ORDER

8100.9

DAS, DOA, AND SFAR 36 AUTHORIZATION PROCEDURES



August 7, 2002

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

RECORD OF CHANGES				D	DIRECTIVE NO.			8100.9		
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FAA Form 1320-5 (6-80) USE PREVIOUS EDITION

FOREWORD

This order establishes the procedures, guidance, and limitations of authority for organizations that the Federal Aviation Administration (FAA) authorizes as a Designated Alteration Station, Delegation Option Authorization holder, or Special Federal Aviation Regulation 36 holder. The Aircraft Certification Directorates, Aircraft Certification Offices, and Flight Standards personnel shall use this order as an aid in the administration of these organizations. This order contains guidance material for the organizations and is intended to provide a better understanding of the functions authorized and procedures to be followed when exercising the authority granted to them by the FAA.

Please forward any deficiencies found, clarifications needed, or improvements suggested regarding the content of this order to the Aircraft Certification Service, Automated Systems Branch, AIR-520, Attention: Directives Management Officer, for consideration. FAA Form 1320-19, Directive Feedback Information, is located on the last page of this order for your convenience.

Nicholas A. Sabatini

Associate Administrator, Regulation and Certification, AVR-1

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#### CHAPTER 1. GENERAL

- 1-1. PURPOSE. This order prescribes the Federal Aviation Administration (FAA) procedures governing organizations authorized as a Designated Alteration Station (DAS), Delegation Option Authorization (DOA), or Special Federal Aviation Regulation Number 36 (SFAR 36). This order replaces existing information contained in orders and notices governing the qualifications, appointment, procedures, supervision, oversight, and training of DAS, DOA, and SFAR 36 authorization holders.
- 1-2. DISTRIBUTION. This order is distributed to the branch levels of the Aircraft Certification Service, Flight Standards Service, and the Office of Aviation System Standards in Washington Headquarters; to the branch level in the Aircraft Certification Directorates and the Regional Flight Standards Divisions; to the International Field Offices (IFOs) and the Flight Standards District Offices (FSDOs); to all Aircraft Certification Offices (ACOs) and all Manufacturing Inspection District and Satellite Offices (MIDOs and MISOs); to the Flight Standards Branch and Aircraft Certification Branch at the FAA Academy; to the Suspected Unapproved Parts Program Office; and to the Brussels Aircraft Certification Division and Flight Standards Staff.
- 1-3. CANCELLATION. Order 8000.42A, Authorization to Develop and Use Major Repair Data not Specifically Approved by the Administrator, dated March 28, 1980, is cancelled.
- **1-4. EFFECTIVE DATE.** FAA managing offices and applicants must immediately adopt the practices contained herein related to selection and oversight of DAS, DOA, and SFAR 36 authorizations issued in accordance with this order.
- 1-5. IMPLEMENTATION. Within sixty calendar days of publication of this order existing authorization holders are to meet with their managing ACO and establish an agreed-to time frame for the approval of their procedure manual. Procedure manuals must be revised to meet the requirements of this order and approved within 18 months of the issue date of this order. The appointing office will coordinate/invite the appropriate FAA participants to this meeting. Failure to update the procedure manual within 18-months may result in the authorization being revoked, or terminated. suspended, Existing DAS/DOA/SFAR 36 staff members and administrators must be evaluated in accordance with the qualification criteria in this order and their authorized functions as an Authorized Representative (AR) or administrator must be identified in the procedure manual.

- Title 49 United States Code 1-6. BACKGROUND. section 44702(d), authorizes the FAA Administrator the authority to delegate matters related to the examination, testing, and inspection necessary to issue certificates, and the issuance of certificates. Title 14 of the Code of Federal Regulations (14 CFR) part 21 subparts J and M, and Special Federal Aviation Regulation (SFAR) No. 36 prescribe the rules for Delegation Option Authorizations, Designated Alteration Stations, and SFAR 36 delegations. The FAA issues these authorizations to qualified organizations to assist the FAA in matters related to type certification, supplemental type certification, airworthiness approvals, and major alterations and repairs. authorization is a privilege granted by the Administrator and it is not the right of every qualified applicant to be granted a DAS, DOA or SFAR 36 authorization.
- 1-7. AUTHORITY TO CHANGE THIS ORDER. The Aircraft Certification Service, Aircraft Engineering Division (AIR-100), the Production and Airworthiness Division (AIR-200), and the Flight Standards Service, Continuous Airworthiness Maintenance Division (AFS-300) has the authority to revise or cancel material in this order. Depending on the change(s), the appropriate FAA office (AIR-100, AIR-200, and AFS-300) will initiate the change and coordinate with the other offices.
- 1-8. DEVIATIONS. Adherence to procedures in this order is necessary for uniform administration of this directive. Any deviations from this guidance material must be coordinated and approved by AIR-100/200, and AFS-300 as applicable. If deviation is necessary, the FAA employee involved should ensure that deviations are substantiated, documented, and concurred with by the appropriate supervisor and approved by AIR-100, AIR-200, or AFS-300 as appropriate.

#### 1-9. RELATED PUBLICATIONS

- a. AC 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported into the United States
- **b.** AC 21-40, Application Guide for Obtaining a Supplemental Type Certificate
- c. Order 2150.3, Compliance and Enforcement Program
- **d.** Order 4040.26, Aircraft Certification Service Flight Safety Program
- e. Order 8100.5, Aircraft Certification Directorate Procedures

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- **f.** Order 8100.7, Aircraft Certification Systems Evaluation Program
  - g. Order 8100.8, Designee Management Handbook
  - h. Order 8110.4, Type Certification
- i. Order 8110.37, Designated Engineering Representative (DER) Guidance Handbook
- **j.** Order 8120.2, Production Approval and Surveillance Procedures
- **k.** Order 8130.2 Airworthiness Certification of Aircraft and Related Products
- I. Order 8130.21, Procedures for Completion and use of the Authorized Release Certificate, FAA Form 8130-3, Airworthiness Approval Tag
- **m.** Order 8300.10, Airworthiness Inspector's Handbook
- n. Order 8430.21, Flight Standards Division, Aircraft Certification Div. And Aircraft Evaluation Group Responsibilities
  - **NOTE:** Publications referenced throughout refer to the latest revision level.
- **1-10. DEFINITIONS.** For the purposes of this directive the following definitions apply:
- **a.** Administrator. When spelled with a capital "A" refers to the FAA Administrator. When spelled with a lower case "a" refers to the delegation administrator.
- b. Aircraft Flight Manual (AFM). Either the Airplane Flight Manual or Rotorcraft Flight Manual (as applicable).
- c. Appeal Panel. Two or more office managers and a senior ASE/ASI/FTP assigned the task of determining if the appointment process was conducted properly in the event of an applicant's appeal of the FAA's decision.
- **d. Appointing Office.** The Aircraft Certification Office (ACO) and/or Flight Standards District Office (FSDO) having selection and appointment responsibility for the authorization holder.
- e. Authorization Letter. A FAA letter specifying the authorized functions, and any associated limitations, for which the delegation is authorized.
- f. Authorized Representative (AR). Any individual within the DOA, DAS, or SFAR 36 that is authorized in the procedure manual to make findings of compliance, determination of conformity, and/or airworthiness on behalf of the FAA.

g. AR Trainee. An individual that meets all the requirements for a staff AR except for direct experience working with the FAA. AR trainees must not make findings, which are not subsequently verified and approved by either, a staff AR or the FAA.

- **h.** Authorization Holder. The organization/company holding the certificate that provides the eligibility for the DAS, DOA, or SFAR 36 authorization.
- i. Compliance Inspection. Compliance inspections are physical inspections performed to review an installation and its relationship to other installations on a product to determine compliance with 14 CFR/CAR requirements, which cannot be determined adequately from an evaluation of the technical data.
- **j.** Conformity Inspection. Conformity inspections verify and provide objective documentation that test articles, parts, assemblies, installations, functions, and test set ups conform to the design data.
- **k.** DAS/DOA/SFAR 36 administrator. The focal point(s) for the authorization holder who is responsible for managing the DAS/DOA/SFAR 36 activities and communicating with the OMT.
- 1. Delegation Option Authorization (DOA). A manufacturer holding a current type certificate and production certificate issued under standard procedures that is authorized by the FAA to conduct type, production, and airworthiness certification functions in accordance with 14 CFR part 21, subpart J.
- m. Designated Alteration Station (DAS). A repair station, air carrier, or manufacturer authorized by the FAA to issue Supplemental Type Certificates in accordance with 14 CFR part 21, subpart M.
- n. Designee Information Network (DIN). The Designee Information Network is an automated information system designed to support the delegation management process by providing a consolidated delegation information repository for tracking pertinent delegation data.
- **o. Delegated Organization.** Refers to DAS, DOA, and SFAR 36 organizations.
- p. Evaluation Panel (EP). The Evaluation Panel should be comprised of the prospective Organization Management Team (OMT) in order to determine the appropriateness of the appointment or denial.
- **q. Manufacturer**. A manufacturer is a production approval holder (PC, APIS, PMA, or TSOA).
- r. Organization Management Team (OMT). The team of FAA personnel responsible for supervision and

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management of the DAS, DOA or SFAR 36, and the projects they perform. The Organization Management Team consists of personnel from the Aircraft Certification Offices (ACO), Certificate Management Offices (CMO), Manufacturing Inspection District Offices (MIDO), and Flight Standards District Offices (FSDO), as appropriate, in the geographical area where the authorization holder is located.

NOTE: The ACO has primary responsibility for management of the engineering and flight test staff and the certification procedures spelled out in the procedure manual. The OMT must include ACO engineers from all technical disciplines performed by the authorization holder. The MIDO has primary responsibility for management of the inspection and airworthiness staff and procedures for the functions they perform. The Aircraft Evaluation Group (AEG) supports the ACO for Instructions for Continued Airworthiness (ICA) in accordance 14 CFR 21.50. The FSDO has primary responsibility for the certificate management activity associated with an SFAR 36 holder.

- **s. OMT lead.** Focal point for the OMT who is selected by the managing ACO.
- t. Principal Engineer (PE). The Aviation Safety Engineer (ASE) within the managing ACO who is assigned supervision and oversight responsibility for appointed engineering functions within the DAS/DOA/SFAR 36.
- u. Principal Inspector (PI). The Aviation Safety Inspector (ASI) within the managing MIDO/FSDO responsible for supervision and oversight of airworthiness, maintenance and manufacturing inspection functions within the DAS/DOA/SFAR 36.
- v. Special Federal Aviation Regulation Number 36 (SFAR 36). A repair station, air carrier, or commercial operator authorized to develop and use major repair data that are not specifically approved by the FAA Administrator in accordance with SFAR 36. (SFAR 36 is found in the regulations at the beginning of 14 CFR part 121.)
- w. Supervision. That portion of FAA oversight responsibilities for DOAs/DASs/SFAR36s that includes: informing the DOA/DAS/SFAR36 holders of its duties and responsibilities, authorizing activities outside the geographic area, providing guidance and direction in the implementation of all assigned duties, providing training, reviewing performance, initiating corrective action as required, and maintaining current and accurate records.
- **1-11. ACRONYMS.** The following is a list of acronyms used in this order:

14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ACO	Aircraft Certification Office
ACSEP	Aircraft Certification Systems Evaluation Program
AEG	Aircraft Evaluation Group
AFS	Flight Standards Service
AIR	Aircraft Certification Service
AFM	Aircraft Flight Manual
<b>AFMS</b>	Aircraft Flight Manual Supplement
AP	Appeal Panel
AR	Authorized Representative
CAA	Civil Aviation Authority
DAR	Designated Airworthiness Representative
DAS	Designated Alteration Station
DER	Designated Engineering Representative
DIN	Designee Information Network
DMIR	Designated Manufacturing Inspection
DOA	Representative
DOA EP	Delegation Option Authorization Evaluation Panel
EF FAA	Federal Aviation Administration
FSDO	Flight Standards District Office
ICA	Instructions for Continued Airworthiness
MIDO	Manufacturing Inspection District Office
MIDO	(includes Manufacturing Inspection
	Satellite Office - MISO)
MMEL	Master Minimum Equipment List
MOU	Memorandum of Understanding
OMT	Organization Management Team
PE	Principal Engineer
PΙ	Principal Inspector
PLR	Production Limitation Record
PNL	Program Notification Letter
SFAR	Special Federal Aviation Regulation
STC	Supplemental Type Certificate
STIR	Supplemental Type Inspection Report
TCDS	Type Certificate Data Sheet
TC	Type Certificate/Type Certification
TIA	Type Inspection Authorization
TIR	Type Inspection Report

**1-12.FORMS/LETTERS/FORMATS.** Appendix 1, Sample Forms and Letters provides examples of appropriate forms, letters, and formats referenced in this order.

#### CHAPTER 2. FAA ROLES AND RESPONSIBILITIES

- **2-1. GENERAL.** This chapter describes FAA roles, responsibilities, and processes for application, selection, authorization, and oversight of DAS, DOA, and SFAR 36 authorized organizations.
- 2-2. ORGANIZATION MANAGEMENT TEAM (OMT). Management of an authorization holder requires both supervision and oversight of the functions performed by the organization, thus, oversight will require a combination of ACO, Certificate Management Office, MIDO, and Flight Standards District Office (FSDO) personnel as appropriate to the ARs and the authorized functions performed by the organization. The OMT members must be knowledgeable and experienced in the functions the organization performs. (See OMT definition.)

#### 2-3. APPLICATION.

- a. Application. Applications will be submitted to the appointing office in accordance with the applicable regulations. The application letter must state the authorization and limitations sought, including the products on which the authorization will be utilized.
- (1) DAS and DOA applicants must submit applications to the geographical ACO. The ACO should provide a written response within 30 days to the applicant, acknowledging receipt and providing an estimated date to complete their evaluation.
- (2) SFAR 36 applicants must submit applications to their managing FSDO. The FSDO inspector assigned should follow the procedures in Order 8300.10 for the coordination of the application with the ACO.
- (3) AR Packages. Authorized Representatives not designees under the requirements 14 CFR part 183. However, ARs do perform functions comparable to designees. Prior to recommending ARs to the FAA, the organization must evaluate the proposed AR's qualifications using the applicable criteria found in Order 8100.8, Designee Management Handbook, for the function(s) the ARs will be performing. The organization selection process must be defined in their procedure manual and meet the intent of the selection process found in Order 8100.8. The organization application should contain evidence of the organization's review of the proposed ARs, along with a summary of each AR's qualifications. The organization need not submit AR qualification summaries for existing designees, unless the proposed functions (to include type and complexity) were not previously delegated to the AR.

- **b.** Application Content. The application must include:
- (1) FAA Form 8100-8, DAS, DOA, or SFAR 36 Statement of Qualifications.
- (2) A cover letter stating the authority requested under the applicable regulations and limitations for the authorization, to include the products on which the authorization will be utilized. The cover letter must also contain a brief statement as to the applicant's eligibility in accordance with applicable regulations.
- (3) A detailed description of how the eligibility and qualification requirements are satisfied as defined in paragraph 3-2 of this order, and the specific eligibility requirements as defined in chapters 4 through 6 of this order (e.g., having a TC, PC, 14 CFR part 145, 14 CFR part 121).
- (4) The authorization holder administrator's resume as outlined in paragraph 3-7a.
- (5) A listing of the proposed staff (ARs) and their associated resumes outlining their experience and qualifications.
- (6) A procedure manual that includes the content as required by paragraph 3-8 of this order, and the specific detail as outlined in the Procedure Manual example in appendix 2, Sample DAS, DOA, SFAR 36 Procedure Manual, of this order.

#### 2-4. SELECTION PROCESS.

- **a. Initial Screening.** Upon receipt of the application, the ACO (DAS and DOA) or FSDO (SFAR 36) will determine if the applying organization meets the following basic requirements:
- (1) The FAA has a need for the new appointment.
- (2) The organization holds the current certificate(s) as defined in the eligibility sections of Chapters 4 through 6, as the basis for the authorization in accordance with the FAA regulations.
- (3) The organization has a successful and recent history with the FAA for the functions desired and is familiar with the applicable FAA certification processes.
  - (4) The organization's staff possesses integrity,

sound judgment, and a cooperative attitude toward the FAA.

- b. Formation and Review by the Evaluation Panel. After determining that the applicant is eligible, the appointing office must organize a panel of FAA personnel required for the evaluation of the application. The team may consist of the accountable directorate representative, the geographic MIDO PI(s), FSDO, appropriate Aircraft Evaluation Group (AEG) representatives, and appropriate ACO personnel. The panel selected must be qualified and familiar with the functional areas for which the delegation is sought and experienced with the appropriate DAS/DOA/SFAR 36 processes. The Evaluation Panel (EP) should be comprised of the prospective Organization Management Team (OMT) in order to determine the appropriateness of the appointment or denial. The panel will collectively determine if the applicant is qualified for the authorization. The panel must consider the following criteria to determine whether an authorization is warranted:
- (1) The FAA must have a need for the appointment.
- (2) The FAA must have adequate personnel to properly oversee and support the appointment.
- (3) The applicant must employ, or have available, a staff of qualified engineering, flight test, and inspection personnel as appropriate.
- (4) The applicant must have adequate facilities appropriate to the authorization desired.
- (5) The applicant's administrator and ARs must possess integrity, sound judgment, and a cooperative attitude.
- c. Evaluation of Authorized Representatives (ARs). As authorization holder staff members, ARs are performing functions comparable to individual DERs, DARs, and DMIRs. Therefore, the applicant must evaluate the proposed ARs to the same standards and criteria for designees performing comparable functions as contained in Order 8100.8. The FAA managing offices should review the AR packages to ensure the criteria of Order 8100.8 are met. Existing FAA designees may be approved as AR staff members without further technical review of their qualifications if they will be performing similar functions.
- d. Procedure Manual Approval. After determining that the applicant is qualified, the EP must review the proposed procedure manual and ensure it establishes a process that complies with the applicable requirements of 14 CFR, and applicable FAA Orders. After the EP approves the procedure manual, the managing office(s) shall execute the Memorandum of Understanding as described in paragraph 3-4 with the officials of the organization.

e. Denial of DOA/DAS/SFAR 36 Applications. Denial of an application for a DOA/DAS/or SFAR 36 authorization must be made in writing (i.e., letter of denial) to the applicant and sent via registered mail within 30 days of the decision. The letter of denial must explain the specific reasons for the denial and detail what steps the applicant may take before the FAA will reconsider their application. (See appendix 1, figure 1 for an example of a denial letter.)

- f. Appeal Panel (AP). If not satisfied with the decision made by the appointing office, an applicant may, within 60 days receiving notification of the denial, notify the FAA in writing and request a review by an AP. The AP will consist of at least two office managers and a senior ASE/ASI/FTP who were not part of the applicant's EP. The AP will consider all available information and may interview the applicant, applicant's staff, EP personnel, or may invite other persons to be resources at their deliberations. The AP's decision is reached by consensus and all decisions are final.
- g. Appeal Panel Authority. The AP may uphold the previous decision; or
- (1) May override the previous decision with a new decision and provide appropriate justification; or
- (2) May request that any part of the appointment process be repeated citing new information that the EP must review, or issue additional instructions and clarifications to the EP. The AP may direct that the previous EP conduct the review, or it may direct the appointing office to appoint a new EP.
- h. Functioning of the Appeal Panel. The AP shall determine if the appointment process was conducted properly by reviewing the documentation in the appellant's file, the evaluation panel's written justification, interviewing members of the EP, and reviewing other information deemed appropriate. If discrepancies are found, appropriate actions shall be taken to ensure the future integrity of the appointment process. The AP shall complete their deliberations by consensus within 60 days from the date of the appeal. The decision must be documented and signed by each AP member and transmitted to the appointing office manager. The appointing office manager will notify the appellant of the decision by the AP by letter. If the AP is not able to reach a decision by consensus within the 60 day period, the appointing office manager will make the final decision and notify the appellant. The decision is final whether made by the AP or appointing office manager.
- 2-5. AUTHORIZATION. After all elements of the selection process have been completed (including signature of an MOU), the appointing office shall

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provide the applicant proof of authorization. Proof of authorization shall be an authorization letter issued by the appointing ACO and coordinated with the MIDO and AEG for DAS and DOA, and jointly signed between the ACO and certificate managing FSDO for SFAR 36 authorizations. The authorization letter shall note the authorization number from the Designee Information network (DIN), the limitations of the authorization, the location of facilities, and any technical limitations. The nature and scope of authorization limitations may be of any form appropriate to the authorization. It may be limited for lack of certain equipment, or limited to certain types of Examples of authorization letters are in appendix 1, figures 3, 4, and 5. The appointing office shall also provide the names and phone numbers of the OMT members.

**NOTE:** It is the appointing office's responsibility to input the appropriate information into DIN. (See chapter 7 of this order.)

#### 2-6. OVERSIGHT

The OMT will monitor the a. Supervision. authorization holder's processes and procedures (e.g., training procedures, lines of communication, employee responsibilities and duties, and project management activities) as described in its procedure manual. determined necessary, the OMT must also review individual AR's project work for accuracy. Frequency of such inspections should be based on the experience of the AR and the quality of work performed on previous projects. If personal meetings or inspections are required, they should be coordinated through the authorization holder's administrator. The authorization holder shall maintain its processes in a manner consistent with the approved procedure manual and applicable FAA regulations and orders. Supervision intervals may be tailored to the organization, but must occur at least annually. Intervals should be established by the OMT based upon the organization's experience and adequacy of previous certification efforts or compliance findings using their authorization. Frequency also depends on the facility. Small facilities with superior internal controls and limited types of approvals may need only one or two visits a year, while others with increased complexity may need quarterly visits by OMT members.

NOTE: The ACO is responsible for oversight of the administrator, the engineering and flight test staff, and the certification procedures prescribed in the procedure manual for all authorization types. The MIDO is responsible for oversight of the inspection and airworthiness staff and procedures for the functions they perform for DASs and DOAs. The FSDO is responsible to keep the ACO informed of any changes in the certificate for which eligibility was determined. The FSDO is also responsible for the certificate

management activity associated with an SFAR 36 holder.

(1) The authorization holder will provide project notification to the OMT lead. It is incumbent on the authorization holder to maintain open lines of communication with the OMT and to keep them apprised of the status of these projects. Based on a review of the project notifications, the FAA may elect to participate in the project or require the authorization holder to provide the FAA with periodic project reviews or status reports.

#### (2) The OMT must:

- (a) Review periodic self-audit reports generated by the organizations for possible discrepancies. The ACO (DAS or DOA) or FSDO (SFAR 36) must acknowledge receipt of the report, coordinate the review with the other managing office(s), and coordinate corrective actions if necessary.
- (b) Ensure the authorization holder complies with the approved procedure manual.
- (c) Ensure the authorization holder and ARs have access to current policy and guidance.
- (d) Verify that the ARs are acting within the scope of their authority in accordance with the requirements of this order, the procedure manual, and other applicable FAA orders.
- (e) Review, as necessary, the accuracy of official documentation initiated by the authorization holder. Review completed project records on a sampling basis (e.g., airworthiness, conformity, compliance, and type design data).
- (f) Ensure the appropriate corrective action is taken in accordance with FAA Order 2150.3, Compliance and Enforcement Program. The OMT lead is responsible for coordinating all compliance and enforcement activity.
- (g) Ensure that any other item associated with the authorization holder's authorization is addressed.
- b. Evaluations. The evaluation of an authorization holder's performance will be based on a systems approach to the management and supervision of the DOA, DAS, or SFAR 36. This is in contrast to the existing designee systems, which focus the FAA's efforts on monitoring the individuals authorized to perform the functions. It is not the FAA's intention to focus on the activities of individuals, but instead on the performance of the authorization holder's system and how the functions are carried out. The FAA always retains the authority to monitor and surveil the DOA, DAS, or

SFAR 36 to the extent necessary to ensure that the authorized functions are carried out. The criteria used to evaluate compliance with the authorization holder's responsibilities should have the following elements:

- (1) Adherence to procedures. The FAA focus will be on adherence to procedure manual processes (systems performance evaluation). Any information used by the authorization holder to make a finding of compliance to applicable FAA regulations may be reviewed.
- (2) Integrity, sound judgment, and cooperative attitude. ARs are honest and completely forthcoming with information in all dealings concerning their authority.
- (3) Technical competence in area of appointment. The technical work of the ARs results in appropriate compliance, conformity, and airworthiness findings.
- (4) Knowledge of the applicable certification processes.
- c. ACSEP Evaluations. The OMT will conduct evaluations of the authorization holder in accordance with Order 8100.7, Aircraft Certification Systems Evaluation Program (ACSEP).
- d. Technical Evaluations. The OMT must conduct evaluations of the methods, data, and articles used to substantiate compliance to FAA regulations. These evaluations must be performed at least every two years. If possible, the technical evaluations may be scheduled simultaneous with ACSEP evaluations. The evaluation should determine whether the products and data produced using the authorization are technically acceptable, comply with the FAA regulations and FAA policy, and were produced using sound engineering judgment and practices. Non-scheduled evaluations may be conducted as situations warrant. Procedures and criteria for conducting technical evaluations are contained in appendix 5, Technical Evaluation Procedures and Criteria.
- e. Results of FAA Evaluations and Surveillance and Follow-on Corrective Action. The OMT will notify the authorization holder's administrator of any noncompliance requiring corrective action per Order 2150.3. If any part of the authorization holder's system does not meet the requirements of the delegation, then the FAA may require changes to the system and may mandate changes to the authorization. The OMT will ensure corrective action is taken for all findings and observations resulting from ACSEP, technical evaluations, or routine supervision by having a OMT representative physically visit the facility. ACSEP corrective actions are prescribed in the ACSEP guidance material. All findings and observations must be tracked and re-evaluated after corrective action is implemented.

