

**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
RENTON, WASHINGTON 98055-4056**

In the matter of the petition of

**THE BOEING COMPANY**

**Regulatory Docket No. 13203**

**for an exemption from §§ 25.807(c) (1)  
and (5), 25.809(f) (1) and 25.813(b) of  
the Federal Aviation Regulations**

**AMENDMENT TO GRANT OF EXEMPTION**

Exemption No. 1870C from the provisions of §§ 25.807(c) (1) and (5), 25.809(f) (1) and 25.813(b) of the Federal Aviation Regulations (FAR) was granted June 2, 1986, to The Boeing Company (Boeing), P.O. Box 3707, Seattle, Washington 98124. The exemption permits type certification of certain all-cargo 747 series models with provisions for carriage on the upper deck of not more than five persons other than flight crewmembers, with the total number of upper deck occupants not to exceed eight. The upper deck must be configured with one approved emergency exit having the dimensions of a Type I emergency exit, and one approved emergency exit hatch that has eight inertia reels and five body harnesses. The models to which the exemption applies are 747-100 (when modified from a passenger configuration to an all-cargo main deck configuration in accordance with Supplemental Type Certificates (STC) SA976CE-D, SA977CE-D and SA978CE-D), 747-200C and 747-200F. (The petitioner refers to airplanes modified from a passenger configuration to an all-cargo main deck configuration as 'Special Freighters' to distinguish them from others, such as 747-200C's and 747-200F's, that are manufactured as such.) The grant is subject to certain additional conditions specified in the exemption.

By letter dated April 24, 1989, Mr. J. A. Boyle, Manager Airworthiness, Everett Division, Boeing, petitioned for an amendment to Exemption 1870C to include all 747-100 airplanes modified to the all-cargo main deck configuration, regardless of whether the above noted STC's are the basis for approval of the modification, and to similarly modified 747-200 airplanes.

Sections of the FAR affected:

Section 25.807(c) (1) in effect June 2, 1986, provides, in part, that an airplane having a passenger seating capacity of one through nine must have at least one Type IV emergency exit for each side of the fuselage.

Section 25.807(c) (5) further specifies that for airplanes on which the vertical location of the wing does not allow the installation of overwing exits, an exit of at least the dimensions of a Type III exit must be installed instead of each Type IV exit required by

§ 25.807(c) (1) .

Section 25.809(f) in effect June 2, 1986, provides, in part, that a self-supporting slide or equivalent must be provided to assist the occupants in descending to the ground for each passenger emergency exit located more than 6 feet from the ground.

Section 25.813(b) provides, in part, that there must be enough space next to each exit located more than 6 feet from the ground to allow a crewmember to assist in the evacuation of passengers.

Note: Effective with the adoption of Amendment 25-72 on August 20, 1990, the requirements of § 25.807(c) (1) and (5) were transferred to § 25.807(d) (1) and (4), respectively, and those of § 25.809(f) were transferred to § 25.810(a) .

The petitioner's supportive information is as follows:

"At this time, Boeing Military Airplanes (BMA) is commencing a project which will convert a number of 747-100 and 747-200 passenger airplanes into Special Freighters. Although Exemption 1870C addresses only 747-100 airplanes modified under specific Supplemental Type Certificates, there will be no basic configuration differences between these airplanes and those that are converted to Special Freighters under the new project. All airplanes, including the 747-200 models, will be approved under the Supplemental Type Certificate process. Because of certain customer variable features, such as avionics, a number of STC's would be issued and each would be required to be added to the current Exemption 1870C.

"Since all the design features which could affect the carriage of people on the upper deck have already been considered in the granting of Exemption 1870C, it is requested that the wording of the exemption be changed to include all 747-100 and 747-200 that have been modified to the Special Freighter configuration under the STC process. Such a change would avoid continuous revisions of the Exemption to add different STC's."

A summary of the petitioner's April 24, 1989, request was published in the Federal Register on May 24, 1989 (54 FR 22518). No comments were received.

The FAA analysis/summary is as follows:

The FAA has reviewed the petitioner's request and noted that the models specified in Exemption 1870C have operated since 1973 without any adverse effect on safety. The FAA concurs that the specific document by which the modification of the 747 series airplane from a passenger configuration to an all-cargo main deck configuration is approved is not relevant to the issues involved in granting Exemption 1870C. The FAA has, therefore, determined that this action can be taken without compromising safety.

In consideration of the foregoing, I find that an amendment to Exemption 1870C is in the public interest and will not affect the level of safety provided by

the regulations. Therefore, pursuant to the authority contained in §§ 313(a) and 601(c) of the Federal Aviation Act of 1958, delegated to me by the Administrator (14 CFR 11.53), the petition of Boeing to amend Exemption 1870C is granted with the following provisions:

1. The exemption is applicable to all Boeing Model 747-100 and 747-200 airplanes incorporating an FAA-Approved modification from a passenger configuration to an all-cargo main deck configuration and to all 747-200C and 747-200F airplanes incorporating an all-cargo main deck configuration.
2. All other provisions of Exemption 1870C, together with its conditions and limitations, remain the same and are applicable to this exemption.
3. This amendment is part of, and shall be attached to, Exemption 1870C.

Issued in Renton, Washington, on

Transport Airplane Directorate,  
Aircraft Certification Service

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