

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

In the matter of the petition of

**Short Brothers plc**

for an exemption from §§ 26.43, 26.45,  
and 26.49 of Title 14, Code of Federal  
Regulations

**Regulatory Docket No. FAA-2008-0259**

**GRANT OF EXEMPTION**

By submission to the Department of Transportation's Federal Docket Management System (FDMS) dated February 26, 2008, and later clarifying submissions, dated August 26, 2008; October 2, 2008; October 30, 2008; and January 14, 2009; Mr. Michael Mulholland of Short Brothers plc, Airport Road, Belfast, Northern Ireland, BT3 9DZ, petitioned the Federal Aviation Administration (FAA) for an exemption from the requirements of Title 14 Code of Federal Regulations (14 CFR) 26.43, 26.45, and 26.49. This exemption is requested for Short Brothers Model SD3-30 and SD3-SHERPA airplanes. Sections 26.43, 26.45, and 26.49 are requirements related to the development of damage tolerance data for repairs and alterations.

**The petitioner requests relief from the following regulations:**

**§ 26.43 Holders of and applicants for type certificates—Repairs**, which requires development of damage tolerance data for repairs.

**§ 26.45 Holders of type certificates—Alterations and repairs to alterations**, which requires development of damage tolerance data for repairs and alterations.

**§ 26.49 Compliance plan**, which requires development of a compliance plan for §§ 26.43, 26.45, and 26.47.

**The petitioner supports its request with the following information.** This information is quoted from Mr. Mulholland's February 26, 2008, petition letter. The complete petition and subsequent clarifying submission letters may be found in the docket.

**Reasons Why the Exemption Would Not Adversely Affect Public Safety:**

The final rule introducing the regulations from which we are requesting exemption applies to transport category airplanes with a maximum type certificated passenger seating capacity of 30 or more or a maximum payload capacity of 7,500 pounds or more.

The data to be developed in complying with the regulations from which we are requesting exemption is only required to support Part 121 and 129 operators in complying with the relevant operating rules that require them to include such data in their FAA approved maintenance program.

Whilst the SD3-30 aircraft is covered by the applicability of the regulations, there are presently, to the best of our knowledge, no SD3-30 aircraft being operated under Part 121 regulations. According to our records, there are currently 28 airworthy SD3-30 aircraft in the US registered fleet, most being operated in “all cargo” operations under Part 135 regulations and a number of these aircraft are known to be in storage.

The above reason is considered to be commensurate with the position expressed by the FAA in the published final rule documents associated with Damage Tolerance Data for Repairs and Alterations in exempting other transport category aircraft types from this rulemaking.

**Reason the Exemption Would Benefit the Public Interest:**

The FAA has excluded aircraft operating under Parts 91, 125, and 135 from compliance with the associated operational rules linked to 14 CFR 26.43, 26.45, and 26.49, thereby eliminating all US registered SD3-30 aircraft from the impact of any changes to the Instructions for Continued Airworthiness which may be developed as a result of the activity required by 14 CFR 26.43, 26.45, and 26.49.

Granting this exemption will benefit the public interest, by freeing up valuable FAA resource, no longer required to evaluate and approve the associated suite of compliance documentation (required to be produced by Shorts as the DAH) to support this rule change, particularly when no operators will be required to update any of their applicable documentation.

**Summary Information:**

Whilst the SD3-30 aircraft is covered by the applicability of the regulations, there are no SD3-30 aircraft being operated under Part 121 regulations. Thus, exempting the SD3-30 aircraft, will have a negligible impact on the overall safety objective associated with this rulemaking, particularly when considering the FAA has already exempted the entire US fleet of other aircraft operating under parts 91, 125 or 135.

### **Additional information provided by the petitioner**

Mr. Mulholland provided the following additional information in a letter dated October 30, 2008. This information is quoted from the letter. The entire letter is contained in the docket.

Only one operator of US registered SD3 type aircraft currently operates in accordance with Part 121 requirements. The information provided to us, indicates this operator, Aviation Services Ltd (dba Freedom Air) uses one-off SD3-60 in Part 121, and would like to continue operation in accordance with Part 121 beyond December 2010.

All civil respondents operating the Shorts SD3-30 aircraft stated they operate in accordance with Part 135 requirements and have no desire to migrate to Part 121. This is "in line" with the trend observed by Short Brothers over the past decade and beyond, likely due to the increasing demand Part 121 regulations have placed on operators and the associated costs of compliance.

