Alternative Methods of Compliance (AMOCs)

(g)(1) The Manager, Fort Worth Special Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/ certificate holding district office.

Related Information

(h) For more information about this AD, contact Peter W. Hakala, Aerospace Engineer, FAA Rotorcraft Directorate, Fort Worth Special Certification Office, ASW–190, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; phone: (817) 222–5145; fax: (817) 222–5785; e-mail: *peter.w.hakala@faa.gov.*

Issued in Kansas City, Missouri, on May 25, 2011.

Earl Lawrence,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2011–13532 Filed 6–1–11; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2010–0857; Directorate Identifier 2010–NM–156–AD; Amendment 39–16708; AD 2011–12–01]

RIN 2120–AA64

Airworthiness Directives; Koito Industries, Ltd., Seats and Seating Systems Approved Under Technical Standard Order (TSO) TSO–C39b, TSO–C39c, or TSO–C127a

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD requires determining if affected seats and seating systems and their components are compliant with certain FAA regulations, and removing those seats, seating systems, and their components that are shown to be unsafe from the affected fleet. This AD was prompted by a determination that the affected seats and seating systems may not meet certain flammability, static strength, and dynamic strength criteria. Failure to meet static and dynamic strength criteria could result in injuries to the flightcrew and passengers during emergency landing conditions. In the event of an in-flight or post-emergency landing fire, failure to meet flammability criteria could result in an accelerated fire. We are issuing this AD to prevent accelerated fires and injuries to the flightcrew and passengers.

DATES: This AD is effective August 1, 2011.

Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov;* or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800–647–5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Patrick Farina, Aerospace Engineer, Cabin Safety Branch, ANM–150L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, California 90712–4137; phone: 562–627–5344; fax: 562–627–5210; e-mail: *Patrick.Farina@faa.gov.*

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to the specified products. That NPRM published in the **Federal Register** on September 24, 2010 (75 FR 58340). That NPRM proposed to require determining if affected seats and seating systems and their components are compliant with certain FAA regulations, and removing those seats, seating systems, and their components that are shown to be unsafe from the affected fleet.

Ex Parte Contact

On October 14, 2010, during two separate meetings, we met to discuss the NPRM with the European Aviation Safety Association (EASA), Japanese Civil Airworthiness Bureau (JCAB), Airbus, and Boeing, as well as with other national airworthiness authorities and operators. On October 20, 2010, we had a similar meeting with additional authorities and operators. We emphasized that the meetings were not a substitute for the formal comment process and would consider comments made through the comment process identified in the NPRM. Summaries of these meetings are posted in the AD docket on the Internet at *http://www.regulations.gov.*

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and the FAA's response to each comment.

Request To Withdraw the NPRM

Several commenters either inferred or specifically requested that we withdraw the NPRM.

The Association of European Airlines (AEA) stated that the combined safety analysis carried out by EASA/FAA for the NPRM is fundamentally flawed because it assumes "a catastrophic failure." The AEA also stated that new test data are available to the FAA. AEA added that Koito (witnessed by the JCAB) has carried out extensive retesting of the seats to prove they are safe and meet all of the certification criteria. AEA concluded that these data have not been evaluated by the FAA, which could negate the issuance of an FAA AD.

The Association for Asia Pacific Airlines (AAPA), China Airlines, and Japan Transocean Airlines (JTA) stated that the evaluation and use of JCAB data could negate the justification for the NPRM.

Koito Industries (Koito) respectfully questioned the basis for the NPRM moving forward, absent FAA verification and support that an unsafe condition exists. Koito stated it deeply regrets the circumstances surrounding this AD. Koito submitted that no actual unsafe condition has been verified even for production seats where discrepancies existed between drawings and materials used to show compliance. Koito added that the NPRM states only that a potential unsafe condition could exist. Koito submitted that non-compliance with regulations does not necessarily equate to an unsafe condition. Koito stated that the testing results will provide much-needed data for the FAA to make the required determination under section 39.5 of the Federal Aviation Regulations (14 CFR 39.5), and then the FAA will be able to determine whether a safety-of-flight issue exists that is sufficient to warrant an AD in accordance with the requirements of section 39 of the Federal Aviation Regulations (14 CFR 39). Koito concluded that issuing an AD prior to reviewing forthcoming testing data to determine whether an unsafe

condition exists could result in unnecessary burdens on aircraft manufacturers and affected airlines.

Nippon Cargo Airlines (NCA) stated it could not accept the issuance of an AD prior to completion of all appropriate actions (including re-testing, conformity assessment, and establishment of the refurbishment plan) that should be performed by Koito. NCA stated that we should establish a feasible compliance period based on service bulletin recommendations and status of parts availability. We infer NCA is requesting we withdraw the NPRM.

EVA Airways stated that it preferred an alert service bulletin be issued instead of an AD because a service bulletin would minimize the impact on daily operation and minimize the cost impact on operators.

We do not agree to withdraw the NPRM. It is a fact that some seats have failed during testing. Failure of the seat, in combination with an emergency landing, is considered catastrophic. The purpose of the required initial determination (testing) is to determine which seats might fail. The purpose of an AD is to restore the affected fleet to an acceptable level of safety. Only those seats that fail the testing will be required to be removed from service. EASA and the FAA have reviewed the data generated by Koito, under the oversight of JCAB, and we have determined that this AD is necessary to address the identified unsafe condition. In addition, certification of these seats was obtained through false pretenses, and thus, until the seats are re-certified in whole, they need to be appropriately marked and actions must be done in accordance with this AD. We have not revised the AD in this regard.

Request for Extension of Comment Period

Multiple commenters requested an extension of the comment period, and most wanted the extension in order to allow review of the Koito/JCAB data. AAPA, All Nippon Airways (ANA), The Boeing Company, China Airlines, Continental Airlines, Copa Airlines, EVA Air, Japan Airlines International (JAL), JTA, Jett8 Airlines, Kuwait Airways, NCA, Thai Airways, and Virgin Blue International Airlines (V Australia) requested that the comment period be extended by 90 days in order to provide time for the parties concerned to better understand the Koito/JCAB test data. The AAPA and AEA stated that because the JCAB is the primary certification and design authority for the Koito seats, and has been able to confirm that production drawings were retained by Koito and checked for conformity, the new JCAB data should be given credit. The AAPA and China Airlines stated that the failure to do so would ignore the huge potential burden the NPRM would impose on national airworthiness authorities providing oversight and air carriers. Continental requested that the FAA work with the JCAB to determine the validity of the data and accept data that demonstrate compliance on specific seat models to reduce the potential burden on the operators.

AEA requested an extension of the comment period for six months. AEA commented that the NPRM calls for in-service seats to be used for testing, but that the same goal can be achieved by carrying out a conformity evaluation of in-service seats against those tested by Koito, under JCAB supervision.

Koito requested an extension of the comment period for three months. Koito stated that it is confident that its comprehensive safety testing, conducted under strict JCAB supervision and in cooperation with Airbus, Boeing, and JCAB-regulated airlines, will assist the FAA and EASA in preparing a more targeted and effective AD, without compromising in any way the level of safety that the AD seeks to ensure. Koito added that once the FAA and EASA have thoroughly evaluated Koito's testing methodology, procedures, and results, and are satisfied that Koito's testing can be a reliable basis for determining the safety of in-service seats, the testing results could be widely shared among all the parties affected by the AD. Koito noted that this would allow the affected parties to provide the FAA with more precise and targeted comments before the AD is adopted. Koito also stated that the FAA itself could gain important insights from reviewing Koito's testing methodology and testing results before issuing a final AD.

Airbus commented that the comment period should be extended (but did not specify the length of the requested extension) to allow review of the Koito/JCAB tests results.

Singapore Airlines did not request an extension of the comment period; however, Singapore Airlines requested that JCAB data be evaluated by the FAA. Singapore Airlines stated that JCAB showed that all design changes made to in-service seat models have been identified and analyzed, with no problem identified relating to metallic parts, and no significant differences between seats manufactured and production drawings.

We disagree with extending the comment period. As stated previously, we have discussed the data in briefings with EASA and the operators. EASA and the FAA have since reviewed the data generated by Koito, under the oversight of JCAB, and concluded that test data from new-build test articles can be used to demonstrate compliance to the static strength requirements of the AD; we have added Notes 3 through 10 to this AD to provide clarification on testing. Test data from new-build test articles can also be used for the flammability requirements in combination with conformity of in-service seat cushions. The purpose of this AD is to restore the affected fleet to an acceptable level of safety. To delay this action would be inappropriate, since we have determined that an unsafe condition exists and that the actions required by this AD must be conducted to ensure continued safety. Failure of the seat in combination with an emergency landing is considered catastrophic. The required initial determination (testing) will determine if seats do not meet FAA regulations and those that do not could fail. Only those seats that fail the testing will be required to be removed from service. We have not changed this AD in this regard.

Request for Follow-Up Briefing Session

AAPA, China Airlines, EVA Airways, JAL, Jett8 Airlines, NCA, and Thai Airways requested a follow-up briefing session be made to carriers similar to the follow-up session agreed on in Cologne for carriers in the Asian-Pacific (ASPAC) region. Kuwait Airways requested a follow-up briefing session be made to carriers similar to the follow-up session agreed on in Cologne for concerned carriers. ANA requested a follow-up briefing session be made to carriers similar to the follow-up session agreed on in Singapore.

We agree it is beneficial for affected parties to meet again. We plan on organizing a meeting with affected parties shortly after the AD is published. No change to the AD is necessary regarding this issue.

Request for Consistency Between the Applicability of the FAA NPRM and the EASA Proposed AD (PAD)

JAL and JCAB requested consistency between the applicability of the FAA NPRM and the EASA PAD because the NPRM applies to the component and the PAD applies to airplanes having the component. JAL stated that in the FAA NPRM, the proposed AD is to be applied to passenger seats manufactured by Koito; however, the EASA PAD is applied to airplanes equipped with passenger seats manufactured by Koito. JAL requested a unified applicability to avoid unexpected burdens on the

airlines/operators. JCAB stated the applicability between the FAA NPRM and EASA PAD should be further harmonized so as to avoid confusion among authorities and operators of countries outside the U.S. and Europe.

We acknowledge the importance of harmonizing with EASA. The FAA has granted an approval for the seats themselves, and so the seats are the basis of the applicability of the FAA AD. This is different in the EASA system, where the approval is based on airplane installation. Although the description of the applicability is different, the overall effect of the two ADs should be essentially the same. Nonetheless, while it is thought that all the seat models have been identified, there may be models not identified. Commenters have also noted that the NPRM did not address several older types of seats, approved under technical standard order (TSO) TSO–C39, TSO–C39a, and TSO–C127, as well as non-TSO models. We intend to supersede this AD to address any affected seats that are determined to not be covered by this AD. However, we have not revised this AD in this regard.

Request To Match the Affected Seats in the Applicability of the FAA NPRM With Those in the EASA PAD

Several commenters requested that the affected seats in our applicability match those in the EASA PAD. JCAB identified 74 models listed in the NPRM that are not produced under TSO–C39b, TSO–C39c, or TSO–C127a: 15 models that are approved under TSO–C127, 22 models that are approved under TSO–C39a, and 37 models that do not have TSO approvals. JCAB noted that seats models approved under TSO–C39a and TSO–C127 and those without TSO approval are not covered by the proposed AD by its current text. JCAB requested that we harmonize our applicability with EASA's applicability.

JCAB also stated that there are seat models listed in table 1 of the NPRM that are not approved under TSO–C39b, TSO–C39c, or TSO–C127a, as specified in paragraph (c) of the NPRM. JCAB requested that we revise table 1 and paragraph (c) of the NPRM to clarify the intent of the NPRM for these seat models.

Koito stated that the NPRM contains 32 seat model numbers that were not produced under TSO–C39b, TSO–C39c, or TSO–C127a and should be removed.

Boeing requested that TSO–C127 be added to the applicability of the NPRM if the intent of the AD is to be applicable to all Koito seats. Boeing stated that some Koito seats were certified to TSO–C127 prior to the release of TSO–C127a.

We agree that certain seat models that should be covered by the FAA AD were not explicitly covered by the applicability of the NPRM. However, we do not agree to revise the applicability of this AD. Adding seats models to the applicability would require issuance of a supplemental NPRM instead of a final rule. To delay this action would be inappropriate, since we have determined that an unsafe condition exists and that the actions required by this AD must be done to ensure continued safety. We might issue further rulemaking to address other seat models, including models approved under other TSOs and those without TSO approval. The future rulemaking might revise the applicability of the AD to include all seat models produced by Koito, installed on any aircraft by any means. We have not revised this AD in this regard.

Request To Revise Applicability by Removing Certain Seats Models From Table 1

JCAB stated that 11 models of Koito seats have seat cushions provided by another TSO holder (TSO–C72c). We infer JCAB is requesting that seat cushions made by another manufacturer be removed from table 1 of the NPRM.

