

IA TB 19-01

May 23, 2019

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Subject: Aero Commander 690 Vertical Fin Attachment Bulkhead Cracks

Distribution: All Fixed Wing Aviation Managers and Users

Discussion: This Technical Bulletin will provide additional information and will expand on the information provided in IASA 19-01. During a recent inspection by the Office of Aviation Services (OAS) Western Regional Office and the U.S. Forest Service, a contractor openly provided Inspectors with information on cracks discovered in the vertical fin forward attachment bulkhead on three Aero Commander 690s. The contractor discovered the cracks and felt it was important to disclose this to the OAS and Forest Service Inspectors in the interest of safety.

A Service Bulletin (SB 218) from the manufacturer for the area affected shown in <u>Figure 5</u> (pg. 3) includes an option to install a customer kit (CK175A). This kit is applicable only to improve the area depicted in *figure 5*. Continued investigation shows areas shown in figures 1-5 are problem areas. The manufacturer has not released a SB addressing this issue.

A Service Bulletin (SB 234) was written to address area cracking (shown in figures 1-4) but was never published. Operators are advised to pay particular attention to fuselage station 386.82 for cracking and the forward vertical attachment brace (90 degree Extrusion) hardware for loss of torque. During the subject inspection, the hardware for the vertical supports was "finger tight." Figure 1. Cracks in aircraft bulkhead.



Inspections on additional aircraft revealed two more with the same finger tight bolts (for a total of 5 aircraft with loose hardware). The loose bolts cause the holes to be elongated. A Service Letter (SL 355) was issued in 1982 addressing the loose bolts and the need for the addition of a washer and retorque of these bolts, but the service letter was never incorporated into a SB.

Scheduled inspections of the affected area were conducted at the required interval. The Approved Aircraft Inspection Program (AAIP) of the vendor that disclosed the problem has been modified to introduce a more frequent inspection of this affected area and the FAA has already approved the change.

The contractor has submitted a Service Difficulty Report (SDR) as required by 14CFR part 135. They are also working with the manufacturer and a Designated Engineering Representative (DER) to determine an appropriate repair of the affected aircraft.

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Figure 4. Cracks in aircraft bulkhead.



Figure 2 and 3. Cracks in aircraft bulkhead.

Figure 5: SB 218 includes an option to install a customer kit (CK175A) to improve the area shown here.



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