U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ORDER 8100.17A

National Policy

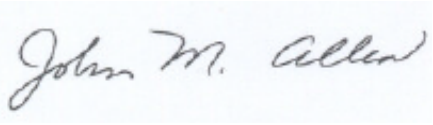
Effective Date:
1/17/13

SUBJ: Field Approval Delegation Handbook

This order establishes policy and procedures for the selection, appointment, orientation, training, oversight, renewal, and termination of Flight Standards Designated Airworthiness Representatives-Maintenance (DAR-T) authorized to issue data approvals in support of a major repair or alteration, and establishes Function Code 51 for those Designated Airworthiness Representatives (DAR) issuing data approvals. Function Code 50 authority to issue a statement of completeness in block 3 of Federal Aviation Administration (FAA) Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance), for alterations using Designated Engineering Representative (DER)-approved data will begin to be phased out in favor of this authorization.

The guidance contained in this order is applicable only to DAR-Ts authorized to issue data approvals and all Flight Standards personnel responsible for managing those designees.

Suggestions for improvement of this order may be submitted using FAA Form 1320-19, Directive Feedback Information, provided on the last page of this order.



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Chapter 1. General

1. Purpose of This Order. This order provides policy and guidance for the selection, appointment, orientation, training, oversight, renewal, and termination of Designated Airworthiness Representatives (DAR) authorized to approve data in support of major repairs or alterations.

a. Function Code 51 Establishment. This order establishes Function Code 51, adding the authority for a DAR to approve data in support of a major repair or alteration.

b. Additional Policy and Guidance. This order only contains the added guidance for DARs authorized to issue data approvals in support of a major repair or alteration, and all Flight Standards personnel responsible for managing those DARs must adhere to the guidance contained in this order. The current editions of Federal Aviation Administration (FAA) Order 8100.8, Designee Management Handbook, and FAA Order 8900.1, Flight Standards Information Management System (FSIMS), Volume 4, Aircraft Equipment & Authorization, Volume 8, General Technical Functions, and Volume 13, AFS Designees, must be used to obtain policy and guidance that is not specifically defined in this order. For example, the following topics are not discussed in this order, and the guidance in Order 8100.8 or Order 8900.1 must be followed as appropriate:

- FAA employee applications,
- Expanded authority,
- Reinstatement and transfer requests,
- National Examiner Board (NEB) process,
- Applicant notification,
- Appeal process,
- Application procedures,
- Appointment,
- Geographical restrictions, and
- Renewal and termination.

2. Audience. The primary audience for this order is the Flight Standards Service (AFS) branches and divisions in the regions and in headquarters (HQ), Flight Standards District Offices (FSDO)/certificate management offices (CMO), International Field Offices (IFO), designees authorized to perform field approvals of major repairs or alterations, and designee applicants looking to perform these functions.

3. Where You Can Find This Order. You can find this order on the MyFAA employee Web site at https://employees.faa.gov/tools_resources/orders_notices. Inspectors can access this order through FSIMS at http://fsims.avs.faa.gov. Air carriers (operators) can find this order on the FAA's Web site at http://fsims.faa.gov. This order is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. What This Order Cancels. Order 8100.17, Field Approval Delegation Handbook, dated August 31, 2011.

5. Explanation of Policy Changes.

a. Places FAA Order 8100.8 in the format outlined in FAA Order 1320.1E, FAA Directives Management.

b. Chapter 1, paragraph 6 revised effective date of order.

c. Chapter 1, paragraph 7 incorporated a revised "Background" section which was previously in Chapter 8.

d. Chapter 2, paragraph 2 has been revised to clarify required specialized experience.

e. Chapter 3, paragraphs 1 through 4 substantially revised to better define and explain training requirements for DAR-Ts to be authorized Function Code 51.

f. Chapter 4, paragraph 2 revised to clarify Function Code 51 designee authority and responsibilities.

g. Chapter 5, paragraph 1d expanded to address DAR communication.

h. Chapter 7, paragraph 6b revised to clarify routing of data packages when a DAR requests assistance.

i. Chapter 8, paragraph 2 revised authority to change this order from the Aircraft Maintenance Division (AFS-300) to the Regulatory Support Division (AFS-600).

j. Appendix A revised to update acronym list.

6. Effective Date. This order becomes effective on 1/17/13.

7. Background.

a. Field Approvals. Formerly, only AFS aviation safety inspectors (ASI) were authorized to perform field approvals. Now, DARs delegated with the authority to perform Function Code 51 are authorized to approve certain data in support of a major repair or alteration by entering and signing the appropriate data approval statement in block 3 of FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance).

b. Function Code 50. Designees previously issued Function Code 50 authority were limited to managing design and compliance data in support of major alterations using Designated Engineering Representative (DER)-approved data. This included reviewing the applicant's data package for completeness and issuing a statement of completeness in FAA Form 337, block 3. The FAA is phasing out Function Code 50 in favor of Function Code 51. A future change to Order 8100.8 will remove Function Code 50 authority.

c. ASI Field Approvals. The delegation of field approvals does not prohibit appropriately authorized ASIs from performing this function. The FAA encourages authorized ASIs to perform

field approvals in order to maintain proficiency. This is particularly important for ASIs assigned oversight responsibility for DARs with Function Code 51 authority.

8. Deviations. Adherence to the procedures in this order is necessary for uniform administration of this directive material. AFS-600 must approve any deviations from this guidance material in coordination with AFS-300. If a deviation becomes necessary, the FAA AFS employee involved should ensure that the supervising office manager and assigned regional manager substantiates, documents, and concurs with the deviations prior to submission to AFS-600 for review and approval.

Chapter 2. Qualifications and Experience

1. General. This chapter describes the qualifications and experience necessary for DAR candidates seeking authorization to issue data approvals in support of a major repair or alteration. DARs wishing to apply for Function Code 51 must follow the application process through the NEB as prescribed in Order 8100.8.

2. Specialized Experience. In addition to the general qualifications listed in Order 8100.8, DAR applicants seeking authority to issue a data approval statement in support of a major repair or alteration (Function Code 51) must meet the specialized experience listed in subparagraphs 2a through 2c in this chapter. The applicant must possess a minimum of 5 years specialized experience in one or more of the following areas (individually or any combination thereof):

a. Field Approvals. A former FAA inspector (Airworthiness or Avionics) who was authorized to perform field approvals and who was actively engaged in performing field approvals for major repairs and/or alterations of the same type and complexity as those for which authorization is sought. Previous field approval activity must be verifiable through completed FAA Program Tracking and Reporting Subsystem (PTRS) record entries. Former FAA inspectors must meet the same qualification criteria for appointment as others described in this order.

b. Repair Station or Air Carrier Work Experience. A person employed by, or previously employed by, an FAA-certificated Title 14 of the Code of Federal Regulations (14 CFR) part 145 repair station or 14 CFR part 121/135 air carrier, whose duties include requesting and coordinating field approvals of the same type and complexity as those for which authorization is sought. This individual must have repair station or air carrier work experience approving products, appliances, or parts thereof for return to service following major repairs and/or alterations (e.g., chief inspector or Director of Maintenance (DOM)). This person must hold a current mechanic's certificate with both Airframe and Powerplant (A&P) ratings. The mechanic must have the qualifications, skills, and ability to perform maintenance, repairs, alterations, and operational checks on products or appliances in accordance with all applicable FAA regulations. This person must also demonstrate the ability to determine that each product or appliance (including any affected parts, components, or avionics systems) submitted for field approval meet all applicable airworthiness requirements. In order for the FAA to evaluate an applicant's work experience, the applicant must provide a summary with their application that identifies any FAA Form 337s, in which they signed block 6, "Conformity Statement," or block 7, "Approval for Return to Service," for airframe, powerplant, propeller, or appliance field approvals. The applicant may present other means of work experience, but they must be verifiable and show knowledge and experience in the process of obtaining field approvals. The FAA will evaluate any method used on a case-by-case basis.

c. Candidate with an Inspection Authorization (IA). A person holding a current IA actively engaged in seeking and obtaining field approvals of the same type and complexity as those for which authorization is sought. This work experience should include approving products or appliances for return to service following major repairs and/or alterations. This person must have the qualifications, skills, and the ability to perform maintenance, repairs, alterations, and operational checks on products or appliances in accordance with FAA regulations. This person must also be able to demonstrate the ability to determine that each product or appliance (including any affected parts, components, or systems) submitted for FAA field approval meets all applicable airworthiness requirements. In order for the FAA to evaluate work experience, the applicant must provide a summary with their application that identifies any FAA Form 337 in which they signed block 6 "Conformity Statement" or block 7 "Approval for Return to Service" for airframe, powerplant, propeller, or appliance field approvals. The applicant may present other means of work experience, but they must be verifiable and show knowledge and experience in the process of obtaining field approval. The FAA will evaluate any method used on a case-by-case basis.

