



Federal Aviation Administration

Memorandum

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To: See Distribution List

From: ^{FOR} David W. Hempe, Manager, Aircraft Engineering Division, AIR-100 *SymCahlan*

Prepared by: Ho-Joon Lim, Certification Procedures Branch, AIR-110

Subject: Additional Responsibilities of Limited Category Type Certificate (LTC)
Holders for Parts Production Under a Type Certificate

Memo No. AIR100-2010-02

Summary

Recently, the holder of an LTC applied for a production certificate (PC). The applicant wanted to produce (and sell) replacement parts for installation on LTC aircraft. Because we issue an LTC based on satisfactory military service experience and not through the normal type certification process, we would have serious concerns about deficiencies in design data, conformity, and airworthiness of the parts if a PC for parts was to be issued without engineering involvement. Accordingly, we are providing here additional steps to be followed by the LTC holder and the Aircraft Certification Office (ACO) prior to the issue of a "PC-for-parts-only" for a limited category aircraft.

Background

Spare parts are becoming scarce for the aging surplus military aircraft fleet, making aircraft harder to maintain. This problem applies to aircraft type certificated in the limited category under Civil Air Regulations 9 (CAR 9). An LTC makes certain surplus military aircraft eligible for civil use. LTCs were introduced in 1946 as a temporary measure to reduce the civil aircraft fleet shortage while manufacturers retooled to resume production of civil aircraft after WWII. Accordingly, limited category type certification was opened for a short time and then closed in 1947. Airworthiness certificates can still be issued to aircraft that are eligible under one of the existing LTCs.

The restricted category type certificate (RTC) was introduced in 1950, as CAR 8, to resume the flow of surplus military aircraft into the civil fleet, but with significant

operational limits on their use. Today, CAR 8 requirements are in Title 14 of the U.S. Code of Federal Regulations (14 CFR) part 21, § 21.25(a)(2).

In 1963, CAR 9a, entitled "Aircraft Airworthiness; Surplus Military Aircraft," was introduced to allow type certification of surplus military aircraft in the normal, utility, acrobatic, or transport categories. This helped applicants avoid the operational limits imposed by the RTC. Today, CAR 9a requirements are 14 CFR § 21.27.

LTC and RTC aircraft operators typically acquire parts either through military scrap yards, military surplus parts suppliers, and other operators, or by self-manufacture for use in their own aircraft. Once military sources no longer exist, operators soon run into problems acquiring spare parts.

Policy

If an LTC holder applies for a "PC-for-parts-only:"

- a. The applicant must have all original equipment manufacturer (OEM) design data (materials, dimensions, tolerances, model applicability, and process specifications) necessary to define and produce parts. The ACO verifies applicant-provided design data on a part-by-part basis. ACOs may allow the use of a designated engineering representative (DER) for approval to validate adequacy of design data.
- b. An applicant must add all parts that it wishes to produce to a Master Drawing List, which the ACO accepts. The ACO sends an acceptance letter to the LTC/PC holder and sends subsequent letters if more parts are added.
- c. The ACO must approve any changes to a part (materials or process substitution, as well as design changes).
- d. The applicant must show that each part produced conforms to OEM data. Additional conformity inspections for replacement parts produced under PC should be incorporated in the production processes as necessary.
- e. In general, if an applicant has OEM type design data, we don't require the applicant to submit engineering substantiation or perform part testing. However, even with OEM data as the basis for issuance of the PC, part testing and process verification tests could be required depending on part criticality and the manufacturing processes required producing a specific part.
- f. The type certificate data sheet (TCDS) limitation to restrict production of new aircraft remains in force. Include the following statement in the TCDS production basis: "Production of new aircraft is not permitted. Production of spare parts under an FAA PC may be authorized."

g. If an LTC holder lacks the necessary OEM design data for a part, they must go through the type design change process as specified in Orders 8110.4C, Type Certification, and 8110.48, How to establish the Certification Basis for Changed Aeronautical Products, and comply with 14 CFR § 21.101.

h. The applicant must meet the PC requirements of Part 21 and Order 8120.2, production approval and certificate management procedures.

This memo has been coordinated with AIR-200. If further clarification is needed, please contact Mr. Ho Joon Lim, AIR-110, at 202-385-6317.

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