

NUMBER: SB 500-53-009, Rev B
MODEL: ECLIPSE EA500
SUBJECT: External Stowage Compartment Door Inspection and Modification

Recommended

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1. PLANNING INFORMATION

A. Effectivity

Aircraft Serial Numbers: 000001-000262, 000266-000267

B. Reason

This Service Bulletin provides the steps to enhance the security of the External Stowage Compartment door. Revision B of this Service Bulletin updates the Accomplishment Instructions.

C. Description

This Service Bulletin provides the steps to inspect the External Stowage Compartment and recommended modification options.

D. Relevant Publications

06-117753, EA500 AMM, current revision

E. Compliance

Eclipse Aerospace Inc. considers this to be a recommended inspection that should be accomplished at the next maintenance visit.

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

Inspection: 0.5 Hour

Modification Option 2, Render INOP: 3 Hours

Modification Option 3, Replace Striker: 2 Hours

Actual labor hours may vary depending on work force experience, concurrent maintenance, discovery of other discrepancies, etc.

H. Weight and Balance Change

N/A

I. Electrical Load Data Change

N/A

J. Software Accomplishment Summary

N/A

K. References

06-117751, EA500 AMM, current revision

L. Publications Affected

N/A

M. Export Control

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. These commodities, technology or software are intended for use only in the End User's country. An export license from the U.S. Department of Commerce may be required before these products can be re-exported, transferred, transshipped on a non-continuous voyage, or otherwise disposed of in any other country, either in their original form or after being incorporated into an end item. Diversion of this end-item or its use contrary to any applicable U.S. government license or to U.S. law is prohibited.

2. MATERIAL INFORMATION

A. Materials

- (1) Non-kitted parts. Non-kitted parts must be ordered separately. Parts needed are determined by which modification is chosen.

Modification Option 2

Part Number	Description	Qty	Unit of Issue
11-125116-2001	PLACARD, INOP DOOR SEALED	1	EA.
53-125118-2001	SPACER	2	EA.
AN525-832R10	SCREW-WASHER HEAD	2	EA.
CCR244CS-3-07PR	NUT-PLATE RIVETS	8	EA.
NAS1791A08-1	NUT, SELF-LOCKING, PLATE-TWO LUG, FLOATING	2	EA.

Modification Option 3

Part Number	Description	Qty	Unit of Issue
53-125117-2001	STRIKER-REPLACEMENT	1	EA.
NAS1097AD3-3	RIVET, SOLID, FLUSH SHEAR HEAD	2	EA.

B. Consumables

The following consumables are required for this Service Bulletin. Install/apply consumable items in accordance with manufacturer's instructions.

Material	Specification	Use
Abrasive	320 grit	Removal of access paint and sealant.
Sealant	PR-2001 or equivalent	For aerodynamic smoothing, fillet sealing, fastener sealing, prepack sealing, injection sealing, and sealing joints and seams.
Sealant	PRC-Desoto aerodynamic smoothing sealant (PR-2050) or PRC-Desoto epoxy sealant (PR-2001) or Class B Sealant (AC-240 B½) or Class B Sealant (AC-350 B½)	Form-in-place seal (if required)
Release Agent	McLube 1733	Form-in-place seal (if required)
Alodine	MIL-C81706, Henkel Alodine 1201 or Touch-n-Prep 1132, 5700 and Alodine 700 (conductive)	Chemical conversion coating for aluminum.
Primer	MIL-PRF-23377	Apply to components that will not require a polyurethane top coat.
Painters Tape	3M	Form-in-place seal (if required)
Alcohol	Isopropyl	Cleaning

C. Tooling

N/A

D. Cost

Contact Eclipse Aerospace Inc. for cost and availability.

3. ACCOMPLISHMENT INSTRUCTIONS

A. Inspection

Paint Over-spray

- (1) Open stowage door.
- (2) Ensure engagement face of latch and opening for stowage door is free of paint over-spray, and sealant. Refer to [Figure 1, Sheet 1](#) and [Figure 1, Sheet 2](#) for acceptable and unacceptable conditions.
 - (a) If found, remove paint over-spray, and/or sealant.
 - (b) If necessary, treat bare surfaces with Alodine (Chemical Conversion Coating). Refer to AMM 20-09-00 - Aircraft Finishes.
 - (c) If necessary, apply primer MIL-PRF-23377 to reworked surfaces. Refer to AMM 20-09-00 - Aircraft Finishes.

