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DEPT. OF TRANSPORTATION
PERMITS

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FROM
Wolfgang DIDSZUHN

DATE
22 février 2002

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OUR REFERENCE
EA 410.0023/02

YOUR REFERENCE

Rules Docket (AGC-10)
Federal Aviation Administration
800 Independence Ave, SW
Washington, DC 20591

FAA-02-11705-1

Subject : DFDR - Petition for Rulemaking

Dear Sir or Madam,

Enclosed are 2 copies of a petition for rulemaking to modify certain detailed data recording requirements for several digital flight data recorder parameters on Airbus airplanes.

If you have any questions on this matter, please do not hesitate to contact us. While I would be pleased to answer any questions you might have, for your convenience, communications on this matter may be handled through

Dr. John K. Lauber
Vice President, Safety
and Technical Affairs, Airbus
1909 K St., NW
Washington, DC 20006.

Dr. Lauber may be reached at (202) 331-2239.

Thank you for your assistance.

Sincerely,

Wolfgang DIDSZUHN
Vice President, Product Integrity

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EAA (3) / EAAG

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EYA

Submitted to
Federal Aviation Administration

DEPT. OF TRANSPORTATION

02 FEB 26 PM 2:47

In Re:
Petition for Rulemaking to modify
14 CFR 121 Appendix M and
14 CFR 125 Appendix E

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Docket No.

Submitted by

Wolfgang Didszuhn
Vice President, Product Integrity
Airbus
Blagnac, France

For further information please contact:

Dr. John K. Lauber
Vice President, Safety and Technical Affairs
Airbus, Washington Office
202-331-2239

DATE: Feb. 22, 2002

Summary of the Petition

Airbus, Blagnac, France, petitions for amendments to 14 CFR 121 Appendix M and 14 CFR 125 Appendix E to permit minor deviations from the specific detailed quantitative recording requirements for flight data recorder information on A310, A300-600, A318/319/320/321 and A330/A340 Series aircraft. The resolution for two recorded parameters as implemented on these aircraft differs slightly from the current regulation, and the accuracy of one parameter similarly differs somewhat from that specified in the rule.

1.0 General

The rulemaking implemented by FAA in August of 1997 (62 FR 38362) substantially improved the requirements for recording of up to 88 parameters of flight data for diagnostic use in the event of an accident or serious incident. Most of the improvement in the recording capability did not directly apply to Airbus aircraft, however, since almost all of the additional parameters required by FAA had long been incorporated into the standard Airbus product specification. However, in a few cases, the very detailed specifications promulgated in the FAA rule differed slightly from the recording parameters that had been implemented in Airbus aircraft. In that rulemaking, it was clearly stated that FAA had tailored the rule to avoid major equipment redesign or retrofits. The new requirements are to be met in stages, with the first 34 parameters being treated initially (at the next heavy maintenance check after August 18, 1999 but no later than August 20, 2001), followed by parameters 35-57 (for aircraft manufactured after August 18, 2000 upon delivery), and last dealing with parameters 58-88 (for aircraft manufactured after August 19, 2002, upon delivery).

On August 24, 1999 (64 FR 46117), FAA published a final rule which responded to the Airbus petition filed on April 9, 1998, seeking minor changes to the recording resolution requirements for several digital flight data recorder (DFDR) parameters. The changes sought considered only the first 34 parameters, and the rule granted those requests.

Airbus completed its review of parameters 35-57 to be recorded under the new regulations, and sought minor changes to the regulations to accommodate several small deviations. The FAA, on August 24, 2000, revised the subject rule to accommodate several technical changes found necessary by Airbus.

Airbus has now completed its audit of compliance requirements for Parameters 58-88, and finds 3 specific technical issues of compliance for which we seek rule changes, as described more fully below.

1.1 Substance of the rules from which exemption is sought [per FAR 11.25(b)(3)]

The recording requirements for DFDR's are contained in Appendix M of 14 CFR 121, and Appendix E of 14 CFR 125. Specifically, Airbus seeks minor technical changes as specified herein to the recording requirements for parameter 83 (cockpit trim control input position--roll), parameter 84 (cockpit trim control input position--yaw), and parameter 88 (cockpit flight control input forces--rudder).

