



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Incorporation of Electrical Wiring
Interconnection Systems
Instructions for Continued
Airworthiness into an Operator's
Maintenance Program

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Change:

On November 8, 2007, the Federal Aviation Administration (FAA) published the Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety (EAPAS/FTS) Final Rule. The intent of the rule is to help ensure the continued safety of commercial airplanes by improving the design, installation, and maintenance of electrical wiring systems. Title 14 of the Code of Federal Regulations (14 CFR) part [121](#), § [121.1111](#), and part [129](#), § [129.111](#) include requirements for operators to have their maintenance programs include inspections and procedures for electrical wiring interconnection systems (EWIS). This advisory circular (AC) is not mandatory and does not constitute a regulation. This AC describes an acceptable means, but not the only means, to comply with the applicable sections of 14 CFR. However, if you use the means described in this AC to show compliance, you should follow it in all important respects unless alternate means or deviations are proposed and are accepted by the FAA. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way, and the document is intended only to provide information to the public regarding existing requirements under the law or agency policies.

Hugh Thomas for
Lawrence Fields
Executive Director, Flight Standards Service

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CHAPTER 1. GENERAL

1.1 Purpose of This Advisory Circular (AC). This AC is not mandatory and does not constitute a regulation. This AC describes an acceptable means, but not the only means, for Title 14 of the Code of Federal Regulations (14 CFR) part [121](#) certificate holders (CH) and part [129](#) operators (part 129, § [129.14](#)) of U.S.-registered airplanes (hereafter both are referred to as “operators”) to comply with the applicable sections of 14 CFR. However, if you use the means described in this AC to show compliance, you should follow it in all important respects unless alternate means or deviations are proposed and are accepted by the Federal Aviation Administration (FAA). The contents of this document do not have the force and effect of law and are not meant to bind the public in any way, and the document is intended only to provide information to the public regarding existing requirements under the law or agency policies.

1.1.1 Requirements. The electrical wiring interconnection systems (EWIS) instructions for continued airworthiness (ICA) have been developed using an enhanced zonal analysis procedure (EZAP). See Appendix [B](#), Definitions, for the definition of EZAP. The requirements to develop these EWIS ICA are contained in 14 CFR part [25](#), § [25.1729](#) and 14 CFR part [26](#), § [26.11](#). Section 25.1729 refers to the EWIS ICA requirements contained in part 25 appendix [H](#), §§ [H25.4](#) and [H25.5](#), while § 26.11 refers only to the EWIS ICA requirements contained in § H25.5(a)(1) and (b). This AC provides guidance for the EWIS ICA that have been developed in accordance with § 26.11 and AC [25-27](#), Development of Transport Category Airplane Electrical Wiring Interconnection Systems Instructions for Continued Airworthiness Using an Enhanced Zonal Analysis Procedure.

1.2 Audience. This AC applies to operators of transport category turbine-powered airplanes with a type certificate (TC) issued after January 1, 1958 that, as a result of original type certification or later increase in capacity, have a maximum type-certificated passenger capacity of 30 or more, or a maximum payload capacity of 7,500 pounds or more. This AC can also be used as a method of compliance for any transport category airplane that has § 25.1729 in its certification basis.

Note: The phrase “original type certification or later increase in capacity” addresses two situations. In the past, some designers and operators avoided applying requirements mandated only for airplanes over a specific capacity by receiving a design change approval for a slightly lower capacity. By referencing the capacity resulting from original certification, the rule removes this means of avoiding compliance. Also, the FAA could have originally certified an airplane design with a capacity slightly lower than the minimum specified in the rule, but through later design changes, the capacity could be increased above this minimum. The reference to later increase in capacity in the rule ensures that, if this occurs, the design would have to meet the requirements of the rule.

1.3 Where You Can Find This AC. You can find this AC on the FAA’s website at https://www.faa.gov/regulations_policies/advisory_circulars and the Dynamic Regulatory System (DRS) at <https://drs.faa.gov>.

1.4 What This AC Cancels. AC 120-102A, Incorporation of Electrical Wiring Interconnection Systems Instructions for Continued Airworthiness into an Operator's Maintenance Program, dated September 12, 2012, is canceled.

1.5 Background.

1.5.1 Trans World Airlines, Inc. (TWA) Flight 800. Since 1959, there have been at least 18 fuel tank explosions. Most notably, on July 17, 1996, a 25-year-old Boeing 747-100 series airplane was involved in an in-flight breakup after takeoff from John F. Kennedy International Airport in New York, resulting in 230 fatalities. The National Transportation Safety Board (NTSB) determined that the probable cause of the TWA Flight 800 accident was an explosion of the center wing fuel tank (CWT) resulting from ignition of the flammable fuel and air mixture in the tank. The NTSB could not conclusively determine the source of ignition energy for the explosion, though the most likely cause was a wiring failure outside the CWT. This failure allowed excessive electrical energy to enter the CWT through electrical wiring associated with the fuel quantity indicator system (FQIS).

1.5.2 Swissair Flight 111. Two years after the TWA accident, in September 1998, an MD-11 airplane, Swissair Flight 111, crashed into the Atlantic Ocean off the coast of Nova Scotia, Canada. In its final accident report, the Transportation Safety Board of Canada (TSB) determined that there was smoke and a fire above the ceiling in the cockpit. In the report, the TSB could not identify the exact cause of the fire; however, the TSB stated that "a segment of in-flight entertainment network... power supply unit cable... exhibited a region of resolidified copper on one wire that was caused by an arcing event." The TSB determined that this resolidified copper was in the area where the fire most likely originated.

1.5.3 Investigation. Investigation of these two accidents, and subsequent examinations of many other airplanes, showed that deteriorated wiring, corrosion, and improper wire installation and repairs were common conditions in the EWIS. In addition, wire bundles contaminated with metal shavings, dust, and fluids were also common conditions in representative examples of transport airplanes. These contaminants could damage the EWIS and also provide fuel for an electrical fire.

1.5.4 FAA's Conclusions.

1.5.4.1 The FAA concluded that the following ICA for the EWIS are too general, and not described in enough detail in maintenance manuals:

- Wiring maintenance practices,
- Wiring components,
- Wiring inspection criteria, and
- Wiring repair and installation instructions.

1.5.4.2 Therefore, the FAA determined that to correct these deficiencies, future ICA developed for the EWIS must define:

- What has to be done,
- When it has to be done,
- How it will be accomplished, and
- That the EWIS ICA must be FAA-approved.

1.5.5 Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety (EAPAS/FTS) Final Rule. On November 8, 2007, the FAA published the EAPAS/FTS Rule. This rule helps ensure the continued safety of commercial airplanes by improving the design, installation, and maintenance of the airplanes' EWIS. The rule also includes certification (§ 26.11 and §§ [25.1701](#) through [25.1733](#)) and operational (§§ [121.1111](#) and [129.111](#)) requirements. Part 26 subpart [A](#) establishes design approval holder (DAH) requirements for support of the continued airworthiness and safety improvements for turbine-powered transport category airplanes.

