

NUMBER: SB 500-26-001, Rev D
MODEL: ECLIPSE EA500
SUBJECT: Phostrex Fire Extinguisher Cartridge (FEC) Replacement

1. PLANNING INFORMATION

A. Effectivity

Aircraft Serial Numbers 0001-0300.

B. Reason

Existing Fire Extinguisher Cartridge (FEC) may leak after extended periods of time. Eclipse Aerospace has imposed a time limit of NLT December 31, 2012 for use of the existing FECs.

Revision B changes include: SB Type was Recommended, is Mandatory. Effectivity, Compliance, Labor Hours, References and Parts Disposition changes.

Revision C changes include: Added reference to SB 500-54-003 Leading Edge Skin Assembly Fire Extinguisher Sight Glass Replacement.

Revision D extends compliance to March 31, 2013.

C. Description

This Service Bulletin (SB) replaces existing left and right engine FEC, P/N FX00200-2 and FX00200-3 with new FEC, P/N 26-123127-1001.

D. Relevant Publications

Aircraft Maintenance Manual (AMM), latest revision

AMM Temporary Revision 26-1 P/N 06-117751-TR26-1 for AMM revision 18

Airplane Flight Manual (AFM) Supplement, P/N 06-121770-06

SB 500-54-003 Leading Edge Skin Assembly Fire Extinguisher Sight Glass Replacement

E. Compliance

Eclipse Aerospace Incorporated considers this to be a Mandatory upgrade that must be accomplished not later than March 31, 2013.

It is recommended that SB 500-54-003 Leading Edge Skin Assembly Fire Extinguisher Sight Glass Replacement be accomplished concurrently with this Service Bulletin.

F. Approval

This Service Bulletin is based on engineering data that is FAA-approved, and the modification herein complies with the applicable regulations.

G. Labor Requirements

The following information is for planning purposes only.

- (1) Estimated labor hours to perform:
 - Suggested number of personnel: 1
 - Remove left FEC: 0.5 Hours
 - Remove right FEC: 0.5 Hours
 - Rework structure: 4.0 Hours
 - Install left FEC: 0.5 Hours
 - Install right FEC: 0.5 Hours
 - Total labor hours: 6.0 hours**

The above is an estimate based on properly equipped and experienced personnel complying with this Service Bulletin. Actual labor hours may vary depending on workforce experience, concurrent maintenance, discovery of other discrepancies, etc.

(2) Qualification of personnel:

- A person properly authorized under 14 CFR 43 to perform aircraft maintenance.

H. References

Aircraft Maintenance Manual (AMM), P/N 06-117751, latest revision.

Material Safety Data Sheet (MSDS), Phosphorus Tribromide.

U. S. Department of Transportation Special Permit DOT-SP 14981

I. Publications Affected

Airplane Flight Manual (AFM) Supplement, P/N 06-121770-06 addresses the changes resulting from this modification.

AMM Temporary Revision 26-1 P/N 06-117751-TR26-1 for AMM revision 18

2 MATERIAL INFORMATION

A. Materials

Order Parts below.

Item	Part Number	Description	Qty	Unit of Issue
1, Figure 1, Sheet 1 and 1, Figure 2, Sheet 2	26-123127-1001	Fire Extinguisher Cartridge (FEC)	2	EA.
2, Figure 2, Sheet 2	26-123135-1001	Bracket Assembly, FEC	1	EA.
3, Figure 1, Sheet 2	MS21060L08	Nut, Self-Locking	1	EA.
4, Figure 1, Sheet 2	NAS1097AD3-4	Rivet, Solid	2	EA.
5, Figure 2, Sheet 2	NAS1801-08-8	Screw, Hex Head	3	EA.
6, Figure 2, Sheet 2	NAS620C8	Washer, Flat	1	EA.
7, Figure 1, Sheet 2 and 6, Figure 2, Sheet 2	NAS620C8L	Washer, Flat	2	EA.

B. Consumables

The following consumables are required for this Service Bulletin.

Material	Specification	Use
One Gallon Metal Can	S-7342 or equivalent	Enclose discarded bagged FEC.
Packing Material	Hazmatpac Absorbent A-900 or equivalent	Surround discarded bagged FEC in metal container.
Resealable Plastic Bags	Commercially Available	Enclose discarded FEC.
Plastic Cap/Protective Cover	N/A	Cover FEC discharge port.