1.2 Interests of the petitioner [per FAR 11.25(b)(4)]

Airbus is a manufacturer of transport category aircraft with worldwide customers, including many in the U.S. For that reason, Airbus is required to obtain certification from the FAA for any of its aircraft that are

to be operated by its customers in accordance with either Part 121, Part 125 or Part 129 of the Federal Aviation Regulations. The new DFDR requirements present, for the Airbus aircraft operated by a number of US customers, recording requirements for cockpit trim control position (roll and yaw) that are incompatible with equipment installed and in current production for some of these aircraft. In addition, the implementation of the newly required measurement of cockpit flight control input force measurement of rudder pedal is such that the accuracy obtained in the Airbus aircraft deviates somewhat from that required by the regulatory specification. Rather than seek, on behalf of its customers, permanent exemption from these requirements, Airbus petitions herein for regulatory changes that would obviate such exemptions.

2.0 Discussion

The FAA, in promulgating the new DFDR recording resolution requirements did not intend to require equipment redesign or retrofit. The cockpit trim position recording specification changes that are requested would be implemented in order to comply with that aim. These sensors have been installed on Airbus aircraft for many years, and it adds no safety or analytic benefit that Airbus can identify to replace these sensors with ones that are literally compliant with the regulatory specifications. The resolution deviations sought are small, and fully consistent with the smallest increment employed in the parameters employed for actual control of the respective flight control surfaces.

With regard to rudder pedal forces, the Airbus implementation requires a sensor that sums the rudder pedal forces from the cockpit pedals, these having no independent breakaway capability. Therefore, though the force is accurately measured, the actual force applied at each pedal varies somewhat with pedal ergonomics, adjusted to account for size differences from person to person, and also with actual pedal position. However, this shortfall in accuracy does not prohibit detailed and continuous high-resolution determination of the force that is applied to the rudder pedals so as to permit diagnosis of the source of movement of the pedals themselves (parameter 14) and the flight control surface (parameter 17). In fact, the inaccuracy due to pedal position can be corrected based on the measurement of parameter 14, leaving only the inaccuracy resulting from ergonomic adjustment. If the ergonomic adjustment is known (based on post-accident aircraft examination, for example), it, too, can be corrected.

None of these changes present any degradation in safety, nor do they present any difficulty with regard to post-event diagnosis. Adding the expense of literally meeting the detailed regulatory specification would not add any additional benefit to the public.

Specifically, changes are sought to the recording requirements for the following parameters as contained in 14 CFR 121 Appendix M and 14 CFR 125 Appendix E:

For A310 and A300-600 series aircraft:

Parameter 83, cockpit trim control input position—roll: Is required to be resolved to 0.028 degrees (0.2% of operational range of +/- 7 degrees) but is implemented with a resolution of 0.096 degrees. Note, however, that this resolution is nearly identical to the smallest increment used in deflection of the roll control surfaces for each model, which is 0.092 degrees in the A310 aircraft and 0.091 degrees in the A300-600 aircraft. Thus, achieving the additional resolution would provide no substantive benefit.

For A318/319/320/321 series aircraft:

Parameter 84, cockpit trim control input position—yaw: Is required to be resolved to 0.08 degrees (0.2% of operational range of +/- 20 degrees but is implemented with a resolution of 0.088 degrees. Note, however, that this resolution surpasses the smallest increment used to deflect the yaw control surfaces for each model, which is 0.112 degrees for the A320 family.

For A310, A300-600, A318/319/320/321, A330 and A340 (except A340-500 and –600 models) series aircraft:

Parameter 88, cockpit flight control input forces—rudder pedal: Is required to have accuracy of 5% but is implemented with an accuracy of 2.5% - 15%, depending upon the position of the pedal adjustment for ergonomic reasons, and the exact position of the pedals at the time the force is applied. These inaccuracies arise from the complex mechanical arrangement necessary to transmit pedal forces to the rudder control cables. There are two principal sources of this inaccuracy, and it is possible that one or both of them may be eliminated in post-accident analysis. However, for the purpose of compliance determination, Airbus elects to assume a worst case situation where neither inaccuracy can be eliminated, and therefore seeks this rule change.