#### f. General.

- (1) FAA Files. The managing FAA offices will each maintain a file for each authorization they manage. The file must contain at least the following as applicable:
- (a) Completed DAS/DOA/SFAR 36 Application package.
- (b) Certificate Management records (if applicable).
  - (c) Copy of the letter of authorization.
- $(\mathbf{d})$  General correspondence (non project specific).
  - (e) Copy of the current procedure manual.
- (f) Records of supervision, monitoring, and evaluations.
  - (g) Records of discussion or counseling.
- (h) Copy of summary activity report(s) (if applicable).
- (i) Copy of current Forms 8130-13 for out-of-geographic-area work since last reporting period, if applicable.
- (j) Enforcement Investigative Reports (EIR).
- (2) Revisions to Procedure Manual. The OMT will review proposed revisions to the procedure manual including proposed AR changes. If the changes are acceptable, the OMT will approve the revisions.
- (3) AR Changes. The FAA must find proposed ARs acceptable before they may perform any functions for the organization. ARs must be qualified to the same criteria found in Order 8100.8 for comparable functions. The authorization holder must evaluate the proposed AR using the procedures prescribed in their procedure manual prior to submittal to the FAA. The authorization holder must send the FAA documentation showing the evaluation and recommended approval of the proposed AR. The OMT should verify the process described in Order 8100.8 is used to evaluate proposed ARs, and to evaluate requested changes in authority for existing ARs. The OMT shall notify the authorization holder of their decision (denial/approval) on AR changes within 15 working days. Upon approval, the AR shall be added to the procedure manual.
- (4) Guidance Information. The FAA will assist all authorized organizations in acquiring required directive and policy material. Access to most FAA

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regulations, directives, and advisory circulars of interest to authorization holders is available on the Internet at http://av-info.faa.gov/dst. The OMT should provide copies of policy information and interpretive material not available via the Internet.

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## CHAPTER 3. DAS/DOA/SFAR 36 QUALIFICATIONS, RESPONSIBILITIES AND AUTHORITY

- **3-1. GENERAL.** This chapter provides general requirements applicable to organizations seeking a DAS, DOA, or SFAR 36. This chapter also establishes general procedures for obtaining and maintaining a DAS, DOA, or SFAR 36, and describes the general functions and limitations that apply to all authorization holders. The specific requirements for a DAS, DOA, or SFAR 36 are addressed in Chapters 4 through 6 of this order, as applicable.
- **3-2. QUALIFICATIONS.** Later paragraphs of this order specify eligibility requirements for each authorization type.
- a. The applicant must meet the qualification criteria defined in this paragraph and must also comply with the specific eligibility requirements defined for DAS, DOA, or SFAR 36 in chapters 4 through 6 of this order, as applicable.
- **b.** The FAA may grant authorizations to qualified organizations when:
- (1) The organization has sufficient workload applicable to the authorization sought.
- (2) There is a benefit to the FAA in granting the authorization, and the FAA has the ability to manage the authorization.
- c. The FAA does not issue DOAs, DASs, or SFAR 36s to non-U.S. located applicants. An applicant must meet the appropriate Title 14 CFR requirements as noted in chapters 4 through 6 of this order and the following qualification criteria in order to be considered for an authorization:
- d. The applicant's management must have demonstrated integrity in its experience with the FAA and have made a commitment to act with integrity in finding compliance to the regulatory requirements. In addition, the applicant's proposed administrator and ARs must possess unquestionable integrity, sound judgment, and cooperative attitude.
- e. The organization must employ an authorization holder administrator(s) and employ, or have available, as appropriate for the delegation sought, a staff of ARs who meet the qualification criteria of this order. DAS and SFAR 36 authorization holders must have appropriate staff who meets the requirements of 14 CFR part 21, § 21.439(b) or SFAR 36 paragraph 5b, as applicable.

- f. The organization must have sufficient (as determined by the FAA) resources to perform the level of designation sought. The organization must have a thorough working knowledge, as appropriate to the delegation sought, of the FAA regulations, methods of compliance, policy, and procedures.
- **g.** The organization must have adequate facilities appropriate to the authorization desired.
- **h.** The organization must have a successful and recent history of certification work with the FAA.
- i. The organization's staff must possess integrity, sound judgment and a cooperative attitude toward the FAA.
- **3-3. RESPONSIBILITY.** DAS/DOA/SFAR 36 authorized organizations act as representatives of the Administrator when performing the functions they have been delegated. These authorized organizations and their staffs are guided by the same regulations, directives, policies, guidance and procedures applicable to FAA personnel performing similar functions.
- a. Authorization Holder. The authorization holder shall assign an administrator who must ensure that the ARs have sufficient time and resources to maintain cognizance of the regulations, directives, and guidance related to their assigned AR duties and to prepare the necessary reports and related forms separate from other company duties. While discharging the duties of authorization holder, the administrator shall report to a level of management high enough to enable the DOA, DAS, or SFAR 36 to administer duties for the FAA without undue pressure or influence from other organizational segments or individuals. The authorization holder must ensure that the administrator and ARs remain free of any restraints that would limit the DOA's, DAS's, or SFAR 36's ability to ensure that authorized functions are performed in compliance with FAA regulations. The authorization holder shall allow the FAA to inspect, evaluate or surveil the facilities, products, parts, components, processes, or appliances, records, and procedures associated with DAS/DOA/SFAR 36.
- b. Delegation administrator and ARs. The authorization holder must ensure that the administrator and ARs act in an independent and impartial manner when exercising their FAA authority. The administrator and ARs must be aware of and avoid potential conflicts of interest between their duties and responsibilities to the FAA Administrator and their roles as employees of the

authorization holder.

3-4. MEMORANDUM OF UNDERSTANDING. Authorization holders must agree to exercise the same care, diligence, judgment, and responsibility when performing the delegated functions as would be exercised by the FAA. This commitment starts at the senior management level of the organization and extends through the proposed ARs. In recognition of this, senior management of the organization and the FAA appointing office(s) will sign a memorandum of understanding (MOU) prepared by the OMT, which outlines the charter, authority, and responsibility of the organization. The MOU will be signed before appointment. In addition, whenever the signatories of the MOU authorization holder or the lead administrator change, a new MOU must be generated by the OMT and signed by both the organization and the FAA. If the new senior management refuses to sign the MOU, the appointing office shall terminate the authorization. The OMT will recommend any updates of the MOU to the appointing office as appropriate. Appendix 1, figure 6 contains an example of an acceptable MOU.

**NOTE:** All MOUs must contain a statement setting forth the FAA authority and responsibility to conduct oversight of all delegated activities. In addition, authorization holders must cooperate with the FAA during oversight activities.

#### 3-5. STAFF AUTHORITY AND RESPONSIBILITY.

- a. DAS/DOA/SFAR 36 administrator. administrator is responsible for the overall management of the authorization and the coordination and completion of their authorized functions. The administrator may be authorized to sign specific documents as specified in the procedure manual. The administrator is responsible for all communication and interface with the OMT. administrator will communicate with the OMT lead on matters pertaining to FAA interface. The administrator must ensure that the organization is following the procedures prescribed in their procedure manual and that their processes comply with all the requirements of the applicable FAA regulations and policies. An organization may have multiple administrators, however the organization must identify one as the "LEAD" administrator.
- b. Authorized Representatives. Authorized Representatives within the organization have the authority to make findings of compliance, determination of conformity, or airworthiness approvals on behalf of the FAA. The ARs must have sufficient authority within the organizations to make binding decisions to ensure that products meet the applicable regulations, conform to the type design, and are in condition for safe operation. The procedure manual must identify the ARs and their

approval authority.

- c. Separation of Duties. DAS, DOA, and SFAR 36 organizations and any designees they may utilize as ARs should be aware that the delegated functions they perform as a DER, DMIR, or DAR are separate and distinct from the functions they perform as an AR of these organizations.
- d. Conflict of Interest. It is important that the ARs and the organization be aware of and avoid potential conflicts of interest between the role of the administrator and AR acting for the FAA and the role as an employee of the authorization holder. The AR, when performing delegated functions for the FAA, must be independent from the organization's normal engineering and quality control chain of command and report only to the administrator. This should prevent the situation where, for example, the employer asks the AR to use their authorization improperly, or applies pressure on the AR to compromise their FAA responsibility. organization's responsibility to prevent such situations. Failure to do so will result in termination of their authorization. Authorization holders must ensure that there are no conflicting constraints placed on the ARs within the organization.

# **3-6. INHERENTLY GOVERNMENTAL FUNCTIONS.** Authorization holders may only be delegated the functions allowed by the regulations and this order. Following are examples of inherently governmental functions or those that the FAA chooses not to delegate. They may not be performed by a authorization holder:

- a. Issue a TC, amend TC or PC.
- **b.** Make findings of equivalent safety.
- c. Grant exemptions.
- d. Issue special conditions.
- e. Approve or issue ADs.
- **f.** Make determination of applicable FAA regulations (e.g., certification basis).
- **g.** Establishing a means of compliance not previously accepted by the FAA.
  - h. Make findings reserved by the FAA.
  - i. Surveillance and oversight.
- **j.** Approval of quality system and procedure manual.

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#### 3-7. STAFF QUALIFICATION REQUIREMENTS.

- a. DAS/DOA/SFAR 36 administrator. Each DOA, DAS, and SFAR 36 must employ administrator(s) who serves as the focal point for the FAA The administrator(s) is responsible for coordination. managing the DOA, DAS, or SFAR 36 activities and communicating with the OMT. Therefore, the administrator(s) must have not only the technical experience associated with the type of authorization, but also a broad range of management experience that will enable the administrator(s) to effectively manage all aspects of the designation. Although not required, the administrator may also be an AR. These qualifications must be presented in a resume, which clearly demonstrates the qualification criteria have been met. Prior to FAA approval it must be shown that the administrator(s) has the proper level of responsibility, authority, and ability to assure compliance with approved procedures. following are the minimum requirements for an administrator:
- (1) Minimum of five (5) years of experience working with the FAA on projects similar to those being performed under the authorization. This working experience must include various levels of technical airworthiness responsibilities and experience (e.g., compliance engineer, quality assurance inspector, manufacturing inspector, airworthiness inspector, etc.) as well as management experience in the technical disciplines (e.g., engineering, manufacturing, airworthiness, etc.). The collective technical, certification processes, and management experience of the administrator(s) must pertain to the type of authorization sought.
- (2) Comprehensive knowledge of FAA Policies, procedures and regulations associated with the authorization.
- (3) Demonstrated sound judgement, integrity, and cooperative attitude toward the FAA.
- (4) Possess sufficient technical education, training, skill, and experience applicable to the type of authorization sought.
- b. AR Qualification Requirements. DOA authorization holders must employ a staff of ARs who can make findings on behalf of the FAA. DAS and SFAR 36 holders must employ or have available a staff of ARs who can make findings on behalf of the FAA. ARs are not required to be a DER, DMIR, or DAR.
- (1) Engineering and Flight Test ARs. Engineering and flight test ARs making findings of compliance to the airworthiness standards must meet the requirements for Designated Engineering Representative (DER) appointment defined in Order 8100.8, Designee Management Handbook, as appropriate to the functions

- authorized. However, the requirement to have significant working experience in a direct working relationship with the FAA may be satisfied by having significant working experience within the authorization holder's organization.
- (2) Inspection ARs. Inspection ARs performing authorized functions must meet the specific qualification criteria for similar function(s) as is described in Order 8100.8 (e.g., conformity, export, issuance of airworthiness certificates, etc.). However, the requirement to have significant working experience in a direct working relationship with the FAA may be satisfied by having significant working experience within the authorization holder's organization.
- (3) Use of Existing Designees. Proposing the use of existing designees (i.e., DER, DAR, and DMIR) as ARs to perform similar functions should decrease the time and effort required for the FAA to verify qualifications and approve authorized functions.
- (4) Expanding the AR Authority of Existing Designees. Both the applicant and the FAA personnel involved should ensure that if the approval authority desired for an AR exceeds the authority already authorized under their existing delegation, or adds functions, or areas, not currently approved, the organization must determine and the evaluating FAA personnel must verify that the individual is qualified to the same criteria found in Order 8100.8 for the additional areas or functions.
- (5) AR Trainees. If a proposed AR meets all the requirements except for direct experience working with the FAA, the proposed AR may be designated as an "AR Trainee." Upon approval as an AR trainee, the organization will provide working arrangements to allow the trainee time to prove his or her ability to the authorization holder. The procedure manual must include a process for trainee development if trainees are utilized. For example, review of the trainee's work by other ARs, or direct supervision of the trainee's findings by the FAA. AR trainees may not make findings that are not subsequently verified by either a staff AR or the FAA. Trainees may only review data and do not have final approval authority.
- **3-8. PROCEDURE** MANUAL. Each authorized organization must perform all authorized functions in accordance with their FAA-approved procedure manual. Procedure manuals must follow the format of appendix 2 and address the applicable detailed requirements provided in chapters 4 though 6. The procedure manual and revisions are to be coordinated with the appropriate disciplines (such as flight test, quality, engineering, etc.) within the DOA/DAS/SFAR 36 organization prior to submittal to the FAA.
  - a. Content. In addition to the requirements in

- Chapters 3 through 6 of this order, the procedure manual must contain the following:
- (1) Cover page with signature blocks for the FAA and authorization holder's administrator.
  - (2) Table of Contents.
  - (3) Log of Revisions.
- (4) List of Effective Pages (may be optional if manual is reprinted and paginated at each revision).
- (5) Description of how to process changes to the manual.
- (6) Limitations of the authorization. DAS and SFAR 36 procedure manuals must specifically identify the models of products and types of projects authorized.
- (7) Description of the authorization holder's facilities (DAS and SFAR 36 only).
- (8) Listing of ARs and their authorized functions and forms authorized to sign. The procedure manual must include the name(s), signature(s), impression of stamps (where appropriate), and responsibilities of the individual ARs performing FAA functions and identify the functional areas and limitations for the ARs in accordance with Order 8100.8. See appendix 2 for sample.
  - **NOTE:** Signatures, as shown in appendix D of appendix 2 of this order, may be maintained in a separate documented file.
- (9) Description of the procedures used in performing authorized functions.
- (10) A sample of the forms to be used to indicate inspection acceptance or findings of compliance. FAA Forms must be used wherever applicable. Execution instructions must be provided if using other than FAA Forms.
- (11) Selection criteria for appointing ARs and procedures for expansion of AR's authority which includes the process for AR Trainee development, if Trainees are utilized.
- (12) Records required to be kept by the regulations and this order. See chapters 4 though 6 for specific record files.
- (13) Description of the training courses that are to be required of each AR and where the AR will acquire the training. Include both standardization and recurrent training per paragraph 3-9b.
- (14) Process for revising the procedure manual and obtaining FAA approval for revisions.

- (15) Changes requiring approval will be defined in the procedure manual.
- (16) Prior to approval of these changes, the organization may continue to perform only those functions not affected by the change.
  - (17) Self evaluation procedures.
- b. Approval. The FAA must review and approve the procedure manual prior to the organization performing any authorized functions. The procedure manual must include the name(s), signature(s), and responsibilities of the administrator(s).
- c. Changes. Changes requiring revision to the procedure manual (such as personnel changes) must be clearly identified (e.g., revision bars, highlighting, etc), submitted to, and approved by the FAA. The authorization holder may not place submitted changes into effect, including changes to ARs or procedures, until approval of the changes is received.
- **d.** FAA Policy Changes. In situations where a procedure manual has not been updated to the latest FAA policy, FAA policy takes precedence. The procedure manual must be updated within 120 days of the issue date of the policy change.

#### 3-9. TRAINING.

- a. Company Provided Training. DAS, DOA, and SFAR 36 organizations must provide training to staff members to ensure continued compliance with the approved procedure manual and the regulations. Training is required upon approval for ARs, with recurrent training at least every two years. The authorization holder must allow FAA evaluation of the training material. If the training is presented in a classroom format, the organization must allow FAA attendance at the training session, if requested. The training should consist of at least:
- (1) Review of the functions delegated to the authorization.
- (2) Review of the organization's processes and procedure manual.
- (3) Review of the AR's authority and responsibility when performing authorized functions.
- (4) Review of FAA policy and guidance material.
- (5) Review of representative documentation completed by the authorization holder.
- (6) DAS training must also address the need to consider the product manufacturer's design philosophy,

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principles, the operational assumptions of the manufacturer, and actual operator procedures during the approval of alterations. The training should also address possible methods to obtain this information for projects accomplished by the DAS.

- b. FAA Seminars. In addition to the training attended within the company, ARs must also attend FAA sponsored seminars. FAA seminar schedules are available via the internet at the designee home page, http://avinfo.faa.gov/dst.
- (1) DAS, DOA, and SFAR 36 administrators must attend a DAS/DOA/SFAR 36 Standardization Seminar upon approval as an administrator, and every two years thereafter. They must also attend FAA provided seminars according to paragraph (2) below if they have authority as an AR.
- (2) ARs must attend FAA provided seminars as required of designees performing similar functions in accordance with Order 8100.8 and Order 8110.37, Designated Engineering Representative (DER) Guidance Handbook.
- c. Training Records. DOA/DAS/SFAR 36 organizations must maintain records of AR's attendance at company and FAA training.
- 3-10.DURATION OF APPOINTMENTS. Authorization as a DAS or DOA is effective until surrendered or until the FAA suspends, revokes, or terminates the authorization. Authorization as a SFAR 36 is effective until the termination date of SFAR 36, unless otherwise surrendered, suspended, revoked, or terminated. Authorization holders must notify the appropriate managing offices within 48 hours of any change (including personnel changes) that could affect the ability of the holder to meet eligibility requirements.
- a. Changes in ownership of the organization which result only in a name change with no change in organizational structure, etc., may be executed by reissuing the authorization letter and MOU, along with revising the procedure manual to reflect the new name.
- b. Changes within the DAS, DOA, or SFAR 36 involving personnel or structure within the organization or major changes to the organization may require the holder to surrender its authorization and submit a new application. Authorization holders should notify their managing offices prior to any planned changes to determine how such changes will be handled.
- **3-11. SELF EVALUATION.** The organization must perform periodic audits that re-validate the personnel and procedures used within the authorization holder's organization as approved within their procedure manual. Authorization holders must perform these audits at least

- annually. The procedure manual must also identify the general audit procedures and frequency as agreed to by the OMT. Self Evaluations do not replace the FAA Technical Evaluations or ACSEP Evaluations detailed in paragraphs 2-6c, and d of this order.
- a. Personnel Audits. Personnel audits must evaluate the ARs using the processes and oversight criteria contained in Order 8110.37 and 8100.8, as appropriate. The DOA/DAS/SFAR36 organization should review individual AR's project work for accuracy. Frequency of such audits should be based on the experience of the AR, the quality of work performed on previous projects, and as established in the procedure manual.
- b. Certification Process Audits. The certification process audits must include each element of the procedure manual, such as inspection of design and/or repaired articles to ensure conformity to type design; technical data evaluation; and compliance with the airworthiness standards, etc.
- c. Evaluation Records. The organization must maintain records of the self-audit and provide copies to the OMT upon request.
- d. Self-Disclosure. The FAA will not ordinarily seek to impose a civil penalty on an authorization holder if: the holder immediately notified the FAA of the apparent violation after detecting it and before the agency learned of it. The apparent violation must have been inadvertent; the apparent violation does not indicate a lack of or reasonable question of basic qualification of the authorization holder; immediate action must have been taken, or begun to have been taken, upon discovery to terminate the conduct that resulted in the apparent violation; the operator must develop and implement a comprehensive corrective action satisfactory to the FAA. Further guidance on self-disclosure reporting may be found in Order 2150.3.
  - NOTE: Ordinarily, the FAA will not forego legal enforcement action if the authorization holder informs the FAA of the apparent violation during routine FAA investigations/inspections (that time from which the inspection team physically arrives on site until the time the team departs at the completion of the inspection) or in association with accidents and incidents.
- 3-12. MANUFACTURING WORK ACTIVITY. DAS and DOA authorization holders must document their manufacturing work activity on the Summary Activity Report, as described in Order 1380.48, Manufacturing Inspection Management Information System. The organization's report must be submitted on a frequency as prescribed in the procedure manual. A sample Summary Activity Report is found in appendix 1, figure 10.

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#### **CHAPTER 4. DESIGNATED ALTERATION STATIONS**

#### 4-1. GENERAL.

- a. General. This chapter provides information and guidance concerning the authority and procedures of Designated Alteration Stations (DAS).
- b. Eligibility. Each DAS is required by 14 CFR § 21.439(a) to be either a domestic repair station under the provisions of 14 CFR part 145, an air carrier or commercial operator, or a manufacturer of a product for which it has alteration authority under the provisions of 14 CFR part 43, § 43.3(j). An applicant must have a demonstrated knowledge of the Supplemental Type Certificate (STC) process and must have been previously granted STCs under standard procedures of 14 CFR part 21.
  - **NOTE:** The word "or" was inadvertently not incorporated in 14 CFR § 21.439(a). The preamble to this regulation clearly denotes that the intent of this regulation was to allow any one of the three organizations noted above to apply and be considered for a DAS authorization.
- c. DAS Authority. The primary authority of a DAS is the ability to issue STCs in accordance with 14 CFR § 21.431. In support of this, the DAS may issue special airworthiness certificates in the experimental category to show compliance for aircraft that are altered by the DAS. Additionally, the DAS may amend standard airworthiness certificates for those aircraft previously issued experimental certificates that are found to conform with the approved STC and are in a condition for safe operation.

#### d. Limitations.

- (1) The STC approval authority of the DAS will be limited to the types of products or articles it is appropriately qualified and certified to maintain under the existing certificate used as a basis for the authorization.
- (2) The OMT may impose any limitations that may be necessary, taking into account the DAS staffing and facilities. For example, the OMT may exclude the authority to approve alterations that require flight test or pilot evaluation if the DAS does not employ, or have available, a qualified flight test pilot. The OMT must limit the DAS's authority based upon the qualifications and capability of the DAS ARs and authorization holder limitations. Approval of test plans is one area where the OMT may decide to retain authority, requiring them to be submitted for approval by the ACO. The OMT should carefully evaluate the DAS's capability and experience prior to delegating the approval of test plans to the DAS.

- (3) The DAS may not be delegated authority that involves areas reserved for FAA approval or require the development of issue papers or regulatory activity (see paragraph 3-6). For example, a DAS must obtain FAA approval of:
- (a) Interpretations of the airworthiness standards.
- (b) Compliance findings involving the acoustical change requirements of 14 CFR part 36 or the exhaust emissions change requirements of 14 CFR part 34.
- (c) The application of equivalent safety provisions applied under the provisions of 14 CFR part 21.
- e. DAS Responsibilities. The DAS must investigate and recommend corrective actions in accordance with 14 CFR § 21.477 for those matters identified by the FAA. Additionally, the DAS facility should take an active participation in the review of service difficulties submitted to the company and notify the FAA of any findings that required appropriate corrective action.
- (1) STC Data Files. The DAS must maintain and make available the data file as prescribed in 14 CFR § 21.493. All STC technical data files must be sent to the FAA as soon as the authorization is surrendered or terminated. In addition to the data file required by 14 CFR § 21.493, the DAS STC technical data files and amendments thereto must also contain the following:
  - (a) Program Notification.
  - (b) STC Application.
  - (c) FAA Response to Program Notification.
  - (d) Equivalent Level of Safety Findings.
  - (e) Special Conditions.
  - (f) Exemptions.
- (g) Findings of Compliance (FAA Form 8100-9).
- (h) Requests for Conformity (FAA Form 8120-10) and Statements of Conformity (FAA Form 8130-9).
- (i) Conformity Inspection Record (FAA Form 8100-1).
- (j) Authorized Release Certificates (FAA Form 8130-3) issued for conformity.

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- (k) Certification and conformity Plans.
- (1) Completed Compliance Checklist.
- (m) Type Inspection Authorization (FAA Form 8110-1).
- (n) Supplemental Type Inspection Reports (FAA Form 8110-26).
- (o) Instructions for Continued Airworthiness (ICA) and Aircraft Evaluation Group acceptance.
  - (p) Approval of test and analysis reports.
  - (q) Flight Manual approval page.
- (r) Approval of Airworthiness Limitations Section.
- (s) Approval of referenced Master Drawing List.
  - (t) STC with original signature.
- (2) Airworthiness Certification Files. The DAS must maintain copies of all airworthiness certification packages processed using the DAS authorization in accordance with Order 8130.2, Airworthiness Certification of Aircraft and Related Products.

#### 4-2. DAS AUTHORIZED FUNCTIONS.

- a. STC Guidance. The DAS must follow the procedures prescribed in the procedure manual throughout the STC process. The process and data required must comply with the requirements of 14 CFR part 21, and should comply with the procedures for supplemental type certification contained in Order 8110.4, Type Certification. The procedure manual must identify any deviations to the procedures prescribed in Order 8110.4. Advisory Circular 21-40, Application Guide for Obtaining a Supplemental Type Certificate, contains guidance on STC projects. No STC projects may be accomplished using the DAS authority without FAA review and approval of the program notification described in paragraph 4-2c(1).
- b. STC Program Considerations. The DAS authorization granted is based upon an organization's demonstrated capability to alter products and determine that alteration designs satisfy the airworthiness standards and are in a condition for safe operation.
- (1) Additional Parties Involvement. Projects that involve numerous parties in the design, manufacture of parts, etc., require additional scrutiny on the part of both the DAS staff and the managing ACO. The managing ACO should evaluate the capability of the DAS to perform such projects, considering the experience and competence

of the other parties involved, during the review of the Program Notification.

(2) Additional Knowledge. In addition to finding compliance to the airworthiness standards, the DAS is also responsible for finding that the altered product is of a proper design for safe operation. In order to determine this, the DAS must consider the product manufacturer's design philosophy, principles, and operational assumptions as applicable to the project involved. Such information may be obtained by reviewing available data such as; original type design data, type certification data sheets, flight manuals, operating procedure manuals or by past experience of the DAS staff. The DAS must also consider the actual procedures employed by the operator of the product and the impact of any alterations previously made to the product. The OMT should assess the DAS's experience and knowledge of these considerations when reviewing Program Notification Letters and determining FAA involvement.

#### c. STC Projects.

- (1) Program Notification. The DAS administrator must submit a detailed Program Notification Letter (PNL) to the OMT lead early in the project containing the information in 14 CFR § 21.463(a)(1). If the project scope or schedule is significantly revised, the DAS must resubmit the program notification and obtain concurrence from the FAA. By submitting a PNL, the DAS is attesting that they have, or can obtain, the appropriate knowledge and understanding of the product manufacturer's design philosophy, principles and operational assumptions required to determine compliance with the airworthiness standards and determine that no unsafe feature or characteristic exists in the altered product. The program notification must:
- (a) Include a certification plan that contains the information described in appendix 3. The compliance checklist in the certification plan must identify the AR responsible for finding compliance with each of the applicable regulations.
- (b) Include a conformity inspection plan per appendix 4.
- (c) Identify any novel or unusual aspects of the program including any international aspects, or foreign airworthiness authorities involved.
- (d) Identify any design changes that are considered "significant" according to the definition in Order 8100.5, Aircraft Certification Directorate Procedures.
- (e) Specify who will perform the design (excluding certification activities), if other than the DAS authorization holder, the scope of each parties'

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involvement in the design, and provide a description of how the DAS will manage the other parties activities. The DAS must ensure that all certification requirements are met and managed (e.g., periodic contact/meetings with the company performing the design work to monitor design progress, issues of concern, and proposed modifications to the design and/or schedule, etc.).