Note 1: For the purposes of this AC, a DAH refers to the TC and Supplemental Type Certificate (STC) holder when used in context.

Note 2: For the purposes of this AC, the responsible Aircraft Certification Service office or the office of the Transport Airplane Directorate (TAD) with oversight responsibility for the relevant TC, STC, or manufacturer as determined by the Administrator may be one in the same.

1.5.6 Title 14 CFR Subparts. Sections [121.1101](#) (part 121 subpart [AA](#)) and [129.101](#) (part 129 subpart [B](#)) require operators to support the continued airworthiness of each airplane. These requirements may include revising the maintenance program, incorporating design changes, incorporating revisions to ICA, and making necessary documentation available to affected persons (see Appendix [B](#)). These subparts will also improve the reader's ability to readily identify rules pertinent to continued airworthiness.

1.6 **Related Title 14 CFR Parts.** DRS (<https://drs.faa.gov>) provides a comprehensive knowledge center of regulatory guidance material. It contains searchable databases that contain regulatory, guidance, CFR, and Special Federal Aviation Regulations (SFAR) current, historical, and pending versions and aviation product information. The following sections of 14 CFR apply:

- Part [21](#), § [21.50](#), Instructions for Continued Airworthiness and Manufacturer's Maintenance Manuals Having Airworthiness Limitations Sections.
- Part [25](#), § [25.1529](#), Instructions for Continued Airworthiness.
- Part [25](#), § [25.1729](#), Instructions for Continued Airworthiness: EWIS.
- Part [25](#) Appendix [H](#), § [H25.5](#), Electrical Wiring Interconnection System (EWIS) Instructions for Continued Airworthiness.

- Part [26](#), Continued Airworthiness and Safety Improvements for Transport Category Airplanes.
- Part [26](#) Subpart [A](#), General.
- Part [26](#), § [26.11](#), Electrical Wiring Interconnection Systems (EWIS) Maintenance Program.
- Part [43](#), § [43.13](#), Performance Rules (General).
- Part [121](#) Subpart [AA](#), Continued Airworthiness and Safety Improvements.
- Part [121](#), § [121.1111](#), Electrical Wiring Interconnection Systems (EWIS) Maintenance Program.
- Part [129](#) Subpart [B](#), Continued Airworthiness and Safety Improvements.
- Part [129](#), § [129.111](#), Electrical Wiring Interconnection Systems (EWIS) Maintenance Program.
- SFAR [88](#), Fuel Tank System Fault Tolerance Evaluation Requirements.

1.7 Related Reading Materials (current editions):

1.7.1 ACs. You can locate each of the following ACs on the FAA website at https://www.faa.gov/regulations_policies/advisory_circulars and on DRS:

- AC [25-8](#), Auxiliary Fuel System Installations.
- AC [25-19](#), Certification Maintenance Requirements.
- AC [25-27](#), Development of Transport Category Airplane Electrical Wiring Interconnection Systems Instructions for Continued Airworthiness Using an Enhanced Zonal Analysis Procedure.
- AC [25.981-1](#), Fuel Tank Ignition Source Prevention Guidelines.
- AC [25.981-2](#), Fuel Tank Flammability Reduction Means.
- AC [25.1701-1](#), Certification of Electrical Wiring Interconnection Systems on Transport Category Airplanes.
- AC [26-1](#), Part 26, Continued Airworthiness and Safety Improvements.
- AC [120-16](#), Air Carrier Maintenance Programs.
- AC [120-94](#), Aircraft Electrical Wiring Interconnection Systems Training Program.
- AC [120-97](#), Incorporation of Fuel Tank System Instructions for Continued Airworthiness into Operator Maintenance and/or Inspection Programs.
- AC [121-22](#), Maintenance Review Boards, Maintenance Type Boards, and OEM/TCH Recommended Maintenance Procedures.
- AC [129-4](#), Maintenance Programs for U.S.-Registered Aircraft Operated Under 14 CFR Part 129.

1.7.2 FAA Orders.

- Order [8110.54](#), Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents.
- Order [8110.104](#), Responsibilities and Requirements for Implementing Part 26 Safety Initiatives.

1.7.3 Industry References. The use of the term “ATA coded sections” within this AC refers to the Air Transport Association of America (ATA) codes that are standardized for each aircraft system. The ATA changed its name to Airlines for America (A4A) in 2011; however, the acronym “ATA” is still used for coded aircraft systems. The acronyms “ATA” and “A4A” are considered interchangeable. The alternate format for aircraft system coding is the Joint Aircraft System/Component (JASC) Code. For additional information on JASC coding, refer to the FAA JASC Code Table and Definitions, which is accessible via https://sdrs.faa.gov/documents/JASC_Code.pdf. Refer also to A4A Maintenance Steering Group – 3rd Task Force (MSG-3), Operator/Manufacturer Scheduled Maintenance Development, and DAH-developed publications.

1.8 **FAA Policy Statements (available for download at <https://drs.faa.gov>).**

1.8.1 PS-ANM110-7-12-2005, Safety—A Shared Responsibility—New Direction for Addressing Airworthiness Issues for Transport Airplanes.

1.8.1.1 On July 12, 2005, the FAA issued policy statement PS-ANM110-7-12-2005. The policy states, in part: “Based on our evaluation of more effective regulatory approaches for certain types of safety initiatives...the FAA has concluded that we need to adopt a regulatory approach recognizing the shared responsibility between DAHs and operators. When we decide that general rulemaking is needed to address an airworthiness issue, and believe the safety objective can only be fully achieved if the DAHs provide operators with the necessary information in a timely manner, we will propose requirements for the affected DAHs to provide that information...”

1.8.1.2 Section 26.11 implemented this policy for the EAPAS/FTS rule. Section 26.11 requires the design approval holders (DAH) to develop ICA for EWIS for certain transport category airplanes and submit them for review and approval to the responsible Aircraft Certification Service office.

1.8.2 PS-AIR-100-2009-05-27, Adding Part 26 to Type Certificate Data Sheets and Supplemental Type Certificates. On October 22, 2007, 14 CFR adopted a new part 26, Continued Airworthiness and Safety Improvements for Transport Category Airplanes.

1.8.3 PS-AIR-100-2007-12-27B, Enhanced Airworthiness Program for Airplane Systems (EAPAS) Supplemental Type Certificate (STC) Limitation. On June 10, 2009, the FAA issued revised policy statement PS-AIR-100-2007-12-27B. This memo was revised to remove the paragraph on certification basis, which is included in a separate policy memorandum, PS-AIR-100-2009-05-27.