The first uncertainty and largest source of inaccuracy is that associated with ergonomic adjustment of the pedal position to accommodate pilots of differing heights. If the pedal position selected can in fact be determined (for example by examination of the aircraft after an accident or incident), then this inaccuracy can be eliminated. The second uncertainty comes from the fact that, for a given pedal force, the recorded force varies somewhat depending on the position of the rudder pedals when the force is applied. If it is possible (and it should be so) to use the recorded rudder pedal position to calculate the position inaccuracy in post accident/incident review, then this inaccuracy can also be eliminated. Note that the resolution of this parameter as recorded complies with the required 0.2% of full range, and therefore the functionality of the recorded parameter is not adversely affected.

Specific regulatory language that would effect these changes is suggested, and provided as an Appendix to this petition.

3.0 Public Interest [per FAR 11.25(b)(5)]

As FAA itself noted in the course of the original rulemaking incorporating these new requirements, it was not intended that the new requirements would result in required retrofit or modification of existing equipment. The changes requested are minor and technical in nature. None of the changes would significantly affect the ability of accident investigators to perform their tasks. The changes will not adversely affect the safety of the aircraft, hinder the investigation of accidents or incidents, nor compromise the intent of the DFDR rules. Their sole purpose is to account for the differences in Airbus DFDR equipment when compared to the precise regulatory requirements.

A large cost to US operators would obviously be involved in redesigning and fitting new equipment to effect literal compliance with the recording resolution requirements of the present regulations. In addition, with the delivery of new aircraft whose implemented DFDR recording equipment differs from that installed on existing aircraft, a second set of spares and additional record keeping requirements would need to be instituted, further increasing costs on an ongoing basis. These added costs would not be balanced by any gain in safety or investigative capability deriving from such changes. It is, therefore, in the public interest to make the requested regulatory modifications so as to obviate an unnecessary and unproductive expenditure by US airlines.

Appendix

Suggested regulatory language to effect requested changes

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 121, 125

[Docket No. FAA-2002-; Amendment Nos. 121- & 125-]

RIN

Revisions to Digital Flight Data Recorder Requirements for Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: This action amends the flight data recorder regulations by adding language to allow certain Airbus airplanes to record certain data parameters using resolution requirements that differ slightly from the current regulation. This amendment is necessary because the Airbus airplanes are unable to record certain flight parameters under the existing criteria without undergoing unintended and expensive redesign, which would produce no added safety or investigative benefit.

DATES: This final rule is effective .

Comments must be submitted on or before [insert date 30 days after publication in Federal Register.]

ADDRESSES: Comments on this final rule should be mailed or delivered, in duplicate to: U.S. Department of Transportation Dockets, Docket No. FAA-2000-7830, 400 Seventh Street, SW, Room Plaza 401, Washington, DC 20590. 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: Gary E. Davis, Air Transportation Division (AFS-201), Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-8166.

SUPPLEMENTARY INFORMATION

Comments Invited

This final rule is being adopted without prior notice and prior public comment. The Regulatory Policies and Procedures of the Department of Transportation (DOT) (44 FR 1134; February 26, 1979), however, provide that, to the maximum extent possible, operating administrations for the DOT should provide an opportunity for public comment on regulations issued without prior notice. Accordingly, interested persons are invited to participate in this rulemaking by submitting such written data, views, or arguments, as they may desire. Comments relating to environmental, energy, federalism, or international trade impacts that might result from this amendment also are invited. Comments must include the regulatory docket or amendment number and must be submitted in duplicate to the address above. All comments received, as well as a report summarizing each substantive public contact with FAA personnel on this rulemaking, will be filed in the public docket. The docket is available for public inspection before and after the comment closing date.

