Federal Aviation Administration
Aviation Rulemaking Advisory Committee

Transport Airplane and Engine Issue Area
Loads and Dynamics Harmonization Working Group

Task 1 – General Design Loads

Task Assignment

Aviation Rulemaking Advisory Committee; Loads and Dynamics Harmonization Working Group

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of establishment of Loads and Dynamics Harmonization Working Group.

SUMMARY: Notice is given of the establishment of the Loads and Dynamics Harmonization Working Group of the Aviation Rulemaking Advisory Committee (ARAC). This notice informs the public of the activities of the ARAC on transport airplane and engine issues.

FOR FURTHER INFORMATION CONTACT: Mr. William J. (Joe) Sullivan, Assistant Executive Director, Aviation Rulemaking Advisory Committee, Aircraft Certification Service (AIR-3), 800 Independence Avenue, SW., Washington, DC 20591, Telephone: (202) 267-9554; FAX: (202) 267-5364.

SUPPLEMENTARY INFORMATION: The Federal Aviation Administration (FAA) has established an Aviation Rulemaking Advisory Committee (ARAC) (56 FR 2190, January 22, 1991; and 58 FR 9230, February 19, 1993). One area the ARAC deals with is transport airplane and engine issues (56 FR 31995; July 12, 1991). These issues involve the airworthiness standards for transport airplanes, engines and propellers in parts 25, 33 and 35 of the Federal Aviation Regulations (14 CFR parts 25, 33 and 35) which are the responsibility of the FAA Director of Aircraft Certification.

The FAA announced at the Joint Aviation Authorities (JAA)-Federal Aviation Administration (FAA) Harmonization Conference in Toronto, Ontario, Canada, (June 2–5, 1992) that it would consolidate within the Aviation Rulemaking Advisory Committee structure an ongoing objective to "harmonize" the Joint Aviation Requirements (JAR) and the Federal Aviation Regulations (FAR). Coincident with that announcement, the FAA assigned to the ARAC those projects related to JAR/FAR 25, 33 and 35 harmonization which were then in the process of being coordinated between the JAA and the FAA. The harmonization process included the intention to present the results of JAA/FAA coordination to the public in the form of either a Notice of Proposed Rulemaking or an advisory circular—an objective comparable to and compatible with that assigned to the Aviation Rulemaking Advisory Committee. The Loads and Dynamics Harmonization Working Group is being formed to address loads and dynamics issues in JAR/FAR parts 25 identified below. The Loads and Dynamics Harmonization Working Group will forward recommendations to the ARAC which will determine whether to forward them to the FAA.

Specifically, the Working Group's tasks are the following: The Loads and Dynamics Harmonization Working Group is charged with making recommendations to the ARAC concerning the FAA disposition of the following subjects recently coordinated between the JAA and the FAA:

Task 1—General Design Loads

Develop new or revised requirements, and associated advisory and guidance material, for the general design loads for transport category airplanes (FAR 25.331, 25.335, 25.341, 25.345, 25.351, 25.371, 25.427, 25.483, 25.511, 25.561 and 25.963 and other conforming changes).

Task 2—Engine Torque and Gyroscopic Loads

Develop new or revised requirements, and associated advisory and guidance material, for determining the design loads for engine seizure conditions (FAR 25.361, 25.371 and other conforming changes).

Task 3—Flutter, Deformation and Fail-Safe Criteria:

Develop new or revised advisory and guidance material for flutter, deformation and fail-safe criteria (FAR 25.629).

Reports

A. Recommend time line(s) for completion of each task, including rationale, for consideration at the meeting of the ARAC to consider transport airplane and engine issues held following publication of this notice.

B. Give a detailed conceptual presentation on each task to the ARAC before proceeding with the work stated under items C and D, below. If tasks 1 and 2 require the development of more than one Notice of Proposed Rulemaking, identify what proposed amendments will be included in each notice.

C. Draft one or more Notices of Proposed Rulemaking for Tasks 1 and 2 proposing new or revised requirements, a supporting economic analysis and other required analysis, advisory and guidance material, and any other collateral documents the Working Group determines to be needed.

D. Draft appropriate advisory and guidance material for Task 3.

E. Give a status report on each task at each meeting of the ARAC held to consider transport airplane and engine issues.

The Loads and Dynamics Harmonization Working Group will be comprised of experts from those organizations having an interest in the tasks assigned. A Working Group member need not necessarily be a representative of one of the member organizations of the ARAC. An individual who has expertise in the subject matter and wishes to become a member of the Working Group should *write* the person listed under the caption "FOR FURTHER INFORMATION CONTACT" expressing that desire, describing his or her interest in the task, and the expertise he or she would bring to the Working Group. The request will be reviewed with the Chairs of the ARAC Transport Airplane and Engine Interest Issues and the Loads and Dynamics Working Group, and the individual will be advised whether or not the request can be accommodated.

The Secretary of Transportation has determined that the information and use of the ARAC is necessary in the public interest in connection with the performance of duties of the FAA by law. Meetings of the ARAC will be open to the public except as authorized by section 10(d) of the Federal Advisory Committee Act. Meetings of the Loads and Dynamics Harmonization Working Group will not be open to the public except to the extent that individuals with an interest and expertise are selected to participate. No public announcement of Working Group meetings will be made.

Issued in Washington, DC, on March 8, 1993.

William J. Sullivan,

Assistant Executive Director for Transport Airplane and Engine Issues, Aviation Rulemaking Advisory Committee.

[FR Doc. 93-5815 Filed 3-12-93; 8:45 am]

BILLING CODE 4910-13-M

Recommendation Letter

400 Main Street
East Hartford, Connecticut 06108

Pratt & Whitney
A United Technologies Company

#1

December 23, 1998

Department of Transportation
Federal Aviation Administration
800 Independence Avenue
Washington, DC 20591

Attn: Mr. Joseph Hawkins, ARM-1

Subject: Request for Formal Economic and Legal Review

Dear Joe:

The Transport Airplane and Engine Issues Group is pleased to submit the attached package containing Draft NPRM for FAR 25.331, Checked Pitching Maneuver to the FAA for formal legal and economic review. This package has been prepared by the Loads and Dynamics Harmonization Working Group.

Please contact us if additional information is required.

Sincerely,

Craig R. Bolt

Craig R. Bolt
Assistant Chair, ARAC TAEIG
boltcr@pweh.com
(Ph: 860-565-9348/Fax: 860-565-5794)

CRB/amr

cc: Dorenda Baker
Bob Benjamin
Vic Card
Chuck Huber (attachment)
Effie Upshaw

Recommendation

[4910-13]

±1

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR part 25

[Docket No. ; Notice No.]

RIN:

Revised Checked Pitching Maneuver Requirement for Transport Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This notice proposes to revise the checked pitching maneuver design load requirement of 14 CFR part 25 for transport category airplanes by incorporating changes developed in cooperation with the Joint Aviation Authorities (JAA) of Europe, Transport Canada and the U.S., European, and Canadian aviation industries through the Aviation Rulemaking Advisory Committee (ARAC). A checked pitching maneuver results when the cockpit pitch control is displaced to cause the airplane to pitch, but then the control is displaced in the opposite direction to arrest (check) the pitching motion. This rulemaking action concerns the design loads associated with the checked pitching maneuver and is necessary because differences between the current U.S. and European requirements impose unnecessary costs on airplane manufacturers. These proposals are intended to benefit the public interest by standardizing certain requirements, concepts, and procedures contained in the airworthiness standards without reducing, but potentially enhancing, the current level of safety.

DATES: Send your comments on or before [insert a date 90 days after the date of publication in the Federal Register]

ADDRESSES:

Address your comments to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590-0001. You must identify the Docket No. FAA-2001- at the beginning of your comments, and you should submit two copies of your comments. If you wish to receive confirmation that the FAA received your comments, include a self-addressed, stamped postcard.

You may also submit comments through the Internet to http://dms.dot.gov. You may review the public docket containing comments to these proposed regulations in person in the Dockets Office between 9:00 a.m. and 5:00 p.m., Monday through Friday, except Federal holidays. The Dockets Office is on the plaza level of the NASSIF Building at the Department of Transportation at the above address. Also, you may review public dockets on the Internet at http://dms.dot.gov.

FOR FURTHER INFORMATION CONTACT: Todd Margin, Airframe and Cabin Safety Branch, ANM-115, Transport Airplane Directorate, Aircraft Certification Service, FAA 1601 Lind Avenue, SW., Renton, WA 98055-4056; telephone (425) 227-1179, facsimile: 425-227-1320.