- 1.8.4** ANM-08-113-001, Policy Statement on Clarification of Maximum Payload Capacity Definition in Design Approval Holder Rules. On September 12, 2008, the FAA issued policy statement ANM-08-113-001. This policy states that the “maximum payload capacity criterion is used, along with other criteria, to determine whether a rule is applicable to a DAH. However, there has been confusion on the use and definition of the term. This policy memorandum clarifies the maximum payload capacity criterion when used with regard to these DAH rules and their corresponding operational rules.”
- 1.9 AC Feedback Form.** For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

CHAPTER 2. ENHANCED AIRWORTHINESS PROGRAM FOR AIRPLANE SYSTEMS (EAPAS) REQUIREMENTS

2.1 Requirements. This advisory circular (AC) provides guidance to support operator compliance with the electrical wiring interconnection system (EWIS) maintenance program requirements contained in the Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety (EAPAS/FTS) Rule. Title 14 of the Code of Federal Regulations (14 CFR) part [121](#), § [121.1111](#) and part [129](#), § [129.111](#) require operators to incorporate into their maintenance program inspections and procedures for EWIS contained in instructions for continued airworthiness (ICA) approved by the Federal Aviation Administration (FAA) responsible Aircraft Certification Service office. The design approval holder (DAH) develops and revises the ICA using AC [25-27](#), Development of Transport Category Airplane Electrical Wiring Interconnection Systems Instructions for Continued Airworthiness Using an Enhanced Zonal Analysis Procedure. The ICA for the EWIS consist of inspections and procedures to accomplish those tasks, and may include, in addition, maintenance of other natures (e.g., overhaul, repair, etc.), intervals, and “protections and caution” instructions and information. (Refer to 14 CFR part [1](#) for the definition of “maintenance” and “preventive maintenance.”)

2.2 Description of EWIS ICA Required by 14 CFR Part [26](#), § [26.11](#).

2.2.1 Overview. The EWIS ICA required by § 26.11 are developed in accordance with 14 CFR part [25](#) appendix [H](#), § [H25.5\(a\)\(1\)](#) and (b). These ICA are:

1. Maintenance tasks to reduce the likelihood of ignition sources and accumulation of combustible material. There may be inspections under the form of a zonal General Visual Inspection (GVI), standalone GVI, Detailed Inspection (DET), overhauls, repairs, replacements, or a combination of these;
2. Procedures to effectively clean the EWIS components of combustible material if there is not an effective maintenance task to reduce the likelihood of combustible material accumulation; and
3. Instructions for protections and caution information to minimize contamination and accidental damage to EWIS, as applicable, during the performance of maintenance or alteration. The EWIS ICA can include other instructions (refer to §§ [H25.4](#) and [H25.5\(a\)\(2\)](#) through (5)).

2.2.2 Multiple Items and Components. The EWIS ICA include multiple items and can be, and almost always are, comprised of several different components. All of these items and components define a particular EWIS ICA. These items and components are in multiple DAH-produced documents.

2.2.2.1 These EWIS ICA items include:

1. Type of task (e.g., overhaul, replacement, standalone GVI, DET, or standard zonal GVI).
2. Task interval (e.g., every 16,000 flight cycles or 3,000 days).

3. Airplane zone identification for airplanes with a zonal program (e.g., Zone 201).
4. Task description (e.g., Inspect (General Visual) all exposed EWIS in the wheel well).

Note: The gear is extended with the handle down and gear locked in the down position and doors in open position).

5. Airplane applicability. Some models within the same family of airplanes may have differing maintenance requirements based on available options (e.g., freighter versus passenger version engine types).
6. Task procedure(s) as described in the referenced Aircraft Maintenance Manual (AMM) or other documents that contain the procedure(s). These are the actual instructions on how to perform the GVI, DET, restoration/cleaning tasks that support the task description listed in the Maintenance Review Board Report (MRBR) and Maintenance Implementation Document (MID), and maintenance tasks that support the task description.
7. Supporting task procedure(s), if any, necessary to perform the task procedure in any other document referenced by the task procedure.
8. Instructions for protections and caution information that will minimize contamination and accidental damage to the EWIS (these can appear in different places, such as in the AMM or in the Standard Wiring Practice Manual (SWPM)/Electrical Standard Practices Manual (ESPM)). This information, if contained in the SWPM/ESPM (or other similar documents), should be in its chapter 20. Sometimes, this information is repeated in the standard practices chapter 20 of the AMM. In any case, it is general protections and caution information, and it is not expected that unique procedures will be developed for individual EWIS ICA for a particular airplane model or models produced by the same manufacturer. The AMM or SWPM/ESPM will reference any protections and caution information specific to the EWIS ICA.

2.2.2.2 As an example, the EWIS ICA components can be located in one or more of the following documents:

- Document required by § H25.5(b);
- Maintenance Review Board Report (MRBR);
- Maintenance Planning Document (MPD);
- Maintenance Implementation Document (MID);
- Aircraft Maintenance Manual (AMM);
- Standard Wiring Practice Manual (SWPM);

- Electrical Standard Practices Manual (ESPM) (a term used by some type certificate holders (TCH)); or
- Standalone ICA document produced by a Supplemental Type Certificate (STC) applicant.

2.2.3 EWIS Source Document. Section H25.5(b) states that the EWIS ICA developed in accordance with the requirements of § H25.5(a)(1) must be in the form of a document appropriate for the information provided, and must be easily recognizable as the EWIS ICA or specifically reference other sections of the EWIS ICA that contain this information. This document is referred to as the source document. The form is at the discretion of the DAH, as long as it meets the requirements of §§ [H25.2](#) and H25.5(b). The entire EWIS ICA can be in the source document, or the source document can point to a series of other documents, such as the MRBR, MPD, MID, AMM, or SWPM/ESPM, which contain the EWIS ICA.

Note: The source document referenced above is approved by the responsible Aircraft Certification Service office. The operational rules require operators to incorporate into their maintenance program EWIS ICA approved by the responsible Aircraft Certification Service office. The source document provides the information necessary for the operator to comply with §§ 121.1111 and 129.111.

2.2.4 Controlling Reference Numbers. Controlling reference numbers for the individual EWIS ICA tasks are listed in the MRBR, MPD, MID, or other maintenance documents. An example of a controlling reference number in an MRBR is “MM/MPD ref. 20-XXX-XX.” This number correlates to a cross-reference number in the source document and the AMM, which is the actual maintenance task with all associated instructions to accomplish it. The DAH may refer to these reference numbers as Maintenance Review Board (MRB) reference, AMM/MPD reference, Maintenance Significant Items (MSI) reference, task number, etc. It can vary. The TCH may consider one or all of the reference numbers part of the EWIS ICA. The DAH will identify all reference numbers necessary to fully track and identify the EWIS ICA. All reference numbers considered necessary to fully identify and track the EWIS ICA should be considered part of the EWIS ICA.

