

Subject: NACA Inlet Ram Air Flapper Door Bonding Strap Replacement
Aircraft: Eclipse 500 and 550
Effectivity: Aircraft S/N 1 and Up
Applicability: Post SB 500-99-004

1. SUMMARY

This SIL reviews the options available for replacing a damaged or missing NACA Inlet Ram Air Flapper Door (RAFD) bonding strap.

2. BACKGROUND

EAI has received comments and requests from customers regarding the NACA Inlet Ram Air Flapper Door (RAFD) bonding strap. The most common requests are to offer an alternative to the existing strap P/N 2199313 and to provide guidance for replacement of the strap.

3. ECLIPSE ACTION

EAI has released Service Engineering Memo (SEM) 500-00189 to provide an alternative to the original bonding strap design and to provide bonding strap installation procedures and alternate attaching hardware.

4. SUGGESTED OPERATOR ACTION

- A. SEM 500-00189 is attached to this SIL.
- B. Eclipse Aerospace stocks the bonding strap P/N 2199313. We do not stock the alternative bonding strap parts presented in SEM. Copper braided cable and ring tongues may be obtained from a supplier of the operator's choice.
- C. Owner/operators and maintainers should always follow all applicable AMM policies and procedures.

5. EXPORT CONTROL

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SERVICE ENGINEERING MEMO

MEMO No. SEM-500-00189 Rev A

Page 1 of 2

ECLIPSE
AEROSPACE

Date May 25, 2016

SUBJECT: NACA Inlet Ram Air Flapper Door Bonding Strap Replacement

MODEL: Eclipse 500 and Eclipse 550

EFFECTIVITY: Aircraft S/N 1 and Up, Post SB 500-99-004

1. Discussion

EAI has received comments and requests from customers regarding the NACA Inlet Ram Air Flapper Door (RAFD) bonding strap. The most common requests are to offer an alternative to the existing strap P/N 2199313 and to provide guidance for replacement of the strap.

2. Alternative Bonding Strap.

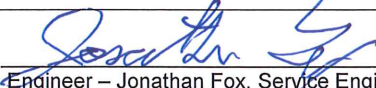
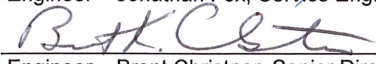
1. Replacement bonding straps may be fabricated from the following parts.
 - a) Alpha Tinned Copper Flat Braid Part No. 1223 or equivalent 22 AWG Tin Plated Copper Flat Braided Cable.
 - b) Panduit Non-Insulated Ring Tongue P/N P22-2R-C.

or

 - c) Aerospace Standard Uninsulated Ring Tongue per MS20659-167.
2. The finished length of the bonding strap after assembly shall be $3.7 \pm .1$ inches from center to center of the ring tongue holes. (refer to figure 1 on page 2)
3. The ring tongues shall be crimped per manufacturer's instructions.

3. Bonding strap installation. (refer to figure 2 on page 2)

1. Attach bonding strap to NACA inlet using MS20426AD3-3 or NAS1097AD3-3 rivet.
2. Attach bonding strap to RAFD using MS20470AD3-3 rivet.
3. It is permissible to replace the MS20470AD3-3 rivet with an MS35206-213 pan head screw, 2 NAS11149DN416J flat washers, and an MS21042L04 self locking nut. If the rivet is replaced with a screw the fastener hole should be increased to 0.125 and a P22-4R-C or MS20659-138 ring tongue should be installed on the RAFD end of the bonding strap.
4. The RAFD must swing freely after bonding strap installation.
5. Resistance when measured with an ohm meter, shall not exceed 1.0 ohms when measured between the RAFD and the astrostrike layer in NACA inlet composite panel.
6. Bonding strap to route between divider plate and flapper plate as shown.
7. It is permissible to go up or down two rivet or screw grip lengths.

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- Eclipse Aerospace stocks the bonding strap P/N 2199313. We do not stock the alternative cable parts. Copper braided cable and ring tongues may be obtained locally.