3. Data Approval. DARs seeking authority to approve data in support of a major repair or alteration must have the knowledge and capability to process electronic copies of FAA Form 337 through https://eformservice.faa.gov.

Chapter 3. Training

1. General. Designees are responsible for attending all required initial, recurrent, and specialized training applicable to their authorized functions. The Designee Standardization Branch (AFS-640) develops and conducts seminars designed to familiarize the designee with FAA regulations, policy, and procedures. The FAA Academy (AMA) also provides training in a formal classroom setting. This chapter establishes the attendance and types of training required for Function Code 51 applicants.

2. DAR-T Initial Training. All AFS-appointed DAR-T are required to attend the Initial Aircraft Certification Part I (Web-based) and Part II (classroom) training prior to appointment. Refer to Order 8100.8 for more information on training requirements for DAR-Ts. Existing DAR-Ts are not required to repeat initial training in order to add authority under Function Code 51, provided their designation has remained current and effective since they first completed initial training. The addition of Function Code 51 authority requires completion of the specialized training listed in paragraph 3 of this chapter.

3. Function Code 51 Specialized Training. All new DAR-T applicants and existing DAR-T holders applying for Function Code 51 authority must complete all of the specialized training prior to issuance of a Certificate of Authority (COA) letter listing Function Code 51 authority, and on a recurring basis as specified in Order 8100.8 and this order.

a. FAA Academy Course FAA21811, Aircraft Alterations and Repair. The Federal Aviation Administration Academy, Airworthiness Branch (AMA-250) hosts this training and conducts it at the AMA, located in Oklahoma City, Oklahoma. The course includes alteration and repair processes, alteration and repair approval decisions, processing of electronic FAA Form 337, and applicable guidance material references. All designees authorized to perform field approvals must successfully complete this training prior to being issued a COA letter with Function Code 51 and every 60 calendar-months thereafter. Applicants for Function Code 51 authority who have completed this course within the previous 60 months are not required to repeat the training prior to appointment.

b. Field Approval Designee Training. A Web-based training course hosted by AFS-640 includes material specific to designees authorized to perform Function Code 51. This course is designed to enhance the designee's understanding of the FAA regulations, policy, procedures, forms, and other resources used in the field approval process. All applicants for Function Code 51 must complete this training prior to being issued an LOA with Function Code 51, and every 36 calendar-months thereafter.

> **Note:** FAA advisors (ASIs) assigned management responsibility for a DAR-T-authorized Function Code 51 must have completed the specialized training requirement in paragraph 3. See Chapter 6, Oversight, for additional FAA advisor training requirements.

c. Attendance. All newly appointed Function Code 51 designees and current DARs seeking to add Function Code 51 must complete the initial training, specialized field approval training, and FAA Academy Course FAA21811 before performing data approvals. Current DARs need not repeat the general initial training, but must still complete the required specialized initial training.

4. Training Information. Information on course schedules, locations, and tuition for AFS-640 and AMA-250 Academy course FAA21811 is available on the "Designee Registration System" Web site at http://av-info.faa.gov/dsgreg. A user ID and password are not required to view the course schedules.

> **Note:** All FAA advisors managing DAR-Ts with Function Code 51 must complete FAA Academy Course FAA21811. See Chapter 6 for FAA advisor training requirements.

5. Training Records for DAR-Ts. Records of completion of all DAR-T training must be entered into the Designee Information Network (DIN). Successful completion of AFS-640-sponsored training and of FAA Academy Course FAA21811 must be entered into the DIN by the FAA managing office. The FAA advisor may access the DIN to determine if the designee has met all training requirements to maintain their designation. Enhanced Vital Information Database (eVID) updates are the responsibility of the managing office.

6. AFS-640 Training.

a. Registration and Enrollment. Designees must register and enroll online by navigating to "Designee Training" via the FAA Web site located at http://av-info.faa.gov/dsgreg and select "AFS-640." First-time users must register to establish a user ID and password as a prerequisite for enrollment. There is a fee associated with each seminar, and designees must be prepared to pay online when enrolling for a specific seminar/location.

> **Note:** FAA employees must also register and enroll online to attend these seminars, but are exempt from the enrollment fee. During the checkout process there is a spot where the employee can indicate that he or she thinks he or she is exempt from the fee. This will be verified by AFS-600 and the employee will receive an email confirmation to that effect.

b. Training Schedules. AFS-640 training schedules are available at the "Designee Training" Web site. A user ID and password are not required to view the training schedules.

> **Note:** For FAA Academy Course FAA21811, go to the Designee Training Web site and select "AMA250."

Chapter 4. Designee Authority, Responsibilities, and Limitations

1. General. Delegations are limited in scope. Each DAR must be fully aware of their individual authority and limitations stated on the Certificate of Authority (COA) letter or supplement. Additionally, DARs must strictly adhere to the guidance and limitations contained in this order and Order 8900.1, Volume 4, Chapter 9, Selected Field Approvals, when performing field approvals. Only DARs specifically authorized to perform Function Code 51 may approve data in support of a major repair or alteration. The designation of a private person as a DAR is a privilege granted by the FAA. It is not the right of every qualified applicant to receive this designation. Designees are selected and appointed only when the FAA determines there is a need for the designee's services and the managing office has the ability to manage the designee. A designee may be terminated at any time the FAA determines there is no longer a need for the designee's services or the office determines that they no longer have the ability to manage the designee. Every designee applicant must acknowledge and agree that a delegation is a privilege, not a right, and that it may be terminated at any time, for any reason, prior to accepting the delegation and performing functions as a designee.

2. Designee Authority and Responsibilities.

a. Function Code 51. The authority to perform field approvals will be indicated on the DAR's COA letter as follows:

> "**Function Code 51.** Issue a data approval statement in support of a major repair or alteration in FAA Form 337, block 3, when the repair or alteration data meets applicable airworthiness standards."

b. Authority. DARs delegated this authority, are authorized to issue a data approval statement (field approval) in support of a major repair or alteration in FAA Form 337, block 3. The designee must contact their managing office for authorization and special instructions before accepting any data approval activity. Data approval will be indicated by entering and signing the appropriate approval statement in FAA Form 337, block 3. The DAR will also enter the current date and their authorization number adjacent to the signature. Detailed procedures for performing data approvals are contained in Chapter 7 of this order.