2.2.5 DAH Revisions to EWIS ICA. The DAH will revise the source document in order to account for any new or revised EWIS inspection or procedures required by § H25.5(a)(1) and developed due to production changes, or design changes mandated by an Airworthiness Directive (AD). They will provide the revised source document to operators after the document has been approved by the responsible Aircraft Certification Service office.

2.3 **EWIS ICA Development Required by § [25.1729](#)**. In addition to the EWIS ICA that are required and developed under § 26.11 for existing in service airplanes, there will also be the EWIS ICA developed under § 25.1729 for new airplane type certificates (TC), or when 14 CFR part [21](#), § [21.101](#) requires the holder of an amended TC or an STC to comply with a corresponding amendment to part 25 that was issued on or after the date of

the applicable part 26 provision. Section 21.101 is referred to as the “Changed Product Rule.” The EWIS ICA required by § 25.1729 are developed under §§ H25.4 and H25.5. Simply stated, an operator can have airplanes that have the EWIS ICA developed under § 26.11 or, if applicable, EWIS ICA developed under § 25.1729, which includes § H25.5 and any mandatory replacement times for EWIS components.

2.4 DAH Activities for Compliance with § 26.11. The DAH is required to develop ICA for the “representative airplane’s” EWIS according to § 26.11, as follows:

2.4.1 TCH. The TCH is required to develop the EWIS ICA for the “representative airplane” in accordance with § 26.11(b). The purpose was to ensure that all variations of the EWIS used in production were reviewed and appropriate ICA were developed. These EWIS ICA were developed in accordance with § H25.5(a)(1) and (b) in effect on December 10, 2007, for each affected type design. The TCH submits those ICA for review and approval by the responsible Aircraft Certification Service office.

Note: TCHs with § 25.1729 in their certification basis will develop the EWIS ICA in accordance with §§ H25.4 and H25.5.

2.4.2 TC/STC Holders. TC/STC holders are only required to develop the EWIS ICA in compliance with § 26.11(c) or, if required or elected, in compliance with part 25 appendix H, § 25.1729 if the application date for the STC or change to an existing TC/STC was before December 10, 2007, and the FAA issued the certificate on or after December 10, 2007. Applicants for STCs (including changes to existing STCs) or amended TC holders applications filed on or after December 10, 2007, are also required to develop and submit EWIS ICA in compliance with § 26.11 or, if required or elected, in compliance with § 25.1729 for review and approval to the responsible Aircraft Certification Service office.

Note: Amended TC/STC holders with § 25.1729 in their certification basis will develop the EWIS ICA in accordance with §§ H25.4 and H25.5.

2.5 Why the EWIS ICA Approval is Necessary. While there may be DAH or operator created ICA that appear to be acceptable, before they are applied, the responsible Aircraft Certification Service office must review and approve the EWIS ICA. The development of the EWIS ICA requirements can be complex, requiring qualitative engineering and maintenance assumptions. Approval will help ensure standardized application of these assumptions (e.g., zone density, zone size, potential effects of fire, environmental effects, etc.) and ensure that important information such as wire identification requirements and EWIS separation requirements developed during airplane certification are correctly and logically documented in the airplane’s ICA documents. It will also ensure that the data/documents delivered to the operators will be standardized to the extent required by the EWIS ICA requirements.

2.6 TCH-Developed EWIS Recommended Maintenance Requirements. EWIS ICA are developed in accordance with §§ H25.4 and H25.5. The responsible Aircraft Certification Service office approves all of these EWIS ICA. The TCH can develop the EWIS ICA in

accordance with § 26.11(b) or (c) by showing compliance with § H25.5(a)(1) and (b); or in accordance with § 25.1729 by showing compliance with §§ H25.4 and H25.5; or by utilizing an existing document for scheduled tasks and the intervals for performing those tasks and procedures, the Maintenance Steering Group – 3rd Task Force (MSG-3) logic contained in the Airlines for America (A4A) Operator/Manufacturer Scheduled Maintenance Development Document (MSG-3), or any other acceptable method of compliance with §§ H25.4 and H25.5 and AC 25-27. The EWIS ICA will be identified as the EWIS ICA as required by § H25.5(b) in the source document developed by the TCH. As stated earlier in this AC, the TCH should:

1. Develop a source document that contains all of the EWIS ICA data required by § H25.5(a)(1);
2. Develop a source document that references other maintenance documentation that contains the EWIS ICA data required by § H25.5(a)(1); or
3. Utilize an existing document (such as the MRBR, MPD, or MID) to provide the data or the references specified in items 1 and 2 above, respectively.

Note: With reference to TCH Service Bulletins (SB) that affect the EWIS, the FAA expects that the TCH will identify protections and caution information in a manner or form that conveys the information to the operator. For example, one TCH states in every SB that affects the EWIS this cautionary statement: keep the work area, wires, and electrical bundles clean of metal particles or contamination when you use tools. Unwanted material, metal particles, or contamination caught in wire bundles can cause damage to the bundles. Damaged wire bundles can cause sparks or other electrical damage.

2.6.1 Overview. The EWIS ICA developed from application of the enhanced zonal analysis procedure (EZAP) should be located in the systems and powerplant section under Air Transport Association of America (ATA) 20, and the zonal inspection program section of the airplane's MRBR, MPD, MID, or a source document. They consist of recommended maintenance tasks, task intervals, and instructions/procedures to accomplish the tasks. With respect to inspection tasks, the inspection can be a zonal GVI, standalone GVI, DET, or a combination of these. The TCH selects task intervals that are adequate to maintain the airplane airworthiness in order to provide operators with a means to properly maintain the EWIS, while still allowing flexibility for the operators to schedule maintenance tasks within their maintenance programs.

2.6.2 Location.

2.6.2.1 All of the EWIS ICA for which compliance is recommended will be in the source document, or the source document will reference other document locations.

2.6.2.2 Operators must incorporate into their maintenance program EWIS ICA that have been approved by the responsible Aircraft Certification Service office.

2.6.3 Instructions and Procedures.

2.6.3.1 The instructions/procedures to carry out the EWIS tasks will be contained in the AMM, SWPM, and ESPM.

2.6.3.2 Operators should incorporate instructions/procedures that have been approved in their maintenance program/manuals, work cards, job/task cards, Engineering Authorizations/Engineering Orders (EA/EO), etc. It is especially important that the task descriptions, job accomplishment instructions, task cards, job/task cards, etc. contain all the instructions and procedures that support the EWIS task.

