

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [62 FR 7343 NO. 33 02/19/97]

Docket No. 96-ANE-42; Amendment 39-9912; AD 97-03-06

RIN 2120-AA64

Airworthiness Directives; Auxiliary Power International Corporation Model APS3200 Auxiliary Power Units

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Auxiliary Power International Corporation (APIC) Model APS3200 Auxiliary Power Units (APUs). This action requires replacement of the existing Electronic Control Box (ECB), incorporating its On Board Replaceable Module (OBRM) programmed with originally approved software version 2.0.2 or 3.2 with improved software version 4.1, or replacement of the existing OBRM of the ECB programmed with version 2.0.2 or version 3.2 with a new OBRM programmed with software version 4.1. This amendment is prompted by reports of continued fuel flow to the APU after the APU was commanded to shutdown, resulting in internal APU fires. The actions specified in this AD are intended to prevent internal APU fires due to ECB malfunction, which, if left unnoticed by flight or ground crews, could result in damage to the aircraft.

DATES: Effective March 6, 1997.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 6, 1997.

Comments for inclusion in the Rules Docket must be received on or before April 21, 1997.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 96-ANE-42, 12 New England Executive Park, Burlington, MA 01803-5299. The service information referenced in this AD may be obtained from Auxiliary Power International Corporation (APIC), 4450 Ruffin Rd., P.O. Box 85757, San Diego, CA 92193-9090; telephone (619) 627-6501, fax (619) 627-6502. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Guy Dalla Riva, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; telephone (310) 627-5248; fax (310) 627-5210.

SUPPLEMENTARY INFORMATION:

The Federal Aviation Administration (FAA) has received reports of four Auxiliary Power Units (APU) internal fires after shutdown of Auxiliary Power International Corporation (APIC) Model APS3200 APUs. The investigations revealed two possible causes of these fires: first, in three of the events, a software deficiency in the Electronic Control Box (ECB) allowed the APU fuel shut-off valve to remain open; second, in one unconfirmed event, possible fuel system contamination could have kept the valve from closing completely. This AD addresses the ECB software deficiency only. It does not address valve malfunction caused by fuel system contamination.

These ECB malfunctions may result in an internal fire within the APU, in the APU plenum, air intake, and possibly in the tail of the aircraft. This condition, if not corrected, could result in an internal APU fire due to ECB malfunction, which, if left unnoticed by flight or ground crews, could result in damage to the aircraft.

The FAA has reviewed and approved the technical contents of APIC Service Bulletin (SB) No. **4500001-49-52**, dated October 1, 1996, that describes procedures for replacement of the existing On Board Replaceable Module (OBRM) of the ECB incorporating the software versions 2.0.2 or 3.2 with a new OBRM programmed with software version 4.1. This software also commands closing of the aircraft APU firewall fuel shut-off valve in addition to the APU fuel shut-off valve during APU shutdowns.

Since an unsafe condition has been identified that is likely to exist or develop on other APUs of the same type design, this AD is being issued to prevent an APU fire due to ECB malfunction, which could result in damage to the aircraft. This AD requires replacement of the existing APU ECB (incorporating the originally approved software versions 2.0.2 or 3.2) with improved software version 4.1, or installation of an OBRM programmed with software version 4.1 in the ECB prior to 30 days after the effective date of this AD. This calendar end-date is based on parts availability. The actions are required to be accomplished in accordance with the SB described previously.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 96-ANE-42." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 USC 106(g), 40113, 44701.

§ 39.13 - [AMENDED]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference FAR Subpart 39.3).

97-03-06 Auxiliary Power International Corporation: Amendment 39-9912. Docket 96-ANE-42.

Applicability: Auxiliary Power International Corporation (APIC) Model APS3200 Auxiliary Power Units (APUs), Assembly Part Number (P/N) 4500000, incorporating Electronic Control Box (ECB), P/N 4500003E, with software version 2.0.2, and ECB, P/N 4500003F, with software version 3.2. These APUs are installed on but not limited to Airbus Industrie A319, A320, and A321 series aircraft.

Note 1: This airworthiness directive (AD) applies to each APU identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For APUs that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent an APU fire due to ECB malfunction, which could result in damage to the aircraft, accomplish the following:

(a) Within 30 days after the effective date of this AD, accomplish either of the following in accordance with APIC Service Bulletin (SB) No. **4500001-49-52**, dated October 1, 1996:

(1) Replace the existing ECB On Board Replaceable Module (OBRM) incorporating the originally approved software versions 2.0.2 or 3.2 with an ECB OBRM incorporating new software version 4.1; or

(2) Install an OBRM in the ECB that is programmed to software version 4.1.

(b) An alternative method of compliance or adjustment of the compliance time that

provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office. The request should be forwarded through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles Aircraft Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Los Angeles Aircraft Certification Office.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(d) The actions required by this AD shall be done in accordance with the following APIC SB:

Document No.	Pages	Revision	Date
4500001-49-52	1-6	Original	October 1, 1996

Total pages: 6.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from APIC, 4450 Ruffin Rd., P.O. Box 85757, San Diego, CA 92193-9090; telephone (619) 627-6501, fax (619) 627-6502. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on March 6, 1997.