

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

In the matter of the petition of

Rogerson ATS

for an exemption from SFAR No. 88 of
Title 14, Code of Federal Regulations

Regulatory Docket No. FAA-2002-14093

PARTIAL GRANT OF EXEMPTION

By letter dated October 31, 2002, Mr. Douglas P. Gondela, Rogerson Aircraft Corporation, 2201 Alton Ave., Irvine, California, 92606, petitioned for an exemption from the requirements of Special Federal Aviation Regulation (SFAR) No. 88, "Fuel Tank System Fault Tolerance Evaluation Requirements" of Title 14, Code of Federal Regulations (14 CFR). This exemption, if granted, would allow Rogerson ATS, as the holder of Supplemental Type Certificate (STC) No. SA3495NM for Boeing Model DC-9-30 airplanes, to substantially meet the intent of SFAR No. 88 without conducting a safety review of the airplane fuel tank system, as required by SFAR No. 88. In the original petition for exemption the letter incorrectly identified the number of aircraft modified in accordance with the STC, and two serial numbers were incorrectly referenced. Rogerson ATS informed the FAA of the errors in electronic correspondence dated December 9, 2004.

The petitioner requests relief from the following regulations:

Part 21, SFAR No. 88, requires each supplemental type certificate (STC) holder to develop a report no later than June 6, 2003, that must:

- (a) Provide a fuel tank system safety review that contains substantiation that the airplane fuel tank design, including all necessary design changes, meets the requirements of §§ 25.901 and 25.981(a) and (b) as amended by Amendment 25-102; and

(b) Contain all maintenance and inspection (M&I) instructions established by the fuel tank system safety review. The instructions are necessary to maintain the fail-safe design features required to preclude the existence or development of an ignition source within the fuel tank system throughout the operational life of the affected airplanes.

By December 16, 2008, operators are obligated by the amendments to 14 CFR part 91, 14 CFR part 121, 14 CFR part 125, and 14 CFR part 129 of the operating rules to have an approved maintenance program for the fuel tank systems on their affected airplanes. That maintenance program will incorporate the M&I instructions created by the affected type certificate (TC) and STC holders from their SFAR No. 88 fuel tank system safety review(s), as well as address the actual configuration of the airplane.

The petitioner's supportive information is as follows:

Background Information

“Relief is sought from SFAR No. 88 on the basis that the STC was installed on military aircraft, the military have a scheduled retirement plan, and the military does not intend to comply with operating or airworthiness directives required by the SFAR.

“The above referenced STC No. SA3495NM has been installed on eight Navy DC-9-30 (C9-B) aircraft. The aircraft serial numbers modified with the STC are 47221, 47639, 47631, 47474, 47041, 47477, 47410, and 47476. These are the only aircraft modified by the STC and none are civilian registered aircraft.”

“The United States Navy has reported that three of the aircraft have been permanently retired. The remaining five aircraft are scheduled to be retired in January, March, April, and June of 2003. The Navy does not intend to take any action as a result of SFAR No. 88 requirements due to the scheduled retirement of these aircraft.

“If the aircraft are returned to service for civil operations, SFAR No. 88 requirements, as well as all other aspects of aircraft airworthiness, would need to be complied with in accordance with DC-9 Type Certificate Data Sheet A6WE. As a result, these aircraft are prohibited from returning to civil operations without SFAR No. 88 compliance.

“In addition, it is not economically feasible to return these aircraft to service. The aircraft have not been maintained to an approved FAA maintenance program. Certain airworthiness directives have not been complied with. Special mission equipment has been added for military operations requiring removal or certification.”

Public Interest Consideration

Compliance with SFAR No. 88 is not in the public interest of the United States of America. Three of the eight affected aircraft have been permanently retired. The remaining five are scheduled for retirement. Conducting the safety analysis for SFAR No. 88 will require significant resources and extensive research. It is not in the public interest to conduct this analysis for these eight aircraft.

Safety

“The eight Navy DC-9-30 (C9-B) aircraft have a successful record of service experience. June 16, 2004, is the deadline for operators to incorporate changes. All eight aircraft will be retired. Even if these aircraft were to remain in military operation, the Navy is not required to accomplish mandated changes since the aircraft are not civilian registered. If the aircraft are returned to service for civilian operations, SFAR No. 88 requirements, as well as all other aspects of aircraft airworthiness, would need to be complied with in accordance with the DC-9 Type Certificated Data Sheet A6WE. As a result, these aircraft are prohibited from returning to civil operations without SFAR 88 compliance.

Summary

“Rogerson ATS petitions for exemption from the requirements of 14 CFR part 21, SFAR No. 88, for Rogerson ATS STC No. SA3495NM. The STC has been installed on eight Navy DC-9-30 (C9-B) aircraft. These are the only aircraft modified by the STC and none are civilian registered aircraft.”

