U.S. Department
of Transportation
**Federal Aviation
Administration**

Transport Airplane Directorate
1601 Lind Ave, SW.
Renton, Washington 98057-3356

August 7, 2015

Exemption No. 12409
Regulatory Docket No. FAA-2015-1669

Mr. Thomas A. Enyart
Manager, Certification & Airworthiness
The Boeing Company
Boeing Commercial Airplanes
Southern California Engineering Design Center
2401 E. Wardlow Road, Mail Code D800-0022
Long Beach, CA 90807-5309

Dear Mr. Enyart:

This letter is to inform you that we have granted your request for exemption. It transmits our decision and explains its basis.

The Basis for Our Decision

By letter no. CP-L4L-15-00122, dated May 1, 2015, Mr. Thomas A. Enyart, on behalf of The Boeing Company, petitioned the Federal Aviation Administration (FAA) for exemption from the requirements of Title 14, Code of Federal Regulations (14 CFR) 26.21(b)(2)(ii). The request seeks relief from the FAA-approved binding schedule, for Boeing Model DC-8 airplanes, which identifies those maintenance actions for which service information has not been mandated by airworthiness directive as of January 14, 2011.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, the FAA has not received public comments on other § 26.21(b)(2)(ii) exemption requests, and any delay in acting on this petition would be detrimental to Boeing.

The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In granting of exemption no. 11026 (copy enclosed), the FAA found that an exemption is in the public interest for the reasons stated by the petitioner, and that the petitioner has shown that the exemption would not adversely affect safety.

Having reviewed your reasons for requesting an exemption, I find that—

- they don’t differ materially from those presented by the petitioner in the enclosed grant of exemption;
- the reasons stated by the FAA for granting the enclosed exemption also apply to the situation you present; and
- a grant of exemption is in the public interest.

Our Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701 delegated to me by the Administrator, The Boeing Company is hereby granted an exemption from 14 CFR 26.21(b)(2)(ii).

The exemption is granted to the extent necessary to allow Boeing to remove those maintenance actions not yet in the form of Boeing service bulletins, indicated in Boeing Document MDC 12K9001, and which address the wing lower skin for DC-8 airplanes, all of which have a binding schedule date of September 30, 2016.

Sincerely,

/s/

Michael Kaszycki
Acting Manager, Transport Airplane Directorate
Aircraft Certification Service

Enclosure

Exemption No. 11026

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98057-3356

In the matter of the petition of **The Boeing Company** for an exemption from § 26.21(b)(2)(ii) of Title 14, Code of Federal Regulations	**Regulatory Docket No. FAA-2013-1033**

GRANT OF EXEMPTION

By letter no. RA-14-01655, dated April 10, 2014, Douglas M. Lane, ODA Deputy Lead Administrator, The Boeing Company, P.O. Box 3707 MC 03-56, Seattle, WA, 98124-2207, petitioned the Federal Aviation Administration (FAA) for an exemption from the requirements of § 26.21(b)(2)(ii) of Title 14, Code of Federal Regulations (14 CFR). This exemption, if granted, would allow Boeing to remove Boeing Service Bulletin 737-52A1038 from the FAA-approved binding schedule contained in Boeing Document D6-84905 for the subject service bulletin only.

The petitioner requests relief from the following regulation(s):

> **Section 26.21(b)(2)(ii) at Amendment 26-6 –** For those maintenance actions for which service information has not been issued as of the applicable compliance date specified in paragraph (c) of this section, a list identifying each of those actions and a binding schedule for providing in a timely manner the necessary service information for those actions. Once the FAA Oversight Office approves this schedule, each person identified in paragraph (c) of this section must comply with that schedule.

The petitioner supports its request with the following information:

This section quotes the relevant information from the petitioner's request, with minor edits for clarity. The complete petition is available at the Department of Transportation's Federal Docket Management System, on the Internet at http://regulations.gov, in Docket No. FAA-2013-1033.

Why relief is necessary

Within the Widespread Fatigue Damage final rule, § 26.21(b)(2)(ii) requires a Type Certificate Holder (TCH) to submit a list identifying each of those maintenance actions for which service information has not been mandated by airworthiness directive as of January 14, 2011 and a binding schedule for providing in a timely manner the necessary service information for those actions.

The Boeing 737CL WFD/LOV Compliance Document provides the list of those maintenance actions in the form of Boeing Service Bulletins as well as a binding date by which revisions of those Service Bulletins will be submitted to the FAA. Included in the listing of Service Bulletins to be revised is the Service Bulletin, which addresses the main deck cargo door hinge area on a number of 737-200C airplanes and which has a binding schedule date of July 14, 2014 for submittal of the revision to the FAA.

After the binding schedule for submittal of the revised Service Bulletins in the Boeing 737CL WFD/LOV Compliance Document was approved, further WFD analysis of the structure addressed in Boeing Service Bulletin 737-52A1038 revealed that the Inspection Start Point (ISP) would occur after the Limit of Validity (LOV) for these airplanes. At the LOV, any active airplanes would be withdrawn from service. In light of this, there is no need for Boeing to revise the Service Bulletin. As a result, Boeing is respectfully petitioning that the revision of the Service Bulletin, as listed in the Boeing 737CL WFD/LOV Compliance Document, be exempted from the 14 CFR §26.21(b)(2)(ii) aspects of the applicability of the Widespread Fatigue Damage final rule.

Description of the issue

A revision to the Service Bulletin was required in response to the Widespread Fatigue Damage final rule and to meet the commitments of the binding schedule contained in the Boeing 737CL WFD/LOV Compliance Document. The revision to the Service Bulletin would provide instructions to inspect the outer skin of the main deck cargo door below the hinge line at an Inspection Start Point (ISP) and to install a modification/repair at or before the Structural Modification Point (SMP).