C. Tooling

The following special tooling/support equipment is required in addition to normal hand tools to accomplish this Service Bulletin.

Nomenclature	Specification	Use
Air Tight Safety Goggles	Uvex Futura S345C or equivalent	Protect eyes from foreign objects
Nitrile Gloves	N/A	Protect hands from absorbing chemicals.
Gas Acid Respirator	3M 8246 or equivalent	Protect respiratory system from inhalation of chemicals.

D. Interchangeability/Intermixability of Parts

Both left and right FEC P/N FX00200-2 or FX00200-3 must be removed and replaced with new FEC P/N 26-123127-1001.

3. ACCOMPLISHMENT INSTRUCTIONS

A. Procedure

- (1) Make aircraft safe for maintenance. Refer to AMM - 20-00-01 - MAKE SAFE FOR MAINTENANCE.

WARNING: FIRE EXTINGUISHING SYSTEM USES EXPLOSIVES TO DISCHARGE THE FEC. MAKE SURE FEC IS ISOLATED FROM TRIGGER CIRCUIT POWER. OBEY THESE INSTRUCTIONS OR INJURY TO PERSONNEL CAN OCCUR.

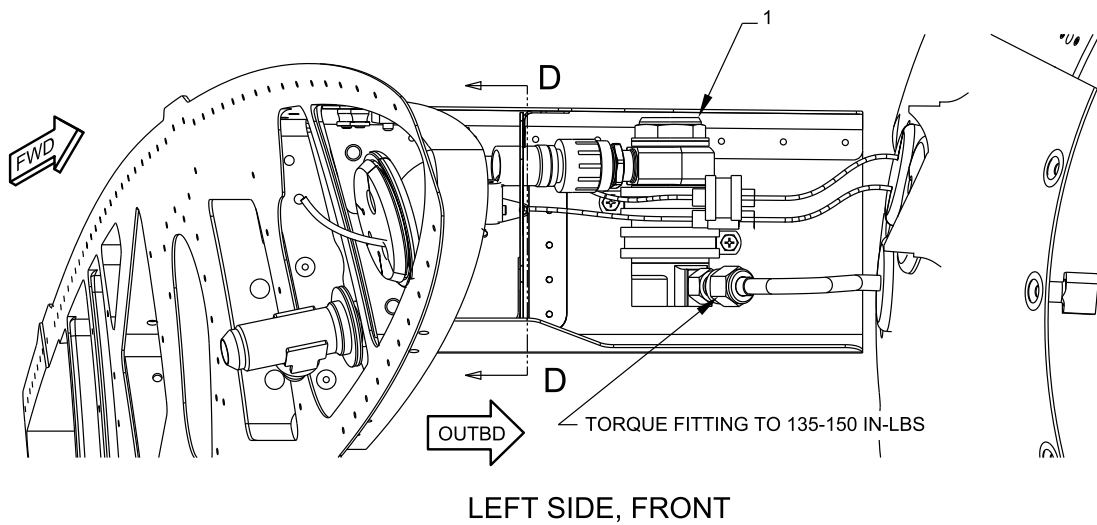
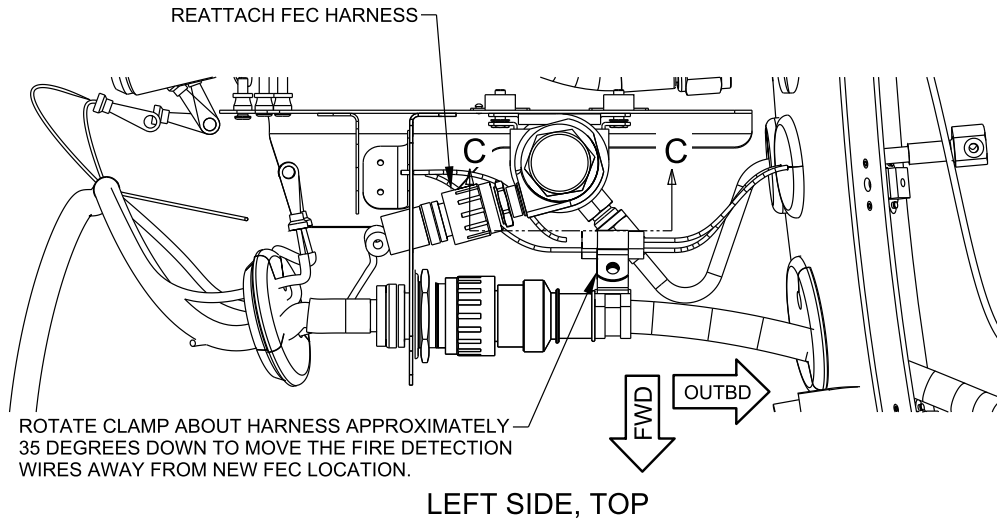
WARNING: FOLLOW ELECTROSTATIC DISCHARGE (ESD) PRECAUTIONS TO REMOVE AND HANDLE FEC. FAILURE TO USE PROPER PRECAUTIONS CAN RESULT IN EXPLOSIVE DETONATION, RELEASE OF HAZARDOUS CHEMICALS, AND INJURY TO PERSONNEL.