SUPPLEMENTARY INFORMATION

Comments Invited

Interested persons are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments relating to the environmental, energy, or economic impact that might result from adoption of proposals

contained in this notice are invited. Substantive comments should be accompanied by cost estimates. Commenters should identify the regulatory docket or notice number and submit comments in duplicate to the Rules Docket address specified above.

All comments will be considered by the Administrator before taking action on the proposed rulemaking. The proposals contained in this notice may be changed in light of comments received. All comments received will be available in the Rules Docket, both before and after the closing date for comments, for examination by interested persons. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket.

Commenters wishing the FAA to acknowledge receipt of their comments must submit with those comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. ." The postcard will be date stamped and returned to the commenter.

Availability of Rulemaking Documnts

You can get an electronic copy using the Internet by taking the following steps:

(1) Go to the search function of the Department of Transportation's electronic Docket Management System (DMS) web page (http://dms.dot.gov/search).

(2) On the search page type in the last four digits of the Docket number shown at the beginning of this notice. Click on "search."

(3) On the next page, which contains the Docket summary information for the Docket you selected, click on the document number of the item you wish to view.

You can also get an electronic copy using the Internet through FAA's web page at http://www.faa.gov/avr/arm/nprm/nprm.htm or the Federal Register's web page at http://www.access.gpo.gov/su_docs/aces/aces140.html.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the docket number or notice number of this rulemaking.

Background

Section 25.331(c)(2) of part 25 prescribes a checked pitching maneuver in which the cockpit pitch control is first displaced in a nose up direction, then the control is displaced in the opposite direction sufficient to "check" the pitching motion. The control displacements must develop specified nose up and nose down pitching accelerations. The magnitude of these control inputs must be such that the positive limit maneuvering load factor prescribed in § 25.337 is achieved on the airplane, but not exceeded.

The corresponding requirement in JAR-25 is similar, however, there are no specific minimum pitching accelerations that must be achieved. Rather, JAR paragraph 25.331(c)(2) requires a rational motion. This rational motion is not defined in the rule but the associated advisory material, Advisory Circular Joint (ACJ) 25.331(c)(2), prescribes a control motion in the form of a sine wave. This control motion is applied with the initial movement in the nose-up direction so that the maximum positive limit maneuvering load factor is achieved. As a separate condition, the control motion is applied with the initial movement in the nose-down direction, so that a maneuvering load factor of 0g is reached. In both cases, the control motion is applied at a frequency related to the short-period rigid body mode of the

airplane. The short-period rigid body mode is one of the two longitudinal stability modes that are inherent in every airplane and identified during the design phase.

The main criticism of the current FAR requirement is that the pitching accelerations are prescribed without any accounting for the size, configuration or characteristics of the airplane. In fact, the same pitching accelerations are applied to the smallest personal airplanes as to the largest jet transports. The JAR requirement, on the other hand, relates the frequency of the control motion to the frequency of the short-period rigid body mode of the airplane, thereby accounting for the characteristics of the particular airplane. Neither the FAR nor the JAR provide adequate criteria to fully account for the characteristics of advanced electronic flight control systems in which the achievable maneuvering load factors are governed by special computer control laws.

Harmonization of Regulations

Title 14 CFR part 25 (commonly referred to as part 25 of the Federal Aviation Regulations (FAR)) contains the airworthiness standards for transport category airplanes. Manufacturers of transport category airplanes must show that each airplane they produce complies with the relevant standards of part 25. These standards apply to airplanes manufactured within the U.S. for use by U.S.- registered operators, and to airplanes manufactured in other countries and imported to the U.S. under a bilateral airworthiness agreement.

In Europe, the Joint Aviation Authorities (JAA) developed the Joint Aviation Requirements (JAR) to provide a common set of airworthiness standards for use within the European aviation community. The airworthiness standards for European type certification of transport category airplanes are contained in Joint Airworthiness Requirements (JAR)-25,

and are based on part 25. Airplanes certificated to the JAR-25 standards, including airplanes manufactured in the U.S. for export to Europe, receive type certificates that are accepted by the aircraft certification authorities of 26 European member countries.

Although part 25 and JAR-25 are similar, they are not identical in every respect. Differences between the FAA and the JAA standards can result in substantial added costs when airplanes are type certification to both standards. These added costs, however, often do not bring about an increase in safety. For example, part 25 and JAR-25 may use different means to accomplish the same safety intent. In this case, the manufacturer is usually burdened with meeting both requirements, although the level of safety is not increased correspondingly. The FAA and JAA have recognized that a common set of standards would not only economically benefit the aviation industry, but also would maintain the necessary high level of safety. Therefore, the FAA and JAA consider "harmonization" of the two sets of standards to be a high priority.

In 1988, the FAA, in cooperation with the JAA and other organizations representing the American and European aerospace industries, began a process to "harmonize" the airworthiness requirements of the Untied States and the airworthiness requirements of Europe.

In 1991, the FAA requested the ARAC to assume the harmonization effort. The following section describes this committee and its activities.

The Aviation Rulemaking Advisory Committee (ARAC)

The FAA formally established the ARAC on January 22, 1991, and announced it to the public on that same day in the Federal Register (56 FR 2190). The purpose of ARAC was to provide information, advice, and recommendations to be considered in rulemaking

activities. The FAA sought this advise to develop better rules in less overall time and using fewer FAA resources than traditionally have been needed. The committee provides the opportunity for the FAA to get firsthand information and insight from interested parties about proposed new rules or revisions of existing rules.

There are 64 member organizations on the committee, representing a wide range of interests within the aviation community. Meetings of the committee are open to the public, except as authorized by section 10(d) of the Federal Advisory Committee Act.

The ARAC sets up separate individual working groups to develop proposals to recommend to the FAA for resolving specific issues. Tasks assigned to working groups are published in the Federal Register. Working groups report directly to the ARAC, and the ARAC must accept a working group proposal before the proposal can be presented to the FAA as an advisory committee recommendation for rulemaking. (The activities of the ARAC will not, however, circumvent the public rulemaking procedures. After the FAA receives an ARAC recommendation and finds it acceptable, the FAA proceeds with the normal public rulemaking procedures. Any ARAC participation in the rulemaking package will be fully disclosed in the public docket.)

The "Fast Track Harmonization Program"

Despite the work that ARAC has undertaken to address harmonization, there remain a large number of regulatory differences between part 25 and JAR-25. The current harmonization process is extremely costly and time-consuming for industry, the FAA, and the JAA. Industry has expressed a strong desire to conclude the harmonization program as quickly as possible to alleviate the drain on their resources and to finally establish one acceptable set of standards.

Recently, representatives of the aviation industry (including Aerospace Industries Association of America, Inc. (AIA), General Aviation Manufacturers Association (GAMA), and European Association of Aerospace Industries (AECMA)) proposed an accelerated process to reach harmonization.

In light of a general agreement among the affected industries and authorities to expedite the harmonization program, the FAA and JAA, in March 1999, agreed upon a method to achieve these goals. This method, which the FAA has titled "the Fast Track Harmonization Program," is aimed at expediting the rulemaking process for harmonizing not only the 42 standards that are currently tasked to ARAC for harmonization, but approximately 80 additional standards for part 25 airplanes.

The FAA initiated the Fast Track program on November 26, 1999 (64 FR 66522). This program involves grouping all of the standards needing harmonization into three categories:

Category 1: Envelope – For these standards, parallel part 25 and JAR-25 standards would be compared, and harmonization would be reached by accepting the more stringent of the two standards. Thus, the more stringent requirement of one standard would be "enveloped" into the other standard. In some cases, it may be necessary to incorporate part of both the part 25 and the JAR standard to achieve the final, more stringent standard. (This may necessitate that each authority revises its current standard to incorporate more stringent provisions of the other.)

Category 2: Completed or near complete – For these standards, ARAC has reached, or has nearly reached, technical agreement or consensus on the new wording of the proposed harmonized standards.

Category 3: Harmonize – For these standards, ARAC is not near technical agreement on harmonization, and the parallel part 25 and JAR-25 standards cannot be "enveloped" (as described under Category 1) for reasons of safety or unacceptability. A standard developed under Category 3 would be mutually acceptable to the FAA and JAA, with a consistent means of compliance.

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 the program, Fire Protection Requirements for Powerplant Installations on Transport Category Airplanes (65 FR 36978, June 12, 2000).

