DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

COMPLIANCE POLICY FOR PROVISIONAL TYPE CERTIFICATES (TITLE 14 OF THE CODE OF FEDERAL REGULATIONS (14 CFR) PART 21, SUBPART C)

SUMMARY: We in the Federal Aviation Administration's (FAA) Aircraft Certification Service (AIR) are proposing revising current policy used to evaluate applications for provisional type certificates (TC) for inclusion into the next revision of FAA Order 8110.4, "Type Certification."

AIR prescribes the guidance for the aircraft certification office (ACO) engineers to follow when evaluating applications for provisional TCs. (14 CFR part 21, Subpart C, Provisional Type Certificates) For the purpose of determining the adequacy of complying with 14 CFR part 21, Subpart C, this guidance will ensure a standardized process for the evaluation and issuance of provisional TC for aircraft and aircraft engines. Standardized guidance ensures **(1)** all ACOs have the same expectations for safety, and **(2)** the applicants are treated equally and consistently regardless where their applications are submitted for our evaluation.

CURRENT POLICY FOR PROVISIONAL TYPE CERTIFICATES

General

The FAA issues a Class I provisional TC when applicants demonstrate compliance with 14 CFR § 21.81 through the Administrator's determination that no feature, characteristic, or condition makes the aircraft unsafe when operated in accordance with the limitations established.

Demonstrating compliance with 14 CFR § 21.81 specifically requires the applicant to certify the aircraft design meets the minimum requirements applicable to the airworthiness requirements for the certificate applied for. To do this, it is essential the applicant adequately evaluate the aircraft by performing tests, analyses, and flights test

necessary to establish compliance with the applicable regulations, and by submitting a report to the ACO showing the acceptability of results. The ACO will issue a type inspection authorization (TIA) specifying the inspections necessary to determine the aircraft or aircraft engine conforms to the type design, before initiating FAA flight test evaluations.

Tests Applicants Must Perform

Applicants who have completed nearly all the requirements for issuance of a TC for their aircraft or aircraft engine are entitled to a provisional TC if they show compliance with 14 CFR § 21.81. Compliance may be demonstrated by establishing limitations for the aircraft or aircraft engine by addressing the few remaining requirements yet to be completed. The applicant must provide enough analysis or test data for the ACO and Manufacturing Inspection Office to have confidence the aircraft will pass the final compliance tests, per 14 CFR §21.81(e).

For example, an applicant cannot limit flight-testing to a weight and center of gravity (CG) envelope or speed envelope less than that requested for full TC, with the intent of getting a provisional certificate for those limits. The rule, 14 CFR § 21.81(d), requires the airplane be flown in all maneuvers necessary to show the airplane meets the flight requirements needed for the issue of a full TC. We will not issue a "provisional TIA" that allows an applicant to perform reduced flight tests or reduce the flight envelope in an attempt to obtain a provisional TC.

Provisional TC Intent

The rule governing the requirements for issuing provisional TCs does not allow an applicant to plan for a certification program targeting requirements that are less than the applicable airworthiness standards necessary for a standard TC. Rather, 14 CFR § 21.81 allows the FAA to issue a provisional TC for a design that we have not yet approved for the issuance of a TC meeting the requirements of 14 CFR § 21.21. For the issuance of a provisional TC the applicant must show the airplane is safe for flight and meets the airworthiness standards appropriate for its proposed type certification basis.

Because the FAA applies the same airworthiness standards to both the provisional and full TC programs, in the case of a provisional approval the ACO may allow the applicant, as part of their limitations, to disable of some aircraft systems such as pressurization, autopilot, or ice protection systems, before issuing the provisional TC. The aircraft must remain safe for flight when operated in accordance with the established limitations.

Similarly, flight tests for issuance of a full TC may reveal a flight characteristic that substantially meets some, but not all, airworthiness standards and falls short in a limited portion of the flight envelope. In such cases, we may issue a provisional TC, when the following occurs:

a. The applicant sets appropriate limits to avoid those noncompliant flight envelope regions or instances where the aircraft or aircraft engine does not meet airworthiness standards, and

b. The applicant shows how the aircraft will meet requirements for issuance of a full TC.

> **NOTE:** The ACO should not issue a provisional TC if an applicant cannot show the aircraft's structure fully complies with airworthiness standards throughout the flight envelope.

An applicant for a provisional TC should focus on showing compliance with the full airworthiness requirements, not the proposed limitations. Only when the applicant has shown the aircraft or aircraft engine has met the applicable airworthiness requirements are we able to fully determine airworthy safety requirements.

FUTURE RULEMAKING

Currently, as part of our comprehensive review of 14 CFR part 21, we are looking at Subpart C relative to the effectiveness and need for provisional TCs.

Originally, the FAA viewed provisional TCs as a means to efficiently help incorporate early jet engine-equipped aircraft into the national airspace system. This need arose because airlines sought early delivery of these near-TC aircraft to facilitate flight crew training and route planning. This, however, is no longer the case for modern aircraft. The need for provisional TCs has become less clear.

For small aircraft, the FAA viewed provisional TCs as a means of addressing safety concerns by allowing operators to fly aircraft with experimental airworthiness certificates for market surveys and crew training only. Even though the FAA would authorize such flight operations, provisional TCs and airworthiness certificates were deemed to be a higher safety standard than experimental airworthiness certificates.

However, over the years, operators have shown they can safely fly aircraft that are issued experimental airworthiness certificates under 14 CFR § 21.191, thereby eliminating the need for provisional TCs. We will explore this more as the 14 CFR part 21 project advances.

FAA CONTACT: Mr. Victor Powell, Certification Procedures Branch (AIR-110), Aircraft Engineering Division, Aircraft Certification Service, Federal Aviation Administration, 800 Independence Avenue, SW, Room 815, Washington, DC 20591; Tel: (202) 267-0564; Fax: (202) 267-5340; E-mail: 9-awa-air110-vp12@faa.gov.

COMMENTS INVITED: You can comment on the proposal by sending written data, views, or arguments to the e-mail address above.