



## **CEN19FA036 ENGINE INFORMATION**

The airplane was equipped with two Williams FJ44-1A turbofan engines. The FADEC units were removed from both engines and sent to the manufacturer's facility for download.

### **Left Engine**

The FADEC for the left engine was damaged and could not be powered. Memory chips were extracted from the accident FADEC and installed on a donor unit for the purpose of data download. The data recorded fault 31, a "T2 HEATER FAIL", on both A and B channels. It had been recorded and reset 3 times, with the most recent recording on March 20, 2018. In addition, there was a fault 18, "FUEL SHUT OFF VALVE BIT FAILED". The fault was recorded in the B channel and was an "active fault" meaning it was likely induced during a prior attempt to apply power to the FADEC. It was not recorded during the flight on the day of the accident. Finally, there was a fault 42, "P2 ENGINE SPLIT FAULT", that was recorded in both LH channels and had been reset once but the most recent recording was on May 18, 2018. There were no other faults recorded in either channel so there were no faults recorded on the day of the accident, November 30, 2018. There was a single data point that was recorded at takeoff which recorded normal parameters.

### **Right Engine**

The FADEC for the right engine was able to be downloaded normally. The data recorded fault 31, a T2 HEATER FAIL, on both A and B channels. It had been recorded and reset 3 times, with the most recent recording on March 20, 2018. There were no other faults recorded in either channel so there were no faults recorded on the day of the accident, November 30, 2018. There was a single data point that was recorded at takeoff which recorded normal parameters.