



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

March 2, 2015

AIRFRAME AND ENGINE EXAMINATION SUMMARY

WPR15LA104

This document contains 0 embedded photos.

A. ACCIDENT

Location: Hayward, California
Date: February 15, 2015
Aircraft: Scottish Aviation Bulldog-120 121, N706BD
NTSB Investigator-in-Charge: Tom Little

B. SUMMARY

Examination of the recovered airframe and engine was conducted at Hayward Airport, Hayward, California, on March 2, 2015. The examination of the recovered airframe and engine revealed water was in the fuel system between the airframe fuel filter to the engine fuel flow divider and the fuel flow divider pressure line.

C. DETAILS OF THE INVESTIGATION

1.0 Airframe/Engine Examination

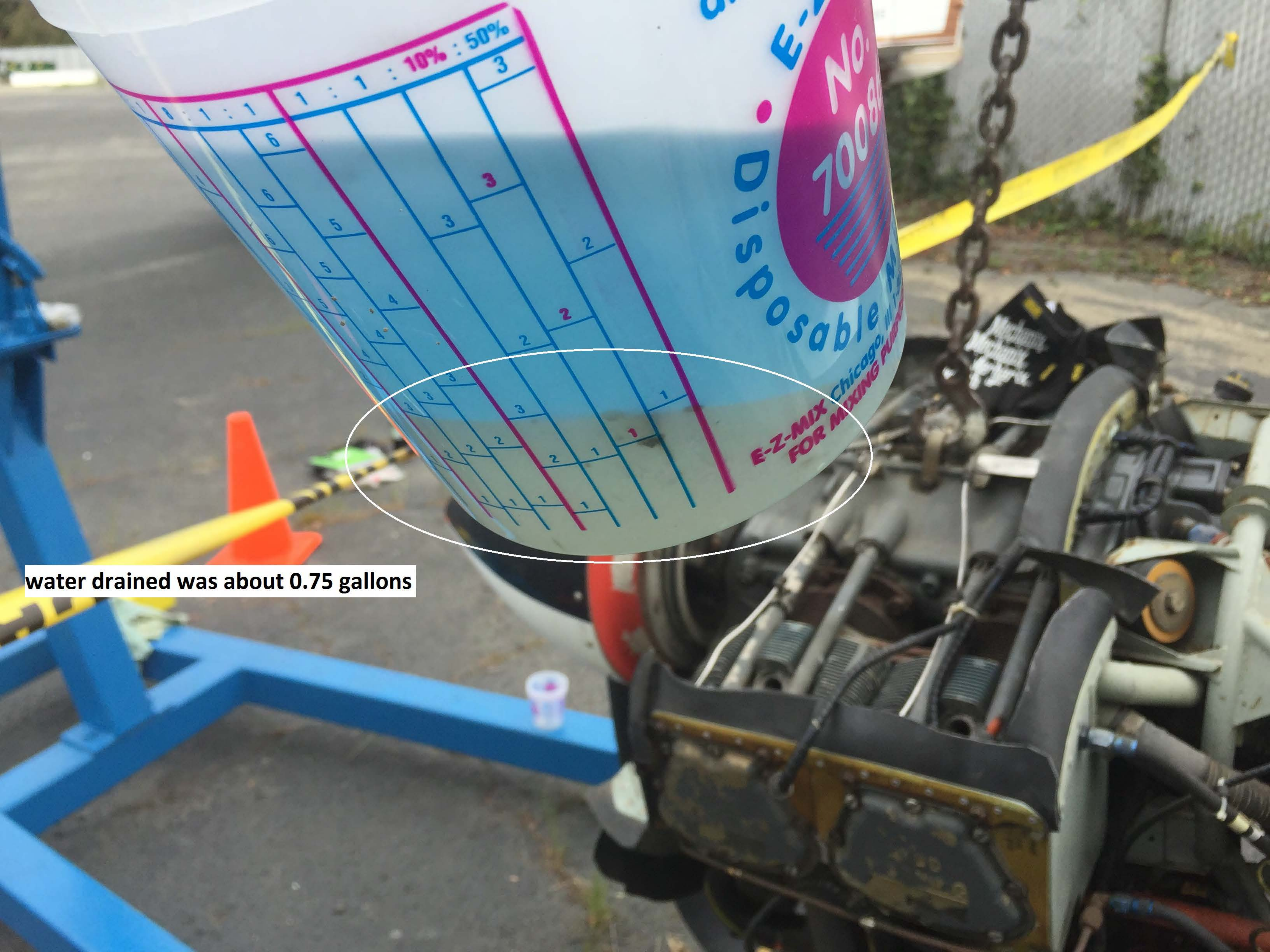
Examination of the recovered airframe and engine revealed that the Lycoming IO-360-A1B6 remained attached to the airframe via all mounts. Information provided by the Federal Aviation Administration (FAA) inspector, who responded to the accident site, revealed that he had disconnected various fuel lines from the fuel nozzles to the fuel flow divider, and did not secure them tightly.

The top spark plugs were removed. The engine was rotated by hand using the propeller. Thumb compression on all 4 cylinders was obtained. In addition, spark was observed on all 8 ignition leads. Liquid was observed expelling from the fuel pressure hose fitting at the fuel flow divider. The liquid was captured in an empty, dry cup, and was a murky white color. The liquid was tested using water finding paste and was positive for water. The fuel line extending from the airframe fuel filter to the throttle body fuel control unit was removed at the fuel control unit. Residual liquid in the fuel line was captured and tested using water finding paste with positive results. The airframe fuel boost pump was turned on and liquid expelled from the fuel line. About 0.75 gallons of fuel was recovered from the fuel line before the boost pump was turned off. About one-quarter of the liquid removed appeared consistent with water and the remainder of the liquid was consistent with fuel and blue in color.

Examination of the airframe revealed that both the left and right fuel caps were intact and in place. The left wing was sitting in a left wing low position (left main landing gear was separated), and fuel was observed expelling from the left fuel cap, which was secured and appeared tight. The cap was removed and the seal appeared intact and was not cracked or hardened.

Fuel samples were obtained via the left and right wings and were blue in color and free of debris.

Submitted by: Joshua Cawthra



water drained was about 0.75 gallons