Rogerson ATS recommends that a limitation be placed on STC No. SA3495NM to prevent further use of the STC, unless a satisfactory SFAR No. 88 safety assessment has been accomplished.

A summary of the petition was published in the Federal Register on August 4, 2004 (69 FR 47205). No comments were received.

The FAA’s analysis/summary is as follows:

The FAA has considered the information provided by the petitioner and has determined that there is sufficient merit to warrant a partial grant of exemption. The petitioner requests an exemption from the requirements of part 21, SFAR No. 88, for STC No. SA3495NM, which authorizes the installation of an auxiliary fuel tank system on Boeing Model DC-9-30 airplanes.

SFAR No. 88 requires certificate holders to conduct a safety assessment, develop M&I instructions, and make design changes necessary to correct any unsafe conditions identified in the safety assessment. Further, the intent of SFAR No. 88 requires the certificate holder to develop maintenance and inspection instructions for the operators to implement on their existing fleet of transport category airplanes.

Rogerson ATS, as the holder of the STC, installed the auxiliary fuel tanks on ten Boeing Model DC-9-30 airplanes, serial numbers 47041, 47221, 47410, 47428, 47474, 47476, 47477, 47496, 47545, and 47565. The October 31, 2002, petition for exemption incorrectly identified the number of airplanes as eight and incorrectly stated that the STC was installed on airplane serial numbers 47639 and 47631. Rogerson ATS informed the FAA of the errors in electronic correspondence dated December 9, 2004.

The FAA has found that eight airplanes are owned by the U.S. Navy; two of which have been permanently withdrawn from use (serial numbers 47474 and 47477). The Department of Energy owns airplane serial number 47410. NASA owns serial number 47476.

Public Interest

Non-compliance with the requirements of SFAR No. 88 for the ten airplanes would not affect the safety of the U.S. fleet. The intent of SFAR No. 88 is to have certificate holders implement the requirements on the existing fleet of transport category airplanes used by the operators of U.S. registered airplanes. The M&I instructions developed for compliance with SFAR No. 88 are intended to meet the requirements of operating rules §§ 91.410, 121.370, 125.248, and 129.32. The airplanes modified by the STC are military or public use aircraft and are not operated under part 91, part 121, part 125, or part 129. Therefore, it would not be in the public interest for Rogerson ATS to incur the cost of compliance with SFAR No. 88 when the airplanes modified by STC No. SA3495NM are not being operated under these regulations. If the subject airplanes modified in accordance with STC No. SA3495NM are returned to U.S. civil operations, the operator will be required to comply with the requirements in its respective operating rule (§ 91.410, § 121.370, § 125.248, or § 129.32).

In consideration of the foregoing, I find that a partial 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, Rogerson ATS is granted a partial exemption from 14 CFR, part 21, SFAR No. 88, to the extent necessary to allow Rogerson ATS, as the supplemental type certificate holder of STC No. SA3495NM, to meet the obligations of SFAR No. 88 without conducting a fuel tank safety review, and without developing the necessary design changes required by that safety review. The partial exemption is granted with the following restrictions and limitations:

1. Within 90 days after the issuance of this exemption, Rogerson ATS must apply for an amendment to STC No. SA3495NM to:
 - a. Prohibit the exercise of the privileges of an STC holder defined in 14 CFR, part 21, unless the STC holder has complied with SFAR No. 88;

b. Limit the applicability of the STC to only airplane serial numbers 47041, 47221, 47410, 47428, 47474, 47476, 47477, 47496, 47545, or 47565, unless the STC holder has complied with SFAR 88; and

c. Revise the Airplane Flight Manual (AFM) supplement to state that STC No. SA3495NM has not been shown to comply with SFAR 88, and that a fuel tank system M&I program for compliance with § 91.410(b), § 121.370(b), § 125.248(b), or § 129.32(b) has not been developed.

2. This exemption is contingent upon the approval of the amended STC and the revised AFM supplement.

3. In the event any of the Boeing Model DC9-30 airplanes, serial numbers 47041, 47221, 47410, 47428, 47474, 47476, 47477, 47496, 47545, or 47565, modified in accordance with STC No. SA3495NM, are issued a standard airworthiness certificate, Rogerson ATS must comply with the requirements of SFAR No. 88 within 18 months of that issuance.

4. This exemption does not provide relief to operators of airplanes modified in accordance with STC No. SA3495NM from the requirements in their respective operating rule (§ 91.410, § 121.370, § 125.248, or § 129.32).

Issued in Renton, Washington, on September 29, 2005.

Signed by Ali Bahrami

Ali Bahrami
Manager, Transport Airplane Directorate
Aircraft Certification Service