The FAA had originally assigned ARAC, by notice in the Federal Register (59 FR 30081, June 10, 1994), to develop recommendations on new or revised requirements for structural loads. Task 2 of this assignment concerned the requirement to account for continuous turbulence loads for transport category airplanes. The assigned task was to review the current requirement for continuous turbulence in part 25 and JAR-25 in light of the revisions to the discrete gust requirement of Amendment 25-86 (61 FR 5218) in order to determine if the continuous turbulence requirement was still needed and if it was in need of revision to be consistent with the new discrete gust requirement of § 25.341(a). The ARAC Loads and Dynamics Harmonization Working Group completed its work on that task and has made recommendations to the FAA. That effort was then absorbed under the Fast Track program when it was established in 1999. The regulatory changes proposed in this notice result from the recommendations of ARAC submitted under the Fast Track Harmonization program.

Discussion

The proposed requirement would provide a checked pitching maneuver requirement that is based on the current ACJ 25.331(c)(2) but with some modifications to account for advanced flight control systems. The proposal specifies a control input in the form of a sine wave as a baseline control motion. In addition, it would be required that the sine wave input be modified to achieve as closely as possible the specified airplane load factors. In cases where the load factors are not achievable with a simple sine wave using amplitude that fits within the limits of the control stops or the pilot effort limits, a modified sine wave within these limits would be required with a dwell at the maximum control displacement. The time delay would be varied to the extent necessary to achieve the specified load factors up to a maximum time beyond which the maneuver would no longer be considered rational.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. We have determined that there is no new information collection requirements associated with this proposed 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 reviewed the corresponding ICAO Standards and Recommended Practices and has identified no differences with these proposed regulations.

What Regulatory Analyses and Assessments Has the FAA Conducted?

Regulatory Evaluation Summary

Proposed 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 effect of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. section 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act also requires the consideration of international standards and, where appropriate, that they be the basis of U.S. standards. And fourth, the Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector of $100 million or more annually (adjusted for inflation).

The FAA has determined that this proposal has no substantial costs, and that it is not "a significant regulatory action" as defined in Executive Order 12866, nor "significant" as defined in DOT's Regulatory Policies and Procedures. Further, this proposed rule would not have a significant economic impact on a substantial number of small entities, would reduce barriers to international trade, and would not impose an Unfunded Mandate on state, local, or tribal governments, or on the private sector.

The DOT Order 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If it is determined that the expected impact is so minimal that the

proposed rule does not warrant a full evaluation, a statement to that effect and the basis for it is included in the proposed regulation. Accordingly, the FAA has determined that the expected impact of this proposed rule is so minimal that the proposed rule does not warrant a full evaluation. The FAA provides the basis for this minimal impact determination as follows:

Currently, airplane manufacturers must satisfy both part 25 and the European JAR-25 standards to certificate transport category aircraft in both the United States and Europe. Meeting two sets of certification requirements raises the cost of developing a new transport category airplane often with no increase in safety. In the interest of fostering international trade, lowering the cost of aircraft development, and making the certification process more efficient, the FAA, JAA, and aircraft manufacturers have been working to create, to the maximum possible extent, a single set of certification requirements accepted in both the United States and Europe. As explained in detail previously, these efforts are referred to as "harmonization."

This proposal concerns the design loads associated with the checked pitching maneuver and is necessary because differences between the current U.S. and European requirements impose unnecessary costs on airplane manufacturers. This proposed rule results from the FAA's acceptance of recommendations made by ARAC. We have concluded that, for the reasons previously discussed in the preamble, the adoption of the proposed requirements in 14 CFR part 25 is the most efficient way to harmonize these sections and in so doing, the existing level of safety will be preserved.

There was consensus within the ARAC members, comprised of representatives of the affected industry, that the requirements of the proposed rule will not impose additional costs

on U.S. manufacturers of part 25 airplanes. We have reviewed the cost analysis provided by industry through the ARAC process. A copy is available through the public docket. Based on this analysis, we consider that a full regulatory evaluation is not necessary.

We invite comments with supporting documentation regarding the regulatory evaluation statements based on ARAC's proposal.

Initial Regulatory Flexibility Determination

The Regulatory Flexibility Act (RFA) of 1980, 50 U.S.C. 601-612, as amended, establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant impact on a substantial number of small entities. If the determination is that the rule will, the Agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The FAA considers that this proposed rule would not have a significant impact on a substantial number of small entities for two reasons:

First, the net effect of the proposed rule is minimum regulatory cost relief. The proposed rule would require that new transport category aircraft manufacturers meet just one certification requirement, rather than different standards for the United States and Europe. Airplane manufacturers already meet or expect to meet this standard as well as the existing 14 CFR part 25 requirement.

Second, all U.S. transport-aircraft category manufacturers exceed the Small Business Administration small-entity criteria of 1,500 employees for aircraft manufacturers. The current U.S. part 25 airplane manufacturers include: Boeing, Cessna Aircraft, Gulfstream Aerospace, Learjet (owned by Bombardier), Lockheed Martin, McDonnell Douglas (a wholly-owned subsidiary of The Boeing Company), Raytheon Aircraft, and Sabreliner Corporation.

Given that this proposed rule is minimally cost-relieving and that there are no small entity manufacturers of part 25 airplanes, the FAA certifies that this proposed rule would not have a significant impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. In addition, consistent with the Administration's belief in the general superiority and desirability of free trade, it is the policy of the Administration to remove or diminish to the extent feasible, barriers to international trade, including both barriers affecting the export of American goods and services to foreign

countries and barriers affecting the import of foreign goods and services into the United States.

In accordance with the above statute and policy, the FAA has assessed the potential effect of the proposed rule and has determined that it supports the Administration's free trade policy because this rule would use European international standards as the basis for U.S. standards.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), codified in 2 U.S.C. 1532-1538, enacted as Public Law 104-4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted annually for inflation) in any one year.

This proposed rule does not contain a Federal intergovernmental or private sector mandate that exceeds $100 million in any year; therefore, the requirements of the Act do not apply.

Regulations Affecting Interstate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when modifying regulations in title 14 of the CFR in manner affecting interstate aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. Because this proposed rule would apply to the certification of future designs of transport category airplanes and their subsequent operation, it could, if

adopted, affect interstate aviation in Alaska. The FAA therefore specifically requests comments on whether there is justification for applying the proposed rule differently in interstate operations in Alaska.

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. We determined that this action would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, we determined that this notice of proposed rulemaking would not have federalism implications.

Environmental Analysis

FAA Order 1050.1D defines FAA actions that may be categorically excluded from preparation of a National Environmental Policy Act (NEPA) environmental impact statement. In accordance with FAA Order 1050.1D, appendix 4, paragraph 4(j), this proposed rulemaking action qualifies for a categorical exclusion.

Energy Impact

The energy impact of the notice has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) Pub. L. 94-163, as amended (42 U.S.C. 6362) and FAA Order 1053.1. It has been determined that the notice is not a major regulatory action under the provisions of the EPCA.

Lists of Subjects

14 CFR Part 25

Aircraft, Aviation safety, Reporting and record keeping requirements, Safety, Transportation.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration (FAA) proposes to amend part 25 of Title 14, Code of Federal Regulations, as follows:

PART 25 - AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. The authority citation for Part 25 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

2. Section of § 25.331 is amended by revising paragraph (c) as follows:

§ 25.331 Symmetric maneuvering conditions.

* * * * *

(c) Maneuvering pitching conditions. The following conditions must be investigated:

(1) * * *

(2) Checked maneuver between V_A and V_D. Nose up checked pitching maneuvers must be analyzed in which the positive limit load factor prescribed in § 25.337 is achieved. As a separate condition, nose down checked pitching maneuvers must be analyzed in which a limit load factor of 0g is achieved. In defining the airplane loads the cockpit pitch control motions described in sub-paragraphs (i), (ii), (iii) and (iv) of this paragraph must be used:

(i) The airplane is assumed to be flying in steady level flight at any speed between V_A and V_D and the cockpit pitch control is moved in accordance with the following formula:

$$\delta(t) = \delta_1 \sin(\omega t) \quad \text{for} \quad 0 \leq \omega t \leq t_{max}$$

where—

δ_1 = the maximum available displacement of the cockpit pitch control in the initial direction, as limited by the control system stops, control surface stops, or by pilot effort in accordance with § 25.397(b);

$\delta(t)$ = the displacement of the cockpit pitch control as a function of time. In the initial direction $\delta(t)$ is limited to δ_1. In the reverse direction, $\delta(t)$ may be truncated at the maximum available displacement of the cockpit pitch control as limited by the control system stops, control surface stops, or by pilot effort in accordance with 25.397(b);

t_{max} = $3\pi/2\omega$;

ω = the circular frequency (radians/second) of the control deflection taken equal to the undamped natural frequency of the short period rigid mode of the airplane, with active control system effects included where appropriate; but not less than:-

$$\omega = \frac{\pi V}{2V_A} \text{ radians per second;}$$

Where:

V = the speed of the airplane at entry to the maneuver.

