



U.S. Department
of Transportation
**Federal Aviation
Administration**

RECOMMENDED FIELD APPROVAL APPLICATION

Portland Flight Standards District Office

Instructions: Print or type all entries. This information should be as complete as possible prior to your initial submission to the FAA.

I. Aircraft	Make	Model
	Serial No.	Registration Number N
II. Owner	Name	Address

III. TYPE OF PRODUCT & CERTIFICATION BASIS

AIRFRAME ENGINE APPLIANCE PROPELLER

OTHER: _____

TCDS Number: _____

CAR 3 CAR 4(b) CAR 6 CAR 7 CAR 8 CAR 13
FAR 23 FAR 25 FAR 27 FAR 29 FAR 33

IV. BRIEF DESCRIPTION OF PROJECT:

V. PROPOSED SCHEDULE FOR COMPLETION OF PROJECT

Projected Start Date: _____

Projected completion date for alteration: _____

VI. WHO WILL PERFORM THE ALTERATION?

Mechanic's Name _____ or Repair Station: _____

Certificate No: _____ Contact Person at the facility: _____

Telephone Number: _____

Location where alteration/repair will be accomplished: _____

VII. DESIGNEES (DARs & DERs) None

Names and telephone numbers of the Designated Engineering Representatives, (DER) or Designated Airworthiness Representatives who are helping you with the project.

Name: _____ Telephone No: _____

Name: _____ Telephone No: _____

VIII. PREVIOUS ALTERATIONS

Provide a list of all alterations that have been accomplished on this aircraft. Are any of the listed alterations adversely affected by your new alteration? If so, attach copies of the data used to make the previous alterations. (Such as FAA Form 337s, Airworthiness Directives, STCs, Service Letters/Bulletins, etc.) Assess this alteration in light of all other alterations especially as it relates to structural integrity, performance, and flight characteristics. This also includes flight manual supplements and Instructions for Continued Airworthiness.

IX. INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA)

How will the affected part of the aircraft be inspected and maintained? (Attach a copy of what you will include on the FAA Form 337) Refer to ICA Checklist on page 4. For more information on ICA refer to the guidance on pages 5 through 7.

X. FLIGHT MANUAL SUPPLEMENT

Are there changes in the aircraft operating limitations or flight data contained in the approved flight manual? If so, please attach the proposed flight manual supplement.

XI. FLIGHT TEST & FLIGHT CHARACTERISTICS EVALUATION

Is any portion of the alteration going to affect the normal flow of air across the lifting or controlling surfaces?	Yes	No
Will any portion of the alteration affect the flight characteristics in any other way?	Yes	No

XII. DATA ATTACHED:

1. Proposed FAA Form 337
2. Description of alteration including Instructions for Continued Airworthiness
3. Drawings, Schematics & Diagrams
4. Material List
5. Processes
6. Specifications
7. Previous Field Approvals (**NOTE: Previously approved 337's may be acceptable data, but do not guarantee approval or acceptance of the current project.**)
8. FAA FORM(S) 8110.3 - How many? _____
9. Placards
10. Test Data and/or Flight Test Data
11. Load Analysis (electrical and/or structural)
12. Other approved or acceptable data. Explain: _____
13. Other: _____

XIII. COORDINATED FIELD APPROVAL ISSUE(S): (Note: this block is for FAA Use Only)

The following Regulations require review for compliance by the Aircraft Certification Office:

Flight Manual Supplement approval required.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Flight Test required for this alteration.	<input type="checkbox"/> Yes	<input type="checkbox"/> No

DATE: _____
 ASSIGNED INSPECTOR: _____
 FSDO _____
 ADDITIONAL INFORMATION REQUIRED:

- This alteration exceeds the scope of a Field Approval. It must be forwarded to the ACO for disposition.
 ASI NAME: _____
 DATE: _____

SAMPLE COMPLIANCE CHECKLIST FORMAT

The purpose of the compliance checklist is to document which regulations are applicable to the Field Approval requested, and how compliance with those regulations was shown. Instructions for completing this sample compliance checklist are as follows:

14 CFR/CAR Paragraph:

Specific applicable regulations shall be listed by number, e.g., 14CFR part 23, section 23.1353.

Subject:

The subject or title of the 14CFR part/CAR applicable paragraph, e.g., Storage Battery Design And Installation.

Method of Compliance:

The method of compliance may include design drawings (D), analysis (A), tests (T), or other methods (O).

Documentation Reference:

List the documentation (test report number, analysis report number, etc.) that demonstrated compliance to the Subject 14CFR part.

COMPLIANCE CHECKLIST FORMAT			
14 CFR part/ CAR Paragraph	Subject	Method of compliance	Documentation Reference
FAR 21.1031 used in lieu of CAM 3.250	Tail wheels	D	Report Dated 08/12/2002
FAR 25.303 (Amendment 25-23)	Factor of Safety	A	8110-3 dated 08/22/2002
FAR 25.305(a) (b) (Amendment 25-86)	Strength & Deformation	T	Test Report dated 08/16/2002
FAR 25.305(e) (Amendment 25-86)	Vibration & Buffet	A & T	Flight Test Report Dated 09/02/2002

Sample of completed Form

ICA Check List

More information regarding ICA can be found in the three pages following this checklist.