- (2) Program Notification Coordination. The OMT lead must coordinate with the OMT for review and concurrence of the original program notification, and any subsequent supplements and/or revisions. The DAS managing ACO should coordinate with the Type Certificate managing ACO as appropriate. In addition, the ACO is responsible for the normal directorate project notification requirements described in Order 8100.5. As part of the OMT review and approval of the PNL and the associated certification and conformity plans, the OMT must consider whether the DAS has, or can obtain, the appropriate knowledge and understanding of the product manufacturer's design philosophy, principles, operational assumptions, and actual operator procedures. The DAS holder must be rated appropriately to perform the alteration. The OMT must non-concur with projects they determine the DAS is not qualified to perform. The OMT lead must respond formally, in writing, within 30 calendar days of receiving the PNL. The response must address the following points:
- (a) Concurrence or non-concurrence of the proposed certification and or conformity plans.
- (b) Acceptability of the certification basis; or any limitations, conditions, or objections.
- (c) The names and other contact information of FAA engineers, manufacturing inspectors, AEG focal points, and administrative staff assigned to the project.
- (d) Identify specific FAA involvement in the project and require the DAS to provide adequate notice to the FAA of activities in which the FAA will participate. The FAA response should include direction to the ARs for approval or recommend approval on FAA Form 8100-9.
- (e) The requirement that the DAS must notify/coordinate with the OMT in a timely manner should the project's scope and/or schedule be significantly revised. Significant changes which should be reported include:
- 1 Changes in any parties involved, or the level of their involvement in the design or installation of the alteration.
- 2 Changes in the location of where the installation to support initial certification will be performed.

- 3 Any schedule changes of activities in which the FAA will participate.
  - 4 Certification methodology changes.
- 5 Any other changes deemed appropriate by the managing ACO.

**NOTE:** The OMT should determine any other types of changes that require notification, based on the DAS's capability and project types. The OMT and the DAS administrator should ensure they understand the types of schedule/project scope changes that must be reported.

- (3) FAA Participation. The FAA will participate in the determination of compliance as follows:
- (a) Make determinations in areas reserved for the FAA, such as regulatory interpretations and equivalent level of safety findings. The DAS should request concurrence on the application of all equivalent level of safety findings in writing.
- (b) Determine compliance for the emissions and noise requirements of 14 CFR parts 34 and 36.
- (c) Make determinations in areas evaluated by the AEG. These include Instructions for Continued Airworthiness, evaluation of operational suitability; changes to the Master Minimum Equipment List, Aircraft Flight Manual, Flight Crew Operating Manual; crew training, and emergency evacuation demonstrations.
- (d) Determine compliance, when necessary, in areas involving new design concepts including the identification of those areas that require the formulation of special conditions per 14 CFR § 21.101(d) and areas where the DAS has no prior experience.
- (e) Review data, tests, or technical evaluations if the DAS has not demonstrated a satisfactory capability during similar projects.
- (f) Review areas where service difficulties have surfaced from previous DAS approvals.
- (g) Participate in compliance findings in areas involving known safety related problems. For example, the ACO should review modifications affecting areas that have previously been the subject of Airworthiness Directive action to ensure that the proposed modification does not adversely affect the AD related change.

#### (4) Aircraft Evaluation Group Functions.

(a) Instructions for continued airworthiness (ICA) shall be prepared and/or identified for all STC projects and coordinated through the OMT

lead. Development and acceptability of ICA may require early coordination.

- (b) Aircraft Evaluation Group determinations of operational suitability, Master Minimum Equipment List revisions, crew training, etc., are not delegated to the DAS. The managing ACO must coordinate with the appropriate AEG to ensure that all program requirements are satisfied.
- (5) Engineering Approval. Engineering and flight test ARs within the DAS are responsible for determining and documenting compliance to the airworthiness standards as required by the certification basis. The DAS must use FAA forms wherever possible unless the ACO approves alternatives through the procedure manual. The DAS engineering and/or flight test ARs are responsible for completing the following records, as applicable, to document compliance:
- (a) FAA Form 8100-9, as shown in appendix 1, figure 7, must be used for compliance findings.
- I ARs must note on the FAA Form 8100-9 that the data approval is in support of a DAS project and is not a DER data approval.
- 2 ARs should "recommend" approval on the FAA Form 8100-9 for compliance findings in any areas defined in paragraph 4-2c(3).
- (b) FAA Form 8120-10, Request for Conformity.
- (c) FAA Form 8110-1, Type Inspection Authorization.
- (d) Supplemental Type Inspection Report part II (flight test).
- (e) FAA approved Aircraft Flight Manual Supplement.
- and Airworthiness (6) Conformity Inspection ARs are responsible for Inspections. conducting and documenting inspections for the purposes of determining conformity to the design and establishing the airworthiness of the altered product. The conformity inspections are to be conducted in accordance with An FAA Form 8130-9, Statement of Order 8110.4. Conformity, must be completed and signed prior to the AR making final conformity findings for the article in question. The statement of conformity must be signed by the party responsible for the fabrication/assembly of the article, not the AR making the conformity determination. FAA forms must be used unless alternatives are approved

through the procedure manual. Unsatisfactory conditions and/or deviations must be resolved and/or approved by Engineering ARs prior to test accomplishment. Prior to any compliance inspection or test, the DAS inspection ARs are responsible for the following records, as applicable, to document conformity with the type design of the end product, in-process parts, and test articles:

- (a) Conformity Inspection Reports, including;
- I FAA Form 8120-10, Request for Conformity.
- **2** FAA Form 8100-1, Conformity Inspection Record.
- 3 FAA Form 8130-9, Statement of Conformity.
- 4 FAA Form 8130-3, Authorized Release Certificate (for conformity).
- (b) FAA Form 8110-26, Supplemental Type Inspection Report (Part I).

#### (7) Issuing Supplemental Type Certificates.

- (a) General. The procedures of Order 8110.4 should be used for the completion and issuance of FAA Form 8110-2, Supplemental Type Certificate. The name on the STC should be the same as on their Air Carrier, Repair Station, or other certificate which is the basis for their DAS authorization, not the DAS authorization number or name if one exists. The DAS signature authority for STCs must be specified in the procedure manual. The STC may be issued after all documentation, inspections, and tests have been completed.
- (b) Numbers. The ACO will issue STC numbers on either a project-by-project basis or as a block of numbers for the DAS's use. The numbers will be issued in accordance with FAA Order 8110.4. Each STC issued by a DAS will have a "-D" placed after the STC number. For example, SA00125AT-D would be the 125th STC issued by the Atlanta ACO on a small airplane and issued by a DAS. The ACO must include DAS-issued STCs in their monthly reports for the STC summary as described in Order 8110.4.
- (8) Post Certification Data Submittal. The DAS must submit the data required by 14 CFR § 21.463(b) to the ACO within 30 days after the date of issue of the STC. The procedure manual must identify any data storage arrangements. The ACO must maintain STC project files containing as a minimum:
  - (a) Copy of all applicable correspondence.

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- (b) The program notification.
- (c) FAA response to the program notification.
  - (d) Copy of the STC.
- (9) Transfer of STCs. Only the FAA may transfer an STC. A DAS may not transfer an STC by reissuing in another party's name. A DAS holder who wishes to transfer an STC to another party must follow the standard procedures for transfer of a type certificate contained in 14 CFR § 21.47 and Order 8110.4.
- (10) Amendment of Existing STCs. All STC amendments issued by the DAS require submittal of a program notification. Any amendment to an STC must be coordinated with the ACO prior to its issuance. When amending an STC originally issued by the FAA, the DAS shall include the "-D" designation in the STC number.
- d. Airworthiness Certification. Airworthiness certification procedures shall be prescribed in the procedure manual and comply with the requirements of Order 8130.2. The DAS may use the airworthiness certification procedures contained in Order 8130.29, Issuance of a Special Airworthiness Certificate for Show Compliance Flight Testing.
- (1) Application for Airworthiness Certificate. An FAA Form 8130-6, Application for Airworthiness Certificate, must be completed for all airworthiness certificates issued or amended by the DAS. The registered owner of the aircraft in question or their designated agent must sign the application. If acting as the owner's agent, the DAS must have a notarized written authorization from the owner. The application must be signed by someone other than the AR inspecting and issuing the airworthiness certificate.
- (2) Special Airworthiness Certificates. The DAS may only issue an FAA Form 8130-7, Special Airworthiness Certificate, in the experimental category for the purpose of showing compliance with the airworthiness standards for aircraft it has modified. Before issuing the certificate, the original airworthiness certificate shall be surrendered and the DAS must obtain MIDO approval of the limitations and conditions necessary for safety. The DAS must send the FAA Form 8130-6, Application for Airworthiness Certificate, the original airworthiness certificate, and a copy of the FAA Form 8130-7 to the MIDO for processing in accordance with Order 8130.2.
- (3) Amended Standard Certificates. If the airworthiness certification procedures in Order 8130.29 are not used; after showing compliance to the regulations, conformity to the approved type design, satisfactory completion of all required ground inspections, and determining the aircraft is in condition for safe operation,

- the DAS may issue an amended standard airworthiness certificate (FAA Form 8100-2) for aircraft which they have previously issued an experimental certificate. Upon issuance, the FAA Form 8130-6, the existing experimental certificate, and a copy of the new airworthiness certificate must be sent to the MIDO for processing in accordance with Order 8130.2. The MIDO must forward the original airworthiness certification package including the application, supporting documentation, and the certificate to the Aircraft Registration Branch, AFS-750.
- e. Off Site Activities. A DAS project frequently involves aircraft modification off site, i.e., any location other than the FAA-approved DAS facility. Off site activities may only be performed by the DAS as authorized by the managing ACO and MIDO. This is limited to projects in which the following conditions are met:
  - **NOTE:** A DAS operating off site does not mean its authority or product line has been expanded. As with any delegation, the FAA must properly oversee and manage those DAS functions that are performed off site.
- (1) The DAS procedure manual must contain procedures for working DAS projects at a location other then the DAS. The DAS must provide quality inspection oversight of the work performed at off site facilities for the duration of the project.
- (2) Off site activities must take place at an FAA certified repair station with a rating appropriate to the work being performed and within the DAS limitations. The ACO will contact the cognizant FSDO to ensure the repair station has the capability to perform the work outlined in the program notification. Work in foreign repair stations requires specific ACO approval. The DAS should work with their controlling ACO to obtain the latest written guidance prior to any activities. If foreign repair stations are to be used for multiple STC installations, then a production approval for parts manufacturing is required. Such approvals are not granted outside the U.S.
- (3) The FAA does not issue STCs to applicants located outside the U.S. However, prototype installations may be performed at locations outside the U.S. Such installations require the managing ACO to assess the burden that might be created in overseeing the installation. Therefore, for any STC program which is proposed for accomplishment at a foreign repair station, the applicant must provide sufficient details for the ACO to describe how the resources of the FAA would be used to administer its regulatory requirements.
- (4) The DAS must have an internal auditing system in place to assure that the procedures approved for the DAS, both on and off site, are in compliance with the

applicable regulations. Since the FAA-certified repair station is governed by 14 CFR part 145, the rating and integrity of the repair station are already established. However, the repair station should also pursue FAA parts manufacturer approval when necessary.

- (5) A program notification will be written and submitted to the FAA per the procedure manual containing the following additional information:
- (a) A statement that this STC project will be accomplished in accordance with the FAA-approved DAS manual.
- (b) Identify the location and rating of the facility (repair station, commercial operator, manufacturer) where the actual modification will take place and any specific unique features of the test airplane's registration, etc. Work done at repair stations is limited to repair stations with a rating appropriate to the work being performed and within the DAS limitations.
- (c) Identify which DAS ARs will be utilized.
- (6) DAS Off site Inspection Procedures are conducted in accordance with the approved manual with the following revisions:
- (a) The DAS must notify their managing office prior to performing any DAS function in a foreign country.
- (b) If work is proposed to be performed in a foreign country, the ACO managing office will ensure proper policy and guidelines are followed. Should the Civil Aviation Authority (CAA) of a foreign country with which a Bilateral Agreement exists restrict the use of DAS personnel, then the managing ACO will coordinate the necessary support through the CAA.
- (7) If airworthiness certification activity will occur outside the managing MIDO's geographical area, the DAS must notify the managing MIDO by submitting to them an FAA Form 8130-13, Designee Geographic Expansion Authorization. The MIDO will authorize the request by endorsing the FAA Form 8130-13, and provide a copy to the AR and the geographical FAA office where the activity will occur. The MIDO will provide any additional instruction to the ARs involved.
- f. DAS Projects Involving Foreign-Registered Aircraft or Import Products. A DAS should notify their managing ACO as soon as possible when considering such projects in order to minimize delays.
- (1) Foreign-Registered Aircraft. The FAA may authorize a DAS to develop or amend an STC by using aircraft registered in another country. When the

United States is not the state of registry for an aircraft involved in an alteration, the ACO must notify the Civil Aviation Authority (CAA) of the state of registry of the proposed alteration and invite their participation in the certification project. The ACO must obtain written authorization from the CAA stating that it has no objections to the alteration or the use of a DAS to make compliance findings on the project. It is possible that a foreign registered aircraft might not be in its FAAapproved type design configuration. If a foreign registered aircraft is being used as a test article to substantiate the alteration, the DAS must ensure that the aircraft conforms to an FAA approved type design for those areas affected by the STCs. Therefore, the DAS is responsible for reviewing the aircraft for the presence of other alterations and ensuring its overall condition for safe operation. Based on the DAS determination, the ACO may concur that the configuration of the aircraft is acceptable for evaluation of the proposed modification. A DAS will not be able to issue an experimental airworthiness certificate for flight testing on a foreign-registered aircraft as this can only be done by the country of registry. The foreign CAA must be asked if they will issue a "special" airworthiness certificate for flight testing in the altered condition.

- NOTE: Order 8130.2, Chapter 7, and 14 CFR part 91, § 91.715 provides guidance for the FAA (not designees) to issue special flight authorizations (SFAs) for foreign-registered aircraft that do not have a valid standard airworthiness certificate and that will be operated in US airspace. The requirement for a SFA applies if the aircraft has either a "special" airworthiness certificate from the CAA of the country of registry or has no valid airworthiness certificate. Only standard airworthiness certificates issued by International Civil Aviation Organization member states meet International Civil Aviation Organization Annex 8 requirements.
- (2) Import Products. Proposed STCs to import products may require consultation with the foreign CAA. The ACO should determine if the proposed STC requires consultation with the foreign CAA and coordinate the project with the DAS. See appropriate section(s) of 14 CFR part 21 and AC 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported into the United States, for more information concerning import products.
- **4-3. DAS PROCEDURE MANUAL REQUIREMENTS.** In addition to the requirements of appendix 2, the DAS procedure manual must address the following elements in the Procedures section of the DAS procedure manual:
- **a. Project Initiation.** The procedures the DAS will follow to initiate a DAS STC program.

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**b. FAA Notification.** The procedures the DAS will follow for the submittal of the PNL. The PNL must contain certification and conformity plans as described in appendix 3 and 4.

- c. Development and Content of the Data The data package should include (as Package. Certification plan, applicable): conformity other Top/Master Drawing List and drawings, specifications, technical reports, electrical load analysis, stress analysis, test plans and reports, type inspection authorization. type inspection report, equipment qualification plans and reports, instructions for Continued Airworthiness, and Flight Manual Supplements. The DAS ARs will review the data package and upon finding that the data is sufficient to show compliance with the applicable airworthiness requirements will approve the data. The procedures should denote what portions of the data package the DAS must submit to the FAA ACO along with the STC, AFMS, and Airworthiness Limitations Sections (if applicable).
- d. Production & Installation. The installation and part production (or test) conformity procedures should address how the conformity will be requested, tracked, documented, and performed; how deviations will be addressed and resolved; how to coordinate the conformity with the FAA (if necessary); and the need for a post-test conformity. Concerning procedures for a type inspection authorization (TIA), the DAS should prepare the TIA and any revisions to the TIA should be utilized if the initial issue is incomplete. The TIA should identify conformity requirements, authorized flight tests, special limitations deemed appropriate for test articles and a formal assessment of the risks associated with the flight tests.

**NOTE:** The DAS holder may only produce parts for the prototype installation. Further production would require the DAS holder to obtain an FAA parts manufacturer approval.

- e. Special Airworthiness Certificates. The procedures must denote that only DAS AR personnel identified in the manual may issue Special Airworthiness Certificates in the experimental category for show compliance flight tests. Before issuing the experimental certificate, the DAS will obtain from the FAA any limitations and conditions the FAA considers necessary for safety. The DAS should recommend limitations and conditions, if necessary, in the program notification to the FAA.
  - NOTE: Issuance of Special Airworthiness Certificates in the experimental category for Research and Development (R&D), must be issued by a DAR or the MIDO for any company flight tests.
- f. Aircraft Ground Evaluation. The DAS procedures for conducting aircraft ground evaluations

including compliance inspections can state that this be performed as authorized in the TIA.

- g. Aircraft Pre-Flight Inspection. The DAS procedures for conducting aircraft pre-flight inspections can state that this be performed as authorized in the TIA.
- h. Risk Assessment. The DAS procedures for meeting the requirements of Order 4040.26, Aircraft Certification Service Flight Safety Program.
- i. Aircraft Flight Evaluation. The DAS procedures for conducting aircraft flight evaluations can state that this be performed as authorized in the TIA. The DAS must alert the FAA flight test personnel of the flight timeframes as soon as possible when the FAA has requested to also participate in the evaluations.
- j. Aircraft Flight Manual Supplement (AFMS) Approval. The procedure must state that the appropriate DAS AR personnel must prepare and sign the AFMS. The FAA ACO will function as the primary contact for AFMS.
- k. Issuance of Supplemental Type Certificate (STC). The procedure must state that the appropriate DAS personnel prepare and sign the STC. Define a process by which the DAS will determine that all documentation, inspections, and tests have been completed prior to issuing the STC. This must address any Airworthiness Limitations section and the ICAs. The procedure should also state that a PMA cannot be issued on an STC which carries a "one-time only" limitation. The applicant would have to reapply for a new STC for a multiple approval before a PMA could be considered.
- l. Issuance of the Amended Standard Airworthiness Certificate. The procedures must denote that only DAS AR personnel identified in the manual may issue an amended standard airworthiness certificate and how this will comply with Subpart H of 14 CFR part 21 and 14 CFR § 21.473.

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#### CHAPTER 5. DELEGATION OPTION AUTHORIZATION

- **5-1. GENERAL.** This chapter provides information and guidance concerning the authority and procedures of those organizations holding a Delegation Option Authorization (DOA).
- a. Eligibility. Each DOA holder is required by 14 CFR § 21.239 to be the holder of a current type and production certificate for a product certificated under the same part as the products for which a DOA is sought. These certificates must have been issued using the standard procedures in 14 CFR part 21. The DOA must employ a staff of engineering, flight test, production, and inspection personnel who can determine compliance with the requirements of 14 CFR chapter one and meet the requirements of 14 CFR part 21, subpart J.
- b. DOA Authority. The DOA allows the holder to use FAA-approved procedures for the purposes of type, production, and airworthiness certification; approve major alterations; and approve data for major repairs. DOA procedures may be used for only the types of products described in 14 CFR § 21.231(a)(1-6). DOA authority may also be used to execute FAA Form 337, Major Repair and Alteration, in accordance with 14 CFR § 21.289.
  - **NOTE:** The reference in 14CFR § 21.231(a)(6) to paragraph (a)(4) was inadvertently not updated by Amendment 21-59, which added 14 CFR § 21.231(a)(2). The correct reference is (a)(5).
- (1) **Type Certification.** DOA procedures allow the holder to make findings of compliance and conformity for new certification projects, amendments to an existing type certificates, and type design changes.
- (2) Production Certification. The DOA holder may make findings leading to the amendment of existing production certificates to include additional models or types for which they hold or obtain a type certificate on the production limitation record (PLR).
- (3) Airworthiness Certification. The DOA holder may issue airworthiness certificates and approvals in accordance with 14 CFR § 21.251.
- (4) Major Repairs, Rebuilding and Alterations. The DOA may execute the FAA Form 337 and make required log book entries in accordance with 14 CFR § 21.289. (See paragraph 5-2f.)
- (5) Limitations. The FAA may impose any limitations that may be necessary, taking into account the DOA staffing and facilities. Approval of test plans is one area where the OMT may decide to retain authority, requiring them to be submitted for approval by the ACO.

The OMT should carefully evaluate the DOA's capability and experience prior to delegating the approval of test plans to the DOA holder. Additionally, the FAA will not those functions which delegate are inherently governmental (see paragraph 3-6). These include, but may not be limited to: issuance of an exemption, determining equivalent level of safety, establishing the certification basis or special conditions, and establishing a means of compliance not previously accepted by the FAA. The DOA holder must obtain concurrence from the ACO on the application of all equivalent safety provisions applied under 14 CFR part 21 subpart B. In addition, the DOA may not approve data involving the exhaust emissions change requirements of 14 CFR part 34 or the acoustical The Noise change requirements of 14 CFR part 36. Control Act of 1972 is not delegated to DOA organizations. The FAA retains the authority to find compliance with those requirements.

(6) Finding Compliance with Foreign Regulations. The ACO may authorize a DOA to make compliance findings to specific foreign regulations delegated to the FAA by a foreign CAA. This can be done in accordance with Implementation Procedures for under a Bilateral Aviation Safety Airworthiness Agreement or some other written FAA-approved arrangement with that country (after consultation with AIR-4, AIR-100, and AIR-200). The DOA will provide the original FAA Forms 8100-9 to the project ACO. The substantiating data must be provided to the project ACO if the "Recommend Approval" block is checked. substantiating data must be made available to the project ACO if the "Approval" block is checked. The project ACO will transmit FAA approval to the foreign CAA.

#### c. DOA Responsibilities.

(1) Service Difficulties. The DOA must investigate and recommend corrective actions in accordance with 14 CFR § 21.277 those matters identified by the FAA. Additionally, the DOA facility should take an active participation in the review of service difficulties submitted to the company and notify the FAA of any findings that require corrective action.

#### (2) Records.

- (a) Data Files. The DOA holder must maintain the records required by 14 CFR § 21.293. These records must be made available to the FAA at any time and provided to the FAA as soon as the manufacturer no longer operates under the DOA.
- (b) Airworthiness Certification Files. The DOA holder must maintain copies of all airworthiness

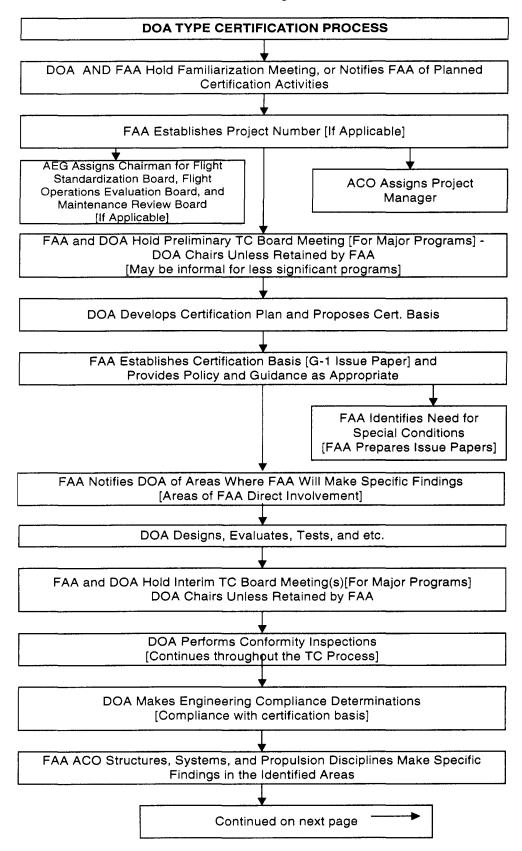
certification packages processed using the DOA in accordance with Order 8130.2.

5-2. DOA AUTHORIZED FUNCTIONS. The DOA holder must follow the procedures prescribed in the procedure manual throughout all certification efforts performed using the DOA. The processes and data generated must comply with the requirements of 14 CFR part 21 and the applicable environmental and airworthiness standards, and should comply with the guidance in all applicable FAA directives. If project requirements necessitate deviation from the procedure manual, the DOA holder must obtain approval from the FAA prior to implementation. AEG responsibilities, during the type certification project, are not delegated to the DOA and must be coordinated with the appropriate AEG by the ACO. Order 8430.21, Flight Standards Division, Aircraft Certification Division, and Aircraft Evaluation Group Responsibilities, describes AEG involvement during type and airworthiness certification projects.

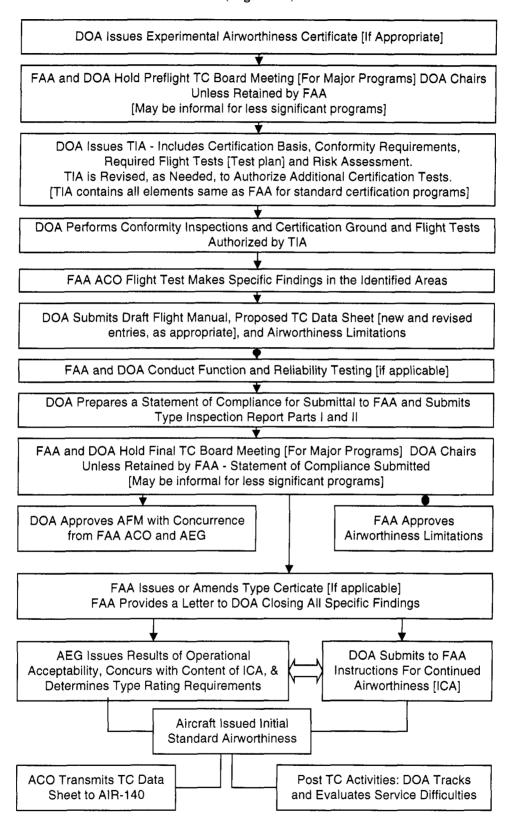
a. Type Certification Programs. The certification process used by the DOA holder is essentially equivalent to that used by the FAA for standard certification programs. Figure 5-1, DOA Type Certification Process, illustrates the general order of certification events.

