

are open to the public, except as authorized by section 10(d) of the Federal Advisory Committee Act.

The ARAC sets up working groups to develop recommendations for resolving specific airworthiness issues. Tasks assigned to working groups are published in the **Federal Register**. Although working group meetings are not generally open to the public, the FAA invites participation in working groups from interested members of the public who have knowledge or experience in the task areas. Working groups report directly to the ARAC, and the ARAC must accept a working group proposal before presenting it to the FAA as an advisory committee recommendation.

The activities of the ARAC will not, however, circumvent the public rulemaking procedures; nor is the FAA limited to the rule language "recommended" by ARAC. If the FAA accepts an ARAC recommendation, the agency proceeds with the normal public rulemaking procedures. Any ARAC participation in a rulemaking package is fully disclosed in the public docket.

This rulemaking has been identified as a "fast track" project. Further details on the Fast Track Program can be found in the tasking statement (64 FR 66522, November 26, 1999) and the first NPRM published under this program, Fire Protection Requirements for Powerplant Installations on Transport Category Airplanes (65 FR 36978, June 12, 2000).

#### *What Is the Current Standard?*

Section 25.613 of 14 CFR part 25 prescribes requirements for material static strength properties and design values. Metallic material strength properties for aircraft manufactured in the U.S. have traditionally been based on those specified in Military Handbook (MIL-HDBK)-5. For metallic materials not listed in that handbook, the statistical procedures in the handbook were normally used to determine material strength properties. Prior to Amendment 25-72 to part 25 (55 FR 29786, July 20, 1990), the "A" or "B" material strength properties listed in MIL-HDBK-5, or those listed in MIL-HDBK-17, and -23, or Army-Navy-Commerce (ANC)-18, were required to be used unless specific FAA approval was granted to use other properties. With Amendment 25-72, §§ 25.613 and 25.615 were combined into one requirement, § 25.613, and the references to MIL-HDBK-5, -17, -23, and ANC-18 were removed. As part of that amendment, the requirement to use "A" and "B" properties of the military handbook was replaced by a more general requirement specifying

probabilities and confidence levels for material strength properties, with the test procedures and statistical methods unspecified. Those probability and confidence levels apply to metallic as well as non-metallic materials. In Europe, other standards have been used in showing compliance with JAR 25.613, such as the Euronorm, International Standard Organization, and Engineering Sciences Data Unit 00932 Metallic Data Handbook.

Because Amendment 25-72 removed the provision which permitted the Administrator to approve "other design values," such an approval requires an equivalent safety finding, including those where the applicant uses MIL-HDBK-5. This finding results in additional administrative time for both the manufacturer and the FAA. To reduce this administrative burden and to permit applicants to again use MIL-HDBK-5 data, the FAA issued Notice of Proposed Rulemaking No. 02-05 on January 29, 2002 (67 FR 4318).

#### *What Changes to the Current Standard Did the FAA Propose?*

In Notice No. 02-05, we proposed to revise § 25.613 of part 25 to reinstate the pre-amendment 25-72 provision that permitted the Administrator to approve "other design values." We also proposed the following changes:

- Revise the heading of § 25.613 to read, "Material Strength Properties and Material Design Values." This change clarifies that the design values are material design values.
- Revise paragraph (b) to clarify that the design values are material design values. The "A" and "B" properties published in MIL-HDBK-5 and -17, or in equivalent handbooks, would be acceptable without further statistical analysis. The statistical methods specified in MIL-HDBK-5 and -17 would be acceptable for use in establishing material design values. Other statistical methods, amounts of data, and material property data might also be acceptable, including those specified in the European Standards previously noted.
- Revise paragraph (c) to require consideration of environmental conditions in general, such as temperature and moisture, on material design values used in an essential component or structure, where those effects are significant in the airplane operating envelope. Paragraph (c) currently requires consideration of the effects of temperature on allowable stresses used for design where thermal effects are significant under normal operating conditions. This change is made because environmental factors

other than temperature may have a significant effect on allowable stresses, not only under normal operating conditions, but also at other conditions within the airplane operating envelope.

- Remove paragraph (d) as fatigue is now adequately addressed in § 25.571.
- Revise the premium selection process of paragraph (e) to clarify that the design values are material design values.
- Add a new paragraph (f), which permits the use of other design values if approved by the Administrator.

#### *Is Existing FAA Advisory Material Adequate?*

Draft Advisory Circular (AC) 25.613-1, Material Strength Properties and Material Design Values, which describes acceptable methods of compliance with this rule, was published concurrently with Notice No. 02-05 for public comment. We plan to issue the final AC upon publication of the final rule in the **Federal Register**.

#### *What Comments Were Received in Response to the Proposal?*

Only one commenter responded to the request for comments. The commenter thanked the FAA for the opportunity to comment.

#### *What Analyses and Assessments Has the FAA Conducted?*

##### **Paperwork Reduction Act**

There are no current or new requirements for information collection associated with this final rule.

##### *International Compatibility*

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has determined that there are no ICAO Standards and Recommended Practices that correspond to these regulations.

##### **Regulatory Evaluation Summary**

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. §§ 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the