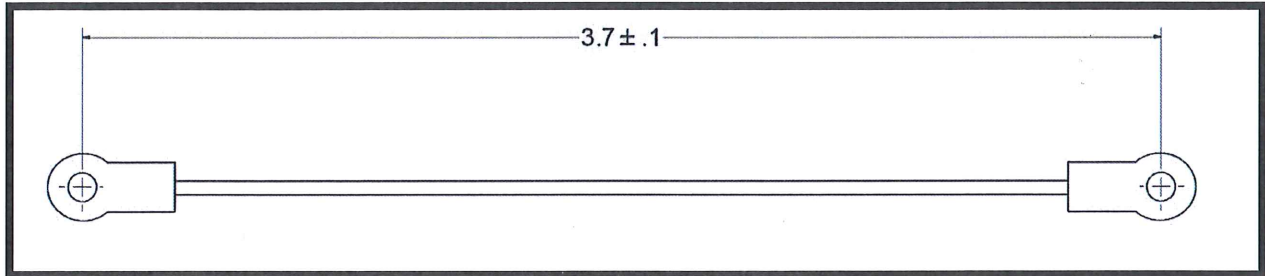


Figure 1

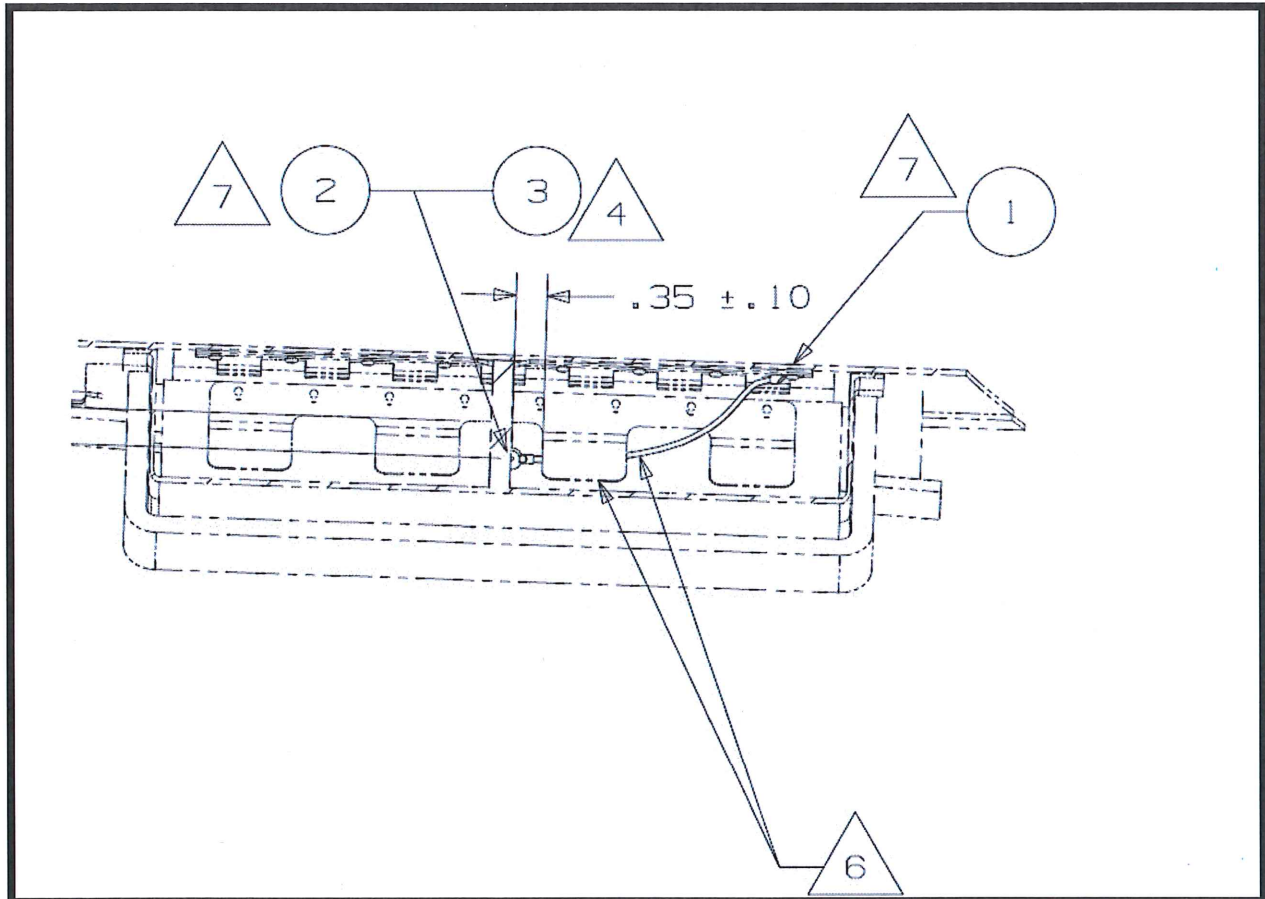


Figure 2