V_A = the design maneuvering speed prescribed in § 25.335(c)

(ii) For nose-up pitching maneuvers the complete cockpit pitch control displacement history may be scaled down in amplitude to the extent just necessary to ensure that the positive limit load factor prescribed in § 25.337 is not exceeded. For nose-down pitching maneuvers the complete cockpit control displacement history may be scaled down in

amplitude to the extent just necessary to ensure that the normal acceleration at the c.g. does not go below 0g.

(iii) In addition, for cases where the airplane response to the specified cockpit pitch control motion does not achieve the prescribed limit load factors then the following cockpit pitch control motion must be used:

$\delta(t) = \delta_1 \sin(\omega t)$ for $0 \leq t \leq t_1$

$\delta(t) = \delta_1$ for $t_1 \leq t \leq t_2$

$\delta(t) = \delta_1 \sin(\omega[t + t_1 - t_2])$ for $t_2 \leq t \leq t_{max}$

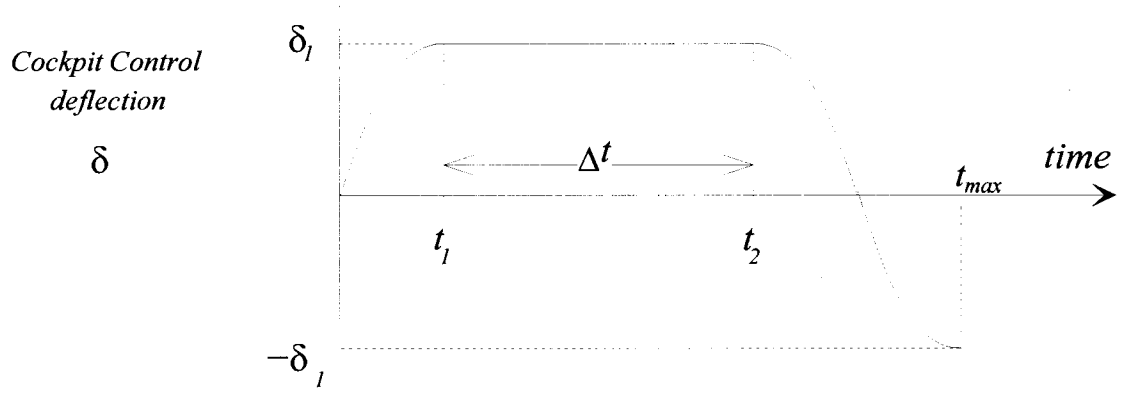
where—

$t_1 = \pi/2\omega$

$t_2 = t_1 + \Delta t$

$t_{max} = t_2 + \pi/\omega$;

Δt = the minimum period of time necessary to allow the prescribed limit load factor to be achieved in the initial direction, but it need not exceed five seconds (see figure below).



(iv) In cases where the cockpit pitch control motion may be affected by inputs from systems (for example, by a stick pusher that can operate at high load factor as well as at 1g) then the effects of those systems shall be taken into account.

(v) Airplane loads that occur beyond the following times need not be considered:

(1) For the nose-up pitching maneuver, the time at which the normal acceleration at the c.g. goes below 0g;(2) For the nose-down pitching maneuver, the time at which the normal acceleration at the c.g. goes above the positive limit load factor prescribed in § 25.337;

(3) t_{max}.

Issued in Renton, Washington, on

transferred from JH disk 11/97

f:/home/jthor/rules/checknp1.doc

revised 12-29-97: Minor editorial corrections, add additional boilerplate

revised 7-27-98: To incorporate ANM-7 comments and additional boilerplate

checknp2.doc

4-27-01: Revised boilerplate and new APO boilerplate

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget (OMB) control number.

VI. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111–274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, ''Plain Language in Government Writing,'' published June 10, 1998 (63 FR 31883).

VII. Backfitting and Issue Finality

The NRC has determined that the amendments in this final rule do not constitute backfitting and are not inconsistent with any of the issue finality provisions in 10 CFR part 52. The amendments are non-substantive in nature, and include adding three inadvertently omitted addenda to Section XI of the ASME B&PV Code to the list of documents approved for incorporation by reference and correcting a footnote number. They impose no new requirements and make no substantive changes to the regulations. The amendments do not involve any provisions that would impose backfits as defined in 10 CFR part 50, or would be inconsistent with the issue finality provisions in 10 CFR part 52. For these reasons, the issuance of the rule in final form would not constitute backfitting or represent an inconsistency with any of the issue finality provisions in 10 CFR part 52. Therefore, the NRC has not prepared any additional documentation for this final rule addressing backfitting or issue finality.

VIII. Congressional Review Act

In accordance with the Congressional Review Act of 1996 (5 U.S.C. 801–808), the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory Affairs, Office of Management and Budget.

List of Subjects in 10 CFR Part 50

Antitrust, Classified information, Criminal penalties, Fire protection, Incorporation by reference, Intergovernmental relations, Nuclear power plants and reactors, Radiation protection, Reactor siting criteria, Reporting and recordkeeping requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 552 and 553, the NRC is adopting the following amendments to 10 CFR part 50.

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

■ 1. The authority citation for part 50 continues to read as follows:

Authority: Atomic Energy Act secs. 102, 103, 104, 105, 147, 149, 161, 181, 182, 183, 186, 189, 223, 234 (42 U.S.C. 2132, 2133, 2134, 2135, 2167, 2169, 2201, 2231, 2232, 2233, 2236, 2239, 2273, 2282); Energy Reorganization Act secs. 201, 202, 206 (42 U.S.C. 5841, 5842, 5846); Nuclear Waste Policy Act sec. 306 (42 U.S.C. 10226); Government Paperwork Elimination Act sec. 1704 (44 U.S.C. 3504 note); Energy Policy Act of 2005, Pub. L. 109–58, 119 Stat. 194 (2005). Section 50.7 also issued under Pub. L. 95–601, sec. 10, as amended by Pub. L. 102–486, sec. 2902 (42 U.S.C. 5851). Section 50.10 also issued under Atomic Energy Act secs. 101, 185 (42 U.S.C. 2131, 2235); National Environmental Protection Act sec. 102 (42 U.S.C. 4332). Sections 50.13, 50.54(d), and 50.103 also issued under Atomic Energy Act sec. 108 (42 U.S.C. 2138). Sections 50.23, 50.35, 50.55, and 50.56 also issued under Atomic Energy Act sec. 185 (42 U.S.C. 2235). Appendix Q also issued under National Environmental Protection Act sec. 102 (42 U.S.C. 4332). Sections 50.34 and 50.54 also issued under sec. 204 (42 U.S.C. 5844). Sections 50.58, 50.91, and 50.92 also issued under Pub. L. 97–415 (42 U.S.C. 2239). Section 50.78 also issued under Atomic Energy Act sec. 122 (42 U.S.C. 2152). Sections 50.80–50.81 also issued under Atomic Energy Act sec. 184 (42 U.S.C. 2234).

■ 2. In § 50.55a, add paragraphs (a)(1)(ii)(B)(*5*) through (*7*) to read as follows:

§ 50.55a Codes and standards.

(a) * * *

(1) * * *

(ii) * * *

(B) * * *

(*5*) 1975 Winter Addenda,

(*6*) 1976 Summer Addenda, and

(*7*) 1976 Winter Addenda.

* * * * *

§ 50.55a [Amended]

■ 3. In § 50.55a, paragraph (e)(1), in the second sentence, remove footnote ''9'' and add, in its place, footnote ''7''.

Dated at Rockville, Maryland, this 8th day of December 2014.

For the Nuclear Regulatory Commission.

Cindy Bladey,

Chief, Rules, Announcements, and Directives Branch, Division of Administrative Services, Office of Administration.

[FR Doc. 2014–29037 Filed 12–10–14; 8:45 am]

BILLING CODE 7590–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No.: FAA–2013–0142; Amdt. No. 25–141]

RIN 2120–AK12

Harmonization of Airworthiness Standards—Gust and Maneuver Load Requirements

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This final rule amends certain airworthiness regulations for transport category airplanes, based on recommendations from the FAA-sponsored Aviation Rulemaking Advisory Committee (ARAC). This amendment eliminates regulatory differences between the airworthiness standards of the FAA and European Aviation Safety Agency (EASA). It does not add new requirements beyond what manufacturers currently meet for EASA certification and does not affect current industry design practices. This final rule revises the pitch maneuver design loads criteria; revises the gust and turbulence design loads criteria; revises the application of gust loads to engine mounts, high lift devices, and other control surfaces; adds a ''round-the-clock'' discrete gust criterion and a multi-axis discrete gust criterion for airplanes equipped with wing-mounted engines; revises the engine torque loads criteria; adds an engine failure dynamic load condition; revises the ground gust design loads criteria; revises the criteria used to establish the rough air design speed; and requires the establishment of a rough air Mach number.

