

FAA Statement on the event of 07-04-2024

On July 4th, 2024, I, Nikolas Wayne Kehr, had a complete engine failure, mid-flight heading back to my original point of departure while conducting banner towing operations.

My morning started around 07:30 am, where I woke up, ate breakfast and started constructing the letter banners that needed to be flown for the day. Once the letter banners were complete, me and the other three banner pilots proceeded to push our airplanes (we stay with the same plane for every flight) out for banner towing operations. Starting with checking oil levels, I added roughly a quart of oil to get me at the recommended oil level of 7 quarts. I then conducted a thorough preflight; walking around the entirety of the aircraft looking for abnormalities and making sure that all control surfaces are operating effectively and accordingly. Upon completion of my preflight walkaround, I filled my aircraft completely with 35 gallons collectively before getting in N749SK; roughly around 10am to conduct banner towing operations. Before departure I conducted, both right and left, magneto checks followed by an idle check which proved satisfactory. I had flown through out the day and landed numerous times to refuel as around three hours of flight time puts me at my fuel endurance for banner towing operations with VFR fuel reserve of 30 mins.

Upon landing to refuel again to full tanks (35 gallons usable/100LL), I reset my banner towing hooks, conducted a preflight walk around, checked oil adding a quart, and refueled my aircraft to full left and right fuel tanks. It was at this time that I got back in my aircraft, conducted my run up checks (magneto check, idle check, flight control check) and departed with a Candy Kitchen 'BOGO' banner (both a logo and a letter banner attached together). My intended route was departing from my origin airport, 4MD1, and using pilotage to navigate to the inlet of Ocean City, MD at 1000 feet indicated. Before approaching the inlet, near the 50 bridge in Ocean city, I made a gradual descent down to the beach, descending from 1000 feet to 250-300 feet. I maintained this altitude from the Ocean City, MD inlet to the Rehoboth beach observation towers (located 38.75N,75.08W via ForeFlight). While flying down the beach, conducting banner towing operations, I noted all engine parameters were within their limits. Oil temperature indicated slightly higher than normal (normally ranging from 180-200 degrees F), It was resting between 220-230 degrees F, but due to the high OAT (Outside Air Temperature). I was assured by my employer that this temperature was well within limits and due to OAT and the increased drag from the banner that this was normal given the conditions.

Before arriving to the observation towers in Rehoboth Beach, DE I started my climb from 300 feet to 500 feet before initiating my turn to South West for my return leg to 4MD1. I continued my climb where I eventually leveled out at 1200 feet indicated. I maintained this altitude until Indian River Bay where I realized I couldn't maintain 1200 feet, so I settled maintaining 1000 feet, as this was supposed to be my designated altitude to travel with a banner. Moments later near Milleville I noticed I was unable to maintain 1000 feet and with mixture full and throttle full I was still descending. I continued heading south, where I relayed to my boss via the other banner towing pilots that I was unable to maintain altitude and my RPMS were

dropping at an noticeable rate (I was outside of reception range for the ground based radio communication system). I continued further and with engine roughness shortly ensuing I was able to hear my employer over the radio that I was clear to drop the banner and conduct an emergency landing into a field if necessary. At 700-800 feet I decided that I was going to release my banner and conduct an emergency landing. I looked directly under me and noted that there was a subdivision complex directly under me. I continued my path going South West and did not drop my banner in order to not cause any harm to those living in the subdivision under me. I released my banner over a vacant field (local Law enforcement/ State Troopers found the banner and confirmed the banner was dropped in the center of the field and it did not come in contact with anyone on the ground). Upon releasing my banner I turned to my right where I was roughly at 500 feet indicated. As I turned to line up with my field I went from intense engine roughness to complete engine failure. I lined up my approach and before reaching overtop of the treeline (opposite to the side of the treeline I came in contact with) my engine restarted, though still running rough, my airspeed increased. I immediately pulled my throttle to idle, because I did not trust my engine would not give out again, and due to my altitude I was not aware of what was on the other side of the treeline. With the increase in airspeed it resulted in me being unable to land the aircraft on my intended field. While coming to that realization I was on the right side of the field and knew going into the tree line showed a high probability. I then slowed myself down as much as I could and upon nearing the trees I put myself into a bank at the tops of the foliage so the bottom side of the aircraft would strike first, as opposed to a head-on collision with the lower, more sturdy, parts of the trees. Upon coming in contact with the trees my plane stopped its forward path of travel and fell vertically towards the ground where the plane came to rest. It was at this time I undid my safety harness and climbed out on my own terms. Once I was certain that N749SK was not on fire, I returned to the aircraft to retrieve my phone (to call my employer) and to turn off mags and electrical switches in the aircraft. Moments later emergency services responded; where I spoke with local law enforcement, paramedics, and fire fighters. It should be noted that I did not lose consciousness during the entire duration of my flight, and that I was the soul occupant on board N749SK. I'd also like to note that N749SK was at half fuel in the left tank and was half fuel fuel in the right tank.

If there is any part of my statement that does not seem clear or anything that promotes questions please feel free to contact me at the information provided below. I offer my full compliance during this ongoing investigation, and expect to get a final report from Brett Hinderer or other FSDO official. Thank you for your time.

- Nikolas W. Kehr

Mobile Phone number [REDACTED]

Email: [REDACTED]