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

**Transport Airplane Directorate
Aircraft Certification Service**

1601 Lind Avenue Southwest
Renton, Washington 98057-3356

JAN 13 2008

In Reply
Refer To: 140S-08-405

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 2008-11-01

Reference: Boeing letter BDCO-08-05730, "Alternative Method of Compliance (AMOC) to Airworthiness Directive (AD) 2008-11-01 for Boeing Model 767-200, -300, -300F, and -400ER," dated December 10, 2008

The Federal Aviation Administration (FAA) received the reference letter requesting AMOC approvals to AD 2008-11-01 on behalf of all operators of Boeing Model 767-200, -300, -300F, and -400ER series airplanes. AD 2008-11-01 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 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 2008-11-01 requires operators to incorporate the Boeing Maintenance Planning Data (MPD) Document D622T001-9, Revision April 2008, Subsection 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 alternative method of compliance with paragraph (g)(2) of AD 2008-11-01.

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 may be interpreted to still require a full inspection as described in 28-AWL-01 which requires inspections to be conducted "between the front and rear spar of the center wing box" (the entire section over the CWT). 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 Document D622T001-9, Revision April 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2) of AD 2008-11-01:

"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 Numbers 28-AWL-01 and 28-AWL-02 the reference to "Center Fuel Tank" is inconsistent with the identification of this tank as given in the Boeing Model 767 Airplane Maintenance Manuals (AMM). In the AMM, the center wing tank is identified as the "Auxiliary Fuel Tank." You have requested an AMOC approval of the accomplishment instructions for the actions specified in AWL Numbers 28-AWL-01 and 28-AWL-02 to allow the term "Auxiliary Fuel Tank" to be used instead of "center wing tank" as specified in the referenced AWLs as an AMOC with paragraph (g)(2) of AD 2008-11-01.

We have reviewed your request and acknowledge that the terms "center fuel tank" and "auxiliary fuel tank" are often used interchangeably. However, we also recognize that auxiliary fuel tanks installed in the body are often referred to as simply "auxiliary fuel tanks." To prevent misinterpretation or confusion, the FAA considers clarification in reference to the auxiliary fuel tank in the AWLs provides an acceptable level of safety.

The FAA approves use of the text "center fuel tank (also referred to as Auxiliary Fuel Tank)" as an alternative method of compliance to use of the text "center fuel tank" identified in AWL Nos. 28-AWL-01 and 28-AWL-02 of Document D622T001-9, Revision April 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2) of AD 2008-11-01. This approval can be incorporated in combination with the revised wording approved in Request #1 of this letter.

Request #3

You have noted that in AWL No. 28-AWL-03, the term "tank wall" should more appropriately be identified as "front spar" in Step 2 of the Description section. In addition, "inside the tank" in Step 3 of the Description section should actually be "inside the dry bay." Upon review by the FAA, we find these substitutions are appropriate to correct the noted errors and provide 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 Step 2. and Step 3. of the Description block of 28-AWL-03 of Document D622T001-9, Revision April 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2)of AD 2008-11-01:

"2. Install full-bodied fillet seal encapsulating the bulkhead fitting to the front spar interface inside the tank.

3. Install full bodied fillet seal encapsulating the first coupling interface inside the dry-bay."

Request #4

You have identified several items in AWL No. 28-AWL-07 that need to be revised, including clarification of the bonding requirements between the Center Auxiliary Tank Override and Jettison Pump housing body and structure; addition of AMM 28-31-01 to the Description block; clarification of wording discrepancies between the AMM and AWL; and clarification of the terms "center tank pumps" used in Step 2 of the Description block, and "fuel pump" used in Step 3 of the AWL Description block. Upon review by the FAA, we have determined that all of the identified changes provide an acceptable level of safety.

The FAA approves incorporation of the following wording as an alternative method of compliance to incorporation of the wording that begins "The following must be maintained...," through to the end, as identified in 28-AWL-07 of Document D622T001-9, Revision April 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2) of AD 2008-11-01:

"The following must be maintained during pump replacement per Boeing AMMs 28-22-03, 28-22-05, and 28-31-01:

1. Installation of the two bonding jumpers between the pump housing and bonding clip on structure.

2. Pump housing bonding resistance to structure less than or equal to 0.0003 ohms (0.3 milliohms) for main tank boost pumps and 0.0002 ohms (0.2 milliohms) for center Aux Tank Override and/or Jettison Pumps.

3. Make sure the bonding resistance between the housing and the Main Tank Boost Pump, the Center Aux Tank Override Pump, and/or Jettison Pump is not more than 0.00035 ohms (0.35 milliohms)."

Request #5

You have noted that in Step 1 of the Description block for AWL No. 28-AWL-13, the term "front spar" should actually state "rear spar" and requested FAA approval of incorporation of this revision as an AMOC. Upon review by the FAA, we find this revision is acceptable and provides an acceptable level of safety.

The FAA approves incorporation of the following wording for Step 1. of the Description block as an alternative method of compliance to incorporation of the wording identified in Step 1. of the Description block of AWL No. 28-AWL-13 of Document D622T001-9, Revision April 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2) of AD 2008-11-01:

"1. The mating surface of the tank wiring harness on the rear spar is clean."

Request #6

You have noted that AWL No. 28-AWL-14 specifies the application of grease to the knitted aluminum mesh gasket in Steps 2. and 3. of the Description block. 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 installation. 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, 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-14 to allow the option of installing CIC instead of grease during door installation.

Since use of either grease or anti-corrosion compound in this installation will provide the required electrical conductive path, your proposal 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 Step 2. and Step 3. of the Description block of 28-AWL-14 of Document D622T001-9, Revision April 2008, Subsection E, when revising the maintenance program as required by paragraph (g)(2)of AD 2008-11-01:

"2. Apply grease or anti-corrosion compound to both the sides of the knitted aluminum mesh gasket, and

3. 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."

Request #7

You have noted that the Description block for AWL No. 28-AWL-23 incorrectly refers to AMM 28-26-02 which does not exist. The correct AMM number should be identified as AMM 28-26-11 which contains the appropriate procedures for "Removal/Installation of the Defueling Valve Actuator" identified in this AWL. The FAA concurs that revision to address this error in the AWL provides an acceptable level of safety.

The FAA approves use of AMM reference "AMM 28-26-11" as an alternative method of compliance to use of "AMM 28-26-02" identified in the Description block of AWL No. 28-AWL-23, Document D622T001-9, Revision April 2008, when revising the maintenance program as required by paragraphs (g)(2) of AD 2008-11-01.

All provisions of AD 2008-11-01 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 Model 767-200, -300, -300F, and -400ER 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 through electronic mail at thomas.thorson@faa.gov.

Sincerely,

for Jeffrey E. Duven
Manager, Seattle Aircraft
Certification Office, ANM-100S