

United States of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number ST02228NY-D

This certificate, issued to Delta Engineering
13 DRBA Way
New Castle County Airport
New Castle, Delaware 19720

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 25 of the Federal Aviation Regulations.

Original Product — Type Certificate Number: A20WE
Make: Boeing
Model: 747-400 Series

Description of Type Design Change:

Installation of a Panasonic Avionics Corporation eX₂ In-Flight Passenger Entertainment System in accordance with Delta Engineering Master Data List 0107-05921-2118 Revision M dated May 6, 2009 or later FAA approved revisions to Delta Engineering Master Data List previously listed. The Instructions for Continued Airworthiness and Airplane Flight Manual Supplement as listed on Master Data List is required for this installation.

Limitations and Conditions:

1. If the holder agrees to permit another person to use the certificate to alter the product, the holder shall give the other person written evidence of that permission.
2. Compatibility of this design change with previously approved modifications must be determined by the

This certificate and the supporting data which is the basis for approval shall remain in effect surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: March 13, 2007

Date reissued: October 27, 2008

Date of issuance: June 25, 2007

Date amended: December 7, 2007, July 10, 2008
May 21, 2009



By direction of the Administrator

John A. Moritz
John A. Moritz (Signature)
Lead DAS Administrator
Delta Engineering, DAS-800728-NE
(Title)

Any Alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

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Supplemental Type Certificate
 (Continuation Sheet)

Number ST02228NY-D

Amendment Date: May 21, 2009

Limitations and Conditions (continued):

3. Cabin configuration must be installed accordance with Flight Structures, Inc (FSI) LOPA Drawing(s) as listed in this Master Data List. The Flight Structures, Inc (FSI) Layout of Passenger Arrangement Drawing is not part of this Type Design or this FAA approval. This Type Design and the FAA STC does not approve the qualification of the seats or the installation of the seats.
4. This modification may not be installed after August 30, 2010 unless (1) previously approved electrical wiring interconnection system (EWIS) instructions for continued airworthiness (ICA) have been evaluated and determined to be adequate for this installation by the FAA, or (2) revised EWIS ICA have been approved by the FAA Oversight Office. (Refer to §26.11)

Certification Basis:

Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for the Boeing 747-400 Series aircraft with this STC is as follows:

- a. The type certification basis for Boeing 747-400 Series airplanes is shown on TCDS A20WE for parts **not changed or not affected** by the change.
- b. The certification basis for parts **changed or affected** by the change since the reference date of application, Jul. 25, 2007 is based upon part 25 as amended by Amendment 25-119. Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, the certification basis for this modification was determined to be as shown on the TCDS A20WE except the regulations listed below:

Section	Title	At Amendment
25.831	Ventilation	25-89
25.853	Compartment interiors	25-116
25.869	Fire protection; systems	25-113
25.981	Fuel tank ignition prevention	25-102
25.1307	Miscellaneous equipment	25-72
25.1351	General	25-72
25.1353	Electrical equipment and installations	25-113
25.1431	Electronic equipment	25-113
25.1529	Instructions for Continued Airworthiness	25-54
25.1557	Miscellaneous markings and placards	25-72
26.11	EWIS	26-0
26.47	AASR	26-1

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