

ON AUGUST 1, 2017 AIRCRAFT N 6216L, A GRUMMAN AA-1B, DEPARTED DEER VALLEY AIRPORT (DVT) ON RUNWAY 25L, AT APPROXIMATELY 12:45 PM LOCAL TIME. THE AIR TRAFFIC CONTROL MANAGER REPORTED THAT THE PILOT DECLARED AN EMERGENCY SHORTLY AFTER TAKE-OFF AND RIGHT BEFORE THE AIRCRAFT CRASHED. ALL WITNESS STATEMENTS NOTED THAT THE AIRCRAFT WAS FLYING LOW AND THAT THE WINGS ROCKED LEFT AND RIGHT. IT WAS ALSO STATED THAT THE LEFT WING DIPPED ACUTELY CAUSING THE LEADING EDGE TO CONTACT THE FENCE BORDERING THE AIRPORT PROPERTY. ONE WITNESS STATED THAT IT SOUNDED LIKE THE AIRCRAFT ENGINE HAD LOST POWER AFTER TAKEOFF. FOLLOWING THE IMPACT, THE AIRCRAFT CONTACTED THE GROUND, ROTATED COUNTERCLOCKWISE ON ITS AXIS, AND SKIDDED INTO A TREE. AFTER IMPACTING THE TREE, THE AIRCRAFT BROKE MID-FUSELAGE SPLITTING THE AIRCRAFT BODY IN TWO, WITH THE COCKPIT AND THE FUSELAGE ON EITHER SIDE OF THE TREE. THE ENGINE APPEARED TO BE PRODUCING SOME POWER BASED ON EXAMINATION OF THE PROPELLER BLADES. THE PILOT AND PASSENGER WERE BOTH SERIOUSLY INJURED AND UNCONSCIOUS WHEN PARAMEDICS ARRIVED.

OBSERVATIONS ON THE SCENE OF THE ACCIDENT INDICATE THAT THE COCKPIT CONFIGURATION WAS AS EXPECTED. ON THE CENTER INSTRUMENT PANEL, THE FUEL SELECTOR KNOB WAS TURNED TO DRAW FUEL FROM THE LEFT TANK. THE SEPARATED LEFT WING ALSO PRESENTED EVIDENCE OF FUEL DISPERSION. THE QUANTITY OF THE SPILL IS ESTIMATED TO BE BETWEEN 3 AND 5 GALLONS. THE RIGHT WING DID NOT SHOW ANY EVIDENCE OF A FUEL SPILL AND NO FUEL REMAINED IN THE WING. UPON EXAMINATION, IT WAS NOTED THAT THE FUEL CAP ON THE RIGHT WING WAS MISSING. THE FUEL CAP WAS LOCATED THREE DAYS LATER BY AIRPORT AUTHORITIES AND WAS GIVEN TO THE FAA. BASED UPON THE LOCATION, APPROXIMATELY 50 FEET EAST OF THE POINT OF IMPACT WITH THE PERIMETER FENCE, IT APPEARS THE CAP SEPARATED FROM THE WING AT IMPACT. THE TCDS FOR THE AA-1B AIRCRAFT STATES THAT THERE IS 2 GALLONS OF UNUSABLE FUEL. REVIEW OF FUEL PURCHASE RECEIPTS INDICATED THAT 7.8 GALLONS OF FUEL WAS PURCHASED FOR THIS AIRCRAFT ON 7/31/2016 AT 21:07. THIS WAS THE FIRST LOGGED FLIGHT SINCE THE FUEL WAS ADDED. BASED UPON CALCULATIONS OF FUEL PURCHASES AND FLIGHT TIMES OF 18 DAYS LEADING UP TO THE CRASH INDICATE THAT IT WAS POSSIBLE FOR

THE RIGHT WING TO HAVE HAD MINIMAL FUEL. RECORDS OF THE FUELING STATION INDICATE THAT IT WAS PROPERLY MAINTAINED.

FURTHER INSPECTION OF THE AIRCRAFT, ACCOMPLISHED AFTER THE AIRCRAFT REMOVAL FROM THE SCENE, REVEALED THAT THE FUEL SELECTOR VALVE HAD A SHEARED STOP PIN AND WOULD ALLOW THE VALVE TO TRAVEL PAST THE LEFT TANK DETENT. TRAVEL TO THE RIGHT THE STOP PIN WOULD PREVENT TRAVEL PAST THE DETENT. ALTHOUGH, BY MOVING THE SELECTOR PAST THE DETENT WOULD RESULT IN FUEL STARVATION, ALL INDICATIONS FOUND AT THE SCENE WERE THAT THE SELECTOR WAS IN THE LEFT DETENT, WITH NO FACTUAL EVIDENCE THAT IT HAD BEEN MOVED PAST THE DETENT.

TEARDOWN OF THE ENGINE FOUND THE # 3 CYLINDER, EXHAUST VALVE TO BE STUCK IN THE OPEN POSITION. THIS CONDITION WOULD CAUSE THE ENGINE TO RUN ROUGH AND WOULD CAUSE SIGNIFICANT LOSS OF POWER.

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