engine continued to operate. The fuel selectors were in the "ON" positions which meant there was no cross feeding during the flight. Again this seemed to agree with a bad sensor as the fuel flow gauge continued to show steady fuel flow through the duration of the flight. The flight continued to go smoothly and uneventful until approximately 5-8nm Northwest of KMLB. As we descended back into KMLB and familiar territory, we proceeded towards Lake Washington, which is our Northern VFR reporting point coming back into KMLB. After obtaining the ATIS, we were approaching Lake Washington and descending towards 2500' when the right engine began to have erratic RPMs and the plane pulled to the right. Training kicked in and I applied opposite rudder to keep the airplane from rolling to the right. My safety pilot, Nic, began to run checklists for engine failure and this did not remedy the issue on that engine, so he decided to secure that engine, followed the procedures to shutdown, feather and secure that engine. The left engine continued to run normally. I then contacted tower that we were Northwest of the airport and stated that we were having fuel issues because almost simultaneously upon calling tower and turning direct towards the field, the left engine began to have erratic RPM changes. This resulted in me declaring an emergency what I believed to be a fuel issue as the remaining operative engine was now having erratic RPMs. At this point we ran restart procedures and were able to get the left engine back on for a short period. The process then repeated and at this point we realized that we were getting consumed by the restart procedure and were losing altitude quickly. Tower cleared us to land all runways but we knew quickly we were not going to make the field, so we decided to abandon the restarting procedure as we were trying to drag out the descent as there are no good landing options between I-95 and KMLB, especially at night. We decided to shutdown and secure the left engine and feather it to reduce drag while looking for a viable landing option. We told tower that we would not make the field and began a right turn back North bound, initially thinking I-95 would be our spot. In the turn, we realized how busy I-95 was and that attempting Roland on there would likely result in further hazard and harm to others on the ground, we happened to see the large parking lot for the flea market. Once we committed to the parking lot, I extended the landing gear. Initially thought we cleared or were not in danger of hitting power-lines that we saw on the Western side of the area. As we turned, our landing light illuminated a second set of high tension power-lines we did not see. We attempted to bank further to avoid them but were unable and we braced as we struck the power-lines. Quickly, the plane came to a stop and everything crunched forward. Both of us were initially stuck and unable to egress, then the plane felt like it fell again, jolting us free and we were able to escape. The left wing, outboard of the engine had been separated from the plane and laid over by the grass with fire still burning. It continued to burn until first responders arrived and

extinguished it. That is why I believe my memory of seeing the left fuel gauge still showing fuel had to be true. Whether low fuel levels caused contaminants to enter the engines or not, I do not know. The fuel tank gauge for the left tank was still indicating at the top of the yellow arc during this ordeal and during the restart attempts. Blake

Root Cause Analysis: I believe that heavy reliance on an old performance profile I created for the BE-76 played a big role in leading up to the accident. I failed to catch that the Foreflight fuel calculations were going solely off the number I entered into the Cruise Gallons Per Hour. I had a "9" entered at the time of the flight planning believing that because it was attached to a multi-engine airplane profile that it was automatically accounting for each engine fuel burn at that rate. I calculated 8gph for cruise but always add an extra gallon for fuel buffer per hour to be safe which is why the 9gph was left alone. Believing that even with that buffer, I had enough fuel for the trip with some to spare. I would also account that lack of recent experience in the airplane may have resulted in me not catching the fuel burn being indicated by Foreflight as being off. I chose not to add more fuel in Rock Hill than what I did, because I believed at the time it was plenty and that a lighter airplane would be better than loading fuel I did not think I needed. The trip back to KMLB seemed to prove my calculations correct until just Northwest of KMLB, when previously described events occurred. Whether fuel contamination as the tanks got low, causing the engines to show erratic RPMs or not, seeing the left tank separated from the airplane and burning for several minutes after impact still showed that there had to be fuel remaining in that tank, even after the impact, until first responders extinguished it. In summary, I would say the root cause was a lack of recent experience in the aircraft and over reliance on EFB flight data without following up or double checking the numbers to ensure that we had more than enough fuel. Future Prevention: The first step would be the obvious, numbers do not lie, double check the calculations and data being shown from an EFB generated flight plan with corresponding numbers from the POH and verify that the numbers make sense. The POH states "GPH per engine" but Foreflight did not, so I assumed it was doubling the GPH for me since it was attached to a multi-engine aircraft profile. Also, would have helped to ask my safety pilot to run his own data to see how ours compared, but again, I was reliant on Foreflight's data and believed it to be correct. Another prevention method could be to rework the fuel reimbursement policy at the school. If the aircraft is leased wet, it puts pressure on students and renters alike, to not want to fuel all the way up because the fuel "reimbursement" only shows up as a credit to the user's account and does not get paid directly back to the student or renter, who just paid out of pocket for the fuel. Maybe switch to a company card that students and renters could use to always fill up as much as possible according to weight and balance limitations and just pay the school the difference, if the fuel cost more than

