

Inspector Statement

November 26, 2019

On November 24, 2019 a meeting was conducted with Dr. Carlos Diaz, owner of Aircraft Management Services (AMS), William Cottom,, Director of Maintenance for AMS, FAA Safety Inspector Nina McBride, and myself at the AMS Fixed Base Operator's (FBO) building located at Peter Prince Airport (2R4), Milton FL. During the meeting I questioned Mr. Cottom about the maintenance (MX) that was performed on N24GL by AMS MX personnel.

Mr. Cottom explained he had performed the Annual Condition Inspection in August 2019. More recently, on November 22nd and 23rd he worked to correct an issue with the ignition system. Mr. Cottom stated that, during the Annual Condition Inspection, water was found in the fuel system. The fuel header tank was drained and cleaned with fresh fuel. He also stated the owner purchased 25 gallons of 100LL AVGAS in September.

Mr. Cottom stated the work performed on November 22nd and 23rd was to correct a magneto (MAG)/ignition issue causing a bad MAG check, first with the left MAG and then with the right MAG. The problem was eventually isolated to bad spark plugs. Mr. Cottom stated the owner provided all new spark plugs. A couple of them were bad and the owner went and purchased replacements. Mr. Cottom also stated there was a problem with one of the spark plug adapters being cross threaded. A new one was ordered and shipped overnight for delivery on November 23rd. Mr. Cottom stated the replacement adapter along with a new spark plug were installed on November 23rd. The engine ground checks were performed with no problems noted. The aircraft was not be flown due to inclement weather. The owner/pilot told Mr. Cottom he would fly on Sunday November 24th, the date of the crash.

Mr. Cottom stated he had not completed the logbook entries for the MAG/Ignition repairs. I asked Mr. Cottom about the electronic magneto conversion and if they were STC'd (Supplemental Type Certificate) for Type Certificated (TC) engines. Mr. Cottom stated he did not install them and did not know if there was a STC for the conversion. At this point, Dr. Diaz provided information from the magneto manufacturer's website that indicated there wasn't an STC for TC'd engines. The website also described known issues with the magnetos not being able to provide sufficient spark for aircraft spark plugs. The spark plug adapters and automotive spark plugs are recommended with this conversion.

On November 25th I met with Mr. Cottom at the AMS MX hangar to discuss the magneto's and the logbook entries. I asked Mr. Cottom if he had any additional documentation for any other work that he or AMS had done on N24GL. He advised he only had copies of his original logbook entries. I asked Mr. Cottom if he had checked with the magneto manufacturer to verify if an STC was available for TC'd engines. Prior to my departure he advised that the manufacturer confirmed there are no STC's on their products and they are for experimental aircraft engines. The new electronic magnetos

were installed and logbook entries made on June 6, 2018, Tach Time 130.4, TSMOH 130.4, and Engine Total Time of 1140.0, by Cody Claytor, AP 4071517.

I showed Mr. Cottom that his logbook entries dated August 14, 2019 showed total times less than the previous year: Annual Condition Inspections: TTAF of 130.4 hours dated June 6, 2018, and his entry of TTAF 102.3 hours dated 14 August 2019-also the incorrect year. I also explained the engine total time errors. Specifically, all entries made after the engine was overhauled in 1985 (no additional MX entries in the engine logbook until the preservative oil was drained 9/4/2002) which indicated Engine Total Time of 1140.0 hours and 0.0 hours Since Major Overhaul (SMOH) but total time was being tracked as if the engine had been "Zero" timed by the factory.

On November 26th I met with Mr. Cottom and Dr. Diaz to explain what was found in the carburetor when it was disassembled. I also showed them the photographs taken. Mr. Cottom asked if these issues could have caused/contributed to the crash. I explained to both of them the NTSB is responsible for the investigation and determining, if possible, the cause of the crash. I also explained that I could not speculate on the cause of the crash but was merely showing them what had been found which may help with future aircraft maintenance.


Clayton Caessens
ASI/Avionics
AFG-600-BHM FSDO-09