We do not agree. The JCAB did not identify which seat models were issued with TSO–C72c seat cushions provided by an outside source (non-Koito produced). Seats for which the cushion approval is independent of the Koito TSO authorization can show compliance with the cushion flammability requirements using the third-party approval basis under TSO–C72c. As it is possible for the seat to be modified by a third party to procure seat cushions by Koito, we have not revised this AD in this regard. The TSO–C72c seat cushion is a requirement of TSO–C127a.

Request To Remove Seat Models Installed on Certain Airplanes From the Applicability

JCAB requested that seat models for Mitsubishi YS–11 and Fokker F–27 airplanes, which were designed and manufactured well before the mid-1980s, be removed from table 1 of the NPRM. JCAB stated that according to the conclusions of the investigation conducted by Koito Manufacturing, a parent company of Koito Industries, the fraudulent activities by Koito Industries started in the mid-1980s. JCAB stated its investigation revealed the same results, and therefore, it is believed that those seats designed and manufactured before the mid-1980s were properly certified and need not be the subject of ADs.

We acknowledge the commenter's request. However, we have not received data to identify seats certified without falsified data. In addition, as discussed previously, certain seats might not be part of the applicability of this AD because this AD only applies to seats and seating systems having certain models numbers that are approved under TSO–C39b, TSO–C39c, or TSO–C127a. However, under the provisions of paragraph (l) of this AD, we will consider requests for approval of an alternative method of compliance (AMOC) if sufficient data are submitted to substantiate that the new AMOC would provide an acceptable level of safety. We have not revised this AD in this regard.

Request To List Both the Seat Model and Part Number in the Applicability

Airbus requested the NPRM list both the seat model and generic part number in the AD applicability.

We disagree. The commenter did not justify its request. We have determined that, to capture all Koito seats, including third-party modified seats and second-hand seats, reference to the model alone is appropriate for the applicability of the AD. The affected model numbers are identified in table 1 of this AD. We have not revised this AD in this regard.

Request To Delete Fokker Services B.V. From Table 2 in the Applicability

Fokker Services B.V. requested we remove "Fokker Services B.V." from table 2 of the NPRM. Fokker Services B.V. indicated that it did not certificate the installation of seats or seating systems by Koito, nor was it aware of any Koito seats installed on aircraft types on which Fokker Services B.V. is the type certificate holder.

We disagree. All operators must confirm whether the affected seats and seating systems are installed. Table 2 of this AD is a non-inclusive list of manufacturers on which the seats and seating systems may be installed. JCAB has identified seat model AFS–105 installed at one time on Fokker aircraft (type certificate data sheet A–817). Although it is probable that this model has been removed and destroyed, it has not been verified. We have not revised this AD in this regard.

Request To Explain Effect of NPRM on Imported Airplanes

An anonymous commenter requested that we clarify the effect of the NPRM on imported airplanes. The commenter questioned whether an operator of a non-U.S. registered airplane can obtain a certificate of airworthiness from the FAA after the AD is released without re-

testing Koito seats. The commenter stated that for a newly imported airplane, the seats would be affected by the "Parts Installation" requirement specified in paragraph (h) of the NPRM, which does not allow installation of a non-retested Koito seat after the effective date of the AD.

We agree to clarify the effect of this AD on imported airplanes. When an operator imports an airplane onto the U.S. Register, the airplane is subject to all applicable FAA ADs. Moving an airplane from one register to another would not be classified as a new installation if there is no physical design change to the subject airplane. An imported airplane is subject to the compliance times in this AD. We have not revised this AD in this regard.

Request for Compliance Time Extension

Multiple commenters requested that we extend the compliance times specified in the NPRM.

ANA requested that we extend the compliance times to do the testing and to remove non-compliant seats, seating systems, and components. ANA stated that a longer compliance time is needed to do the required tests because it will not be able to accomplish them within two years. AAPA, ANA, and China Airlines commented that the NPRM would require operators to take actions that are normally beyond their responsibility and competence. China Airlines added that the NPRM ignores the economic and operational burden that will be faced by air carriers. ANA argued that air carriers are not experts in seat design and indicated that any seat testing would have to be performed by a seat vendor or public test facility.

AAPA, China Airlines, JTA, and Thai Airways requested that the compliance time of 2 years specified in paragraph (g) of the NPRM for determining compliance with FAA regulations (testing) be extended to 5 years. The commenters stated that it is the responsibility of the primary design and certificating authority (the JCAB) with the support of Koito, in collaboration with EASA and FAA, to develop a plan of action to ensure compliance of in-service Koito seats. The commenters added that agencies capable of performing the testing of in-service seating are limited and may not have sufficient resources to support the affected air carriers. The commenters also stated that seat providers do not necessarily have the resources or spare capacity to support requests from air carriers required to change their seats, especially within the 2-year compliance period operators have for seats that have failed the testing. JTA pointed out that, as a consequence of the problems with Koito seats, airplanes have been and are grounded. JTA stated that airlines have no suitable pragmatic solution available due to the lack of certified spares and the long lead-time of sourcing replacement seats.

AAPA, China Airlines, and JTA also requested that we extend the 6-year compliance time for removing non-compliant seating systems (specified in paragraph (g)(3) of the NPRM) to 15 years. AAPA, China Airlines, and JTA questioned the safety analysis used by the FAA to establish the NPRM compliance time. JTA requested we consider that, based on a new finding of the JCAB and 16g test results stored in Koito computers, it can be concluded that even non-compliant seats still offer a high level of protection. JTA also asked that we consider there is no justification to assume this potential non-compliance will result in an increase of fatalities and noted there have been no reported seat failures that resulted in fatalities. JTA also stated that there are no historical data to support that the safety analysis takes into account the potential of seat failures resulting from high-level turbulence events.

AAPA, AEA, China Airlines, and JTA requested that we reconsider the compliance times based on a revised catastrophe rate and stated that using an accident rate of $0.15 \cdot 10^{-7}$ is a more realistic base for the safety analysis. AEA added that the affected seats would have a reduction in performance of 10% compared to the certification requirement.

AEA and Thai Airways commented that the lack of certified spares and the long lead time of sourcing seats make the replacement of seats difficult and asked for a longer compliance time to perform seat testing and seat replacement. AEA noted that a 2-year compliance time would ground airplanes. Thai Airways requested that the compliance time of 2 years specified in the NPRM be extended to 5 years. Thai Airways noted that there are a large number of seats in-service, and FAA and EASA test facilities do not currently exist. Thai Airways stated that replacement seats are not interchangeable because they are customized for items such as in-flight entertainment.

Boeing requested that the 2-year compliance time be extended to 5 years. Boeing stated that retrofit programs take at least 2 years to certify. Boeing also stated that all the falsified tests showed that the forward dynamic test pulses were greater than 14g. Boeing noted that although not 16g, the test results indicate a level of safety higher than that of 9g-only seats.

Cathay Pacific Airways and V Australia requested that the 2-year compliance time be extended to 4 years. Cathay Pacific stated the extended compliance time would allow sufficient time to carry out seat replacement during its scheduled heavy maintenance checks. Cathay Pacific also noted it takes 18 to 24 months for a typical seat development. V Australia noted that seat acquisition programs typically take 18 to 21 months. Cathay Pacific also stated that seat suppliers might not have sufficient capacity to cope with the high demand from all the affected operators.

Copa Airlines stated it is concerned about the compliance times of the NPRM. EVA Airways, JAL, Singapore Airlines, and V Australia stated the compliance times are not feasible. Copa Airlines, EVA Airways, and JAL stated there are no step-by-step service bulletin or original equipment manufacturer (OEM) instructions and that the NPRM should include clear guidance on means of compliance, work instructions, and/or requirements for facilities to conduct the tests. Copa Airlines, EVA Airways, and Singapore Airlines stated that the high demand for replacement parts might exceed the capacity of suppliers. Copa Airlines and JAL added there is insufficient time to replace the seats if they fail the testing since a new seat program takes 18 to 24 months. V Australia also stated there is insufficient time to replace seats. Singapore Airlines added that for airlines with a large fleet having affected seats, the 2-year compliance time is not pragmatic because vendors need time to design, manufacture, and install new seats. EVA Airways and JAL also questioned the availability of test facilities. Singapore Airlines stated that the 2-year time limit to replace seats that fail the 16g and 9g tests would pose a hardship for operators.

Koito suggested that we add explicit wording to paragraph (g) of the NPRM that would allow airlines to start their testing plan with a static performance test according to "14 CFR 25.562(b)(3)(ii) and (iii)" within 2 years (to get approval for seats to remain in service for 6 years) and continue it later with a dynamic testing according to sections 25.562(b)(2) and (c)(7) of the Federal Aviation Regulations (14 CFR 25.562(b)(2) and (c)(7)) within 6 years. Koito stated it understands that the FAA considers this phased testing structure as an acceptable testing plan, but also understands that this flexibility is important to Koito's customers.

We acknowledge that the compliance times specified in the NPRM could be

misinterpreted. We also acknowledge that air carriers are not experts in seat design and that testing most likely would be done by the seat manufacturer or at a test facility.

We have revised paragraphs (g), (g)(1), (g)(2), (g)(3), and (g)(4) of this AD to clarify the compliance times by removing the 2-year compliance time that was specified in paragraph (g) of the NPRM and including the applicable compliance times for the determination and removal in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD. Paragraph (g)(3) of this AD allows 6 years for the determination for certain seating systems specified in that paragraph. Paragraph (g)(4) of this AD allows three years for the determination for components specified in that paragraph. It was not our intent to require the determinations specified in paragraphs (g)(3) and (g)(4) of this AD within the 2-year compliance time.

We have also revised paragraph (g)(2) of this AD and added paragraph (h) of this AD to clarify the actions and compliance times for seating systems approved under TSO–C127a that are shown to be compliant with sections 25.562(b)(2) and 25.562(c)(7) of the Federal Aviation Regulations (14 CFR 25.562(b)(2) and 14 CFR 25.562(c)(7)), but are shown to exhibit sharp or injurious surfaces. Instead of removing non-compliant seating systems, operators may determine if the seating systems are compliant with sections 25.561(b)(3)(ii) and 25.561(b)(3)(iii) of the Federal Aviation Regulations (14 CFR 25.561(b)(3)(ii) and 14 CFR 25.561(b)(3)(iii)) and do not exhibit sharp or injurious surfaces. The removal of seating systems within the initial 2-year compliance time will only be required in the event that the seat model is not capable of withstanding the minimum static forward and side loads. We have not extended any other compliance times specified in this AD.

However, under the provisions of paragraph (l) of this AD, we will consider requests for approval of an extension of the compliance time if sufficient data are submitted to substantiate that the new compliance time would provide an acceptable level of safety.

In regard to one commenter's justification for extending the compliance time, we do not agree with the suggestion that there is evidence the level of safety offered by Koito seats is only 10% below the applicable certification requirements. The FAA risk assessment does not assume 100% failure in the event of a survivable emergency landing and post-emergency landing fire, and includes both worldwide and U.S. fleet accident rates. Seats that do not pass the static requirements pose a significant airworthiness risk in the event of an accident and also in the event of high-turbulence loads. Seats, seating systems, and components that fail to meet the requirements specified in this AD must be removed; this AD does not require replacement of seats, seating systems, and components.

In regard to the Koito data, we have reviewed the data available to us and have determined this AD is necessary to address the identified unsafe condition. As previously stated in the NPRM section "The Role of the Airframe Manufacturers (Airbus and Boeing) in Helping Airlines Establish the Status of Their Seats," it will take cooperation among the airlines, the seat manufacturer, and the authorities to minimize the effects of this AD.

Request To Revise Compliance Times for Removal of Seats and Seating Systems With Sharp or Injurious Surfaces

Several commenters requested that we revise the compliance times for removal of seats and seating systems that have sharp or injurious surfaces (specified in paragraph (g)(4) of the NPRM). ANA requested clarification of the sharp edge issue or limitation for use (TSO–C127 & TSO–C127a). ANA stated that in the case where the static test is performed without the sharp edge as the first confirmation test, it will be able to use the seat for 6 years. However, ANA stated that in case it performs the 16g test as the first confirmation test and finds sharp edges, the seat must be removed within 2 years. Based on the above, ANA considered that the current AD description has an inconsistency.

JAL stated that the NPRM requires that determination of compliance or removal of the non-compliant seats against the sharp or injurious surfaces criteria be accomplished within 2 years after the effective date of the AD for the seats approved under TSO–C127a. However, JAL suggested that since the compliance time for the dynamic testing requirements in section 25.562 of the Federal Aviation Regulations (14 CFR 25.562) would be 6 years once the seats have passed the static testing requirements in section 25.561 of the Federal Aviation Regulations (14 CFR 25.561), the compliance time to determine if there are sharp or injurious surfaces in dynamic testing should be 6 years for consistency with the dynamic testing.