The FAA will consider all comments received on or before the closing date for comments. Late filed comments will be considered to the extent practicable. This final rule may be amended in light of the comments received.

Commenters who want the FAA to acknowledge receipt of their comments submitted in response to this final rule must include a preaddressed, stamped postcard with those comments on which the following statement is made: "Comments to Docket No. FAA-2000-". The postcard will be date-stamped by the FAA and mailed to the commenter.

Availability of Final Rule

An electronic copy of this document may be downloaded using a modem and suitable communications software from the FAA regulations section of the Fedworld

electronic bulletin board service (telephone: (703) 321-3339), or the Government Printing Office's (GPO) electronic bulletin board service (telephone: (202) 512-1661).

Internet users may reach the FAA's web page at <http://www.faa.gov/avr/arm/nprm/nprm.htm>, or the Government Printing Office's webpage at <http://www.access.gpo.gov/nara> for access to recently published rulemaking documents.

Any person may obtain a copy of this final rule 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. Communications must identify the notice number or docket number of this rule.

Persons interested in being placed on the mailing list for future rulemaking documents should request from the above office a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, that describes the application procedure.

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. Therefore, any small entity that has a question regarding this document may contact their local FAA official. Internet users can find additional information on SBREFA on the FAA's web page at <http://www.faa.gov/avr/arm/sbrefa.htm> and may send electronic inquiries to the following Internet address: 9-AWA-SBREFA@faa.gov.

BACKGROUND

Statement of the Problem

After the amendments to the DFDR requirements became effective on August 18, 1997 (62 FR 38362), the FAA began receiving telephone inquiries, requests for meetings, and petitions for exemption from Airbus concerning the economic impact of

the amendments on certain Airbus airplanes. Airbus claimed that in order to comply with the new DFDR recording requirements of 14 CFR Appendix M, its A300 B2/B4 series, A318/A319/A320/A321 series, and its A330/A340 series airplanes would have to undergo major equipment retrofits and/or redesign. During the rulemaking, the FAA had stated that the rule was being tailored to avoid major equipment retrofits and/or redesign.

The digital flight data recorders (DFDRs) in the affected Airbus airplanes already record almost all of the required parameters, but some of the resolution and sampling intervals for certain parameters differ slightly from those required by Appendix M to 14 CFR 121. Airbus noted this difference in its comment to the NPRM, but the comment was not fully addressed in the preamble to the final rule, issued in August 1997.

History of amendments to DFDR requirements

On February 22, 1995, the NTSB recommended that the FAA require upgrades of the flight data recorders installed on certain airplanes to record certain additional parameters not required by the current regulations. Two of the recommendations made by the NTSB affected the subject Airbus airplanes:

Recommendation No. A-95-26. Amend, by December 31, 1995, 14 CFR §§121.343, 125.225, and 135.152 to require that Boeing 727 airplanes, Lockheed L-1011 airplanes, and all transport category airplanes operated under 14 CFR Parts 121, 125, or 135 whose type certificates apply to airplanes still in production, be equipped to record on a flight data recorder system, as a minimum, the parameters listed in "Proposed Minimum FDR Parameter Requirements for Airplanes in Service" plus any other parameters required by current regulations applicable to each individual airplane. Specify that the airplanes be so equipped by January 1, 1998, or by the later date when they meet Stage 3 noise requirements but, regardless of Stage 3 compliance status, no later than December 31, 1999. (Classified as Class II, Priority Action)

Recommendation No. A-95-27. Amend, by December 31, 1995, 14 CFR 121.343, 125.225, and 135.152 to require that all airplanes operated under 14 CFR Parts 121, 125, or 135, having 10 or more seats, and for which an original airworthiness certificate is received after December 31, 1996, record the parameters listed in

"Proposed FDR Enhancements for Newly Manufactured Airplanes" on a flight data recorder having at least a 25-hour recording capacity. (Classified as Class II, Priority Action)

Notice of Proposed Rulemaking

On July 16, 1996, the FAA published a notice of proposed rulemaking (NPRM) (Notice No. 96-7, 61 FR 37143) addressing revisions to DFDR rules. The proposals were based on the NTSB recommendations, information obtained through a public hearing, and the efforts of the Aviation Rulemaking Advisory Committee.

