

Appendix E

Comparison of 727/737 SSID AD to the Draft MD-80 proposed SID AD

“Old” STC’s, (accomplished prior to AD effectivity)

727/737	MD-80
<p>Paragraph. (d) For airplane on which the structure identified in Revision H has been physically altered in accordance with an STC prior to the effective date of this AD: Accomplish the requirements specified in paragraph (d)(1) or (d)(2)</p> <p>Paragraph. (d)(1) Within 18 months after the effective date of this AD, assess the damage tolerance characteristics of each SSI created or affected by each STC to determine the effectiveness of the applicable Revision H inspection for each SSI and, if not effective, revise the FAA-approved maintenance or inspection program to include an inspection method for each new or affected SSI, and to include the compliance times for initial and repetitive accomplishment of each inspection. Following accomplishment of the revision and within the compliance times established, perform an inspection to detect cracks in the structure affected by any design change or repair, in accordance with the new inspection method. The new inspection method and the compliance times shall be approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.</p> <p>NOTE 6: For purposes of this AD, an SSI is “affected” if it has been physically altered or repaired, or if the loads acting on the SSI have been increased or redistributed. The effectiveness of the applicable inspection method and compliance time should be determined based on a damage tolerance assessment methodology, such as that described in FAA Advisory Circular AC No. 91-56, Change 2, dated April 15, 1983.</p>	<p>Paragraph (c) For PSE’s defined in Section 1 of Volume I of Boeing Report No. L26-022, that have been affected by a repair, alteration or modification, prior to the effective date of this AD: Within 5 years after the effective date of this AD, revise the FAA-approved maintenance or inspection program to include a damage tolerance based inspection program for the affected PSE. The new inspection program shall be approved by the Manager, LAACO.</p> <p>NOTE 4: For the purpose of this proposed AD, a PSE is “affected” if it has been physically repaired, altered, or modified, or if the loads acting on the PSE have been increased or redistributed.</p> <p>NOTE 5: The approval of a repair in accordance with paragraph (c) or (d) of this AD may be accomplished in three stages: (1) static strength approval in accordance with an operator’s FAA-approved maintenance procedures’ (2) damage tolerance analysis approval at the times specified in paragraph (c) or (d) of this AD, as applicable; and (3) NDI method approval 2 years prior to the inspection threshold determined by the damage tolerance analysis.</p> <p>NOTE 6: McDonnell Douglas Report No. MDC 91K0263, “DC-9/MD-80 Aging Aircraft Repair Assessment Program Document,” dated July 1997, provides inspection/replacement programs for certain repairs to the fuselage pressure shell. These repairs, and inspection /replacement programs are acceptable methods of compliance for the repair and repair inspection</p>

<p>Paragraph (d)(2) Accomplish paragraphs (d)(2)(i), (d)(2)(ii), and (d)(2)(iii) of this AD.</p> <p>(i) Within 18 months after the effective date of this AD, submit a plan that describes a methodology for accomplishing the requirements of paragraph (d)(1) of this AD to the Manager, Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; fax (425) 227-1181.</p> <p>NOTE 7: The plan should include a detailed description of the STC; methodology for identifying new or affected SSI's; method for developing loads and validating the analysis; methodology for evaluating and analyzing the damage tolerance characteristics of each new or affected SSI; and proposed inspection method. The plan would not need to include all of these elements if the operator can otherwise demonstrate that its plan will enable the operator to comply with paragraph (d)(2)(iii) of this AD.</p> <p>(ii) Within 18 months after the effective date of this AD, perform a detailed visual inspection in accordance with a method approved by the Manager, Seattle ACO to detect cracks in all structure identified in Revision H that has been altered by an STC.</p> <p>(A) If no crack is detected, repeat the detailed visual inspection thereafter at intervals not to exceed 18 months.</p> <p>(B) If any crack is detected, prior to further flight, repair it in accordance with a method approved by the Manager, Seattle ACO.</p> <p>(iii) Within 48 months after the effective date of this AD, revise the FAA-approved maintenance or inspection program to include an inspection method for each new or affected SSI, and to include the compliance times for initial and repetitive accomplishment of each inspection. The inspection methods and the compliance times shall be approved by the Manager, Seattle ACO. Accomplishment of the actions specified in this</p>	<p>program requirements of paragraph (b), (c) and (d) of this AD.</p>
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paragraph constitutes terminating action for the repetitive inspection requirements of paragraph (d)(2)(ii)(A) of this AD.

NOTE 8: Notwithstanding the provisions of paragraphs 5.1.17 and 5.1.18 of the General Instructions of Revision H, which would permit deletions of modified, altered, or repaired structure from the SSIP, the inspection of SSI's that are modified, altered, or repaired shall be done in accordance with a method approved by the Manager, Seattle ACO.

