

Department Number
C8020
Northwest Airlines, Inc.
5101 Northwest Drive
St. Paul, MN 55111-3034



March 31, 2003

U.S Department of Transportation Dockets
Docket No. FAA-2002-13458
400 Seventh Street, SW, Room Plaza 401
Washington, DC 20590

Subject: Corrosion Prevention and Control Program (CPCP) – Notice of Proposed Rule Making and Advisory Circular (AC)

References: (A) CPCP NPRM Docket No. FAA-2002-13458
(B) FAA Draft AC 120-CPCP
(C) NPRM Docket 2001-NM-192-AD
(D) LA-ACO AMOC to AD 92-22-08R1 & 92-22-09R1, dated 20Sep95
(E) SEA-ACO AMOC to AD 90-25-03 & 90-25-05, dated 21Jun95

Dear Mr. Sobeck:

Reference (A) asks for comments to an NPRM and AC which requires a corrosion prevention and control program for all part 121 aircraft.

Northwest Airlines (NWA) agrees with the need for a corrosion prevention and control program. NWA has realized the economic and safety benefits of a corrosion program. With the fleet of aircraft NWA operates we have gained extensive experience with this program. That experience has provided our insight and enabled us to provide comment.

Definition of Level 1 corrosion:

Proposal:

NWA recommends that the definition of LEVEL 1 corrosion in the proposed FARs 121.376a, 129.24, 135.426, Order 8300.12, and all language in the AC, be revised to delete reference to the terms local and widespread.

Justification:

The intent of defining local and widespread corrosion is to determine if a change in the maintenance program is needed when multiple areas of light corrosion are found. The concern was that widespread corrosion is potentially more severe than individual findings of local corrosion. However, our experience demonstrates that all widespread corrosion does not approach allowable limits. Most of it will be well below and only a few areas may be beyond limits. Furthermore, this theoretical “wide-spread corrosion that is approaching allowable limits” would be considered a unique event per Reference B, and would not require a change to the Maintenance Program.

Too much confusion is created trying to explain, train and implement the “widespread corrosion” theory. In practice, it is a very difficult task to implement, it rarely happens and identifying it does not provide a substantial benefit to the CPCP program.

NWA's 13-year experience with CPCP programs reveals that the differentiation of local and widespread corrosion does not provide increased safety, but it does add another layer of complexity, reporting and compliance difficulties.

AC 120-CPCP Appendix 2 states that fatigue damage is more likely with widespread corrosion than local corrosion and that lower allowable rework limits are often necessary for widespread corrosion than local corrosion. NWA points out that modern SRMs include reduced allowable limits for widespread corrosion vs. local corrosion (e.g. area loss vs. thickness loss). Thus widespread affects are being considered and are redundant. Additionally, unrepaired light widespread corrosion, that is temporary until the next CPCP inspection, has a similar fatigue detail to reworked widespread corrosion that is permanent. That permanently reworked corrosion is already FAA approved to be within ultimate strength and fatigue limits.

When NWA does experience widespread corrosion, it is usually confined to the main cabin floor structure under the lavatories and galleys. This structure is crash critical, not fatigue critical, which further justifies our position.

Airbus, Douglas and Boeing corrosion programs all have different definitions of corrosion. Airbus does not include local/widespread; Boeing/Douglas do. In 1995, NWA obtained approval (AMOC) from the LA-ACO, SEA-ACO, Boeing and Douglas to standardize to the Airbus corrosion level definition that does NOT differentiate between local and widespread (references D & E). This definition was also approved in May 1995 by the Reliability Sub-Task Working Group, which was attended by FAA - F. Sobeck and D. Curtis, that helped draft AC 120-CPCP. Thus, FAA approval and precedence for our position has already been established.

Summary:

The FAA's proposal to include widespread/local corrosion definitions is a slightly higher standard than what is necessary in the industry to control corrosion. That standard does add a complexity to administering these programs that we believe is not warranted. FAA approval and precedence of our proposal has already been established. This proposal permits standardization of the AD and non-AD CPCP programs to the simpler Airbus and NWA definitions for corrosion levels. NWA and many other 121 operators operate and maintain aircraft from multiple aircraft manufactures. A simple standardized approach to documenting, reporting, and administering this program is essential to consistent compliance with the rule.

Respectfully,

A handwritten signature in black ink, appearing to read "Mark Millam". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mark Millam
Chief Engineer