JAL also stated the NPRM does not specify the requirements and method of compliance for the sharp or injurious surfaces. Accordingly, JAL requested that the FAA clarify those requirements and methods by specifying the applicable section(s) of the regulation(s) and/or providing clear guidance information.

We agree that the compliance time for removing seats and seating systems that have sharp or injurious surfaces should be revised. We have removed paragraph (g)(4) of the NPRM and added the determination of sharp or injurious surfaces to the actions specified in paragraphs (g)(1), (g)(2), (g)(3), and (h)(2) of this AD, as discussed previously. The compliance times in this AD are based on the relative risk to safety resulting from non-compliance with the different standards; it is acceptable that the sharp edge determination be correlated with the particular type of test (static or dynamic) being performed. Thus, we agree that both assessments should have the same compliance time.

As noted in the NPRM, the sharp edge determination can be made from photographic evidence of the original Koito tests. In addition, as noted above, the FAA will accept the determination of an FAA designee who witnessed the test(s).

Request To Revise Compliance Times for Removing Non-Compliant Seats, Seating Systems, and Components

Two commenters requested that we revise the compliance times for removing seats, seating systems, and components that are not compliant. ANA requested that if structural failure is found, then the compliance time for the required removal should be counted from the test confirmation date. JAL requested that the FAA consider revising the commencement date of the compliance time for removing seats, seating systems, and components that are not compliant from "the effective date of the AD" to "the date when the non-compliance is determined."

We disagree. The commenters provide no technical justification for revising the compliance time for removal. Operators must comply with the actions in this AD within the compliance times specified in this AD in order to address the identified unsafe condition. However, under the provisions of paragraph (l) of this AD, we will consider requests for approval of an extension of the compliance time if sufficient data are submitted to substantiate that the new compliance time would provide an acceptable level of safety. We have not revised this AD in this regard.

Request To Be Excluded From the Requirements of the NPRM

ANA also asked to be excluded from the requirements of the NPRM by providing a plan to replace the seats within 10 years or sell the airplanes within 4 to 5 years.

We disagree. The commenter did not provide justification for its request. As stated previously, operators must comply with the actions in this AD within the compliance times specified in this AD in order to address the identified unsafe condition. However, under the provisions of paragraph (l) of this AD, we will consider requests for approval of an alternative method of compliance if sufficient data are submitted to substantiate that the new AMOC would provide an acceptable level of safety. We have not revised this AD in this regard.

Request To Clarify the 2-, 3-, and 6-Year Compliance Times

Sami Kazi requested that we clarify whether the 2-, 3-, and 6- year compliance time requirements start after the 2-year compliance time specified in paragraph (g) of the NPRM. Sami Kazi stated that "For example if the AD is released on January 1, 2011 then the compliance findings must be completed by Dec. 31, 2012. Then 2, 3 or 6 years time periods of 'Table—Summary of Proposed Actions and Requirements' start after Dec. 31, 2012."

We agree to provide the following clarification of the compliance times. The compliance times in this AD for removing non-compliant seats, seating systems, and components do not start on the date of the compliance findings. All compliance times in this AD are measured from the effective date of the AD. For example, if an AD has a compliance time of "within 2 years after the effective date of this AD" and the AD has an effective date of July 1, 2011, the deadline for compliance for actions required within 2 years is July 1, 2013.

Request To Change Paragraphs (g)(1) and (g)(2) of the NPRM

Boeing requested that paragraphs (g)(1) and (g)(2) of the NPRM be revised to ensure that TSO–C39b and TSO–C39c seats installed on airplanes having 14 CFR 25.562 as their certification basis are tested to the 14 CFR 25.562 regulations.

We disagree. We acknowledge that TSO–C39b and TSO–C39c seats that are installed on airplanes having 14 CFR 25.562 as their certification basis should be tested to the 14 CFR 25.562 regulations. However, we have not revised this AD in this regard at this time. Revising these actions would require the issuance of a supplemental NPRM instead of a final rule. To delay this action would be inappropriate, since we have determined that an unsafe condition exists and that the actions required by this AD must be conducted to ensure continued safety. We might consider further rulemaking to address this issue.

Request for Harmonization of Remaining In-Service Time Between FAA NPRM and EASA PAD

AAPA, China Airlines, EVA Airways, JTA, Singapore Airlines, and Thai Airways requested that we harmonize with EASA on the remaining time in-service for Koito seats. AAPA and China Airlines stated that EASA and FAA are widely recognized by national airworthiness authorities as leading regulatory authorities, especially in the areas of safety, type certification, and design. AAPA and China Airlines added that it is also well understood that the FAA's and EASA's jurisdiction covers only those air carriers operating aircraft on the U.S. Register and in the 27 countries in the European Union, respectively. AAPA, China Airlines, and JTA explained that it is common practice for airworthiness authorities to adopt either the EASA or FAA airworthiness directive; however, on implementing an AD, some regulators elect to apply an FAA AD to the Boeing fleet and the corresponding EASA AD to the Airbus fleet. AAPA, China Airlines, and JTA concluded that consequently, since there is a lack of harmonization between the FAA and the EASA proposed ADs, the end result will be a mixed standard fleet.

AAPA, China Airlines, JTA, and Thai Airways noted that, unlike the FAA's NPRM, the equivalent EASA PAD 10–101 will include a 10-year maximum limit on continued service of in-service seats, even after air carriers have successfully passed all test requirements. EVA Airlines stated that in the FAA NPRM, the seats may remain in service if they meet amendment level 25–64 of sections 25.562(b)(2) and (c)(7) of the Federal Aviation Regulations (14 CFR 25.562(b)(2) and (c)(7)). AAPA, China Airlines, and JTA argued that this difference is not driven by safety and is an unjustified cost burden. AAPA and China Airlines, and EVA Airways and JTA urged the FAA to ask EASA to remove this 10-year requirement to ensure harmonization.

Singapore Airlines requested that we recommend to EASA to allow seats to continue operation without limitation if they pass the confidence tests—similar to the FAA.

JCAB noted that harmonization efforts may be made to avoid possible confusion among authorities and operators of the countries and regions outside the U.S. and Europe. JCAB previously stated that it does not have any plan to issue its own AD because the FAA and EASA are in a better position to make fleet-wide risk analysis and to come up with possible fleet-wide actions.

We acknowledge the importance of harmonizing with EASA, and we have coordinated with EASA on our respective ADs. However, EASA's 10-year limiting requirement is a result of its regulatory requirements, and the FAA is not in a position to recommend changes to this. We have determined that seats, seating systems, and components that meet the FAA regulations specified in this AD do not need to be removed and, therefore, this AD does not have a 10-year limiting requirement. While harmonization is a goal, EASA is obligated to follow its own regulatory guidance. Given the age of many of the seats in service, it is arguable whether the EASA 10-year requirement will have a significant effect on airplanes affected by EASA's PAD. We have not changed this AD in this regard.

Request for Time Extension for Spare Parts Eligibility for Installation

Several commenters requested that we extend the time for spare parts eligibility for installation specified in paragraph (h) of the NPRM.

AAPA, China Airlines, and JTA stated that since the announcement by the JCAB of the problems associated with Koito seats, all spare parts have been deemed not approved until Koito has finalized a recertification process. Furthermore, AAPA, China Airlines, and JTA stated that Koito is not permitted to make spares available even if it has them in stock. AAPA, China Airlines, and JTA stated that, as a consequence, air carriers are under significant pressure as they are unable to adequately support in-service seats, and sourcing of parts manufacturer approval (PMA) parts is a possibility, but not widely accepted. AAPA, China Airlines, and JTA pointed out that in order to support the requirements of the AD, spare parts are essential. AAPA, China Airlines, and JTA urged the FAA, EASA, and JCAB to determine the best way forward by agreeing on an approach that offers flexibility for air carriers to source spare parts.

Continental Airlines requested that the current inventory of spare parts be allowed to remain eligible for installation without additional testing

for two years from the effective date of the AD since the requirement for replacement components places an unreasonable burden on the operators to recertify or purge current inventory of spare parts within the timeframe specified.

We disagree with extending the time for spare parts eligibility for installation specified in paragraph (i) of this AD (referred to as paragraph (h) in the NPRM). However, we did intend to allow Koito seats and seating systems as "direct" spares for the same part number seats or seating systems based on guidance in the component maintenance manual (a "direct" spare has the same part number of the part it replaces). Therefore, we have revised paragraph (i) of this AD and a new Note 11 to add this exception and definition.

We have also added new paragraph (j) to this AD to allow re-arrangement of the existing installed seats if the re-arrangement follows the same installation instructions and limitations as the original certification. In addition, we have added new paragraph (k) to this AD to clarify the parts installation requirements for components of seats and seating systems (we had included components in paragraph (h) of the NPRM).

Under the provisions of paragraph (l) of the final rule, we will consider requests for approval of an extension of the compliance time if sufficient data are submitted to substantiate that the change would provide an acceptable level of safety.

Request To Remove Requirement to Determine if Seats and Seating Systems Have Sharp or Injurious Surfaces

Boeing stated many of the tests of the suspect seats were witnessed by FAA "delegates" (designated engineering representatives (DERs) or authorized representatives (ARs)); thus, the seats were already reviewed for sharp edges. Boeing also stated that even after DERs discontinued witnessing TSO tests, the photos from the tests were provided in the test report, which was provided to the installer. Boeing concluded that had any of the photos exhibited sharp edges, the AR would have questioned this and required additional data or tests in order to make the compliance finding on the installation. We infer that Boeing is requesting that we remove the requirement to determine if seats and seating systems have sharp or injurious surfaces, as specified in paragraphs (g) and (g)(4) of the NPRM.

We disagree with the request because determining if there are sharp or injurious surfaces is necessary to address the identified unsafe condition. Photographic evidence is not sufficient since often times it is not close enough and the angle can readily hide defects that are not a blatant failure. In addition, if testing was done at a lower pulse than required, the low pulse may not show a hidden defect that would have been evident at the required pulse. We have not changed this AD in this regard.

Request To Revise Costs of Compliance

AEA, EVA Airways, and Koito requested that we revise the Costs of Compliance section of the NPRM. AEA stated that there are significant impacts and costs involved: hundreds of million of dollars in retrofitting seats including months—possibly years—of ground time if seats cannot be sourced. Koito stated that the NPRM not only underestimates the cost of the proposed AD, but in some cases acknowledges that the cost cannot be determined. Koito noted that the FAA did not appear to consider the replacement costs for seats, seating systems, and their components that are found to be non-compliant. Koito stated that the FAA should not ignore the costs of replacing seats, seating systems, and their components that are found to be non-compliant. EVA Airways stated the NPRM specifies a cost estimate of approximately $875,000 for 40,365 passenger seats installed on airplanes in the U.S. fleet. EVA Airways added that since there is no way to know how many tests will be done and how many seats will be modified or replaced, it is very difficult to estimate the exact cost of this NPRM; however, because the cost for one dynamic test is about $20,000 to $50,000, the NPRM estimate of $875,000 is low.

We do not agree to revise the Cost of Compliance section of this AD. We have included the estimated cost of the actions required by this AD, which is applicable to the U.S. fleet. The AD requires a determination and removal of non-compliant parts, and we have included those costs. While this AD does not require replacement we recognize that operators could choose to replace non-compliant seating systems. However, we are unable to make an assessment of how many seats would be required to be replaced based on the findings of the AD. We did provide an estimated cost of replacement seats in the table "Seat Replacement Cost Estimates" in the preamble of the NPRM and this final rule in the Costs of Compliance section.

We also do not consider it appropriate to attribute the costs associated with aircraft "down time" to the AD. Normally, compliance with the AD will not necessitate any additional down time beyond that of a regularly scheduled maintenance hold. Even if additional down time is necessary for some airplanes in some cases, we do not have sufficient information to evaluate the number of airplanes that may be so affected or the amount of additional down time that may be required. Therefore, attempting to estimate such costs would be futile. We have not revised this AD in this regard.

Request for Department of Transportation (DOT) and Office of Management and Budget (OMB) Review

Koito requested that the NPRM be reviewed by the DOT and OMB, as required by Executive Order 12866 ("E.O. 12866") (58 FR 51735, October 4, 1993) and Department of Transportation ("DOT") Order 2100.5 (44 FR 11034, February 26, 1979). Koito stated that under DOT Order 2100.5, where a rulemaking "concerns a matter on which there is substantial public interest or controversy," it should be classified as a "significant" rulemaking and receive DOT Office of the Secretary ("OST") and Office of Management and Budget, Office of Information and Regulatory Affairs ("OMB–OIRA") review, consistent with E.O. 12866. Koito stated that under DOT Order 2100.5, the FAA may only avoid cost-benefit analysis if it determines that the cost impact of the proposal is so minimal as to not require full review.

Koito stated that the FAA did not address the possibility that the NPRM may adversely affect in a material way a sector of the economy, which would have a significant impact and require further review. Koito added that this is true especially where, as in this case, the number of aircraft and airlines are potentially large, and where the direct and indirect effects, including any inadvertent effect on competition due to differences in approach in the AD requirements of EASA and the FAA, are unknown or not taken fully into account.

