

engine pylon aft upper spar straps (caps); and if necessary, replacement of the strap with a new strap, or modification of the engine pylon rear spar straps, which constitutes terminating action for the repetitive inspections. That NPRM would have added new, improved repetitive ultrasonic inspections, and corrective actions, if necessary. That NPRM also would have required, among other items, a terminating action for the repetitive inspection requirements. That NPRM was prompted by additional reports of fatigue cracking in the subject area of these airplanes. Such fatigue cracking, if not corrected, could result in major damage to the adjacent structure of the pylon aft spar upper cap, and consequent reduced structural integrity of the airplane.

#### **Actions Since Issuance of Previous Proposal**

Since the issuance of that NPRM, the manufacturer has advised the FAA that the identified unsafe condition may also occur on additional airplanes with a certain configuration of the left and right pylon aft upper caps.

#### **Explanation of New Service Information**

The FAA has reviewed and approved Boeing Alert Service Bulletin (ASB) DC9-54A031, Revision 09, dated September 3, 2002. That ASB describes procedures for new repetitive ultrasonic or magnetic particle inspections of the engine pylon aft upper spar straps (caps) to detect cracking; and corrective actions if necessary. The corrective actions include reapplication of a sealant; modification of the rear spar upper strap (cap); and replacement of the bearing of the spar strap (cap) with a new annular groove bearing if necessary. Revision 09 contains information that is essentially the same as Revision 08, which was referenced in the previous NPRM as one of the applicable sources of service information. However, Revision 09 specifically references Boeing Service Bulletin DC9-54-031, Revision 05, dated April 25, 2003, as an additional source of service information.

We have also reviewed and approved Boeing Service Bulletin DC9-54-031, Revision 05, dated April 25, 2003. The service bulletin describes procedures for modification of the rear spar upper strap (cap), which would eliminate the need for the repetitive inspections specified in Boeing ASB DC9-54A031, Revision 09, dated September 3, 2002, discussed above. The modification includes installation of access doors on the pylon rear spars, if applicable; replacement of

the strap on the pylon upper rear spar cap with a new strap having an annular groove bearing installed using new close tolerance attaching parts; and modification of the pylon-to-vibration isolator link. That service bulletin also adds airplanes to the effectivity of the service bulletin.

Accomplishment of the actions specified in the service bulletins described above is intended to adequately address the identified unsafe condition.

#### **Comments Received**

Due consideration has been given to the comments received in response to the NPRM:

#### **Request To Revise and Update Service Information**

One commenter requests that Revision 4 of "McDonnell Douglas Service Bulletin 54-031" be revised to specify the bearing part number (P/N) in conjunction with the pylon spar strap P/N.

Since the issuance of the original NPRM, we have reviewed and approved Revision 05, dated April 25, 2003, of Boeing Service Bulletin DC9-54-031, which specifies the bearing P/N. We have referenced Revision 05 of that service bulletin in this supplemental NPRM as a source of service information.

#### **Request for Clarification of Terminating Action**

One commenter, an airline operator, states that multiple paragraphs in the original NPRM specify that modification per Revision 4 of "McDonnell Douglas Service Bulletin 54-031" constitutes terminating action of the repetitive requirements of the AD. The commenter notes, however, that AD 78-01-16, amendment 39-3117, requires replacement of the pylon strap with a heavy gauge lug and does not require use of the annular groove bearing. The commenter states that this contradicts Revision 4 of the service bulletin and paragraph (m) of the original NPRM, which specify installation of the annular groove bearing. The commenter requests clarification.

We acknowledge that clarification is necessary. We are aware that some operators of the subject airplanes have accomplished the actions specified in Revision 4 of McDonnell Douglas DC-9 Service Bulletin 54-31 or have had production equivalent installations of the spar strap (cap) with a pin-staked bearing. For those airplanes having a spar strap (cap) with a pin-staked bearing, paragraph (l) of this supplemental NPRM would require

inspections for cracking, and modification if necessary, per Revision 05 of Boeing Service Bulletin DC9-54-031, dated April 25, 2003.

#### **Request To Clarify Modification as a Terminating Action**

That same commenter requests clarification of whether accomplishment of the modification using a pin-staked bearing, as described in Revision 4 of McDonnell Douglas DC-9 Service Bulletin 54-31, requires reimplementation of inspections of pylon straps until such time as the annular groove bearing is installed.

We agree that clarification is needed. As explained in the previous comment section, those airplanes having a spar strap (cap) with a pin-staked bearing would require inspections for cracking, and modification if necessary, in accordance with Revision 05 of Boeing Service Bulletin DC9-54-031, dated April 25, 2003. We have revised paragraph (l) of this supplemental NPRM to specify that the actions are to be accomplished per Revision 05, which describes installation of the annular groove bearing.

#### **Request To Clarify Compliance Times for the Modification**

Another commenter, also an airline operator, notes that paragraph (h) of the NPRM specifies compliance times for airplanes that have not had the modification to the spar cap accomplished and that have not had the spar cap replaced. The commenter further notes that paragraph (i) of the NPRM specifies compliance times for aircraft that have not had the modification of the spar cap accomplished but have had the spar cap replaced. The commenter points out that neither of those configurations apply to its fleet, since the spar cap has been modified on its fleet. The commenter assumes that if the spar caps have been previously modified, the NPRM would not be applicable to those airplanes. The commenter states that the reader of the NPRM should not have to make an assumption regarding applicability, and requests that the FAA clarify that the modified spar caps are not subject to the requirements of the NPRM.

We agree that clarification is needed. Paragraph (l) of this supplemental NPRM would require that, for airplanes (specified in Revision 05 of DC-9 Service Bulletin 54-031 as "Group 12" airplanes) on which the spar strap (cap) with a pin staked bearing per DC-9 Service Bulletin 54-31 has been installed or that have a production equivalent installed, it is necessary to