DATES: Effective February 9, 2015.

ADDRESSES: For information on where to obtain copies of rulemaking documents and other information related to this final rule, see ''How To Obtain Additional Information'' in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this action, contact Todd Martin, Airframe and Cabin Safety Branch, ANM–115,

Transport Airplane Directorate, Aircraft Certification Service, Federal Aviation Administration, 1601 Lind Avenue SW., Renton, WA 98057–3356; telephone (425) 227–1178; facsimile (425) 227–1232; email *Todd.Martin@faa.gov.*

For legal questions concerning this action, contact Sean Howe, Office of the Regional Counsel, ANM–7, Federal Aviation Administration, 1601 Lind Avenue SW., Renton, Washington 98057–3356; telephone (425) 227–2591; facsimile (425) 227–1007; email *Sean.Howe@faa.gov.*

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, ''General Requirements.'' Under that section, the FAA is charged with promoting safe flight of civil aircraft in air commerce by prescribing regulations and minimum standards for the design and performance of aircraft that the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority. It prescribes new safety standards for the design and operation of transport category airplanes.

I. Overview of Final Rule

The FAA is amending Title 14, Code of Federal Regulations (14 CFR) Part 25 as described below. This action harmonizes part 25 requirements with the corresponding requirements in Book 1 of the EASA Certification Specifications and Acceptable Means of Compliance for Large Aeroplanes (CS–25). As such, this action—

1. Revises § 25.331, ''Symmetric maneuvering conditions,'' to prescribe both positive and negative checked pitch maneuver loads that take into account the size of the airplane and any effects of the flight control system. The introductory paragraph, § 25.331(c), is revised by moving some criteria to § 25.331(c)(2) where those criteria apply.

2. Removes appendix G to part 25, ''Continuous Gust Design Criteria,'' and § 25.341(b) now clearly sets forth the continuous turbulence requirement.

3. Revises § 25.341, ''Gust and turbulence loads,'' to—

• Remove the optional mission analysis method currently specified in appendix G in favor of the design envelope analysis method.

• Update the turbulence intensity criteria in § 25.341(b) to take into account in-service measurements of derived gust intensities.

• Update § 25.341(a) to require evaluation of discrete gust conditions at airplane speeds from design speed for maximum gust intensity, V_B, to design cruising speed, V_C, (previously required only at V_C) and to specify reference gust velocities up to 60,000 feet, rather than the previously specified 50,000 feet.

• Add a new paragraph § 25.341(c) that specifies a ''round-the-clock'' discrete gust criterion and a multi-axis discrete gust criterion for airplanes equipped with wing-mounted engines.

4. Revises § 25.343, ''Design fuel and oil loads,'' § 25.345, ''High lift devices,'' § 25.371, ''Gyroscopic loads,'' § 25.373, ''Speed control devices,'' and § 25.391, ''Control surface loads: General,'' by adding to each of these regulations a requirement to evaluate the continuous turbulence loads criteria in § 25.341(b).

5. Revises § 25.361, ''Engine and auxiliary power unit torque,'' to—

• Remove the requirement to assess engine torque loads due to engine structural failures (this requirement is re-established in the new § 25.362, outlined below).

• Provide specific engine torque load criteria for auxiliary power unit installations.

• Remove the requirements that apply to reciprocating engines.

• Change the title of § 25.361 from ''Engine torque'' to ''Engine and auxiliary power unit torque.''

6. Adds new § 25.362, ''Engine failure loads,'' to require engine mounts and supporting airframe structure be designed for 1g flight loads combined with the most critical transient dynamic loads and vibrations resulting from failure of a blade, shaft, bearing or bearing support, or bird strike event.

7. Revises § 25.391, ''Control surface loads: General,'' and § 25.395, ''Control system,'' to remove references to the ground gust requirements in § 25.415.

8. Revises § 25.415, ''Ground gust conditions'' to—

• Reorganize and clarify the design conditions to be considered.

• Identify the components and parts of the control system to which each of the conditions apply.

• Make it stand alone in regard to the required multiplying factors and to provide an additional multiplying factor to account for dynamic amplification.

9. Revises § 25.1517, ''Rough air speed, V_{RA}'' to remove the reference to VB in the definition of rough air speed and to require that a rough air Mach number, MRA, be established in addition to rough air speed. Also, this action removes the reference to § 25.1585, ''Operating procedures,'' because it is no longer applicable since that regulation was modified.

II. Background

A. Statement of the Problem

Part 25 prescribes airworthiness standards for type certification of transport category airplanes for products certified in the United States. EASA CS–25 Book 1 prescribes the corresponding airworthiness standards for products certified in Europe. While part 25 and CS–25 Book 1 are similar, they differ in several respects.

The FAA tasked ARAC through the Loads and Dynamics Harmonization Working Group (LDHWG) to review existing structures regulations and recommend changes that would eliminate differences between the U.S. and European airworthiness standards. The LDHWG developed recommendations, which EASA has incorporated into CS–25 with some changes. The FAA agrees with the ARAC recommendations as adopted by EASA, and this final rule amends part 25 accordingly.

B. Summary of the NPRM

On May 6, 2013, the FAA issued a Notice of Proposed Rulemaking (NPRM), Notice No. 25–139,[1] Docket No. FAA–2013–0142, to amend §§ 25.331, 25.341, 25.343, 25.345, 25.361, 25.371, 25.373, 25.391, 25.395, 25.415, and 25.1517; to add § 25.362; and to remove appendix G of 14 CFR part 25. That NPRM was published in the **Federal Register** on May 28, 2013 (78 FR 31851). In the NPRM, the FAA proposed to (1) revise the pitch maneuver design loads criteria; (2) revise the gust and turbulence design loads criteria; (3) revise the application of gust loads to engine mounts, high lift devices, and other control surfaces; (4) add a ''round-the-clock'' discrete gust criterion and a multi-axis discrete gust criterion for airplanes equipped with wing-mounted engines; (5) revise the engine torque loads criteria and add an engine failure dynamic load condition; (6) revise the ground gust design loads criteria; (7) revise the criteria used to establish the rough air design speed; and (8) require the establishment of a rough air Mach number.

[1] On April 16, 2014, the **Federal Register** published a correction (79 FR 21413) changing the Notice No. to ''13–04'' for the NPRM that published May 28, 2013 (78 FR 31851) and for subsequent NPRM corrections that published June 24, 2013 (78 FR 37722) and July 16, 2013 (78 FR 42480).

The FAA proposed these changes to eliminate regulatory differences between the airworthiness standards of the FAA and EASA. The NPRM comment period closed on August 26, 2013.

On June 24, 2013, the **Federal Register** published a correction to the NPRM to correct three equations in the proposed amendments to § 25.341 (78 FR 37722). On July 16, 2013, the **Federal Register** published a second correction to one equation in the proposed amendments to § 25.341 (78 FR 42480). The equations in this final rule have not changed from those in the corrected NPRM.

C. General Overview of Comments

The FAA received two comments. One commenter supported the NPRM and the ongoing international harmonization of certification requirements. The other comment addressed § 25.341 and is discussed below.

III. Discussion of Public Comments and Final Rule

A. Section 25.341, ''Gust and Turbulence Loads''

Section 25.341(a)(6) uses the term Z_{mo}, which is the maximum operating altitude, in feet, specifically defined in § 25.1527. A commenter noted that the units for the term Z_{mo} are not provided in the current rule. While § 25.341(a)(6) was not being revised as part of this rulemaking, the commenter recommended that this paragraph be revised to include the appropriate units for Z_{mo} (feet) for ease of reference. We agree, and revise the rule as recommended.

B. Section 25.415, ''Ground Gust Conditions''

After further FAA review of what we proposed by NPRM, we now specify that control system gust locks are to be taken into account only when the airplane is so equipped. As proposed, § 25.415 would have required that the airplane be evaluated while taxiing with the controls locked and unlocked, and while parked with the controls locked. However, many transport category airplanes with powered flight controls do not have control system gust locks. As noted in the NPRM, these airplanes rely on their hydraulic actuators to provide protection from ground gusts. We, therefore, now revise § 25.415 to clarify that, for all airplanes, the ground gust conditions apply when the airplane is taxiing and while parked. For airplanes that include control system gust locks, the taxiing condition must be evaluated with the controls locked and unlocked, and the parked condition must be evaluated with the controls locked. Airplanes not equipped with gust locks are to be evaluated in their normal configuration while taxiing and while parked. With these changes to § 25.415, the rule wording will no longer be exactly the same as CS 25.415; however, the intent of the two rules is the same in how airplanes with and without gust locks are evaluated.

