

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

In the matter of the petition of

Atlas Air

for an exemption from § 25.1415(b) of
Title 14, Code of Federal Regulations

Regulatory Docket No. FAA-2009-0334

GRANT OF EXEMPTION

By letter dated April 2, 2009, Mr. Todd Berkey, Director, Engineering & Maintenance Programs, Atlas Air, 2000 Westchester Ave., 2nd Floor, Purchase, New York, 10577, petitioned for a temporary exemption from the requirements of Title 14, Code of Federal Regulations (14 CFR) § 25.1415(b) as it relates to the limitations in Technical Standard Order (TSO) C70a, which limits Type II liferafts to non-transport category airplanes. Atlas Air has seven airplanes with these liferafts installed.

Related sections of the regulation:

Section 25.1415(b) requires that each liferaft for a transport-category airplane be approved.

Section 25.1301(a)(3) requires that each item of installed equipment be installed according to limitations specified for that equipment.

The petitioner's supportive information is as follows:

Atlas Air (TLS) respectfully petitions for a temporary exemption from the provisions of Section 25.1415(b) for the airplanes listed below. Section 25.1415(b) requires that each liferaft for a transport category airplane be approved. TLS requests relief from these provisions of part 25 as it relates to the limitation in Technical Standard Order (TSO) C70a that limits Type II liferafts to non-transport category airplanes.

Table 1 – Effective Aircraft

Tail Number	VRBL Number	Line Number	Serial Number
355	RS722	629	23395
517	RD754	613	23300
522	RD362	417	21783
523	RD361	402	21782
524	RD363	424	21784
526	RD364	479	22337
540	RD753	499	22508

Supportive information is as follows:

Atlas Air (TLS) respectfully petitions for an exemption to Section 25.1415(b) for the TLS B747-200SF/300SF Special Freighters (SF) as listed in Table 1 for a brief period of approximately 100 days. Within this request, TLS will show that by granting this petition, an equivalent level of safety is maintained. Failure to grant the exemption represents an economic hardship to TLS that was not avoidable through actions on TLS’s part.

Background:

TLS had contracted with Boeing Wichita from 1996-2000 for the conversion of B747-200/300 passenger airplanes to Special Freighters as listed in Table 1 and approved by [Supplemental Type Certificate (STC)] ST00255WI-D [issued September 20, 1996] and STC ST00889WI-D [issued October 10, 2000]. To date, 7 aircraft have been delivered with Eastern Aero Marine (EAM) [part number (P/N)] R0103A121 liferafts. TLS specified this particular raft to reduce weight. These are 9-person rafts certified to TSO C70a (Type II single tube rafts). However, as addressed in TSO C70a, a twin tube design is required for transport category aircraft.

Boeing Wichita confirmed that the two separate Boeing Wichita STCs modified these aircraft into Special Freighters, and Boeing Engineering installed two EAM P/N R0103A121 9-person liferafts on each aircraft. TLS provided these liferafts to Boeing for installation on the aircraft (i.e., as Buyer Furnished Equipment). It is Boeing’s responsibility (as installer) to ensure that these liferafts meet all the applicable 14 CFR Part 25 Airworthiness Standards prior to delivery and/or return to service. Issuance of STCs ST00255WI-D and ST00889WI-D constitute FAA Approval of the EAM P/N R0103A121 Type II liferafts on the TLS Special Freighters. Issuance of the FAA Form 337 (Major Repair and Alteration) from the Boeing Wichita Repair Station for each of the TLS Special Freighters indicates a safe and airworthy aircraft at time of delivery (with these EAM P/N R0103A121 Type II liferafts installed). TLS has been operating their fleet of 747-200SF/-300SF in this configuration since the STC dates indicated above.

Recently, the [New York Flight Standards District Office (NY-FSDO)] informed TLS that the EAM P/N R0103A121 liferaft was not acceptable for certification on a transport category aircraft; that TLS may be operating their B747-200/300 Fleet in noncompliance with the regulations and these aircraft should be brought into compliance by installing TSO C70a Type I liferafts. In response to that, TLS is proceeding with a plan to procure new TSO C70a Type I liferafts to replace the EAM P/N R0103A121 Type II liferafts. TLS now finds itself in the position of waiting for the manufacture and subsequent delivery of the new rafts while operating this small fleet as lead time is approximately 6-8 weeks. In addition, time is required to ship the new rafts to stations in the US, Europe, Africa, and Asia where the installations can be accomplished.

Safety:

TLS believes that the level of safety will not be compromised if TLS is allowed to operate these 7 aircraft with TSO C70a Type II raft in lieu of the Type I rafts for the period requested.

TLS believes that EAM P/N R0103A121 liferafts, with incorporation of Airworthiness Directive 92-14-02, when installed in 747 Special Freighters and in the event of an inservice activation, will perform their intended function. TLS therefore does not believe that the installation of the EAM P/N R0103A121 liferafts on Model 747 series airplanes operated as freighters, certificated in any category, constitutes a safety issue.