> **Note:** In addition, DARs must strictly adhere to the limitations stated on their COA letter and/or supplement and conduct all approvals in accordance with the limitations and guidance contained in this order.

c. Instructions for Continued Airworthiness (ICA). DARs authorized to perform field approvals will ensure that an ICA is prepared by the applicant for each major repair/alteration they approve when the repair/alteration requires additional maintenance or inspections not covered by the original manufacturer's instructions. The ICA must be documented on FAA Form 337. If the ICA is not acceptable, the designee should not sign FAA Form 337, block 3.

d. Flight Manual Supplements. Only DARs specifically authorized to approve flight manual supplements may approve supplements submitted in support of a field approval. When authorized, this approval is limited to certain aircraft alterations involving avionics installations.

e. Record Retention. Designees are required to retain, for the duration of their authorization, a completed copy of each FAA Form 337, any necessary attachments, the Field Approval Checklist, the Compliance Checklist, and all associated data for which the designee has granted a field approval. For the purpose of this requirement, FAA Form 337, blocks 6 and 7, do not require a signature. The DAR may maintain these records in any format acceptable to the FAA managing office. These records may be destroyed 60 days after the designee surrenders the designation or the designation is terminated for any reason, provided the FAA managing office has not requested the records. These records must be made available to the FAA upon request.

f. Activity Reports. The designee is required to submit a report summarizing their activity for a given period in accordance with a schedule established by the designee's managing office. This may be monthly or quarterly, but is not to take place less than once per year. The report should contain at least the following information:

- Identification of the product or article being repaired/altered;
- Activity date;
- Activity location;
- Description of the repair/alteration;
- Name of the person/company applying;
- Outcome of the activity (approval or denial); and
- Any other information from the managing office.

g. Restrictions. Data approval statements in support of a major repair or alteration on FAA Form 337s, are intended to be issued by a DAR within the district where the repair or alteration is planned to be completed as identified in block 6 of the Field Approval Checklist. If the repair or alteration is planned to be completed outside the district boundaries, then the DAR must request authorization from the managing office at least 7 working-days before performing any data approval in support of a major repair or alteration. The request must contain at least the information in blocks 1 through 6 of the Field Approval Checklist. The managing office must review the request and notify the DAR of their approval or denial of the request in writing (the managing office is encouraged to coordinate the request with any other field offices that may be impacted by the data approval). Email and other forms of electronic communication are acceptable. If approved, a copy of the approval should be placed in the DAR's file.

3. Designee Authorizations and Limitations.

a. Designee Authorization. Designees should be carefully evaluated to ensure they are delegated authority consistent with their expertise. The designee's qualifications, experience, and training should be considered. The appointing office must carefully evaluate each individual designee and establish appropriate authority and limitations. Individual designee authority and limitations will be stated on the designee's COA letter and/or supplement. One or more of the major categories identified in subparagraphs 3b(1) through 3b(5) of this chapter (rotorcraft, powerplants, etc.) must be authorized on the designee's COA letter and/or supplement.

b. Authorization Limitations. Limitations should be added to Function Code 51, as appropriate. Authorization to approve certain flight manual supplements and authorization to conduct data approvals for avionics installations may be granted when applicable. These

authorizations must be granted with suitable limitations under one or more of the following major categories: General Aviation (GA) aircraft, rotorcraft, or transport airplanes.

> **Note:** Flight manual supplement approvals are limited to specifically qualified individuals. Only DARs with documented prior experience approving flight manual supplements or DARs with evidence of flight manual supplement training are eligible. The authorization to approve flight manual supplements must be clearly stated on the designee's COA letter.

(1) GA Aircraft. For example, 14 CFR part 23 or predecessor regulations, such as Civil Air Regulation (CAR) 3, Airplane Airworthiness; Normal, Utility, and Acrobatic Categories and CAR 04a, Airplane Airworthiness.

(a) Pressurized and/or nonpressurized.

(b) Type of construction (metallic and/or non metallic primary structure).

(2) Rotorcraft.

(a) Normal and/or transport category.

(b) Reciprocating and/or turbine.

(3) Transport Airplanes. For example, 14 CFR part 25 or a predecessor regulation, such as CAR 04b, Notice of Proposed Rulemaking.

(a) Pressurized and/or nonpressurized.

(b) Type of construction (metallic and/or non metallic primary structure).

(4) Powerplants.

(a) Reciprocating and/or turbine.

(b) Auxiliary power unit (APU).

(5) Appliances.

(a) Mechanical.

(b) Electrical.

(c) Electronic.

> **Note:** Function Code 51 must not be authorized without appropriate limitations (see Chapter 7).

c. Subcategories. Each major category identified above includes a list of sample subcategories (pressurized and/or nonpressurized, etc.). These subcategories, or other

subcategories deemed appropriate by the managing office, should be used to further limit the designee's authority as appropriate.

(1) Limitations identified on the COA letter or supplement should be stated similarly to the following examples:

(a) Transport airplanes. Limited to transport aircraft of metallic primary structure, excluding avionics installations.

(b) Rotorcraft. Limited to avionics installations on Robinson R22 and R44 model rotorcraft.

(c) GA aircraft. Limited to avionics equipment installations, including antenna installations on pressurized and nonpressurized aircraft. Penetration of pressurized areas requires FAA engineering or DER approval.

(2) In all cases, the authority and limitations must be appropriate for the individual designee. For example, a designee with work experience limited to avionics systems should not be delegated the authority to approve data in support of a powerplant alteration.

4. Additional Limitations. In addition to the individual limitations stated on the designee's COA letter or supplement, designees are not authorized to:

a. Issue:

(1) Field approvals for major repairs or major alterations of products or appliances that would affect compliance with any applicable Airworthiness Directive (AD) or alternative method of compliance (AMOC) applicable to the specific aircraft, engine, or appliance.

(2) Field approvals for aircraft operated by air carriers certificated under part 121.

(3) Field approvals for major repairs or alterations requiring a flight manual supplement or revision, unless the supplement or revision has been approved by the responsible FAA Aircraft Certification Office (ACO) or appropriately authorized DER, DAR, or ASI.

(4) Field approvals for major repairs or alterations that affect the product's FAA-approved airworthiness limitations, unless the responsible ACO has approved the change.

(5) Field approvals for aircraft certificated under 14 CFR part 21, § 21.190.

b. Perform:

(1) Any maintenance or inspection function on behalf of a field approval applicant (e.g., owner, agent, repair station, or manufacturer) on products for which the field approval is sought. Additionally, the designee signing FAA Form 337, block 3, may not also sign block 6 or block 7 on the same FAA Form 337. This does not preclude the designee from performing maintenance or inspections in a non-designee capacity when not involved in the approval actions under the DAR's authority.

(2) A field approval on any aircraft, engine, or appliance for which they are the owner, operator, or agent.

c. Approve:

(1) Data for use on multiple aircraft.

(2) Data based only on physical inspection of the aircraft or component. The data listed in FAA Form 337, block 8, must substantiate the approval.

(3) Flight manual supplements, unless specifically authorized on the designee's COA letter.

d. Subdelegate: Any authorized function to another person.