C. Advisory Material

On May 31, 2013, the FAA published and solicited public comments on three proposed ACs that describe acceptable means for showing compliance with the NPRM's proposed regulations. The comment period for the proposed ACs closed on September 26, 2013. The FAA did not receive any comments on the proposed ACs. Concurrently with this final rule, the FAA is issuing the following final ACs to provide guidance material for the new regulations adopted by this amendment:

- AC 25.341–1, ''Dynamic Gust Loads.''
- AC 25.362–1, ''Engine Failure Loads.''
- AC 25.415–1, ''Ground Gust Conditions.''

IV. Regulatory Notices and Analyses

A. Regulatory Evaluation

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 and Executive Order 13563 direct 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 (Public Law 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, the Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this final rule.

Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If the expected cost impact is so minimal that a proposed or final rule does not warrant a full evaluation, this order permits that a statement to that effect and the basis for it be included in the preamble if a full regulatory evaluation of the cost and benefits is not prepared. Such a determination has been made for this final rule. The reasoning for this determination follows.

The FAA is amending certain airworthiness standards for transport category airplanes. Adopting this final rule will eliminate regulatory differences between the airworthiness standards of the FAA and EASA. This final rule does not add new requirements beyond what manufacturers currently meet for EASA certification and does not affect current industry design practices. Meeting two sets of certification requirements raises the cost of developing new transport category airplanes with little to no increase in safety. In the interest of fostering international trade, lowering the cost of manufacturing new transport category airplanes, and making the certification process more efficient, the FAA, EASA, and several industry working groups came together to create, to the maximum extent possible, a single set of certification requirements that would be accepted in both the United States and Europe. Therefore, as a result of these harmonization efforts, the FAA is amending the airworthiness regulations described in section I of this final rule, ''Overview of Final Rule.'' This action harmonizes part 25 requirements with the corresponding requirements in EASA CS–25 Book 1.

Currently, all manufacturers of transport category airplanes, certificated under part 25 are expected to continue their current practice of compliance with the EASA certification requirements in CS–25 Book 1. Since future certificated transport airplanes are expected to meet CS–25 Book 1, and this rule simply adopts EASA requirements, manufacturers will incur minimal or no additional cost resulting from this final rule. The FAA made this same determination in the NPRM and received no comments.

The FAA has, therefore, determined that this final rule is not a ''significant regulatory action'' as defined in section 3(f) of Executive Order 12866, and is not ''significant'' as defined in DOT's Regulatory Policies and Procedures.

B. Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Public Law 96–354) (RFA) establishes ''as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration.'' The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify, and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

In the NPRM, the FAA determined that this rule would not impose more than minimal cost.

The FAA believes that this final rule does not have a significant economic impact on a substantial number of small entities for the following reasons. We did not receive any comments from small entities. All United States transport category airplane manufacturers exceed the Small Business Administration small-entity criteria of 1,500 employees. Therefore, as provided in section 605(b), the head of the FAA certifies that this rulemaking will not result in a significant economic impact on a substantial number of small entities.

C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this final rule and determined that it is in accord with the Trade Agreements Act as the rule furthers the legitimate domestic objectives of safety, creates no unnecessary obstacles to foreign commerce, does not exclude imports, and uses European standards as the basis for United States regulation.

D. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Public Law 104–4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (in 1995 dollars) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a ''significant regulatory action.'' The FAA currently uses an inflation-adjusted value of $151 million in lieu of $100 million. This final rule does not contain such a mandate; therefore, the requirements of Title II of the Act do not apply.

E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. The FAA has determined that there is no new requirement for information collection associated with this final rule.

F. International Compatibility and Cooperation

(1) In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and has identified no differences with these regulations.

(2) Executive Order (EO) 13609, Promoting International Regulatory Cooperation (77 FR 26413, May 4, 2012), promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policy and agency responsibilities of Executive Order 13609, Promoting International Regulatory Cooperation. The agency has determined that this action would eliminate differences between U.S. aviation standards and those of other civil aviation authorities by creating a single set of certification requirements for transport category airplanes that would be acceptable in both the United States and Europe.

G. Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 312f of Order 1050.1E and involves no extraordinary circumstances.

V. Executive Order Determinations

A. Executive Order 13132, Federalism

The FAA has analyzed this final rule under the principles and criteria of Executive Order 13132, Federalism. The agency determined that this action will not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, does not have Federalism implications.

B. Executive Order 13211, Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this final rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it is not a ''significant energy action'' under the executive order and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

VI. How To Obtain Additional Information

A. Rulemaking Documents

An electronic copy of a rulemaking document may be obtained by using the Internet—

1. Search the Federal eRulemaking Portal (*http://www.regulations.gov*),

2. Visit the FAA's Regulations and Policies Web page at *http://www.faa.gov/regulations_policies/*, or

3. Access the Government Printing Office's Web page at *http://www.gpo.gov/fdsys/*.

Copies may also be obtained by sending a request (identified by notice, amendment, or docket number of this rulemaking) to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue SW., Washington, DC 20591; or by calling (202) 267–9680.

B. Comments Submitted to the Docket

Comments received may be viewed by going to *http://www.regulations.gov* and following the online instructions to search the docket number for this action. Anyone is able to search the electronic form of all comments received into any of the FAA's dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.).

C. Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires the FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. A small entity with questions regarding this document, may contact its local FAA official, or the person listed under the **FOR FURTHER INFORMATION CONTACT** heading at the beginning of the preamble. To find out more about SBREFA on the Internet, visit *http://www.faa.gov/regulations_policies/rulemaking/sbre_act/*.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The Amendment

In consideration of the foregoing, the Federal Aviation Administration amends part 25 of title 14, Code of Federal Regulations as follows:

PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

■ 1. The authority citation for part 25 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, and 44704.

■ 2. Amend § 25.331 by revising paragraph (c) introductory text and paragraph (c)(2) to read as follows:

§ 25.331 Symmetric maneuvering conditions.

* * * * *

(c) *Maneuvering pitching conditions.* The following conditions must be investigated:

* * * * *

(2) *Checked maneuver between V_A and V_D.* Nose-up checked pitching maneuvers must be analyzed in which the positive limit load factor prescribed in § 25.337 is achieved. As a separate condition, nose-down checked pitching maneuvers must be analyzed in which a limit load factor of 0g is achieved. In defining the airplane loads, the flight deck pitch control motions described in paragraphs (c)(2)(i) through (iv) of this section must be used:

(i) The airplane is assumed to be flying in steady level flight at any speed between V_A and V_D and the flight deck pitch control is moved in accordance with the following formula:

$\delta(t) = \delta_1 \sin(\omega t)$ for $0 \leq t \leq t_{max}$

Where—

δ_1 = the maximum available displacement of the flight deck pitch control in the initial direction, as limited by the control system stops, control surface stops, or by pilot effort in accordance with § 25.397(b);

$\delta(t)$ = the displacement of the flight deck pitch control as a function of time. In the initial direction, $\delta(t)$ is limited to δ_1. In the reverse direction, $\delta(t)$ may be truncated at the maximum available displacement of the flight deck pitch control as limited by the control system stops, control surface stops, or by pilot effort in accordance with 25.397(b);

$t_{max} = 3\pi/2\omega$;

ω = the circular frequency (radians/second) of the control deflection taken equal to the undamped natural frequency of the short period rigid mode of the airplane, with active control system effects included where appropriate; but not less than:

$$\omega = \frac{\pi V}{2V_A} \text{ radians per second;}$$

Where

V = the speed of the airplane at entry to the maneuver.

V_A = the design maneuvering speed prescribed in § 25.335(c).

(ii) For nose-up pitching maneuvers, the complete flight deck pitch control displacement history may be scaled down in amplitude to the extent necessary to ensure that the positive limit load factor prescribed in § 25.337 is not exceeded. For nose-down pitching maneuvers, the complete flight deck control displacement history may be scaled down in amplitude to the extent necessary to ensure that the normal acceleration at the center of gravity does not go below 0g.

