



MEMORANDUM FOR RECORD

Douglass Brazy
Air Safety Investigator
Eastern Region Aviation

November 23, 2016

Subject: NTSB investigation ERA16LA276, N94JR, Piper PA28R, Panama City, Florida, July 28, 2016.
Engine Examination notes.

On August 8, 2016, James Davidson, FAA Principal Avionics Inspector, Orlando FSDO, examined the airplane at a salvage facility in Jacksonville, Florida. He provided the following summary:

From: Davidson, James E (FAA)
Sent: Tuesday, August 09, 2016 2:31 PM
To: [REDACTED]; Perkins, Clay (FAA)
Subject: N94JR Engine

Sir,

I was asked last week to take a look at the engine for N94JR, a Piper PA-28R that was involved in an Accident. This request came from the Alabama FSDO, Inspector Clay Perkins who is the IIC for this Accident.

Upon arrival at Florida Air Recovery in Jacksonville, FL, on August 8, 2016 I found the aircraft outside along the northern side of the driveway to their office.

I obtained some "water detection paste" and dipped the container of fuel salvaged from the accident, no water was detected. This fuel came from the right wing and was approx. 10 gallons in quantity. I dipped the smaller of the two containers as one of Florida Air Recovery employees informed me as they were draining the first 15 gallons of fuel obtained from the left side wing tank from the collection container to a 55 gallon container it started to drizzle rain. Total fuel from the right wing was approx. 24 gallons.

Note: - typos in this paragraph. Per Clay Perkins and photos, the right wing was separated and breached at the accident scene. All recovered fuel, was from the left wing. - DB

I rotated the propeller several revolutions and was able to determine that compression was present at each of the 4 cylinders, the left mag was equipped with an impulse coupling, after cutting the P-leads (both right and left mags) the wiring (high tension leads) to the cylinders were taken off all 8 spark plugs and grounded to the cylinder fins, the left mag fired on 3 of the 4 cylinders. The Upper plugs on the right side (# 1 and 3 cylinders) and the lower plugs (#2 and 4 cylinders) I was unable to positively detect spark from the #2 cylinder. Most likely due to the rotation speed of the propeller the right mag was unable to generate a detectable spark.

I then opened the fuel lines to both to the fuel flow gage and the fuel line from the fuel servo to the fuel distributor located on top of the engine, both lines were wet with fuel, no appreciable amount was obtained. I then opened the fuel lines (inlet and outlet) to the fuel servo, again these lines both were wet with fuel but contained no appreciable amount of fuel in them. I located the gascolator and opened it, the gascolator was clean, a small amount of fuel was in the bottom, the filter was clean. I located and opened the lines (inlet and outlet) from the electric fuel pump both lines were wet but no detectable amount fuel was obtained from these lines. I disconnected the fuel pump and connected a power supply to the positive and negative wires. Applying approx. 14 vdc, the electric motor ran and the pump worked, with the inlet hose inserted into a bucket of aircraft fuel the pump did pump fuel out the outlet hose, although the fuel flow was not what is usually expected (approx. 14 – 45 psi. No equipment was present to make a detailed pressure reading).

Respectfully

James "Jay" Davidson

Principal Avionics Inspector

Orlando FSDO-15

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On November 22, 2016, NTSB Investigator Daniel Boggs performed a follow-up examination of the engine at the salvage facility. That examination did not reveal any mechanical malfunctions or anomalies that would have precluded normal operation of the engine.

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