As part of its comment to the proposed rule, Airbus stated that there were current recorder systems that record the required parameters at sampling rates or resolutions that differ from the proposed Appendix M. Airbus commented that the rates and resolutions be changed since meeting them would impose significant retrofit costs on operators of Airbus airplanes. It was not until Airbus petitioned for exemption from the Appendix M requirements that FAA focused its attention on its response to the Airbus comment, the significant number of Airbus airplanes involved, and the minor variations that would be required from Appendix M requirements. As stated previously, it was never the intention of the FAA to require operators of any airplanes to incur significant equipment retrofit costs in order to comply with the requirements for DFDR upgrades.

The FAA believes that had it fully understood the overall impact the final rule would place on operators of Airbus airplanes, it would have made specific provisions to reduce or eliminate that impact in the final rule as regards parameters that have already been implemented in Airbus aircraft. In addition, in the petition that sought this rulemaking, Airbus has introduced a technical change needed to one of the accuracy specifications for a newly recorded parameter.

Petitions for Exemption and Rulemaking

On April 9, 1998, Airbus petitioned the FAA, on behalf of operators of Airbus aircraft, for permanent exemptions from part 121, Appendix M, and Part 125, Appendix E. Airbus requested that the A318/A319/320/321 series aircraft and A330/A340 series aircraft be exempted from the recording resolution requirements and be allowed to

record alternatives for several parameters. On August 24, 1999, FAA published a final rule (64 FR 46117) addressing those requests, which have been incorporated into the Appendices to Part 121 and Part 125 as a series of 13 footnotes.

In a letter dated May 24, 2000, Airbus filed a petition for rulemaking that requested correction of an additional parameter (parameter 9 Thrust/power of each engine—primary flight crew reference) that it had inadvertently left off the petition for exemption (Docket Number 30065). Airbus also requested minor changes to the recording requirements for parameter 37 (drift angle), parameter 42 (Power lever angle), and parameter 57 (Thrust command, for International Aero Engines only). Airbus submitted additional information on August 3, 2000, regarding parameter values. In its petition, Airbus stated that current Airbus A318, A319, A320, A321, A330, and A340 series airplanes are equipped with a digital flight data recording system (DFDRS) that records all mandatory parameters, numbers 1 through 88. Airbus further stated that, in order to appropriately revise the resolution and sampling requirements of Appendix M to Part 121 and Appendix E to Part 125, specific additional changes were needed. On [insert date] Airbus petitioned for specific additional changes to appendices M and E concerning the requirements for parameters to be recorded on all newly manufactured aircraft delivered after August 19, 2002. Specific additional changes are needed as follows:

For A310 and A300-600 series aircraft:

Parameter 83, cockpit trim control input position—roll: Is required to be resolved to 0.028 degrees (0.2% of operational range of +/- 7 degrees) but is implemented with a resolution of 0.096 degrees. This resolution is nearly identical to the smallest increment used in deflection of the roll control surfaces for each model, which is 0.092 degrees in the A310 aircraft and 0.091 degrees in the A300-600 aircraft. Thus, achieving the additional resolution would provide no substantive benefit.

For A318/319/320/321 series aircraft:

Parameter 84, cockpit trim control input position-yaw: Is required to be resolved to 0.08 degrees (0.2% of operational range of +/- 20 degrees but is implemented with a resolution of 0.088 degrees. This resolution surpasses the smallest increment used to deflect the yaw control surfaces for each model, which is 0.112 degrees for the A320 family.

For A310, A300-600, A318/319/320/321, A330 and A340 (except A340-500 and -600 models) series aircraft:

Parameter 88, cockpit flight control input forces-rudder pedal: Is required to have accuracy of 5% but is implemented with an accuracy of 2.5% - 15%, depending upon the position of the ergonomic pedal adjustment to accommodate pilots of different heights and also because of variation of recorded pedal force as a function of pedal position. Recorded resolution remains at 0.2%.