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FIGURE 5-1. DOA Type Certification Process (Page 1 of 2)



## FIGURE 5-1. DOA Type Certification Process (Page 2 of 2)



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- (1) Program Notification. The DOA must notify and make application to the ACO for each new aircraft, aircraft engine, propeller, or amended type certificate. The DOA procedure manual must prescribe the criteria to determine when notification to the FAA is required for major type design changes. The DOA must submit a proposed certification plan and conformity plan, in accordance with Appendices 3 and 4, to the ACO along with the application for type certificate and proposed The compliance checklist in the certification basis. certification plan must identify the AR responsible for finding compliance with each of the applicable regulations. For minor changes to existing products, the DOA may conduct certification activities within the limits of their authority without notification to the FAA.
- (2) FAA Coordination. Upon receipt of the application and certification and conformity plans, the OMT lead must coordinate the certification and conformity plan with the responsible OMT members. The OMT members will determine their involvement in the program. The OMT lead will notify the DOA. The FAA response should include direction to the ARs for approval or recommend approval on FAA Form 8100-9 for specific findings. In addition, the ACO is responsible for the normal directorate project notification requirements described in Order 8100.5.
- (3) Specific Findings of Compliance. After review and coordination of the proposed certification plan, the ACO must communicate in writing to the applicant, any areas where the FAA will participate by making specific findings of compliance. The FAA will make specific findings of compliance prior to type certification for at least the following areas:
- (a) Amendments to the Regulations. Regulatory changes critical to safety with which the manufacturer does not have certification experience.
- (b) Policy and Procedure Changes. Policy or procedural changes have been made since the manufacturer's last type certification program.
- (c) Service Difficulty. Areas where the manufacturer has had service problems.
- (d) New Design Concepts. Any areas in which the manufacturer has no previous experience.
- (e) Design Areas Critical to Safety. The FAA will review and/or participate in findings of compliance in those design areas critical to safety based on the FAA's overall knowledge of the manufacturer's technical expertise.
- (f) Flight Testing of Critical Areas. The FAA will conduct or monitor test(s) of the aircraft's flight,

- ground, and water characteristics critical to safety, and determine that there are no unsafe characteristics. If review of the DOA manufacturer's flight test program indicates the need for further tests, the FAA will prescribe any additional testing deemed necessary.
- (g) AEG Functions. The AEG will make determinations in areas reserved for the AEG in Order 8110.4. These include Instructions for Continued Airworthiness, evaluation of operational suitability, changes to the Master Minimum Equipment List, Aircraft Flight Manual, Flight Crew Operating Manual; crew training, and emergency evacuation demonstrations.
- (4) Type Certificate Board Meetings. As applicable, Type Certificate (TC) Board meetings will be held in accordance with Order 8110.4 and Order 8430.21. The DOA administrator will chair preliminary, interim, pre-flight and final TC Board meetings on major programs and any other meetings necessary to accomplish the objectives referred to in these procedures. The DOA holder must coordinate scheduling of the meetings with the FAA. During the meetings the FAA will:
- (a) Establish and approve the applicable certification basis.
- (b) Identify areas requiring formulation of special conditions.
- (c) Provide special attention, information, and guidance resulting from new design concepts, service difficulties, FAA policy, and current state-of-the-art considerations.
- (d) Establish those areas of the TC program where the FAA will make specific findings, i.e., compliance findings, conformity, airworthiness certification, ICA, and MMEL.
- (e) Coordinate program scheduling to the degree necessary to accomplish the required FAA participation.
- (f) Establish that areas requiring FAA participation have been satisfactorily completed.
- (g) Review the certification and conformity plans.
- (h) Review applicable noise and emission requirements and establish the nature and extent of tests and substantiation expected from the manufacturer.
- (5) Compliance with Airworthiness Standards. Engineering and flight test ARs within the DOA are responsible for findings of compliance to the airworthiness standards required by the certification basis. The procedure manual must contain the specific forms and

procedures used to determine and document compliance. The DOA must use FAA forms wherever possible unless the FAA approves alternatives through the procedure manual. Engineering and/or flight test ARs must approve the following records, as applicable, to document compliance.

- (a) FAA Form 8100-9, as shown in appendix 1, figure 8 must be used for compliance findings. ARs must note on the FAA Form 8100-9 that the data approval is in support of a DOA project and is not a DER data approval.
- (b) FAA Form 8120-10, Request for Conformity.
- (c) FAA Form 8110-1, Type Inspection Authorization.
- $(\mathbf{d})$  Type Inspection Report part II. (flight test).
- (e) Aircraft Flight Manual/Supplement, as required.
- (6) Compliance Findings for Equivalent Safety Provisions. After the FAA defines the equivalent safety provisions, engineering and flight test ARs are responsible for determining compliance. The DOA must submit equivalent safety finding results in writing to the ACO for concurrence.
- (7) Conformity. Inspection ARs are responsible for conducting and documenting inspections for the purposes of finding conformity to the design and establishing the airworthiness of the product. The conformity inspections are to be conducted in accordance with Order 8110.4. An FAA Form 8130-9, Statement of Conformity, must be completed in accordance with 14 CFR § 21.33 and § 21.53 prior to the AR making conformity findings for the article in question. statement of conformity must be signed by someone authorized by the DOA holder. The AR making the conformity determination may not sign it. The procedure manual must identify the specific forms and procedures used to document inspection results contained in Order 8110.4. Unsatisfactory conditions and/or deviations must be resolved and/or approved by Engineering ARs prior to test accomplishment. Prior to any compliance inspection or test, the inspection ARs must complete the following records (as applicable) to document conformity with the type design of the end product, in-process parts, and test articles:
- (a) Conformity Inspection Reports, including;
- I FAA Form 8120-10, Request for Conformity.

2 FAA Form 8100-1, Conformity Inspection Record.

- 3 FAA Form 8130-9, Statement of Conformity.
- 4 FAA Form 8130-3, Authorized Release Certificate (for conformity).
- (b) FAA Form 8110-4, 5, 6, 7, and 8, Type Inspection Report (Part I).
- (8) Airworthiness Inspections. Airworthiness ARs are responsible for conducting and documenting airworthiness inspections in order to issue experimental airworthiness certificates required as part of the type certification program. The procedure manual must identify the applicable airworthiness inspections contained in Order 8130.2. The airworthiness AR must review and complete the following records, as applicable, to document the airworthiness inspection of the test aircraft or the end product. In addition, the AR shall submit to the MIDO for approval the experimental operating limitations prior to the issuance of an experimental airworthiness certificate.
- (a) FAA Form 8100-1, Conformity Inspection Record.
- (b) FAA Form 8130-6, Application for Airworthiness Certificate.
- (c) FAA Form 8130-7, Special Airworthiness Certificate.

#### (9) AEG Functions.

- (a) Instructions for Continued Airworthiness (ICA) shall be prepared and coordinated through the OMT lead. Development and acceptability of ICA may require early coordination.
- (b) AEG determinations of operational suitability, Master Minimum Equipment List revisions, crew training, etc., are not delegated to the DOA. The managing ACO must coordinate with the appropriate AEG to ensure that all program requirements are satisfied.

#### (10) Type Certificate Issuance.

- (a) Data Submittal. After determining compliance with the airworthiness standards, the DOA holder must submit the following in accordance with 14 CFR § 21.253:
- I Statement certifying that the design article satisfies the airworthiness standards.
- 2 Statement certifying that the data required by 14 CFR § 21.293(a)(1)(i) has been placed in the data file.

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- 3 A proposed type certificate data sheet
- 4 The information necessary for safe operation of the product; flight manual, ICA, etc.
- (b) FAA Actions. After receipt of the TC data package specified above, the ACO shall perform the following:
  - 1 Review the submitted data package.
- 2 Verify that all FAA specific findings have been satisfactorily completed.
- 3 Notify the MIDO, AEG, and DOA holder of concurrence or non-concurrence.
- **4** Approve the Airworthiness Limitations.
- 5 Issue the TC and type certificate data sheet in accordance with Order 8110.4.
- DOA Projects Involving Foreign Registered Aircraft. A DOA may be authorized to amend a TC by using aircraft registered in another country. TC amendment projects which modify foreign registered aircraft have special requirements which must be considered. The DOA should notify their managing ACO as soon as possible when considering such projects in order to minimize delays in the project. When the United States is not the state of registry for an aircraft involved in a modification, the ACO must notify the Civil Aviation Authority (CAA) of the state of registry of the proposed modification and invite their participation in the certification project. The ACO must obtain written authorization from the CAA stating that it has no objections to the modification or the use of a DOA holder to make compliance findings on the project. It is possible that a foreign-registered aircraft might not be in its FAAapproved type design configuration. If a foreign registered aircraft is being used as a test article to substantiate the alteration, the DOA must ensure that the aircraft conforms to an FAA-approved type design. Therefore, the DOA is responsible for reviewing the aircraft for the presence of other alterations and ensuring its overall condition for safe operation. Based on DOA determination, the ACO may concur the configuration of the aircraft is acceptable for evaluation of the proposed modification. A DOA will not be able to issue an experimental airworthiness certificate for flight testing on a foreign registered aircraft. 14 CFR §91.715 and Order 8130.2 Chapter 7, provide guidance on the issuance of Special Flight Authorizations for foreign-registered aircraft.
- b. Post TC Airworthiness Certification. Upon finding conformity to an approved type design and condition for safe operation, the DOA holder may issue

- airworthiness certificates in accordance with 14 CFR part 21 subpart J and Order 8130,2. An FAA Form 8130-6, Application for Airworthiness Certificate, must be completed for all airworthiness certificates issued by the DOA holder. An FAA Form 8130-9, Statement of Conformity, must be completed for aircraft which are not produced under the provisions of a production certificate. The statement of conformity must be completed prior to the AR making airworthiness findings for the aircraft in question. Someone other than the AR making the airworthiness determination, who is authorized by the DOA holder, must sign the statement of conformity. The DOA holder must send the airworthiness certification data packages required by Order 8130.2 to the MIDO for processing. The MIDO must forward the airworthiness certification records to AFS-750, Aircraft Registration Branch, in accordance with Order 8130.2. airworthiness AR must review and complete the following records, as applicable, to document the airworthiness inspection of the product:
- (1) FAA Form 8100-1, Conformity Inspection Record.
- (2) FAA Form 8100-2, Standard Airworthiness Certificate.
- (3) FAA Form 8130-3, Authorized Release Certificate (for aircraft engines and propellers).
- (4) FAA Form 8130-6, Application for Airworthiness Certificate.
- (5) FAA Form 8130-7, Special Airworthiness Certificate (for restricted category).
- c. Airworthiness Approvals. The DOA holder may issue FAA Form 8130-3, Authorized Release Certificate, in accordance with 14 CFR § 21.271 and Orders 8130.2 and 8130.21; Procedures for Completion and use of the Authorized Release Certificate, FAA Form 8130-3, Airworthiness Approval Tag.
- **d. Export.** The DOA holder may issue export airworthiness approvals in accordance with 14 CFR § 21.269 and part 21, subpart L.
- e. Production Certificate Changes. The DOA holder notifies the MIDO to have a new model or its new type certificate number added to the production certificate. The DOA must determine that the production certification requirements of 14 CFR part 21 subpart G, with respect to the new model or type are met and submit a statement certifying that this determination has been made along with identifying the type certificate number under which the product is being manufactured. In accordance with FAA Order 8120.2, the MIDO will add the new model or new type certificate number to the PLR after determining the DOA holder complied with 14 CFR § 21.267.

- Major Repairs and Major Alterations. The DOA holder may approve major repair and major alteration data for types covered by the DOA. The procedure manual must identify employees authorized and qualified by 14 CFR parts 43 and 65 to sign the FAA Form 337. Those authorized must inspect or be in direct charge of inspecting the repair, rebuilding, or alteration. Under the provisions of 14 CFR § 43.3(j), manufacturers may rebuild, alter, and inspect their own aircraft in accordance with the requirements of 14 CFR part 91 or 145. The DOA may only make a finding, after a major repair has been accomplished by appropriately-authorized persons, that the major repair has been accomplished in accordance with data approved under the DOA utilizing appropriately authorized persons. After making that finding, the DOA may execute an FAA Form 337 and approve the aircraft, aircraft engine, or propeller, for return to service.
- **5-3. DOA PROCEDURE MANUAL REQUIREMENTS.** In addition to the requirements of Appendix 2, the DOA procedure manual must address the following elements in the "Procedures" section of the DOA procedure manual:
- Certification Procedures. a. Type These procedures are also applicable to the development of amended type certificates, repairs, and type design changes. The DOA organization is responsible to utilize certification procedures that are equivalent to those which would be used by the FAA for standard certification The DOA has some flexibility in the programs. certification processes in that development of some portions of a product may be concurrent with certification activities on other portions. This DOA procedure manual must contain the detailed processes and procedures to be followed in order to ensure that compliance determinations have been appropriately dispositioned. Tests of conformed systems and equipment must not be adversely affected by other test article configurations that are not in final configuration or otherwise not conformed to type design. For each new or changed aviation product, the DOA organization is responsible to use procedures defined in FAA Order 8110.4.
- b. Program Notification Submittal. The DOA should notify and make application to the FAA for each new aircraft product. For changes to existing aviation products, the DOA should evaluate the extent of the changes. The DOA may be authorized to conduct certification activities within the limits of their authority without prior notification to the FAA if a procedure has been developed and FAA approved. For all other programs, the DOA administrator should report planned certification programs to the FAA. The DOA procedure manual should contain sufficient information to define these various types of programs and when there is a

- requirement to provide formal notification to the FAA. The DOA will make formal application (FAA Form 8110-12) to FAA on all programs that will result in a new model designation.
- c. Familiarization Meeting. The DOA should hold a familiarization meeting for each new type certificate, amended type certificate and significant type design change, in accordance with procedures established in the approved procedure manual. The DOA administrator is normally responsible for chairing the meeting and providing meeting minutes to the FAA. FAA participation in these meetings is optional and the FAA has the option to chair the meeting. The DOA is responsible for providing adequate notification to the FAA. Familiarization meetings are normally held very soon after the formal notification to the FAA.
- d. Preliminary Type Certification **Board** Meeting. The DOA should hold a Preliminary Type Certification Board Meeting for each new type certificate, amended type certificate and significant type design change, in accordance with the procedures established in the approved procedure manual. The DOA administrator is normally responsible for chairing the meeting and providing meeting minutes to the FAA. FAA participation in these meetings is optional and the FAA may elect to chair the meeting. The DOA administrator is responsible for providing adequate notification to the FAA. The FAA will participate at least to the extent necessary to establish the certification basis for the product. The procedure manual should address these considerations.
- e. DOA Certification Plan and Proposed Certification Basis. The DOA is expected to prepare a certification and conformity plan in accordance with established guidelines of Order 8110.4. The DOA is responsible for proposing a certification basis that adheres to FAA policy and guidance for new and changed aviation products. The DOA should be prepared to submit these items at the Preliminary Type Certification Board Meeting. When necessary, the FAA will utilize issue papers to establish the certification basis. The procedure manual should address these considerations. The FAA establishes the certification basis by means of an issue paper (if applicable). When it is necessary to establish a certification basis, the FAA will utilize issue papers as the appropriate means for coordination and documentation. The DOA administrator is responsible to cooperate with the FAA in this process and provide a company position when requested. The procedure manual should establish the procedures necessary to accomplish these actions.
- f. Coordination of Issue Papers. When necessary, the FAA will develop issue papers as a means of resolution of certification issues. The DOA administrator is responsible to cooperate with the FAA in this process and provide a company position when requested. The

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procedure manual should establish the procedures necessary to accomplish these actions.

- g. Specific Findings. The FAA will provide notification to the DOA of areas where specific findings will be made. Based on the information received at the Familiarization Meeting and Preliminary Type Certification Board Meeting, the FAA will provide formal notification of each area where direct participation is The level of participation depends on the complexity of the product, DOA and/or FAA previous experience in similar certification activities, service experience and problems on similar products, or for any other reason. The DOA is responsible for cooperating and assisting the FAA in making these specific findings. The procedure manual should explain how the DOA is to accomplish and handle these activities.
- h. Compliance Determinations. The DOA makes engineering compliance determinations in accordance with the FAA certification basis. Once the certification basis has been established and FAA specific findings are identified, the DOA may begin the process of making engineering compliance determinations. The DOA is responsible to provide notification to the FAA with sufficient notice whenever FAA is to be involved. The procedures to be used for compliance determinations should be essentially the same as if the FAA were conducting a standard certification program. The processes and procedures to be utilized should be explained in the procedure manual.
- i. Experimental Airworthiness Certification. The processes and procedures to be utilized should be explained in the procedure manual and meet the requirements of Order 8130.2.
- j. Type Inspection Authorization (TIA). The DOA should prepare the TIA so that it may be formally issued at the Preflight Type Certification Board Meeting. Revisions should be utilized if the initial issue is incomplete. The TIA should identify conformity requirements, authorized flight tests, special limitations deemed appropriate for test articles and a formal assessment of the risks associated with the flight tests. The processes and procedures to be utilized should be explained in the procedure manual.
- k. Certification tests other than flight test. Define the procedures for conducting inspections and testing.
- I. Risk Assessment. The DOA procedures for meeting the requirements of Order 4040.26, Aircraft Certification Service Flight Safety Program.
- m. Other Type Certification Board Meeting. The DOA should hold a Preflight and/or Interim Type Certification Board Meetings per FAA Order 8110.4.

- n. Certification Flight Testing. The DOA performs certification flight tests as authorized by the TIA. The processes and procedures to be utilized should be explained in the procedure manual.
- o. Submittal of AFM, Proposed Type Certificate Data Sheet (TCDS), Noise, and Emission Data if Applicable, and Airworthiness Limitations. The AFM, if required, will be submitted to the FAA for review. The FAA ACO will function as the primary contact for AFM submittals and will accomplish coordination with the FAA Aircraft Evaluation Group, when necessary. The DOA will submit proposed TCDS entries to the FAA ACO. The FAA is responsible for coordination and preparation. The DOA is responsible to submit the initial Airworthiness Limitations to the FAA ACO for review and approval. The FAA retains authority for approval of these limitations. The DOA may approve subsequent revisions to the Airworthiness Limitations if the procedures for this approval process are contained in the procedure manual. The draft AFM is required prior to start of Function and Reliability testing (if applicable). The TCDS and Airworthiness limitations must be submitted no later than the Final Type Certification Board Meeting. The processes and procedures to be utilized should be explained in the procedure manual.
- p. Function and Reliability (F&R) Testing. If applicable, F&R testing is to be accomplished in accordance with FAA Order 8110.4. The types of programs that require F&R testing, and procedures to be utilized, should be explained in the procedure manual.
- q. Report Preparation, Submittal, and Storage. DOA reviews the required reports/data and finds compliance with the certification basis. The procedure manual should detail the kinds of reports required and the timing for approval with respect to the preparing the Statement of Compliance. 14 CFR part 21 requires that Type Inspection Reports be completed prior to FAA approval. Any special procedures or agreements should be clearly identified in the procedure manual. The types and locations of FAA files maintained by the DOA should also be explained in the DOA procedure manual.
- r. Statement of Compliance. When the required documentation for a particular program has all been satisfactorily accomplished, the DOA administrator prepares a Statement of Compliance. The conditions for issuance and required contents, such as a certification checklist should be explained in the procedure manual.
- s. Final Type Certification Board Meeting. The DOA should hold a Final Type Certification Board Meeting for each new type certificate, amended type certificate and type design change, in accordance with the procedures established in the approved procedure manual. The DOA administrator is normally responsible for

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chairing the meeting and providing meeting minutes to the FAA. FAA participation in these meetings is mandatory and the FAA may elect to chair the meeting. The DOA administrator is responsible for providing adequate notification to the FAA. During this meeting, there should be a review to verify that all open certification issues have been resolved and that all required documents and reports have been approved and submitted. The DOA administrator should be prepared to recommend that the FAA issue the type certificate, if applicable. The processes and procedures to be utilized should be explained in the procedure manual.

- t. Type Certificate Issuance. The FAA provides a letter to the DOA closing all specific findings. Issuance of the Type Certificate is conditional on receipt of the DOA Statement of Compliance and recommendation for product approval. These actions are normally accomplished at the Final Type Certification Board Meeting.
- u. Instructions For Continued Airworthiness. The DOA must develop and submit Instructions for Continued Airworthiness. The procedure manual must specify the procedures for developing the instructions prior to airworthiness certification, and the procedures for the coordination of the ICA with the ACO/AEG.
- v. Standard Airworthiness Certification. The procedure manual must specify the procedures to be followed for issuing standard airworthiness certificates. The procedures must meet the requirements of Order 8130.2.
- w. Post TC Activities. After type certification of a product, many engineering activities still occur. A DOA may be allowed to approve major and minor design changes to drawings, procedures and specs. In addition, the DOA could approve service documents and repair procedures for fielded products. The repair procedures are usually one-time (serial number specific) or multiple use until service documents are updated.
- (1) The process for determining the classification of major and minor design changes must be addressed in the procedure manual. The procedure manual must define the major and minor design change approval process. All major changes should be coordinated with the ACO, but not all major changes are required to be submitted as a project and require a PNL. There must be adequate data to support the design changes, but how the DOA approves these changes could be varied.
- (2) Service documents with "type design/ technical data" and repair procedures must be approved by use of FAA Form 8100-9. In the case of an airworthiness directive effort, the ACO should receive the service document with a FAA Form 8100-9 marked as "Recommend Approval." Also, if another civil aviation

authority asks how a repair procedure was approved, submittal of the FAA Form 8100-9 is evidence of FAA approval.

- x. Technical Data File. The DOA is responsible for all technical and compliance data files. All type design data must be readily available to the FAA and maintained in an official file. Storage media of technical data must be agreed to by the FAA. The technical data file should be maintained as a permanent record at the DOA facility. The DOA is responsible for maintaining the files in secure areas. Special written agreements may be an acceptable means to identify the methods to retain and maintain drawing and specification lists. The procedure manual should identify the locations of these files, security measures and procedures for providing FAA access.
- y. Production Certification Procedures. procedure manual must contain the production certification procedures utilized by the DOA holder. The DOA is responsible to determine that the production certification requirements of subpart G of 14 CFR part 21, with respect to the new model or type are met and submit a statement certifying that this determination has been made. performance of these duties, the DOA holder must insure integrity of the FAA-approved design data for both the initial design and subsequent changes to that design. The DOA company management must employ the necessary certification, management and technical staff to properly perform all functions related to production certificate management and, in addition, maintain an FAA-approved quality assurance system. The DOA holder is responsible for identifying and defining the quality assurance system procedures in a format found acceptable by the FAA. The DOA holder will be assigned an FAA Principal Inspector (PI). The PI will have overall Production Certificate management responsibility, including surveillance and oversight as deemed appropriate. Requirements to be followed by both the PI and DOA holder are defined in 14 CFR part 21 and Order 8120.2.

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# CHAPTER 6. SFAR 36 AUTHORIZATIONS

- **6-1. GENERAL.** This chapter provides information and guidance concerning the authority and procedures of Special Federal Aviation Regulation Number 36 (SFAR 36) authorizations.
- a. Eligibility. Each authorization holder is required by SFAR 36, paragraph 5 to be the holder of an air carrier or commercial operating certificate who has been issued operations specifications to conduct operations with large aircraft under the provisions of 14 CFR part 121 or 135, or the holder of a domestic repair station certificate under the provisions of 14 CFR part 145. An SFAR 36 authorization may only be granted to organizations authorized to approve for return to service articles and products after accomplishing a major repair. The definition of articles and products is specifically defined in SFAR 36.

### b. Authority.

- (1) SFAR 36 Authority. The SFAR 36 authorization holder may develop data for major repairs and approve articles or products for return to service using such data developed using the SFAR 36 procedures. This data is not specifically approved by the FAA Administrator.
- (2) Categories. Authority to develop technical data for major repairs will be delegated by category of product. Typical major product categories are transport aircraft structures, composites, turbine engines, and propellers. Additional major repairs may include hydraulic, electrical, and avionics systems; and equipment such as seats and life rafts. Major categories are to be further broken down into subcategories sufficient to be appropriate to the authorization.
- (3) Limitations. The authorization may limit the authority to develop only certain types of technical data for a particular product or article. The FAA will impose any limitations necessary, taking into account the staffing and facilities of the SFAR 36 holder. The FAA will limit the authority delegated to those products or articles for which the organization is rated to repair under their existing repair station or operator certificate.
- (4) Use of Data. The major repair data developed and allowed under the SFAR 36 authorization can only be used by the SFAR 36 authorization holder at their facility. The FAA does not consider the major repair data acceptable for use at other repair facilities. The SFAR-36 holder may use the data for subsequent repairs after determining that the data is appropriate for the application in accordance with SFAR 36, paragraph 3b.

### c. Responsibilities.

- (1) Data Review and Service Experience. When notified by the Administrator, the SFAR 36 authorization holder must investigate unsafe conditions that may be attributed to the repair performed as required by SFAR 36, Section 12.
- (2) Records. The SFAR 36 holder must maintain the records required by SFAR 36, paragraph 13. The SFAR 36 holder must provide the FAA access to these records upon request. The storage media must be agreed to by the FAA. Upon surrender or termination of their authorization, the SFAR 36 holder must either surrender the data developed to the FAA, or maintain it indefinitely and provide the FAA access to the data.
- (3) Reports. The SFAR 36 authorization holder must submit a list of all major repairs, accomplished in accordance with SFAR 36 to the cognizant Flight Standards District Office (FSDO) quarterly. A report of zero activity is also required. The activity report must include the type of repair with a brief description including model, part number, and manufacturer's serial number.

