

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 98-CE-113-AD; Amendment 39-12493; AD 2001-22-14]**

**RIN 2120-AA64**

### **Airworthiness Directives; Overland Aviation Services Fire Extinguishing System Bottle Cartridges**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that applies to certain Overland Aviation Services (OAS) fire extinguishing system bottle cartridges that were distributed during a certain time period and are installed on aircraft. This AD requires you to remove from service any of these fire extinguishing system bottle cartridges. This AD is the result of several incidents where the fire extinguishing system bottle cartridges activated with excessive energetic force. In one instance, the discharge valve outlet screen fractured and the screen material went through the distribution manifold. The actions specified by this AD are intended to prevent damage to fire extinguishing system components caused by a fire extinguishing system bottle cartridge activating with excessive energetic force, which could result in the fire extinguishing system operating improperly.

**EFFECTIVE DATE:** This AD becomes effective on December 10, 2001.

**ADDRESSES:** You may obtain copies of the document referenced in this AD from Overland Aviation Services, 10271 Bach Boulevard, St. Louis, Missouri 63132. You may view this document at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-CE-113-AD, 901 Locust, Room 506, Kansas City, Missouri 64106.

**FOR FURTHER INFORMATION CONTACT:** Jeffrey D. Janusz, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4148; facsimile: (316) 946-4407.

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

What events have caused this AD? The FAA has received reports of several incidents where fire extinguishing system bottle cartridges that were manufactured by Overland Aviation Services (OAS) activated with excessive energetic force. In one instance, the discharge valve outlet screen fractured and the screen material went through the distribution manifold.

The fire extinguishing system bottle cartridges are considered critical parts. The fire extinguishing system is only required to function after a failure or series of failures have occurred and developed into the potential for a fire. In the above-referenced incidents, the fire extinguishing system could not be relied on because of the potential for damage to the fire extinguishing system components that could result from a cartridge activating with excessive energetic force. OAS distributed fire extinguishing system bottle cartridges that could incorporate this problem from April 1, 1996, through September 15, 1997.

What is the potential impact if FAA took no action? A fire extinguishing system bottle cartridge activating with excessive energetic force could result in damage to fire extinguishing system components and cause the system to operate improperly. This could lead to passenger injury in the event of an airplane fire.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to OAS fire extinguishing system bottle cartridges that were distributed from April 1, 1996, through September 15, 1997, and were installed on aircraft. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on July 12, 1999 (64 FR 37471). The NPRM proposed to require you to remove from service any of these fire extinguishing system bottle cartridges.

Was the public invited to comment? The FAA encouraged interested persons to participate in the making of this amendment. The following presents the comments received on the proposal and FAA's response to each comment:

*Comment Issue No. 1: Change the Compliance Time to "the Next Scheduled Inspection/Maintenance Interval"*

What is the commenter's concern? One commenter recommends that FAA change the compliance time to the next scheduled inspection/maintenance interval. This would coincide with OAS Service Bulletin 22-09-97.

What is FAA's response to the concern? We do not concur with changing the compliance to the next scheduled inspection/maintenance interval. Operators of airplanes with the affected equipment use their airplanes in different operations, e.g., parts 121 and 135 of the Federal Aviation Regulations (14 CFR parts 121 and 135). These operations allow different inspection/maintenance intervals. The next inspection/maintenance interval for some airplanes may occur within a week after this AD becomes effective where the interval for other airplanes may occur a year after the AD becomes effective.

We have determined that the compliance time of "180 days after the effective date of the AD" will neither inadvertently ground any airplanes nor allow airplanes to operate with potentially defective equipment for an extended period of time.

We will consider individual extensions to the compliance times as alternative methods of compliance provided they:

- Provide a level of safety that is acceptable to FAA; and
- Are submitted using the procedures in the AD.

We are not making any changes to the final rule as a result of these comments.

