

dated September 1, 1959 (24 FR 7065), added a new paragraph (d), entitled "Other aircraft." Amendment 1-2 provided for the airworthiness certification of aircraft that were used in military service and later released for civil use, and for other aircraft that had not had their airworthiness status maintained. The amendment stated that the regulation was created for other than newly manufactured aircraft. Section 21.183(d) has remained substantially unchanged since 1959.

The plain language of the regulation, however, does not limit the applicability of § 21.183(d) to surplus military aircraft, aircraft that have not had their airworthiness status maintained, or other than newly manufactured aircraft. Limited data and historical records show that, until recently, only a few newly manufactured aircraft have received standard airworthiness certificates on a case-by-case basis under § 21.183(d). These newly manufactured aircraft "arrive" at the airworthiness certification process as new aircraft that were not produced under an FAA production approval. On the other hand, the practice of issuing standard airworthiness certificates to surplus military aircraft released for civil use and aircraft that have not had their airworthiness status maintained has been ongoing for many years. Surplus military aircraft and aircraft that have not had their airworthiness status maintained "arrive" at the airworthiness certification process as used aircraft (those that have had time in service).

In 1966, the FAA proposed to amend § 21.183 by separating newly manufactured aircraft not manufactured under a type certificate or a production certificate from paragraph (d). See 31 FR 8075, June 8, 1966. Public comments received in response to the proposal showed a misunderstanding of the proposal's intent. Commenters mistakenly believed the FAA intended a broad change to past certification practices of issuing airworthiness certificates to surplus military aircraft and aircraft that had not had their airworthiness status maintained. Since the FAA did not intend such a broad change, and since few new aircraft fell within the intended scope of the change, the FAA decided to abandon the proposed change. See 32 FR 14925, Oct. 28, 1967. The FAA did state that although we would not adopt the proposed change, we would continue to issue standard airworthiness certificates to newly manufactured aircraft under § 21.183(d).

The System for Production of New Duplicate Aircraft

For the FAA to have confidence in the certification system of new aircraft manufactured in the United States, and the authenticity of their production, the FAA has created a three-step system of type certification, production certification, and airworthiness certification based on Title 49 of the United States Code. Type certification examines the basic design of the aircraft against the applicable airworthiness standards. Issuance of a type certificate (TC) is FAA approval that the design meets the applicable airworthiness standards of the Code of Federal Regulations. Production certification examines whether the system used to produce duplicate aircraft will result in products² that meet the design provisions of the pertinent TC. Issuance of a production certificate (PC) is a finding by the FAA that the quality control system of a manufacturer will reliably produce duplicate versions of a product that conforms to an approved type design. The FAA issues a standard airworthiness certificate to individual aircraft after finding that the aircraft conforms to the type design and is in condition for safe operation.

Safety Benefits Assumed by the Linkage of the Type Certificate and the Production Certificate

A connection between the TC and the PC provides an individual and a cumulative benefit. The individual benefit applies to an aircraft produced for initial airworthiness certification. For these aircraft, any deviation from the approved type design that is found during the conformity inspection can be evaluated by comparison to the supporting data that supports issuance of the TC and any changes made after the initial TC issuance. This evaluation assures the standard airworthiness certificate means the individual aircraft satisfies all the airworthiness standards identified by the TC.

The cumulative benefit applies to evaluating the cumulative effect of changes made after the initial issuance of the TC. The linkage of the PC to the TC supporting data enables the aircraft manufacturer to evaluate the cumulative effect of many changes made over time. The manufacturer can also determine that a changed aircraft presented for original airworthiness certification continues to comply with the airworthiness standards identified in the TC. The FAA requests comments from manufacturers on how, for an

aircraft presented for original standard airworthiness certification, they evaluate the interactive and cumulative effect of changes on the aircraft's compliance with all the airworthiness standards identified in the TC.

The Level of Safety Assumed for Newly Manufactured Aircraft

Nearly all new aircraft manufactured in the United States are eligible for airworthiness certificates since they are produced under the TC and PC processes that ensure the aircraft conform to a type design and are in condition for safe operation. The FAA, the manufacturer, civil aviation authorities of other countries, and the public rely on the TC and PC processes to accurately produce multiple copies of an aircraft that meet airworthiness standards. Paragraphs (a) and (b) of § 21.183 recognize this process in issuing standard airworthiness certificates to aircraft produced in this manner. Also, as stated in the next section of this advance notice, entitled "Discussion," the TC and PC holders have certain responsibilities connected with holding these privileges.

New aircraft presented for standard airworthiness certification under § 21.183(d) do not have the same level of certitude as newly manufactured aircraft produced under the TC and PC processes. Section 21.183(d) aircraft presented for airworthiness certification do not have the advantage of prior examination and approval by the FAA of a production quality system, and a finding by the FAA of accurate reproduction is difficult. The applicant for an airworthiness certificate must make a detailed, aircraft-by-aircraft showing to support the entitlement to individual airworthiness certificates, placing a great burden on both the applicant and the FAA.

Discussion

Readers should note that we are directing this Discussion section and the issues and proposals described in this advance notice at aircraft that are issued standard airworthiness certificates. We do not intend for this advance notice to apply to the proposed category of light-sport aircraft, which is the subject of a recent notice of proposed rulemaking (67 FR 5368, February 5, 2002).

The FAA's Aircraft Certification Service has recently learned that people are, or plan to be, engaged in manufacture or assembly of new aircraft, intending to obtain standard airworthiness certificates under 14 CFR 21.183(d). The builders of these aircraft do not hold a TC, supplemental type certificate (STC), or a PC, nor would

² The term "products" means aircraft, engines, propellers, or appliances.