Koito noted that the FAA has witnessed very substantial public interest and controversy, not only in the comments filed to date, but in two widely attended public meetings in Cologne, Germany, and Singapore. Koito concluded that under these circumstances, it would appear appropriate to categorize this rulemaking as significant and in need of DOT OST and OMB–OIRA review.

China Airlines urged the FAA to recognize that the problem is not limited to U.S.-registered carriers and any AD will have global ramifications.

We do not agree that this AD requires a review by the DOT OST and OMB–

OIRA because we have determined that this AD is not a 'significant' rulemaking. ADs in general do not require an OMB review. However, when the cost of an AD exceeds $100 million and, therefore, is economically significant, we do coordinate the AD in accordance with all applicable DOT and OMB requirements. For the purposes of these requirements, the costs of an AD are based on the U.S. domestic fleet. For the purposes of the requirements, this AD has a total cost for the U.S. fleet of $875,000 and thus is not economically significant. In addition, ADs correct identified unsafe conditions, rather than raise the level of safety and cannot be assessed in terms of benefits balancing costs, as would be the case for amendments to the airworthiness standards. This AD does not have an annual effect on the U.S. economy of $100 million or more nor does it adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or Tribal governments or communities; it does not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; it does not materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; and it does not raise novel legal or policy issues arising out of legal mandates, the President's priorities, or principals set forth in E.O. 12866.

We do recognize this AD could affect the non-U.S.-registered fleet if mandated by airworthiness authorities of other countries. However, this AD does not directly impact non-U.S. operators and, therefore, the cost review is not required for the non-U.S.-registered fleet. We have not changed this AD in this regard.

Request To Provide Guidance on Testing in General and Seat Cushion Testing, Including Allowing the Use of New-Build Test Articles

Airbus, AEA, ANA, Continental, JAL, JCAB, and Singapore Airlines requested that we provide guidance on testing seat cushions. Airbus requested that the NPRM define test pass/fail criteria and provide guidance on how the seat cushion could be tested per section 25.853(c) of the Federal Aviation Regulations (14 CFR 25.853(c)). Airbus stated its concern that it is impossible to prepare a test article per Appendix F of part 25 of the Federal Aviation Regulations (14 CFR part 25) without gluing parts of the cushion. Airbus concluded that an in-service test cushion is likely to have degraded flammability characteristics and, thus, is not able to pass requirement criteria.

AEA and ANA stated that the flammability test of cushions cannot be accomplished by using a cushion removed from an in-service seat and added that there are no test criteria for the use of used cushions. AEA requested that we provide a practical means to allow operators and type certificate holders to conform and procure foam test samples. AEA added that an operator should be allowed to deviate from the test criteria. ANA also added that testing is not feasible because it cannot obtain the correct results due to effects of the material aging and could result in new cushions (made per Koito drawings) being used for the test.

Continental requested that we work with the JCAB and Koito to determine the specific part numbers or foam compositions in question that led to this requirement being applied across all seat models. Continental stated that the NPRM should identify the flammability concerns by seat model and only those models with questionable oil burn data should be included in the NPRM.

JAL stated that the used cushions (cushions returned from service) should not be used for the testing campaign and newly fabricated seat cushions that conform to their original TSO design should be used instead for the following reasons:

- Used cushions do not represent the new ones due to contamination and/or deterioration and/or compression while in service;
- Cushions vary in condition;
- Due to its complexities of constructions and natures of used materials, it may be impossible to fabricate the required quantity of consistent test samples by using an actual cushion (by "cut and bond" method); and
- Since the condition of each used cushion could be different and no clear criterion for representative samples has been specified, conformity determination of each cushion for testing cannot be accomplished.

JCAB stated that the burden on affected operators should be minimized because operators are not expected to have in-depth technical knowledge about certification of seats or seating systems. JCAB noted that it is extremely important to have technical support from the airplane manufacturer. JCAB also stated that one of its efforts is to advise and supervise Koito in conducting re-testing of in-service models. JCAB expressed its firm belief that the result of the re-testing of in-service seat models by Koito is technically acceptable and should be fully utilized by the affected operators in showing compliance with the requirements of the NPRM.

NCA stated that the results of the tests currently underway by Koito should be considered valid because the test is being done under JCAB supervision and is in accordance with FAA requirements.

JCAB said that without data derived from re-testing, operators would have difficulty certifying seats or seating systems and completing all necessary re-testing within the 2-year compliance time, which could result in operators needing to ground airplanes from which seats are removed for re-testing. JCAB also stated that the use of in-service seats for re-testing is not technically fair, since the requirements cited in the NPRM are for newly produced test articles. JCAB added that the performance of used seats is degraded and cannot be at the same level as newly produced test articles. JCAB also stated that even if the test results are good, there may be no seats to re-install on the aircraft from which the tested seats were removed because after the testing, the seats may be deformed.

JCAB stated the proposed test for flammability is too stringent and needs improvements, including adding background information. JCAB requested that we provide more clarification on how the requirements of the NPRM can be met so as to make the process more efficient and effective. JCAB stated that it is necessary to have guidance on how the number of tests can be minimized. JCAB also questioned if, for seats with TSO–C39a approvals, it would not be necessary to do the flammability test that was introduced in TSO–C39b.

Singapore Airlines stated that we need to provide better clarity of test instructions, such as approval of test planes, if there is a need for authorities to be present during testing and to accept test results. Singapore Airlines recommended that the FAA and EASA set up a mechanism for airlines to work with EASA or the FAA through the operators' local civil aviation authorities for approving a test plan, witnessing, and reviewing test results to testify compliance to the FAA NPRM and EASA PAD.

Singapore Airlines stated that in-service seat cushions could be contaminated and are therefore not representative of initial flammability certification conditions. The commenter recommended that new test cushion coupons that are built according to the approved drawings for testing be used.

AEA, AAPA, China Airlines, Continental, JCAB, Singapore Airlines, and Thai Airways requested that we allow data from new-build test articles to be used.

AEA and Continental stated that the JCAB determined that metallic parts were not affected by the discrepancies with Koito seats, and therefore the dynamic/static tests performed on new seats that were produced in accordance with the production drawing should also be accepted. AAPA, China Airlines, JCAB, Singapore Airlines, and Thai Airways stated that no problems have been identified related to the metallic parts provided by suppliers and used in the construction of Koito seats. Several commenters also noted that the results of tear-down inspections have demonstrated that there were no significant differences. Thai Airways also stated that the JCAB has been able to confirm all production drawings were retained by Koito and checked for conformity and all design changes made to each in-service seat model have been identified, checked, and analyzed.

Thai Airways stated that the FAA, EASA, and JCAB should update all data for seat testing results together in order to initiate clear and concise instructions and to support operators in decreasing the number of applicable seat part number testing to ensure the seat integrity of in-service seats.

Koito respectfully requested that its testing efforts and results be effectively reflected in the AD. Koito stated this would facilitate and expedite compliance by airline operators with the AD requirements, without compromising safety.

We agree to provide guidance on seat cushion testing. Evaluation of the Koito oil burner test has determined that the facility did not comply with the requirements of Appendix F, part II, of part 25 of the Federal Aviation Regulations (14 CFR part 25). Although other civil airworthiness authorities are not required to follow U.S. regulations, the flammability rule affects U.S. operators and was developed based on survivable accidents in which there was loss of life. The retrofit for all transport category airplanes operating under parts 121 and 135 of the Federal Aviation Regulations (14 CFR 121 and 14 CFR 135) required fire-blocked seat cushions in accordance with this flammability rule. When TSO–C39b was issued, seats and berths approved prior to the issuance of the TSO were allowed to be manufactured under the provisions of their original approval. However, a specific exception was identified. This exception was that the seat cushions must comply with section 25.853 of the Federal Aviation Regulations (14 CFR 25.853), including the requirements of section 25.853(c) of the Federal Aviation Regulations (14 CFR 25.853(c)), and Appendix F, part II, of part 25 of the Federal Aviation Regulations (14 CFR part 25). The retrofit of the entire U.S. fleet was accomplished in 3 years.

We have added Notes 3 through 10 to this AD to provide some guidance on testing. The guidance includes allowing for new-build test articles (with in-service article conformity), test plans, and test reports, which must be presented to the FAA for approval. Test data from new-build test articles can be used to demonstrate compliance to the static requirements of the AD. Test data from new-build test articles can also be used for the flammability requirements in combination with conformity of in-service seat cushions. Any difficulties encountered with test articles and resultant interpretations can be discussed with the FAA. Consideration will be given to aging effects on test results.

Request To Allow Newly Manufactured Seats Be Used as Representative In-Service Seat

AEA, ANA, Continental, EVA Airways, JAL, Koito, and V Australia requested that newly manufactured seats produced in accordance with Koito drawings be used as a representative case of in-service seats.

JAL stated that use of newly produced seats should be accepted for testing. JAL stated that, in its presentation in the Singapore meeting, JCAB confirmed the results of the tear-down inspection; the results indicated that using seats that conformed to the production drawings would have no significant differences that could impact the testing. Furthermore, JAL stated that conformity determination of each seat for testing cannot be accomplished since the condition of each seat in service could be different.

We partially agree with the commenters. We have added Note 4 and Note 8 to this AD to clarify we will allow the test of new-build test articles in lieu of in-service seats for the static requirements in section 25.561 of the Federal Aviation Regulation (14 CFR 25.561). However, for the dynamic requirements in section 25.562 of the Federal Aviation Regulations (14 CFR 25.562), the in-service seats will still be required to be tested, as non-conformities in production cannot be adequately represented.

Also, we cannot accept all Koito data obtained under JCAB oversight because of several factors including the fact that the maximum weight of all the seats in a group was not tested. In addition, the results of the re-testing of seat cushions for flammability at the Koito laboratory are invalid due to non-compliance of the test facility.

Request for Service Information

Copa Airlines, EVA Airways, and JAL stated there are no step-by-step service bulletin or OEM instructions and that the NPRM should include clear guidance on means of compliance, work instructions, and/or requirements for facilities to conduct the tests.

NCA requested that a service bulletin be issued, and that the AD should refer to the service bulletin. NCA stated that operators are not in a position to take responsibility for the manufacturer and that Koito should issue a service bulletin. China Airlines stated that for "regional airworthiness authorities" to provide effective oversight, comprehensive accomplishment instructions should be provided instead of the high-level requirements in the NPRM.

We do not agree that waiting for a service bulletin to be issued is appropriate. There are many entities in industry that are able to determine if the seats comply with the AD. An operator may outsource this determination. We do not consider that delaying this action until after the release of a manufacturer's service bulletin is warranted. To delay this action would be inappropriate, since we have determined that an unsafe condition exists and the actions required by this AD must be performed to ensure continued safety. We have not revised this AD in this regard.

Request To Consider Data Found in Koito Computers

JCAB requested that we consider the data found in Koito computers. JCAB added that raw data, mainly dynamic tests, are stored in computers of Koito and because those data are not believed to be falsified, with technical analysis those data may be used to show compliance with the proposed requirements of the NPRM, if certain conditions are met.

We do not agree that the data found in Koito computers should be used to show compliance with this AD because we cannot confirm the validity of the data at this time. However, if additional data are provided that confirms the validity of the data, we will consider the data. We have not revised this AD in this regard.

Request To Identify Seats by Grouping or Family

AAPA, ANA, China Airlines, Eva Airways, JAL, JTA, NCA, and Singapore Airlines requested that we allow identifying seats by grouping or family. Several commenters questioned who will do the identification. EVA Airways indicated that operators are not capable of identifying seat models by groups to enable testing by similarity to reduce cost, and requested that EASA and the FAA work with Airbus and Boeing to group seats. Thai Airways stated that the number of sampling seats in each applicable part number to be selected for testing has not been defined.

AAPA, China Airlines, and JTA requested that we modify the NPRM to clearly indicate that a collective approach by airlines is an acceptable approach to responding to the requirements of the AD. AAPA stated that such an approach would allow air carriers in coordination with airframe manufacturers to carry out a sampling of seat family/models and the resultant data would then be considered as acceptable justification to demonstrate compliance to the NPRM.

JAL stated that since the airlines/operators cannot accomplish their tasks without technical support from the airplane manufacturers, especially in cases where a seat family extends between operators and between the manufacturers, it requests that the FAA clearly define the airplane manufacturers' roles. Furthermore, JAL stated that if the FAA expects Koito to take any roles, those roles should also be specified in the NPRM. JCAB noted that it is in a position to assist operators in complying with the NPRM.

We agree with the commenters and confirm that seat grouping will be allowed to show compliance with the AD; work is ongoing by the type certificate holders to define seat groups. However, we have not revised this AD to specify how and who should do the work. It is expected that the type certificate holders or suitable qualified organizations can assist in the clustering of seat models. Seat model grouping is not essential for compliance with the AD, but is recognized by FAA as a means to reduce the economic burden.