- (2) Open the circuit breakers as follows:
 - ECB - L ENG FIRE EXTNGR (L FWD Bus)
 - ECB - R ENG FIRE EXTNGR (R FWD Bus)
- (3) Remove left and right engine FEC P/N FX00200-2 or FX00200-3. Refer to AMM - 26-20-10 - FIRE EXTINGUISHER CARTRIDGE - REMOVAL (effectivity noted). Retain hardware for reuse.

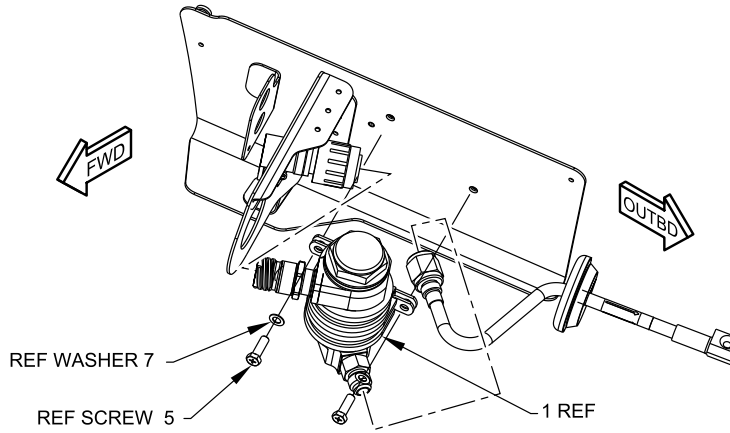
NOTE: If the FEC is leaking or discharges, refer to AMM - 26-20-00-A - EXTINGUISHING - CLEANING.

NOTE: If the FEC tube assembly alignment is in question. Refer to AMM - 26-20-10 - FIRE EXTINGUISHER CARTRIDGE - INSTALLATION (effectivity noted).

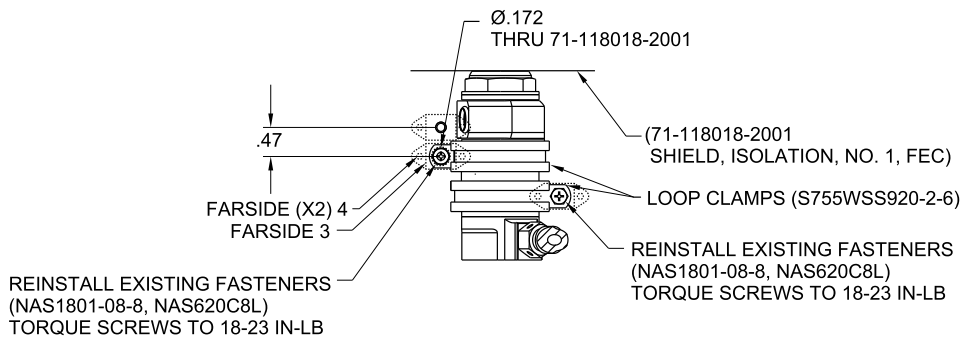
- (4) *Rework left side as follows:*
- (a) Drill \varnothing 0.175 hole into the Isolation Shield, P/N 71-118018-2001. Refer to [Section C-C, Figure 1, Sheet 2](#).
 - (b) Locate and install Nut Plate, Self-Locking , P/N MS21060L08 ([3, Figure 1, Sheet 2](#)) with two Rivets , P/N NAS1097AD3-4 ([4, Figure 1, Sheet 2](#)). Refer to [Section C- C, Figure 1, Sheet 2](#)
 - (c) Remove material from the Support Bracket P/N 71-118005-2002 as shown in [Section D-D, Figure 1, Sheet 2](#). Touch up bare surfaces with Alodine.
 - (d) Loosely install the FEC, P/N 26-123127-1001 ([1, Figure 1, Sheet 1](#)) with existing hardware: two Clamps, Screws, P/N NAS1801-08-8 ([5, Figure 1, Sheet 2](#)) and Flat Washers, P/N NAS620C8L ([7, Figure 1, Sheet 2](#)). Torque Screws to 18-23 in-lbs.
 - (e) Rotate the clamp and harness approximately 35 degrees down to move the fire detection wires away from the new FEC location. Refer to [LEFT SIDE, TOP, Figure 1, Sheet 1](#).
 - (f) Loosely attach the FEC tube assembly coupling nut to FEC.
 - (g) Connect the electrical connector to FEC ([1, Figure 1, Sheet 1](#)).
 - (h) Make sure that the FEC ([1, Figure 1, Sheet 1](#)) is correctly aligned so the gauge will be visible through the sight glass in the forward leading edge of the pylon skin assembly.
 - (i) Tighten the screws that attach the loop clamps to the structure to 18-23 in-lbs.
 - (j) Tighten the FEC tube assembly coupling nut to 35-150 in-lbs.
 - (k) Electrically bond FEC ([1, Figure 1, Sheet 1](#)) to structure. Resistance must be 2.5 milliohms or less.