*Comment Issue No. 2: Re-estimate the Cost Impact*

What is the commenter's concern? A commenter states that FAA's cost analysis does not account for the potential unnecessary inspection and removal of parts when you cannot identify whether one of the affected cartridges is installed. The commenter estimates this cost impact at three times more than FAA's estimate.

What is FAA's response to the concern? We based our cost analysis on operator input of the efforts to accomplish the inspection and replacement of the suspect part. Any unnecessary removal would be the result of improper identification or a lack of proper maintenance records. We have determined that, if

proper maintenance was followed, the owner/operator of an airplane will maintain a direct correlation between the identity of parts on a particular airplane and that airplane's maintenance records and logbooks.

We are not making any changes to the final rule as a result of these comments.

#### *Comment Issue No. 3: Clarify the Approved Replacement Parts*

What is the commenter's concern? One commenter asks for clarification regarding whether you can use a replacement part with the same part number as those affected by this action. The commenter believes you can if the part is not of the suspect distribution date or lot number. However, the commenter feels that the current wording in the NPRM on this issue is unclear.

What is FAA's response to the concern? After re-evaluating the wording in the NPRM, we concur that the language could be more clear. To address this, we are also specifying the lot number and the distribution date in all references to part number in the AD.

#### *Comment Issue No. 4: Explain Why FAA Uses the Distribution Date of the Cartridge Instead of the Manufacturing Date*

What is the commenter's concern? One commenter asks for information regarding the requirement to use the distribution date of suspect parts instead of the manufacturing date. In particular, the commenter wants to be able to substitute the manufacturing date for the distribution date and wants information about the relationship between the two.

What is FAA's response to the concern? The manufacturer of the suspect part does not tie a single manufacturing date to a specific lot number. The lot number more directly identifies suspect components. For example, the manufacturer has produced parts with the same lot number on five different manufacturing dates.

Distribution dates are also as important as the lot numbers. Parts may have been manufactured earlier than the distribution date or the date when sent to the field or distributor.

Because of these discrepancies between the manufacturing date and the lot number and distribution dates, we are using the part number, lot number, and distribution date as the identifying criteria for this AD action.

We are not making any changes to the final rule as a result of these comments.

#### *Comment Issue No. 5: Extend the Compliance Time To Ensure Parts Availability*

What is the commenter's concern? OAS requests FAA extend the comment period so the company can ensure that parts are available to all affected owners/operators of the aircraft with the affected cartridges installed. OAS estimates it would need approximately 210 days as of August 10, 2001.

What is FAA's response to the concern? We will increase the compliance time from 120 days to 180 days. The AD becomes effective on December 10, 2001 (122 days past August 10, 2001). This would give OAS approximately 300 days to ensure that parts are available to all affected owners/operators of the aircraft with the affected cartridges installed.

We are changing the final rule to reflect this change.

What is FAA's final determination on this issue? We carefully reviewed all available information related to the subject presented above and determined that air safety and the public interest require the adoption of the rule as proposed except for the changes discussed above and minor editorial questions. We have determined that these changes and minor corrections:

- Provide the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

## Compliance Time of This AD

*Why is the compliance of this AD presented in calendar time instead of hours time-in-service (TIS)?* The unsafe condition described in this AD is not a direct result of aircraft operation. The fire extinguishing system bottle cartridges could activate with excessive energetic force the first time they are used during flight. This could occur on an aircraft with 50 hours TIS or an aircraft with 10,000 hours TIS. Therefore, to ensure that the unsafe condition is corrected in a timely manner, this AD is utilizing a compliance time of 180 days after the effective date of the AD.

## Cost Impact

*How many airplanes does this AD impact?* We estimate that this AD affects 5,128 fire extinguishing system bottle cartridges

*What is the cost impact of this AD on owners/operators of the affected airplanes?* We estimate the following costs to accomplish this action:

Labor cost	Parts cost	Total cost per airplane	Total Cost on U.S. operators
8 workhours x \$60 per hour=\$480.....	OAS to provide at no charge..	\$480	\$2,461,440

OAS reports that 2,100 parts have been removed from service. This reduces the cost impact of this AD from \$2,461,440, to \$1,453,440.

