AC NO: 21-13

DATE: 4/5/73

ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

SUBJECT: STANDARD AIRWORTHINESS CERTIFICATION OF SURPLUS MILITARY AIRCRAFT AND AIRCRAFT BUILT FROM SPARE AND SURPLUS PARTS

1. PURPOSE. To provide guidance and instructions on establishing eligibility and submitting application for civil airworthiness certification of surplus military aircraft and aircraft assembled from spare and surplus parts, under FAR 21.183(d) when an FAA Type Certificate has been issued under FAR 21.21 or FAR 21.27.

2. REFERENCES. Federal Aviation Regulations (FARs) Parts 1, 21, 45, 47 and 91. Advisory Circular No. 20-65.

3. GENERAL.

   a. All aircraft used in U.S. civil operations are required by law to be certificated in accordance with the Federal Aviation Act of 1958 and the implementing Federal Aviation Regulations. There must be an original FAA unchanged Type Certificate, or the original FAA Type Certificate modified by an amendment or Supplemental Type Certificate, and an FAA Certificate of Airworthiness issued before the aircraft can be operated as a civil aircraft.

   b. The Department of Defense (DOD) disposes of military aircraft which, when shown to meet FAA design requirements, may be eligible for an Airworthiness Certificate. In addition, the DOD sells major components and spare parts which the purchaser may use to build a complete aircraft. In order that these parts can be used for certification they must have been manufactured and inspected in accordance with FAA requirements. These aircraft and aircraft assembled from the spare parts must meet FAA design requirements and airworthiness standards before a Standard Airworthiness Certificate can be issued for the aircraft.

   c. The Defense Disposal Manual DOD 4160-21-M, Chapter VII, and all DOD notices announcing the sale of surplus aircraft state that the DOD does not assume any liability or in any way represent the aircraft as meeting, or being capable of meeting, the Federal

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Aviation Administration (FAA) Standard Airworthiness Certification Requirements. The person who purchases these aircraft must demonstrate that the aircraft conforms to the FAA Type Certificate and is in a condition for safe operation. Many purchasers of surplus military aircraft and assemblers (manufacturers) of aircraft from spare and surplus parts have been unable to obtain Standard Airworthiness Certificates for their aircraft due to their inability to show that the aircraft conforms to an FAA approved Type Certificate or Supplemental Type Certificate. Therefore, prospective purchasers of surplus military aircraft and assemblers (manufacturers) of aircraft from spare and surplus parts should be aware of the civil requirements, and that such aircraft must comply with those requirements to be eligible for an Airworthiness Certificate. In a number of cases the Type Certificate data sheet or aircraft specification will note the modifications required for civil certification. These documents should be reviewed by prospective purchasers to understand what modifications are required for civil certification.

4. BASIC ELIGIBILITY REQUIREMENTS. Before a Standard Certificate of Airworthiness can be obtained for any surplus military aircraft or aircraft assembled (manufactured) from spare and surplus parts, the applicant must (1) obtain an FAA Type Certificate under Federal Aviation Regulations, Part 21.21 or Part 21.27, and be able to show that the aircraft conforms to that Type Certificate or, (2) show that the aircraft conforms to an existing Type Certificate or a Supplemental Type Certificate of a civilian model. In addition, he must (in either case) prove that it is in condition for safe operation.

5. CONFORMITY. Conformity status with regard to an FAA approved design as the date of manufacture can be established by one of the following methods:

a. The FAA Form 8130-2;

b. The Type Certificate data sheet or Aircraft Specifications when the particular serial number is included showing it to be eligible with certain modifications;

c. In absence of a or b the FAA can accept a statement from the manufacturer or the military that the aircraft was manufactured in accordance with an FAA approved design and in accordance with an FAA approved inspection system. Any deviations from the approved design at the time of manufacture should be noted.

When the aircraft conformity, at the time of acceptance by the military, has been determined, it may then be possible to determine from the aircraft records those components and parts that were replaced or added after acceptance by the military. This will enable the FAA to determine any modification that need be made to permit the issuance of an airworthiness certification.

