#### AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

### **Fire Protection Equipment**

# AD/FPE/15 Overland Aviation Services Fire Extinguisher 4/2002 Cartridges

Applicability:

Overland Aviation Services (OAS) fire extinguisher system bottle cartridges that were distributed from 1 April 1996 to 15 September 1997 that are installed on, but not limited to, aircraft listed in the chart below.

Note: For the purpose of this Airworthiness Directive "distributed from 1 April, 1996, to 15 September, 1997" means: that the cartridges were distributed between 1 April 1996 to 15 September 1997 by Overland Aviation Services (the manufacturer) to parts brokers, FAA approved repair stations and aircraft operators.

The following chart presents the extinguisher system bottle cartridge part number, the fire extinguisher 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 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

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### **Fire Protection Equipment**

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Overland Aviation Services cartridge part numbers	Walter Kidde Aerospace (WKA) fire extinguishing system (Firex) bottle assembly basic part number	Make/model of applicable aircraft	Cartridge lot number
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; Embraer EMB-120, EMB 120RT; Sikorsky S-76A; SAAB 340 Series	SBI 1-4, SBI 1-15, SBI 1-16, OAS 1-1

## Requirement:

- 1. Check the maintenance records of the aircraft to determine whether an extinguishing system bottle cartridge referenced in the above chart is installed.
- 2. Remove from service any fire extinguishing system bottle cartridge referenced in the above chart.

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#### **Fire Protection Equipment**

AD/FPE/15 (continued)

- 3. Check the maintenance records of the aircraft to determine whether an extinguishing system bottle cartridge referenced in the above chart had previously been installed and operated to discharge a fire bottle. If such a cartridge has been identified, while carrying out requirement 1 of this Airworthiness Directive, inspect the discharge tube(s) of the fire extinguisher system for debris that may have exited the discharge valve.
- 4. Replace cartridges removed at Requirement 2 with one's that do not have OAS part numbers, referenced in the above chart, that were distributed from 1 April 1996, to 15 September, 1997.
- 5. From the effective date of this Airworthiness Directive, no person may install, on any aircraft, any OAS fire extinguishing system bottle cartridge listed in the above chart that was distributed from 1 April, 1996, to 15 September, 1997.

Note: FAA AD 2001-22-14 amendment 39-12493 and Overland Aviation Services Service Bulletin (SB) 22-09-97 refers.

Compliance:

For requirements 1, 2, 3 and 4: Within 120 days from the effective date of this Airworthiness Directive.

This Airworthiness Directive becomes effective on 18 April 2002.

Background:

OAS received reports of incidents where inspections of the fire extinguisher assemblies after a bottle discharge revealed damage to the associated discharge valve. This was caused by the release of excessive energy during functioning. OAS investigation indicates that although steel filter screens appear to absorb most of the released energy, aluminium screens may fracture during functioning and allow debris from the discharge valve to be discharged into the distribution tube. To prevent a fire extinguishing system not operating properly, this Airworthiness Directive requires removal and replacement of fire extinguisher bottle cartridges distributed by OAS during a particular period, and an inspection of the aircraft's fire extinguisher system should records indicate that a discharge of a fire extinguisher bottle has taken place using a suspect cartridge.

Eugene Paul Holzapfel

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Delegate of the Civil Aviation Safety Authority

5 March 2002