2.6.4 Protections and Caution Instructions and Information. The EWIS ICA also includes protections and caution instructions and information that will minimize contamination and accidental damage to the EWIS during the performance of maintenance, alterations, or repairs. Inspections of other airplanes after the Boeing 747 and MD-11 accidents showed that contamination of wire bundles with metal shavings, dust, and fluids were common conditions in representative examples of the aging fleet of transport airplanes. These contaminants could damage the EWIS and also provide fuel for an electrical fire. The TCH has developed these protections and caution instructions and information to support the EWIS maintenance program for the airplane. These protections and caution instructions and information will be in the AMM, SWPM and ESPM. Only those sections affected by the incorporated protections and caution instructions and information to support the EWIS are approved, not the entire manual.

2.7 **STC Holder-Developed EWIS ICA.** Section 26.11 applies to applicants for STCs (including changes to existing STCs) if the date of application was before December 10, 2007, and the STC was issued on or after that date. Unless compliance with § 25.1729 is required or elected, the rule also applies to applications for STCs (including changes to existing STCs) filed on or after December 10, 2007.

2.8 **STC Limitation.** Part 26 does not prohibit issuing an STC even if the STC applicant has not yet met the requirements of that section. In this case, the FAA will add a limitation to the STC. FAA engineering policy memo PS-AIR-100-2007-12-27B, Enhanced Airworthiness Program for Airplane Systems (EAPAS) Supplemental Type Certificate (STC) Limitation, dated June 10, 2009, describes how and when the FAA will do this. You can download an electronic copy at <https://drs.faa.gov>.

2.8.1 Limitation Statement. It is important for the operator to understand that this is a limitation on the STC applicant and not the operator. The following statement (as described in PS-AIR-100-2007-12-27B) should be added to the Limitation Section of the STC when the EWIS ICA evaluation has not been completed at the time of the STC issuance (provided it is issued prior to June 7, 2010). The goal of the limitation is (1) to not allow any installations after August 30, 2010, if an STC applicant has not met the § 26.11 EWIS requirements; and (2) to not ground any airplanes that already have the STC installed.

“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 responsible Aircraft Certification Service office. (Refer to § 26.11.)”

2.8.2 Installation After August 30, 2010. In order for the operator to install the STC after August 30, 2010, the operator will need to have one of the following:

1. A letter from the responsible Aircraft Certification Service office stating that the previously approved EWIS ICA have been evaluated and shown to be adequate for the modification. The operator should request this letter from the responsible Aircraft Certification Service office to ensure that the STC has been evaluated in accordance with § 26.11(c)(1) and (2) prior to installation; or
2. Revised EWIS ICA that the responsible Aircraft Certification Service office has approved for the STC modification. The revised EWIS ICA should be provided to the operator by the STC holder.

Note: Once the STC holder has met the § 26.11 requirements, the STC does not need to be revised to remove the statement. However, if the STC needs to be updated/amended, the limitation may be removed at that time.

2.8.3 Existing STCs After August 30, 2010. As stated above, this is a limitation on the STC applicant, not on the operator. Operators can continue to operate their airplanes with the existing STC after August 30, 2010. The operator has no obligation under the operation rules (§§ 121.1111 and 129.111) to develop the EWIS ICA for the existing STC. If the STC holder provides the EWIS ICA that have been approved by the responsible Aircraft Certification Service office for the previously incorporated STC (STC installed after the effective date of the rule), the operator should assess them for incorporation into its maintenance program.

Note: If an STC limitation remains, no person may approve for return to service an airplane modified in accordance with the installation instructions of the STC after August 30, 2010, even if an operator operates airplanes that had the design change installed on the same airplane model prior to August 30, 2010.

2.9 Requirement to Ensure Compatibility Between Fuel Tank System and EWIS ICA. Section 26.11 requires a review by the TC and STC holders of any fuel tank system ICA developed to comply with Special Federal Aviation Regulation (SFAR) [88](#), Fuel Tank System Fault Tolerance Evaluation Requirements. This ensures compatibility with the EWIS ICA and minimizes duplication of requirements between them. Fuel tank wiring is part of the aircraft’s EWIS. The fuel tank system maintenance requirements might be more specific than those for wiring in general and might contain additional requirements.

- 2.9.1** TC and STC Holder Review. The DAH will review ICA to ensure that any maintenance tasks for the EWIS do not compromise fuel tank system wire requirements, such as separation or configuration specifications. Operators need to be aware that separation and configuration of the EWIS, especially when performing a repair or alteration to the EWIS or fuel tank system wiring, may be critical.

Note: The responsible Aircraft Certification Service office must approve any operator-proposed changes to separation and configuration of the EWIS or fuel tank system wiring. The operator must submit its proposed changes with supporting technical justification/data through the principal inspector (PI). The PI adds comments (if any) and forwards the proposed changes to the responsible Aircraft Certification Service office for approval.

- 2.9.2** Fuel Tank System and EWIS ICA Location. The responsible Aircraft Certification Service office approves the TC and STC ICA for EWIS. With respect to the recommended repetitive maintenance instructions, the TCH will typically list the EWIS and fuel tank system tasks and intervals in its manual or section of ICA for the airplane that is required to comply with § [H25.3\(b\)\(1\)](#). They are identified as the EWIS ICA or the EWIS/SFAR 88 ICA. The STC holder will typically list its ICA in the STC document it provides.

- 2.9.3** Example. The following table is an example of how a TCH has identified an integrated EWIS/SFAR 88 task within its manual or section of ICA for the airplane that is required to comply with § H25.3(b)(1). STC holders may identify them differently and include them in the ICA section of their documents. Each task is identified as an EWIS task or SFAR 88 task. An integrated task will be identified as an EWIS/SFAR 88 task. Operators should identify the EWIS tasks and the integrated EWIS/SFAR 88 tasks in their maintenance program so as not to lose their identity as part of an approved ICA.

1. Column 1 identifies the task number, in this case 20-XXX. The task number 20-XXX is only an example for illustration purposes in this AC. An actual TCH task number will probably contain six or more numbers, such as 20-XXX-XX. Some may also be in ATA 28, so the task may be 28-XX-XX.
2. Column 2 is the task category, which is a DET.
3. Column 3 is the task interval, 6C.
4. Column 4 is airplane applicability.
5. Column 5 is a description of the task and, in this case, is an integrated EWIS/SFAR 88 task.

Table 2-1. Integrated Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety Task

1. Item	2. Task Category	3. Task Interval	4. Airplane Applicability	5. Task Description
20-XXX *	DET	6C	All	Inspect exposed EWIS/FQIS, etc. EWIS/SFAR 88
*Subparagraph 2.9.3				

2.10 Operator-Developed EWIS ICA. The FAA recognizes that some operators may want to and can develop (using AC 25-27) their own EWIS ICA compliant with § H25.5(a)(1) and (b) (e.g., when their maintenance programs have not been developed using MSG-3). Operators can incorporate into their maintenance programs the TC or STC holder's EWIS ICA, or their own ICA (as a complement or an alternative) once these EWIS ICA are approved by the responsible Aircraft Certification Service office.