### 6-2. DEVELOPMENT OF MAJOR REPAIR DATA.

- a. Major Repair Determination. The SFAR 36 holder must have procedures and criteria to differentiate between repairs and alterations and between major and minor repairs, for the products covered by the applicant's authority. Only major repair data may be developed using the SFAR 36 authority.
- **b.** Major Repair Data. The SFAR 36 holder must develop data for major repairs using the processes prescribed in the procedure manual. The procedures must address the following:
  - (1) Obtaining FAA Engineering approval before;
- (a) The use of all equivalent safety provisions applied under 14 CFR part 21;
- (b) The use of data procured from specialized services not part of the applicant's facility;
- (c) The use of data concerning a major repair that may result in an acoustical or emissions change to the product;
- (d) Accomplishing a major repair that affects any Airworthiness Directive requirements; or

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- (e) The use of data concerning major repairs to life-limited items.
- (2) Approving and controlling technical data for major repairs.
- (3) Assure compatibility with other repairs made to a product and between products which have undergone major repairs and other changes to approved type design.
- (4) Identification and traceability of product major repair records.
- c. Substantiation Data. The SFAR 36 holder is responsible for showing compliance with the applicable airworthiness requirements. Normally, this is the certification basis referenced on the TCDS. The technical data developed and used for the major repair must show that the condition of the repaired product meets all applicable airworthiness requirements and will be at least equal to its original or properly altered condition when operated within the approved flight envelope and when maintained in accordance with its FAA approved (or accepted as applicable) maintenance manual or FAA approved continuous airworthiness maintenance program and will function reliably throughout its established inspection interval. Authorization holders must use FAA Form 8100-9, as shown in appendix 1, figure 9, to document compliance findings. ARs must note on the FAA Form 8100-9 that the data is in support of a SFAR 36 project and is not an FAA data approval.
- **6-3. SFAR 36 PROCEDURE MANUAL REQUIREMENTS.** In addition to the requirements of appendix 2, the SFAR 36 procedure manual must contain the following in the "Procedures" section of the SFAR 36 procedure manual:
- a. Approving and Controlling Technical Data. The authorization holder must describe how technical data is approved and controlled. This requirement includes subsequent products using previously approved SFAR 36 major repair data as referenced in SFAR 36 paragraph 3(b). In accomplishing this, the data shall show compliance with the applicable airworthiness standards as described in paragraphs 6-2b and c. Sample forms being utilized for this procedure appear in Appendix B of the authorization holder's procedure manual.
- **b.** Traceability of Repairs. (i.e., identification and product repair records). The authorization holder must describe their procedure for identifying and tracing all repairs accomplished under SFAR 36 authority.
- c. Differentiating between Major and Minor Repairs The authorization holder must define or cite their organization's procedure for differentiating between major and minor repairs.

d. Differentiating between Major Repairs and Major Alterations. (14 CFR part 43, appendix a and 14 CFR § 1.1.). The authorization holder must define or cite their organization's procedure for differentiating between major repairs and major alterations.

**NOTE:** Major alterations may not be done under SFAR 36.

- e. Determining Compatibility of Repair(s). The authorization holder must define their procedure for determining compatibility of repairs accomplished under SFAR 36 authority with previous repairs (whether accomplished under SFAR 36 or other means).
- f. Quarterly Report of Accomplished Repairs. A list of all major repairs, accomplished in accordance with SFAR 36, will be submitted to the cognizant Flight Standards District Office (FSDO) quarterly. A report of zero activity is also required. The activity report must include type of repair with a brief description, model, part number, and manufacturer's serial number.

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# CHAPTER 7. DESIGNEE INFORMATION NETWORK

- **7-1. GENERAL.** This chapter details the requirements for managing and tracking information in the Designee Information Network (DIN). The DIN is the FAA system used to manage individual designees and authorized organizations. Managing offices must maintain current data in the DIN for all DASs, DOAs and SFAR 36 delegation holders they manage.
- 7-2. DESIGNATION FORM. Upon receipt of an application, the managing ACO or FSDO must create a designation form in the DIN for the organization with the status of "Applicant" for whichever type of authorization they seek. ACOs will create the designation form for DASs and DOAs; the FSDO will create it for SFAR 36s. If there is an existing facility ID in DIN, it must be used as a basis for the organization's authorization entry. The designation form will contain the type of authorization, managing office, appointment date, and address and phone number information. The status on the designation form should be changed when the application is approved or denied.
- 7-3. AUTHORIZATION NUMBERS. The authorization number will consist of the type of designation (DAS, DOA or SFAR-36), the DIN-generated I.D. number (six digits); and the geographical directorate code (i.e., NM-Transport Directorate, CE-Small Airplane Directorate, SW-Rotorcraft Directorate, NE-Engine and Propeller Directorate), or the geographical region code (i.e., AL-Alaska Region, CE-Central Region, EA-Eastern Region, GL-Great Lakes Region, NE-New England Region, NM-Northwest Mountain Region, SO- Southern Region, SW-Southwest Region, WP-Western Pacific Region).

**NOTE:** For example, the number for a DAS appointed out of the Transport Directorate would be DAS-123456-NM.

- **7-4. FUNCTIONS SUMMARY.** The purpose of this form in DIN is to track the functions the organization is authorized to perform on behalf of the FAA. It should note the limitations of the authorization.
- **7-5. FAA INTERNAL COMMENTS FORM.** The FAA Internal Comments form may be used to document any comments or information on the organization or ARs which the managing offices wish to maintain.

# **CHAPTER 8. TERMINATION**

- 8-1. GENERAL. This chapter provides the requirements for the termination of the certificate of a DOA, DAS, or SFAR 36 authorization holder. These procedures are intended to ensure that due process is accorded before a final decision is made on termination of the above designations. These procedures do not apply when the termination is at the request of the designation holder, since this decision is entirely voluntary.
  - NOTE: Even though the FAA sometimes refers to the designations and authorizations as "certificates," they are NOT "certificates" within the meaning of Section 44709 of Title 49, U.S.C. The procedures for appealing actions taken under authority of Section 44709 and its implementing regulations are not applicable to DOA, DAS, or SFAR 36s.
- **8-2. CAUSE** FOR TERMINATION OF DESIGNATIONS. The following are conditions for DOA, DAS, or SFAR 36 certificate termination:
- a. By Request. At the request of the DOA, DAS, or SFAR 36 holder.
- b. Non-Performance. When the Administrator finds the DOA, DAS, or SFAR 36 has not properly exercised or performed the duties of the designation. This would include not having a current senior level management's (authorization holder) signature on the MOU.
- c. Lack of Care, Judgment, or Integrity. When the Administrator finds the DOA, DAS, or SFAR 36 has not demonstrated the care, judgment, or integrity to exercise the designation properly.
- d. Lack of FAA Need or Ability to Manage. The managing office no longer needs the services of the DOA, DAS, or SFAR 36 or no longer has the resources to manage the DOA, DAS, or SFAR 36.
- e. Insufficient Activity. When the Administrator finds that the DOA, DAS, or SFAR 36 has not had sufficient activity to warrant continuance of the designation.
- **f.** Lapse of Qualifications. When the Administrator finds the DOA, DAS, or SFAR 36's qualifications for a specific activity have lapsed.
- g. Certificate Suspension, Revocation, or Cancellation. When a certificate is suspended, canceled, or revoked that is required by the FAA for eligibility as a DOA, DAS, or SFAR 36 holder.
  - h. Any Other Appropriate Reason. For any other

reason considered appropriate by the Administrator.

# 8-3. PROCEDURES FOR TERMINATION AND INITIAL APPEAL OF A DOA, DAS, or SFAR 36.

- a. Notice of Proposed Action. The FAA appointing office will provide written notice by certified mail (return receipt requested) to the DOA, DAS, or SFAR 36 holder stating the reason(s) for the proposed termination of the DOA, DAS, or SFAR 36. If possible, the notice should be sent at least 30 days before the intended effective date. When an authorization holder is terminated for any reason, the appointing office will update DIN on the effective date of termination.
- b. Appeal Actions. Termination appeal procedures apply to the following termination reasons: misconduct; insufficient activity; lapse of qualifications; certificate suspension, revocation, or cancellation; lack of care, judgement, or integrity; and any other appropriate reason. At a minimum, the notice shall include the following:
- (1) Reasons for Termination. Specific reasons for the proposed termination, including examples of unacceptable conduct, when applicable. Safety related situations would be acted upon immediately. Include paragraph references to policy requirements herein not complied with. For example, the letter should state "due to the retirement of John Doe, your organization is no longer in compliance with Order 8100.9, paragraph 3-7a(1). you no longer have a DOA administrator with five years of experience working with the FAA as required by paragraph 3-7a(1)."
- (2) Permission to Request an Appeal. A statement allowing the DOA, DAS, or SFAR 36 holder to request an appeal from the FAA. The DOA, DAS, or SFAR 36 holder will have ten business days to file an appeal request in writing. If the designation holder does not respond, the termination process shall continue.
- (3) Effective Date of Termination. The authorization holder shall be advised that a request for an appeal WILL extend the termination date until the initial appeal process has been completed.
- (4) Immediate Suspension. When an authorization holder is suspected of fraud or any other activity deemed inappropriate, and an immediate action is necessary to ensure safety, the appointing office(s) will direct the authorization holder to cease all authorized activity pending FAA investigation into the matter. The appropriate field office will then initiate action according to the procedures in this order.

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- (5) Intention to Keep Record. A statement that the FAA will prepare and maintain a record of the request for an appeal, any evidence submitted, and any meetings held. The notice will also inform the designation holder that legal counsel may accompany them to any meetings with the FAA.
- c. Notice to DOA, DAS, or SFAR 36s. If the proposed termination is based on misconduct of an AR, notice shall be addressed to the DOA, DAS, or SFAR 36 holder.

#### d. Appeal Not Always Available.

- (1) If the proposed termination is based on insufficient activity or misconduct by a DOA, DAS, or SFAR 36, only the authorization holder may request an appeal of the proposed action; the authorized representatives may not.
- (2) Appeal requests must be submitted in writing within ten business days after receiving notice of proposed action.
- e. Meeting with Authorization Holder to Review Proposed Action.
- (1) Who Should Attend. The meeting will be held with the appropriate appointing office representative and the OMT.
  - **NOTE:** If the DOA, DAS, or SFAR 36 authorization holder chooses to have a lawyer attend, then the managing office shall have FAA Chief Counsel in attendance.
- (2) Record. The FAA will maintain a record of the meeting in some form, such as shorthand notes, a summary written up after the meeting, or a verbatim transcript prepared by the FAA or by a court reporter. If the record consists of written material, a legible copy will be forwarded to the authorization holder to review and submit comments or proposed corrections.
- f. Notice of Results of Meeting. Within 10 business days after the meeting, the appointing office will notify the authorization holder of its decision by certified mail (return receipt requested). If the appointing office confirms the termination, the letter shall contain the following:
- (1) Reason(s) for Termination. The letter will clearly state the decision and the justification for the decision. This letter will respond to each of the arguments presented by the authorization holder and will request the surrender of the DOA, DAS, or SFAR 36 certificate.
- (2) Effective Date of Termination. The letter will advise the authorization holder that the DOA, DAS, or SFAR 36 designation will terminate or expire on a

specified date, and that a request for further reconsideration will not stay the effective date.

- 8-4. NO RESPONSE FROM DOA, DAS, OR SFAR 36. In cases in which the authorization holder failed to respond to the original notice of proposed action within the 10 day period, the appointing office shall send the authorization holder a decision letter by certified mail (return receipt requested). However, in this situation, the letter will state that reconsideration by the FAA will not be allowed.
- **8-5. SURRENDER** OF DESIGNATION. All termination actions concluded shall result in the surrender of certificates pertaining to the designation.
- 8-6. COORDINATION OF TERMINATION DECISIONS. Termination of a particular DOA, DAS, or SFAR 36 function does not necessarily require termination of all DOA, DAS, or SFAR 36 functions held by the organization. Before the appointing office notifies the authorization holder of a proposed termination, the OMT will coordinate all contemplated actions with each of the Aircraft Certification Directorates and with the Flight Standards Regions. In addition, the Regional Assistant Chief Counsel will be notified before the initiation of such action, and notices sent to the DOA, DAS, or SFAR 36 will be coordinated with the Assistant Chief Counsel.
- **8-7. DESIGNEE** INFORMATION NETWORK STATUS. If the appointing office takes action to suspend or terminate the OMT will ensure that DIN is updated on or before the termination or expiration date.

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# APPENDIX 1. SAMPLE FORMS AND LETTERS FIGURE 1. SAMPLE DENIAL LETTER



U.S. Department of Transportation

Federal Aviation Administration

[Date]

[Applicant's Name] [Applicant's Address]

Dear [Applicant's Name]:

This letter is to advise you that your application for [insert type of authorization] has been denied. A review of the established criteria for appointment revealed your application was deficient in the following area(s):

[Show appointment criteria deficiency with explanation.]

You have the option of appealing our decision, or you may resubmit your application with additional information at any time. Should you choose to exercise your right of appeal, you may contact [Appointing Office and phone number], and request that an Appeal Panel be convened. You must exercise this option within 60 days of the date of this letter.

Thank you for your interest in the delegation program.

Sincerely,

[Manager's Name] [Appointing Office]

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 2. SAMPLE FORM 8100-8, DAS, DOA, or SFAR 36 STATEMENT OF QUALIFICATIONS (Reduced Size)

US Department of Transportation Federal Aviation Administration	STAT	DOA, DAS, SFAR 36 EMENT OF QUALIFICA	ΓIONS	Form	Approved OMB-2120-0018
The FAA uses the information administrator for the purpose applications using this formation.	ion is to obtation provide ose of issulr m is 2 hours unless it dis	ain information concerning to determine the suitable of FAA design and airwore. An agency may not consplays a currently valid Of	ility of the appli thiness approva iduct or sponso	cant to act as als The burd r, and a pers	
1. COMPANY NAME:				2. PHONE N	UMBER:
3. COMPANY ADDRESS:	(Number, s	treet, city and ZIP code)		, ,	
4. TYPE OF DELEGATION	SOUGHT:	·			
DAS		DOA		SFAR	36
6. EXPERIENCE WORKING WITH THE FAA AS APPROPRIATE FOR THE TYPE OF AUTHORIZATION SOUGHT: (Use additional sheets as necessary)					
7. HOLD THE FOLLOWING					
Type	c	ertificate Number	Ratings	<u> </u>	Date Each Rating Issued
8. LOCATION(S) WHERE T	8. LOCATION(S) WHERE THE DELEGATED FUNCTIONS WILL BE PERFORMED: (Use additional sheets as necessary)				
9. CERTIFICATION: I certify Federal Aviation Regulations per			t of my knowledge	and that the org	anization is familiar with the
Date		Signature (Manageme	nt representative	of company re	questing delegation)

FAA Form 8100-8 (4-01)

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 3. SAMPLE DAS AUTHORIZATION LETTER



U.S. Department of Transportation Federal Aviation Administration

Under the authority of Title 14 of the Code of Federal Regulations, part 21, subpart M, Kendall Aircraft, Inc, 475 Airport Drive, Kansas City, Missouri, 12345, holding Production Certificate Number CE-23, is hereby authorized as DAS-353767-CE and may use Designated Alteration Station procedures for supplemental type certification activities in accordance with 14 CFR part 21, subpart M and its Federal Aviation Administration approved Procedure Manual. This authorization is effective for (Insert limitations of authorization).

Approved: January 1, 1999

John Dinkins Manager, (COGNIZANT) Aircraft Certification Office

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 4. SAMPLE DOA AUTHORIZATION LETTER



U.S. Department of Transportation Federal Aviation Administration

Under the authority of Title 14 of the Code of Federal Regulations, part 21, subpart J, Kendall Aircraft, Inc., 475 Airport Drive, Kansas City, Missouri, 12345, holding Production Certificate Number CE-23, is hereby authorized as DOA-348576-CE and may use Delegation Option Authorization procedures for certification activities in accordance with 14 CFR part 21, subpart J and its Federal Aviation Administration approved Procedure Manual. This authorization is effective for (Insert limitations of authorization.)

Approved: January 1, 1999

John Dinkins Manager, (COGNIZANT) Aircraft Certification Office

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 5. SAMPLE SFAR 36 AUTHORIZATION LETTER



U.S. Department of Transportation Federal Aviation Administration

Under the authority of Special Federal Aviation Regulation (SFAR) No. 36, J. M. Nice d/b/a Bayview Aviation at Bayview Airport, Bayview OH 11463, holding Air Agency Certificate No BVAR999A, empowered to operate an approved repair station, is hereby authorized as SFAR-36-738390-GL and may develop and use major repair data which are not specifically approved by the Administrator, in accordance with SFAR No. 36 and its Federal Aviation Administration Approved Procedure Manual, as applicable to the ratings of the repair station and its Repair Station Operations Specifications, limited as follows:

AIRFRAME: McDonnell Douglas Model DC-8 Series, Boeing Model 707, 727, and 747 Series airframe structures, flight controls, and landing gear systems.

POWERPLANT: Pratt and Whitney Model JT3D Series, JT4A Series, JT8D Series, and JT9D Series bearing supports, rotors, turbines, compressors, gearboxes, turbine and compressor blades.

This authorization is effective until January 23, 2004, unless it is surrendered or the Administrator suspends, revokes, or terminates it at an earlier date.

Approved: January 1, 1999

John Dinkins Manager, (COGNIZANT) Aircraft Certification Office

I.M. Spertor Manager, (COGNIZANT) Flight Standards District Office

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 6. MEMORANDUM OF UNDERSTANDING-ALL AUTHORIZATIONS

# DAS or DOA or SFAR 36 MEMORANDUM OF UNDERSTANDING (Specify which applies)

## 1.0 Basis and Requirements for Delegation of Authority

Title 49 US Code is the legislative instrument governing US aviation.

Section 44701(a) states that the Administrator of the FAA "shall promote safe flight of civil aircraft in air commerce...."

To fulfill these responsibilities the FAA Administrator is provided with various resources including the power to delegate to others. This power is specified in Section 44702(d) Delegation:

- "(1) Subject to regulations, supervision, and review the FAA Administrator may prescribe, the Administrator may delegate to a qualified private person, or to an employee under the supervision of that person, a matter related to --
- (a) The examination, testing, and inspection necessary to the issuance of a certificate under this chapter; and
  - (b) Issuing the certificate.
- (2) The FAA Administrator may rescind a delegation under this subsection at any time for any reason which the Administrator considers appropriate."

A "person" may be an individual, firm, partnership, corporation, company, association, joint-stock association or government entity. It includes a trustee, receiver, assignee, or similar representative of any of them.

## 2.0 Authorization and Role of a FAA delegation

Order 8100.9 sets out policy, procedures and conditions under which an applicant may obtain a delegation of authority that may be exercised by an authorization holder i.e. (DOA or DAS or SFAR 36).

When accomplishing this task the authorization holder uses the same standards, procedures and interpretations applicable to FAA employees accomplishing similar tasks. The authorized organization is also required to observe all conditions and limitations imposed by the Administrator on the authority delegated.

# 3.0 Statement of Acceptance of Responsibilities and Obligations

(Authorization holder's administrator's name) understands and accepts on behalf of (Company name) the responsibilities and obligations, as detailed in our authorization letter and Orders 8100.9, 8100.8, 8110.4, 8110.37 (specify those that apply), associated with the exercise of the delegation authorized by the Administrator.

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 6. MEMORANDUM OF UNDERSTANDING-ALL AUTHORIZATIONS (CONTINUED)

As an authorized organization (DOA, DAS, SFAR 36	-specify type), we will:
a) Function in accordance with the Responsible contained in the relevant regulations and order.	
b) Dedicate the required resources for the effe delegated functions;	ctive performance of the
c) Remain knowledgeable in the (specify) specific airworthiness standards, policies and procedures;	cialty and in the applicable
d.) Consider the product's type design as well a design philosophy, principles and operational assumpti Only)	
e.) Consider the actual operator procedures emproduct and the impact of any alterations previously ma	
f) Attend FAA sponsored training as required;	and
g) Cooperate with the FAA in exercising this c	delegated authority.
h) Allow FAA review/participation of any and FAA offices.	all projects as requested by the managing
<ul> <li>i) Authorized representatives will be free from a delegated functions, but with sufficient authority and indep SFAR 36 - specify type) organization to administer the perting</li> <li>j) Perform the following functions:         <ul> <li>(Detail the functions to be performed by the autority</li> </ul> </li> </ul>	pendence to enable the authorized (DOA, DAS, ment regulation(s) effectively.
Company (Organization type) Senior level Manager	Date
FAA Appointing Office Manager(s) (Repeat signature as applicable)	Date
FAA Managing Office Manager(s)	Date

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 7. SAMPLE FAA FORM 8100-9 USED FOR DAS DATA APPROVAL (REDUCED SIZE)

		MENT OF TRANSPO VIATION ADMINIST	· · · · · · · · <del>-</del> · ·		FAA Projec	
STATEMENT	OF COMPLIANC	CE WITH AIB	WORTHINESS STAND	DARDS	ST40115D	)E-T
	AIRCRA	FT OR AIRCR	AFT COMPONENT IDEN	TIFICATION	<b>V</b>	
MAKE	MODEL NO.	TYPE (Aircraft, Er	ngine, Propeller, etc.)	NAME OF API Stoops	PLICANT/AUTHOR Airlines	IZATION NO.
ABC-2	1121B					
		<u>L</u>	IST OF DATA			
IDENTIFICATION			TITLE			<del></del>
	Designation approval of	Project No the data	oval is in suppor oa disted herein and	nd DOES	NOT consti	tute DER
	purpose or application.  This approval systems details only. This approval is only for the engineering design data and is not installation approval. Other approvals required. Flight/ground testing required.  NOTE: This approval covers electrical details only					
ABC Manual 1234 10/20/86	Converter Regulatory Installation Manual					
1000047 Revision A	Drawing - Converter Regulator Cooling Mod.					
1000048	Drawing - Scoop Assy Converter Regulator Cooling					
Revision C	(Detail list of data - drawings, reports, etc., including revision level and dates)					
PURPOSE OF DATA Support of DAS Project No. XXXXXXXX - This installation data provides additional cooling to the electrical system converter-regulator.						
APPLICABLE REQUIREMENTS (List specific sections) FAR 25.1301, 25.1309(a), 25.1359(d)(3) (Identify discrete paragraph/subparagraph that "Approval" or "Recommend Approval" addresses)						
CERTIFICATION . As directed by the Administrator and in accordance with the conditions and limitations of authorization under 14 CFR, data listed above and on attached sheets numbered have been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthiness Standards listed.						
I (We) Therefore	<ul><li>_ Recommend approve these d</li></ul>		uaia			
SIGNATURE(S) OF AUTHO	RIZED REPRESENTATION	/E(S)	NAME	С	LASSIFICATION	Date
John Do	e		John Doe	S	Systems	12/20/01
(Note: If sign	ed by more than	1 AR, it must	be clearly denoted wh	ich data ea	ich AR is app	roving)
AA Form 8100-9 (4-01)						

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 8. SAMPLE FAA FORM 8100-9 USED FOR DOA DATA APPROVAL (REDUCED SIZE)

		MENT OF TRANSPOI VIATION ADMINISTE			FAA Project	
STATEMENT			ORTHINESS STANDAR		AT64321AT	-A 
MAKE	MODEL NO.		AFT COMPONENT IDENTI gine, Propeller, etc.)		LICANT/AUTHORIZ	ATION NO.
Butterfly	B104	Mangino Aircraft B104 Airplane DOA-CE-893993				
LIST OF DATA						
IDENTIFICATION			TITLE			
BAC 1234 Dated 10/20/99 BAC1000047 Revision A 10/28/99 BAC1000048 Revision C 9/15/99 BAC1000049  PURPOSE OF DATA Support of DO Butterfly B10	Designation approval of purpose or ay This approval engineering derequired. Fli Fuel Flow Termontonian Termon	Project No the data 1: pplication  systems det sign data a: ght/ground st Report  Analysis  System Ins of data - el and date	ails only. This app nd is not installati testing required.	DOES NOT s not val  roval is c on approva	constitution constitution for any for the cal. Other and cal. Other and cal. Other and cal. Other and cal.	y other
APPLICABLE REQUIREMENTS (List specific sections) 14 CFR 23.951(a), (b) (1) (2), 23.955(a), (b), 23.963(a) (b) (c) (d) (e), 23.967(a) (c)						
CERTIFICATION - As directed by the Administrator and in accordance with the conditions and limitations of authorization under 14 CFR, data listed above and on attached sheets numbered have been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthiness Standards listed.  Recommend approval of these data  I (We) Therefore Approve these data						
SIGNATURE(S) OF AUTHOR	24	(S)	NAME	cı	ASSIFICATION	Date
Susan B	Bloyd	·	Susan Bloyd	Po	owerplant	12/20/01
(Note: If sign	ed by more than 1	AR, it must b	e clearly denoted which	data each A	AR is approvir	ng)

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 9. SAMPLE FAA FORM 8100-9 USED FOR SFAR 36 COMPLIANCE FINDING (REDUCED SIZE)

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION FAA Project No.				No.		
STATEMENT		OF COMPLIANCE WITH AIRWORTHINESS STANDARDS N/A				
	AIRCRA	FT OR AIRCR	AFT COMPONENT IDEN	TIFICATION		
MAKE	MODEL NO.	TYPE (Aircraft, Er	agine, Propeller, etc.)		LICANT/AUTHORI	
Condor	Venables Industries SFAR36-SW-893993					
	<del></del>	L	IST OF DATA			
IDENTIFICATION			TITLE			
Report No. DD 99-34 Rev. A 10/20/99	Designation approval of purpose or a The systems a Valid only fo	Project Notation the data in application application application are condor B1	listed herein and n. t aspects are not :	ind DOES I	NOT consti	tute DER
Drawing DD 99100032 Revision A 10/15/99	Installation Drawing, Pages 1,2,3,4,5-Fuselage Repair  (Detail list of data - drawings, reports, etc., including revision level and dates)					
PURPOSE OF DATA Support of SFAR-36 Major Repair S/N 19838.  APPLICABLE REQUIREMENTS (List specific sections) CAR 4.200; .201; .202(a) (b); .260; .300; .301; .302; .303; .304(a), (b); .305; .306;, .307(c); .730(a), (b)						
CERTIFICATION - As directed by the Administrator and in accordance with the conditions and limitations of authorization under 14 CFR, data listed above and on attached sheets numberedhave been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthiness Standards listed.  Recommend approval of these data  I (We) Therefore X Approve these data						
SIGNATURE(S) OF AUTHO	ORIZED REPRESENTATI	IVE(S)	NAME	CL	ASSIFICATION(S)	Date
Susan A	Bloyd		Susan Bloyd	St	ructures	12/20/01
(Note: If sig		1 AR, it mus	t be clearly denoted wi	nich data ea	ch AR is app	proving)

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 10. SAMPLE SUMMARY ACTIVITY REPORT (FRONT SIDE - REDUCED SIZE)

COMPANY						
DESIGNEE		]	NUMBER			
REPORTING PERIO	OD BEGINN	ING DATE: _		ENI	DING DATE: _ 	
AIRWORTHINESS CERTIFICATION	ACTIVITY CODE QTY	Y ACTIVITY CODE QTY	ACTIVITY CODE QTY	C	CTIVITY ODE TY	ACTIVIT CODE QTY
STANDARD A/W CERTIFICATE	APIS 726	PC 727	OTM 737			
SPECIAL A/W CERTIFICATE	APIS 732	PC P	PROTOTYPE 7	rc pro	TOTYPE STC 725	OTM 740
EXPORT CERT. OF AIRWORTHINESS	APIS 728	PC 729	OTM 742			
A/W APPROVAL EXPORT TAGS	APIS/PC 730	PMA/TSO 731				
IN-PROCESS A/W INSPECTIONS	APIS/PC 736	PMA/TSO 736	OTM 743			
CONFORMITY CERT. MILITARY	APIS 734	PC 735				
MISC. DAR OTHER THAN AT MANUFACTURER	RESTR 5	SPEC FLT PM 741	T CONF. F	OR FCAA 744	DOMESTIC 8	3130-3 FORN 745

Instructions and Code definitions are given in Order 1380.48

Page 1 of 2

# APPENDIX 1. SAMPLE FORMS AND LETTERS CONTINUED FIGURE 10. SAMPLE SUMMARY ACTIVITY REPORT (REVERSE SIDE - REDUCED SIZE)

SUMMARY ACTIVITY REPORT (To be used by DAS, DOA)						
COMPANY		DESIGNEE NAME _		DESIGNEE NO.		
REPORTING PERIOD:	BEGINNIN	NG DATE		ENDING DATE		
TYPE CERTIFICATION	CODE	PROJECT NUMBER	CONFORMITIES	TAGS	TIR	REMARKS
TYPE OR TYPE AMENDMENT	113					
STC OR STC AMENDMENT	213					
DESIGN CONF. PMA	308					
DESIGN CONF. AT SUPPLIER	515					
TYPE CERTIFICATION	CODE	PROJECT NUMBER	CONFORMITIES	TAGS	TIR	REMARKS
TYPE OR TYPE AMENDMENT	113					
STC OR STC AMENDMENT	213					
DESIGN CONF. PMA	308					
DESIGN CONF. AT SUPPLER	515					

Instructions and Code definitions are given in Order 1380.48.

