8-5-14-1  **PURPOSE.** This section provides guidance on determining project involvement through the instructions for continued airworthiness (ICA) review and acceptance process. The Flight Standards Aircraft Evaluation Group (AEG), Aviation Safety Inspector (ASI), involvement begins during the type certification process. After reviewing ICAs, the AEG ASI should be able to confirm if compliance has been shown with current policies, procedures, and technical criteria to enable operators to maintain aeronautical products and articles in an airworthy condition.

A. **Processes Related to ICAs.** The AEG ASI may review the ICAs to determine their acceptability. This review may require references to the following related processes or documents as applicable to the project being worked.

B. **Applicable Processes and Documents.**

1) Type certificates (TC) and changes to type design, with or without amendment of the certificate, regardless of process of approval;

2) Supplemental Type Certificate (STC) and changes to STC type design, with or without amendment to the certificate, regardless of the process of approval;

3) Parts Manufacturer Approvals (PMA);

4) Technical Standard Order Authorizations (TSOA) and Technical Standard Order (TSO) letter of design approvals (LODA);

5) Maintenance Review Board Report (MRBR) or Maintenance Type Board Report (MTBR) tasks;

6) Revisions of ICAs;

7) Special Airworthiness Information Bulletins (SAIB);

8) Airworthiness Directives (AD);

9) Alternative methods of compliance (AMOC) to ADs;

10) Certification Maintenance Requirements (CMR);

11) Electrical wiring interconnection systems (EWIS) ICAs;

12) ICA impact assessments;
13) Airworthiness Limitations Section (ALS) ICAs;

14) Issue Papers (IP) related to the project; and

15) All applicable aging aircraft maintenance requirements as necessary.

8-5-14-3 BACKGROUND.

A. Responsibilities. The FAA established the AEGs to determine the operational and maintenance suitability of an aircraft, thereby ensuring that the aircraft certificated through AIR procedures would be able to be operated and maintained in the field. AEG members oversee continued airworthiness and operational aspects of an aircraft throughout its operational life. The responsibilities of the AEG were established as part of the Flight Standards Service (AFS) organization, and the current edition of FAA Order 8430.21, Flight Standards Division, Aircraft Certification Division, and Aircraft Evaluation Group Responsibilities details those responsibilities. The AEG ASI can determine the operational suitability and continuing airworthiness requirements of both newly certified and modified aeronautical products and articles intended for operation under the Code of Federal Regulations (CFR).

B. Qualifications. Aviation safety inspectors (ASI) assigned by AEG management are qualified, knowledgeable, and experienced in evaluating continued airworthiness programs as described in Order 8430.21. When the AEG ASI reviews ICAs for maintenance suitability during the type certification process, the AEG ASI must also have knowledge of the product being reviewed. This review helps the AEG ASI confirm compliance with applicable regulatory standards. This review also helps the AEG ASI make appropriate recommendations, reduce the chance of misinterpretation of any maintenance instructions, and ultimately ensure the continued airworthiness of the product.

8-5-14-5 ICA DEFINITION AND EXAMPLES.

A. Definition. ICAs are instructions and information related to the continued airworthiness of aircraft, aircraft engines, propellers, and articles. A design approval holder (DAH) must develop and/or reference ICAs per Title 14 of the Code of Federal Regulations (14 CFR) part 21, § 21.50(b).

B. Examples. An ICA may include, but is not limited to:

- Aircraft Maintenance Manual (AMM);
- Overhaul Manual (OHM);
- Wiring Diagram Manual (WDM);
- Wire routing diagrams;
- Illustrated Parts Catalog (IPC);
- Structural Repair Manual (SRM);
- Non-Destructive Testing (NDT) Manual;
- Component Maintenance Manuals (CMM);
- Weight and Balance (W&B);
- Fault Isolation Manual (FIM);
- Standard Practices Manual (SPM);
- Standard wiring practices manual (SWPM);
- System Schematics Manual (SSM);
- Airworthiness Limitation Section (ALS);
- Extended Operations (ETOPS);
- Consumable Products Manual (CPM);
- Interior Maintenance Manual (IMM);
- Airworthiness Directives (AD);
- Design approval holder (DAH), Service Bulletins (SB), and other service information (when required);
- Ground Handling Familiarization (GHF);
- Maintenance Oxygen Servicing (MOS);
- Electric Wiring Interconnection Systems (EWIS);
- Electrical Load Manual (ELM);
- Damage-tolerance evaluation;
- ICA Impact Assessment or ICA portions of Project Specific Certification Plans (PSCP);
- Design approval holder (DAH);
- Technical Standard Order Approval (TSOA); and
- Airworthiness Directive (AD).