Old Repairs, and Old non-STC design changes (accomplished prior to effective date of AD)

727/737	MD-80
<p>Paragraph (e) For airplanes on which the structure identified in Revision H has been repaired or physically altered by any design change other than an STC identified in paragraph (d), prior to the effective date of this AD: At the time of the first inspection of each SSI after the effective date of this AD in accordance with Revision H, identify each repair or design change to that SSI. Within 12 months after such identification, assess the damage tolerance characteristics of each SSI created or affected by each repair or design change to determine the effectiveness of the applicable SSID inspection for each SSI and, if not effective, revise the FAA-approved maintenance or inspection program to include an inspection method and compliance times for each new or affected SSI. The new inspection method and the compliance times shall be approved by the Manager, Seattle ACO.</p> <p>NOTE 9: For the purposes of this AD, a design change is defined as any modification, alteration, or change to operating limitations.</p>	<p>Paragraph (c) For PSE's defined in Section 1 of Volume I of Boeing Report No. L26-022, that have been affected by a repair, alteration or modification, prior to the effective date of this AD: Within 5 years after the effective date of this AD, revise the FAA-approved maintenance or inspection program to include a damage tolerance based inspection program for the affected PSE. The new inspection program shall be approved by the Manager, LAACO.</p> <p>Note 4: For the purpose of this proposed AD, a PSE is "affected" if it has been physically repaired, altered, or modified, or if the loads acting on the PSE have been increased or redistributed.</p> <p>NOTE 5: The approval of a repair in accordance with paragraph (c) or (d) of this AD may be accomplished in three stages: (1) static strength approval in accordance with an operator's FAA-approved maintenance procedures' (2) damage tolerance analysis approval at the times specified in paragraph (c) or (d) of this AD, as applicable; and (3) NDI method approval 2 years prior to the inspection threshold determined by the damage tolerance analysis.</p> <p>NOTE 6: McDonnell Douglas Report No. MDC 91K0263, "DC-9/MD-80 Aging Aircraft Repair Assessment Program Document," dated July 1997, provides inspection/replacement programs for certain repairs to the fuselage pressure shell. These repairs, and inspection /replacement programs are acceptable methods of compliance for the repair and repair inspection program requirements of paragraph (b), (c) and (d) of this AD.</p>

New Repairs and New Design Changes, including STC's (accomplished after the AD effectivty)

727/737	MD-80
<p>Paragraph (g) For airplanes on which the structure identified in Revision H is affected by any design change (including STC's) or repair that is accomplished after the effective date of this AD: Within 12 months after that modification, alteration, or repair, assess the damage tolerance characteristics of each SSI created or affected by each repair or design change to determine the effectiveness of the applicable SSID inspection for each SSI and, if not effective, revise the FAA-approved maintenance or inspection program to include an inspection method and compliance times for each new or affected SSI, and to include the compliance times for initial and repetitive accomplishment of each inspection. The new inspection method and the compliance times shall be approved by the Manager, Seattle ACO.</p> <p>NOTE 10: Notwithstanding the provisions of paragraphs 5.1.17 and 5.1.18 of the General Instructions of Revision H, which would permit deletions of modified, altered, or repaired structure from the SIP, the inspection of SSI's that are modified, altered, or repaired shall be done in accordance with a method approved by the Manager, Seattle ACO.</p>	<p>Paragraph (d) For PSE's defined in Section 1 of Volume I of Boeing Report No. L26-022, "MD-80 Supplemental Inspection Document (SID)," dated September 1999, that are affected by a repair, alteration or modification, after the effective date of this AD: Within 18 months from the repair (other than cracked structure), alteration or modification, whichever occurs earlier, revise the FAA-approved maintenance or inspection program to include a damage tolerance based inspection program for the affected PSE. The new inspection program shall be approved by the Manager, Los Angeles ACO.</p> <p>NOTE 5: The approval of a repair in accordance with paragraph (c) or (d) of this AD may be accomplished in three stages: (1) static strength approval in accordance with an operator's FAA-approved maintenance procedures' (2) damage tolerance analysis approval at the times specified in paragraph (c) or (d) of this AD, as applicable; and (3) NDI method approval 2 years prior to the inspection threshold determined by the damage tolerance analysis.</p> <p>NOTE 6: McDonnell Douglas Report No. MDC 91K0263, "DC-9/MD-80 Aging Aircraft Repair Assessment Program Document," dated July 1997, provides inspection/replacement programs for certain repairs to the fuselage pressure shell. These repairs, and inspection /replacement programs are acceptable methods of compliance for the repair and repair inspection program requirements of paragraph (b), (c) and (d) of this AD.</p>