ITEM	Subject
1.	General Information: (Description of aircraft) Be sure to include the Aircraft Make, Model, Serial Number, and Registration Number. Also include a revision number if changing an existing ICA. Provide the date of the ICA and a list of the Systems included in the ICA.
2.	Introduction: Description of the aircraft and its systems and installations including its engines, propellers, and appliances that has been altered. Include any other information on the content, scope, purpose, arrangement, applicability, definitions, abbreviations, precautions, units of measurement, referenced publications, and distribution of the ICA as applicable.
3.	Description: Of the major alteration, its functions, including an explanation of its interface with other systems, if any.
4.	Control, operation information: Or special procedures, if any.
5.	Servicing information: Such as types of fluids used, servicing points, and location of access panels, as appropriate.
6.	Maintenance Instructions: Such as recommended inspection/maintenance periods in which each of the major alteration components are inspected, cleaned, lubricated, adjusted, tested, including applicable wear tolerances and work recommended at each scheduled maintenance period. This section can refer to the manufacturers' instructions for the equipment installed where appropriate (e.g., functional checks, repairs, inspections.) It should also include any special notes, cautions, or warnings, as applicable.
7.	Trouble shooting information: Information describing probable malfunctions, how to recognize those malfunctions, and the remedial actions to be taken.
8.	Removal and replacement information: This section describes the order and method of removing and replacing products, parts and any necessary precautions. This section should also describe or refer to manufacturer's instructions to make required tests, trim checks, alignment, calibrations, center of gravity changes, lifting or shoring, etc., if any.
9.	Diagrams: Of access plates and information, if needed, to gain access for inspection.
10.	Special inspection requirements: Such as X-ray, ultrasonic testing, or magnetic particle inspection, if required.
11.	Application of protective treatments: To the affected area after inspection and/or maintenance, if any.
12.	Data: Relative to structural fasteners such as type, torque, and installation requirements, if any.
13.	List of special tools: Special tools that are required, if any.
14.	For commuter category aircraft: The following additional information must be furnished, as applicable: A. Electrical loads B. Methods of balancing flight controls C. Identification of primary and secondary structures D. Special repair methods applicable to the airplane.
15.	Recommended overhaul periods: Are required to be noted on the ICA when an overhaul period has been set by the manufacturer of a component, or equipment. If there is no overhaul period, the ICA should state for item 15: "No additional overhaul time limitations."
16.	Airworthiness Limitation Section: Include any "approved" airworthiness limitations relative to this alteration identified by the manufacturer or FAA Type Certificate Holding Office (e.g., An STC incorporated in a larger field approved major alteration may have an airworthiness limitation.) The FAA inspector should not establish, alter, or cancel airworthiness limitations without coordinating with the appropriate FAA Type Certificate Holding Office. If there are no changes to the airworthiness limitations, the ICA should state for item 16: "No additional airworthiness limitations" or "Not Applicable."
17.	Revision: This section should include information on how to revise the ICA. For example, a letter will be submitted to the local FSDO with a copy of the revised FAA Form 337 and revised ICA. The FAA inspector accepts the change by signing Block 3 and including the following statement: "The attached revised/new Instructions for Continued Airworthiness (date _____) for the above aircraft or component major alteration have been accepted by the FAA, superceding the Instructions for Continued Airworthiness (date _____)." Once the revision has been accepted, a maintenance record entry will be made, identifying the revision, its location, date of the Form 337.

Instructions for Continued Airworthiness (ICA) Information

- A. The purpose of the ICA is to provide instructions on how to maintain aircraft which are altered and appliances which are installed in accordance with a field approved major alteration. The ICA checklist is a guide for both the applicant who creates the ICA and the FAA Flight Standards inspector who accepts the ICA. The ICA developed in accordance with this guidance constitutes methods, techniques and practices "acceptable" to the Administrator. If the ICA for the submitted field approval major alteration is not acceptable to the FAA inspector, that inspector should not sign Block 3 of the applicant's FAA Form 337, Major Repair and Major Alteration.
- B. The purpose of the ICA being addressed in Block 8 of Form 337 is to provide the aircraft owner/operator with the following three advantages:
- 1) The major alteration and reference to ICA are contained in one document;
 - 2) The ICA becomes a permanent aircraft record as required by Title 14 of the Code of Federal Regulations (14 CFR), section 91.417(a)(2)(vi); and
 - 3) The owner/operator can contact FAA registry for a replacement FAA Form 337 if the ICA is lost or destroyed. The additional reference to the presence of ICA as part of the major alteration in the aircraft's maintenance entry, will ensure that maintenance personnel appropriately address ICAs during future inspections.
- C. Prior to January 1998, FAA's policy did not require ICAs when additional appliances were installed on aircraft as a major alteration under the FAA Field Approval process. Maintenance personnel did not have instructions on hand regarding how to service, maintain, inspect, and replace those newly installed appliances or equipment. Without ICAs, a mechanic performing maintenance on items installed under a field-approved major alteration could be in violation of part 43, section 43.13(a).
- D. The reasons for an ICA are twofold. The first reason is to ensure that Flight Standards Service's Field Approval Policy is in line with part 21, section 21.50, which requires ICA for the holder of a type certificate or an Supplemental Type Certificate (STC) applied for after January 1981.
- E. The second reason for an ICA is to provide the certificated person performing an inspection or maintenance on the field-approved major alteration, with instructions on how to maintain that change to the aircraft's type design, as required by section 43.13(a) and section 43.16.
- F. The ICA is to be developed by the applicant and presented in conjunction with the field approval request. An ICA is accepted by the FAA inspector if it meets the applicable requirements in sections 23.1529, 25.1529, 27.1529, 29.1529, 31.82, 33.4 and 35.4. The checklist attached to this handbook bulletin is a guide so the applicant can be assured that all applicable requirements are met.

