



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

Number: ST04538AT

This certificate issued to: Avionics Support Group, Inc.
13155 SW 132 Avenue
Miami, FL 33186

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 **A22WE**
Type Certificate Number:

Make: The Boeing Company

Model: MD-11F

Description of Type Design Change:

Installation of the Cobham Aviator 200S INMARSAT SATCOM Communication System and external HELGA Low Gain Antenna in accordance with the Master Drawing List, 221234-MDL Rev E, dated July 14, 2022 or later FAA approved revision.

Limitations and Conditions:

(See Continuation Sheet 3 of 4)

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: September 2, 2021 Date Reissued:

Date of Issuance: July 15, 2022 Date Amended:

By Direction of the Administrator

Signature: **DARBY J MIROCHA**
Digitally signed by
DARBY J MIROCHA
Date: 2022.07.15
14:25:42 -04'00'

Title: (for) Christina M. Underwood
Manager, Atlanta ACO Branch
Compliance and Airworthiness Division
Aircraft Certification Service

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).



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Limitations and Conditions - cont.:

1. The installer must determine whether this design change is compatible with previously approved modifications.
2. 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.
3. This modification has been determined to be a no acoustic change in accordance with 14 CFR 21.93(b).
4. Instructions for Continued Airworthiness (ICA) document 221234-ICA Rev IR, dated November 16, 2021 or later FAA Approved revision and Airplane Flight Manual Supplement (AFMS) document 221234-FMS, Rev IR, dated July 12, 2022 or later FAA approved must be made available to the operator at the time of installation.

(See Continuation Sheet 4 of 4)

Any alteration of this certificate and/or the Type Certificate Data Sheet is punishable by a fine 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 Title 14 of the Code of Federal Regulations, part 21, section 21.47 (14 CFR 21.47). A transfer must be endorsed as provided on the reverse hereof. A Type Certificate holder who allows a person to use the Type Certificate to manufacture a new aircraft, aircraft engine, or propeller must provide that person with a written licensing agreement acceptable to the FAA. (Ref. 14 CFR 21.55).



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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 MD-11F series aircraft is as follows:

- a. The type certification basis for Boeing MD-11F airplane is shown on TCDS A22WE 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, September 2, 2021, is based upon part 25 as amended by Amendment 25-146. 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:

Regulations at the latest amendment 25-0 through 25-146

§ 25.29 § 25.251 § 25.301 § 25.303 § 25.305 § 25.307 § 25.571 § 25.581
§ 25.601 § 25.603 § 25.605 § 25.609 § 25.611 § 25.613 § 25.771 § 25.773
§ 25.777 § 25.869 § 25.1301 § 25.1307 § 25.1309 § 25.1322 § 25.1351 § 25.1353
§ 25.1357 § 25.1360 § 25.1431 § 25.1459 § 25.1529 § 25.1541 § 25.1581 § 25.1713

Regulations at an intermediate amendment

None

Regulations at the amendment level in TCDS A22WE

§ 25.561

14 CFR Part 26 Regulations

Based on 14 CFR 21.101(g), applicable provision of 14 CFR part 26 are included in the certification basis. For any future 14 CFR part 26 amendments, the holder of this STC must demonstrate compliance with the applicable sections. As of the issuance date of this STC, compliance has been found for the following regulation:

14 CFR 26.11 and 14 CFR 26.47

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Any alteration of this certificate and/or the Type Certificate Data Sheet is punishable by a fine 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 Title 14 of the Code of Federal Regulations, part 21, section 21.47 (14 CFR 21.47). A transfer must be endorsed as provided on the reverse hereof. A Type Certificate holder who allows a person to use the Type Certificate to manufacture a new aircraft, aircraft engine, or propeller must provide that person with a written licensing agreement acceptable to the FAA. (Ref. 14 CFR 21.55).