

**BEFORE THE  
FEDERAL AVIATION ADMINISTRATION**

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In the Matter of )

Airworthiness Directive: )  
The Boeing Company Airplanes )

Notice of Proposed Rulemaking )

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Docket No. FAA-2014-0780

Directorate ID 2014-NM-168-AD

**COMMENTS OF NATIONAL AIR CARRIER ASSOCIATION  
IN OPPOSITION TO PROPOSED AIRWORTHINESS DIRECTIVE**

National Air Carrier Association (NACA) represents the following part 121 cargo air carriers, several of which operate B-747 aircraft: Air Transport International, Atlas Air, Everts Air Cargo, Kalitta Air, Lynden Air Cargo, National Airlines, Northern Air Cargo, Southern Air, USA Jet Airlines, and Western Global Airlines.

**1. Executive Summary**

The proposed Federal Aviation Administration airworthiness directive would, effectively, prohibit U.S. operators of B-747 cargo aircraft from using "offset loading" to transport intermodal containers. FAA contacted B-747 operators via an internal memorandum in November 2013, a portion of which follows:

"A Sea-Land [intermodal] container, placed in a ULD pallet, offset from concentric

loading by up to 9" laterally does not appear to meet the requirements of TSO C-90, as it does not meet the cg limitations of the freight/pallet combination, and the cargo net does not adequately restrain the container. In addition, when loaded in this fashion Sea-Land containers are not an overhanging load, they are an offset load. Such offset placed Sea-land containers are to be tied down to the airplane in accordance with the Boeing 747 WBM section 1-68-901."

This side-loaded method has been in practice for several decades and has proven to be a safe way to carry these intermodal containers.

The restriction in the proposed AD was based on testing criteria used in March 2014 that did not involve typical, real-world configurations used by airlines in transporting containers. But, based on development of more recent data, NACA believes the AD should not be issued until additional testing, currently underway, can be completed and FAA be given time to evaluate results of new test data. NACA believes, based on initial review of latest tests, there is justification for FAA to delay issuance of the subject AD. This will obviate the requirement for the AD.

An additional factor is that the Boeing Company's Weight & Balance Control and Loading Manual (WBM) allows carriage of both side-loaded and center-loaded offset cargo where that cargo is strapped to the aircraft frame. The proposed AD would prohibit this procedure.

## **2. Testing Is Ongoing to Determine Full Compliance with Boeing's B-747 Weight and Balance Control and Loading Manual**

The March 2014 initial test cited in the AD was not accomplished per National Aerospace Standard 3610 or SAE Aerospace Standard 36100 standards. This is because FAA asked whether the center of gravity (CG) inside the intermodal container

was known, and the airline doing the testing could not so confirm. The test criterion was subsequently modified since the center of gravity (CG) was not known.

A procedure has recently been developed, however, to determine the CG inside the container. Controlling the CG to the outboard side of the pallet allows a 9" offset while maintaining the required CG on the pallet. The distinction between CG being known or determined is an important one, and eliminates the need for using an offset greater than 9 inches. It is wholly appropriate, therefore, that FAA wait for results of the new round of testing, which represent real-world operation, before issuing the AD. The old testing does not form a proper basis for such a sweeping AD.

FAA cites in the Notice of Proposed Rule Making that results from the initial testing are the reason for the AD. NACA contends this is not a valid reason, considering the factors set out, above.

### **3. International Air Transport Association Loading Procedures**

International Air Transport Association's (IATA) recently issued Operating Specification 6/13 (Unit Load Device: Operating Specifications), which is similar to loading procedures used by U.S. airlines. This operations specification provides guidance for safely handling multiple configurations of offset intermodal containers and ensuring the effectiveness and ultimate load strength of tie-down arrangements. The proposed FAA AD is in conflict with, and overly restrictive as compared to, IATA's guidance. Most foreign carriers will use IATA's specifications as the basis for cargo loading on their aircraft, not FAA's proposed AD. Foreign carriers will, therefore, be permitted to carry more intermodal containers on each aircraft than will U.S. carriers,

giving foreign carriers a significant competitive advantage and will result in severe financial losses for U.S. carriers. This is a further reason for FAA to delay issuance of the AD until current testing can be completed.

