

# INVESTIGATION SUMMARY

Model: Garlick OH-58A+    A/C SN: 71-20740    A/C REG: N650MH  
A/C T.T. 10,815 hrs.    A/C MFG DATE: 11/05    ORIG. MODEL: Bell OH-58A  
ENG. MFG: Rolls-Royce    ENG MODEL: T63-A720    ENG T.T. 1,631 hrs.  
D.O.A.: 5/30/2014    MISHAP TIME: ~1400    LOCATION: Whitefield, ME  
FLT. PHASE: CRUISE    INJURIES: Minor    DAMAGE EST: SUBSTANTIAL  
OPERATOR: Maine Helicopters, Inc

The accident aircraft had flown approximately 5.4 hours on the day of the accident. After accomplishing the power line inspection flight the pilot dropped off the observer at Bar Harbor, ME and started his flight back to Maine Helicopters, Whitefield, ME. Approximately 20 minutes after departure from Bar Harbor; the pilot reportedly observed the MASTER CAUTION light illuminate. The pilot continued flight and, approximately 5 minutes later he observed the MASTER CAUTION light illuminate for a second time (the pilot, reportedly, did not observe a caution light illumination during either of the MASTER CAUTION illuminations) and then about 20 seconds later the engine flamed out. The pilot initiated an auto-rotation and put the aircraft down in a forestry area of small trees. The pilot shut down the aircraft and exited without assistance, with only a minor head injury reported. The pilot reportedly stated to first responders on the scene, that he had ran out of fuel. Individuals from the operator and FAA arrived at the accident site and conducted an initial examination. They confirmed that the boost pump made an audible noise when turned on and, they removed about 10 gallons of fuel from the fuel cell. Upon my arrival at the operators facility on 8 July, I accomplished the following:

- confirmed the fuel shut-off valve was moving full range (from full open to fully closed)
- verified that the boost pump was operational
- checked all plumbing for connection and tightness
- visually verified fuel cell condition
- confirmed all caution and warning lights operational (found lights set to DIM)
- checked and confirmed the freewheeling unit was functionally operational
- checked LOW FUEL indicating system (with fuel cell empty = 20 MIN light ON, added ~12.4 gal. light went OFF, removed 2.5 gal. and the light illuminated [and stayed illuminated] with ~10 gal. of fuel left in the cell)
- prepared and started the engine, and ran it for close to 10 minutes (restricted to time only because the oil cooler blower was disconnected; temp restricted)
- while engine was running, moved the fuel shut-off valve to closed (after approx 1 min. the engine started indicating conditions consistent with fuel starvation)
- while running the engine, with throttle full open, the engine remained at approx 103%
- when the throttle was moved to flight idle, the engine remained outside the parameters for flight idle (stayed high); attributed to deformed controls and the throttle being out of configuration due to impact

To this investigators opinion; the fuel system operated to acceptable standards and delivered adequate fuel flow for engine operation, for a post accident condition. A complete examination of the total airframe did not reveal any preimpact anomalies.