6. CERTIFICATION PROCEDURES. The following are typical steps that may be taken by an applicant to show compliance with the airworthiness certification requirements of FAR 21.183(d):

a. FAA Form 8130-6 (OMB 04-R0058), "Application for Airworthiness Certificate," properly executed and submitted (FAR 21.173).

b. Identify the FAA Type Certificate (including any Supplemental Type Certificates) for the aircraft for which he is applying for an Airworthiness Certificate.

c. Submit a copy of the bill of sale issued by the Federal Government Agency from which the aircraft was procured. (The DOD advises that a bill of sale is issued for sale of flyable aircraft). Where an aircraft is sold as scrap, a bill of sale is not issued. Aircraft and parts sold as scrap are not eligible for certification.

d. Present evidence to the FAA inspector that the aircraft conforms to the type design in the FAA Type Certificate or as modified by any Supplemental Type Certificate. The type design data used by the applicant to determine conformity should be shown in the applicant's records. The more complete the records, the easier it will be for the applicant to establish conformity to the Type Certificate or as modified by any Supplemental Type Certificate. The following (as appropriate to the particular situation) are typical records that might be needed:

(1) Records maintained by the military, the manufacturer, and any other prior owner pertaining to the manufacturing, inspection, maintenance, and operation of the aircraft.

(2) FAA Form 8130-2 (formerly FAA Form 970), "Conformity Certificate - Military Aircraft," or prior Airworthiness Certificate issued by the FAA, if any.

(3) Records which establish by manufacturer's serial number that the complete aircraft was produced under an FAA Production Certificate (PC), or an FAA Approved Production Inspection System (APIS), and the extent to which it was so produced.

(4) Where components and parts have been replaced since original manufacture, the records of the components and parts should show them as being produced under an FAA Production Certificate, FAA Parts Manufacturer Approval, FAA Approved Production Inspection System, or FAA Technical Standard Order and show that they are still in an airworthy condition.

(5) Records of any components and parts that have been fabricated or assembled by the applicant which establish that they conform to the type design.

(6) Records of engines, gear box assemblies, landing gears, instruments or other components or parts which establish that they originally conformed to the type design and have been maintained (overhauled, re-built, etc., re FAR 43 Standards) in accordance with the applicable FAA requirements.

(7) Where military records are being used to substantiate any portion(s) of conformity to FAA approved type design, the applicant should show that the records for that specific aircraft, component or part are complete and accurate.

NOTE: A letter from the DOD stating that the historical records are complete and accurate would expedite the showing of the applicant, if the applicant can obtain such a letter from the Federal Agency where the aircraft was purchased.

e. FAA Form 317(OMB 04-R0146), "Statement of Conformity," executed and submitted with an outline explaining determination of conformity.

f. Present current weight and balance from actual weighing of aircraft.

g. Present evidence of compliance with all applicable Airworthiness Directives (ADs).

h. Present records of inspection per FAR 21.183(d)(2).

i. Assure that the identification and marking requirements of FAR 45 are complied with. For an aircraft built from spare parts, FAA approval of a new aircraft identification plate which meets the requirements of FAR 45.11 and FAR 45.13 must be obtained.

7. MAJOR AREAS OF CONCERN. Special attention should be given to the following areas which are critical to airworthiness:

a. All major components of airplanes (wings, empennage, fuselage, landing gear, engine mount, cowlings, type certificated engine and propeller and related systems, controls and control systems, and instrumentation).

b. All fuselage structure of helicopters (including center frames, tail booms, cabin sections, etc.), all rotors and related parts.

c. Life-limited parts may be used for the remaining time left on the part providing the record of time is clearly reflected in the aircraft log books. End of life (time limit) must be reflected in the aircraft log at the time of Standard Airworthiness Certification. Where the military life is less than the civil life, the military life-limit will be used. Where the civil life-limit is less than the military, the civil will be used. In either case the time (life-limit) to be used is that of the lesser time. This can be exceeded only if a new life-limit is established on the type data sheet.

d. Prior to accomplishing any work on the aircraft, an applicant should review with the FAA inspector the records which he has concerning the aircraft. This will assure that the work is accomplished in accordance with the requirements in FARs, including the necessary FAA Approved Production Inspection Systems in the case of assemblies or assembly of the complete aircraft.

8. AIRWORTHINESS DETERMINATION. The following would be some of the typical steps taken by the FAA inspector toward certification of the aircraft:

a. Review application for completeness and correctness.

b. Inspect the aircraft and review records to ascertain/determine:

(1) Compliance and conformity to the Type Certificate (taking into account any STCs or any amendments to the Type Certificate).

(2) Compliance with applicable ADs.

(3) Currency of weight and balance from actual weighing (recommended observance of weighing).

(4) What inspections and tests (including flight tests) are required to find that the aircraft is in a condition for safe operation.

(5) Compliance with Registration Requirements (FAR 47) and Marking Requirements (FAR 45).

(6) That an approved flight test procedure and flight check-off form has been established and that each aircraft is flight tested in accordance with that form.

(7) That the civil model designation is reflected on the data plate (Ref: FAR 45.13(b)) and that all airworthiness documentation reflects the civil model designation (not the military model).

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