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FAA-1999-5401-131

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Delta Air Lines, Inc.
Post Office Box 20706
Atlanta, Georgia 30320-6001

To: Mr. Frederick Sobeck **From:** Ken Lorow

Fax: 202-267-5115 **Pages:** 4

Phone: 202-267-7355 **Date:** May 7, 2003

Re: Aging Airplane Safety Comments **CC:**

Urgent **For Review** **Please Comment** **Please Reply** **Please Recycle**

● **Comments:** Dear Mr. Sobeck,

The following comments were submitted via the dms.dot.gov link on Friday May 2, 2003, however it seems there was a failure and the comments did not submit. I am sorry for any inconvenience this has caused. I have been out of my office and did not return until today at which time I realized that the comments did not send. Please contact me at 404-14-4685 if you have any questions.

Thank you in advance for you understanding

Best Regards,

Ken Lorow

Manager - AD/Regulatory Programs



Delta Air Lines, Inc.
Post Office Box 20706
Atlanta, Georgia 30320-6001

May 2, 2003

Mr. Frederick Sobeck,
AFS-304, Aging Airplane Program Manager,
Flight Standards Service,
Federal Aviation Administration,
800 Independence Ave. SW.,
Washington, DC 20591

Subject FAA-1999-5401; Amdt. Nos. 119-6, 121-284, 129-34, 135-81, and 183-11,
Aging Airplane Safety

Dear Mr. Sobeck:

The Aging Airplane Safety Interim Final Rule, which becomes effective December 8, 2003, requires "on-airplane" inspections and records reviews by FAA inspectors or designees through implementation of new 14 CFR 121.368. The rule also requires the incorporation, by December 5, 2007, of damage tolerance maintenance programs, including repairs, alterations and modifications through the issuance of new 14 CFR 121.370. For Delta, 209 airplanes will require the inspections and records reviews prior to December 4, 2008. Additionally, 343 airplanes will require the inspections and records reviews no later than 5 years after the start of the airplanes 15th. year in service.

Delta offers the following.

1. General Comments:

- Cost greatly underestimated in FAA economic evaluation.
- No corresponding increase in the level of safety is achieved by additional inspections and records reviews by FAA inspectors (than otherwise obtained through oversight programs such as ATOS).
- Inadequate number of FAA inspectors to administer program with funding not identified.
- Requirements for the extent of record reviews and airplane inspections are not clearly defined which could lead to inconsistent compliance interpretations and much subjectivity.
- Repeat interval for airplane inspections will result in maintenance program scheduling constraint with 118 additional heavy maintenance visits to meet 7 year requirement (HMs are presently scheduled at 8 year intervals on B737 and B767 airplanes in our fleet).
- Some airplanes requiring inspections and records reviews for initial compliance time will be "out of sync" with their HMs (HMs not scheduled during remaining 4 year compliance period based on airframe age greater than 14 years).
- Records reviews and airplane inspection compliance times should coincide with operators FAA approved maintenance program.
- OEM data timelines do not support rule compliance deadline of December 5, 2007 for damage tolerance maintenance programs.
- Standardized approaches are needed to accomplish damage tolerance assessments on repairs, alterations and modifications (referred to as RAMs in the rule).
- Supplemental Structural Inspection Programs have not yet been issued by the Boeing, nor approved by FAA, for Delta's B737-300/-700 and MD88 fleets. These are needed for compliance.

- Strong recommendation and support for phased compliance time for damage tolerance requirements with supporting tasking to AAWG for the development of RAM DTA procedures and guideline documents as outlined in AAWG's advocacy position presented at the FAA Public Hearing, February 27, 2003.
- Viable compliance date based on AAWG solving technical issues (after FAA tasking) and publication of guidance material for DTA compliance is December 31, 2010, not December 5, 2007.

2. Cost Impact

- Direct cost increase of \$363,000,000 for additional HMV rescheduling to meet 7 year intervals, and initial compliance time of December 8, 2008 (requires special scheduling airplanes that will not have normal HMV in sync with the 5 year compliance time).
- Revenue loss of \$285,790,00 for additional HMV down-time on airplanes requiring inspections and record reviews.
- Incremental labor cost increase of \$76,900,000 supporting on airplane inspections and anticipated additional area open-up.
- \$28,000,000 incremental cost to accomplish damage tolerance assessment of existing repairs to primary structure.
- \$3,456,000 additional annual cost to accomplish damage tolerance analysis of new repairs to primary structure, not including fuselage pressure boundary.
- \$2,600,000 anticipated annual incremental cost for delegated administrative and inspection support (records reviews and on-airplane inspections).
- \$720,000 cost associated with reviewing and damage tolerance requirements of approximately 90 STCs that may affect primary structure.

3. Number of FAA Inspectors and DARs

- Anticipate that as many as 12 airplane inspections and record reviews could occur simultaneously (7/24/365 support).
- This could conceivably require between 12 and 24 FAA Inspectors, or DARs or combinations of the two to support inspections in multiple geographic regions.
- It is anticipated that approximately 12 months will be required for training and certification of DARs, leading to additional "start-up" delay.
- Similar 12 month time-lag anticipated in training FAA personnel required to support program that is not considered in rule compliance times.
- Operators should be reimbursed for direct cost of designees (Public Law requires inspections to be performed by FAA).

4. Estimate of Repairs, Alterations and Modifications (RAMs) and Impact

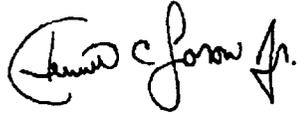
- 90 supplemental type certificates involving airframe structural alterations.
- 7000 existing repairs, alterations, or modifications to primary structure beyond fuselage pressure boundary on fleet (averaging 12 per airplane). This large number of existing repairs will not permit timely assessments with existing technology. New standardized approaches are needed.
- Sustaining rate of 72 repairs, alterations, or modifications per month on primary structure, excluding fuselage pressure boundary areas, requiring DTA-based inspection threshold and interval determination
- DTA outcomes will also require the development of supporting nondestructive test inspection methods and standards.
- Delta instituted DTA requirement for PSE repairs dating back to 1992, but extending requirement to all primary structure exceeds resources with inadequate compliance time (December 5, 2007).

- Strongly endorse AAWG tasking to develop standardized DTA methodology and guidelines, with corresponding extension of compliance time for DTA applicability to repairs, alterations, and modifications (RAMs) until these guidelines are developed (3 years).

In addition to these comments, Delta strongly endorses the comments submitted by ATA on behalf of its members.

If you have any further questions on this subject, contact Ken Lorow- Manager, AD/Regulatory Programs, at (404) 714-4685.

Regards,



Kenneth C. Lorow Jr.
Manager - AD/Regulatory Compliance