

Bombardier CL-600-2B16, Water heater Failure, ATA 3820

(The following article is a safety advisement from Transport Canada's Service Difficulty Alerts. It was duplicated from their web site and is republished here with permission from Civil Aviation Technical Inspector Steve Dudka. Source and contact information is found at the article's end.)

AL 2009-01

10 February 2009

Galley or Washroom Water Heater failure

Supplemental Type Certificate (STC) – SA696GL and STC SA4370SW

Transport Canada Civil Aviation (TCCA) has learned through the Service Difficulty Reporting (SDR) program that a Bombardier CL-600-2B16 (601-3R) Challenger's crew observed smoke coming out of the fuel control panel in the forward galley area. The aircraft declared an emergency and made a successful landing. Investigation has revealed the water heater insulation blanket in the forward galley had evidence of heat damage. The heater (P/N 444-0007 or 500-0120-7-0) is part of a United States Supplemental Type Certificate (STC) – SA696GL and SA4370SW.

Further investigation revealed the thermostat on the heater had failed allowing the temperature to climb well above design limits causing the heater's insulation and the adjacent aircraft insulation to begin to overheat (smoke). There have been four (4) known previous events where the thermostat has failed with similar results.



The water heaters may have been installed upon, but not limited to, Canadair Challenger, Gulfstream GII, GIII, GIV, and Hawker 700/800; they are also available in a wide variety of aircraft outside of the STC using a FAA Airworthiness Approval Tag 8130-3.

Bombardier CL-600-2B16, Water heater Failure, ATA 3820

Transport Canada recommends that all operators and Approved Maintenance Organizations review aircraft records and verify if their aircraft has had interior modifications carried out at either Gulfstream's (formerly KC Aviation) Appleton or Dallas facilities. Also, TCCA highly recommends a visual inspection be carried out for this heater installation and evidence of water heater overheating at the earliest possible opportunity.

The Transportation Safety Board (TSB) and Transport Canada investigation for this more recent event will continue with the support of General Dynamics, the STC holder. In the interim, General Dynamics Aviation Services will produce an All Affected Operators Message for Gulfstream and Non-Gulfstream products, reference control # 2008-0014.

Any further defects or occurrences should be reported to Transport Canada, Continuing Airworthiness, Ottawa, via the Service Difficulty Reporting (SDR) program. For further information, contact a Transport Canada Centre, or Mr. Steve Dudka, Continuing Airworthiness, Ottawa, telephone 613 952-4361, facsimile 613 996-9178 or e-mail steve.dudka@tc.gc.ca.

<http://www.tc.gc.ca/CivilAviation/certification/continuing/Alert/2009-01.htm>

(The FAA's SDRS database doesn't return a record for P/N 444-007, but if the number is truncated by 2 digits and provided a wild card '%', P/N 444-007-103 returns on another CL600. P/N 5000-0120-7-0 returns one similar report. ANYTHING to do with fire is well worth a few moments of consideration and inspection. Thanks goes to Steve for sharing this information—Ed.)

Part Total Time: (n/a).