The number of cartridges utilized varies from airplane to airplane. The FAA has no way of determining which airplanes have the affected fire extinguishing system bottle cartridges incorporated. Therefore, FAA has presented the cost impact of this AD based upon the number of fire extinguishing system bottle cartridges manufactured instead of the number of airplanes affected.

## Regulatory Impact

*Does this AD impact various entities?* The regulations adopted herein will not have a substantial direct effect 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, it is determined that this final rule does not have federalism implications under Executive Order 13132.

*Does this AD involve a significant rule or regulatory action?* For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

## Adoption of the Amendment

Accordingly, under 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 U.S.C. 106(g), 40113, 44701.

### **Sec. 39.13 [Amended]**

2. FAA amends Sec. 39.13 by adding a new AD to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

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

*We post ADs on the internet at "av-info.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) 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 14 CFR part 39, subpart 39.3).

## CORRECTED COPY

**2001-22-14 Overland Aviation Services: Amendment 39-12493; Docket No. 98-CE-113-AD.**

(a) *What airplanes are affected by this AD?* This AD affects the fire extinguishing system bottle cartridges presented in paragraph (a)(1) of this AD that were distributed from April 1, 1996, through September 15, 1997, and are installed on, but not limited to, the specified aircraft:

(1) This chart presents the fire extinguishing system bottle cartridge part number, the fire extinguishing system bottle assembly basic part number, the make/model aircraft that the system could be installed on, and the cartridge lot number:

Overland Aviation Services (OAS) cartridge part numbers	Walter Kidde Aerospace (WKA) fire extinguishing system (Firex) bottle assembly basic part number	Make/model of applicable aircraft	Cartridge lot number
OA472001.....	472073, 472420, 472467, 897878, 897885, 899170	Aerospatiale ATR72 Series ATR42-200, -300, -320; Embraer EMB-120 Series	SBI 1-1 SBI 1-2
OA841155.....	890532, 890598, 890599, 891070, 891147, 891814, 892308, 893675, 898768	Boeing 707-100, -100B Series, - 300 Series, 720B; McDonnell Douglas DC-8 and DC-8F Series; Lockheed 382, 382E, 382F, 382G; Sabreliner NA-265 Series; Bell 204B	SBI 1-3, OAS 1-2
OA873364.....	472049, 472162, 472389, 472390, 893456, 893523, 893524, 893572, 893726, 894703, 895353, 897770, 898006, 898066	Gulfstream G-1159, G-1159B, G- 1159A; Cessna 425, 441, 550, S550, 551, 552 Fokker F.28 Series; SAAB 340 Series; Bell 412	SBI 1-3
OA873571.....	892807, 892857, 893244, 899827, 899927	Boeing 707-100, -100B Series, - 300 Series, 720B; McDonnell Douglas DC-8, DC-8F Series; DC- 9 Series; Lockheed 382, 382E, 382F, 382G	SBI 2-2
OA876296.....	472602, 472603, 473598, 895240, 895564, 895678, 895683, 895877, 896054, 898150	McDonnell Douglas DC-9-81, DC- 9-82, DC-9-83, DC-10 Series; Airbus A300 Series	SBI 1-1, OAS 1-1
OA876299.....	472268, 895656, 895752, 895848, 896165, 896166, 897785, 897797, 897798	Lockheed L-1011 Series	SBI 1-1
OA897776.....	472258, 472428, 897775, 897869, 897885, 897899, 899066, 899074, 899170, 899486	Canadair CL-600-1A11, CL-600 - 2A12, CL-600-2B16; <b>Embraer</b> <b>EMB-120</b> , EMB-120RT; Sikorsky S-76A; SAAB 340 Series	SBI 1-4, SBI 1-15, SBI 1-16, OAS 1-1

(2) OAS distributed the affected fire extinguishing system bottle cartridges from April 1, 1996, through September 15, 1997. This AD does not apply to cartridges incorporated on the aircraft prior to April 1, 1996.

