



U.S. Department
of Transportation

Federal
Aviation
Administration

Airworthiness Concern Sheet

Date: May 27, 2025

Reply to: Name: Lekebis Russell Title: Aviation Safety Engineer (Airframe) Office: East Certification Branch Street Address: 1701 Columbia Ave City, State, ZIP: Atlanta, Ga 30337 Telephone: (404) 474-5510 Electronic Mail: Lekebis.M.Russell@faa.gov	Make: Twin Commander Aircraft LLC Model / Serial Numbers: <ul style="list-style-type: none">– 685: 12000 through 12066– 690: 11000 through 11079– 690A: 11100 through 11344– 690B: 11350 through 11566– 690C: 11600 through 11735– 690D: 15001 through 15042– 695: 95000 through 95084– 695A: 69001 through 96100 Reason for Airworthiness Concern: Empennage Cracking
Federal Aviation Administration (FAA) Description of Airworthiness Concern <p>FAA Airworthiness Directive (AD) 95-13-02 required inspections of the empennage fuselage station (FS) 409 frame and adjacent vertical stabilizer exterior skin to prevent failure of the vertical stabilizer because of cracks, which if not detected and corrected, could result in loss of control of the airplane. Twin Commander Aircraft Corporation Service Bulletin (SB) 218 provided terminating action to AD 95-13-02 detailing modifications to the airplane empennage FS 409 frame and adjacent vertical stabilizer exterior skin.</p> <p>The FAA is aware of continued crack growth in FS 409 as well as the vertical stabilizer skin extending beyond the original areas of concern identified in AD 95-13-02. Operators have also reported additional structural cracking on FS 386 & FS 429 frames, with several instances of cracking being identified in visually inaccessible empennage locations. Service Letter (SL) 345 installed access panels which may allow limited observation of the areas of concern, but other areas require more extensive work to gain access.</p> <p>Cracking has been reported on airplanes operating in both part 91 and 135 operations, with a broad range of airplane flight hours. Airplanes with current or previous operation within the United States Forestry Service USDA or similar firefighting support roles may be more susceptible to the development of cracks in these areas. In March of 2019 the USDA's Office of Aviation Services released an interagency aviation safety alert with information on cracks discovered during routine inspections in the vertical fin attachment (FS 386). A link to the safety alert has been provided below.</p> <p>https://www.fs.usda.gov/sites/default/files/2019-05/iasa_19-01_aero_commander_690_vertical_fin_attachment_bulkhead_cracks_final.pdf</p> Fuselage Station 386 Cracking Location includes: <ul style="list-style-type: none">• Shear Web• Horizontal Brace• Frame Upper Cable Cutouts• Diagonal Brace Fuselage Station 409 Cracking Location includes: <ul style="list-style-type: none">• Horizontal Stabilizer Front Spar• Vertical Stabilizer Spar Web• Horizontal Stabilizer corner fillet radii• Horizontal Stabilizer web• Frame tangs• Fuselage Skin	

Fuselage Station 429 Cracking Location includes:

- Frame Channel and Web
- Forward Frame

Vertical Stabilizer Skin Cracking Location includes:

- Repair Doubler
- Mid Spar Flange

Request for Information

The FAA is interested in receiving any information regarding:

- Findings of cracks or damage discovered during previous or current inspections or maintenance of the above-mentioned locations of the listed Twin Commander Aircraft LLC models and serial numbers. Please provide a description of damage, available photos, airplane serial numbers, description of the operational history, and time in service.
- Proposed inspection methods and means of access to those areas.
- Proposed repairs for damage done at any of the above-mentioned locations.
- Findings of loose, broken, or missing hardware throughout the empennage area.
- Facilities available for airplane repairs and maintenance.
- Current time in service for your airplane(s) whether or not these areas have been inspected.

Additionally, please provide any other information you feel may be helpful for us to consider as part of our evaluation.

This Airworthiness Concern Sheet (ACS) is intended as a means for FAA Aviation Safety Engineers to coordinate airworthiness concerns with aircraft owners/operators through associations and type clubs. At this time, the FAA has not made a determination on what type of corrective action (if any) should be taken. The resolution of this airworthiness concern could involve Airworthiness Directive (AD) action or a Special Airworthiness Information Bulletin (SAIB), or the FAA could determine that no action is needed at this time. The FAA's final determination will depend in part on the information received in response to this ACS.

The FAA endorses dissemination of this technical information to all manufacturers and requests association and type club comments.

Attachments:

- ☐ Service Difficulty Report
- ☐ Accident/Incident Data System
- ☐ Service Letter / Bulletin
- ☐ Special Airworthiness Information Bulletin
- ☐ Federal Aviation Administration or National Transportation Safety Board Safety Recommendation
- ☐ Airworthiness Directive
- ☐ Alternate Means of Compliance
- ☐ Risk Analysis

Transmittal:

- ☒ Federal Aviation Administration
- ☒ Airplane Owners and Pilots Association
- ☐ Experimental Aircraft Association
- ☒ Type Club
- ☒ Type Certificate Holder
- ☒ Other: Unites States Forest Service

Response Requested By:

- ☒ Emergency (10 days)
- ☐ Alert (30 days)
- ☐ Information (90 days)