Note: Important information for the operator: If the operator develops its own EWIS ICA, the responsible Aircraft Certification Service office must approve them. The operator must forward its proposed EWIS ICA through the PI. The PI adds comments (if any) and forwards the proposed EWIS ICA to the responsible Aircraft Certification Service office for approval. Operators must incorporate into their maintenance program EWIS ICA that have been approved by the responsible Aircraft Certification Service office.

CHAPTER 3. OPERATIONAL REQUIREMENTS

3.1 Operator Incorporation of Federal Aviation Administration (FAA)-Approved Electrical Wiring Interconnection System (EWIS) Instructions for Continued Airworthiness (ICA) into the Maintenance Program. Title 14 of the Code of Federal Regulations (14 CFR) part [121](#), § [121.1111](#) and part [129](#), § [129.111](#) require operators to incorporate into their maintenance program inspections and procedures for EWIS contained in ICA approved by the responsible Aircraft Certification Service office. The FAA expects that type certificate holders (TCH) will incorporate the approved EWIS ICA into their Maintenance Review Board Report (MRBR) or Maintenance Implementation Document (MID) and make them available to operators either electronically or in hard copy. The FAA expects that Supplemental Type Certificate (STC) holders will make them available by similar means. (Refer to Advisory Circular (AC) [20-188](#), Compatibility of Changes to Type Design Installed on Aircraft.)

3.1.1 Operator's Tracking System. The operator should establish a tracking system within its maintenance program that tracks the incorporation of, and any revisions to, the responsible Aircraft Certification Service office-approved EWIS ICA, so the ICA will not lose their identity as an FAA-approved EWIS ICA. This includes:

1. Task and intervals;
2. Instructions and procedures in the Aircraft Maintenance Manual (AMM), Standard Wiring Practice Manual (SWPM), and Electrical Standard Practices Manual (ESPM); and
3. Protections and caution instructions and information in the AMM, SWPM, and ESPM.

3.1.2 Controlling Reference Numbers. TCHs' controlling reference numbers uniquely identify the EWIS ICA for identification and traceability purposes throughout the operational life of the airplane. During the initial incorporation of the EWIS ICA into the operator's maintenance program, the operator should use these controlling reference numbers or an operator-developed system that correlates to them for the purposes of traceability. This will provide operator traceability during future maintenance program changes that contain EWIS ICA. This will help prevent inadvertent deletion, changes to the type of task, or escalation of EWIS ICA without proper consideration of the reason for the task and its interval. The tracking system should correlate to the controlling reference number for the EWIS ICA and be acceptable to the principal inspector (PI).

3.1.3 Protections and Caution Instructions and Information in the Maintenance Program/Manual. It is important that the operator incorporate protections and caution instructions and information into its maintenance program/manual to minimize contamination and accidental damage to the EWIS when performing maintenance, alteration, or repairs. In addition, the operator should have procedures in its maintenance program/manual that instruct its maintenance personnel "to clean the EWIS and surrounding area after completion of any maintenance, alterations, or repairs." It is especially important to include the same or a similarly worded statement in their

program/manuals, work cards, job/task cards, Engineering Authorizations/Engineering Orders (EA/EO), etc.

- 3.1.4** Operator-Developed Instructions and Procedures for EWIS Tasks. The operator can develop its own instructions and procedures to carry out the EWIS tasks provided the operator-developed ones produce an equivalent result to those approved by the responsible Aircraft Certification Service office. If the AMM, SWPM, and ESPM allow for the use of alternative or equivalent tools or materials, further approval by the responsible Aircraft Certification Service office is not required. If the operator proposes to change the instructions, procedures must be submitted and found acceptable by the PI. The operator should include supporting technical justification and data with its submittal. PIs should contact the responsible Aircraft Certification Service office for concurrence.
- 3.1.5** Ensuring That Protections and Caution Instructions and Information are in Operator Documents. The operator is responsible for ensuring that protections and caution instructions and information approved by the responsible Aircraft Certification Service office are incorporated into its maintenance program manuals, work cards, job/task cards, EA/EOs, etc., and any other documents the operator uses in administering their maintenance program. The operator should have procedures in its maintenance program manuals that instructs personnel who write or revise manuals, work cards, job/task cards, EA/EOs, etc., that all protections and caution instructions and information must be incorporated in those documents as appropriate. It is especially important to include and clearly identify the protections and caution instructions and information on work cards, job/task cards, and EA/EOs.
- 3.1.6** Operator-Developed Documents That Include EWIS Inspection Tasks. Operator-developed work cards, job/task cards, EA/EOs, etc., that include any EWIS inspection tasks should have the protections and caution instructions and information included, and should reference the location in the AMM, SWPM, or ESPM.
- 3.2** **Operator Changes to Enhanced Zonal Analysis Procedure (EZAP)-Developed EWIS Task or Task Intervals.**
- 3.2.1** Types of Changes. There are two types of changes to the operator's EWIS maintenance program:
- Deletion of or changes to an EWIS task, or
 - Escalation of an airplane check package/interval, such as "C check" containing the EWIS tasks and intervals.
- 3.2.2** Responsible Aircraft Certification Service Office Approval. If the operator proposes to delete or change an EWIS task, it must be approved by the responsible Aircraft Certification Service office. The operator should submit its proposed changes with supporting technical justification/data through the PI. The PI adds comments (if any) and forwards the proposed changes to the responsible Aircraft Certification Service office for approval.

- 3.2.3** Escalation of an Airplane Check Package/Interval. If the operator proposes an escalation of an airplane check package/interval, such as the “C check” that contains EWIS tasks and intervals, the responsible Aircraft Certification Service office does not have to approve the change. This change is within the authority of the PI and the procedures in the operator’s maintenance program and manuals. The operator should provide the PI with technical justification for escalating any EWIS tasks and intervals.
- 3.3** **Operator Changes to EWIS ICA Developed Under 14 CFR Part [25](#), § [25.1729](#).**
- 3.3.1** Requirements. EWIS ICA compliant with part 25 appendix H, §§ [H25.4](#) and [H25.5](#) are required if the airplane has § 25.1729 in its certification basis, or if the responsible Aircraft Certification Service office has determined that an STC applicant must comply with 14 CFR part [21](#), § [21.101](#) and, therefore, require the applicant to comply with all or parts of the EWIS requirements of § 25.1729.
- 3.3.2** Approval. Operators should discuss any proposed changes to the EWIS requirements with the PI and the responsible Aircraft Certification Service office to see if the proposed changes are within the authority of the PI and the procedures within the operator’s maintenance program, or if they must be approved by the responsible Aircraft Certification Service office.
- 3.4** **EAPAS Maintenance Training**. The Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety (EAPAS/FTS) Rule introduced new requirements that affect design approval holders (DAH) and operators. To realize fully the objectives of EAPAS/FTS requirements, the FAA encourages operators to rethink their current philosophical approach to maintaining, inspecting, and altering aircraft wiring and systems in the aircraft. The FAA has also adopted the “Protect and Clean as You Go” philosophy. This philosophy stresses:
- 3.4.1** Protective Measures. The importance of protective measures when working on or around wire bundles and connectors.
- 3.4.2** Debris Removal. The importance of protecting the EWIS during structural repairs, STC installations, or other alterations by making sure that metal shavings, debris, and contamination resulting from such work are removed during work in progress and after completion.
- 3.4.3** Operator Training. This philosophical approach begins at the airplane manufacturer with enhancements of ICA for scheduled maintenance, changes to ICA maintenance procedures, and maintenance training programs. Operators will need to educate and train their employees of addition and identification in their AMM, SWPM, ESPM, work cards, job/task cards, EA/EOs, etc., that include any EWIS inspection tasks, protections and caution instructions and information. In addition, there will be new procedures, inspection devices, graphical information showing required tasks, changes in tasks such as wiring splicing, etc. Operators should provide training to maintenance, inspection, and engineering personnel, including persons who write and edit job cards and engineering orders. The FAA has published AC [120-94](#), Aircraft Electrical Wiring Interconnection