# APPENDIX 2. SAMPLE DAS, DOA, SFAR 36 PROCEDURES MANUAL

DAS, DOA and SFAR 36 organizations are required to utilize the authority and privileges in accordance with procedures which have been approved by the FAA. These procedures must be identified in an approved procedure manual. The purpose of this Appendix is to identify an acceptable content and arrangement for a procedure manual. Additional requirements for each type of procedure manual is found in Chapters 4 through 6 of this order. Additional information, procedures, and entries are subject to review and concurrence by the FAA. Supplementary information to assist the organization in the development of their specific procedure manual is presented in this example in italics. Specific places in the sample manual that relate to only one type of delegation (DAS/DOA/SFAR 36), or places where the delegation would be required to expand upon the example given, are identified by capitalized and italicized text in parenthesis. Authorization holders should also review the requirements of Order 8100.7 and ensure their procedure manual prescribes processes which will satisfy the requirements for personnel qualifications and approvals.

T	TITT	1.7	DA	
1.	TITL	Æ.	ra	UL.

(INSERT COMPANY NAME) (INSERT AUTHORIZATION NUMBER) (INSERT COMPANY ADDRESS)

DAS/DOA/SFAR 36 (CHOOSE ONE)
PROCEDURE MANUAL

(COMPANY'S) FAA-APPROVED ADMINIS	STRATOR
DATE:	
APPROVED BY:	
MANAGER, (COGNIZANT) AIRCRAFT CE FEDERAL AVIATION ADMINISTRATION (REGION)	
DATE APPROVED	

(COMPANY NAME, AUTHORIZATION NUMBER) DAS/DOA/SFAR 36 PROCEDURES MANUAL

Page Number
Revision Number
Date

## II. TABLE OF CONTENTS.

## Paragraph

- I. Title Page
- II. Table of Contents
- III. Log of Revisions
- IV. List of Effective Pages
- V. Manual Control
- VI. Facility Description (*DAS ONLY*)
- 1. Preface and Introduction
- 2. Company Management Responsibilities
- 3. Company Administrator and AR Duties and Responsibilities
- 4. Personnel Qualifications and Approval
- 5. Training of Personnel
- 6. Self-Evaluation Responsibilities
- 7. Duration of Authorization
- 8. Maintenance of Eligibility
- 9. Transferability
- 10. Inspections
- 11. Ratings and Limitations
- 12. Service Difficulties
- 13. Procedures (See appropriate section from chapters 4 through 6)
- 14. Records Maintenance
- 15. Manufacturing Activity Reporting
- 16. Appendices
- A. Letter of Appointment
- B. Forms
- C. Company and Delegation Organizational Chart
- D. Authorized Representatives

(COMPANY NAME,	AUTHORIZATION NUMBER)
DAS/DOA/SEAD 36	PROCEDURES MANUAL

Page Number
Revision Number
Date

# III. LOG OF REVISIONS.

Revision Level	Page Number(s)	Revision	FAA Approval	
	Number(s)	Description	Date	
;				

(COMPANY NAME,	<b>AUTHORIZATION NUMBER)</b>
DAS/DOA/SFAR 36 I	PROCEDURES MANUAL

Page Number	
Revision Number	
Date	

## IV. LIST OF EFFECTIVE PAGES.

A list of effective pages is not necessary if the authorization holder elects to reprint and paginate the entire document when revisions are incorporated. Each page must note the proper revision level.

Please insert the revised pages into this manual and delete the obsolete pages in accordance with the following list of effective pages. Revised pages are indicated by the letter "R," added pages by the letter "A," and deleted pages by the letter "D." Superseded and deleted pages shall be removed from the manual but retained in a separate file.

The list of effective pages records not only each page of subject revision but also each previously issued page that is still current. Blank pages and pages that are no longer current do not appear on this list. If there is any question about the currency of the recipient's copy, it is recommended that each page in the manual be checked against this list of effective pages. Any page that does not appear on the list of effective pages should be removed.

Page Number	Revision Number	Revision Date

(COMPANY NAME,	AUTHORIZATION NUMBER
DAS/DOA/SEAR 361	PROCEDURES MANUAL

Page Number
Revision Number
Date

## V. MANUAL CONTROL.

### a. FAA CONTROL.

- (1) (INSERT COMPANY'S METHOD OF DOCUMENT CONFIGURATION CONTROL HERE)
- (2) All revisions to this manual will be submitted by the company's FAA-approved administrator and approved by the FAA Administrator (address below) prior to incorporation into the manual.
  - (3) (INSERT AIRCRAFT CERTIFICATION OFFICE ADDRESS)
  - b. (INSERT COMPANY NAME) CONTROL.
- (1) The administrator will be responsible for manual updates and distribution. Upon identification of the need for a revision to the manual, the administrator will initiate such revision by submitting the revision, along with the Log of Revisions and List of Effective Pages, to the OMT for approval. The OMT will indicate approval by signing and dating the Log of Revisions page (and inserting the effective date on each of the revised pages if applicable). The OMT will return the signed Log of Revisions.
  - (2) (INSERT COMPANY'S PROCEDURE FOR MANUAL CONTROL).
- (3) (INSERT A LIST OF WHO IS TO RECEIVE THE MANUAL AND MANUAL UPDATES).

## VI. FACILITY DESCRIPTION. (DAS ONLY)

(INSERT A DESCRIPTION OF THE DAS AUTHORIZATION HOLDER'S ALTERATION AND SUPPORT FACILITIES)

(COMPANY NAME, AUTHORIZATION NUMBER)
DAS/DOA/SFAR 36 PROCEDURES MANUAL

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Date

## 1. PREFACE AND INTRODUCTION.

- a. (INSERT MANAGEMENT/FAA MOU)
- b. (INSERT COMPANY NAME) has the authority to issue supplemental type certificates, issue special airworthiness certificates in the experimental category for show compliance, and amend standard airworthiness certificates in accordance with 14 CFR part 21, subpart M and (INSERT COMPANY NAME) FAA-approved Designated Alteration Station Procedures Manual. This manual sets forth the procedures used by (INSERT COMPANY NAME) to develop and use major alteration engineering data to accomplish the above. The FAA Administrator is defined as the cognizant aircraft certification office. (DAS ONLY)

-or-

c. This procedure manual establishes the company responsibilities and procedures to be followed when performing the certification and airworthiness activities authorized by the FAA under the Delegation Option Authorization Procedures of 14 CFR part 21, subpart J. This includes Type Certification, Airworthiness Certification, and Production Certificate management of products as limited by 14 CFR § 21.231, as applicable. (DOA ONLY)

-or-

- **d.** (INSERT COMPANY NAME) may approve an [aircraft, airframe, aircraft engine, propeller or appliance (INSERT WHAT IS APPLICABLE) for return to service after accomplishing a major repair if the data used for the repair was developed by (INSERT COMPANY NAME) in accordance with SFAR 36 authorization. (SFAR 36, paragraph 3). This manual sets forth the procedures used by (INSERT COMPANY NAME) to develop and use major repair data that are not specifically approved by the FAA Administrator. The FAA Administrator is defined as the cognizant aircraft certification office (SFAR 36, paragraph 3). SFAR 36 is applicable to major repair ONLY. (SFAR 36 ONLY)
- **e.** All formal communications with the FAA will be conducted with (INSERT THE NAME AND TELEPHONE NUMBER OF THE COMPANY ADMINISTRATOR).

## 2. COMPANY MANAGEMENT RESPONSIBILITIES.

This section should explain the company management responsibilities. The management is responsible for establishing corporate policies that will not conflict with FAA regulations or policy. The management is responsible to remain independent of, and not interfere with, the findings and activities conducted under the DOA/DAS/SFAR 36 authority. The management is responsible to provide and maintain adequate qualified personnel to accomplish the delegated activities. The management is responsible to provide the necessary support

(COMPANY NAME, AUTHORIZATION NUMBER	)
DAS/DOA/SFAR 36 PROCEDURES MANUAL	

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Revision Number
Date

and personnel when internal and FAA audits are being accomplished. Management is responsible to ensure all personnel receive the training required by FAA Order 8100.9. (INSERT COMPANY MANAGEMENT RESPONSIBILITIES)

### 3. COMPANY ADMINISTRATOR AND AR DUTIES AND RESPONSIBILITIES.

- **a.** Company administrator responsibilities. (INSERT COMPANY ADMINISTRATOR (S) NAME (s)) is the focal point for the organization, and has the primary responsibility and authority for assuring compliance with FAA regulations, policy, guidance and directives. All forms the administrator is authorized to sign are to be listed in Appendix D. The administrator(s) will have primary responsibility for all certification management. All formal incoming and outgoing FAA correspondence will be directed to and from (INSERT COMPANY ADMINISTRATOR(S) NAME(S) AND OFFICE).
- **b.** AR responsibilities. Individual ARs are responsible for preparing reports concerning the type certification activities and airworthiness activities. All forms and who is authorized to sign them are to be listed in Appendix D. To have official FAA approval status, documents will be signed by the individual AR over the assigned delegation number. The manner and form of these reports, documents, forms will be in accordance with current FAA policy.
- **c.** The administrator(s) has authorized certain AR personnel to approve documents, certificates, statements and forms. Signature authorities and all authorized functions are identified in appendix D of this manual. (THIS SECTION SHOULD DETAIL THE ESTABLISHED PROCEDURES TO BE FOLLOWED)
- **d.** Function, responsibilities, and authority in Appendix D identify each Certification Engineer AR, Flight Test Pilot AR, and Inspection AR (as applicable). Some functions identified in Appendix D require the signature of Inspection ARs whose responsibilities and authorities are clearly defined. The authorized functions for the various certification engineers are also shown in the charts contained in Appendix D.

# 4. PERSONNEL QUALIFICATIONS/APPROVAL.

- **a.** (INSERT COMPANY NAME) will determine that proposed ARs are qualified to make findings of compliance. AR changes require approval by the FAA. Prior to submitting a proposed staff member to the FAA for consideration, (INSERT COMPANY NAME) will evaluate proposed ARs using the qualification criteria in Order 8100.8, as applicable to individual designees performing similar functions. (DEFINE PROCEDURES TO EVALUATE PROPOSED STAFF MEMBERS)
  - **b.** AR Trainees. (INSERT PROCEDURES FOR AR TRAINEE DEVELOPMENT)

(COMPANY NAME,	AUTHORIZATION NUMBER
DAS/DOA/SEAR 36 I	PROCEDURES MANUAL

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Date	

- **5. TRAINING OF PERSONNEL.** The AR personnel identified in appendix D must receive training in accordance with the requirements of Order 8100.9. (INSERT PROCEDURES FOR IDENTIFYING AND DEFINING TRAINING PROCEDURES FOR BOTH FAA AND COMPANY AR TRAINING)
- 6. SELF-EVALUATION RESPONSIBLITIES.
  - a. Self-Evaluations will be performed (INSERT EVALUATION FREQUENCY).
- **b.** Self-Evaluations will consist of (INSERT DETAILED EVALUATION REQUIREMENTS). The evaluation report will consist of (INSERT DETAIL REQUIREMENTS FOR AUDIT REPORT).
- **c.** Follow-up of evaluation corrective actions will be performed (INSERT FREQUENCY OF CORRECTIVE ACTION FOLLOW-UP).
- **7. DURATION OF AUTHORIZATION.** The authorization to (*INSERT COMPANY NAME*) issued under 14 CFR is effective until it is surrendered or the FAA Administrator suspends, revokes, or otherwise terminates it at an earlier date.
- **8. MAINTENANCE OF ELIGIBILITY.** (INSERT COMPANY NAME) will continually meet the requirements of this authorization or notify the FAA OMT within 48 hours of any change that affects (INSERT COMPANY NAME) ability to maintain eligibility under the requirements of 14 CFR. Functions affected by any change WILL NOT be performed until the FAA approves the change.
- **9. TRANSFERABILITY.** This authorization is not transferable.
- **10. INSPECTIONS.** Upon request, (INSERT COMPANY NAME) shall allow the FAA to inspect the facilities, products, and records related to the projects performed under this authorization at the FAA's request.
- 11. RATINGS AND LIMITATIONS. (DAS ONLY)
- **a. Ratings.** The ratings associated with this DAS Authorization shall not exceed those contained in Air Agency Certificate No. (INSERT REPAIR STATION CERTIFICATE NUMBER) and its associated Operations Specifications, issued to (INSERT COMPANY NAME) at (INSERT COMPANY ADDRESS). This Certificate must be maintained and in effect as a prerequisite for continued operation under this authorization in accordance with 14 CFR.
  - b. Limitations.

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- (1) (INSERT DAS NAME) shall obtain FAA concurrence on the application of all equivalent safety provisions.
- (2) (INSERT DAS NAME) shall obtain FAA concurrence before accomplishing an alteration that affects any Airworthiness Directive (AD) requirements or airworthiness limitations.
- (3) (INSERT DAS NAME) shall obtain FAA approval for any alteration that affects aircraft noise, fuel venting, or exhaust emissions.
- c. Scope of Authorization. (INSERT LIST OF PRODUCT MODELS/TYPES OF PROJECTS AUTHORIZED)
- 11. RATINGS AND LIMITATIONS. (SFAR 36 ONLY)
- **a. Product Limitations.** (INSERT A STATEMENT OF PRODUCT LIMITATIONS PLACED ON THE COMPANY)
- **b. Repair Data Limitations.** (INSERT A STATEMENT OF REPAIR DATA LIMITATIONS) FAA engineering approval is required:
- (1) Before the use of all equivalent safety provisions are applied under 14 CFR § 21.21.
- (2) Before the use of data procured from specialized services not part of (INSERT COMPANY NAME) facility.
- (3) Before the use of data concerning a repair that may result in an acoustical or emissions change in the product.
- (4) Before accomplishing a repair that affects any Airworthiness Directive (AD) requirements (14 CFR part 39).
  - (5) Before the use of data concerning repairs to life-limited items.
  - (6) (INSERT ANY ADDITIONAL LIMITATIONS)
- **12. SERVICE DIFFICULTIES.** The reporting of failures, malfunctions, and defects will be consistent with 14 CFR § 21.3 and other applicable reporting requirements. (INSERT COMPANY'S TIMEFRAME FOR AND DOCUMENTATION OF METHOD FOR RESOLVING SERVICE DIFFICULTY ISSUES)

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- **a.** If the FAA Administrator finds that a product for which data was developed under this authorization does not meet the applicable airworthiness requirements, or that an unsafe feature or characteristic caused by a defective alteration exists, (INSERT COMPANY NAME), upon notification by the FAA Administrator, shall investigate the matter and report to the FAA Administrator the results of the investigation and the action, if any, taken or proposed.
- **b.** If corrective action by the user of the product is necessary for safety because of any noncompliance or defect specified in the paragraph above, (INSERT COMPANY NAME) shall submit the information necessary for the issuance of an airworthiness directive under 14 CFR part 39.
- **13. PROCEDURES.** (SEE APPLICABLE REQUIREMENTS FROM CHAPTERS 4 THROUGH 6)

## 14. RECORDS MAINTENANCE.

- **a. Manual Revision.** Upon identification of the need for a revision to this manual, the company administrator will initiate such revision by submitting the revision, along with the Log of Revisions and List of Effective Pages, to the ACO for approval. The ACO will indicate approval by signing and dating the Log of Revisions page (and inserting the effective date on each of the revised pages if applicable). The ACO will return the signed Log of Revisions. A vertical bar in the right-hand margin will indicate revised text.
- b. Maintenance of Current Records. For each product for which (INSERT COMPANY NAME) has been issued a TC under 14 CFR part 21, subpart J, a technical data file that includes any data and amendments thereto (including drawings, photographs, specifications, instructions, and reports) necessary for the TC will be maintained at the (INSERT DOA NAME) facility. A list of projects by make, model, manufacturer's serial number and, if applicable, any FAA identification, that have been manufactured under this authorization will be maintained. In addition a file of information from all available sources of difficulties on products manufactured under this authorization will also be maintained (INSERT SPECIFIC PROCEDURES FOR MAINTAINING PROJECT LIST). (DOA ONLY)
- **b.** Maintenance of Current Records. For each product for which (INSERT COMPANY NAME) has issued an STC under 14 CFR part 21, subpart M, a technical data file that includes any data and amendments thereto (including drawings, photographs, specifications, instructions, and reports) necessary for the STC will be maintained at the (INSERT DAS NAME) facility. A list of projects by make, model, manufacturer's serial number and, if applicable, any FAA identification, that have been altered under this authorization will be maintained. In addition a file of information from

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all available sources of difficulties on products altered under this authorization will also be maintained (INSERT SPECIFIC PROCEDURES FOR MAINTAINING PROJECT LIST). (DAS ONLY)

- **b. Maintenance of Current Records.** For each product for which (INSERT COMPANY NAME) has developed and used major repair data, a technical data file that includes any data and amendments thereto (including drawings, photographs, specifications, instructions, and reports) necessary for the major repair will be maintained at (INSERT COMPANY NAME). A list must be maintained of all repairs to products by make, model, manufacturer's serial number and, if applicable, any FAA identification, that have been repaired under this authorization. A file of information from all available sources of difficulties on products repaired under SFAR 36 must be maintained. (DEFINE THE COMPANY PROCEDURE FOR MAINTAINING RECORDS) (SFAR 36 ONLY)
- c. Retention of Records. All data files for type certification, inspection, and airworthiness accomplished under (INSERT COMPANY NAME) authorization shall be retained indefinitely and shall be sent to the FAA Administrator as soon as (INSERT COMPANY NAME) no longer utilizes them. (DOA ONLY)
- c. Retention of Records. All data files for major alterations accomplished under (INSERT COMPANY NAME) authorization shall be retained indefinitely and shall be sent to the FAA Administrator as soon as (INSERT COMPANY NAME) no longer utilizes them. (DAS ONLY)
- c. Retention of Records. All data files for repairs accomplished under this SFAR 36 authorization shall be retained indefinitely or shall be sent to the FAA Administrator as soon as (INSERT COMPANY NAME) no longer utilizes them. (SFAR 36 ONLY)
- d. STC Transfer of Ownership. The (INSERT COMPANY NAME) DAS issued STC will be transferred, if necessary, in accordance with the procedures in 14 CFR § 21.47 and FAA Order 8110.4. A complete data package with all drawings, specifications, instructions, and reports, will be provided to the new owner of the STC. A copy of the same data will be sent to the appropriate ACO, along with the original STC (endorsed on page 2), and a transmittal letter requesting the transfer of ownership. (DAS ONLY)
- 15. MANUFACTURING ACTIVITY REPORTING. (INSERT COMPANY NAME) will submit manufacturing summary information reports for manufacturing/airworthiness work performed by the organization. The reports will be submitted to the managing MIDO (INSERT FREQUENCY OF REPORTS). (DAS/DOA ONLY)

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## 16. APPENDICES.

APPENDIX A - Letter of Appointment. (INSERT A COPY OF THE FAA LETTER OF APPOINTMENT)

**APPENDIX B - Forms.** (INSERT A COPY OF EACH FORM USED BY THE AUTHORIZATION HOLDER, INCLUDING FAA FORMS)

**APPENDIX C – Organizational Chart.** (INSERT A COPY OF AUTHORIZATION HOLDERS ORGANIZATIONAL CHART FOR THEIR APPROVED STAFF MEMBERS)

APPENDIX D - Authorized Representatives. This Appendix must contain summaries of delegated functions and authorized areas, and provide sample signatures of the authorized personnel. Each individual authorized by the organization to perform certification functions should be included. Provide a table, as follows, which includes the names of authorized individuals, signatures, position title, and authorized functions:

NAME	SIGNATURE	TITLE	AUTHORIZATION/ FUNCTION CODES*	FORMS (as applicable)

^{*}Delegated functions and authorized areas for ARs should be patterned and be equivalent to the functions and charts shown in FAA Order 8100.8. There should be provided a chart for each of the engineering functions, as applicable:

Note: Signatures may be maintained in a separate documented file and controlled by the administrator.

# APPENDIX 3. CERTIFICATION PLANS Figure 1. DAS Certification Plans

The certification plan for DAS certification projects should address the following elements:

- a. Description of the type design change including significant features. Identification of any new design or process areas.
- b. The DAS proposed certification basis, i.e., the airworthiness requirements including amendment levels that are considered to be applicable, and noise and emission requirements.
- c. A compliance checklist showing proposed means of compliance (laboratory testing, ground testing, flight-testing, analysis, similarity, etc.) and the responsible ARs with appropriate authorizations for each of the regulations.
- d. Identification of where and how the type design data and compliance substantiation data will be documented.
- e. Discussion of design, certification, and production responsibilities with domestic and non-domestic suppliers.
- f. State if any novel or unusual features are involved.
- g. State if ground and /or flight-testing are required.
- h. The proposed Airworthiness Certificate Category for Flight Testing.
- i. A proposed schedule of major events/milestones.
- j. State if Instructions for Continued Airworthiness (ICA) are affected and which Manuals (Maintenance, Wiring Diagram, IPC, etc.) are planned to be issued or revised.
- k. State if an Airplane Flight Manual Supplement is required or will be revised.
- 1. State how equipment is approved. For example: RTCA/DO-160(), TSO, RTCA/DO-178(), etc.
- m. If alteration will not be accomplished at the DAS facility, provide information on the facility where the alteration will be accomplished.
- n. Proposed compliance method(s) and how the DAS intends to demonstrate the operational aspects of:
- (1) STC testing of modifications accomplished to an aircraft for determining operational suitability in meeting the operational regulatory requirements.
- (2) DAS recommended aircraft maintenance manual and maintenance program changes for acceptable compliance with ICA requirements, if required.
  - (3) Aircraft Flight Manual Supplements.
  - (4) Proposed changes to MMELs, if required; Proposed Flight Crews Operating Manual Procedures, if required.
  - (5) Proposed flight crew training requirements, if required
  - (6) Emergency Evacuation demonstrations, if necessary.

# APPENDIX 3. CERTIFICATION PLANS Figure 2. DOA Certification Plans

The certification plan for DOA certification projects should address the following elements:

- a. Description of the type design or type design change, including significant features. Identification of any new design or process areas.
- b. The airworthiness requirements including amendment levels that are considered to be applicable.
- c. A compliance checklist showing proposed means of compliance (laboratory testing, ground testing, flight-testing, analysis, similarity, etc.) and the responsible ARs with appropriate authorizations for each of the regulations.
- d. Identification of where and how the type design data and compliance substantiation data will be documented.
- e. State if any novel or unusual features are involved.
- f. State if ground and /or flight-testing are required.
- g. The proposed Airworthiness Certificate Category for Flight-Testing other than show compliance.
- h. A proposed schedule of major events/milestones.
- i. State which Manuals (Maintenance, Wiring Diagram, IPC, etc.) are planned to be issued or revised.
- j. State if an Airplane Flight Manual Supplement is required or will be revised.
- k. State how equipment is approved. For example: RTCA/DO-160(), TSO, RTCA/DO-178(), etc.