Chapter 5. Orientation and Administrative Requirements

1. DAR Orientation. In addition to the orientation items described in Order 8100.8, the managing office should review the following additional items with each DAR issued Function Code 51:

a. Data Approval. Caution the DAR that any irregularities or deficiencies related to their approval of data may result in the termination of their designation under the provisions of 14 CFR part 183, § 183.15(b)(4). Emphasize that the DAR is to review the applicant's submission for completeness and ensure that all applicable regulatory and policy requirements have been satisfied.

b. Authorization Method. Designees will not fax or scan/email any original FAA Form 337, block 3 authorization to an applicant. FAA Form 337, block 3 authorizations should be processed onsite for the applicant or be electronically processed through https://eformservice.faa.gov after the physical inspections are accomplished.

c. Authorized Functions. Remind the DAR to perform only authorized functions within the limits of their authority.

d. Communication. Remind the DAR to contact the managing office for authorization and special instructions before accepting any data approval activity requested by an applicant. When applicable, special instructions should include any special direction or instructions before performing data approvals requiring a flight manual supplement or revisions to a flight manual supplement. The principal inspector (PI) must also remind the DAR of the restrictions contained in Chapter 4, subparagraph 2g, Restrictions.

e. Activity Reports. Remind the DAR that they are responsible for providing information relating to their accomplishments according to a schedule established by the managing office.

f. Safeguarding of Forms. Emphasize that the DAR must ensure that all FAA forms, certificates, and other official documents are properly safeguarded. All approvals will include the DAR's printed or typed name, signature, and designation number.

g. Conflicts of Interest. Remind the DAR that they are not allowed to perform approvals on any of their own personal aircraft nor perform any maintenance or inspection function on behalf of an applicant (for example, an owner, agent, repair station, or Production Approval Holder (PAH)) on products for which a field approval is sought. This would not preclude the DAR from performing maintenance or inspections in a non-DAR capacity when not involved in the approval actions under the DAR's authority.

h. Dual and/or Multiple Appointments. An individual may be appointed as more than one type of designee (for example, DAR and Designated Manufacturing Inspection Representative (DMIR) or DAR, DMIR, and DER), as long as all appointment criteria are met. Once the activity begins, the designee must complete the process for the role in which the designee was initially engaged. A designee performing engineering and maintenance DAR/DER (or another combination thereof) functions may not perform both functions on the same field approval process in support of a major repair or major alteration. For example, a designee cannot approve

the applicant's design data (on FAA Form 8110-3, Statement of Compliance with Airworthiness Standards) for the alteration or repair for the field approval in which the designee will also be signing the technical data approval in FAA Form 337, block 3.

i. Use of Authority. Remind the DAR to perform all field approvals of data in accordance with the guidelines contained in Chapter 7. The DAR must ensure that all data submitted for approval meets applicable regulatory requirements before issuing the approval. Also remind the DAR to seek guidance from their managing office when questions or problems arise that they cannot resolve.

j. Document Submittal. Remind the DAR to submit copies of FAA Form 337 and applicable attachments to the managing office for review within 7 calendar-days of signing FAA Form 337, block 3 (or to forward them through the electronic Form 337 system, as applicable). Attachments include a Field Approval Checklist, Compliance Checklist, and ICA. The managing office may request additional documentation when necessary. The DAR must also submit copies of any denial letter(s) issued to an applicant.

k. Job Aids. Review the job aids and forms contained in the appendices to ensure that the DAR is familiar with the use of these forms.

l. Record Retention. The DAR should retain a copy of each FAA Form 337, completed Field Approval Checklist, completed Compliance Checklist, any necessary FAA Form 337 attachments, and all pertinent associated data for which the designee has granted a field approval. These records may be maintained in any format acceptable to the FAA managing office.

2. Administrative Requirements. A designee file will be kept with the managing office. The managing office must maintain a file on each of its designees in accordance with Order 8900.1. In addition, a Function Code 51 DAR activity file should be maintained containing copies of each Field Approval Checklist, Compliance Checklist, and any denial letter(s) submitted by the designee. It is unnecessary to retain copies of FAA Form 337. When required, copies of FAA Form 337, including attachments, can be obtained from the designee, the electronic FAA Form 337 on the electronic Forms Service, or the Aircraft Registration Branch (AFS-750), Branch Operations. Only those documents submitted since the designee's appointment or last renewal are maintained. Upon termination or during each successive renewal, contents of the activity file may be purged.

Chapter 6. Oversight

1. Designee Oversight. Designees are subject to oversight of an advisor appointed by the FAA managing office. The advisor will ensure that the designee is knowledgeable, qualified, and competent. The advisor will also ensure that the designee is performing within the scope of their authorization and in accordance with all appropriate regulations, policies, and procedures.

2. Advisor Qualifications. Each advisor must complete all necessary training and have the knowledge and experience necessary to provide adequate oversight. The advisor's knowledge and experience must be appropriate for the type of data approvals the designee is authorized to perform. Advisors must currently be authorized to perform field approvals by the local office manager and the regional Flight Standards division (RFSD) manager. In order to maintain proficiency, advisors are still encouraged to perform field approvals.

3. Advisor Training Requirements. Initial and recurrent training must be in accordance with Order 8900.1, Volume 13, Chapter 9, Designated Airworthiness Representative. In addition, each advisor responsible for the oversight of DARs authorized with Function Code 51 must have completed FAA Academy Course FAA21811 before being assigned oversight responsibility.

4. Oversight. Oversight of designees will be in accordance with Order 8900.1, Volume 13, Chapter 9. In addition, each field approval package submitted by a designee must be reviewed to ensure accuracy, completeness, legibility, and compliance with applicable requirements.

a. Annual Requirement. Function Code 51 is for approval of data, so there is no additional annual requirement to witness the designee's inspection of an aircraft or part.

b. Required Documentation. The inspector should ensure that the designee submits all required documentation for each field approval to the managing office within 7 calendar-days of accomplishment.

5. Information Systems.

a. DIN. The DIN is an Automated Information System (AIS) designed to support the designee management process. All managing offices may report in the DIN any key information that may affect other FAA offices for the designees for which they are responsible. All managing offices have the responsibility to ensure the adequacy of the information being maintained in the DIN. If the local office doesn't have the right access to the DIN, the Regional Office (RO) will have to assist with the data entry.

b. PTRS. ASIs will report all designee activity in the PTRS. PTRS activity codes 3520/5520 will be used to document the ASI review of each DAR field approval package. ASIs will ensure that all PTRS records are complete. PTRS record entries will include specific aircraft information, designee certificate information, and comments containing general information about the alteration or repair for which the designee provided data approval.

c. eVID. The managing office must ensure that all information contained in the eVID for each designee is complete and accurate.

Chapter 7. Field Approval Procedures

1. General.

a. Technical Data Approval. A field approval is one of the means used by the FAA to approve technical data used to accomplish a major repair or alteration. It is an approval by the FAA, through an authorized ASI (Airworthiness) or authorized designee (DAR) of technical data and/or installations, used to accomplish a major repair or alteration. Technical data approved as such becomes "technical data approved by the FAA."

b. Guidance. DARs performing field approvals will follow the guidance of FAA Order 8900.1, Volume 4, Chapter 9.

Note: DARs may not approve data for use on multiple aircraft.

2. DAR Responsibilities. The DAR must ensure that he or she is authorized, experienced, and/or trained in the methods, techniques, and materials involved in the major repair/alteration.

a. DAR Determination. The DAR must determine if, by granting a field approval, the affected product can be expected to result in safe operation and conform to regulatory requirements. The DAR must also determine that:

(1) A Supplemental Type Certificate (STC) approval is not required.

(2) All regulatory aspects of the repair or alteration are addressed.

(3) Supporting data approvals by DERs are within the scope and limitations of the DER's authority.

(4) The data encompasses the entire repair or alteration.

(5) The ICA requirements are met.

b. Addressing Uncertainties. If the authorized DAR is not thoroughly familiar with all aspects of the repair or alteration, or has any doubt about the expected airworthiness, data approval must not be given. In this situation, the DAR will seek assistance from his or her managing office to reach a clear decision before approving or denying the request.

c. Additional Support for Approvals. The managing office must ensure that a DAR's lack of experience or qualifications does not necessarily stop the approval process. A DAR's lack of qualifications does not mean that the DAR or managing office should deny a field approval request and tell the applicant that they need an STC. Instead, the managing office or DAR may need to seek assistance from other ASIs, FSDOs, DERs, Aircraft Evaluation Groups (AEG), or ACOs, as appropriate.

d. Field Approval Denial. DARs may occasionally receive requests to approve alterations or repairs that do not require a field approval. These requests should be denied. Typically, these requests fall into one of several categories: minor alterations or repairs, alterations or repairs that

already have adequate approved data, or projects that require an STC due to their complexity. Minor alterations and repairs do not need approved data and, therefore, should not receive field approvals. Alterations and repairs that are supported by sufficient DER-approved data may not require further approval. DARs should review the data packages for each requested approval to ensure that a field approval is necessary and appropriate. DARs who deny field approval requests from owners/operators for alterations or repairs that do not need or qualify for field approvals should explain to the owner/operator the reason for the denial and, if requested, provide the reason(s) in writing or via email. The owner/operator can then retain this as part of the aircraft records for future reference.