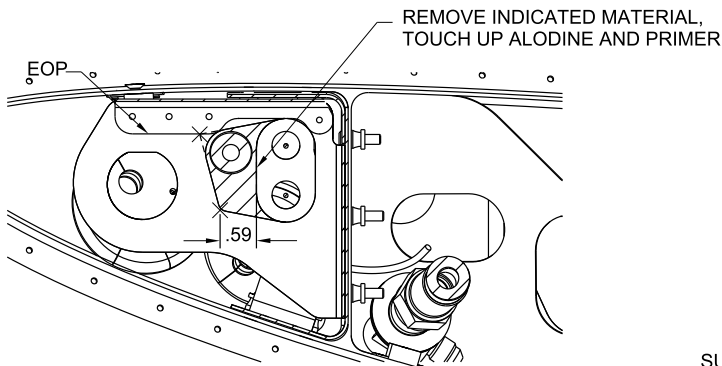
**Fire Extinguisher Cartridge Installation
Figure 1 (Sheet 1 of 2)**



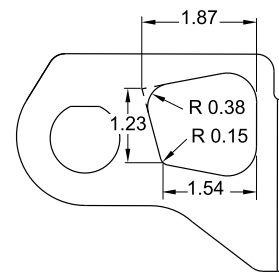
LEFT SIDE FEC INSTALLATION



SECTION C-C



SECTION D-D

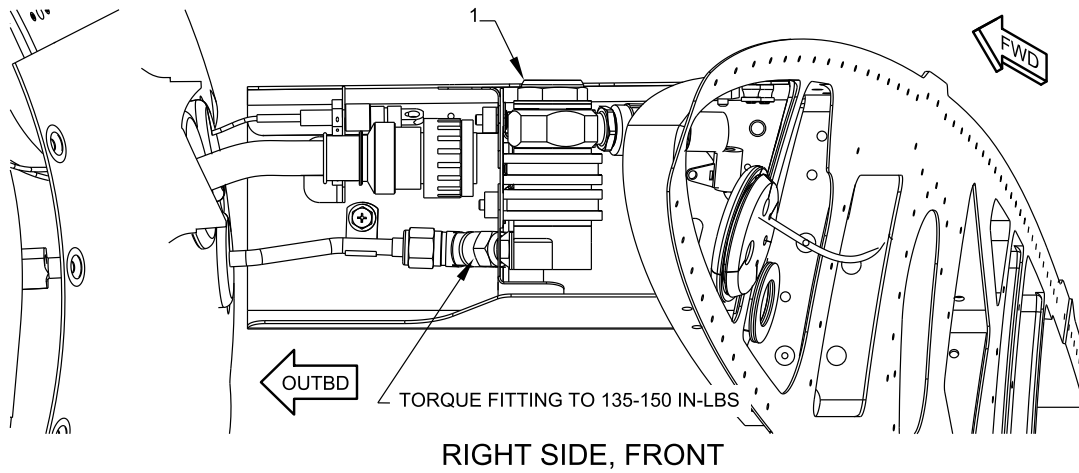
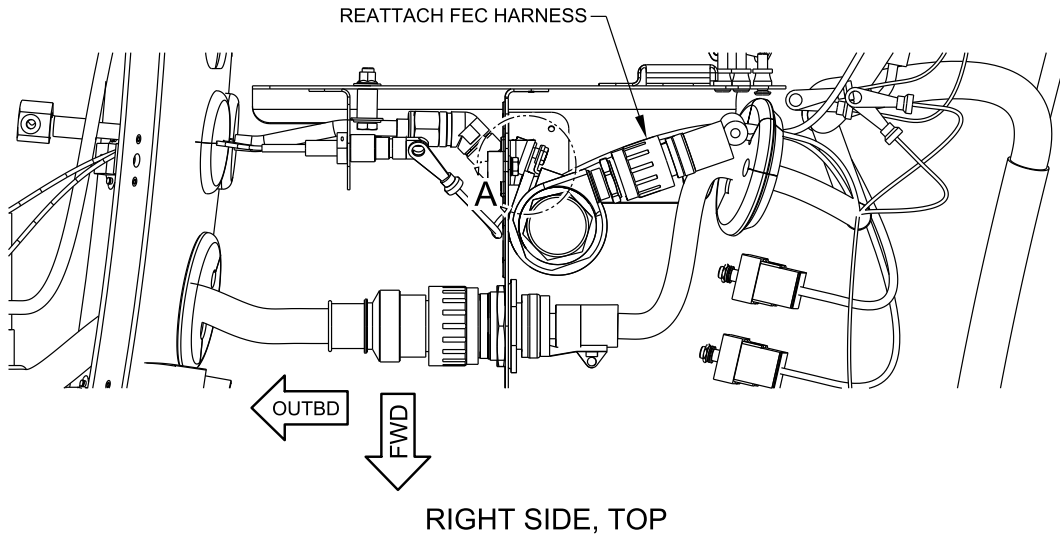


SUPPORT BRACKET SHOWN ALONE

**Fire Extinguisher Cartridge Installation
Figure 1 (Sheet 2 of 2)**

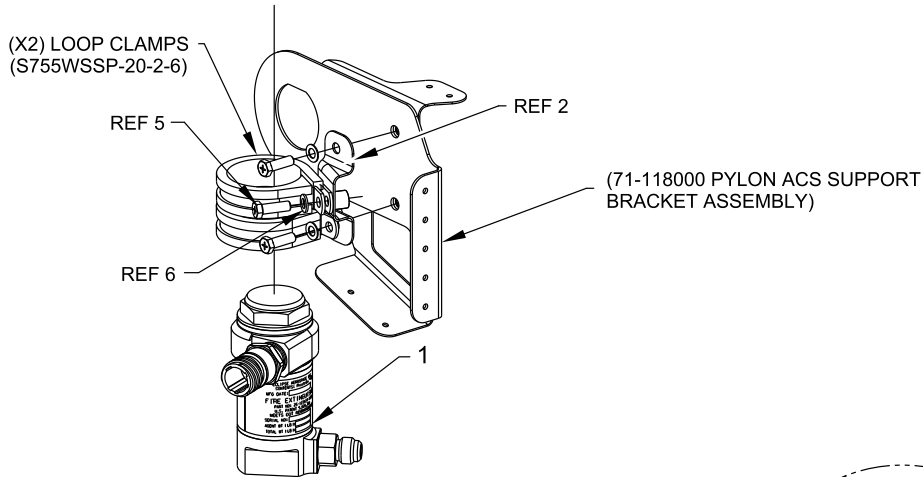
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- (5) *Rework right side as follows:*
- (a) Place the loop clamps on the FEC.
 - (b) Loosely attach the FEC Bracket Assembly, P/N 26-123135-1001 (2, Figure 2, Sheet 2), FEC, P/N 26-123127-1001 (1, Figure 2, Sheet 2) and lower loop clamp to the right pylon ACS support bracket assembly with existing hardware: two Screws, P/N NAS1801-08-8 (5, Figure 2, Sheet 2) and Flat Washers P/N NAS620C8L (6, Figure 2, Sheet 2).
 - (c) Loosely install the upper loop clamp with Screw, P/N NAS1801-08-8 (5, Figure 2, Sheet 2) and Flat Washer, P/N NAS620C8L (6, Figure 2, Sheet 2).
 - (d) Loosely attach the FEC tube assembly coupling nut to FEC.
 - (e) Connect electrical connector to FEC.
 - (f) Make sure that the FEC (1, Figure 2, Sheet 2) is correctly aligned so the gauge will be visible through the sight glass in the forward leading edge of the pylon skin assembly.
 - (g) Tighten the screws that attach the loop clamps to the structure to 18-23 in-lbs.
 - (h) Tighten the FEC tube assembly coupling nut to 35-150 in-lbs.
 - (i) Electrically bond FEC (1, Figure 2, Sheet 1) to structure. Resistance must be 2.5 milliohms or less.