# APPENDIX 4. SAMPLE CONFORMITY PLAN

	PART I FAA CON	FORMITY PLAN	DATE:	Plan Revision level:
a. Applicant name:  b. Project number:		Project number:		
b. Aircraft mod	del(s) to be modified:			
c. General Desc	cription of project:	4		
	P	ART II Names of focal p	oints for project:	
a. Quality Assu			one for project	
b. Test & Evalu	lation:			
c. Engineering:				
d. Inspection A	R(s) Part conform	ity:		
	Installation c	onformity:		
	TIA/STIR:			
e. Engineering	AR(s)			
		PART III General I	nformation	
a. Is an FAA A	pproved Repair Statio	n doing the modification?		YES NO
b. List the locat	ion(s) where the modif	ication and installation w	ill be done:	
c. Describe the	maintenance requirem	ents needed for maintain	ing the aircraft during the	project:
d. Aircraft	Is Aircraft U.S. Reg	istered		YES NO
Information	List Aircraft Regist	ration Number		
		tter for Foreign Registere tion/Acceptance of In-pro		y Date Reply Received from CAA:
	<u></u>			

CONFORMITY PLAN Part IV Inspections systems		
a. Describe the type of planning, travelers, work orders, etc. used for inspection:		
b. Are suppliers going to be used for the project?	YES	NO
c. If so, describe the supplier(s) and their involvement in the project:		
	TYPO.	120
d. Is the supplier(s) quality system(s) approved by applicant?	YES	NO
A 4L 15 (2) 12 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14 15 14	NEC	NO
e. Are the supplier(s) special processes approved for this project?	YES	NO
f. If the suppliers are not approved for the special processes explain how will they be appr	oved:	
Part V Applicant Conformity Inspections		
a. List company inspection procedures to be used to perform Conformity Inspection:		
a. List company inspection procedures to be used to perform Comormity inspection:		
	VEC	NO
b. Are these procedures equivalent to the conformity inspection criteria in FAA Order	YES	NO
8110.4 Chapter 5?		į
c. If not, what alternative procedures will be used to ensure the same level of inspections a	re made by the	
applicant?		
d. Name of person(s) from the applicant responsible to sign the 8130-9 Statement of confor	mity in accord	ance with
14 CFR § 21.50 and § 21.33:	•	
· · · · · · · · · · · · · · · · · · ·		
If delegated to applicant's supplier applicant must submit a letter of delegation in accordance	with 8110.4 cha	pter 5.
Applicant must assure the same level of conformity inspection is performed as outlined in 8110		r
Appressing means annual one names error of conforment mapposite in portonica an Outlineal Health CAL	/ 1 / 1	

CONFORMITY PLAN Part VI FAA Conformity Inspections Identification and Track	ing
a. Name of AR(s) responsible to generate the 8120-10 request for conformity for this project:	
b. Explain how the 8120-10s will be coordinated with the ARs	
c. Explain how the applicant will track the initiation and completion of Conformity Inspections:	
d. Name of person (s) responsible to track the conformity inspections for the applicant:	

	Part VII Conformity Description
a. Part conformity	Description of parts and assemblies to be conformed:
b. Installation conformity	Description of parts / assemblies / equipment / engines requiring installation conformity:
c. Test conformity	Description of test equipment being used requiring installation conformity:
	Description of test set up conformity:
d. Flammability and Fire- blocking Test coupon conformity	Description of test instrumentation requiring installation conformity:
	Description of Tests requiring test set up conformity:
e. Post Conformity Modifications and/or Replacements	Description of how modifications or replacement of FAA conformed parts will be re-conformed:
Replacements	Person responsible for tracking modifications or replacements:
f. Flight Testing	Location(s) of TIA flight tests:
	Estimated date of flight testing:
g. Conformity Inspection Deviations (See Order 8110.4 Chapter 5)	Name of engineering ARs responsible to approve deviations and unsatisfactory conditions listed on FAA Form 8130-9 and FAA Form 8100-1:

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a. Who will make application for FAA	Experimental certificate:		
Form 8130-6? (See AC 21-12)	Standard airworthiness certificate:		
	ncorporate all required design changes to the test aircraft to make the aircraft eliginess Certificate (if applicable):	ible	
c. Name of company ap	lying for PMA after issuance of STC (if applicable):		
This Conformity Inspection	n Plan describes the actions regarding the modification and type design activities necess		
ensure all required Confo plan establishes guideline performed by at the applic The Conformity Inspectic implementation. FAA Co with procedures described Changes to this plan req	ire a revision number/letter. Implementation of this plan will be to established proce	dance	
ensure all required Confo plan establishes guideline performed by at the application. The Conformity Inspection implementation. FAA Cowith procedures described Changes to this plan requirementation or referenced in the	and policies for identification and tracking of FAA required Conformity Inspections ant's facility and its approved suppliers.  Plan will be reviewed and accepted by the Federal Aviation Administration prior to its aformity Inspections will be identified, coordinated and tracked for completion in accorabove.  Irre a revision number/letter. Implementation of this plan will be to established proceplan.	dance	
ensure all required Confo plan establishes guideline performed by at the application. The Conformity Inspection implementation. FAA Convict Procedures described Changes to this plan required written or referenced in the population Quality Manager:	and policies for identification and tracking of FAA required Conformity Inspections ant's facility and its approved suppliers.  Plan will be reviewed and accepted by the Federal Aviation Administration prior to its aformity Inspections will be identified, coordinated and tracked for completion in accorabove.  Irre a revision number/letter. Implementation of this plan will be to established proceplan.  Approval  Date:	dance	
ensure all required Confo plan establishes guideline performed by at the application. The Conformity Inspection implementation. FAA Convitation of the Conformity Inspection implementation. FAA Convitation of the Conformity Inspection implementation. FAA Convitation of the Conformity Inspection in the Conformity Inspection in the Conformity Inspection in the Conformity Inspection of the Conformity Inspection in the Conf	and policies for identification and tracking of FAA required Conformity Inspections ant's facility and its approved suppliers.  Plan will be reviewed and accepted by the Federal Aviation Administration prior to its aformity Inspections will be identified, coordinated and tracked for completion in accorabove.  Irre a revision number/letter. Implementation of this plan will be to established proceplan.	dance	

e.g. Master Data List

## APPENDIX 5. TECHNICAL EVALUATION PROCEDURES AND CRITERIA

- 1. **PURPOSE.** Oversight of authorization holders is based upon:
  - Oversight of the processes used by the authorization holder.
  - Oversight of the technical proficiency and performance of the authorization holder.
  - Continuous management of the projects performed by the authorization holder (DAS and DOA only).

Technical evaluations described here evaluate the technical proficiency and judgement of the authorization holder. The technical evaluations are a means for the OMT members to ensure the authorization holders are making technical decisions that the OMT members find acceptable and technically correct. Procedures-related oversight is accomplished by normally scheduled ACSEP evaluations.

2. EVALUATION SCHEDULING. Evaluations for the following 12 months should be scheduled/budgeted by the OMT lead by the end of the fiscal year. The OMT lead must coordinate with the authorization holders and necessary OMT members to ensure they're available for the dates scheduled. The schedule should ensure that authorization holders are scheduled for technical evaluations at least every two years. The OMT may determine to accomplish technical evaluations alone, or in conjunction with ACSEP evaluations. The managing MIDO OMT member is responsible for coordinating ACSEP scheduling. Technical evaluations may be scheduled more frequently, and non-scheduled evaluations may be conducted whenever the OMT determines necessary. The OMT lead should provide the projected schedule—and any changes throughout the year—to the Delegation and Airworthiness Programs Branch, AIR-140.

## 3. EVALUATION PLANNING.

- a. <u>Composition of Evaluation Team.</u> The evaluation team should consist of the OMT members—ACO, MIDO, and AEG—responsible for; oversight of the authorization holder and management of the projects they perform. The evaluation team leader will normally be the OMT lead for the authorization holder, but the managing ACO manager may select a different team leader at their discretion. The ACO and MIDO managers may substitute other personnel for the OMT members, but they must be technically proficient in the areas they are responsible to evaluate. There must be members from the managing MIDO and ACO representative from each technical area that is being evaluated. Although not responsible for any portion of the evaluation, the managing flight standards personnel for repair station/operator DASs and DOAs should be notified of the evaluation and invited to participate. Other team members from organizations such as Headquarters offices and the accountable directorate, etc. may participate as needed.
- b. <u>Evaluation Length.</u> Evaluations will usually be scheduled for one week, including travel. Time at the authorization holder's facility depends on the arrangements possible for evaluator's travel, etc. The time scheduled must be adequate to evaluate all of the projects selected for review.
- c. <u>Notification</u>. The OMT lead will notify the authorization holder using the sample format in appendix 9 of Order 8100.7. For normally scheduled evaluations, the OMT lead should notify the authorization holder no later than 50 days prior to the evaluation. Authorization holders should be notified of non-scheduled evaluations as soon as possible.
- d. Team Coordination and Selection of Projects for Review. Prior to the start of the evaluation, the evaluation team should agree to the evaluation plans, personnel assignments and responsibilities, etc. The OMT should select project(s) to be reviewed during the evaluation at least 30 days prior to the evaluation. The team should also consider if there would be any test witnessing, inspections, etc. to be performed during the evaluation. The projects should be technically representative of the projects performed by the organization and address all technical areas. The evaluation team lead should coordinate the selection of projects with the authorization holder to ensure the authorization holder has copies—not originals—of the data package available. The authorization holder should have copies of all data—type design, substantiation, FAA project coordination, etc.—relevant to the selected projects available during the evaluation. Other projects may be reviewed during the evaluation at the team leader's request. The evaluation team should review the results of any previous evaluations and ensure they focus on areas where deficiencies were identified.

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## 4. PERFORMING THE EVALUATION.

- a. <u>Evaluation In-Briefing</u>. The team leader, along with the evaluation team, should provide a briefing to the authorization holder upon arrival at their facility. The authorization holder's administrator, senior management, and selected Authorized Representatives should attend. The briefing should cover the purpose of the evaluation, the procedures to be followed, and introduce the evaluation team members. The authorization holder should give a brief overview of the projects selected for evaluation covering the following:
  - -Description of Project.
  - -Project Schedule/Accomplishment/Amendments.
  - -Customer.
  - -Staff Personnel Involved.
  - -Other Parties Involved in Design, Installation.
  - -Manufacture of Parts, Suppliers, Etc.
  - -In-Service History.
  - -Known issues with project.
  - -Brief Description of Provided Data Package.
  - -Points of contact for the audit within the organization.
- b. Evaluation Coordination with Authorization Holder. The FAA evaluation team leader and the authorization holder's evaluation representative (usually the administrator for the authorization) should agree up-front on how communication issues will be handled. Items arising during the evaluation may be communicated only through the FAA and authorization holder's team leaders, or between the individual team members. It is encouraged to allow the FAA team members to interact directly with the authorized representatives performing the functions they are evaluating. This interaction allows the members of both the FAA team and the authorization holder's staff to benefit. If deemed necessary by the FAA team leader, they can require that all communication pass through them directly to the authorization holder's administrator. In any event, both the FAA and authorization holder's team leader should be notified of the issues being discussed.
- c. Evaluation Details. Members of the evaluation team will evaluate the selected project(s) using the applicable criteria in Sections 1 through 9 of figure 3 of this appendix. The criteria presented is not intended to be used as a checklist, rather as a "guideline" for issues to consider during the evaluation. FAA team meetings should be held at least daily to review the progress of the evaluation and discuss issues that arise. Team members should maintain frequent contact during the evaluation to ensure those issues that cross technical specialty areas are followed and coordinated properly. Any issues that warrant documentation as findings or observations should be reviewed by the team as a whole and communicated with the authorization holder during the evaluation. Tests or inspections not planned in advance may be conducted if such tests are determined necessary based on findings during the evaluation.
- d. <u>Classification of Discrepancies</u>. Discrepancies related to the technical data package should be documented according to the following:
- (1) Airworthiness Standard Non-compliance. Discrepancies which show that the approval does not comply with the airworthiness standards. These non-compliances will be considered as safety findings if the possibility of an unsafe condition exists as a result of the non-compliance. Any safety findings identified should be investigated to determine if the need exists to issue an airworthiness directive.
- (2) Procedural Non-compliance. Discrepancies found during the audit, which indicate a non-compliance with the requirements of 14 CFR part 21, including the FAA-approved procedure manual in effect at the time the discrepancy occurred. For example, if a DAS authorization holder did not submit the names of staff members to the FAA before they approved data, it would be a violation of 14 CFR 21.441(b), and the procedure manual. Although it is not the intent of

technical evaluations to identify such findings, they may be discovered during the evaluation and should be documented and corrected.

- (3) Technical Discrepancies. All other discrepancies with the type design or substantiation data that the evaluation team feels is important enough to document and correct.
- (4) Observation. Any other issue that should be documented and corrected. For example, if the project notification letter did not contain all of the required information, it could be documented as an observation.
- e. <u>Documentation of Discrepancies</u>. Discrepancies found during the evaluation should be documented on the form contained in Fig. 1, or other form prepared by the Team Leader. The discrepancy form should document at least the information contained in Fig. 1, including a place for signature by a representative from the authorization holder's staff indicating they have been informed and understand the reasoning of the discrepancy.
- f. <u>Dispute Resolution</u>. If there is disagreement between the FAA and authorized staff on the technical details regarding compliance determinations or methodologies reviewed during the evaluation, the appropriate certification ACO manager should be consulted to determine if proper judgement has been exercised. The resolution flow chart in Figure 2 should be followed to finalize the disposition of any disputes that cannot be resolved between the managing offices and the authorization holder. The technically accountable directorate will have the final authority to resolve disputes.
- g. <u>Out-Briefing/Presentation of Findings</u>. At the completion of the evaluation the team leader will conduct a briefing reviewing the findings of the evaluation with the authorization holder. At least the administrator and senior management of the authorization holder should attend. Other Authorized Representatives are welcome. FAA team members will attend if requested by the FAA team leader. The briefing should review all of the discrepancies identified during the evaluation and explain future steps to correct the deficiencies identified.

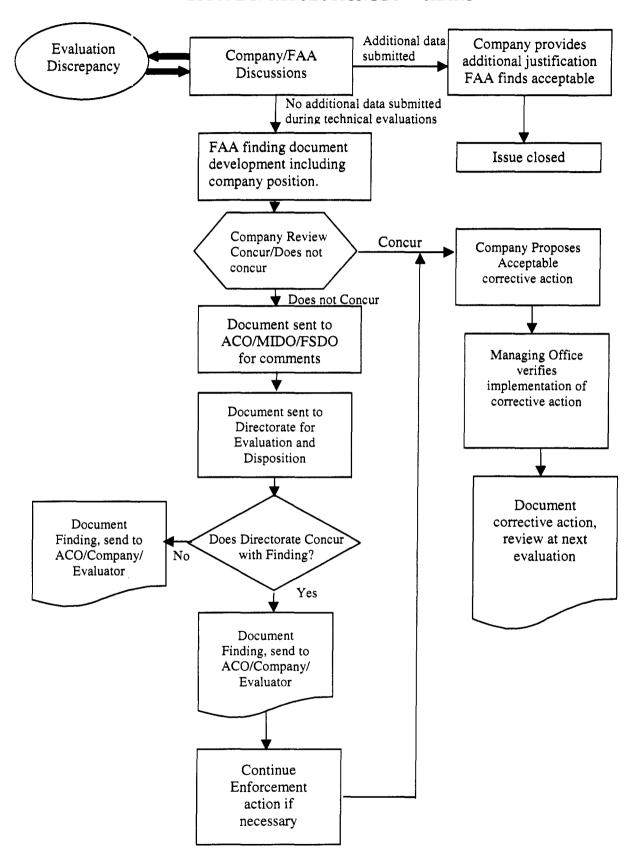
## 5. POST-EVALUATION ACITIVITY.

- a. <u>Evaluation Report</u>. Within 30 days after completion of the evaluation the team leader will prepare a report outlining the findings of the evaluation. The report should contain supporting data for each noncompliance or deficiency presented, and note the type of corrective action required for the discrepancies found during the evaluation. Corrective action for noncompliances must be implemented to address the conditions that resulted in the non-compliance. Non compliances related to the certification procedures should be considered for compliance and enforcement action in accordance with Order 2150.3. The report should be provided to the evaluation team and AIR-140. The report should be sent to the authorization holder along with a request for corrective action. The report should be maintained by the OMT lead in their files.
- b. <u>Corrective Action.</u> The authorization holder should implement corrective actions to address the discrepancies identified in the report on a schedule that is agreeable to the OMT lead. The OMT lead is responsible to ensure that all corrective action is implemented. The OMT lead may delegate the responsibility to the appropriate OMT members to follow up on issues related to their technical specialty.

## FIGURE 1. DAS/DOA/SFAR 36 TECHNICAL EVALUATION DISCREPANCY RECORD

Authorization Holder:	Authorization No.:
Airworthiness Standard Non-compliance Safety Finding Yes No	Technical Discrepancy
Procedural Non-compliance	Observation
Required Condition 14 CFR Requirement:	
FAA Policy Requirement:	
Encountered Condition:	
Evaluator's Name: Office:	Date: Phone No.:
Discussed With Authorization Holder Representative:	
Signature above signifies understanding of issue not necessarily concurrence.	Date:

FIGURE 2. RESOLUTION FLOW CHART



# FIGURE 3. STANDARDIZED TECHNICAL EVALUATION CRITERIA FOR DELEGATED FACILITIES

1. PURPOSE. This figure provides standardized technical evaluation criteria used in documenting the evaluation of the delegated facilities utilizing the following system elements:

TECHNICAL.	EVALUATION	SVSTEM FI	FMFNTS
IECHINICAL	F.VALLUALIST	3131 P.V. P.	. P. IVI P. IVI P. IV

1	Project Initiation
2	Certification Basis
3	Certification Plan
4	Compliance
5	Type Design Data
6	Compliance Substantiation Documents
7	Flight Testing
8	Conformity Records
9	SFAR 36 Developed Major Repair Data

- 2. DESCRIPTION OF SYSTEM ELEMENTS SECTION FORMAT. Each section addresses one of the 9 system elements. Each section is formatted as follows:
  - a. System Element Description. This is a brief description of what the system is intended to accomplish or control.
  - b. System Element Standardized Evaluation Criteria. Each criterion is formatted as follows:
- (1) Standardized Evaluation Criteria. Each criterion is identified by a numbered question within a box. The format of each question number is based on the system element number, the letter "DDS" to identify the criteria as specific to delegated facilities, and the sequence within the system element. For example, question 1DDS8 would be the eighth question [8] under Project Initiation system [1] for a delegated engineering function [DDS].
- (2) **Applicability.** This identifies the specific type of delegated facility function (DAS, DOA, or SFAR 36) to which the standardized evaluation criteria applies. A table format is used that identifies the type of facility across the top, and a code for the type of applicability in the first column. The codes for the types of applicability are defined as follows:
- (a) **R**. This applicability code is used to identify criteria that have a CFR based origin. The applicability to a specific facility is indicated by the specific CFR part or section reference; e.g., § 25.1043.
- (b) **P**. This applicability code is used to identify criteria that reflect FAA Aircraft Certification and Flight Standards practices to assist in evaluating design data for compliance to applicable CFR. These practices are contained in the FAA-approved DAS, DOA, or SFAR 36 Procedure manual, or other non-FAA approved facility procedures. The evaluator must determine the actual level of application at each delegated facility. The applicability to a specific facility is indicated with an "X".
- (c) N. This applicability code is used to indicate that the criteria are not applicable at a specific facility. The evaluator must determine the actual level of application at each facility. The applicability to a specific facility is indicated with an "X".
- (3) Statement of Condition. The statement of condition provides indicators that the criteria have been satisfied. The procedures indicated in the statement of condition include some of the specific practices and principles that are often associated with the criteria. However, these practices and principles are not the only acceptable indicators of satisfactory implementation. Evaluators may identify additional practices and principles. A practice or principle that reflects CFR requirements lists the CFR part or section reference in brackets, e.g., {§ 25.1043}. The statement of condition assists the

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evaluator to determine the depth of the investigation that may be required to satisfactorily evaluate the criteria, and the appropriate criteria on which to document evaluation results.

8100.9

#### SECTION 1: PROJECT INITIATION

- 1. SYSTEM ELEMENT DESCRIPTION. Evaluation of initial project determinations and communications made by the authorization holder and the managing FAA.
- 2. SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

**1DDS1.** Did the program notification contain the information (modification, schedule, etc.) required by the FAA approved procedure manual?

Applicability:

	DAS	DOA	SFAR36
R			
P	X	X	
N			X

#### **Statement of Condition:**

- a. Project description, scope and schedule were properly described and communicated in the initial program notification. Information required by the FAA approved procedure manual was adequately provided for the project in question.
- b. Projects which were determined not to require a program notification were properly determined as defined by the FAA approved procedure manual.

1DDS2. Were significant changes to the program's scope or schedule adequately communicated to the FAA?

Applicability:

	DAS	DOA	SFAR36
R			
P	X	X	
N			X

## **Statement of Condition:**

- a. Major changes, if applicable, to the scope or schedule of a project are communicated in writing to the FAA.
- b. Any changes not reported were correctly determined to be of a minor nature.

**1DDS3.** Did the authorization holder follow the action specified, if any, in the FAA response to the Program Notification Letter (PNL)?

Applicability:

	DAS	DOA	SFAR36
R			
P	X	X	
N			X

## **Statement of Condition:**

Evidence that the authorization holder followed the instruction in the response.

#### **SECTION 2: CERTIFICATION BASIS**

- 1. **SYSTEM ELEMENT DESCRIPTION**. Evaluation of the activities and data related to establishing and making findings of compliance to a certification basis for the authorization holder to demonstrate compliance with the applicable airworthiness standards and policy at the time of application.
- 2. SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

**2DDS1**. Is the certification basis appropriate for the type certificate design submitted?

Applicability:

	DAS	DOA	SFAR36
R	§ 21.115	§ 21.115	
1	& § 21.101	& § 21.101	
P			
N			X

## **Statement of Condition:**

- a. It is documented (i.e. compliance checklist) that the applicable regulatory requirements were addressed based on the date of application.
- b. Applicable regulatory requirements can be from 14 CFR parts 21, 23, 25, 27, 29, 31, 33, 34, 35, 36, and 39 as recommended by the delegated authorization and concurred with by the managing FAA Aircraft Certification Office. Additional requirements may result from special conditions.
- c. Changes to the regulatory requirements were documented and communicated to the FAA appropriately and concurred by the FAA.

**2DDS2.** Were special conditions or an exemption(s) required and included in the certification basis?

**Applicability:** 

	DAS	DOA	SFAR36
R	§ 21.16 & § 11.61	§ 21.16 & § 11.61	
P	0	0	
N			X

## **Statement of Condition:**

It is documented that special conditions or exemption(s) were addressed in the certification basis.

2DDS3. Were equivalent level of safety findings coordinated with the ACO?

**Applicability:** 

	DAS	DOA	SFAR36
R	§ 21.461	§ 21.261	
P			
N			X

## **Statement of Condition:**

Evidence exists that the FAA approved the use of the equivalent level of safety findings prior to the authorization holder's use.

#### **SECTION 3: CERTIFICATION PLAN**

- 1. **SYSTEM ELEMENT DESCRIPTION.** The identification and evaluation of the authorization holder's plan for the methods of compliance to certificate a product.
- 2. **SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA.** The following criteria are used to document the evaluation of this system.

**3DDS1.** Was a Certification Plan written for each certification project as required by FAA approved procedure manual?

**Applicability:** 

	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

## **Statement of Condition:**

There is objective evidence that a certification plan was written for each certification project as defined in the FAA approved procedure manual.

**3DDS2.** Did the certification plan address all of the necessary elements as required by the FAA approved procedure manual?

Applicability:

	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

- a. There is evidence the certification plan for DAS certification projects addresses the following elements:
- (1) Description of the type design change including significant features. Identification of any new design or process areas. Identification of the prototype product's state of registry and registration number.
- (2) The DAS proposed certification basis, i.e. the airworthiness requirements including amendment levels that are considered to be applicable, special conditions, exemptions, equivalent level of safety items, and noise and emission requirements.
- (3) A compliance checklist showing proposed means of compliance (laboratory testing, ground testing, flight-testing, analysis, similarity, etc.) and the responsible ARs with appropriate authorizations for each of the regulations.
  - (4) Identification of where and how the type design data and compliance substantiation data will be documented.
  - (5) Discussion of design, certification, and production responsibilities with domestic and non-domestic suppliers.
  - (6) State if any novel or unusual features are involved.
  - (7) State if ground and /or flight-testing are required.
  - (8) The proposed Airworthiness Certificate Category for Flight Testing.
  - (9) A proposed schedule of major events/milestones.

- (10) State if Instructions for Continued Airworthiness (ICA) are affected and which Manuals (Maintenance, Wiring Diagram, IPC, etc.) are planned to be issued or revised.
  - (11) State if an Airplane Flight Manual Supplement is required or will be revised.
  - (12) State how equipment is approved. For example: RTCA/DO-160(), TSO, RTCA/DO-178(), etc.
- (13) If design or alteration work will not be accomplished at the DAS facility, provide information on the facility where it will be accomplished.
  - (14) Proposed compliance method(s) and how the DAS intends to demonstrate the operational aspects of:
- a. STC testing of modifications accomplished to an aircraft for determining operational suitability in meeting the operational regulatory requirements.
- b. DAS recommended maintenance manual and maintenance program changes for acceptable compliance with ICA requirements, if required.
  - c. Aircraft Flight Manual Supplements.
  - d. Proposed changes to MMELs if required.
  - e. Proposed Flight Crews Operating Manual Procedures, if required.
  - f. Proposed flight crew training requirements, if required.
  - g. Emergency Evacuation demonstrations, if necessary.
- b. There is evidence the certification plan for DOA projects addresses the following elements:
- (1) Description of the type design or type design change, including significant features. Identification of any new design or process areas. For alterations, identification of the product's state of registry and registration number.
- (2) The DOA-proposed certification basis. This is the airworthiness requirements including amendment levels that are considered to be applicable, special conditions, exemptions, equivalent level of safety items, and noise and emissions requirements.
- (3) A compliance checklist showing proposed means of compliance (laboratory testing, ground testing, flight-testing, analysis, similarity, etc.) and the responsible ARs with appropriate authorizations for each of the regulations.
  - (4) Identification of where and how the type design data and compliance substantiation data will be documented.
  - (5) Discussion of design, certification, and production responsibilities with domestic and non domestic suppliers.
  - (6) State if any novel or unusual features are involved.
  - (7) State if ground and /or flight-testing are required.
  - (8) The proposed Airworthiness Certificate Category for Flight-Testing other than show compliance.
  - (9) A proposed schedule of major events/milestones.
  - (10) State which Manuals (Maintenance, Wiring Diagram, IPC, etc.) are planned to be issued or revised.
  - (11) State if an Airplane Flight Manual Supplement is required or will be revised.
  - (12) State how equipment is approved. For example: RTCA/DO-160(), TSO, RTCA/DO-178(), etc.

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- (13) If alteration will not be accomplished at the DOA facility, provide information on the facility where the alteration will be accomplished.
  - (14) Proposed compliance method(s) and how the DOA intends to demonstrate the operational aspects of:
- a. Testing of modifications accomplished to an aircraft for determining operational suitability in meeting the operational regulatory requirements.
- b. DOA recommended maintenance manual and maintenance program changes for acceptable compliance with ICA requirements, if required.
  - c. Aircraft Flight Manual Revision or Supplements.
  - d. Proposed changes to MMELs if required.
  - e. Proposed Flight Crews Operating Manual Procedures, if required.
  - f. Proposed flight crew training requirements, if required.
  - g. Emergency Evacuation demonstrations, if necessary.

**3DDS3.** Were applicable airworthiness directives considered in the certification plan?

Applicability:

	DAS	DOA	SFAR36
R			
P	X	X	7
N			X

## **Statement of Condition:**

The authorization holder has evaluated the product or modification for any ADs that may impact certification of the product.

3DDS4. Did the certification project follow the certification plan?

Applicability:

	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

- a. There is objective evidence that the certification project followed the certification plan.
- b. The Certification Plan was revised as necessary.

**3DDS5.** Were changes to the certification plan documented and communicated with the FAA in accordance with FAA approved procedure manual?

Applicability:

	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

## **Statement of Condition:**

There is objective evidence that changes to the certification plan were documented and communicated with the FAA.

## **SECTION 4: COMPLIANCE**

- 1. SUBSYSTEM DESCRIPTION. Documentation or checklist to identify the certification basis for the product.
- 2. MAJOR SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

4DDS1. Was there a Compliance Checklist (CCL)?

Applicability:

	DAS	DOA	SFAR36
R			
P	X	X	
N			X

## **Statement of Condition:**

- a. Was a Compliance Checklist (CCL) required for this project?
- b. Does the CCL reflect the Certification Basis?
- c. Was the CCL completed prior to issuing the certificate?