(iii) In addition, for cases where the airplane response to the specified flight deck pitch control motion does not achieve the prescribed limit load factors, then the following flight deck pitch control motion must be used:

$\delta(t) = \delta_1 \sin(\omega t)$ for $0 \leq t \leq t_1$

$\delta(t) = \delta_1$ for $t_1 \leq t \leq t_2$

$\delta(t) = \delta_1 \sin(\omega[t + t_1 - t_2])$ for $t_2 \leq t \leq t_{max}$

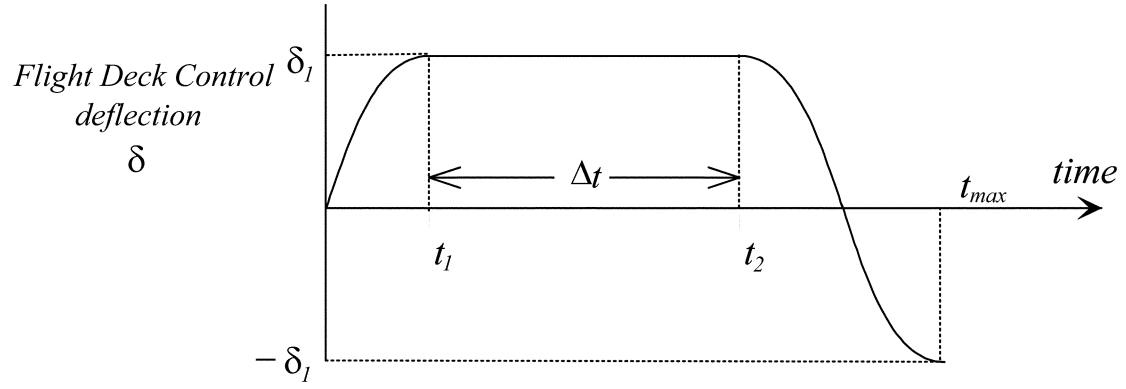
Where—

$t_1 = \pi/2\omega$

$t_2 = t_1 + \Delta t$

$t_{max} = t_2 + \pi/\omega$;

Δt = the minimum period of time necessary to allow the prescribed limit load factor to be achieved in the initial direction, but it need not exceed five seconds (see figure below).



(iv) In cases where the flight deck pitch control motion may be affected by inputs from systems (for example, by a stick pusher that can operate at high load factor as well as at 1g), then the effects of those systems shall be taken into account.

(v) Airplane loads that occur beyond the following times need not be considered:

(A) For the nose-up pitching maneuver, the time at which the normal acceleration at the center of gravity goes below 0g;

(B) For the nose-down pitching maneuver, the time at which the normal acceleration at the center of gravity goes above the positive limit load factor prescribed in § 25.337;

(C) $t_{max.}$.

■ 3. Amend § 25.341 by revising paragraphs (a)(5)(i), (a)(6), and (b), and by adding paragraph (c) to read as follows:

§ 25.341 Gust and turbulence loads.

(a) * * *

* * * * *

(5) * * *

(i) At airplane speeds between V_B and V_C: Positive and negative gusts with reference gust velocities of 56.0 ft/sec EAS must be considered at sea level. The reference gust velocity may be reduced linearly from 56.0 ft/sec EAS at sea level to 44.0 ft/sec EAS at 15,000 feet. The reference gust velocity may be further reduced linearly from 44.0 ft/sec EAS at 15,000 feet to 20.86 ft/sec EAS at 60,000 feet.

* * * * *

(6) * * *

Z_{mo} = Maximum operating altitude defined in § 25.1527 (feet).

* * * * *

(b) *Continuous turbulence design criteria.* The dynamic response of the airplane to vertical and lateral continuous turbulence must be taken into account. The dynamic analysis must take into account unsteady aerodynamic characteristics and all significant structural degrees of freedom including rigid body motions. The limit loads must be determined for all critical altitudes, weights, and weight distributions as specified in § 25.321(b), and all critical speeds within the ranges indicated in § 25.341(b)(3).

(1) Except as provided in paragraphs (b)(4) and (5) of this section, the following equation must be used:

$P_L = P_{L-1g} \pm U_\sigma \overline{A}$

Where—

P_L = limit load;

P_{L-1g} = steady 1g load for the condition;

$\overline{A}$ = ratio of root-mean-square incremental load for the condition to root-mean-square turbulence velocity; and

U_σ = limit turbulence intensity in true airspeed, specified in paragraph (b)(3) of this section.

(2) Values of $\overline{A}$ must be determined according to the following formula:

$$\overline{A} = \sqrt{\int_0^\infty |H(\Omega)|^2 \Phi(\Omega) d\Omega}$$

Where—

$H(\Omega)$ = the frequency response function, determined by dynamic analysis, that relates the loads in the aircraft structure to the atmospheric turbulence; and

$\Phi(\Omega)$ = normalized power spectral density of atmospheric turbulence given by—

$$\Phi(\Omega) = \frac{L}{\pi} \frac{1 + \frac{8}{3}(1.339\Omega L)^2}{\left[1 + (1.339\Omega L)^2\right]^{11/6}}$$

Where—

Ω = reduced frequency, radians per foot; and

L = scale of turbulence = 2,500 ft.

(3) The limit turbulence intensities, U_σ, in feet per second true airspeed required for compliance with this paragraph are—

(i) At airplane speeds between V_B and V_C: $U_\sigma = U_{\sigma\rho\varepsilon\phi} F_g$

Where—

$U_{\sigma\rho\varepsilon\phi}$ is the reference turbulence intensity that varies linearly with altitude from 90 fps (TAS) at sea level to 79 fps (TAS) at 24,000 feet and is then constant at 79 fps (TAS) up to the altitude of 60,000 feet.

F_g is the flight profile alleviation factor defined in paragraph (a)(6) of this section;

(ii) At speed V_D: U_σ is equal to ½ the values obtained under paragraph (b)(3)(i) of this section.

(iii) At speeds between V_C and V_D: U_σ is equal to a value obtained by linear interpolation.

(iv) At all speeds, both positive and negative incremental loads due to continuous turbulence must be considered.

(4) When an automatic system affecting the dynamic response of the airplane is included in the analysis, the effects of system non-linearities on loads at the limit load level must be taken into account in a realistic or conservative manner.

(5) If necessary for the assessment of loads on airplanes with significant non-linearities, it must be assumed that the turbulence field has a root-mean-square velocity equal to 40 percent of the U_σ values specified in paragraph (b)(3) of this section. The value of limit load is that load with the same probability of exceedance in the turbulence field as $\overline{A}U_\sigma$ of the same load quantity in a linear approximated model.

(c) *Supplementary gust conditions for wing-mounted engines.* For airplanes equipped with wing-mounted engines, the engine mounts, pylons, and wing supporting structure must be designed for the maximum response at the nacelle center of gravity derived from the following dynamic gust conditions applied to the airplane:

(1) A discrete gust determined in accordance with § 25.341(a) at each angle normal to the flight path, and separately,

(2) A pair of discrete gusts, one vertical and one lateral. The length of each of these gusts must be independently tuned to the maximum response in accordance with § 25.341(a). The penetration of the airplane in the combined gust field and the phasing of

the vertical and lateral component gusts must be established to develop the maximum response to the gust pair. In the absence of a more rational analysis, the following formula must be used for each of the maximum engine loads in all six degrees of freedom:

$$P_L = P_{L-1g} \pm 0.85\sqrt{L_V^2 + L_L^2}$$

Where—

P_L = limit load;

$P_{L\text{-}1g}$ = steady 1g load for the condition;

L_V = peak incremental response load due to a vertical gust according to § 25.341(a); and

L_L = peak incremental response load due to a lateral gust according to § 25.341(a).

■ 4. Amend § 25.343 by revising paragraph (b)(1)(ii) to read as follows:

§ 25.343 Design fuel and oil loads.

* * * * *

(b) * * *

(1) * * *

(ii) The gust and turbulence conditions of § 25.341(a) and (b), but assuming 85% of the gust velocities prescribed in § 25.341(a)(4) and 85% of the turbulence intensities prescribed in § 25.341(b)(3).

* * * * *

■ 5. Amend § 25.345 by revising paragraph (c)(2) to read as follows:

§ 25.345 High lift devices.

* * * * *

(c) * * *

(2) The vertical gust and turbulence conditions prescribed in § 25.341(a) and (b).

* * * * *

■ 6. Revise § 25.361 to read as follows:

§ 25.361 Engine and auxiliary power unit torque.

(a) For engine installations—

(1) Each engine mount, pylon, and adjacent supporting airframe structures must be designed for the effects of—

(i) A limit engine torque corresponding to takeoff power/thrust and, if applicable, corresponding propeller speed, acting simultaneously with 75% of the limit loads from flight condition A of § 25.333(b);

(ii) A limit engine torque corresponding to the maximum continuous power/thrust and, if applicable, corresponding propeller speed, acting simultaneously with the limit loads from flight condition A of § 25.333(b); and

(iii) For turbopropeller installations only, in addition to the conditions specified in paragraphs (a)(1)(i) and (ii) of this section, a limit engine torque corresponding to takeoff power and propeller speed, multiplied by a factor accounting for propeller control system malfunction, including quick feathering, acting simultaneously with 1g level flight loads. In the absence of a rational analysis, a factor of 1.6 must be used.

