



FAA

Memorandum

Date: April 12, 2019

To: Tim Monville, Sr. Air Safety Investigator, [REDACTED]

From: James W. Cook, II, ASI, AFG-400-FSDO [REDACTED]

Prepared by: James W. Cook, II x 2673

Subject: Accident Statement for N7622M (ERA19LA143)

These are the events of Tuesday April 9, 2019: Inspector James Gollwitzer and myself drove from the West Columbia FSDO to the accident site off of Hunters Run (State Hwy S-19-234), located west of Edgefield, South Carolina. When we arrived, Mr. Dwayne King and his associate were just beginning to remove the upper and lower cowls from N7622M, 1959 Cessna 175, SN: 55922. I began to help them as Inspector Gollwitzer took pictures. After the cowls were removed, I began to look for any obvious discrepancies that would have caused the engine to shut down in flight. Nothing was found, at that time. After ensuring the main fuel switch in the cockpit was turned to the off position, I removed the main fuel line going into the carburetor and capped the line. I had previously noted that the fuel gasculator was full of fuel and free of contaminants. After discussion, we decided to attempt to start the engine not only to see if the engine would run but also to see if there was fuel in the carburetor. I pulled the propeller through one complete cycle and heard the impulse coupling snap all six cylinders. Mr. King got into the cockpit to start the engine. Right before he attempted the start, he pushed the throttle to full several times. I noted fuel coming out of the air box from the bottom of the carburetor. He called to clear the prop and started the engine within five rotations of the prop. As the engine ran, there was a noticeable skip coming from the engine. I asked Mr. King to perform a magneto check. When he selected the Left position on the ignition switch, the engine backfired and sputtered bad before shutting down. Started the engine again, this time selecting the Right position and the engine kept running. I had him select the Left position and the engine backfired badly before shutting down. I reconnected the main fuel line to the carburetor. We ran the engine two more times with the same results: Left mag selected, engine shutdown. I removed the Left magneto (Slick Model 6367 SN: 02010385) from the accessory case. Several of the ignition leads were stuck in the distributor cap and were difficult to get out. This told me that the magneto had not been inspected internally for quite some time. After removing the mag, I disassembled it completely, except removing the coil and contactor. I did note that the screws holding the top case to the bottom half still had yellow torque-seal from the factory. Internally, the magneto appeared in good condition. Without the proper timing pins, ability to determine prop and piston position and timing synchronizer, I could not determine if the magneto was properly timed internally. Magneto was taken from the site and will be sent to a

predetermined repair station for analysis as per the NTSB. Inspector Gollwitzer and I used a multimeter to ensure the "P" leads were correctly routed to the identified positions on the ignition switch. The left "P" lead grounded when the right mag was selected and open when the left and both position was selected on the ignition switch. Next, we inspected the ignition wires for proper routing. Noted that the right magneto leads for cylinders six and four were swapped. With this noted, it is contrary to the engine running good when the right position was selected on the ignition switch. In that position, the engine should have reacted in a manner that was noted when the left position was selected. We were not in the cockpit at the time the engine was being ran, just Mr. King. Mr. King suggested removing the rocker box covers from each cylinder to determine if there was a stuck intake or exhaust valve. I agreed with the suggestion and the valve covers were removed. All valves were in the proper position with no stuck valves noted. A visual inspection of the air box was performed by removing the induction filter and filter housing. No foreign objects or damage was noted in the air box and carburetor inlet. Allowed Mr. King to begin draining the fuel from the left and right wing tanks in preparation to remove wings for transport. Approximately 25 gallons was drained until aircraft was empty. Propeller installed: McCauley two-blade, 1A175, SN: FC8467. Engine installed: Continental, GO-300A, SN: 5497-8A.

After speaking with Tim Monville (Sr. Air Safety Investigator NTSB), the aircraft was released to Mr. King to disassemble aircraft for transportation to Augusta, Ga. Extensive photos were taken during all phases of our investigation at the site. We did not stay at the site for the disassembly of the aircraft.



Federal Aviation Administration

Memorandum

Date: April 12, 2019

To: James W. Cook, ASI – AFG-400-FSDO-13

From: James R. Gollwitzer, ASI – AFG-400-FSDO-13 [REDACTED]

Prepared by: James R. Gollwitzer, x 2674

Subject: Accident Statement for N7622M

Arrived at the landing site and observed the aircraft N7622M in a field with the Pilot/IA, mechanic and a friend waiting for our arrival.

The aircraft had extensive damage to the left wing as such that the wing was buckled at the root, fuel dripping, and the flap was pushed into the aft cabin window; the fuselage appeared buckled aft of the engine compartment with the lower portion of the windscreen popped out from the impact and buckling. The propeller had a small bend on one of the blades.

The Pilot/IA stated that the engine was giving him trouble the day before and he performed maintenance on some of the valve seats that were stuck and manually unseating them; no logbook entry was made and no maintenance manual was able to be referenced at the time of our discussion. The Pilot/IA stated that he knew the ELT was expired, no Airworthiness Certificate was in the aircraft, the Annual Inspection Log Book Sign Off was incomplete and knew he needed a Special Flight Permit to fly the aircraft.

James Commander Cook and I requested the cowl to be removed from the engine so that a visual inspection could be conducted. The visual inspection did not reveal anything abnormal. We asked for the Pilot/IA to attempt an engine start and the engine started right away and ran with obvious backfiring. We then asked the Pilot/IA to do a magneto drop test at low idle, when he selected Right there was no change, when the Pilot/IA selected Left the engine stopped. We removed the slick magneto and disassembled the unit to the point that we could establish no obvious discrepancies existed; this unit will be sent out for analysis per the NTSB. A continuity test of the start/magneto switch was conducted without discrepancy. A trace of the ignition wires revealed that the right magneto number 4 and number 6 ignition leads for to the spark plugs were swapped.

The Pilot/IA stated that the transponder face was smashed and inoperable prior to departure.

The Pilot/IA stated that the Annual Inspection he performed and that he signed off in the aircraft logbook could have better and that he did not do the right thing. He used his hands to pull the propeller through to check the compression of the cylinders and referenced the previous annual inspection compression test from 7 years prior.

The engine air inlet, oil level, and fuel flow were all checked without discrepancy.

Observations by other FAA inspectors from Atlanta were consistent with this information.