8-5-14-7 REFERENCES, FORMS AND JOB AIDS.

A. References (current editions):

1) Job Task Analyses (JTA).

   - JTA - Task 4.1.30, Review and Evaluate ICA for Supplemental Type Certification (AEG task); and
   - JTA - Task 4.1.32, Perform an Aircraft Maintainability Evaluation (AME) for an Assigned Aircraft Model (AEG task).

2) FAA Orders.

   - FAA Order 8100.15, Organization Designation Authorization (ODA) Procedures;
   - FAA Order 8100.5, Aircraft Certification Service: Mission, Responsibilities, Relationship and Programs;
   - FAA Order 8110.104, Responsibilities and Requirements for Implementing Part 26 Safety Initiatives;
   - FAA Order 8110.112, Standardized Procedures for Usage of Issue Papers and Development of Equivalent Levels of Safety Memorandums;
   - FAA Order 8110.115, Certification Project Initiation and Certification Project Notification;
   - FAA Order 8110.4, Type Certification;
   - FAA Order 8110.42, Parts Manufacturer Approval (PMA) Procedures;

Check with FSIMS to verify current version before using
• FAA Order 8110.52, Type Validation and Post-Type Validation Procedures;
• FAA Order 8110.54, Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents;
• FAA Order 8430.21, Flight Standards Division, Aircraft Certification Division, and Aircraft Evaluation Group Responsibilities; and
• FAA Order 8900.1, Flight Standards Information Management System (FSIMS).

3) Advisory Circulars (AC).

• AC 20-114, Manufacturers Service Documents;
• AC 21-45, Commercial Parts;
• 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 25.1701-1 Certification of Electrical Wiring Interconnection Systems on Transport Category Airplanes;
• AC 25.1529-1A, Instructions for Continued Airworthiness of Structural Repairs on Transport Airplanes;
• AC 33.4-1, Instructions for Continued Airworthiness;
• AC 33.4-2, Instructions for Continued Airworthiness: In-Service Inspection of Safety Critical Turbine Engine Parts at Piece-Part Opportunity;
• AC 33.4-3, Instructions for Continued Airworthiness, Aircraft Engine High Intensity Radiated Fields (HIRF) and Lightning Protection Features;
• AC 35.4-1, Propeller Instructions for Continued Airworthiness;
• AC 43-210, Standardized Procedures for Requesting Field Approval of Data, Major Alterations, and Repairs;
• AC 120-97, Incorporation of Fuel Tank System Instructions for Continued Airworthiness into Operator Maintenance or Inspection Programs;
• AC 120-98, Operator Information for Incorporating Fuel Tank Flammability Reduction Requirements into a Maintenance or Inspection Program;
• AC 120-102, Incorporation of Electrical Wiring Interconnection Systems Instructions for Continued Airworthiness into an Operator’s Maintenance Program;
• AC 121-22, Maintenance Review Boards, Maintenance Type Boards, and OEM/TCH Recommended Maintenance Procedures; and

4) Other References.

• AFS-AEG-005, Instructions for Continued Airworthiness Process;
• FAA AIR Policy Memo: Approval of EWIS ICA Developed Using an EZAP, dated April 6, 2010, (supplement to Order 8110.54); and
• PS-AIR-21.50-01, Type Design Approval Holder Inappropriate Restrictions on the Use and Availability of Instructions for Continued Airworthiness (ICA).

B. Forms and Job Aids. Use forms and Job Aids per local procedures.

8-5-14-9 PROCEDURES TO EVALUATE ICA ACCEPTABILITY.