The revision of the Service Bulletin would be addressing a total of 33 737-200C airplanes. Of these 33 airplanes, 30 are permanently out of service or exceed their LOV. One airplane is embargoed and the remaining two that would need service action are not N-registered and it is anticipated that they will never fly into US airspace. One airplane, L/N 309, is located in the Republic of South Africa, has not flown since April 2006 and is in long term storage. The other airplane, L/N 295, is located in the Cote D'Ivoire and hasn't shown any activity for at least the past 12 months. It is anticipated that these two airplanes will never be operated under Parts 121 or 129.

After the conclusion was reached that the affected fleet consisted of only two potentially active airplanes and noting that a conservative analysis approach was used, the WFD analysis was re-calculated resulting in an Inspection Start Point (ISP) that exceeds the LOV of 75,000 cycles for these airplanes. Therefore, no additional service actions are

required to address WFD and there is no reason to revise the Service Bulletin by the binding schedule date of July 14, 2014.

Statement of public interest

Exclusion of the revision of the Service Bulletin from the requirements of 14 CFR §26.21(b)(2)(ii) would permit The Boeing Company to apply more resources to the development of the widespread fatigue damage data for those remaining Service Bulletins to which the rule is applicable. The Boeing Company also considers that the granting of this exemption would negate the need for FAA to evaluate the data required to support compliance with these regulations for the revision of the Service Bulletin. Therefore, granting this exemption would, in turn, reduce the burden on FAA resources and consequently public expenditure.

Statement of no adverse effect on safety

The recalculated ISP for the maintenance actions for the revision of the Service Bulletin exceeds the LOV. In the unlikely event that either of the two airplanes in the affected fleet is ever returned to a flyable condition, they will have been removed from service at the LOV point prior to the ISP.

Conclusion

Exemption of the revision of the Service Bulletin from the requirements of 14 CFR § 26.21(b)(2)(ii) would have no adverse effect on public safety and would permit The Boeing Company to apply more resources to the development of the widespread fatigue damage data for those Service Bulletins to which the rule is applicable.

Privileges of this exemption outside the United States

Extension of this exemption is not required outside of the United States.

***Federal Register* publication**

A summary of the petition was published in the Federal Register on May 22, 2014 [79 FR 29479]. No comments were received.

The FAA's analysis

The FAA has considered the petitioner's request and finds that a grant of exemption is in the public interest for the reasons stated by the petitioner, and that the petitioner has shown that the exemption would not adversely affect safety.

This petition for exemption is consistent with the stated safety goals of Final Rule Docket No. FAA-2006-24281. Specifically, the intent of the final rule was to invoke the development of a limit of validity of the engineering data that supports the structural maintenance program (hereafter referred to as LOV) that will ensure that large, transport-category airplanes will not be operated beyond a time at which widespread fatigue damage (WFD) could occur. Section 26.21

of this final rule specifies that, for an LOV to be acceptable, the supporting evaluation must demonstrate that the fatigue characteristics of, and any specified maintenance actions for, the airplane are sufficient to prevent WFD from occurring before the LOV. For any LOV that relies upon maintenance actions to prevent WFD before the LOV, design-approval holders must identify those actions and, unless the necessary service information already exists, develop the service information in accordance with a binding schedule approved by the FAA. Boeing's petition for exemption is limited to a request for removing Boeing Service Bulletin 737-52A1038 from the binding schedule, which is identified in Boeing Document D6-84905.

Under § 26.21, design-approval holders may propose to support an LOV that is farther out in time by using new maintenance actions for which service information has not yet been published. Binding schedules are intended to ensure that maintenance actions are available to enable the FAA to publish the necessary airworthiness directives (ADs) in time to allow operators to accomplish the actions during normal maintenance. To establish a binding schedule, design approval holders must evaluate WFD-susceptible structure to determine when maintenance actions should be started. The design-approval holder must base the evaluation on test evidence and analysis at a minimum and, if available, service experience, or service experience and teardown-inspection results, of high-time airplanes. The data would then be used to establish any structural modification points (SMP) and inspection start points (ISP) if inspections are shown to be effective.

Boeing's WFD evaluation of the main-deck cargo-door hinge area on 737-200C airplanes initially revealed that the ISP is before the airplane's LOV. The binding schedule currently identified in Boeing Document D6-84905 reflects this determination. However, Boeing later re-evaluated the subject area and determined that the initial WFD evaluation used conservative assumptions. Because the re-evaluation showed the ISP to be greater than the LOV, maintenance actions to address WFD are no longer required for the main-deck cargo-door hinge area on 737-200C airplanes. This is because §§ 121.1115 and 129.115 would require operators to retire affected airplanes before an inspection of the subject hinge area would be required. The FAA has reviewed Boeing's re-evaluation and determined that Boeing's conclusion is correct.

Therefore, granting Boeing's request for removing Boeing Service Bulletin 737-52A1038 from the binding schedule, resulting in Boeing not having to update the service bulletin for WFD considerations, will not have an adverse effect on safety.

The FAA's decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701 delegated to me by the Administrator, The Boeing Company is hereby granted an exemption from 14 CFR 26.21(b)(2)(ii). The exemption is granted to the extent necessary to allow Boeing to remove Boeing Service Bulletin 737-52A1038 from the FAA-approved binding schedule contained in Boeing Document D6-84905. The granting of this exemption is for the subject service bulletin only. All other service bulletins are required to be developed and issued by the dates identified in the binding schedule.

Issued in Renton Washington, on July 11, 2014.

/s/ Michael Kaszycki

Michael Kaszycki
Acting Manager, Transport Airplane Directorate
Aircraft Certification Service