(3) Procurement records may show if the owner/operator has ever bought affected parts, for spares or time replacements, for airplane installation, or to support a repair shop. These could be cross-referenced to the lots that are suspect. Additionally, a review of procurement records with respect to the part number, lot number, and distribution date of the suspect lots would also reduce the owners'/operators' workload of having to examine all applicable Air Transport Association (ATA) codes in the databases. A search of the maintenance/inspection records and logbooks of a specific airplane make and model and serial number could be beneficial.

(4) The fire extinguishing system parts are installed up to a hex wrenching flat on the cartridge body. These wrenching flats have the part number, lot number, and date of manufacture stamped on them, as well as safety wire holes. When installed, the safety wire will probably cover up at least one bit of the above information. Inspecting the wrenching flats could help determine whether the fire extinguishing system bottle cartridges contain a suspect part number with the affected distribution date or lot number.

(b) *Who must comply with this AD?* Anyone who wishes to operate any of the above airplanes must comply with this AD.

(c) *What problem does this AD address?* The actions specified by this AD are intended to prevent damage to fire extinguishing system components caused by a fire extinguishing system bottle cartridge activating with excessive energetic force. This could result in the fire extinguishing system operating improperly and lead to passenger injury in the event of an airplane fire.

(d) *What actions must I accomplish to address this problem?* To address this problem, you must accomplish the following:

Actions	Compliance	Procedures
(1) Check the maintenance records to determine whether an extinguishing system bottle cartridge that is referenced in paragraphs (a) and (a)(1) of this AD is installed.	Within the next 180 days after December 10, 2001 (the affected date of this AD).	The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may accomplish these actions.
(i) If an affected fire extinguishing system bottle cartridge was installed prior to April 1, 1996, you do not have to accomplish the removal and replacement requirements of this AD (paragraph (d)(2) of this AD); and.		
(ii) Make an entry into the aircraft records showing compliance with that portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).		
(2) Remove from service any fire extinguishing system bottle cartridge referenced in paragraph (a) and (a)(1) of this AD. Replace that bottle cartridge with an FAA-approved fire extinguishing system bottle cartridge that is not one of the applicable OAS part numbers that was distributed from April 1, 1996, through September 15, 1997.	Within the next 180 days after December 10, 2001 (the effective date of this AD).	OAS Service Bulletin 22-09-97, dated October 1, 2001, contains information related to this subject.

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(3) Do not install, on any aircraft, any affected OAS fire extinguishing system bottled cartridge that was distributed from April 1, 1996, through September 15, 1997.

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As of December 10, 2001 (the effective date of this AD).

Not Applicable.

**Note 1:** "Unless already accomplished" credit may be extended to the records check allowed by this AD provided that the records are checked to cover any time period that has elapsed since the previous check.

(e) *Can I comply with this AD in any other way?* You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Wichita ACO, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

**Note 2:** This AD applies to each aircraft that incorporates one of the fire extinguishing system bottle cartridges identified in paragraphs (a) and (a)(1) of this AD; regardless of whether the aircraft has been modified, altered, or repaired in the area subject to the requirements of this AD. For aircraft 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 (e) 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.

(f) *Where can I get information about any already-approved alternative methods of compliance?* Contact Jeffrey D. Janusz, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4148; facsimile: (316) 946-4407.

(g) *What if I need to fly the airplane to another location to comply with this AD?* The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) *How do I get copies of the documents referenced in this AD?* You may obtain copies of the document referenced in this AD from Overland Aviation Services, 10271 Bach Boulevard, St. Louis, Missouri 63132. You may view this document at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106.

(i) This amendment becomes effective on December 10, 2001.

Issued in Kansas City, Missouri, on October 24, 2001.

**Michael Gallagher,**

*Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 01-27412 Filed 11-1-01; 8:45 am]

**BILLING CODE 4910-13-P**