U.S. Department
of Transportation
**Federal Aviation
Administration**

**Transport Airplane Directorate
Aircraft Certification Service**

1601 Lind Avenue Southwest
Renton, Washington 98057-3356

DEC 23 2008

In Reply
Refer To: 140S-08-406

Mr. Jordan B. Zundell
Lead Project Administrator
BCA Delegated Compliance Organization
P.O. Box 3707, M/C 67-LR
Seattle, WA 98124-2207

Dear Mr. Zundell:

Subject: Approval of Alternative Methods of Compliance with Airworthiness Directive 2008-11-13

Reference: Boeing Letter BDCO-08-05735, "Alternative Method of Compliance (AMOC) to Airworthiness Directive (AD) 2008-11-13 for Boeing Model 777-200, -200LR, -300, and -300ER," dated December 10, 2008

The Federal Aviation Administration (FAA) has received the reference letter requesting several AMOC approvals to Airworthiness Directive (AD) 2008-11-13 on behalf of all operators of Boeing Model 777-200, -200LR, -300, and -300ER series airplanes. AD 2008-11-13 includes requirements for operators to revise their FAA-approved maintenance program by incorporating new airworthiness limitations (AWL) for fuel tank systems to satisfy Special Federal Aviation Regulation (SFAR) No. 88 requirements. The AD was issued by the FAA to prevent the potential for ignition sources inside fuel tanks caused by certain fuel system failure conditions. Paragraph (g)(2) of AD 2008-11-13 requires operators to incorporate Boeing Temporary Revision (TR) 09-014, dated December 2007, which is published as Section 9 of the Boeing 777 Maintenance Planning Data (MPD) Document D622W001-9, Revision February 2008, Subsections E, "Page Format: Fuel Systems Airworthiness Limitations" into their FAA-approved maintenance program.

Request #1

You have asked for FAA approval of a revision to the Critical Design Configuration Control Limitations (CDCCL) inspections of the electrical wire bundles over the center wing fuel tank (CWT) which is invoked by AWL No. 28-AWL-02 if any maintenance is performed in the area under the main deck floor boards over the center fuel tank. CDCCL 28-AWL-02 requires an inspection of the areas over the entire CWT to be conducted in accordance with 28-AWL-01, regardless of the actual size of the area that is opened up for maintenance. You have proposed that the area requiring this CDCCL inspection should be limited to the areas where maintenance was performed, which you have defined as the "immediate area." Specifically, you have requested for the inclusion of the wording "in the immediate area of the maintenance performed" within the text of 28-AWL-02 to be approved as an AMOC with paragraph (g)(2) of AD 2008-11-13.

The FAA agrees that it was not the intent of 28-AWL-02 to require an inspection of the areas that were not disturbed by maintenance activity and agrees with the intent of your request. However, the specific language you have proposed would still require a full inspection as described in Airplane Maintenance Manual Section 28-11-00 as required by 28-AWL-01. Therefore, we have revised your proposed alternative wording for 28-AWL-02, have determined it meets the intent of your request, and provides an acceptable level of safety.

The FAA approves incorporation of the following wording as an alternative method of compliance to incorporation of the wording identified in 28-AWL-02 of TR 09-014, dated December 2007, published as Section 9 of Document D622W001-9, Revision February 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2)of AD 2008-11-13:

"External Wires Over Center Fuel Tank

Concern: Potential for Wire chafing and arcing to Center Fuel Tank Upper Panel.

If any maintenance is performed in the area under the floor boards and over the center fuel tank, verify the following in the affected areas where maintenance was performed:

1. Maintain the existing wire bundle routing and clamping.
2. Installation of any new wire bundles must be per Boeing Standard Wiring Practices Manual D6-54446.
3. Perform a detailed inspection of the wire bundles routed over the center fuel tank and under the main deck floor boards in the areas of the performed maintenance to detect damaged clamps, wire chafing, and that the wire bundle is not in contact with the surface of the center fuel tank. If discrepancies are found, repair per the Boeing Standard Wiring Practices Manual D6-54446."

Request #2

You have noted that in AWL No. 28-AWL-03, there is an error in the identification of a wire-bundle in the Description Block. In Step 1 of the Description Block, the wire-bundle number identified for the left-hand and right-hand inboard main tank rear spar locations should be identified as W8078 instead of W8073. The wire-bundle is incorrectly identified in two locations of the AWL Description Block (following reference to Connector D28103P for the left inboard main tank rear spar and following reference to Connector D28203P on the right inboard main tank rear spar). You have requested AMOC approval to change the wire-bundle numbers to correct these identified errors. Upon review by the FAA, we find these corrections are appropriate to correct the noted errors and provide an acceptable level of safety.

The FAA approves use of the text "Wire Bundle 8078" as an alternative method of compliance to use of the text "Wire Bundle 8073" identified in two places of AWL No. 28-AWL-03 of TR 09-014, dated December 2007, published as Section 9 of Document D622W001-9, Revision February 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2)of AD 2008-11-13.

Request #3

You have noted that AWL No. 28-AWL-16 specifies the application of grease to the knitted aluminum mesh gasket. You state that in addition to grease, Boeing has indicated that Corrosion Inhibiting Compound (CIC) per Boeing Material Specification (BMS) 3-38 is now the preferred anti-corrosion compound for fuel tank access door installations. The CIC is an approved configuration and provides improved corrosion protection between the access door, mesh gasket, and the wing surfaces. The information for application of the CIC for door installation is contained in AMM 28-11-01, 28-11-02, 28-11-07, and 28-11-03. You have requested FAA approval of an AMOC to permit operators to incorporate revised wording to the Description Block of AWL No. 28-AWL-16 to allow the option of installing CIC instead of grease during door installation.

The FAA has reviewed your request and agrees that allowing the installation of CIC instead of grease during fuel tank access door installation provides an acceptable level of safety.

The FAA approves incorporation of the following wording as an alternative method of compliance to incorporation of the wording in the third paragraph in the Description Block of 28-AWL-16 of TR 09-014, dated December 2007, published as Section 9 of Document D622W001-9, Revision February 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2)of AD 2008-11-13:

> "Verify presence of a rubber door seal positioned around the outermost periphery of the door that mates with the wing skin inside the tank, apply grease or anti-corrosion compound to both sides of the knitted aluminum mesh gasket, and install the knitted aluminum mesh gasket between the outside face of the door and the wing skin to establish the electrical conductivity between the access door and the wing skin."

All provisions of AD 2008-11-13 not specifically referenced in the preceding AMOC approval statements remain fully applicable and must be complied with.

In accordance with FAA Order 8110.103, dated September 28, 2007, the following applies to each AMOC approval:

> This approval is applicable only to Boeing Model 777200, 200LR, 300, and 300ER series airplanes.
>
> This approval is transferable when the airplane is transferred to another operator.
>
> Before using this AMOC, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.
>
> This approval is subject to the following condition: If in the future the Seattle Aircraft Certification Office (SACO) determines that this AMOC does not provide an acceptable level of safety, the SACO may revoke or revise the terms of the AMOC following notice to the requester and a seven-day opportunity for the requester to comment on the revocation or proposed revision.

FAA approval of a global AMOC applies only to U.S.-registered aircraft. Approval of this type of AMOC for a foreign-registered aircraft is the responsibility of the appropriate civil aviation authority of the state of registry.

If you have any questions concerning this matter, please contact Mr. Thomas Thorson of the Propulsion Branch, at telephone number (425) 917-6508, or e-mail thomas.thorson@faa.gov.

Sincerely,

for Robert D. Breneman
Acting Manager, Seattle Aircraft
Certification Office, ANM-100S