**4DDS2.** Has there been a determination that the means of compliance (MOC) is correct to show compliance to the airworthiness standards?

Applicability:

	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

- a. The MOC utilized previous FAA approved data, industry standards, FAA ACs, Policies, Notices, and Orders.
- b. MOC previously approved or coordinated/accepted.

**4DDS3.** Are the regulations (certification basis) itemized in a compliance checklist with a plan (including test, analysis, etc) of how each regulation will be complied with?

Applicability:

	DAS	DOA	SFAR36
R			
P	X	X	
N			X

#### **Statement of Condition:**

The certification basis is correctly identified in the compliance checklist along with the correct means of compliance.

#### **SECTION 5: TYPE DESIGN DATA**

- 1. SUBSYSTEM DESCRIPTION. Do the drawings adequately represent the complete design? Did the drawing and specifications address appropriate dimensions, tolerances, materials and processes? Do the specifications follow appropriate industry practices? Were changes incorporated appropriately? Were eligibility issues appropriately addressed for modifications or changes? Were the production acceptance tests/inspections necessary to determine airworthiness and noise and emissions compliance specified? Does the data include all the information necessary to find compliance [e.g., vendor data, qualification data, etc.]? Are drawings adequate for reproduction of multiple parts or installations? Is the data adequate to provide continued airworthiness information? Was the correct determination made for minor type design changes, repairs or alterations and does the data support that determination?
- 2. MAJOR SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

**5DDS1.** Is the design, including changes, adequately described on the type design data (drawings, specifications, etc.)?

Applicability:

	DAS	DOA	SFAR36
R	§ 21.31	§ 21.31	
P			X
N			

- a. The type design data include as a minimum:
- (1) Sufficient detail to define the characteristics necessary to fabricate, modify, install and inspect the part/product/appliance.
  - (2) Information on dimensions, material, processes necessary to define the structural strength of the product.
- (3) Airworthiness Limitations section of the Instructions for Continued Airworthiness as required by the applicable airworthiness standards.
- (4) Other data necessary to allow the determination of the airworthiness, noise characteristics, fuel venting, and exhaust emissions.
- b. Life limited parts are properly identified on the drawings in accordance with 14 CFR part 45.

**5DDS2.** Do the drawing and specifications adequately call out dimensions, tolerances, materials, and processes?

Applicability:

	DAS	DOA	SFAR36
R	21.31	21.31	
P			X
N			

#### Statement of Condition:

- a. The detail of the descriptive type design data includes as a minimum:
  - (1) Listing of drawings and specifications.
  - (2) Information on dimensions.
  - (3) Specifications for materials and processes;
- (4) Sufficient detail to define the characteristics necessary to fabricate, modify, install and inspect the part/product/appliance.
  - (5) Information on dimensions, material, processes necessary to define the structural strength of the product.
  - (6) Airworthiness Limitations from the Instructions for Continued Airworthiness.
  - (7) Other data, typically ground and flight tests, necessary to determine the airworthiness of the modified product.
- (8) Other data to assure the noise characteristics, fuel venting and exhaust emissions of later modified products are equivalent to the prototype installation.
  - (9) Other data necessary to describe the design of the product.
- b. Critical and major characteristics are identified on the drawing.
- c. Data submitted in any process for approval should not contain terms that are subject to various degrees of interpretation.
- d. Procedures to qualify the product to the specification.

**5DDS3.** Do the materials and process specifications follow appropriate industry practices?

**Applicability:** 

	DAS	DOA	SFAR36
R			
P	X	X	X
N			

#### **Statement of Condition:**

When industry or military material or process specifications offer different materials or methods of operations or processing, the drawing should clearly identify which material or method of operation or processing must be used.

**5DDS4.** Is there adequate data to support major design changes/major repairs, including instructions to accomplish the change/repair?

Applicability:

	DAS	DOA	SFAR36
R	§ 21.21(b)/21.97 & § 21.493	§ 21.21(b)/21.97 & § 21.293	§ 13a & § 6(b)(2)ii
P			
N			

## **Statement of Condition:**

- a. Major design changes at a minimum shall include substantiating and descriptive data.
- b. Major repair data at a minimum shall include the following:
  - (1) Substantiating and descriptive data and amendments thereto.
  - (2) Any tests conducted and results.
  - (3) Work instructions necessary to accomplish the repair.

5DDS5. Is the incorporation of changes to type design /repair data done appropriately?

Applicability:

	DAS	DOA	SFAR36
R P			
P	X	X	X
N			

- a. Ensure that all design changes have been incorporated into the drawing or data when engineering orders/change records were issued against that data.
- b. Assure that the data on the engineering change orders/change records have been incorporated, in total, into the type design.
- c. A procedure is used to ensure the incorporation of an engineering change in the production part, and on the drawing.
- d. Evidence of appropriate control of vendor design changes.
- e. A procedure is in place to ensure the incorporation of changes in the repair documentation.

## 5DDS6. Were deviations to the type design appropriately addressed on the FAA Form 8130-9?

Applicability:

	DAS	DOA	SFAR 36
R	§ 21.463	§ 21.253	
P			
N			X

## **Statement of Condition:**

- a. AR engineering properly reviewed and dispositioned all deviations prior to FAA testing and TC/STC approval.
- b. Previously produced parts were reviewed for any material review action or they were re-inspected and all deviations were recorded for AR engineering evaluation.
- c. All parts were FAA-conformed unless it was shown that they had no adverse effects for the certification test.
- d. Deviations were incorporated into the data as a one only or the drawings were revised.
- e. Repairs or Use-As-Is dispositions are not rolled over (sustained) into numerous production parts.
- f. Deviations listed on the FAA Form 8130-9 are evaluated for root cause and corrective action.

#### SECTION 6: COMPLIANCE SUBSTANTIATION DOCUMENTS

- 1. **SUBSYSTEM DESCRIPTION**. Findings of compliance to the applicable airworthiness standards are substantiated by the appropriate means of compliance and are properly documented.
- 2. MAJOR SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

**6DDS1.** Is the descriptive and substantiating data adequate to provide for continued airworthiness?

**Applicability:** 

	DAS	DOA	SFAR36
R	§ 21.50	§ 21.50	
P			
N			X

## **Statement of Condition:**

The data includes adequate instructions for continued airworthiness.

**6DDS2.** Does the substantiating data include all the information necessary to find compliance (e.g. test results, analysis, etc.), and are they technically accurate and complete?

Applicability:

	DAS	DOA	SFAR 36
R	§ 21.21(b)	§ 21.21(b)	§ 6(b)(2)ii
P			
N			

## **Statement of Condition:**

- a. The descriptive data include as a minimum:
- (1) Airworthiness Limitations section of the Instructions for Continued Airworthiness as required by the applicable airworthiness standards.
- (2) Other data necessary to allow the determination of the airworthiness, noise characteristics, fuel venting, and exhaust emissions.
- b. The compliance and substantiating data were reviewed and approved by the appropriate ARs.
- c. Did the assumptions, data, design, and test conditions used substantiate compliance?
- d. The computer tools were accurate, validated and applicable to the design.
- e. The software level for the system is adequate to meet the criticality level assigned in the hazard assessment or the system safety assessments and compliance with DO-178() was shown.

**6DDS3.** If the System Safety Assessments (SSA) are required – Did they identify and properly addresses all failure conditions/modes including the failure conditions that prevent continued safe operation?

Applicability:

Phile	abiney.		
	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

- a. The various Functional Hazard Assessments (FHAs) methodically identify all Failure Conditions, provide an accurate description of the effects, classify each one's severity (minor, major, hazardous, catastrophic) according to published guidance, and the classifications are consistent with the effects described.
- b. The FHAs are logically structured to cover all systems and to cover Failure Conditions which may cross multiple system boundaries.
- c. The various System Safety Assessments (SSAs) address all Failure Conditions identified in the FHAs and include the appropriate Depth of Analysis according to published guidance.
- d. In the SSAs, where Failure Modes and Effects Analysis (FMEAs) are used, it is methodical, complete, and shows there are no single point failures which would result in a Catastrophic effect.
- e. In the SSAs, where Fault Tree Analyses (FTAs) are used: the logic of the FTAs accurately reflect the architecture of the design; the base event failure rates are appropriate and justified if needed; any latencies are properly identified and their

exposure timed accounted for in the calculations; and the tree has been properly "reduced" to ensure the validity of any redundancy claims via AND" gates

- f. The assumptions used in the FHA and SSA process are sound, valid, and conservative.
- g. The computer tools used were accurate, validated, and applicable to the design.

6DDS4. Were the conducted tests described in a test plan?

Applicability:

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$\Box$	DAS	DOA	SFAR36
R			
P	X	X	
N			X

## **Statement of Condition:**

- a. All certification test plans were approved by the appropriate ARs.
- b. The approved test plans were in sufficient detail to conduct the tests.
- c. A description of the item(s) to be tested, including FAA conformity inspection requirements.
- d. A list of all test equipment necessary to conduct the test.
- e. A description of how the equipment will be calibrated (calibration is required) and approved prior to the test.
- f. A description of how the compliance will be shown prior to the test.
- g. A test procedure written in a step-by-step format.

**6DDS5.** Were tests conducted to show compliance with the applicable airworthiness standards?

**Applicability:** 

	DAS	DOA	SFAR36
R	§ 21.33	§ 21.33	
P			
N			X

- a. There is evidence that required tests were conducted.
- b. Deviations and unsatisfactory test results were appropriately dispositioned.

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6DDS6. Did the results of any testing identify an unsafe feature or characteristic?

Applicability:

	DAS	DOA	SFAR36
R	§ 21.21	§ 21.21	
P			
N			X

## **Statement of Condition:**

Unsafe conditions were documented and addressed satisfactorily.

**6DDS7.** Is there adequate type design and substantiating data to support the approval?

Applicability:

	DAS	DOA	SFAR36
R	§ 21.21(b)	§ 21.21(b)	§ 6(b)(2)ii
	& § 21.31	& § 21.31	
P			
Z			

## **Statement of Condition:**

The type design and substantiating data should include at a minimum the following:

- a. Details to show compliance with the applicable airworthiness standards and special conditions as listed in the certification basis.
- b. For multiple approval, data adequate for reproduction of multiple parts or installation.
- c. Test plans and results.
- d. Analysis.
- e. Ground and flight-test reports.
- f. Material and process specifications.
- g. Airworthiness limitations section of the Instructions for continued airworthiness.

#### **SECTION 7: FLIGHT-TESTING**

- 1. SYSTEM ELEMENT DESCRIPTION. Provides for evaluation of the activities and data related to issuance of Type Inspection Authorization, conducting the required ground and flight test items, and documentation/approval of the results, to establish that the evaluated design was shown to be in compliance with the applicable airworthiness standards.
- 2. SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

7DDS1. Was the aircraft or component in compliance or likely to comply prior to FAA flight testing?

Applicability:

	DAS	DOA	SFAR 36
R	§21.33	§ 21.33	
P			
N			X

## **Statement of Condition:**

- a. The applicant conducted tests or otherwise showed compliance to the regulations prior to starting FAA flight tests.
- b. FAA conformity inspections were completed and unsatisfactory conditions were properly dispositioned by the appropriate ARs prior to FAA flight tests.

7DDS2. Was the Type Inspection Authorization, including revisions/supplements, properly issued and identified in the required tests?

Applicability:

1 D D110	COLLEGE V		
	DAS	DOA	SFAR36
R			
P	X	X	
N			X

- a. All elements of the Type Inspection Authorization (TIA) were found acceptable in accordance with the following:
- (1) The required flight safety [risk] assessment was conducted in an acceptable manner and properly documented prior to conducting the flight tests.
  - (2) The airworthiness certification of the flight test article was accomplished and appropriate for the TIA flight-testing.
- (3) The development flight testing results indicate that the product is likely to comply with specified requirements identified in the TIA.
- (4) The TIA identified all required limitations and information, including any special operating limitations required for the flight test article.
  - (5) The TIA identified all FAA conformity inspections required to accomplish the flight tests.
  - (6) The TIA identified all FAA flight tests required to demonstrate compliance with the airworthiness standards.
  - (7) Flight Test Plans referenced in the TIA were approved by all appropriate/affected ARs.

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- (8) Flight Test Plans adhered to all FAA policy and procedures, and deviations were properly coordinated.
- b. There is objective evidence of compliance with the FAA approved procedure manual.
- c. Specific airworthiness standards applicable to the product involved are reviewed to insure a complete and effective inspection is accomplished.

7DDS3. Are the appropriate inspections and tests identified on the TIA?

Applicability:

П	DAS	DOA	SFAR 36
R	§21.463(b)(3)	§ 21.253	
P			
N			X

## **Statement of Condition:**

The TIA includes as applicable:

- a. Verification that the tests that are identified on the TIA are adequate to demonstrate compliance with the applicable airworthiness standards.
- b. Verification that all tests needed to demonstrate compliance have been accomplished.
- c. Verification that the flight test aircraft conforms to the type design prior to compliance testing.
- d. Verification of each flight test configuration for compliance testing including test equipment.
- e. Verification of product attributes applicable to the flight test. E.g. weight and balance, flight control tensions and travels.
- f. Witnessing ground operational test.
- g. Airworthiness Certificate (experimental).
- h. Safety inspections.

**7DDS4.** Did the (Supplemental) Type Inspection Report document results of all required ground tests, inspections, and flight tests?

Applicability:

	DAS	DOA	SFAR36
R	§ 21.441&	§ 21.253 &	
	§ 21.463	§ 21.293	
P			
N			X

- a. The (Supplemental) Type Inspection Report (TIR) documented that all Type Inspection Authorization (TIA) requirements were accomplished, analyzed and found to comply with the criteria, requirements, and regulations in accordance with the following:
  - (1) Part I to the TIR documented all FAA conformity requirements as specified in the TIA.
  - (2) Part I to the TIR included proper documentation and disposition of any unsatisfactory conformity items.
- (3) Part II to the TIR included all required administrative items, including certification basis, serial effectivity, flight test log, and documentation of any unusual items or non-compliance with the airworthiness standards.
  - (4) Part II to the TIR shows that each required flight test was accomplished in accordance with the TIA.
- (5) Part II to the TIR shows that any tests accomplished contrary to the instructions and conditions authorized by the TIA are documented and found to comply with the appropriate airworthiness standards.
- (6) Part II to the TIR documented results of each TIA flight test item, including any required analysis of test results, and shows compliance to the appropriate airworthiness standards.
  - (7) The TIR (Parts I and II) were reviewed by appropriate inspection and technical ARs prior to approval.
  - (8) The TIR was completed and approved within the required time.
- b. There is objective evidence of compliance with the FAA approved procedure manual.
- c. Deviations to the approved TIA and test plan were documented and approved prior to conducting the tests.
- d. The flight test results and any discrepancies and non-compliances were documented and approved.
- e. The TIR/STIR report is completed accurately in accordance with the FAA approved procedure manual and is completed within the required time frame.
- f. The TIR/STIR records show the results of FAA conformity inspections and tests on prototype or modified airplane presented for certification.
- g. Inspections and tests and changes to the product and/or type design data resulting there from are recorded and made a part of the TIR/STIR report.
- h. Unsatisfactory conditions are recorded and disposition by AR engineering.
- i. The TIR/STIR form includes references to the applicable airworthiness standards.

## **SECTION 8: CONFORMITY RECORDS**

- 1. **SYSTEM ELEMENT DESCRIPTION**. There is an acceptable conformity plan in place and the product and/or alteration is found to be in conformance to the approved type design data.
- 2. SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

8DDS1: Was the product/part built/altered to approved type design data?

Applicability:

П	DAS	DOA	SFAR 36
R	§ 21.33	§ 21.33	
P			
N			X

## **Statement of Condition:**

- a. The aircraft, assemblies and or part conforms to design data (select a sample and inspect as necessary).
- b. Parts are adequately installed in conformance with the design data. (If available, select a sample and inspect as necessary).

**8DDS2.** Were FAA conformity inspections accomplished according to FAA approved procedures, including those on parts provided by suppliers?

Applicability:

	DAS	DOA	SFAR 36
R	§ 21.441 (a)(2)(ii)	§ 21.33	
P			
N			X

- a. The FAA Form 8100-1 or other approved form used as the inspection records show:
  - (1) Sufficient detail to determine the degree of inspections performed.
  - (2) Inspection records show who conducted the inspection.
- (3) Special processes were performed (e.g. heat treatment, chemical etching, welding) and were found to be in conformance.
  - (4) In-process inspections were performed for assemblies and complex parts.
  - (5) All non conformities and discrepancies are accurately documented.
- (6) Procedures are adequate to ensure re-inspection of any parts that are reworked or replaced. (This includes inspection of installation of new parts as well as inspection of the parts.)
- (7) For any unsatisfactory dispositions that affect production parts, has the applicant accomplished appropriate root cause and corrective actions.

- (8) Preparation of FAA Form 8100-1 is adequate.
- (9) FAA Form 8100-1 is signed by AR inspector that performed the FAA conformity inspection.
- b. The AR inspector considers the following when performing conformity inspections:

#### Materials:

- (1) Raw materials used in the fabrication process were in conformity with the type design data and materials specifications.
- (2) Evidence was available to assure that chemical and/or physical properties were identified and checked as appropriate.
  - (3) Documented evidence to show traceability from the raw stock to the prototype part.
- (4) Part and or process deviations are recorded against the submitted design data (including material review dispositions).

#### **Processes and Processing:**

- (1) There is a process specification for each special process.
- (2) The process specifications have been approved by an engineering AR.
- (3) The process will produce consistent conforming parts during production in accordance with the type design and there is statistical or other evidence to indicate this.
  - (4) Is the process being operated in accordance with the process specification? Are any deviations recorded?

## Critical and Major Characteristics:

- (1) The applicant identified and inspected all of the critical and major characteristics.
- (2) The applicant has a record of these inspections.
- (3) The inspection and surveillance indicates that the above inspections were accurate and adequate.

## Workmanship:

- (1) The workmanship does not degrade the quality of the product.
- (2) The workmanship can be duplicated under production conditions.
- (3) Criteria have been established to identify workmanship practices.

## Adequacy of Drawings and Related Change Records:

- (1) The part can be produced and inspected using the information on the drawing.
- (2) Drawing tolerances are practicable and attainable under production conditions and evidence supports this.
- (3) All of the changes incorporated into the drawing have been approved by engineering ARs (including one-time only deviations in the prototype article submitted for FAA testing).
  - (4) Type design engineering changes in production parts are properly documented and incorporated.

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## Appendix 5

#### Non-conforming parts/materials:

- (1) Material review procedure is adequate to ensure appropriate disposition for non-conformities.
- (2) There is determination of root cause for observed non-conformities and adequate corrective action taken to prevent reoccurrence.
- (3) Use as is or repair dispositions for non-conformities have been approved by engineering ARs, and have they been incorporated in the type design (one-time only engineering orders).

#### Software:

- (1) Software products (version description document, source code, object code, documentation, test procedures, loaded hardware/firmware, etc.) are properly identified, including revision levels, when compared to the hardware and software engineering drawings.
  - (2) Software problem reports have been properly disposition.
- (3) Records indicate that appropriate developmental procedures such as DO 178 have been placed under configuration control for all software products, including support software.
  - (4) Verification and acceptance tests have been successfully executed, to approved test procedures, and recorded.
  - (5) Records indicate that the object code was compiled from released source code per approved procedures.
  - (6) Records indicate engineering AR approval of the software, prior to loading into the system or product.
  - (7) The product loaded correctly with released object code.
  - (8) The load was verified per applicable procedures, e.g. checksums, cycle redundancy checks, load maps.

## **Dispositions of Unsatisfactory Conditions**

(1) Unsatisfactory conditions are recorded and disposition by AR engineering prior to FAA tests.

## **8DDS3.** Was the conformity plan adequate and appropriate?

**Applicability:** 

	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

- a. There is objective evidence for a specific project that the conformity inspection plan includes the following information as applicable:
  - (1) General description of the aircraft modification.
  - (2) Definitions of terms used in the plan.
  - (3) Brief introduction of certification program.
  - (4) Applicant conformity inspections (who is authorized to sign the FAA Form 8130-9).
  - (5) FAA conformity inspection guidelines and exceptions.
  - (6) FAA Conformity inspection identification and initiation of FAA Form 8120-10 or other acceptable document.
  - (7) FAA Conformity inspection tracking by applicant.
  - (8) Applicant first article inspections.
  - (9) Tooling inspection and control.
  - (10) Material review prior to TC/STC and production approval.
  - (11) Software conformity inspections.
  - (12) Description and location of facilities to manufacture and test the product.
  - (13) Description and location for final assembly of product.
  - (14) Supplier agreements with applicant.
  - (15) FAA conformity inspections of parts modified or replaced during FAA flight test.
  - (16) FAA conformity inspections for test setup.
- (17) FAA conformity inspections conducted on ground test articles such as the flight test simulator, iron birds, vender qualification test articles, etc.
  - (18) FAA conformity of spare parts.
  - (19) Experimental certification of aircraft including location of flight testing.
  - (20) Flight test aircraft maintenance and re-inspection procedures to reestablish FAA conformity
  - (21) Supplier conformity requirements and procedures.

## Appendix 5

- (22) Identification of non-domestic suppliers.
- b. There is objective evidence that the conformity inspection plan addresses:
  - (1) Verifying the conformity of critical and major characteristics of materials, parts, and assemblies.
  - (2) Evaluating processes to ensure production of consistent and uniform products.
  - (3) Observing tests of important functional parameters of systems, modules, components and completed products.

**8DDS4.** Was the conformity plan accomplished?

Applicability:

	DAS	DOA	SFAR 36
R			
P	X	X	
N			X

## **Statement of Condition:**

There is objective evidence that the conformity inspection plan was accomplished by sampling:

- a. All planned FAA conformity inspections were completed prior to testing and TC/STC certification.
- b. All applicant conformity inspections were completed and documented correctly on FAA Form 8130-9.
- c. All parts, assemblies and installations have been identified and planned according to the conformity inspection selection guidelines and exceptions.
- d. All FAA conformity inspections are tracked to completion.
- e. Critical production tooling has been modified to the latest approved design configuration.
- f. Software conformity inspections were planned and accomplished as planned.
- g. FAA conformed parts that were subsequently modified or replaced during flight test were re conformed by AR inspectors.
- h. FAA certification test setups were conformed and documented by the AR inspector prior to the test. (No post test conformity inspections).
- i. Where ground test articles are used, FAA conformity inspections were properly accomplished prior to FAA certification tests (No post test conformity inspections).
- j. Maintenance functions performed on the flight test aircraft, that may affect conformity and certification aspects of the test, are documented and reviewed by the AR.

8DDS5. Was valid rationale used to request or not request FAA conformity inspections?

Applicability:

	DAS	DOA	SFAR 36
R	§ 21.441 (a)(2)(ii)	§ 21.293	
P			
N			X

## **Statement of Condition:**

- a. There is objective evidence that the test article and design changes are reviewed by the AR engineering and inspection organizations to determine the need for FAA conformity inspection.
- b. The justification to request or not request FAA conformity inspections was based on approved procedures.

**8DDS6**. Were all discrepancies satisfactorily dispositioned and documented prior to the issuance of the standard Airworthiness Certificate (e.g. going from experimental to standard)?

Applicability:

		DOA	CEAD 26
	DAS	DUA	SFAR 36
R	§ 21.473	§ 21.273	
P			
N			X

## **Statement of Condition:**

- a. All TIA and conformity inspections were accomplished satisfactorily prior to standard A/W certification.
- b. The aircraft conformed to the approved design before the airworthiness certificate was issued.
- c. After the test program, the test product was reworked to the approved design data prior to airworthiness certification.

**8DDS7**. Were all discrepancies dispositioned and documented prior to FAA conformity inspections?

#### Applicability:

	DAS	DOA	SFAR 36
R	§ 21.33	§ 21.33	
P			
N			X

## **Statement of Condition:**

Non-conformities/deviations are satisfactorily dispositioned by the appropriate AR prior to tests.

#### **SECTION 9: SFAR 36 DEVELOPED MAJOR REPAIR DATA**

- 1. SYSTEM ELEMENT DESCRIPTION. Evaluation of SFAR 36 development of major repair data.
- 2. SYSTEM ELEMENT STANDARDIZED EVALUATION CRITERIA. The following criteria are used to document the evaluation of this subsystem.

**9DDS1.** Does the data demonstrate that the repaired product, article or component continues to meet the applicable regulations?

Applicability:

	DAS	DOA	SFAR36
R			§ 5 and 6
P			
N	X	X	

#### **Statement of Condition:**

- a. The appropriate certification regulations have been denoted on the FAA Form 8100-9 in the data package.
- b. The data shows how each regulation listed on the FAA Form 8100-9 was substantiated. Reference sections 5(b)(2) and 6(a)(2), (b)(1), (b)(2)(ii).

**9DDS2.** Does the authorization holder have evidence that all major repair data was developed in accordance with the FAA approved procedure manual?

Applicability:

. 5 5	1011107		
	DAS	DOA	SFAR36
R			§3(a)(2)
P			
$\overline{\mathbf{N}}$	X	X	

## Statement of Condition:

- a. A procedure exists in the manual that will assure that all approved procedures for developing of major repair data will be followed before the data is released by an AR and the repair is performed.
- b. Any data package selected at random will show that the above procedure has been followed.

**9DDS3.** Does the authorization holder have evidence that the technical data was developed for the specific product or article being repaired?

Applicability:

	DAS	DOA	SFAR36
R			§3(a)(3)
P			
N	X	X	

## **Statement of Condition:**

a. Any data package selected at random will show the specific product or article being repaired on the FAA Form 8100-9.

- b. The applicable airworthiness requirements listed on the FAA Form 8100-9 will be appropriate to the specific product or article shown on the form.
- c. Each repair was evaluated for applicability to the product or article.

**9DDS4.** Does the authorization holder maintain required records for each product or article for which it has developed and used major repair data?

**Applicability:** 

	DAS	DOA	SFAR36
R			§13(a),(b),(c)
P			
N	X	X	

## **Statement of Condition:**

The authorization holder has:

- a. A technical data file that includes all data and amendments necessary to accomplish the major repair.
- b. A list of products or articles by make, model, and manufacturer's serial numbers that have been repaired under the authorization.
- c. A file of information from all available sources on difficulties experienced with products and articles repaired under the authorization.



## Federal Aviation Administration

## **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 8100.9, DAS, DOA, and SFAR 36 Authorization Procedures				
То	: Directive Management Officer, AIR-520			
(Pl	lease 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.				
Sul	omitted by: Date:			
FTS	S Telephone Number: Routing Symbol:			

FAA Form 1320-19 (8-89)(Representation)



