



DEPT. OF TRANSPORTATION  
DOCKETS

2001 SEP -3 A 10:29

**Subject: Proposed Immediate Adopted Rule AD-CRJ700 Center Fuel Tank Check**

FAA New England is processing an immediate adopted rule that would mirror the requirements of Transport Canada AD CF-2004-04, Rev 2. This AD requires that a check of the center fuel tank ejectors be conducted prior to each flight departure. The check is provided by Bombardier Service Bulletin 670-BA-28-25 and generally requires that the flight crew (or service technician) trip certain circuit breakers and observe the center fuel tank quantity indicator for fuel quantity changes for at least a 5 minute period. An alternative to this fuel quantity check is to operate with the center fuel tank empty.

Mesa Airlines operates fifteen series 700 aircraft which appear on the effectivity list of the referenced Service Bulletin and hence should be considered affected by this safety of flight issue. In addition Mesa Airlines operates all 900 series aircraft shown on the Transport Canada Rule CF-2004-04R2. It should be noted that the Service Bulletin is at Revision A. The reason for the safety of flight issue is that the casting of the primary ejector p/n T99A38-603 can be defective and cause the primary ejector to crack. Mesa have followed this story very closely and at the direct recommendations of Bombardier Aerospace are going to considerable length and expenditure to ensure that all our aircraft are fitted with low time ejectors. Mesa Airlines are of the understanding from Bombardier Aerospace that a failure of a unit that has less than 2,500 hours is highly unlikely.

Mesa Airlines does not consider the pulling of a circuit breaker every flight and waiting for 5 minutes a viable action without taking considerable operational interruptions. Mesa Airlines maintenance technicians are not available in every station hence this action would have to be performed by flight crew personnel. Mesa Airlines operates with "quick turns" often in the region of 25 minutes; a procedure which requires the crews to concentrate on nothing except the center tank fuel quantity for 5 minutes will cause significant delays on every flight. In addition the circuit breakers are not designed to be operated as switches; hence Mesa Airlines believes that the constant cycling of the circuit breakers will cause premature failures which will drive additional delays.

Based on operational usage of the aircraft, operation with zero fuel load in the center tanks is not an acceptable option to Mesa Airlines.

In reference to Service Bulletin 670BA-28-~~670BA-28-25~~ it should be noted that there is no requirement to cycle circuit breakers and the leak down test is run over hours not minutes depending upon the fuel load. If the rule is published to state cycle circuit breakers and watch for fuel transfer over a period of five minutes in accordance with the SB, then it will be completely unacceptable because there are no instructions in the SB ~~that support this~~. Reference to the Service Bulletin in the Transport Canada existing rule is for fault rectification only, which is appropriate. On completion of the test per the SB there is also a requirement to fax the completed Appendix A to Bombardier Aerospace. For the purpose of a scheduled maintenance check and fault rectification this is acceptable. However for an airworthiness item, the faxing of this piece of paper adds nothing to the safety of the aircraft for no fault found situations and would require us to be transmitting over 100 pages per day.

Mesa Airlines suggests that from a risk standpoint, the manufacturer and FAA consider if the ability to view unwanted transfer in flight is adequate protection to alert the crew, whereas based on fuel quantity and transfer rate the AFM could give diversion requirements if required. As an option, we believe that the check could be performed at the start of each operational day, and still allow for a risk assessment factor that would be acceptable for safety of flight.

Mesa Airlines thanks you for the opportunity to comment on this item and in summary believes that if the rule published, mirrors exactly the Transport Canada's rule CF-2004-04R2 then it will be acceptable to Mesa without undue burden, on ejectors with less than 2000 hours remaining. We have concern on hi-time ejectors over 2000 hours for the operational check exposure.

Mesa Airline Inc.

*Brian Davis*

Brian Davis  
Vice President – Technical Operations

Electronically signed