Government-Use aircraft respondents have declared no requirement to adopt the maintenance program changes specified in §§ 121.1109 and 121.1111.

There is no historic evidence of the SD3 type reverting to part 121 or 129 operations; in fact the opposite is the case. Most, if not all, original deliveries ex factory to the US jurisdiction were to Part 121 operators providing regional passenger services. With the advent of pressurized turbo-props, and then Regional Jets, the majority of the active US SD3 fleet has migrated to serving cargo operators under Part 135, there now being only one Part 121 operator, referenced above.

As eluded to above, current SD3 operators are typically small organizations not resourced to maintain aircraft in compliance with Part 121 regulations. It must also be said that the level of equipment changes (such as EGPWS, TCAS etc ) necessary to return an SD3 aircraft to a configuration that complies with Part 121 are not available as DAH approved modifications and are likely to be cost prohibitive to the existing SD3 operator base.

As noted in our petitions for exemption, we find it difficult to quantify that granting the exemptions is in the public interest, but we contend that the impact to the overall safety risk associated with granting these exemptions (likely affecting only one aircraft) will be no greater than the risk to the public safety presented by the entire US fleet of aircraft operating under Parts 91, 125 or 135 as assessed by the FAA when excluding them from the applicability of AASFR and EAPAS.

It is inconceivable that we could expect to recover the considerable costs associated with those tasks to be undertaken to support producing all the required

changes to the Instructions for Continued Airworthiness from the single US operator potentially impacted by AASFR and EAPAS.

### **Additional request from petitioner to include the Model SD3-Sherpa**

In response to an inquiry by the FAA to clarify if the Model SD3-SHERPA and SD3-60 SHERPA airplanes were included in the original exemption request dated February 26, 2008, Mr. Mulholland provided the following information, which is quoted from his response. The entire response is contained in the docket).

The short answer is in fact yes.

. . . the SD3-Sherpa . . . whilst included on TCDS A41EU, are SD3 aircraft variants delivered to the US Government under purchase agreements which required them to be (initially) civil certificated.

All aircraft of these designations are operated by the US Army National Guard, none are in civil operation, and we are unaware of any expectation of them moving to civil operation (Part 121 or otherwise) within the timeframe pertinent to the Part 26 requirements associated with our exemption petitions.

Indeed, we included within the last input in support of our petitions a statement/confirmation that the organizations contracted by the government to maintain these aircraft have declared no requirement to adopt maintenance program changes specified in §§ 121.1109 and 121.1111.

### **Federal Register publication**

A summary of the petition was not published in the *Federal Register* because the nature of this exemption is similar to those of previous petitions for which no public comments were received.

### **The FAA's analysis**

The FAA has developed criteria to consider when deciding whether to grant or deny a design approval holder's (DAH) petition for exemption from part 26 requirements. These criteria were meant as a general guide to making decisions about such requests and were not developed for any specific request. The FAA uses these criteria as a starting point for making its decision. However, other factors may also be considered before a final decision is made on any particular exemption request.

The criteria are illustrated in the following table.

**Table 1**

**Criteria for Considering Eligibility for Exemption  
from §§ 26.43, 26.45, or 26.49**

	<b>If the airworthiness authority for the state of design is</b>	<b>And</b>	<b>And</b>	<b>And</b>	<b>Then</b>
1	The FAA	No airplanes are operating under part 121 and it is unlikely that any will do so in the future <sup>3</sup>	No airplanes are operating under part 129 (N-registered) and it is unlikely that any will do so in the future <sup>3</sup>	No airplanes are being operated by a foreign air carrier and it is unlikely that any will do so in the future <sup>3</sup>	The DAH may be eligible for an exemption
2	The FAA	Airplanes are operating under part 121 but no airplanes will be operated under part 121 after the operational rule compliance date <sup>1</sup> and it is unlikely that any will return to such service in the future <sup>3</sup>	Airplanes are operating under part 129 (N-registered) but no airplanes will be operated under part 129 (N-registered) after the operational rule compliance date <sup>1</sup> and it is unlikely that any will return to such service in the future <sup>3</sup>	Airplanes are being operated by a foreign air carrier but no airplanes will be operated by a foreign air carrier after the operational rule compliance date <sup>1</sup> and it is unlikely that any will return to such service in the future <sup>3</sup>	The DAH may be eligible for an exemption
3	Not the FAA	No airplanes are operating under part 121 and it is unlikely that any will do so in the future <sup>3</sup>	No airplanes are operating under part 129 (N-registered) and it is unlikely that any will do so in the future <sup>3</sup>		The DAH may be eligible for an exemption
4	Not the FAA	Airplanes are operating under part 121 but no airplanes will be operated under part 121 after the operational rule compliance date <sup>2</sup> and it is unlikely that any will return to such service in the future <sup>3</sup>	Airplanes are operating under part 129 (N-registered) but no airplanes will be operated under part 129 (N-registered) after the operational rule compliance date <sup>2</sup> and it is unlikely that any will return to such service in the future <sup>3</sup>		The DAH may be eligible for an exemption