Systems Training Program, to assist operators in development of the EWIS training programs.

3.4.4 Manufacturer-Developed Training Programs. Operators can also take advantage of any airplane manufacturer-developed training programs that address the EWIS.

3.5 Operator’s Maintenance Program Approval Under §§ 121.1111 and 129.111.

Operators of transport category airplanes to which §§ 121.1111 and 129.111 apply must incorporate the EWIS ICA into their maintenance programs inspections and procedures for EWIS on the basis of ICA developed in accordance with the provisions of § H25.5(a)(1) and (b), or § H25.4 and all of § H25.5, as applicable. Sections 121.1111(e) and 129.111(e) state that these changes to the maintenance program and any later revisions to the EWIS provisions of the maintenance program must be submitted to the PI for review and approval. The operator will submit to the PI for review the revisions to their maintenance program incorporating inspections and procedures for EWIS, and their revisions. The PI will ensure the operator has incorporated into their maintenance programs inspections and procedures based on EWIS ICA and any subsequent revisions that have been approved by the responsible Aircraft Certification Service office. When the review is complete, the PI will issue or amend Operations Specification (OpSpec)/Management Specification (MSpec) D097, Aging Aircraft Programs.

3.6 Operations That are Authorized OpSpec D097. The issuance of this OpSpec signifies the FAA has reviewed the operator’s, certificate holder’s (CH), or program manager’s policy and procedures incorporated into their maintenance programs for compliance with the Aging Aircraft Program rules. Table 1 of D097 will consist of three columns that list:

- The applicable Aging Aircraft Program rules;
- The manual and section where the policy and procedures are located for the applicable Aging Aircraft Program; and
- The date of the manual and section where the current policy and procedures are located for the applicable Aging Aircraft Program.

Note 1: Table [3-1](#) below illustrates a sample D097 Table 1 that lists the various 14 CFR part rules. The operator/CH/program manager will have a specific OpSpec D097 template for their operation.

Note 2: If the rule does not apply to the CH’s operation, list the associated rule for their operation (e.g., § [121.1113](#)) in the first column and enter “N/A” in the second and third columns.

Table 3-1. Sample D097 Table 1 – Aging Aircraft Maintenance Programs

Aging Aircraft Program Rules	Certificate Holder/Program Manager's Maintenance and Inspection Program Policy and Procedures (Manual and Section)	Date
Repairs Assessment for Pressurized Fuselages — § 121.1107, § 129.107		
Supplemental Inspections — § 121.1109, § 129.109		
Electrical Wiring Interconnection Systems (EWIS) Maintenance Program — § 121.1111, § 129.111		
Fuel Tank System Maintenance Program — § 121.1113, § 129.113		
Flammability Reduction Means — § 121.1117, § 129.117		

3.6.1 Submission to PI for Review.

3.6.1.1 Initial submission and any subsequent revisions to these policy and procedures sections must be submitted to the PI for review for compliance with the Aging Aircraft Program rules.

3.6.1.2 Any changes to the operator/CH/program manager's maintenance program policy and procedures must be submitted to the PI for review and approval. When the maintenance program policy and procedures are revised, the date of the revision will be inserted into column 3 of Table 3-1.

3.6.2 FAA Aircraft Certification Service Office-Approved ICAs. Any proposed revisions or deletions of responsible Aircraft Certification Service office-approved ICAs must be coordinated with the PI for review and concurrence. The PI will then forward the proposed revisions or deletions to the responsible Aircraft Certification Service office for approval prior to implementation or incorporation into the maintenance program.

3.6.3 Operator Action. An operator/foreign air carrier/foreign operator must have procedures to ensure that EWIS ICAs for inspections and procedures are incorporated into their maintenance program.

APPENDIX A. ACRONYMS

14 CFR	Title 14 of the Code of Federal Regulations
A4A	Airlines for America
AC	Advisory Circular
AD	Airworthiness Directive
AED	Aircraft Evaluation Division
AIR	Aircraft Certification Service
ALS	Airworthiness Limitations Section
AMM	Aircraft Maintenance Manual
APU	Auxiliary Power Unit
ASI	Aviation Safety Inspector
CH	Certificate Holder
CMM	Component Maintenance Manual
CWT	Center Wing Fuel Tank
DAH	Design Approval Holder
DET	Detailed Inspection
DRS	Dynamic Regulatory System
EA	Engineering Authorization
EAPAS	Enhanced Airworthiness Program for Airplane Systems
EAPAS/FTS	Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety
EO	Engineering Order
ESPM	Electrical Standard Practices Manual
EWIS	Electrical Wiring Interconnection System
EZAP	Enhanced Zonal Analysis Procedure
FAA	Federal Aviation Administration
FQIS	Fuel Quantity Indicator System
FR	Federal Register
FS	Flight Standards Service
FTS	Fuel Tank Safety
GVI	General Visual Inspection
ICA	Instructions for Continued Airworthiness
MPD	Maintenance Planning Document
MRB	Maintenance Review Board

MRBR	Maintenance Review Board Report
MSG-3	Maintenance Steering Group – 3rd Task Force
MSI	Maintenance Significant Items
MSpec	Management Specification
NTSB	National Transportation Safety Board
OEM	Original Equipment Manufacturer
OpSpec	Operations Specification
PI	Principal Inspector
SB	Service Bulletin
SFAR	Special Federal Aviation Regulations
STC	Supplemental Type Certificate
SWPM	Standard Wiring Practice Manual
TC	Type Certificate
TCH	Type Certificate Holder
TSB	The Transportation Safety Board of Canada