FAA Determinations

The FAA has previously determined that it would not be appropriate to grant an exemption to Airbus on behalf of the operators of its aircraft. Even if exemptions were granted to individual operators, they would have to be permanent. The FAA has determined that, under such circumstances, a change to the rule language of Appendix M is the only appropriate means to account for the differences in some DFDR equipment. Accordingly, the FAA is amending part 121 Appendix M, and Part 125 Appendix E to indicate that certain airplanes may continue to record the indicated parameters using the rates and resolutions listed. It is the FAA's understanding that this amendment will apply to Airbus aircraft. The FAA consulted informally with the NTSB concerning this variation, and the NTSB indicated that the proposed change would not significantly affect its ability to investigate accidents or incidents.

The FAA has determined that these changes will not adversely affect the safety of the aircraft, hinder the investigation of accidents or incidents by the NTSE, nor compromise the intent of the DFDR rules. This amendment will revise the resolution recording requirements of parameters 83, 84, and 88. The FAA has determined that these changes can be accommodated by footnotes in Appendix M to part 121 and Appendix E to part 125.

Good Cause for Immediate Adoption

Sections 553(b)(3)(B) and 553(d)(3) of the Administrative Procedure Act (APA) (5 U.S.C. Sections 553(b)(3)(B) and 553(d)(3)) authorize agencies to dispense with certain notice procedures for rules when they find "good cause" to do so. Under section 553(b)(3)(B), the requirements of notice and opportunity for comment do not apply when the agency for good cause finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Section 553(d)(3) allows an agency, upon finding good cause, to make a rule effective immediately, thereby avoiding the 30-day delayed effective date requirement in section 553.

The FAA finds that notice and public comment to this final rule are impracticable, unnecessary, and contrary to the public interest. This final rule amends the flight data recorder regulations by adding language to the appendices of parts 121 and 125 to allow certain airplanes to record certain data parameters using resolution and sampling requirements that differ slightly from the current regulation. As a result, the FAA has determined that notice and public comment are unnecessary because the change effectuates the original intent of the regulation, is not controversial, and is unlikely to result in adverse comments.

Executive Order 12866 and DOT Regulatory Policies and Procedures

Executive Order 12866, Regulatory Planning and Review, directs the FAA to assess both the costs and benefits of a regulatory change. The FAA is not allowed to propose or adopt a regulation unless a reasoned determination is made that the benefits of the intended regulation justify the costs. The FAA's assessment has determined that there are no costs associated with this final rule. Since its costs and benefits do not make it a "significant regulatory action" as defined in the

order, the FAA has not prepared a "regulatory evaluation," which is the written cost/benefit analysis ordinarily required for all rulemaking documents under the DOT Regulatory Policies and Procedures. The FAA does not need to do the latter analysis where the economic impact of a final rule is minimal.

The FAA has determined that there are no costs associated with this final rule; the rule imposes no costs upon operators. Instead, this rule change relieves operators from a regulatory burden that was inadvertently imposed on them in the adoption of the 1997 regulations, and would have an impact beginning August 18, 2000. This change effectuates the original intent of the 1997 regulations.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) 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 businesses, 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. 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 proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will, the agency must prepare a regulatory flexibility analysis (RFA) 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 1980 act provides that the head of the agency may so certify and an RFA is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

The FAA has determined that there are no costs associated with this final rule. Accordingly, pursuant to the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Federal

Aviation Administration certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Analysis

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 this final rule and has determined that it will impose little or no costs on domestic and international entities and thus has a neutral trade impact.

Unfunded Mandates

The Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub. L. 104-4 on March 22, 1995, is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments.

Title II of the Act 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 a \$100 million or more expenditure (adjusted annually for inflation) 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."

This rule does not contain a Federal intergovernmental or private sector mandate that exceeds \$100 million a year.

Executive Order 13132, Federalism

The FAA has analyzed this final rule under the principles and criteria of executive Order 13132, Federalism. The FAA has determined that this action will 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, the FAA has determined that this final rule will not have federalism implications.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has determined that there are no requirements for information collection associated with this final rule.

