

Twin Commander (Gulfstream/Rockwell/ Aerocommander 500, 600 and 700) Series Aeroplanes

AD/AC/66
Amdt 8

Wing Fatigue Life Limitation

13/89

Applicability: As specified in the Requirement.

Requirement: Retire wing main spar lower cap assembly from service (or modify in accordance with a scheme approved by the Authority) in accordance with the schedule below:

AIRCRAFT MODELS AFFECTED (The straps referred to are wing spar lower cap fatigue life improvement reinforcements)	SPAR CAP RETIREMENT LIFE (Hours Time in Service)	
	MTOW of 6750 lb.	MTOW of 7400 lb.
500B	30400	-
500B used in low level survey type operations	19900	-
500U with external strap (Pre S/N 1731)	23200	17700
500U with external strap (Pre S/N 1731) and used in low level survey type operations	15900	12100
560F	24100	
560F used in low level survey type operations	16300	
	MTOW of 8000 lb.	MTOW of 8500 lb.
680F	17100	-
680FL with external strap (Pre S/N 1731)	17100	11200
680FL with internal strap (S/N 1731 and on)	3900	30000
680FL (P) with external strap (Pre S/N 1731)	-	25200
680T		27100
680V, 680W (Pre S/N 1731) with external strap		23500
685		20700
690, 690A		12900
690B		11500
690C, 695 - canted aerodynamic wing tips		11300
690C, 695 - plain tips for total operational life		24800
695A		To be Advised.

Note 1: If Models 680F(P) or 680FL(P) aircraft are flown predominantly at low or zero cabin differential pressure, then the retirement life of Models 680F or 680FL respectively, shall apply.

SCHEDULE OF AIRWORTHINESS DIRECTIVES

Note 2: Should models other than the 500B, 500U and 560F be used in low level survey type operations, the Authority must be advised as a reduction in life will be necessary. For all aircraft engaged in low level operations appropriate log book entries must be made listing times actually engaged in such operations. The Authority must also be advised of any aircraft operating consistently at a flight duration of less than 45 minutes when averaged over the life of the aircraft.

Note 3: The wing spar lower cap assembly subject to retirement consists of the spar cap "T" section element together with the nesting angles, outer wing spar cap splice angles and, as fitted, either internal or external reinforcement straps. The outer wing spar caps need not be retired.

Note 4: On the basis of currently available fatigue substantiating data only one spar cap assembly replacement is permitted without further evaluation. This will normally allow only a single life extension from spar cap replacement or reinforcement/modification.

Note 5: Models not listed in the schedule generally have fatigue lives greater than 30000 hours and are thus unlikely to be affected.

Compliance: As specified in the Requirement.

Background: The retirement lives of this Directive are based directly on data provided by the manufacturer. Amendment 7 was raised to clarify the strap configuration for those models which were fitted with any one of a number of strap configurations during their production life. For all models, the internal straps were fitted to S/N 1731 and subsequent. Amendment 8 corrects some typographical errors.