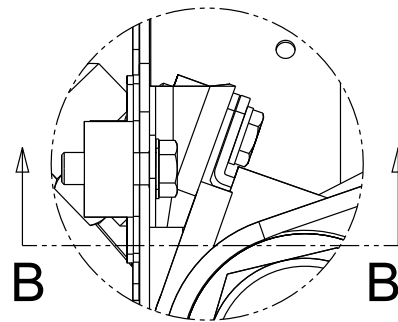


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Fire Extinguisher Cartridge Installation
Figure 2 (Sheet 1 of 2)

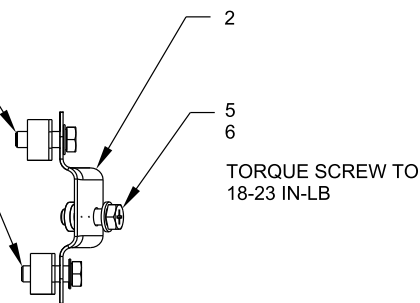


RIGHT SIDE FEC INSTALLATION



DETAIL A

REINSTALL EXISTING FASTENERS
(NAS1801-08-8, NAS620C8L)
TORQUE SCREWS TO 18-23 IN-LB



VIEW B-B

LOOP CLAMPS REMOVED FOR CLARITY

Fire Extinguisher Cartridge Installation
Figure 2 (Sheet 2 of 2)

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- (6) Install the Left Pylon Leading Edge - 311 EL. Refer to AMM - 54-30-11 - LEADING EDGE PYLON SKIN - INSTALLATION.
- (7) Install the Right Pylon Leading Edge - 312 BR. Refer to AMM - 54-30-11 - LEADING EDGE PYLON SKIN - INSTALLATION.
- (8) Close circuit breakers that follow:
 - ECB - L ENG FIRE EXTNGR (L FWD Bus)
 - ECB - R ENG FIRE EXTNGR (R FWD Bus)
- (9) If all other maintenance is complete, return the aircraft to service. Refer to AMM - 20-00-02 - RETURN TO SERVICE (AFTER MAINTENANCE).

B. Limitations and Procedures

Airplane Flight Manual (AFM) Supplement, P/N 06-121770-06 must be incorporated in the AFM after completion of this Service Bulletin.

AMM Temporary Revision 26-1 P/N 06-117751-TR26-1 for AMM revision 18.

C. Parts Disposition

- (1) Discard the FECs as follows:
 - (a) Package FECs as follows:
 1. Place the FEC into resealable plastic bag.
 2. Place the bagged FEC into second resealable plastic bag.

CAUTION: MAKE SURE RESEALABLE PLASTIC BAG DOES NOT COME IN CONTACT WITH METAL CONTAINER DURING FINAL PACKING. DO NOT PLACE MORE THAN TWO FIRE EXTINGUISHER CARTRIDGES INTO METAL CONTAINER.
 3. Place the bagged FEC into metal container P/N S-7342. Make sure the FEC is placed into the metal container with the sight glass face down.
 4. Fill container with remaining A-900 packing material.
 5. Cover container with lid.
 - (b) Return to Eclipse Aerospace for disposal. Refer to DOT Special Permit for additional requirements.

D. Cost

Contact Eclipse Aerospace Customer Care for cost information and availability.

4. RECORD OF COMPLIANCE

Upon completion of this Service Bulletin, make an appropriate maintenance-record entry specifying the Service Bulletin number.

5. NOTIFYING ECLIPSE AVIATION

On completing this service bulletin, the operator/maintainer shall complete the attached Compliance Record and send it to Eclipse Aerospace via regular mail, fax, or e-mail.

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