The transport category aircraft requirements in the TSO appears to have been written in an attempt to add enhanced safety to the large air carrier, flying public. This is evidenced by the Type II raft capability on 'non-transport category' aircraft which still included larger numbers of the general public, such as on FAR 135 charters and Air Taxi operators. TLS believes that there is no compromise in the level of safety. A review of the following provides support of our position:

- The small number of supernumeraries on these aircraft (five) plus three crewmembers is more representative of the numbers found on general aviation aircraft, business jets and other 'non-transport category' aircraft.
- These 5 additional flight deck occupants, as a generalization, are air carrier employees and, in comparison to the general, flying public, are:
 - Younger,
 - Comfortable around aircraft and equipment,
 - Better trained,
 - More aviation/technically oriented,
 - Healthier, and,
 - Usually, they are other flight crew members dead heading to or from their flights.
- Projected usage from April 2 to July 12 [2009] represents very limited exposure on a fleet with an impeccable safety record on a carrier with a likewise impeccable safety record.
- Usage shall be limited to 7 aircraft as listed in Table 1.

- All subject airplanes have two liferafts installed enhancing redundancy as per 121.339(a)(2).
- Primary requirement for over-water usage is for charters for all 7 aircraft.
- Modern Type II raft reliability is equivalent to Type I, especially given the controlled usage within a crew/supernumerary (i.e., not the general public) environment.

Economic Hardship:

TLS would have to alter flight schedules and routes in order to accommodate the inferred Type II restriction on these 7 aircraft which would have an immediate impact on both TLS and our customers. The operation of the charters mentioned above may have to be canceled, re-routed (at great expense and inconvenience to our customers) or operated with more expensive equipment (if available). TLS respectfully request that an exemption be granted for the period from April 2 to July 12 [2009] when the new rafts are expected to be available. TLS further requests that this exemption be approved on an expedited basis in order that the issue of future charters may be resolved.

The FAA finds, for good cause, that action on this petition should not be delayed by publication and comment procedures for the following reasons:

- this matter does not affect the flying public at large,
- this matter represents only a request for temporary exemption from the requirement, rather than permanent relief,
- delay in acting on the petition would be detrimental to the petitioner because publication and comment procedure could not be completed before the scheduled flights.

The FAA's analysis/summary is as follows:

The FAA notes that the petitioner has several reasons for requesting this temporary exemption. Underlying each of the arguments, however, is the relatively low risk associated with a temporary grant of exemption. While the FAA agrees that the occupants of a freighter airplane are more likely to be familiar with the airplane and its equipment, this is not relevant to the capability of the liferaft itself. The liferafts presently installed are TSO C70a approved, Type II liferafts. However, the TSO has a limitation such that the Type II liferafts are for use on non-transport-category airplanes only. The TSO states that Type I liferafts are for transport category airplanes.

Type I liferafts are designed to be more robust and seaworthy than Type II liferafts, and are better suited to the extended overwater operation typical of transport-category airplanes. Under such conditions, the raft may need to be occupied for longer periods of time than would be necessary for airplanes equipped with Type II rafts. For these reasons, the FAA requires liferafts meeting the standards of the Type I raft (principally, multiple inflation chambers and redundant inflation systems) on this type of airplane. Nonetheless, given the relatively short time period of the requested exemption and small number of airplanes affected, the FAA considers that an exemption would be in the public interest. Since both Type I and Type II rafts are readily available for the airplane industry to purchase, the FAA typically allows only a very short time

to exchange the rafts. In this case, Atlas Air has made arrangements to purchase replacement Type I liferafts and is waiting for the 14 liferafts to be manufactured and delivered. After the liferafts have been delivered, Atlas Air will ship the liferafts to the service locations where the liferafts can be installed. The FAA considers that additional time is warranted to allow for procurement and installation of the new liferafts on the subject airplanes, a timeframe which will not measurably degrade safety.

The FAA does not agree with the applicant's statement that having two liferafts on each airplane is an enhancing redundancy. Two liferafts are the minimum number of liferafts allowed by the regulation. Both § 25.1415(b)(1) and § 121.339(a)(2) require that the loss of one raft, of the largest rated capacity, must be considered, and the remaining raft(s) must provide the buoyancy and overload-seating capacity to accommodate all occupants of the airplane.

In consideration of the foregoing, I find that a grant of exemption is in the public interest and will not affect the level of safety provided by the regulations. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701, delegated to me by the Administrator, Atlas Air is hereby granted an exemption from 14 CFR 25.1415(b). The petition is granted to the extent required to permit operation of seven Boeing Model 747-200/300 Special Freighter airplanes, with TSO C70a Type II liferafts. This exemption expires on July 12, 2009.

Issued in Renton, Washington, on April 23, 2009.

/s/

Stephen P. Boyd
Acting Manager, Transport Airplane Directorate
Aircraft Certification Service