the published reimbursement rate, because if it was fueled less the published rate, the school would technically benefit from that. That alone creates a hazardous attitude towards fueling at outstations. Finally, a future tool to help prevent an accident like this from occurring is to promote smaller proficiency flights prior to longer cross country flights to help ensure you are familiar with the aircraft and procedures, if not current or proficient in the airplane. I think this may have benefitted me and could have potentially prevented this, as I may have caught the performance error or somebody else may have. I was also under the idea that I could get my remaining multi-time towards my ATP in this one long cross country up to Rock Hill and back. My excitement to once again fly the multi-engine airplane and to fly it up to my hometown, most definitely led to being overconfident in flying an airplane I had not flown in over a year. I do believe this accident could be prevented in the future by having somebody with more experience and currency to review the flight data and compare it against their own and also require a smaller cross country flight as a check to ensure you know what you are doing while being monitored by a more experienced pilot who is providing corrections and suggestions as needed. I do not believe the school's checkout policy would have necessarily helped, as it requires you to essentially go up and practice maneuvers locally which is helpful if you only plan to do local flights but does not mention, cover, require cross country flight and associated planning which would be more beneficial to a potential renter and in this case may have helped me catch my performance data. I simply did not choose to do the checkout flight as I wanted to time build towards my ATP requirements, not prepare and spend money to go up to practice and demonstrate maneuvers that were previously demonstrated on a check ride in the very same make and model of multi-engine aircraft. Blake Raymes"

Statement by Nicolas Carter:

"Explanation of accident: Departed Rock Hill, SC KUZA VFR at 15:55 EST. Climbed to our cruising altitude and followed a direct path toward KDAB, then direct KMLB. Minor altitude and course deviations to maintain VFR were made throughout the flight. At approximately 18:35 EST we began our descent for landing into KMLB. We flew toward the VFR reporting point of Lake Washington approx. 5 nm northwest of the field. Just prior to contacting Melbourne Tower we experienced loss of power with erratic power surges on the right engine. Blake Raymes (PF) continued to fly the aircraft and communicate with ATC, and Nicolas Carder (PM) began to run checklist flows for potential engine failure. When initial checklist flow did not remedy the issue, it was determined that the safest course of action was to secure the engine. We turned direct to the airport and contacted Melbourne Tower and declared an emergency. Tower cleared us to land on any runway, stating 9L was closest. Entering the Class D our left engine began to experience similar characteristics to the right

engine prior to shutdown. Checklist and flows were followed for the given situation again, with an attempt to restart. Restart was successful momentarily on the left engine and provided power for a short time. Erratic power surges on the left engine occurred again. Unable to maintain altitude and realization that we would not make the runway, we determined the safest course of action was to look for an off-field landing location. We informed Tower we would not make the runway and the controller assisted with possible landing options. Interstate 95 was the closest location, so we started to turn the aircraft to the west, and secured the left engine to reduce drag. As we approached I-95 we determined that it would not be a suitable landing sight due to high traffic volume and the potential of other possible damages, or loss of life. We saw the Renninger's Flea Market parking lot on the west side of the highway. We assessed that there were power lines on the west side of the parking lot, but made the decision that this was the best location for us to land and limit possible casualties to two. As we made the slight turn northbound over I-95, gear was extended and we prepared for landing. As we got closer to the parking lot our landing light illuminated a second set of power lines that had not been seen previously. An attempt was made to avoid them but at this point, we were unable to. The left wing made contact with one of the power lines, and the aircraft came to rest on its gear facing southbound in the parking lot. Both pilots egressed the aircraft unassisted, and met at the tail. Nicolas Carder called 911.

Root Cause Analysis: I believe that the cause of this accident was a mix of a few things. 1) Complacency as the safety pilot, I felt comfortable flying with a friend and fellow flight instructor. He is an appropriately rated pilot for the aircraft, as well as got his commercial multi add-on in the make and model. I didn't verify the fuel and flight planning calculations from the PIC to ensure they made sense. I glanced at his iPad as we were doing our runup and saw that his fuel burn was stating roughly 31 gallons for the duration of the flight. I trusted but did not verify that the fuel burn would be accurate because I knew he had done cross countries in this make and model during his commercial multi training, and thought he had an accurate performance profile on his EFB. Again I realize that there was a level of complacency that I had because of assumptions from his previous training / experience and a lot of trust in flying with a friend and fellow flight instructor. 2) Flight school fuel reimbursement policy. "Fuel will be reimbursed at the posted reimbursement rate per gallon. The reimbursement will be applied to the rental charges for that flight or be applied as a credit to the customers' account. A receipt must be provided to receive a reimbursement credit for any fuel purchased." (MFT FOM pg. 34) This policy could potentially lead to a student or customer putting less fuel onboard the aircraft than they normally would at a lower fuel cost outstation. Whether the outcome could be fuel exhaustion or letting the tanks get low enough that fuel contamination could effect engine performance, the policy may have contributed to fuel load decision making. In summary, I believe the

root cause for me personally was complacency in flying with a friend and fellow flight instructor, but can understand how the fuel reimbursement policy could effect decision making by a student or customer.

Future Prevention: For future prevention, 1) Even if I trust and feel comfortable with the pilot flying while acting as the safety pilot, I will do my own performance calculations and compare them to the pilot flying. I will personally set a limit on cross-country legs to no more than two hours to stop and verify the fuel burn calculations are accurate. 2) I believe a way to prevent a similar situation from happening again could be to have the school's reimbursement policy wording revised to make it clearer for students and customers. 3) As someone who has done a few multi engine time building flights as a safety pilot for people seeking to reach their ATP minimums, I will make sure we do a couple of shorter local flights before a long cross country to ensure their performance profile in their EFB is accurate and cross reference my own. 4) Additionally, I think slight revisions to our school's BE-76 check-out flights should be made. I believe there should be additional ground training for cross country flight planning in the BE-76. The reason for this is because people typically use the Dutchess to not only build their multi time but also their cross country time. We typically just go out and do all the maneuvers on a commercial multi add on check ride to see if the customer is proficient in the aircraft but don't evaluate any cross country procedures which is the main thing people are renting this aircraft for."