Request To Explain Conformity Inspection

AEA, Airbus, ANA, and EVA Air requested we provide guidance on how to perform a conformity inspection of the seats.

We disagree with revising this AD to include instructions on conformity inspections because there are numerous ways to accomplish this, and we want to provide flexibility for operators. This AD requires the determination for compliance with certain FAA regulations of seats, seating systems, and components in accordance with a method approved by the FAA. We will provide guidance during the FAA review and approval of the test plans submitted. Changes to the design might have occurred between when the product was accepted for a TSO and when production started. A simple instruction to establish conformity through comparison to the component maintenance manual is not a sufficient way for operators to determine airworthiness. We have not revised this AD in this regard.

Request That the TSO Certification Level be Commensurate With the Testing Requirement at the Time of the Original Aircraft Type Certification

AAPA, AEA, ANA, China Airlines, Continental Airlines, JAL, JTA, JCAB, Koito, and Boeing requested that the TSO certification level be commensurate with the testing requirement at the time of the original aircraft type certification.

AEA stated that operators should only be obliged to comply with the original type certification basis of the aircraft. AEA also stated that testing the seats to the latest or later requirements cannot be justified and would increase the risk of failures dramatically as the original seat design would not allow for this.

JAL stated that the NPRM requires the airlines/operators to determine compliance with the latest static structural requirements under section 25.561(b) of the Federal Aviation Regulations (14 CFR 25.561(b)) at Amendment 25–64. However, JAL and AEA stated that the side load factor defined in section 25.561(b)(3)(iii) of the Federal Aviation Regulations (14 CFR 25.561(b)(3)(iii)) should be consistent with the airplane certification basis because "new" seats were tested to 4g requirements at Amendment 25–64 of that regulation, whereas the "old" seats were tested to 1.5g requirements at Amendment 25–23 or 25–0 of that regulation in the course of original TSO design approvals.

JCAB questioned whether it correctly understands that re-tests can be conducted in accordance with the certification basis of airplanes/seats. JCAB noted that for older airplanes/seats, the side load requirement in static seats is 1.5g, while the newer requirement is 3g/4g. JCAB also noted there is a -2g pulse shape introduced in TSO–C127a.

Koito stated that a more appropriate level of compliance for the requirements of the NPRM would be to the certification basis of the aircraft or a higher amendment level, whichever an affected operator chooses. Koito noted that it took the FAA 17 years to finalize the regulations at Amendment 25–64 (to address retrofitting), in large part because of technical difficulties in certifying seats to the 16g standard, which were more sophisticated and complex than 9g seats. Koito pointed out that when the regulations at Amendment 121–315 were adopted, it required full compliance only for new production airplane models. Therefore, Koito submits that requiring compliance to the most recent amendment levels is not supported and is inconsistent with the FAA's approach to addressing retrofitting aircraft to the higher standards at Amendment 25–64 of the regulations. Alternatively, Koito stated that an airplane may have a certification basis that does not include section 25.562 of the Federal Aviation Regulations (14 CFR 25.562) and requested that the FAA relieve the requirements of sections 25.562(b)(2) and (c)(7) of the Federal Aviation Regulations (14 CFR 25.562(b)(2) and (c)(7)).

We partially agree with the commenters. We agree that certain TSO seats can be tested at the level that the TSO was issued. We have revised paragraph (g)(1) of this AD to clarify the certification basis. For TSO–C39b and TSO–C39c seats, the certification basis when determining (testing) if the seats meet section 25.561 of the Federal Aviation Regulations (14 CFR 25.561) is the certification basis of the TSO; however, for TSO–C127a seating systems, the testing remains the same.

Boeing also requested that a note be added regarding pulse shape to allow the use of the pulse shape that was acceptable at the time of TSO approval or type certification or supplemental type certification.

We disagree with Boeing's request that a note be added regarding pulse shape to allow the use of the pulse shape that was acceptable at the time of TSO approval or type certification or supplemental type certification. The current criteria for the pulse shape meets the original intent of section 25.562(b)(2) of the Federal Aviation Regulations (14 CFR 25.562(b)(2)).

Request To Accept the Use of Koito Interface Loads Reports for the Analysis To Determine Which Seat(s) Testing is Required

AEA requested that we accept the use of Koito interface loads reports for the

analysis to determine which seats are tested. AEA stated that if structure testing is to be conducted for showing compliance with the applicable portions of the NPRM, one method to determine the "critical" seat(s) for testing is mentioned in Appendix 3 of FAA Advisory Circular 25.562–1B, dated January 10, 2006. AEA stated that one element in this determination is taking into account the highest loaded seat leg of a seat within a "family of seats," which can be concluded from the calculated interface loads for those seats. AEA noted that since falsification involved "static, dynamic and flammability testing, as well as uncontrolled changes to production data (material and dimensional)," we accept the use of Koito Interface Loads Reports for the analysis to determine for which seat(s) testing is required.

We agree that the use of Koito interface loads reports may be acceptable for the determination of compliance to FAA regulations required by this AD. We note that the use of advisory circular material may be allowed, thus Koito analysis of interface loads may be allowed. We have added this information to Note 6 of this AD.

Request To Use Only Lower Testing Requirement

Several commenters requested we allow testing to be done at lower testing requirements. AEA requested that all seats that pass the 9g requirement can remain in service. AEA stated that according to the NPRM, seats with a 16g certification basis that fail the 16g test are required to carry out a 9g test, and receive a 6-year grace period if the test is passed. AEA stated that during the 16g rulemaking it was determined that the 16g rule was not made retroactive to seats that met the earlier 9g certification basis. Therefore, AEA stated that all seats that pass the 9g test have shown compliance to the minimum standard and can therefore remain in service.

ANA stated that 16g seats (TSO–C127a) may be installed on an airplane that itself does not have a 16g requirement. ANA asked that the 9g confirmation test be considered sufficient.

We disagree. This AD requires compliance with certain provisions of the TSO. If a seat is TSO–C127a then the requirements of that TSO apply. In addition the FAA's operational and airworthiness regulations do not allow a downgrade of the certification basis of airplanes to an older standard. We have not changed this AD in this regard.

Also, Boeing stated that the certification basis of various models of airplanes is different regarding the static side load case. Boeing stated that airplanes (such as Boeing Model 747–400 and 767–300 airplanes) have a certification basis lower than the standards at Amendment 25–64 of the regulations, and as such, a 1.5g side load would be appropriate.

We disagree. A seating system that is approved under TSO–C127a must also meet section 25.562 of the Federal Aviation Regulations (14 CFR 25.562), even if the airplane has a lower certification basis. We have not changed this AD in this regard.

Request To Waive Bunsen Burner Test

AEA requested that we waive the Bunsen burner requirement when operators elect to perform a complete re-qualification program, as mentioned under Note 1 of the NPRM. AEA stated that during the question and answer session in Cologne, it was stated that relevance of Bunsen burner test results is negligible and that absence of such test data does not lead to an unsafe condition.

We disagree. The comments made by EASA and FAA during the meeting in Cologne might need further clarification. It was not stated that compliance with section 25.853(a) of the Federal Aviation Regulations (14 CFR 25.853(a)), commonly referred to as the Bunsen burner test, has no influence on the determination of the unsafe condition. It was stated that Bunsen burner testing is not a required element of the flammability tests to show compliance to this AD. If requalification is chosen, showing compliance with all aspects of the applicable TSO is required in accordance with part 21 of the Federal Aviation Regulations (14 CFR 21). We have not changed this AD in this regard.

Request To Clarify When Re-Installing Seats Is Allowed

Airbus, AEA, APA, Boeing, China Airlines, JAL, JTA, Koito, and Thai Airways requested that we clarify when re-installing seats after removal or reconfiguration is allowed. Airbus requested that we allow provisions for filling the gap in the cabin following removal of seats for confidence tests (by allowing production and installation of complete seats of the same design) or allow reconfiguration of the cabin without full requalification of the seats. Koito agreed with Airbus that we should allow provisions for filling the gap. Thai Airways stated that after removing seats for testing, there are no instructions to address deviations from the aircraft configuration type certificate.

Boeing requested that we clarify the text in the "Limitations on Seats Found Not to Be Fully Compliant, but Are Safe to Remain in Service" section of the preamble of the NPRM because a couple of sentences conflict with each other. Boeing stated that one sentence would allow the use of direct spares (*i.e.,* same part number) to be re-installed in an airplane, but a different sentence specifies that any removed seat is to be destroyed. Boeing stated this would mean that no spare seat would exist, as indicated by the earlier sentence. Boeing suggested the section include "unless retained as a direct spare as noted above. The direct spares can be re-installed in any previously certified layout using that seat part number." Boeing recommended the paragraph read as follows:

> That is, unless they are shown to fully comply with the regulatory requirements, this proposed AD would restrict the installation of such seats and would require specific marking. These seats can be used as a direct spare for the same part number seat. However, any other use of such seats would be considered a new installation approval and would be required to comply with all regulations. Thus, seats not meeting all regulations could not be installed except as noted above, and if removed from an approved arrangement, would have to be destroyed or rendered unusable in some other manner acceptable to the FAA, unless retained as a direct spare as noted above. The direct spares can be re-installed in any previously certified layout using that seat part number.

Boeing stated that the additional text clarifies that the airlines can continue to re-configure their airplanes from, for example, their previously certified summer layout (with lots of economy class) to their previously certified winter layout (with less economy class) and vice-versa.

Boeing also recommended we clarify that re-configuration is acceptable and suggested adding the following text:

> As an exception, when a seat(s) is removed from an airplane for the direct purpose of testing under the context of this AD, the remaining seats can be re-pitched to fill the vacant spot. This one-time re-pitch following a test-seat removal is to follow the same installation instructions and limitations as the original certification (*e.g.,* if the original limitations allowed 32″ to 34″ pitch, the new layout shall be pitched within that range).

Boeing stated that although re-pitching is not a simple solution, removing a seat for testing without allowing for a solution produces a "hole" or unused space in the airplane. Boeing noted that the re-pitch will be equally as safe as the seats were before the removal of the test seat and, in addition, leaving a "hole" or unused space in the airplane leaves passengers without tray tables (which were seat-

back-mounted on the removed seat). Boeing further stated that the "hole" also leaves the electrical daisy-chain interrupted, which eliminates reading lights, attendant call, and in-flight entertainment (IFE) to the seat assemblies beyond the missing one.

AEA and Koito stated that the preamble of the NPRM states the seats that pass the test and remain on the airplane are "limited on how they can be used." AEA also stated that the FAA has clarified this means that seats have to remain in the currently approved configuration and cannot be changed, moved, or re-pitched. AEA noted that in order to remain competitive in today's changing market, it is essential for operators to have the ability to amend the configuration of their aircraft to suit the market needs. AEA, AAPA, and China Airlines requested that the FAA clarify the wording so that operators would be allowed to reconfigure airplanes containing Koito seats. Koito stated that it echoed the concerns raised by AEA. AEA provided the following justification:

- Seats that have passed the confidence test will have been shown to be safe.
- Certain reconfigurations may actually improve safety.
- Reconfigurations are usually supplemental type certificates (STCs); in addition, all changes (including minor) related to Koito seats are FAA-approved.
- FAA has previously stated that Koito data are approved.
- In order to provide test specimens, some operators will need to remove seats from in-service airplanes, and this will leave a large gap in these aircraft unless the remaining seats can be re-pitched.

Koito stated that preventing operators from reconfiguring seats that are part of a supplemental type certificate would be unnecessarily restrictive and would provide no safety benefit—nor would it be necessary to correct a potential unsafe condition.

JAL requested that the FAA accept the use of newly produced seats to fill in gaps left by seats removed for testing in case newly produced seats are not allowed for testing.

We agree to clarify when seats and seating systems can be installed and rearranged. We have added a new Parts Installation paragraph (paragraph (j) of this AD) to allow certain reconfigurations. We will consider allowing reconfiguration within the same installation instructions and limitations as the original certification. Operators may request approval of an AMOC in accordance with the procedures specified in paragraph (l) of this AD. We have not revised the "Limitations on Seats Found Not to Be Fully Compliant, but Are Safe to Remain in Service" section because that section of the NPRM is not restated in this final rule.

Request To Allow Entire Seat Assemblies To Be Produced and Installed To Replace Seats That Have Been Removed for Testing

JAL requested the FAA accept the use of newly produced seats to fill gaps left by seats removed for testing in case newly produced seats are not allowed for testing.

Boeing requested that the following be added to the "Replacement Components" paragraph in the preamble of the NPRM:

"* * * Entire seat assemblies may also be produced and installed to explicitly replace any seat removed from the fleet for testing under this AD."

Boeing stated that removing a seat for testing without allowing for a new replacement seat assembly to be produced leaves a "hole" or unused space in the airplane. Boeing stated the replacement seat will be identical, or at least representative of the one removed for testing, which achieves an identical or representative level of safety between the newly installed seat and others on the airplane.