A. Receive the CPN from AIR (or ODA, if delegated as per local procedures).

  1) Use the methods described in Order 8110.4, Type Certification, or similar adequate methods to receive the CPN. The AEG ASI, as a Certification Project Team (CPT) member, should request project documentation, and evaluate both the level of AEG involvement and the complexity of the project. The AEG ASI should coordinate with other AIR-project offices as necessary by reviewing the current versions of the following documents, as applicable:

   • FAA Form 8110-12, Application for Type Certificate, Production Certificate, or Supplemental Type Certificate;
   • Certification plan;
   • Certification Project Plans (CPP);
   • Project Specific Certification Plan (PSCP), including the compliance checklist;
   • Proposed ICA Impact Assessment. See Order 8110.54, Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents (Chapter 2, paragraph 4 and Chapter 3, paragraph 3);
   • Applicant’s ICA development program;
   • Certification Maintenance Requirements (CMR);
   • System Safety Assessments (SSA);
   • Type design data;
   • All analysis reports as applicable per the type design process; and
   • Maintenance Review Board Report (MRBR) or Maintenance Type Board Report (MTBR).

  2) Establish the project record as per AFS-AEG-005 and local office procedures.

  3) Determine if the project requires development of an FAA issue paper. (Refer to Orders 8110.4 and 8110.112, Standardized Procedures for Usage of Issue Papers and Development of Equivalent Levels of Safety Memorandums.) If it does, develop an IP as per local office procedures and coordinate with the ACO as appropriate.

  4) Respond to the CPN with AEG comments about project involvement and request any additional data necessary, such as sending an ICA or, if applicable, routing issue papers for coordination per the local AEG office procedure.
B. Conduct the Review. For new TC/STC projects, either the ACO or applicant should submit full ICA documentation. For existing TC/STC projects, either the ACO or the applicant should send you a statement validating the impact assessment or confirming that the existing ICA is unchanged. You should then conduct the following steps if applicable:

1) Review the ICA or its impact assessment per the applicable 14 CFR part, and also the requirements in Order 8110.54 to plan and determine acceptability.

2) Review the applicant’s program for how ICA changes will be submitted and distributed.

3) Check for any continued operational safety (COS) issues, such as in-service problems, ADs, AMOCs or SAIBs. These COS items could affect the ICA review.

4) Update the project record through local office procedures.

C. Review All Sections of the ICA.

1) Review all sections of the proposed ICA for the outlined parts, orders, and certification requirements, including:

- Title 14 CFR part 21, § 21.50;
- Title 14 CFR part 23, appendix G;
- Title 14 CFR part 25, appendix H;
- Title 14 CFR part 27, appendix A;
- Title 14 CFR part 29, appendix A;
- Title 14 CFR part 31, appendix A;
- Title 14 CFR part 33, appendix A;
- Title 14 CFR part 35, appendix A; and
- FAA Order 8110.54.

2) Determine if the EWIS ICA (if applicable) has been approved by the appropriate FAA Oversight Office.

3) Document any missing or incorrect ICA information for all installed systems.

4) Notify the ACO of any major discrepancies.

D. Review the ALS.

NOTE: The responsible ACO approves the ALS and the FAA Oversight Office approves the EWIS ICA.

1) Verify that the ALS:

   a) Is properly titled, segregated, and clearly distinguishable;
b) Is located in the principal manual when the ICA consists of multiple documents; and

c) Documents, as applicable, the following items required for type certification:

- Each mandatory replacement time,
- Each required inspection interval and related required inspection procedure, and
- Each mandatory replacement time of EWIS components as defined in part 25, § 25.1701.

2) Verify that the ALS contains the required statement shown in the applicable 14 CFR appendix listed below for the applicable 14 CFR part:

- Part 23 appendix G, § G23.4,
- Part 25 appendix H, § H25.4,
- Part 27 appendix A, § A27.4,
- Part 29 appendix A, § A29.4,
- Part 31 appendix A, § A31.4,
- Part 33 appendix A, § A33.4, and
- Part 35 appendix A, § A35.4.

3) Inform the ACO of missing information or deviations in the ALS.

NOTE: If AEG and ACO project members disagree on any item, refer to Order 8110.54, Chapter 5, ACO and AEG Responsibilities, for the issue-resolution process.

E. Task Outcomes.

1) Record results in the local office database per office procedures, then close the project record.

2) Notify the ACO and/or applicant per local office procedures if not previously completed per above steps.

3) The AEG may evaluate any ICA and associated installation or removal for any project at the discretion of the AEG MRB Chairperson.

8-5-14-11 through 8-5-14-21 RESERVED.