3. DER Participation.

a. DER and DAR Collaboration. If the applicant employs an appropriately authorized DER to provide supporting data for a field approval, then the DAR should coordinate activities with both the applicant and the DER. If the data addresses the entire alteration or repair and all of the requirements of 14 CFR parts 21 and 43 are met, there is no requirement for any further approval by the DAR. DERs may be limited to technical areas that do not fully cover the entire project. For specific DER authorizations and limitations, see the current editions of FAA Order 8110.37, Designated Engineering Representative (DER) Handbook, and the FAA Consultant DER Directory (http://www.faa.gov/other_visit/aviation_industry/designees_delegations/designee_types/media/DERDirectory.pdf).

b. DER Data. Order 8110.37 addresses field approvals by reinforcing that although DERs are not authorized to approve alterations/repairs via an entry in block 3 of FAA Form 337, DER data may be used as the basis for an alteration in support of FAA Form 337. The order also recommends the inclusion of a note in the body of FAA Form 8110-3, Statement of Compliance with Airworthiness Standards, stating, "This approval is for engineering design data only and is not an installation approval." DER data is not a field approval, but is approved data that, like other approved data, can be used to perform major alterations or repairs without further approval. DER data can also be included in the data package to support a field approval request.

> **Note:** A DAR with a field approval authorization is not authorized to issue a field approval on aircraft operated by part 121 air carriers.

4. Replacement and Modification Parts. Order 8900.1, Volume 4, Chapter 9, provides guidance for parts that were approved under the field approval process prior to February 27, 1995.

5. Evaluating Alterations. Each alteration project should be examined on a case-by-case basis. Certain alterations may require engineering evaluation, assistance from the FAA ACO, or an STC. The tables in Order 8900.1, Volume 4, Chapter 9, Section 1, Figure 4-68, Eligibility Considerations for Field Approval, will assist the designee in determining which method(s) may be used for approving major alteration data. You may access the tables at http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs300//media/Major_Repair_Alteration_Job-Aid.pdf. This list is not all-inclusive. If an alteration is not identified on the list, it should be evaluated for eligibility for a field approval and, if eligible, evaluated for any additional assistance required (engineering assistance or ACO coordination). For alterations requiring an

STC, the applicant should be advised to follow the guidance contained in the current edition of AC 21-40, Guide for Obtaining a Supplemental Type Certificate.

6. Coordination with ACOs. The ACOs may assist in the determination of whether an alteration is eligible for a field approval or should be approved in some other manner, such as an STC. The ACOs may also assist in the approval of the technical data. AFS ASIs sometimes consult ACO engineers for this technical assistance. Likewise, DARs authorized to perform field approvals should directly consult ACOs when necessary.

a. Eligibility Determination. It is important for DARs to establish clear lines of communication with the ACO as well as the FSDO. DARs may consult the FSDO or ACO for help in determining whether a specific alteration is eligible for a field approval. Order 8900.1, Volume 4, Chapter 9, contains the applicable criteria. It should be noted that some items in the job aid require either supporting DER-approved engineering data or concurrence from an ACO for a field approval. Some other items require evaluation to determine if the field approval process may be used. The DAR must also be aware that some alterations or repairs, although eligible for field approvals, may be outside of the scope of the DAR's limitations of authority. DARs may request that FAA engineering personnel help them confirm the assumptions on which they base their approval of the data supporting the major alteration or repair. DARs may also ask ACO engineering personnel to help determine whether a proposed modification has appropriate and comprehensive data or whether additional data are necessary.

b. ACO Approval. If a DAR requests assistance from an engineer at an ACO, the DAR will forward the data package directly to the ACO. The DAR's request for assistance should clearly state what the ACO is expected to review and approve. The ACO will review the proposed alteration or repair and concur or recommend changes. When ACO engineering assistance is formally requested by the DAR for review of the data associated with a major alteration or repair, the ACO's concurrence (required to be in writing) becomes an attachment to FAA Form 337. Some ASIs and DARs are authorized to approve certain Airplane Flight Manual Supplements (AFMS) and Rotorcraft Flight Manual Supplements (RFMS). If an AFMS or RFMS must be approved by an ACO, the DAR should also send it to the ACO for approval. The DAR should also submit Airworthiness Limitation Sections (ALS) of the ICA for ACO approval. In addition, ICAs that include topics involving 14 CFR part 26 issues also need ACO approval.

7. Order 8900.1, Volume 4, Chapter 9, Guidance.

- Order 8900.1, Volume 4, Chapter 9, provides guidance on major repair design approvals by Transport Canada Civil Aviation (TCCA) and Canadian design approval representatives (Canadian equivalent to a U.S. DER).
- Incomplete and/or incremental installations will be processed in accordance with Order 8900.1, Volume 4, Chapter 9.

8. Flight Manual Supplements.

a. Alterations Requiring a Flight Manual Supplement. Alterations requiring a flight manual supplement or changes to the operating limitations must be coordinated with the ACO, unless the AFS inspector or DAR has been specifically authorized to sign the document(s).

b. Supplement Approval. DARs specifically authorized to approve flight manual supplements may only approve supplements associated with follow-on installations for the following systems and equipment, provided the supplement content is consistent with the original supplement previously approved by the FAA under a type certificate (TC) or STC certification, and provided the supplement format is consistent with the applicable flight manual and applicable guidance.

(1) Global Positioning System (GPS) or GPS wide area augmentation system (WAAS) equipment, including multifunction systems that are either stand-alone or interfaced with (and performing control functions of) an electronic horizontal-situation indicator (EHSI), Terrain Awareness and Warning System (TAWS), weather data, Traffic Alert and Collision Avoidance System (TCAS), or other traffic information systems.

(2) The following EHSI systems: Rockwell/Collins EHSI-74; Honeywell (Bendix/King) EHI 40 EHSI and KI 825 EHSI; L3 Communications EHSI-4000 EHSI; and the Sandel Avionics models SN3308 EHSI, SN3500 EHSI, and SN4500 EHSI.

(3) The following traffic alert and collision avoidance devices (TCAD), traffic advisory systems (TAS), and TCAS: Avidyne Safety Systems Group (formerly Ryan International Corporation) models ATS-7000, ATS-8000, ATS-8800, ATS-9000, ATS-9900, TAS 600, TAS 610, and TAS 620 systems; L-3 Communications (BF Goodrich) Skywatch SKY497, TCAS 791, and TCAS 791A; and Honeywell (Bendix/King) KTA 810, KTA 870, and CAS 66A.

(4) Class B TAWS (also known as Enhanced Ground Proximity Warning Systems (EGPWS)).

> **Note:** Designees must coordinate with their advisor before approving a flight manual supplement to ensure that current guidance is being utilized for the approval.

9. Operational Checks. Any alteration or repair that may appreciably change the aircraft flight characteristics or that substantially affect its operation in flight must be operationally checked in accordance with 14 CFR part 91, § 91.407 and the results recorded in the aircraft records. Additional information and limitations are described in Order 8900.1, Volume 4, Chapter 9.