Additionally, Boeing reported that leaving a "hole" or unused space in the airplane leaves passengers without tray tables (which were seat-back-mounted on the removed seat). Boeing noted the "hole" also leaves the electrical daisy-chain interrupted, which eliminates reading lights, attendant call, and IFE to the seat assemblies beyond the missing one.

We agree. The FAA's intent is to allow new Koito seats with the same part number to be installed to replace in-service seats used as test articles. We have revised paragraph (i) of this AD to clarify this issue by specifying that seats and seating systems may be removed from service and re-installed and that new seats and seating systems may be installed as direct spares for the same part number seats or seating systems. The new Koito seats and seating systems are subject to this AD.

Request To Consider Minor Failure

AEA requested that we consider what to do if there is a minor failure of the seats. AEA stated an example is a seat experiencing a 'minor' failure of a structural test. AEA stated in the case where a 9g seat is tested the NPRM implies that if it fails in any way it would require replacement in 2 years. AEA requested that a logical, safety-based approach be applied to tests and a maximum allowed grace period be granted should a failure be deemed as minor.

We disagree that there is such a thing as a 'minor' failure. Existing pass/fail criteria already include consideration of the amount of damage that is considered a failure and these criteria continue to be valid. This AD requires that a determination be made to ensure that seats, seating systems, and components are compliant with certain regulations and removed if necessary. The compliance time for removal is dependent on the failure criteria as identified in the AD. AEA stated that replacement is required; however, this AD only requires removal of seats, seating systems, and components that are non-compliant. We have not revised this AD in this regard.

Request To Allow Alternative Actions

Two commenters requested that we allow alternative action for "replacement." Thai Airways stated that remedial action does not exist if seats fail the test and the only recommendation is replacement. ANA requested that we allow modification to comply with the NPRM.

We do not agree. Seats, seating systems, and components that are non-compliant must be removed, as required by the AD. However, under the provisions of paragraph (l) of this AD, we will consider requests for approval of an AMOC if sufficient data are submitted to substantiate that the new methods would provide an acceptable level of safety. We have not revised this AD in this regard.

Request To Clarify 100% Conformity Is Not Required

AEA requested that we confirm and clarify that a 100% conformity inspection of all seats installed is not required and that based on analysis the recertification of a representative test article is acceptable. AEA stated that according to Note 1 of the NPRM, it must be determined if the seats and seating systems and their components are compliant with FAA regulations. Note 1 refers to recertification, *i.e.,* re-qualify to the TSO.

We agree to clarify this issue. We confirm that 100% conformity of the in-service fleet is not required to comply with the AD in most cases because a sampling approved by the FAA will be allowed. The AD does not require re-qualification of the seats and seating systems, which would involve showing compliance with all aspects of the applicable TSOs, such as measurement and reporting of permanent

deformations and lumbar load requirements. The AD requires a determination if the seats are compliant to the specific requirements set forth in the AD.

Request To Clarify Guidance on Replacement Cushions

Several commenters requested guidance on replacement cushions. AEA requested that we allow similar bottom cushions to be accepted instead of tested. AEA stated that according to paragraph (g)(2) of the NPRM, for seating systems approved under TSO–C127a, dynamic testing is limited to a 16g forward load condition; however, strict adherence to the referenced guidance of FAA Advisory Circular 25.562–1B, Appendix 3, paragraph 9 (reference paragraph (g)(5) of the NPRM) would require conducting a 14g down lumbar load test, if the original bottom cushion material (*i.e.,* foam) is not available for the manufacturing of replacement cushions. AEA stated that since it is accepted that in-service seats might not meet the 14g down lumbar load requirement, it would be unreasonable to require the showing of full compliance with this part of the regulations in case an operator is forced to replace bottom cushions because of non-compliance with the oil burner test or because spare cushions cannot be obtained.

Therefore, AEA requested that we accept similar bottom cushions with respect to stiffness and density (measured according to accepted industry standards) to show that the performance of a replacement bottom cushion is not worse than that of the in-service cushion.

ANA noted that in paragraph (g)(5) of the NPRM, the reference for the replacement is AC 25.562–1B; however, this is for a TSO–C127a seat only, and not for TSO–C39b and TSO–C39c seats. ANA requested that we revise this reference.

We agree that the requirement for replacement cushions is too restrictive for certain seating systems. We revised paragraph (g)(4) of this AD (referred to as paragraph (g)(5) in the NPRM) to clarify that the requirement is only for seat cushions affected by FAA Advisory Circular 25.562–1B, dated January 10, 2006 (*i.e.,* seat cushions replaced on airplanes required to meet section 25.562 of the Federal Aviation Regulations (14 CFR 25.562) either by their original certification basis or post-type certificate modifications). We have also clarified that compliance with section 25.562(c)(2) of the Federal Aviation Regulations (14 CFR 25.562(c)(2)), *i.e.* lumbar load, does not need to be shown.

Request To Add Guidance on Pass/Fail Criteria

Boeing requested that we add Note 4 after paragraph (g) of the NPRM to provide information that pass/fail criteria for cracks may be acceptable on a case-by-case basis, *i.e.,* front fitting acceptable, rear fitting not acceptable.

We disagree. This information is not necessary to comply with this AD. Guidance on acceptable damage is contained in Advisory Circular 25.562–1B. We have not changed this AD in this regard.

Request To Add Guidance on Conformity

Boeing requested that a note be added as follows: "If the test article consists of a seat from the fleet (or from spares), conformity should consist of matching the seat part number to that noted in the test plan, of noting the general condition of the seat, of noting revisions/modifications that have been made to the seat (typically noted on modification placards), and of verifying the date of manufacture."

We agree with the intent of the suggestion. We have added Notes 5, 6, 9, and 10 to this AD to provide guidance.

Request To Specify Specific Cushions

AEA requested that we specify specific cushions in paragraph (g)(5) of the NPRM. AEA requested that although not explicitly mentioned in paragraph (g)(5) of the NPRM, the FAA should limit the applicability of this paragraph to seat bottom and seat back cushions only, as these represent the majority of foams on the seats. AEA stated that legrest cushions and headrest cushions are significantly smaller when compared to bottom and back cushions. AEA added that it is nearly impossible to manufacture representative test sample sets of these small-sized cushions on in-service seats.

We agree to specify cushion types. Headrest and legrest cushions typically have much less mass than bottom and back cushions. While the requirements of section 25.853(c) of the Federal Aviation Regulations (14 CFR 25.853(c)) also apply to headrest and legrest cushions, non-compliance of these types of cushions would not have as much effect on safety as would non-compliance of the bottom and back cushions. We have determined that addressing only bottom and back cushions provides an adequate level of safety. We have revised paragraph (g)(4) of this AD to specify that seat bottom and seat back cushion assemblies must be shown to be compliant as specified in the AD.

Requests for Harmonization of Parts Replacement

Singapore Airlines requested that we work with EASA and the JCAB to harmonize parts replacement to facilitate Koito's production and shipment of spares to airlines. Singapore stated this is especially important to airlines that expect to continue operations with Koito seats if their seats pass the confidence tests stipulated by EASA and the FAA. Singapore stated that without JCAB's approval for Koito to produce spare seats for replacement of in-service seats for the confidence testing, airlines might end up with a "hole" in the airplane (impacting IFE systems and wiring), having to approve a new configuration, having seats destroyed during testing that cannot be re-installed, and having a commercial impact that may affect route performance and viability.

Thai Airways stated that Koito could manufacture seats and seat accessories according to FAA TSO and deliver them to the operators as spare parts. Thai Airways requested we coordinate with the JCAB to clarify and reconsider authorizing export of those seats as spare parts.

As previously stated it is the FAA's intent to allow new Koito seats with the same part number to be installed to replace in-service seats used as test articles. However, we do not have authority over the production approval of Koito spare parts. JCAB is the authority and they are aware of this issue. We have not revised this AD in this regard.

Request To Allow Replacement of Non-Conforming Seats

The JCAB requested that we allow the replacement of non-conforming seats. The JCAB stated that if operators chose to correct non-compliance found during the determination (testing) specified in the NPRM, the seats in question have to be modified so they fully meet all applicable requirements. The JCAB stated that there would be Koito seats that comply with the requirements of the NPRM while not meeting the full requirements under Part 25 of the Federal Aviation Regulations (14 CFR 25); and there would also be seats that failed to comply with the NPRM requirements and would require modifications to achieve compliance with the NPRM requirements. The JCAB noted that after the modifications, the latter seats are at the same level of safety as the former seats and, therefore,

should be allowed to continue operation without further actions. The JCAB argued that requiring the full compliance for the latter seats is not fair, and it may be more reasonable if operators are allowed to continue to use seats that are modified.

We disagree. This AD requires determining if the seats and seating systems and their components are unsafe, based on the failure to comply with certain key performance standards in the TSO. As clarified in Note 1 of this AD, this determination may be made by independent re-qualification of the affected TSO article that has thorough control of the design and production process. Seats and seating systems that fail the determination (tests) required in the AD will be subject to the associated limitations. Any future design change to the seats or seating systems requires full re-certification of the seats or seating systems. We have not revised this AD in this regard.

Request To Add Guidance on Use of Redesigned Part

Boeing requested that we add a note allowing the use of re-designed parts to be installed after test failure. Boeing stated that retrofitting an entire family of seats with a new design is perceived as a quicker path to safety and is non-punitive to airlines.

We disagree that such a note in the AD is necessary. Seats and seating systems that fail the determination (tests) required in the AD will be subject to the associated limitations. Any future design change to the seats or seating systems requires full re-certification of the seats or seating systems. We have not revised this AD in this regard.

Request for FAA and EASA Harmonization of Replacement Parts

ANA and JAL requested that we harmonize with EASA on replacement parts. JAL commented that the FAA NPRM requires that replacement parts meet applicable airworthiness requirements, whereas the EASA PAD requires replacement parts to be compliant with the requirements of the AD. JAL requested that the NPRM reflect compliance similar to the EASA PAD since operators might have to conduct further testing to show compliance with requirements other than flammability and injury prevention provisions. Accordingly, JAL requested that the FAA consider revising the requirements for the replacement parts so they are consistent with the ones in the EASA PAD. JAL noted that airlines/operators might have to conduct further testing to show compliance to regulations other than the flammability and injury prevention provisions. ANA stated there are differences regarding parts replacement between the FAA and EASA, and ANA requested the use of the EASA description.

We disagree. We cannot harmonize on this issue because EASA has a proposed 10-year removal date whereas the FAA does not. Since our AD allows seats, seating systems, and components that are compliant to remain on the airplane, our AD refers to the applicable airworthiness requirements for replacement parts. We have not revised this AD in this regard.

Request To Allow Replacement of Actuators, Hydrolocks, and Other Structural Parts

Several commenters requested that we allow the replacement of actuators, hydrolocks, and other structural parts. ANA stated that after the AD is effective, the AD requires that replacement parts comply with the requirements of the AD. ANA added that for the structural member, basically the new part is obviously much healthier than the existing one (installed on seat). ANA concluded that it is not necessary to include requirements for the spare (replacement) parts, including an actuator, a hydrolock, and so on, which are the standardized manufacturing parts.

JAL stated that it is currently proposed that only wear-out components and non-structural members may be manufactured and installed on the seats affected by the NPRM. JAL requested that we consider exempting the mechanical reclining control actuators even though they may be part of structural members. JAL stated the actuators are a type of wear-out component replaced often during maintenance. JAL added that the ones used on the Koito seats have many suppliers, their quality and performance were unlikely to be adversely affected by falsification, and the replacement of actuators improves, not degrades, the performance of existing seats.

Koito stated that the NPRM provides only for the replacement of wear-out component parts, such as food trays, arm rest covers, and non-structural members. Koito stated that this strict limitation may be disproportional as the replacement of certain parts of in-service seats can ensure appropriate safety levels while allowing the airlines to extend the use of these seats without having to replace them. Thus, Koito suggested including an explicit section in the NPRM describing possible avenues for airlines to upgrade seat performance (*e.g.,* through service bulletins and kits developed by Koito) to ensure they meet the safety requirements foreseen in the NPRM. Koito considered this would adequately ensure safety performance, while minimizing the burden on airlines.

We partially agree. We disagree with the ANA request to allow other structural parts "and so on" because ANA did not list specific parts. We agree that certain parts may be allowed. The intent of this AD is to allow Koito spares based on guidance in the component maintenance manual. Seat cushions would need to be in compliance with the AD. A seat, seating system, or component that fails the determination (tests) required in the AD is subject to the associated limitations. Any future design change (such as upgrade kit and associated Koito service bulletin) would require full re-certification of the seat.

