AC 20-114

DATE 10/22/81

ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Washington, D.C.

Subject: MANUFACTURERS' SERVICE DOCUMENTS

1. PURPOSE. This advisory circular suggests acceptable methods by which product manufacturers may indicate Federal Aviation Administration (FAA) approval of recommended actions prescribed in manufacturers' service documents.

2. RELATED FEDERAL AVIATION REGULATIONS (FAR) SECTIONS. Sections 21.31, 21.93, 21.95, 21.97, 21.99, 21.113, 21.289, 21.463, 43.13(a) & (b), 43.3(a), 43.7, 43.17, 65.95, 91.163(b), 121.379, 127.140, 135.437, and 145.51.

3. BACKGROUND.

a. Manufacturers' service documents communicate useful recommendations and information on available alterations, suggested repairs, inspections, etc., to operators. It is the operators' (not the manufacturers') ultimate responsibility to ensure that FAA approval has been obtained if FAA approval is required before implementing manufacturers' advice, recommendations, alterations, repairs, etc., prescribed in service documents. The FAR requires manufacturers to provide descriptive data covering required design changes to operators of their products. When FAA approval is required, it is necessary for operators and FAA field inspectors to know which recommendation or information has been reviewed and approved by the FAA upon issuance of the service document. For this reason it is desirable and expedient to assist the operator by indicating in an appropriate fashion in the body of service documents specifically which recommendation or information has been reviewed and approved by the FAA.

b. In the past, the phrases "FAA/DER Approved," "DER Approved," and "DOA Approved" have been used in service documents to indicate that FAA approval was administered by FAA designees. Such notations introduce confusion regarding the FAA approval status of a recommended action. FAA designee approval has legal significance only when that approval constitutes an FAA approval. Therefore, an approval by an FAA designee on behalf of the FAA that is accomplished within that designee's delegated authority is an FAA approval. FAA designees can approve only actions that have a regulatory basis for approval.

c. It is common practice for manufacturers to publish service documents for distribution to operators of their products. Manufacturers are not required by FAR either to coordinate service documents with the FAA or to gain FAA approval of these service documents prior to publication or distribution; however, manufacturers are required by FAR to gain FAA approval of all major type design changes and to provide operators with descriptive data covering required design changes to their products.

d. When major type design changes are involved, FAA approval is required by either FAA regional engineering offices or FAA designees as defined in paragraph 4c. The following are examples of major type design changes that fall in this category:

(1) Changes requiring issuance of a Type Inspection Authorization.

(2) Changes requiring ground test demonstrations witnessed by FAA regional engineering personnel.

(3) Changes requiring revisions to Type Certificate Data Sheets.

(4) Changes requiring revisions to the Airworthiness Limitation Sections of FAA-approved manuals.

(5) Changes made to correct reported deficiencies or safety hazards which appear to be airworthiness directive subjects.

(6) Revisions to changes required by airworthiness directives.

e. It has also been common practice in the past for manufacturers to mark entire service documents, such as service bulletins and all-operators' letters, as "FAA-Approved," "FAA/DER Approved," or "DER Approved." This practice implies that the service document has been reviewed, evaluated, and approved in toto by the FAA. However, since there is no regulatory basis for FAA approval of certain information in service documents, only the type certification data should be indicated as FAA Approved. A single statement to this effect should be included on the appropriate page of this document.

f. FAA approval of a document or recommended action should mean that the FAA (or a designee) has reviewed the document or has recommended action under established FAA regulations or standards and found it to be acceptable. Many parts of typical service documents do not require and should not receive FAA approval; these parts include manufacturer's recommended compliance times (except as indicated in paragraphs 5b(1)(b) and 5c), reasons or background supporting issuance of the document, recommended maintenance practices, step-by-step routine alteration procedures, estimates on the cost of compliance, tooling and facility requirements for compliance, etc. When there is a regulatory basis for an FAA approval, FAA approval may be indicated.

g. Most manufacturers of products used in air carrier service and many manufacturers of products used in general aviation have elected to abide by the guidelines in Air Transport Association (ATA) Specification No. 100, Specification for Manufacturers' Technical Data or General Aviation Manufacturers Association (GAMA) Specification 2.

