



United States of America
 Department of Transportation
 Federal Aviation Administration
Supplemental Type Certificate
 Number ST02904NY

This certificate, issued to: Delta Engineering Corporation
 13 DRBA Way
 New Castle, Delaware 19720

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

Original Product — Type Certificate Number: T00001SE Make: Boeing
 Model: 777-200LR Series, 777-300 Series and -300ER Series

Description of Type Design Change:

Installation of a Panasonic Avionics Corporation Global Communications Suite (GCS) in accordance with Delta Engineering Master Data List 0143-07644-2282 Revision K dated Jul. 7, 2014 or later FAA approved revisions to Delta Engineering Master Data List previously listed. The Instructions for Continued Airworthiness, Electrical Wiring Interconnect System Instructions for Continued Airworthiness and Airplane Flight Manual Supplement as listed on the Master Data List is required with 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 installer.

(See Continuation Sheet 3)

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

Date of Application: July 3, 2011 Date reissued:
 Date of issuance: July 5, 2012 Date amended: February 8, 2013, March 1, 2013
 July 9, 2014

By direction of the Administrator

Signature: _____
Title: Jonathan E. Moritz
 ODA Administrator
 ODA-800728-NE

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



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

INSTRUCTIONS: The transfer endorsement below may be used to notify the appropriate FAA Aircraft Certification Office of the transfer of this Supplement Type Certificate. The FAA will reissue the certificate in the name of the transferee and forward it to him.

Transfer Endorsement

Transfer the ownership of Supplement Type Certificate Number:

To (Name and address of transferee):

From (Name and address of grantor):

Extent of Authority (if licensing agreement):

Date of transfer:

Signature of grantor: _____

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).



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

(Continuation Sheet)

Number ST02904NY

Date July 9, 2014

Limitations and Conditions:

3. Operational approval to use T-PED's must be obtained separately from this STC.
4. FAA STC ST03048CH (T-PED) is required with this STC.
 - a. When installing/activating the GCS on the aircraft the aircraft must comply with the requirements of the above mentioned FAA STC including but not limited to aircraft systems compatibility with RF (Radio Frequencies) effects from T-PED's (Transmitting Portable Electronic Devices).
 - b. No design changes to required aircraft systems may be made without considering the RF (Radio Frequencies) effects from T-PED's (Transmitting Portable Electronic Devices) to the aircraft system per the above mentioned FAA STC or other approved method.
5. FAA STC ST02905NY (Antenna) is required with this STC when installed configuration includes eXConnect or eXPhone activation. STC ST02905NY not required for configuration TL10791.
6. Configuration TL10707 requires Air France Service Bulletin AFSB-B777-12-005-25-001 or AFSB-B777-12-005-25-002.
7. Configuration TL10791 requires Boeing Service Bulletins 777-44-0026 and 777-25-0612 (Antenna, E-18 Rack and SPM Rack).

Certification Basis:

Based on 14 CFR §§ 21.115 and 21.101, and the FAA policy for significant changes in FAA Order 8110.48, this STC is a non-significant change. The certification basis for un-changed or not affected areas by this STC remains un-changed by this STC and the certification basis for this STC is as follows:

- a. FAA Alternate Means of Compliance 140S-12-160
- b. The following regulations for CFR Part 25 at later amendment than the TCDS all other regulations at certification basis defined in the TCDS:

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
§25.1353	Electrical equipment and installations	25-113
§25.1431	Electronic equipment	25-113
§25.1583	Operating limitations	25-105
§25.1585	Operating procedures	25-105

- c. CFR Part 26:

Section	Title	At Amendment
§26.11	EWIS	26-0
§26.47	AASR	26-1

-----END-----

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. This certificate may be transferred or made available to third persons by licensing agreements in accordance with 14 CFR 21.47. Possession of this Supplemental Type Certificate (STC) document by persons other than the STC holder does not constitute rights to the design data nor to alter an aircraft, aircraft engine, or propeller. The STC's supporting documentation (drawings, instructions, specifications, flight manual supplements, etc.) is the property of the STC holder. An STC holder who allows a person to use the STC to alter an aircraft, aircraft engine, or propeller must provide that person with written permission acceptable to the FAA. (Ref. 14 CFR 21.120).