10. FAA Form 337.

a. Electronic FAA Form 337. Electronic versions of FAA Form 337 may be utilized by the modifier. This includes any necessary attachments. The interactive Web-based electronic Forms Service provides users the ability to fill out, digitally sign, and print copies of FAA Form 337 online. The modifier forwards the forms directly to the FAA when using this system. DARs authorized to issue field approvals must be equipped and capable of processing electronic submissions of FAA Form 337. Additional guidance for processing electronic submissions of FAA Form 337 is available at https://eformservice.faa.gov.

b. Approval Use. Data approvals issued for one aircraft are applicable only to the aircraft described in FAA Form 337, block 1. The alteration may be used as acceptable data as a basis for obtaining approval on other aircraft. DARs must not approve data for use on multiple aircraft.

Note: "When data approvals are issued on FAA Form 337s, and block 1 and 2 are unknown, follow the procedure described in AC 43.9-1, 6.b."

Note: Military aircraft without a civil TC, foreign-registered aircraft, and component parts not installed on an aircraft cannot have FAA Form 337 submitted to AFS-750. This is because they cannot be identified by aircraft make, model, serial number, and U.S. registration number. In addition, the recordkeeping requirements of part 43, § 43.9 do not apply.

11. ICAs. DARs must ensure that each field approved major alteration that requires additional maintenance or inspections not covered by the original manufacturer's instructions have ICAs prepared in accordance with 14 CFR part 23, § 23.1529; part 25, § 25.1529; part 27, § 27.1529; part 29, § 29.1529; part 31, § 31.82; part 33, § 33.4; or part 35, § 35.4, as applicable. The applicant is to develop the ICA and present it in conjunction with the field approval request. The ICA will be documented on FAA Form 337. If the ICA meets applicable requirements, the authorized DAR accepts the ICA in conjunction with the data approval. If the ICA is not acceptable, the designee must not sign FAA Form 337, block 3. The DAR will advise the applicant that the entry for the major alteration in the aircraft's maintenance records required by § 43.9 will also include a reference to the ICA and identify the FAA Form 337 (preferably including the approval date) where the instructions are documented. FAA Form 337 needs to be retained in the aircraft records in accordance with § 91.417a(2)(vi).

a. Advantages. The ICA provides the aircraft owner/operator with the following advantages when included in FAA Form 337, block 8:

(1) The major alteration and reference to the ICA are contained in one document.

(2) The ICA is part of the major alteration documentation and needs to be retained as required by § 91.417(a)(2)(vi).

(3) The owner/operator can contact the FAA registry for a replacement FAA Form 337 if the ICA is lost or destroyed. The additional reference to the presence of the ICA as part of the major alteration in the aircraft's maintenance entry will ensure that maintenance personnel appropriately address ICAs during future inspections.

b. Type Design. For field-approved major alterations to aircraft and engines certificated under the CARs, the ICA must meet the continued airworthiness and maintenance requirements from the original type design. In cases where the major alteration is a total new design, or a substantial complete redesign that the CARs did not address, the major alteration must meet the applicable 14 CFR requirements. The checklist provides acceptable guidance for these types of installations.

c. ICA Required. ICAs are required for a field approval or STC. 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. If the manufacturers' instructions are not available, the applicant may use FAA publications such as AC 43.13-1, Acceptable Methods, Techniques, and Practices—Aircraft Inspection and Repair,

and AC 43.13-2, Acceptable Methods, Techniques, and Practices—Aircraft Alterations; part 43, appendix D; or other applicable aviation standards to develop the ICA.

d. Revisions. Major alterations approved before October 7, 1998, were not required to have ICAs. However, if an owner/operator wishes to formally incorporate an ICA for existing field-approved major alterations, they may do so using the revision process described in item 16 on the ICA checklist found in Order 8900.1, Volume 4, Chapter 9, Section 1, Figure 4-66.

12. Field Approval Checklist. DARs must ensure that a Field Approval Checklist is completed for each field approval. The original is retained by the DAR and a copy is forwarded to the DAR's FAA managing office. See Appendix B, Field Approval Checklist and Compliance Checklist, for a sample of the form.

13. Compliance Checklist.

a. Compliance. A compliance checklist must be provided by the applicant for each field approval requested. Prior to data approval, the designee will review the checklist for completeness and accuracy. The checklist should identify the aircraft or product, the certification basis, and all applicable regulations affected by the major repair or alteration. Adjacent to each regulation listed, the applicant must document how they will comply with the regulatory requirements.

b. Retention. The compliance checklist should be retained by the DAR and a copy should be forwarded to the DAR's FAA managing office. See Appendix B for a sample of the form.

14. Data Approval/Denial Procedures.

a. Review the Applicant's Request. Ensure that the information supplied is complete and appropriate before proceeding with the field approval request. To ensure that all required information is available, the DAR may elect to have the applicant complete the appropriate portions of the Field Approval Checklist and the Compliance Checklist located in Appendix B. However, the DAR is ultimately responsible for completing and submitting these checklists to the FAA managing office.

(1) The DAR should review and evaluate the following, as applicable, before the applicant begins the repair or alteration:

(a) FAA Form 337, completed in duplicate (in triplicate for extended range fuel tanks).

(b) Other administrative forms used by a manufacturer or operator that are acceptable to the FAA, such as engineering orders.

(c) Proposed flight manual supplements.

(d) FAA Form 8110-3.

(e) The description of the proposed alteration or repair to ensure that it correctly and accurately describes it.

(f) The methods, sketches, drawings, stress analyses, photographs, electrical load analyses, etc., to ensure that the operator has considered all applicable design standards and has analyses to substantiate the findings in this regard.

(g) The proposed ground and flight tests and operational checks meet applicable certification requirements to substantiate the alteration or repair.

(h) ICAs.

(i) The Field Approval Checklist.

(j) The Compliance Checklist.

(2) The DAR must also consider the following:

(a) The certification basis, including special conditions (fail-safe, damage tolerance, etc.).

(b) The structural requirements that may be affected by the alteration or repair.

(c) Any hazards that may affect the aircraft or its occupants.

(d) Weight and Balance (W&B) computations.

(e) Operating limitations.

(f) Any other factors affecting safety or airworthiness.

(3) If the data is incomplete, the applicant must supply any additional information needed.

b. Coordination with the Applicant. The DAR should coordinate the following with the applicant:

Note: The applicant should be warned not to start the major repair or alteration before the field approval is completed and block 3 of the FAA Form 337 is signed.

(1) Request that the applicant provide all supporting data;

(2) Caution against proceeding with the alteration/repair before receiving all necessary approvals;

(3) Provide the applicant with a proposed schedule for completion of the project that is consistent with available resources; and

(4) Advise the applicant that engineering coordination or additional approvals may be required.

c. Evaluate the Proposal. Determine if the applicant has conducted an evaluation to ensure that the proposed alteration will not impact the airworthiness of the aircraft. The applicant will provide verification that he or she has inspected the aircraft and reviewed the aircraft records to ensure compatibility of this alteration or repair with previously approved modifications.

d. Evaluate the Data Package.

(1) If a determination is made that the proposed alteration is beyond the scope of a field approval, advise the applicant that an STC is necessary. Additional information on this subject is contained in AC 21-40.

(2) If assistance from an ACO is needed for approving a major alteration/repair, the DAR, not the applicant, should make the request for engineering evaluation/assistance to the cognizant ACO.

e. Data Approval.

(1) If the repair or alteration data complies with all applicable requirements, the DAR will indicate approval by entering the appropriate statement and signing FAA Form 337, block 3. When recording FAA approval in block 3, the DAR must use the following statement: "The data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in Section 43.7."

(2) The DAR will also print his or her name, and enter the current date, and his or her authorization number adjacent to the signature.