(2) The limit engine torque to be considered under paragraph (a)(1) of this section must be obtained by—

(i) For turbopropeller installations, multiplying mean engine torque for the specified power/thrust and speed by a factor of 1.25;

(ii) For other turbine engines, the limit engine torque must be equal to the maximum accelerating torque for the case considered.

(3) The engine mounts, pylons, and adjacent supporting airframe structure must be designed to withstand 1g level flight loads acting simultaneously with the limit engine torque loads imposed by each of the following conditions to be considered separately:

(i) Sudden maximum engine deceleration due to malfunction or abnormal condition; and

(ii) The maximum acceleration of engine.

(b) For auxiliary power unit installations, the power unit mounts and adjacent supporting airframe structure must be designed to withstand 1g level flight loads acting simultaneously with the limit torque loads imposed by each of the following conditions to be considered separately:

(1) Sudden maximum auxiliary power unit deceleration due to malfunction, abnormal condition, or structural failure; and

(2) The maximum acceleration of the auxiliary power unit.

■ 7. Add § 25.362 to read as follows:

§ 25.362 Engine failure loads.

(a) For engine mounts, pylons, and adjacent supporting airframe structure, an ultimate loading condition must be considered that combines 1g flight loads with the most critical transient dynamic loads and vibrations, as determined by dynamic analysis, resulting from failure of a blade, shaft, bearing or bearing support, or bird strike event. Any permanent deformation from these ultimate load conditions must not prevent continued safe flight and landing.

(b) The ultimate loads developed from the conditions specified in paragraph (a) of this section are to be—

(1) Multiplied by a factor of 1.0 when applied to engine mounts and pylons; and

(2) Multiplied by a factor of 1.25 when applied to adjacent supporting airframe structure.

■ 8. Revise § 25.371 to read as follows:

§ 25.371 Gyroscopic loads.

The structure supporting any engine or auxiliary power unit must be designed for the loads, including gyroscopic loads, arising from the conditions specified in §§ 25.331, 25.341, 25.349, 25.351, 25.473, 25.479, and 25.481, with the engine or auxiliary power unit at the maximum rotating speed appropriate to the condition. For the purposes of compliance with this paragraph, the pitch maneuver in § 25.331(c)(1) must be carried out until the positive limit maneuvering load factor (point A_2 in § 25.333(b)) is reached.

■ 9. Amend § 25.373 by revising paragraph (a) to read as follows:

§ 25.373 Speed control devices.

* * * * *

(a) The airplane must be designed for the symmetrical maneuvers prescribed in §§ 25.333 and 25.337, the yawing maneuvers in § 25.351, and the vertical and lateral gust and turbulence conditions prescribed in § 25.341(a) and (b) at each setting and the maximum speed associated with that setting; and

* * * * *

■ 10. Amend § 25.391 by revising the introductory text to read as follows:

§ 25.391 Control surface loads: General.

The control surfaces must be designed for the limit loads resulting from the flight conditions in §§ 25.331, 25.341(a) and (b), 25.349, and 25.351, considering the requirements for—

* * * * *

■ 11. Amend § 25.395 by revising paragraph (b) to read as follows:

§ 25.395 Control system.

* * * * *

(b) The system limit loads of paragraph (a) of this section need not exceed the loads that can be produced by the pilot (or pilots) and by automatic or power devices operating the controls.

* * * * *

■ 12. Revise § 25.415 to read as follows:

§ 25.415 Ground gust conditions.

(a) The flight control systems and surfaces must be designed for the limit loads generated when the airplane is subjected to a horizontal 65-knot ground gust from any direction while taxiing and while parked. For airplanes equipped with control system gust locks, the taxiing condition must be evaluated with the controls locked and unlocked, and the parked condition must be evaluated with the controls locked.

(b) The control system and surface loads due to ground gust may be

assumed to be static loads, and the hinge moments H must be computed from the formula:

$H = K (1/2) \rho_o V^2 c S$

Where—

K = hinge moment factor for ground gusts derived in paragraph (c) of this section;
ρ_o = density of air at sea level;
V = 65 knots relative to the aircraft;
S = area of the control surface aft of the hinge line;
c = mean aerodynamic chord of the control surface aft of the hinge line.

(c) The hinge moment factor K for ground gusts must be taken from the following table:

Surface	K	Position of controls
(1) Aileron	0.75	Control column locked or lashed in mid-position.
(2) Aileron	*±0.50	Ailerons at full throw.
(3) Elevator	*±0.75	Elevator full down.
(4) Elevator	*±0.75	Elevator full up.
(5) Rudder	0.75	Rudder in neutral.
(6) Rudder	0.75	Rudder at full throw.

*A positive value of K indicates a moment tending to depress the surface, while a negative value of K indicates a moment tending to raise the surface.

(d) The computed hinge moment of paragraph (b) of this section must be used to determine the limit loads due to ground gust conditions for the control surface. A 1.25 factor on the computed hinge moments must be used in calculating limit control system loads.

(e) Where control system flexibility is such that the rate of load application in the ground gust conditions might produce transient stresses appreciably higher than those corresponding to static loads, in the absence of a rational analysis substantiating a different dynamic factor, an additional factor of 1.6 must be applied to the control system loads of paragraph (d) of this section to obtain limit loads. If a rational analysis is used, the additional factor must not be less than 1.2.

(f) For the condition of the control locks engaged, the control surfaces, the control system locks, and the parts of any control systems between the surfaces and the locks must be designed to the resultant limit loads. Where control locks are not provided, then the control surfaces, the control system stops nearest the surfaces, and the parts of any control systems between the surfaces and the stops must be designed to the resultant limit loads. If the control system design is such as to allow any part of the control system to impact with the stops due to flexibility, then the resultant impact loads must be taken into account in deriving the limit loads due to ground gust.

(g) For the condition of taxiing with the control locks disengaged, or where control locks are not provided, the following apply:

(1) The control surfaces, the control system stops nearest the surfaces, and the parts of any control systems between the surfaces and the stops must be designed to the resultant limit loads.

(2) The parts of the control systems between the stops nearest the surfaces and the flight deck controls must be designed to the resultant limit loads, except that the parts of the control system where loads are eventually reacted by the pilot need not exceed:

(i) The loads corresponding to the maximum pilot loads in § 25.397(c) for each pilot alone; or

(ii) 0.75 times these maximum loads for each pilot when the pilot forces are applied in the same direction.

■ 13. Revise 25.1517 to read as follows:

§ 25.1517 Rough air speed, V_{RA}.

(a) A rough air speed, V_{RA}, for use as the recommended turbulence penetration airspeed, and a rough air Mach number, M_{RA}, for use as the recommended turbulence penetration Mach number, must be established. V_{RA}/M_{RA} must be sufficiently less than V_{MO}/M_{MO} to ensure that likely speed variation during rough air encounters will not cause the overspeed warning to operate too frequently.

(b) At altitudes where V_{MO} is not limited by Mach number, in the absence of a rational investigation substantiating the use of other values, V_{RA} must be less than V_{MO}—35 KTAS.

(c) At altitudes where V_{MO} is limited by Mach number, M_{RA} may be chosen to provide an optimum margin between low and high speed buffet boundaries.

Appendix G to Part 25 [Removed and Reserved]

■ 14. Remove and reserve appendix G to part 25.

Issued under authority provided by 49 U.S.C. 106(f) and 44701(a) in Washington, DC, on November 14, 2014.

Michael P. Huerta,

Administrator.

[FR Doc. 2014–28938 Filed 12–10–14; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2014–0668; Special Conditions No. 25–572–SC]

Special Conditions: AAR Engineering Services, Boeing 757–200 Series Airplane; Seats With Non-Traditional, Large, Non-Metallic Panels

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special condition; request for comments.

SUMMARY: These special conditions are issued for the Boeing 757–200 series airplane. This airplane, as modified by AAR Engineering Services, will have novel or unusual design features when compared to the state of technology envisioned in the airworthiness standards for transport-category airplanes. This design feature includes seats with non-traditional, large, non-metallic panels on Boeing 757–200 series airplanes. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: This action is effective on AAR Engineering Services on December 11, 2014. We must receive your comments by January 26, 2015.

ADDRESSES: Send comments identified by docket number FAA–2014–0668 using any of the following methods:

- *Federal eRegulations Portal:* Go to *http://www.regulations.gov/* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE., Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 8 a.m. and 5 p.m., Monday through Friday, except federal holidays.
- *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: The FAA will post all comments it receives, without change, to *http://www.regulations.gov/,* including any personal information the commenter provides. Using the search