



Examination Report

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Date: August 23, 2018
NTSB Accident Number: ERA18LA033 – Presque Isle, ME

On August 23, 2018, I performed an engine exam of on N421RX, a Cessna 421C, that experienced an inflight engine fire near Presque Isle, Maine, in November 2017. Present for the examination were:

Leah Read, NTSB

John Keymont, FAA AEG

Chris Cunningham, Colonial Air

Visual examination of the engine revealed soot and a darkening of the area below and behind the fuel injector system near the turbocharger. The top engine cowling, which had paint bubbling and discoloration from exposure to intense heat, was placed over the top of the engine and the damage was consistent with the area above the fuel injector system (photo 1).

The fuel system was then pressurized with 40psi and the sound of escaping air was heard in and around the mixture control arm of the fuel injector system. A mixture of water/soap was sprayed on the area where air was heard, and bubbles were immediately observed. Other areas of the engine were also sprayed with the water/soap mixture and no other signs of a leak was observed (photo 2). The area where the leak was observed would be consistent with fuel dripping and being blown onto the hot turbocharger in flight.

The fuel injector system was removed, and blue staining was observed in and around the mixture arm (photo 3).

A pressure check of the exhaust system was also conducted. No leaks were observed at any welds, the WYE or elbow joints.

Leah D. Read, Sr. ASI



Image 1: Photo of the top cowling sitting on top of the engine



Photo 2: Leak at the mixture control arm on fuel injector system

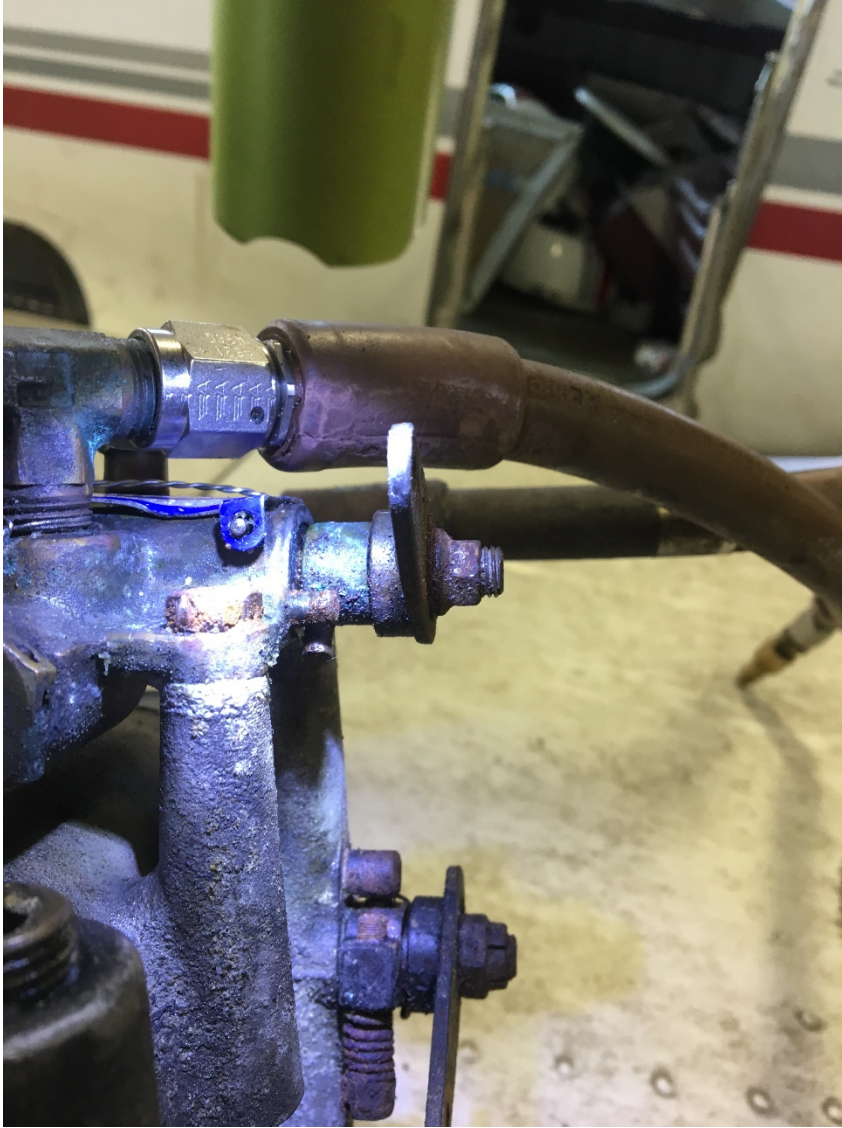


Photo 3: Blue staining on fuel injector system near observed fuel leak