> **Note:** DARs must not approve data for use on multiple aircraft. If engineering assistance was requested, written ACO concurrence (e.g., memo or email) becomes an attachment to FAA Form 337.

f. Denial of Proposed Repair or Alteration Data. If the applicant is unwilling or unable to comply with the requirements to obtain the requested field approval, terminate the process by notification in writing to the applicant. This notification should include the reason for denial. The applicant should be given the opportunity to make necessary corrections within a reasonable time. If the applicant fails to make the necessary corrections, terminate the process, return all submitted documents, and notify the managing office.

g. Routing of Completed Field Approval Documents. The DAR will disposition the completed documents as follows:

(1) Each FAA Form 337 supplied by the applicant, including attachments, will be returned to the applicant.

(2) A copy of the approved FAA Form 337, including attachments, will be retained by the DAR. The DAR must also retain the Field Approval Checklist and Compliance Checklist.

(3) A copy of each approved FAA Form 337 will be forwarded to the FAA managing office within 7 calendar-days following a data approval. This will include copies of the Field Approval Checklist and Compliance Checklist.

(4) A copy of each denial letter issued by the DAR will be forwarded to the FAA managing office within 7 calendar-days.

Note: DARs may forward copies of FAA Form 337, including required attachments, to their managing office in paper or electronic format.

h. Managing Office Review. Upon receipt of a completed field approval or denial, accomplish the following:

(1) Review FAA Form 337 to ensure that all block 8 airworthiness requirements and ICA requirements are satisfied.

(2) Review FAA Form 337, block 3, for completion of the required approval statement.

(3) Review copies of the Field Approval Checklist and Compliance Checklist for completeness.

(4) File a copy of each Field Approval Checklist, Compliance Checklist, and denial letter in the office DAR activity file.

(5) Discard the review copy of FAA Form 337 and attachments, as these are to be retained by the DAR. Documents containing proprietary data should be shredded or discarded in a suitable manner.

(6) Create a PTRS record documenting the paperwork review.

i. Corrective Action. The managing office must take immediate appropriate corrective action to correct any discrepancies affecting airworthiness.

Chapter 8. Administrative Information

1. Distribution. This order is distributed to the Washington HQ division levels of the Aircraft Certification Service (AIR) and AFS; the branch levels of AIR; the branch levels in the RFSDs and Aircraft Certification Directorates; all FSDOs and IFOs; all ACOs; all CMOs; all Manufacturing Inspection District Offices (MIDO) and Manufacturing Inspection Satellite Offices (MISO); and the Aircraft Certification and Airworthiness branches at the AMA.

2. Authority to Change this Order. The authority to revise or cancel material in this order resides with AFS-600.

3. Related Publications (current editions):

- FAA Order VS 1100.2, Managing AVS Delegation Programs.
- FAA Order 8100.8, Designee Management Handbook.
- FAA Order 8100.15, Organization Designation Authorization Procedures.
- FAA Order 8110.37, Designated Engineering Representative (DER) Handbook.
- FAA Order 8110.54, Instructions for Continued Airworthiness Responsibilities, Requirements, and Contents.
- FAA Order 8130.2, Airworthiness Certification of Aircraft and Related Products.
- FAA Order 8310.6, Airworthiness Compliance Check Sheet Handbook.
- FAA Order 8900.1, Flight Standards Information Management System (FSIMS).
- AC 23-21, Airworthiness Compliance Checklists Used to Substantiate Major Alterations for Small Airplanes.
- AC 33.4-1, Instructions for Continued Airworthiness.
- AC 43-9, Maintenance Records.
- AC 43.9-1, Instructions for Completion of FAA Form 337.
- AC 43.13-1, Acceptable Methods, Techniques, and Practices—Aircraft Inspection and Repair.
- AC 43.13-2, Acceptable Methods, Techniques, and Practices—Aircraft Alterations.
- AC 43-210, Standardized Procedures for Requesting Field Approval of Data, Major Alterations, and Repairs.
- CAR 3, 04a, 04b, 6, 7, and 8.
- Aeronautics Bulletin 7a, and 7-H.
- Type Certificate Data Sheets (TCDS).
- Aircraft Specifications.

Appendix A. Acronyms

The following acronyms are used in this order.

14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ACO	Aircraft Certification Office
AD	Airworthiness Directive
AEG	Aircraft Evaluation Group
AFS	Flight Standards Service
AFMS	Airplane Flight Manual Supplement
AIR	Aircraft Certification Service
AMA	FAA Academy
AMOC	Alternate Means of Compliance
APU	Auxiliary Power Unit
ASI	Aviation Safety Inspector
A&P	Airframe and Powerplant
CAA	Civil Aviation Authority
CAR	Civil Air Regulations
CFR	Code of Federal Regulations
CMO	Certificate Management Office
COA	Certificate of Authority
DAR	Designated Airworthiness Representative
DAR-T	Designated Airworthiness Representative-Maintenance
DER	Designated Engineering Representative
DIN	Designee Information Network
DMIR	Designated Manufacturing Inspection Representative
DOM	Director of Maintenance
EASA	European Aviation Safety Agency
EGPWS	Enhanced Ground Proximity Warning System
eVID	Enhanced Vital Information Database
FAA	Federal Aviation Administration
FSDO	Flight Standards District Office
FSIMS	Flight Standards Information Management System

GA	General Aviation
GPS	Global Positioning System
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
ID	Identification
IFO	International Field Office
LOA	Letter of Authorization
MIDO	Manufacturing Inspection District Office
MISO	Manufacturing Inspection Satellite Office
NEB	National Examiner Board
ODA	Organization Delegation Authorization
PAH	Production Approval Holder
PC	Production Certificate
PI	Principal Inspector
PTRS	Program Tracking and Reporting Subsystem
RFMS	Rotorcraft Flight Manual Supplement
RFSD	Regional Flight Standards Division
RO	Regional Office
STC	Supplemental Type Certificate
TAS	Traffic Advisory Systems
TAWS	Terrain Awareness and Warning System
TC	Type Certificate
TCAD	Traffic Alert and Collision Avoidance Device
TCAS	Traffic Alert and Collision Avoidance System
TCCA	Transport Canada Civil Aviation
TCDS	Type Certificate Data Sheet
W&B	Weight and Balance

Appendix B. Field Approval Checklist and Compliance Checklist

Figure B-1. Field Approval Checklist

FIELD APPROVAL CHECKLIST

Instructions: Print or type all entries. This information should be as complete as possible.

1. Aircraft	Make	Model
	Registration Number **N**	Serial Number
2. Applicant	Name	Address/Telephone Number

3. Type of Product and Certification Basis

☐ AIRFRAME ☐ ENGINE ☐ APPLIANCE ☐ OTHER _____

☐ Part 23 ☐ Part 25 ☐ Part 27 ☐ Part 29 ☐ Part 31 ☐ Part 33 ☐ CAR 3 ☐ CAR 4(a) ☐ CAR 4(b)
☐ CAR 6 ☐ CAR 7 ☐ CAR 8 ☐ CAR 13

4. Brief Description of Project

5. Schedule for Completion of Project

Date when field approval is needed:

Date when work is to begin:

Date for visit (projected):

Projected completion date for project:

6. Who Will Perform the Alteration or Repair?

Mechanic's name: or Repair Station name:

Certificate no: Contact person at the facility:

Telephone number:

Location where alteration/repair will be accomplished:

7. Designated Engineering Representatives (DER) ☐ None

Names and telephone numbers of the DERs who are helping with the project:

Name: Telephone number:

Name: Telephone number:

Figure B-1. Field Approval Checklist (Continued)

8. Compliance Statement and Compliance Checklist

Attach Compliance Checklist.