<sup>1</sup> The design approval holder must demonstrate that these airplanes will not be operating under part 121 or part 129, or operated by a foreign air carrier, after the operational rule compliance date by obtaining documentation of such from the current owners/operators of the airplanes.

<sup>2</sup> The design approval holder must demonstrate that these airplanes will not be operating under part 121 or part 129 after the operational rule compliance date by obtaining documentation of such from the current owners/operators of the airplanes.

<sup>3</sup> Arguments for the likelihood of an airplane not entering into air carrier service in the future should center on the airplane's age and/or current configuration.

The determination of whether an airplane is operating under part 121 or part 129 is based on whether that particular airplane is listed on an air carrier's Operations Specifications.

The rationale behind the criteria contained in the table above is this: The rules require DAHs to develop data for use by operators. If there are no operators for a particular airplane who are required by the rules to use such data, it would be a poor use of resources for the DAH to develop it. Therefore, it would benefit both the DAH and the public as a whole to spend resources on more important safety issues rather than on developing data that will not be used. In addition, granting such an exemption would not adversely affect safety because there are no airplanes that would be required to incorporate the data, nor is it likely that there will be any in the future.

The FAA has reviewed Short Brothers plc's request and determined that granting this exemption would not have an adverse effect on public safety and would be in the public interest based on the following information:

The FAA is not the airworthiness authority for the state of design for the Model SD3-30 and SD3-SHERPA airplanes. There are currently no US-registered Model SD3-30 or SD3-SHERPA airplanes operating under parts 121 or 129 (the one US registered SD3 type aircraft currently operated in accordance with part 121 is an SD3-60 airplane; the SD3-60 airplane is not included in this petition for exemption). The FAA concurs with Short Brothers' statement that there is no historic evidence of the SD3 type reverting to part 121 or 129 operations. We further concur with Short Brothers that it would be difficult for them to recover the costs associated with developing the data required by 14 CFR 26.43, 26.45, and 26.49 given that there are no operators of the SD3-30 and SD3-SHERPA who, by operating requirements, would be required to use the data.

As a result, Short Brothers plc Model SD3-30 and SD3-SHERPA airplanes meet the baseline exemption criteria for part 26. There are no other factors to be considered regarding Short Brothers' petition for exemption.

### **Additional information**

This exemption grants relief to Short Brothers plc from having to meet the requirements of §§ 26.43, 26.45, and 26.49 for the development of damage tolerance data for repairs and alterations. This exemption does not grant relief from the related operational requirements contained in § 121.1109 or § 129.109. Should a person choose to operate a Short Brothers Model SD3-30 or SD3-SHERPA airplane under part 121 or part 129 beyond the operational compliance deadlines as stated in § 121.1109 or § 129.109, that person will be required to comply with those operational requirements.

## **Supplemental Type Certificate (STC) holders and applicants**

Section 26.47 requires STC holders and applicants to use damage tolerance data developed by the TC holder to identify all alterations that affect fatigue critical baseline structure and fatigue critical alteration structure. However, if the FAA grants Short Brothers plc's petition, applicable STC holders and applicants will not be able to comply with the requirements of § 26.47. So the FAA considered the impact on these entities of whether a grant should be issued, and if so, whether it should be expanded to the applicable STC holders and applicants.

### **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, Short Brothers plc, is hereby granted an exemption from §§ 26.43, 26.45, and 26.49 for Model SD3-30 and SD3-SHERPA airplanes.

In addition, since the FAA does not intend for these rules to apply to a STC holder or applicant if they do not apply to the type certificate holder for the airplane model being modified, this grant is extended to those STC holders and applicants that have modified or modify Model SD3-30 and SD3-SHERPA airplanes.

Issued in Renton, Washington on February 5, 2009.

*Signed by Ali Bahrami*

Ali Bahrami  
Manager  
Transport Airplane Directorate  
Aircraft Certification Service