Environmental Analysis

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

Energy Impact

The energy impact of the rule has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) and Public Law 94-163, as amended (43 U.S.C. 6362) and FAA Order 1053.1. It has been determined that the rule is not a major regulatory action under the provisions of the EPCA.

List of Subjects

14 CFR Part 121

Air carriers, Aviation safety, Reporting and record keeping requirements,
Transportation

14 CFR Part 125

Aircraft, Airmen, Aviation safety, Reporting and record keeping requirements

The Amendment

Accordingly, the Federal Aviation Administration amends parts 121 and 125 of Chapter 1 of Title 14 of the Code of Federal Regulations as follows:

PART 121--OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS

1. The authority citation for part 121 continues to read as follows:

Authority: 49 USC. 106(g), 40113, 40119, 44101, 44701-44702, 44705, 44709-44711, 44713, 44716-44717, 44722, 44901, 44903-44904, 44912, 46105.

2. In Appendix M, the title of the Appendix, and item numbers 9, 37, 42, and 57 are revised to read as follows:

APPENDIX M TO PART 121 -- AIRPLANE FLIGHT RECORDER SPECIFICATIONS

The recorded values must meet the designated range, resolution, and accuracy requirements during dynamic and static conditions. All data recorded must be correlated in time to within one second.

| Parameters | Range | Accuracy (sensor input) | Seconds per sampling interval | Resolution | Remarks |
|--|-------|-------------------------------|--|------------|---------|
| 83. Cockpit trim control input position-- roll ¹⁸ | * * * | * * * | * * * | * * * | * * * |
| * * * | * * * | * * * | * * * | * * * | * * * |
| 84. Cockpit trim control input position-- yaw ¹⁹ | * * * | * * * | * * * | * * * | * * * |
| * * * | * * * | * * * | * * * | * * * | * * * |
| 88. Cockpit flight control input forces-- rudder pedals ²⁰ | * * * | * * * | * * * | * * * | * * * |

¹⁸ For A310 and A300-600 airplanes, resolution = 0.69% (0.096 degrees)

¹⁹ For A318/319/320/321 series aircraft, resolution = 0.22% (0.088 degrees)

²⁰ For A310, A300-600, A318/319/320/321, A330 and A340 (except A340-500 and -600 models) series aircraft, accuracy = 15%

Part 125--CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE

3. The authority citation for Part 125 continues to read as follows: Authority: 49 U.S.C. 106(g), 40113, 44701-44702, 44705, 44710-44711, 44713, 44716-44717, 4472

4. In Appendix E, the title of the Appendix, and item numbers 9, 37, 42, and 57 are revised to read as follows:

APPENDIX E TO PART 125 -- AIRPLANE FLIGHT RECORDER SPECIFICATIONS

The recorded values must meet the designated range, resolution, and accuracy requirements during dynamic and static conditions. All data recorded must be correlated in time to within one second.

| Parameters | Range | Accuracy (sensor input) | Seconds per sampling interval | Resolution | Remarks |
|--|-------|-------------------------|-------------------------------|------------|---------|
| 83. Cockpit trim control input position--roll ¹⁸ | * * * | * * * | * * * | * * * | * * * |
| * * * | * * * | * * * | * * * | * * * | * * * |
| 84. Cockpit trim control input position--yaw ¹⁹ | * * * | * * * | * * * | * * * | * * * |
| * * * | * * * | * * * | * * * | * * * | * * * |
| 88. Cockpit flight control input forces--rudder pedals ²⁰ | * * * | * * * | * * * | * * * | * * * |

¹⁸ For A310 and A300-600 airplanes, resolution = 0.69% (0.096 degrees)

¹⁹ For A318/319/320/321 series aircraft, resolution = 0.22% (0.088 degrees)

²⁰ For A310, A300-600, A318/319/320/321, A330 and A340 (except A340-500 and -600 models) series aircraft, accuracy = 15%

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/s/

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Administrator