9. Previous Alterations or Repairs That May Be Affected by This Alteration/Repair

10. Instructions for Continued Airworthiness (ICA)

☐ ICAs attached

Include in block 8 of FAA Form 337

11. Aircraft Flight Manual Supplement (AFMS)

Do you have an AFMS? ☐ Yes ☐ No If yes, attach a copy.

12. Data Attached

☐ Proposed FAA Form 337
☐ Description of alteration, including ICA
☐ Drawings, schematics, and diagrams
☐ Material list
☐ Processes
☐ Specifications
☐ Previous field approvals
☐ FAA Form(s) 8110-3
☐ Serviceable tags
☐ Placards
☐ Test data and/or flight test data
☐ Load analysis (electrical and/or structural)
☐ Other

13. DAR Use Only

Date:

DAR Name: Designation No:

Is a field approval appropriate? ☐ Yes ☐ No

If a field approval is not appropriate, why not?

☐ Minor alteration (record entry) ☐ Other (includes denial)
☐ STC

☐ ACO concurrence required. Date of concurrence:

Method of concurrence: (e-mail, letter, etc.)

ACO Engineer name and phone number:

☐ Requires Flight Manual Supplement approval?

Remarks:

Instructions for Completing Field Approval Checklist

Designated Airworthiness Representatives (DAR) performing field approvals must ensure that a Field Approval Checklist is completed for each request. The DAR or the applicant should complete sections 1 through 12. Prior to completing section 13, the DAR should verify that all entries are legible, complete, and accurate. The following instructions apply to each corresponding section of the form:

Section 1—Aircraft. Enter the aircraft registration number, make, model, and serial number. The registration number is the same as shown on Aeronautical Center (AC) Form 8050-3, Certificate of Aircraft Registration. The make, model, and serial number information is the same as shown on the aircraft manufacturer's identification plate.

Note: Only U.S.-registered aircraft are eligible for field approvals.

Section 2—Applicant. Enter the applicant's name, address, and telephone number.

Section 3—Type of Product and Certification Basis. On the upper line, enter a checkmark in the appropriate box to identify the item being approved. If you check "Other," enter the item's description in the space provided. On the bottom line, check the box that identifies the certification basis. The certification basis can be obtained from the product's Type Certificate Data Sheet (TCDS).

Section 4—Brief Description of Project. Using the space provided, enter a short summary of the proposed alteration or repair. If additional space is needed, attach a continuation page and include a statement referencing the attachment.

Section 5—Schedule for Completion of Project. Enter the requested dates. The projected completion date is the date that all work associated with this project is expected to be complete.

Section 6—Who Will Perform the Alteration or Repair? On the top line, enter the name of the certificated mechanic who will perform the alteration or repair. If a repair station is performing the work, leave the mechanic's name blank and enter the name of the repair station. On the second line, enter the mechanic's Airframe and Powerplant (A&P) certificate number or the repair station's certificate number, as appropriate. Enter a contact name (repair station only). On the third line, enter the area code and telephone number for the mechanic or repair station. On the last line, enter the street address or physical location where the work will be performed. This information should be as complete as possible.

Section 7—Designated Engineering Representatives (DER). List any DERs or DARs assisting with this project. Include the names and telephone numbers for each.

Section 8—Compliance Statement and Compliance Checklist. The altered or repaired product must continue to meet its certification basis. The compliance statement should explain how the product continues to meet its certification basis. This section should include the substantiating data or proof. This section may also reference an attached comprehensive compliance checklist when compliance with multiple regulations is required. The compliance checklist will list each affected Title 14 of the Code of Federal Regulations (14 CFR) part/Civil Air Regulation (CAR) and indicate how compliance was shown. A properly designed repair should restore the product back to its original condition and therefore may not require a comprehensive compliance checklist.

Section 9—Previous Alterations or Repairs that May be Affected by This Alteration/Repair. Inspect the aircraft and review the aircraft maintenance records to determine if there are any previous alterations or repairs that could interfere with or have an adverse affect on the proposed alteration/repair. Include a copy of the maintenance record, including Federal Aviation Administration (FAA) Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance), for all such alterations or repairs. Photographs and drawings can also be helpful.

Section 10—Instructions for Continued Airworthiness (ICA). ICAs are essential for each field approved major alteration that requires additional maintenance or inspections not covered by the original manufacturer's instructions. The ICA should include specific instructions that describe how the affected area will be maintained to ensure continued airworthiness. For example, the ICA might include a new requirement for a special inspection to be accomplished during each 100-hour or annual inspection. When appropriate, the ICA should also include specific instructions for determining excessive wear or deterioration, troubleshooting information, installation and removal procedures, and functional checks. Servicing requirements, such as recommended fluid change intervals or lubrication schedules, should also be included.

Section 11—Aircraft Flight Manual Supplement (AFMS). If a flight manual supplement or revision to an existing supplement is required, include a copy. A flight manual supplement is generally required when an alteration changes the operating limitations or procedures necessary for safe operation. Additional guidance on this subject can be found in the current editions of AC 43-210, Standardized Procedures for Requesting Field Approval of Data, Major Alterations, and Repairs, and AC 23-8, Flight Test Guide for Certification of Part 23 Airplanes. AC 23-8, Appendix 5, pertains to flight manuals. A required flight manual supplement must be approved by an appropriately authorized person before the DAR can issue the field approval.

Section 12—Data Attached. This section contains a list of data that is commonly included. Place a checkmark in each box to indicate the data attached. If other is selected, enter a short description of the other data attached.

Section 13—DAR Use Only. The applicant should not write or mark in this area. DARs processing the field approval will complete this section before providing a copy to their managing office. Evidence of ACO concurrence is required for all field approvals designated "ENG" in the table in FAA Order 8900.1, Volume 4, Chapter 9, Section 1, Figure 4-68, Eligibility Considerations for Field Approval.

Figure B-2. Compliance Checklist

Product Identification _____ Certification Basis _____ Date _____

14 CFR/CAR Part & Section	Subject	Method of Compliance	Documentation Reference

Instructions for Completing Compliance Checklist

The altered or repaired aircraft must continue to meet its certification basis. To ensure compliance, the checklist should list each regulation or airworthiness standard applicable to the requested field approval and the method by which compliance is shown. The compliance checklist may be completed by the applicant or the DAR, but the DAR is responsible for ensuring that all entries are legible, complete, and accurate. Instructions for completing the compliance checklist are as follows:

1. Identification, Certification Basis, and Date. Enter the product identification such as the aircraft registration and serial number. Aircraft engines should be identified by the model and serial number. Enter the certification basis for the product. The certification basis can be obtained from the applicable TCDS. Enter the current date using the month/day/year format.

2. Title 14 CFR/CAR Part and Section. List each applicable regulation by part and section. Example: "14 CFR 23.735" or "CAR 3.363." When necessary, the specific paragraph should also be identified.

3. Subject. The subject or title of the 14 CFR/CAR applicable paragraphs should be listed. Example: "Brakes."

4. Method of Compliance. State the method of compliance. This may include design drawings, analyses, tests, or other methods.

5. Documentation Reference. List the documentation (test report number, analysis report number, etc.) that demonstrated compliance to the 14 CFR/CAR part and section.

> **Note:** A properly designed repair should restore the product back to its original condition and therefore may not require a comprehensive Compliance Checklist.

U.S. Department
of Transportation
Federal Aviation
Administration

FAA Form 1320-19, Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: Order 8100.17A, Field Approval Delegation Handbook

To: Directive Management Officer, _____

(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:
(attach separate sheet if necessary)

☐ In a future change to this directive, please include coverage on the following subject
(briefly describe what you want added):

☐ Other comments:

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

Submitted by: _____ Date: _____

FTS Telephone Number: _____ Routing Symbol: _____

FAA Form 1320-19 (8-89)