Request To Clarify Limitation on Seats, Seating Systems, and Components Remaining in Service

EVA Airways commented that the NPRM contains inconsistent statements. EVA Airways stated that the NPRM reads that as of the effective date of this AD, a seat, seating system, or component may be re-installed on the airplane from which it was originally removed, provided it is removed from service within the applicable compliance time specified in this AD. EVA Airways also stated that the NPRM specifies these seats can be used as direct spares for the same part number seats. We infer that the commenter is requesting clarification of the limitations on seats, seating systems, and components remaining in service.

We agree to provide clarification. As specified in paragraphs (i) and (k) of this AD, a seat, seating system, or component that is removed to conduct testing can be replaced with a newly built part of the same part number or a used part of the same part number. All seats, seating systems, and components, whether new or used, must be in compliance with the AD within the appropriate compliance times of the AD.

Request To Revise Paragraph (h) of the NPRM

AEA requested that we revise paragraph (h) of the NPRM. AEA commented that paragraph (h) of the NPRM is very restrictive to operators who cannot obtain spare parts. ANA stated that it did not have spare seats based on the fact that there are many seat part numbers. Koito agreed with AEA that this provision is very restrictive and stated that such a significant limitation would prevent reconfiguration of airplanes containing

Koito seats. AEA requested that the wording of paragraph (h) of the NPRM be amended to allow non-compliant seats and their components to be used as direct spares for the same part number seat or component as follows:

> Seats and components that successfully complete the relevant requirements of paragraph (g) of this AD and are permitted to remain in service for the defined length of time, are limited in how they can be used, unless they are shown to fully comply with the applicable airworthiness requirements. Non-compliant seats and their components that are removed from service are not eligible for installation on another aeroplane or by another operator except as a direct spare for the same part number seat or component.

We do not agree to allow installation of seats, seating systems, and components as direct spares between other airlines and authorities. The intent of paragraphs (i) and (k) of this AD (referred to as paragraph (h) in the NPRM) is to limit the introduction of known bad parts into the worldwide fleet. Non-compliant seats, seating systems, and components are subject to the limitations of the AD. However, we have revised paragraphs (i) and (k) of this AD to allow installation of parts as direct spares on another airplane for a given operator, provided the operator complies with the requirements of the AD.

Request To Revise "Data the FAA Will Accept * * *" Section of the NPRM

Boeing requested that we revise the "Data the FAA Will Accept to Demonstrate Compliance with the Proposed AD" section of the preamble of the NPRM. Boeing suggested that we replace the wording "* * * As noted above, tests conducted as part of the JCAB investigation may be acceptable if the conformity of the seats in service can be verified" with the wording "* * * Tests conducted as part of the JCAB investigation are acceptable if the seat model in question is part of the family of the tested seat and if the tested seat included the highest loaded leg * * *" Boeing stated that the JCAB reported that falsification of data did not relate to the structural components of the seat and, as such, testing of test articles that are manufactured to the level of drawings at the time of production can establish a level of safety for the fleet.

We disagree with revising the wording because all tests might not be acceptable. Tests conducted as part of the JCAB investigation may be acceptable if the conformity of the seats in service can be verified. Operators may include not only the highest loaded leg but also such things as the rationale for why the seat model is the critical seat in the determined group/cluster in any proposed test plan. That section of the NPRM is not restated in the final rule. We have not revised this AD in this regard.

Request To Clarify Status and Validity of TSO and Tagging

JAL, Continental, and Koito requested clarification on the validity of TSO design approvals and tagging. JAL requested the status and validity of TSO design approvals of Koito seats and PMAs as replacement parts be unchanged by the AD.

JAL requested that the FAA define the disposition of TSOs/PMAs when operators decide to acquire new seat cushions.

Continental stated the NPRM should include a provision to allow the TSO to remain intact for any seats which are shown to meet the original TSO requirements or for any seats that are brought into full compliance.

Koito indicated the NPRM proposes to require modification of existing TSO tags prior to reinstallation to indicate non-compliance with the TSO, the AD number, and applicable removal date; however, the FAA has not proposed to revoke or suspend the TSOs. Koito requested the NPRM only require that a tag be added to the TSO marking that specifies the number of the AD, identifies the AD paragraphs it is in compliance with, and a removal date, if applicable. Koito concluded that only seats that do not comply with any requirements of the NPRM should have all TSO markings obliterated.

We agree to provide clarification. This AD does not address action against the manufacturer and we have not revoked the letter of design authorization for the TSO. However, none of the TSO markings on existing articles produced under TSO authorizations specified in this AD are considered valid because they were obtained in violation of the TSO process. This includes falsified Bunsen burner tests, oil burner tests, static tests, dynamic tests, and material certificates. If a seat model is fully re-qualified by the TSO holder, a seat may be entitled to a new TSO marking, with a new date, but the existing marking cannot be validated after the fact. The JCAB stated that the models identified in the AD have data that was either falsified or is suspected to have been falsified. The obliteration of the TSO identification ('TSO–XXX') is therefore required for all seats and seating systems affected by this AD.

The operator/owner may elect to show full compliance to the TSO as indicated by Note 1 of this AD (Note 1 indicates that it is possible for operators to redesign if they have a failure provided they re-qualify the affected TSO article through a thorough control of the design and production process). This permits the seat to remain in service in compliance with the AD but does not negate the fact that the TSO authorization was obtained fraudulently.

Acquisition or use of new seat cushions that comply with section 25.853 of the Federal Aviation Regulations (14 CFR 25.853) is one way to replace affected seat cushions. Also, use of third-party PMA seat cushions that are obtained through test and computation is a way to do this. PMA holders with compliance data may wish to request approval for an alternative method of compliance with this AD. PMA seat cushions that are obtained through "identicality" might not comply with the AD as the Koito data to which the PMA is identical might have been falsified. This AD does not address third-party PMA parts, except as replacement parts, which are subject to the requirements specified in "Parts Installation—Components of Seats and Seating Systems" in paragraph (k) of this AD. We might consider further rulemaking to address PMA parts obtained through identicality.

Request To Add Guidance on Dynamic Testing

Boeing requested that we add a note for paragraphs (g)(1), (g)(2), and (g)(3) of the NPRM to provide guidance on dynamic testing, including details on maximum seat weight for family, ballast, surrogate parts in a non-load path, and the use of the highest loaded leg.

We acknowledge that this sort of information needs to be addressed; however, it is appropriate for a test plan. There are current FAA guidelines that address these items that are found in FAA AC 25.562–1B. This level of detail is not necessary for this AD. The AD requires that operators determine compliance in accordance with a method approved by the FAA and each test plan may vary. We have not revised this AD in this regard.

Request for Compliance With FAA Statement of Compliance With Airworthiness Standards Form 8100–9

Aeroflot submitted an e-mail in which the operator requested Koito fill out an FAA Statement of Compliance with Airworthiness Standards Form 8100–9. Koito responded to Aeroflot that Koito was not able to issue the form and has never issued this form to date. Aeroflot stated it needed approval of repairs and

spare parts. We infer Aeroflot is requesting how to show compliance with the requirements of the AD for a specific repair for Model ARS–417 and ARS–418 seats.

We disagree with providing specific repair information. U.S. operators must do the actions in this AD in accordance with a method approved by the FAA. Non-U.S. operators are not subject to this AD unless it is mandated by their respective airworthiness authorities. We have not revised this AD in this regard.

Clarification of Terminology

In paragraph (h) of the NPRM we specified that parts are not eligible for installation "by another airline or any other aviation entity." We have removed the sentence containing that phrase in paragraphs (i) and (k) of this AD (which correspond with paragraph (h) of the NPRM). Instead, we have added the phrase "on airplanes operated by the same operator" to the sentences in paragraphs (i)(1) and (k)(1) of this AD.

We also revised the description of the unsafe condition in the Summary of this AD to match the description of the unsafe condition in paragraph (e) of this AD.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We also determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Costs of Compliance

We estimate that this AD affects 40,365 passenger seats installed on airplanes in the U.S. fleet. There are 278 airplanes of U.S. registry. The average labor rate is $85 per work-hour.

The estimated cost to determine if the affected seats and seating systems and their components are in compliance (*i.e.,* estimate the cost of static, dynamic and flammability testing, labor) is approximately $100,000 for the U.S. fleet. The estimated cost of the consumed article such as the seat row and materials consumed for flammability testing is approximately $490,000 for the U.S. fleet. The estimated cost to remove affected seats and seating systems and their components is approximately $285,000 for the U.S. fleet (this estimate assumes that the removal of all seats and seating systems in the fleet). The total estimated cost of this AD for the U.S. fleet is $875,000.

Operators might need to replace only certain components. It is not feasible to include the cost of individual components in this AD because we have no way of determining which components might need replacement.

Operators might need to replace the affected seat with a new seat. The following table provides the estimated costs for U.S. operators to replace the different types of seats. We have no way of determining how many seats might need to be replaced after testing is done to determine if the seats are in compliance. Certain operators might need to replace any type of seat that are generalized by description and estimated per-seat cost in the following table.

TABLE—SEAT REPLACEMENT COST ESTIMATES

Seat style/class	Aircraft style, foot rest, and recline mechanism	Cost per passenger seat
Economy	Narrow/Wide Body; Mechanical	$2,300.
First, Business	Narrow Body; Mechanical	$7,500.
Business	Wide Body; Mechanical	$10,000.
Business	Wide Body; Electrical	$25,000 to $35,000.
First	Wide Body; Lay flat single place, Electrical	$75,000 to $150,000.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. 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.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

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

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2011–12–01 Koito Industries, Ltd: Amendment 39–16708; Docket No. FAA–2010–0857; Directorate Identifier 2010–NM–156–AD.

Effective Date

(a) This AD is effective August 1, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Koito Industries, Ltd., seats and seating systems having a model number identified in table 1 of this AD that are approved under technical standard order (TSO) TSO–C39b, TSO–C39c, or TSO–C127a, and installed on, but not limited to, airplanes of the manufacturers identified in table 2 of this AD, all type certificated models in any category.

TABLE 1—SEAT MODELS

Model Nos.
AFS–105, AFS–136,
AFS–235, AFS–315,
ARS–183, ARS–189, ARS–190,
ARS–200, ARS–242, ARS–242–TA, ARS–254, ARS–255, ARS–263, ARS–276, ARS–277, ARS–281, ARS–289,
ARS–29, ARS–29–03,
ARS–304, ARS–308, ARS–311, ARS–311–A, ARS–311–B, ARS–336, ARS-339, ARS–341, ARS–347, ARS–352, ARS–354, ARS–357, ARS–360, ARS–384, ARS–385, ARS–392, ARS-397, ARS–398,
ARS–415, ARS–417, ARS–418, ARS–419, ARS–423, ARS–424, ARS–425, ARS-427, ARS-431, ARS–437, ARS–446, ARS–447, ARS–448, ARS–451, ARS–452, ARS–465, ARS-478, ARS–480, ARS–482, ARS–483, ARS–493, ARS-494,
ARS–507, ARS–510, ARS–511, ARS–514, ARS–516, ARS–518, ARS–527, ARS–542, ARS-543, ARS–550, ARS–552, ARS–553, ARS–554, ARS–571, ARS–574, ARS–577, ARS-588, ARS–589, ARS–591, ARS–592, ARS–593, ARS–594, ARS–595, ARS–596, ARS-597, ARS–598, ARS–599,
ARS–600, ARS–601, ARS–604, ARS–605, ARS–607, ARS–610, ARS–611, ARS–613, ARS-615, ARS–616, ARS–617, ARS–620, ARS–626, ARS–627, ARS–629, ARS–636, ARS-641, ARS–642, ARS–643, ARS–644, ARS–646, ARS–647, ARS–649, ARS–651, ARS–652, ARS–657, ARS–658, ARS–659, ARS–667, ARS–668, ARS–669, ARS–670, ARS-671, ARS–672, ARS–673, ARS–674, ARS–694, ARS–697,
ARS–704, ARS–707, ARS–709, ARS–710,
ARS–813, ARS–814, ARS–815, ARS–823, ARS–831, ARS–832, ARS–833, ARS–835, ARS-836, ARS–837, ARS–838, ARS–840, ARS–841, ARS–843, ARS–844, ARS–846, ARS-847, ARS–849, ARS–851, ARS–852, ARS–853, ARS–857, ARS–858, ARS–859, ARS-861, ARS–862, ARS–869,
ASS–197D,
ASS–215,
ASS–30, ASS–30–1,
B–317,
F11M11,
F44A33,
P11B31, P11B33, P11M93,
P21B33, P21B35, P21B73,
P22A23,
P32B73,
P52B41,
P56B63,
PB7–2001,
T–316,
Y11B31, Y11B33, Y11B73, Y15B73,
Y21A23, Y21B73,
Y27B73,
YE1B35,
YG7B35,
YH1B73,
YK2B73

TABLE 2—AFFECTED AIRPLANES

Manufacturer	Product subtype
Airbus	Transport Airplane.
The Boeing Company	Transport Airplane.
McDonnell Douglas Corporation	Transport Airplane.
Mitsubishi Heavy Industries, Ltd.	Transport Airplane.
Fokker Services B.V	Transport Airplane.