#### **4. The Proposed Airworthiness Directive Misstates Boeing's B-747 Flight Manual and Weight & Balance Manual**

The preamble to the proposed AD states:

"The Weight and Balance Manual is part of the Operating Limitations section of the Airplane Flight Manual (AFM). In accordance with 14 CFR 21.41, the Operating Limitations are part of the airplane type certificate and, therefore, can be modified only by changing that certificate [emphasis added]; that is, by obtaining an amended or supplemental type certificate. Revisions to the AFM are approved as AFM supplements, and the approval is based on a finding that, with the AFM revisions, the airplane continues to meet the applicable airworthiness standards."

This statement, however, is in conflict with Boeing's B-747 WBM. The WBM does allow modifications that do not affect operating limits. This may be done without obtaining an amended or supplemental type certificate. This position is supported by the B-747 WBM, which states, in part:

"In addition, information is provided to allow the operator to efficiently plan loading procedures in such a manner that maximum payload capability is safely distributed for any type of operation."

An operator is not required to obtain an amended or supplemental type certificate if the operating procedures in an airplane manufacturer's WBM are modified with no modification to an Operating Limitation. FAA's statement in the preamble to the proposed AD says that, if the operating procedure is not explicitly set out in the WBM, an operator cannot use that procedure. This is not valid; the WBM provides for carriers to develop various other configurations. This is confirmed

by FAA's own guidance material, Advisory Circular 120-85, which allows carriers to develop accepted procedures. The AD would also prohibit operations that are, currently, specifically allowed in the Boeing WBM. Boeing's comments to this docket, dated January 9, 2015, included the following statement::

"Any intermodal container (including ones not concentrically loaded on a pallet) which is loaded in accordance with the Center of Gravity limitations for the ULD position should be allowed to be restrained directly to the aircraft through the use of tiedown restraint in accordance with the Weight and Balance Control and Loading Manual.

Prior discussions with FAA and the Airlines have allowed tiedown restraint of offset loads to occur in accordance with the approved Weight and Balance Control and Loading Manual (WBM). Tiedown restraint of this type of load is currently allowed per existing OEM WBM, and should not be prohibited. This configuration tied down to the aircraft per the existing OEM WBM has not shown to be an unsafe condition."

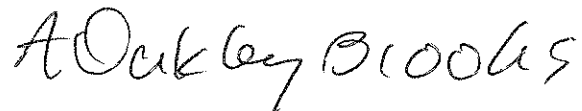
#### **5. Adoption of the Airworthiness Directive Would Cause Serious Economic Harm**

The market for cargo transportation is international and intensely competitive. Not only do U.S. cargo carriers compete against each other for transportation of large, heavy cargo, particularly the intermodal container traffic, but, they face steep competition from a number of foreign B-747 operators. The procedure mandated by the proposed AD would create a severe handicap to U.S. carriers' ability to compete, as some have already found. They find themselves uncompetitive in pricing for many of these loads, and, as a consequence, foreign carriers will reap a windfall from FAA's unnecessary restrictions. This will cause losses calculated in the tens of millions of dollars, annually, to U.S. carriers.

## 6. Conclusion

FAA's proposed AD should not be issued, at present. FAA should delay and evaluate results of the current round of testing. NACA believes, based on its understanding of the current round of testing, there is a strong likelihood the Boeing WBM will be revised, and the AD will be unnecessary. This will allow U.S. cargo carriers to fully compete with foreign carriers on a level playing field.

Respectfully submitted,

A handwritten signature in cursive script that reads "A Oakley Brooks".

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