- G. For field-approved major alterations to aircraft, engines, and propellers certificated under the Civil Air Regulations (CAR), the ICA must meet the original type design requirements. In cases where the major alteration is a total new design, or of substantial complete redesign, which the CAR did not address, the major alteration must meet the applicable 14 CFR (ref.: section 21.101.) The checklist will provide acceptable guidance for these types of installations.
- H. The ICA requirements are the same for a field-approval or STC. However, the vast majority of field approved major alterations are simplistic in design and execution. Therefore the applicant's ICA may not need as much detail as an ICA required for a complicated STC. Because of a legal interpretation on use of manufacturers' proprietary instructions, in order to reference the manufacturers' service instructions, the applicant must secure the manufacturers' permission. Once the manufacturer's permission is obtained, those instructions may be "referenced" in the ICA. If the manufacturers' instructions are not available, the applicant may use FAA publications such as Advisory Circular (AC) 43.13-1B and (AC) 43.13-2A, appendix D of part 43, as revised, or other applicable aviation standards to develop the ICA.
- I. For field approval installations that also incorporate STC or Designated Engineering Representative (DER) data, the ICA should incorporate or reference the DER/STC maintenance instructions or the STC's ICA.
- J. The owner/operator should be made aware that field approved and STC installed equipment are required to be operational, unless specifically listed on the MMEL/MEL for the aircraft.
- K. Field-approved major alterations approved under the field approval process prior to the effective date of FSAW 98-03, are not required to have an ICA. However, if an owner/operator wishes to formally incorporate ICA for existing field-approved major alterations, they may do so using the revision process in the checklist's item #17.

Assistance: When the Flight Standards Inspectors have any questions regarding ICA or needs assistance with ICA, they may contact the appropriate Aircraft Evaluation Group listed below:

Product Type	AEG Office	Phone Number
Transport Airplane	Seattle AEG	(425) 227-2295
Transport Airplane	Long Beach AEG	(562) 627-5288
Small Aircraft (GA)	Kansas City AEG	(816) 426-3946
Rotorcraft/Power Lift Aircraft	Fort Worth AEG	(817) 222-5272
Engine and Propeller	Boston AEG	(781) 238-7887

L. Implementation and Record Keeping: For major alterations performed in accordance with FAA Field Approval policy, the owner/operator operating under part 91 is responsible for ensuring that the ICA is made part of the applicable section 91.409 inspection program for their aircraft. This is accomplished when a maintenance entry is made in the aircraft's maintenance record in accordance with section 43.9. This entry records the major alteration and identifies the original ICA location (e.g., Block 8 of FAA Form 337, dated 5/28/98) along with a statement that the ICA is now part of the aircraft's inspection/maintenance requirements.

For major alterations performed in accordance with a field approval on air carrier aircraft, the air carrier operator is responsible for ensuring that the ICA is made part of the applicable inspection/maintenance program for their aircraft. If a procedure is not currently included in the operator's manual to incorporate ICA, this process will need to be appropriately addressed (i.e. the operator submits a revision to its maintenance program to the applicable certificate-holding district office (CHDO)).

For aircraft inspected under an Approved Aircraft Inspection Program (AAIP), the operator will submit a change to the CHDO in accordance with section 135.419 b).

For air carrier aircraft inspected using an annual/100 hour inspection program, a reference to the new ICA will be made in the aircraft's maintenance record in accordance with section 43.9. This entry records the major alteration and identifies the original ICA location (e.g., ICA are located/attached to Block 8 of FAA Form 337, dated 5/28/98). In addition, the operator will request a revision to the operator's Operations Specifications, additional maintenance requirements, which incorporates the ICA into the inspection program.

Checklist for Field Approval ICAs for a Major Alteration

Page 4 shows a sample format for an ICA with the instructions for completing each section. The ICA submitted by the applicant should address all items on the checklist and be included or referenced on Block 8 of Form 337. If referenced, the ICA document must be physically attached to Form 337. However, many kinds of equipment, including avionics, require little or no maintenance during their lifetime. Some equipment cannot be field repaired, and most are "remove and replace" items only. For these and similar pieces of equipment, some of the checklist items may not apply. If an item such as Special Tools does not apply, simply put N/A after the check list item