Use of ATA Specification No. 100 or GAMA 2 is not an FAA requirement; however, it is a useful industry specification and its use is acceptable to the FAA. These Specifications and an associated Airline/Manufacturer Service Bulletin Implementation Guideline Manual, IGM-1, can be used to the extent they are compatible with the discussion that follows. (Note: ATA Specification No. 100 and IGM-1 may be purchased from the Engineering Division, Air Transport Association, 1709 New York Avenue, N.W., Washington, D.C. 20006.) GAMA-2 Specification may be purchased from: General Aviation Manufacturers Association, Suite 517, 1025 Connecticut Avenue, N.W., Washington, D.C. 20036.

4. DEFINITIONS.

a. "Product" means an aircraft, aircraft engine, propeller, appliance, or part thereof.

b. "Service documents" mean publications by a type certificate holder or appliance or component manufacturer that communicate useful information relative to safety, product improvement, economics, and operational and/or maintenance practices. Typical forms of publications include: service bulletins; all-operators' letters; service newsletters; and service digests or magazines. Publications, such as flight manuals and certain maintenance manuals, that are required for FAA type certification or approval are excluded.

c. "FAA designees" mean Designated Engineering Representatives (DERs), who have delegated authority to approve engineering information, and Delegation Option Authorization (DOA) and Designated Alteration Station (DAS) Authorization holders, who have delegated authority to approve either technical data or supplemental type certificates on behalf of the FAA.

5. DISCUSSION.

a. Product manufacturers should neither mark an entire service document as "FAA-Approved," "FAA/DER Approved," "DER Approved," etc., nor use any other statement which implies that the service document has been reviewed, evaluated, and approved in toto by the FAA, unless this is, in fact, the case and total FAA approval is required by regulation and has been conferred in accordance with prescribed procedures.

b. If an action, such as an alteration, parts replacement, repair, etc., is recommended by a manufacturer, and if FAA design approval is required for this action pursuant to the FAR, the manufacturer should indicate a grant of FAA approval in the service document. When this is done:

(1) The service document should be explicit on what falls within the scope of FAA approval. Example statements follow:

(a) "The resultant alteration (or repair) to the affected aircraft described by paragraph XX has been shown to comply with the applicable Federal Aviation Regulations and is FAA Approved;" or

(b) "The retirement life limits of paragraph XX have been shown to comply with the applicable Federal Aviation Regulations and are FAA Approved." (Note: Use only when replacement life limits are considered a type certification limitation.)

(2) Service documents should be neither treated nor represented as the official FAA approval documents, unless either a letter of design approval from the FAA or a record that compliance has been determined by an FAA designee is on file for recommended actions indicated as FAA-approved in service documents.

(3) Manufacturers should not indicate FAA approval of:

(a) Compliance times recommended in service documents (except as indicated in paragraphs 5b(1)(b) and 5c);

(b) Background information on the reasons why the recommendations are being made;

(c) Recommended maintenance actions, including inspections, that do not require FAA approval in the type certification process; or

(d) Detailed instructions (step-by-step) on how to accomplish a manufacturer's recommended and FAA-approved alteration, repair, rework, etc. When these instruction have no possible effect on type design.

(4) Service document statements regarding approval status should read "FAA-approved" even though FAA designees may have been involved in determining compliance. Terms such as "DER Approved," "FAA/DER Approved," "DOA Approved," etc., should not be used in service documents.

c. FAA approval of structural repairs and approval for continued operation with known but safe levels of structural damage may be indicated in a manufacturer's service document. If a statement, such as "The structural repair in paragraph XX is FAA-approved" is employed, it will be contingent on execution of the conditions contained in the FAA-approved portion of the document.

d. Major deviations to FAA-approved portions of service documents should also be FAA-approved.

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