Subject

(d) Air Transport Association (ATA) of America Code 25: Equipment/Furnishings.

Unsafe Condition

(e) This AD results from a determination that the affected seats and seating systems may not meet certain flammability, static strength, and dynamic strength criteria. Failure to meet static and dynamic strength criteria could result in injuries to the flightcrew and passengers during emergency landing conditions. In the event of an in-flight or post-emergency landing fire, failure to meet flammability criteria could result in an accelerated fire. The Federal Aviation Administration is issuing this AD to prevent accelerated fires and injuries to the flightcrew and passengers.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Determination of Compliance and Removal

(g) At the applicable times specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, determine if the seats and seating systems and their components are compliant with FAA regulations specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA. For a method to be approved, the approval must specifically refer to this AD. Before re-installing any seat or seating system, modify the existing TSO

tag by defacing the TSO number and letter of designation, *e.g.,* overstrike the TSO identification with an "X" (such as "TSO–C127a" is defaced to look like

" ~~TSO–C127a~~ "

) , and add a tag that specifies non-compliance to the TSO number and letter designation, this AD number, and removal date if applicable.

Note 1: Determining if the seats and seating systems and their components are compliant may be done by independent re-qualification of the affected TSO article that has thorough control of the design and production process.

Note 2: Components of seats and seating systems include any non-metallic exposed part, assembly, or item. A component can include a seat cushion, recline cable, hook and loop (hook and loop is a generic term for Velcro), and a leather cover that is glued to a seat, headrest, or arm cap.

(1) For Koito Industries, Ltd., seats approved under TSO–C39b or TSO–C39c: Within 2 years after the effective date of this AD, determine if the seats are compliant with 14 CFR 25.561(b)(3)(ii) and 14 CFR 25.561(b)(3)(iii) at the level that the TSO was issued and determine if seats exhibit sharp or injurious surfaces. If any seats are not shown to be compliant with 14 CFR 25.561(b)(3)(ii) and 14 CFR 25.561(b)(3)(iii), or if any seats are shown to exhibit sharp or injurious surfaces in testing conducted to satisfy the original TSO authorization program or subsequent verification tests required by this paragraph, within 2 years after the effective date of this AD, remove the non-compliant seats.

(2) For Koito Industries, Ltd., seating systems approved under TSO–C127a: Within 2 years after the effective date of this AD, determine if the seating systems are compliant with either of the regulations specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD and determine if seating systems exhibit sharp or injurious surfaces. If any seating systems are not shown to be compliant with either of the regulations specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD, or if any seating systems are shown to exhibit sharp or injurious surfaces in testing conducted to satisfy the original TSO authorization program or subsequent verification tests required by this paragraph, within 2 years after the effective date of this AD, remove the non-compliant seating systems, except as provided by paragraph (h) of this AD.

(i) 14 CFR 25.561(b)(3)(ii) and 14 CFR 25.561(b)(3)(iii).

(ii) 14 CFR 25.562(b)(2), and 14 CFR 25.562(c)(7).

(3) For Koito Industries, Ltd., seating systems approved under TSO–C127a that are shown to be compliant with 14 CFR 25.561(b)(3)(ii) and 14 CFR 25.561(b)(3)(iii) and that are shown to not exhibit sharp or injurious surfaces during the actions required by paragraph (g)(2) or (h)(2) of this AD: Within 6 years after the effective date of this AD, determine if the seating systems are compliant with 14 CFR 25.562(b)(2), and 14 CFR 25.562(c)(7) and determine if seating systems exhibit sharp or injurious surfaces. If any seating systems are not shown to be compliant with 14 CFR 25.562(b)(2), and 14 CFR 25.562(c)(7), or if any seating systems are shown to exhibit sharp or injurious surfaces in testing conducted to satisfy the original TSO authorization program or subsequent verification tests required by this paragraph, within 6 years after the effective date of this AD, remove the non-compliant seating systems.

(4) For components of Koito Industries, Ltd., seats approved under TSO–C39b or TSO–C39c and components of seating systems approved under TSO–C127a: Within 3 years after the effective date of this AD, determine if the seat bottom cushion assembly and seat back cushion assembly are shown to be compliant with 14 CFR 25.853(c). If any seat bottom or seat back cushion assembly is not shown to be compliant with 14 CFR 25.853(c), within 3 years after the effective date of this AD, remove the non-compliant seat bottom and or seat back cushion assembly. If a seat cushion is replaced on airplanes required to meet 14 CFR 25.562 requirements (either by their original certification basis or post-type certificate modifications), the replacement seat cushion must have consistent seat bottom stiffness and seat reference point locations using the guidance found in paragraph 9 of Appendix 3 of FAA Advisory Circular 25.562–1B, dated January 10, 2006 (*http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/808324bf7790fda3862571010075bcbf/$FILE/AC25.562-1b.pdf*); however, compliance with 14 CFR 25.562(c)(2), *i.e.* lumbar load, does not need to be shown.

(h) For seating systems that are shown to be compliant with the regulations specified in paragraph (g)(2)(ii) of this AD, but are shown to exhibit sharp or injurious surfaces during the tests required to show compliance with paragraph (g)(2)(ii) of this AD: Do the actions specified in paragraph (h)(1) or (h)(2) of this AD using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(1) Within 2 years after the effective date of this AD: Remove the non-compliant seating systems.

(2) Within 2 years after the effective date of this AD: Determine if the seating systems are compliant with the regulations specified in paragraph (g)(2)(i) of this AD, and determine if the seating systems exhibit sharp or injurious surfaces during the tests required to show compliance with paragraph (g)(2)(i) of this AD. If any seating systems are not shown to be compliant with the regulations specified in paragraph (g)(2)(i) of this AD, or if any seating systems are shown to exhibit sharp or injurious surfaces in testing conducted to satisfy the original TSO authorization program or subsequent verification tests required by this paragraph, within 2 years after the effective date of this AD, remove the non-compliant seating systems.

Note 3: For airplanes not required to comply with any 14 CFR 25.562 requirements in either original certification basis or post-type certificate modifications, the use of an FAA Part 21 Production Approval Holder to develop and conduct the test program (in accordance with their procedures, including the control and oversight of the test facility) will facilitate the FAA approval process.

Note 4: For airplanes not required to comply with any 14 CFR 25.562 requirements in either original certification basis or post-type certificate modifications, the use of a new-build test article is acceptable for static testing.

Note 5: For airplanes not required to comply with any 14 CFR 25.562 requirements in either original certification basis or post-type certificate modifications, conformity inspections of test articles consisting of a seat from the fleet (or from spares), should confirm aspects such as matching the seat part number to that noted in the test plan, noting the general condition of the seat, noting revisions/modifications that have been made to the seat (typically noted on modification placards), and verifying the date of manufacture.

Note 6: For all airplanes, it is not required to test all in-service seat part numbers. The use of similarity is acceptable to show that the results obtained from a chosen test article are valid for other seat part numbers. Koito Interface Loads Reports/drawings may be used as a source of guidance for input data for the similarity analysis. The similarity methodology must be agreed on using the procedures specified in paragraph (l) of this AD. For airplanes required to comply with any 14 CFR 25.562 requirements in either original certification basis or post-type certificate modifications, the similarity methodology does not necessarily need to follow all guidelines as given in FAA AC 25.562–1B (*http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/808324bf7790fda3862571010075bcbf/$FILE/AC25.562-1b.pdf*). However, it must be agreed on using the procedures specified in paragraph (l) of this AD.

Note 7: For airplanes required to comply with any 14 CFR 25.562 requirements in either original certification basis or post-type certificate modifications, the use of an FAA Part 21 Production Approval Holder to develop and conduct the test program (in accordance with their procedures, including the control and oversight of the test facility) will facilitate the FAA approval process.

Note 8: For airplanes required to comply with any 14 CFR 25.562 requirements in either original certification basis or post-type certificate modifications, the use of a new-build test article is acceptable for static testing. However, in order to account for unknown production non-conformities, test articles for dynamic testing must be seats removed from service or spare seats delivered at the same time as the aircraft, unless newly produced test articles are shown to conform with in-service seats.

Note 9: For airplanes required to comply with any 14 CFR 25.562 requirements in either original certification basis or post-type certificate modifications, conformity checks of test articles consisting of a seat from the fleet (or from spares) should confirm aspects such as matching the seat part number to that

noted in the test plan, noting the general condition of the seat, noting revisions/modifications that have been made to the seat (typically noted on modification placards), and verifying the date of manufacture.

Note 10: Regarding 14 CFR 25.853(c), in order to account for unknown production non-conformities, test articles should be constructed from in-service cushions. The guidance in FAA AC 25.853–1 (*http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/7f0b93c640a3ae48862569d100732cfe/$FILE/ATT9758X/AC25.853-1.pdf*) is applicable. However, it may also be acceptable to test brand new test specimens, provided that it is shown that the in-service cushions consist of foams/covers which were supplied to Koito and marked by a different production organization approved in the FAA and/or EASA system. Test reports issued by any qualified design organization acceptable to the FAA will be acceptable; after May 23, 2011, any tests performed in the Koito seat cushion oil burner test facility, under JCAB supervision, will be acceptable. An independent approval of the seat cushion, such as a TSO–C72 (individual floatation device) may be sufficient to show compliance.

Parts Installation: Seats and Seating Systems

(i) As of the effective date of this AD, no person may install on any airplane any Koito Industries, Ltd., seat and seating system having any model number identified in table 1 of this AD that are approved under TSO–C39b, TSO–C39c, or TSO–C127a; unless it is shown to meet applicable airworthiness requirements, except as specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD.

(1) Seats and seating systems may be removed from service and re-installed on airplanes operated by the same operator.

(2) New seats and seating systems may be installed as direct spares for the same part number seats or seating systems.

Note 11: A "direct" spare has the same part number of the part it replaces.

(3) Seats and seating systems installed as direct spares are subject to the applicable requirements and compliance times specified in this AD.

Parts Installation: Installation and Re-arrangement

(j) Installation of seats and seating systems other than those installed as direct spares, as specified in paragraph (i) of this AD, is considered a new installation that needs approval and must comply with all regulations, except that re-arrangement of the existing installed seats on an airplane is acceptable following the same installation instructions and limitations as the original certification (*e.g.,* if the original limitations allowed 32″ to 34″ pitch, the new layout must be pitched within that range).

Parts Installation: Components of Seats and Seating Systems

(k) As of the effective date of this AD, no person may install on any airplane any component of any seat or seating system having any model number identified in table 1 of this AD that is approved under TSO–C39b, TSO–C39c, or TSO–C127a, unless the component is shown to meet the applicable airworthiness requirements; except as specified in paragraphs (k)(1), (k)(2), and (k)(3) of this AD.

(1) Components specified in paragraph (g)(4) of this AD may be removed from service and re-installed on airplanes operated by the same operator.

(2) New components may be installed as direct spares for the same part number components.

(3) Components specified in paragraph (g)(4) of this AD that are installed as direct spares are subject to the applicable requirements and compliance times specified in paragraph (g)(4) of this AD.

Alternative Methods of Compliance (AMOCs)

(l)(1) The Manager, Los Angeles ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

Related Information

(m) For more information about this AD, contact Patrick Farina, Aerospace Engineer, Cabin Safety Branch, ANM–150L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, California 90712–4137; phone: 562–627–5344; fax: 562–627–5210; e-mail: *Patrick.Farina@faa.gov.*

Material Incorporated by Reference

(n) None.

Issued in Renton, Washington on May 23, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate Aircraft Certification Service.

[FR Doc. 2011–13340 Filed 6–1–11; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2010–1171; Airspace Docket No. 10–ASW–16]

Amendment of Class D Airspace; Corpus Christi, TX

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule, technical amendment.

SUMMARY: This action amends Class D airspace within the Corpus Christi, TX, area by updating the geographic coordinates for Cabaniss Navy Outlying Field (NOLF). This action does not change the boundaries or operating requirements of the airspace.

DATES: *Effective date:* 0901 UTC, August 25th, 2011. The Director of the Federal Register approves this incorporation by reference action under 1 CFR part 51, subject to the annual revision of FAA Order 7400.9 and publication of conforming amendments.

FOR FURTHER INFORMATION CONTACT: Scott Enander, Central Service Center, Operations Support Group, Federal Aviation Administration, Southwest Region, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 321–7716.

SUPPLEMENTARY INFORMATION:

The Rule

This action amends Title 14 Code of Federal Regulations (14 CFR) Part 71 by adjusting the geographic coordinates, within Class D airspace, of the Cabaniss NOLF, Corpus Christi, TX, to coincide with the FAAs aeronautical database. This is an administrative change and does not affect the boundaries, altitudes, or operating requirements of the airspace, therefore, notice and public procedures under 5 U.S.C. 553(b) are unnecessary.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this regulation: (1) Is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the U.S. Code. Subtitle 1, 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