

5/18/2018

FOR YOUR INFORMATION

2018-85/3-10

1519503

To: Textron Aviation (Cessna)

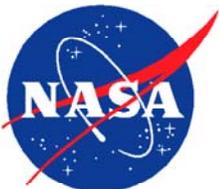
Info: FAA (AVP-1, AVP-200, AFS-300, AFS-800, AFS-280, AFS-200, MKC-AEG, ANM-100, AQS-230), AMFA, AOPA, ASAP, ATSG, GAMA, IAM, ICASS, NBAA, NTSB, PAMA, TWU

From: Becky L. Hooey, Director (Acting)
NASA Aviation Safety Reporting System

Re: C680 FADEC Anomaly

We recently received an ASRS report describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dennis Doyle at (408) 541-2831 or email at dennis.j.doyle@nasa.gov



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN: 1519503

Time

Date: 201802

Local Time Of Day: 0601-1200

Place

Locale Reference.Airport: ZZZ.Airport

State Reference: US

Environment

Flight Conditions: IMC

Aircraft 1

ATC / Advisory.Center: ZZZ

Make Model Name: Cessna Citation Sovereign (C680)

Component 1

Aircraft Component: Turbine Engine

Component 2

Aircraft Component: Engine Control

Component 3

Aircraft Component: Engine Air Pneumatic Ducting

Person 1

Function.Flight Crew: Pilot Flying

Function.Flight Crew: First Officer

ASRS Report Number: 1519503

Person 2

Function.Flight Crew: Pilot Not Flying

Function.Flight Crew: Captain

ASRS Report Number: 1519347

Events

Anomaly.Aircraft Equipment Problem: Critical

Detector.Person: Flight Crew

Result.General: Maintenance Action

Result.Flight Crew: Inflight Shutdown

Result.Flight Crew: Landed in Emergency Condition

Result.Air Traffic Control: Provided Assistance

Narrative 1

On climbout, selected all anti-ice on due to conditions. After 2 minutes we got all anti-ice cold R (right) EICAS warning. Accomplished abnormal checklist. After cross flow was opened, the lights extinguished and we proceeded to our destination. Approximately 20 minutes prior to arrival, got a windshield heat fail L (left) and accomplished procedure. Shortly thereafter got engine control fault L and accomplished procedure. Shortly afterwards received fuel boost pump on L illuminated. Accomplished checklist. Discussed the left side of the aircraft seemed to have problems and preemptively started the APU to provide left side electrical backup power. Before turning on final, maybe 20 mile dog leg, we heard and felt a thump through the airframe and received multiple EICAS messages. These messages occurred as a result of the engine failing.

[Advised] Approach Control. Secured engine according to appropriate checklists and commenced and accomplished a single engine approach to ZZZ. Cleared runway, stopped, and had aircraft inspected by responding personnel. No fire or hazards detected and proceeded to ramp shut down and exited aircraft.

Callback 1

The reporter stated they received information from Maintenance that a clamp failed on a pneumatic duct allowing hot air to heat up the FADEC causing it to fail. The reporter stated that there were scorch marks on the engine cowling.

Narrative 2

Initially, all right side COLD messages illuminated. The checklist was accomplished. The messages extinguished after CROSSFLOW was selected. Later, ENGINE CONTROL FAULT L and WINDSHIELD HEAT INOP L illuminated simultaneously. Both checklists were accomplished. The warnings stayed on. Shortly after, FUEL BOOST PUMP ON L illuminated. That checklist was accomplished. Shortly before turning onto ILS final, there was an aural and physical thump. The left engine quit. A single engine approach and landing was accomplished uneventfully. The fire department inspected the airplane and we taxied to the FBO.

Synopsis

CE680 flight crew reported that after several EICAS messages, the left engine failed, reportedly due to an overheated EEC.