APPENDIX B. DEFINITIONS

- B.1 Affected Persons.** For the purposes of this advisory circular (AC), operators and others required to comply with the requirements of Title 14 of the Code of Federal Regulations (14 CFR) part [25](#), § [25.1729](#); part [26](#), § [26.11](#); part [121](#), § [121.1111](#); and part [129](#), § [129.111](#).
- B.2 Aircraft Maintenance Manual (AMM).** A manual developed by the manufacturer of a particular airplane that contains information necessary for the continued airworthiness of that airplane.
- B.3 Airworthy.** An aircraft, aircraft engine, or component which conforms to its type design and is in safe condition for operation.
- B.4 Component Maintenance Manual (CMM).** A manual developed by a manufacturer that contains information necessary for the continued airworthiness of a particular component.
- B.5 Continued Airworthiness.** Certified aircraft, engines, propellers, and appliances are safe to operate for the intended purpose; they are maintained safely throughout their service life; the product meets its type design and is in a condition for safe operation.
- B.6 Design Approval Holder (DAH).** For the purposes of this AC, a DAH is a type certificate holder (TCH) and Supplemental Type Certificate (STC) holder.
- B.7 Electrical Wiring Interconnection System (EWIS).** EWIS is defined in § [25.1701\(a\)](#) to mean “any wire, wiring device, or combination of these, including termination devices, installed in any area of the airplane for the purpose of transmitting electrical energy, including data and signals, between two or more intended termination points.” Section 25.1701(a) includes a list of items that are specifically included in the definition of EWIS, and § 25.1701(b) includes a list of items that are specifically excluded from the definition of EWIS.
- B.8 EWIS Certification and Operation Requirements.** Part 25 subpart [H](#) contains certification and operation requirements for the airplanes’ EWIS. It requires the development of EWIS instructions for continued airworthiness (ICA) to be approved by the Federal Aviation Administration (FAA) responsible Aircraft Certification Service office (previously described as Aircraft Certification Office).
- B.9 Enhanced Zonal Analysis Procedure (EZAP).** A logical process for developing maintenance and inspection instructions for EWIS.
- B.10 Flammable.** Per 14 CFR part [1](#), § [1.1](#), “flammable, with respect to a fluid or gas, means susceptible to igniting readily or to exploding.”
- B.11 Flight Standards Service (FS).** Offices located in the FAA Flight Standards Service are responsible for developing guidance and policy applicable to transport category airplanes for Aircraft Evaluation Division (AED) personnel and FS personnel (Maintenance,

Avionics, and Operations aviation safety inspectors (ASI) in the conduct of their responsibilities.

- B.12 Instructions for Continued Airworthiness (ICA).** The information developed in accordance with applicable airworthiness requirements that includes the applicable inspection tasks, intervals, methods, processes, procedures, and airworthiness limitations (AL) to keep the product airworthy throughout its operational life.
- B.13 Maintenance and Inspection Instructions.** Information that provides for each part of the airplane and its engine auxiliary power units (APU), propellers, accessories, instruments, and equipment the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods necessary to provide for the continued airworthiness of the airplane. They also include the recommended overhaul periods and necessary cross-reference to the Airworthiness Limitations Section (ALS) of the manual.
- B.14 Maintenance Implementation Document (MID).** A document developed by one aircraft manufacturer that contains a comprehensive list of all EWIS and fuel tank safety (FTS) ICA which will satisfy the requirements contained in the Enhanced Airworthiness Program for Airplane Systems/Fuel Tank Safety (EAPAS/FTS) operational rules.
- B.15 Maintenance Planning Data.** Data developed by the manufacturer of a particular airplane which contain the information each operator of that airplane needs to develop a customized, scheduled maintenance program.
- B.16 Maintenance Review Board Report (MRBR).** Intended for air carriers, a report which contains the initial minimum scheduled maintenance and inspection requirements for a particular transport category airplane and on-wing engine program. Air carriers may use those provisions—along with other maintenance information contained in the ICA—in the development of their maintenance programs.
- B.17 Maintenance Steering Group – 3rd Task Force (MSG-3).** A voluntary structured process developed by the industry and maintained by Airlines for America (A4A) to make decisions used to develop maintenance and inspection tasks and intervals for an airplane.
- B.18 Products.** Certified aircraft, engines, propellers, and appliances.
- B.19 Representative Airplane’s EWIS.** For the purposes of the EAPAS/FTS Rule, the “representative airplane’s” EWIS is the configuration of each model series airplane that incorporates all variations of the EWIS used in production on that series airplane and all TCH-designed modifications mandated by Airworthiness Directive (AD) as of the effective date of the rule.

- B.20 Responsible Aircraft Certification Service Office.** The responsible Aircraft Certification Service office having oversight responsibility for the relevant type certificate (TC) or STC, as determined by the Administrator.
- B.21 STC-Developed EWIS ICA.** STC holders may use the Maintenance Review Board (MRB) process or any other process they choose. Regardless of the process used, the end result must be ICA that include the applicable inspection tasks, intervals, methods, processes, and procedures to keep the EWIS airworthy throughout its operational life.
- B.22 STC EWIS ICA.** The inspections and procedures to keep an alteration affecting the EWIS approved under an STC airworthy throughout its operational life.
- B.23 TCH EWIS ICA.** The inspections and procedures to keep the EWIS airworthy throughout its operational life.
- B.24 TCH Original EWIS ICA.** The result of the MRB process. During this process, TCH-developed Maintenance Significant Items (MSI) are subjected to maintenance program development logic, such as in MSG-3 or later revisions. The result is an ICA that includes the applicable inspection tasks, intervals, methods, processes, and procedures to keep the EWIS airworthy throughout its operational life.

**APPENDIX C. CONTACT INFORMATION FOR QUESTIONS REGARDING
RESPONSIBLE AIRCRAFT CERTIFICATION SERVICE OFFICES**

- C.1** For questions concerning Aircraft Certification Service (AIR) offices, contact Suzanne Masterson, Product Policy Management: Transport Airplanes and Engines Section (AIR-62A), Aircraft Certification Service, Federal Aviation Administration, 2200 South 216th St., Des Moines, WA 98189; telephone: 206-231-3211 or 425-227-1855; email: suzanne.masterson@faa.gov.

Advisory Circular Feedback Form

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by contacting the Flight Standards Directives Management Officer at 9-AWA-AFB-120-Directives@faa.gov.

Subject: AC 120-102B, Incorporation of Electrical Wiring Interconnection Systems Instructions for Continued Airworthiness into an Operator's Maintenance Program

Date: _____

Please check all appropriate line items:

An error (procedural or typographical) has been noted in paragraph _____ on page _____.

Recommend paragraph _____ on page _____ be changed as follows:

In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

Other comments:

I would like to discuss the above. Please contact me.

Submitted by: _____

Date: _____