

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

Number ST01893CH

This certificate issued to
Electronic Cable Specialists
5300 W. Franklin Drive
Franklin, WI 53132

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. (See Type Certificate Data Sheet A20WE for complete certification basis.)

Original Product--Type Certificate Number: A20WE
Make: Boeing
Model: 747-100 Series; 747-100B Series; 747-200B Series; 747-200C Series;
747-200F Series; 747-300 Series; 747SR Series; 747SP Series

Description of Type Design Change:

Installation of a Universal Avionics Systems Corporation (UASC) Terrain Awareness and Warning System (TAWS) and UASC UNS-1F Flight Management System (FMS) as a position source for TAWS or installation of a UASC TAWS and triple UASC FMS in accordance with Electronic Cable Specialists Master Data List ECS-201605, Revision W, dated October 30, 2009, or later FAA approved revision.

Limitations and Conditions:

- 1) Compatibility of this design change with previously approved modifications must be determined by the installer.
- 2) The Airplane Flight Manual Supplement as listed in Appendix A of Electronic Cable Specialists Master Data List ECS-201605, Revision W, dated October 30, 2009, or later FAA approved revision, is required on board the modified aircraft.
- 3) 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, or (2) revised EWIS ICA have been approved by the FAA Oversight Office. (Refer to § 26.11)
- 4) If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

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

Date of application: December 27, 2002

Date reissued:

Date of issuance: October 10, 2003

Date amended: April 15, 2004; May 12, 2004; January 22, 2009;
June 4, 2010



By direction of the Administrator

(Signature)

Steven L. Lardinois
Manager, Systems and Flight Test Branch
Chicago Aircraft Certification Office

(Title)

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