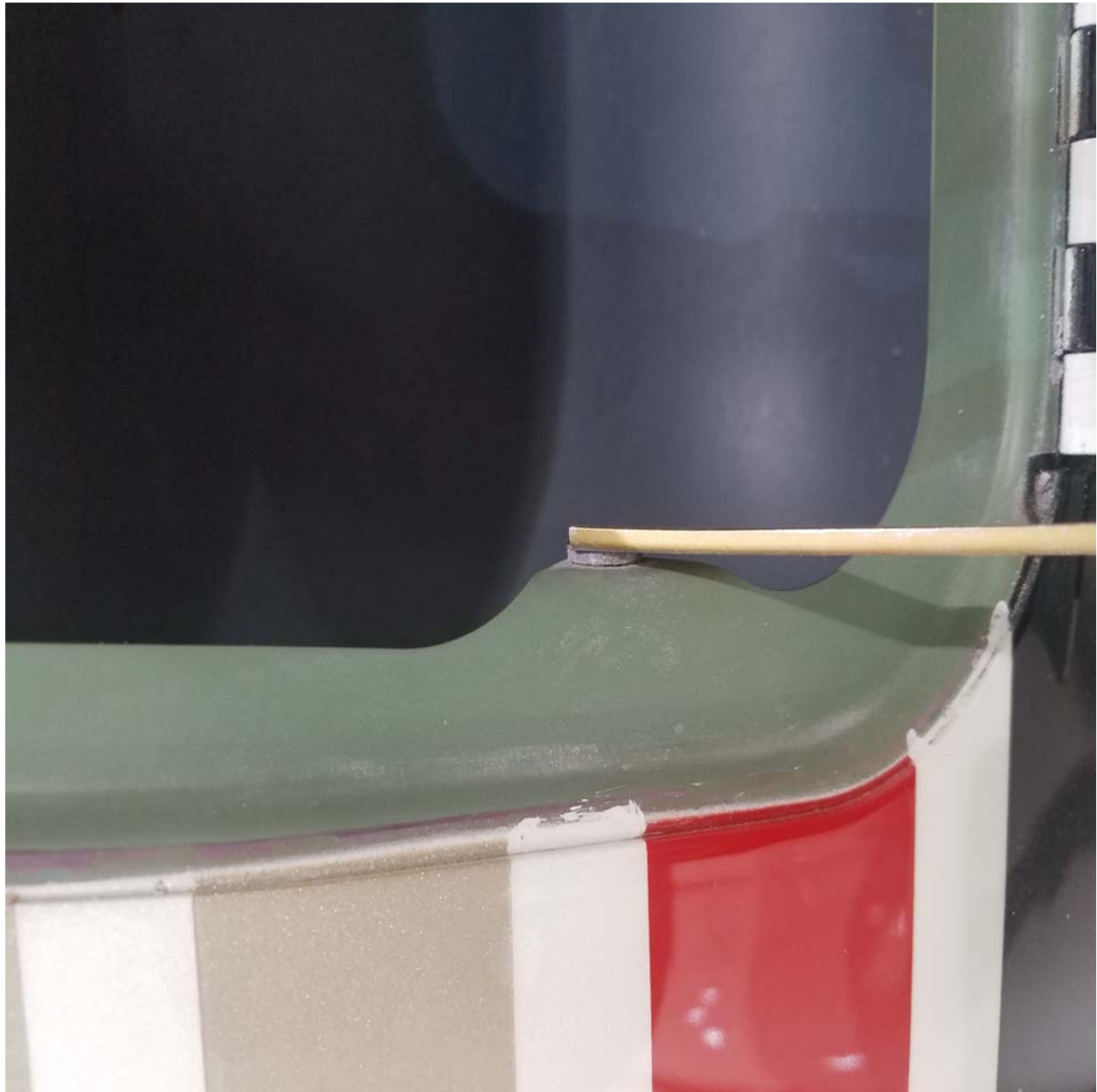


Figure 1, Sheet 1. Unacceptable Paint Over-spray

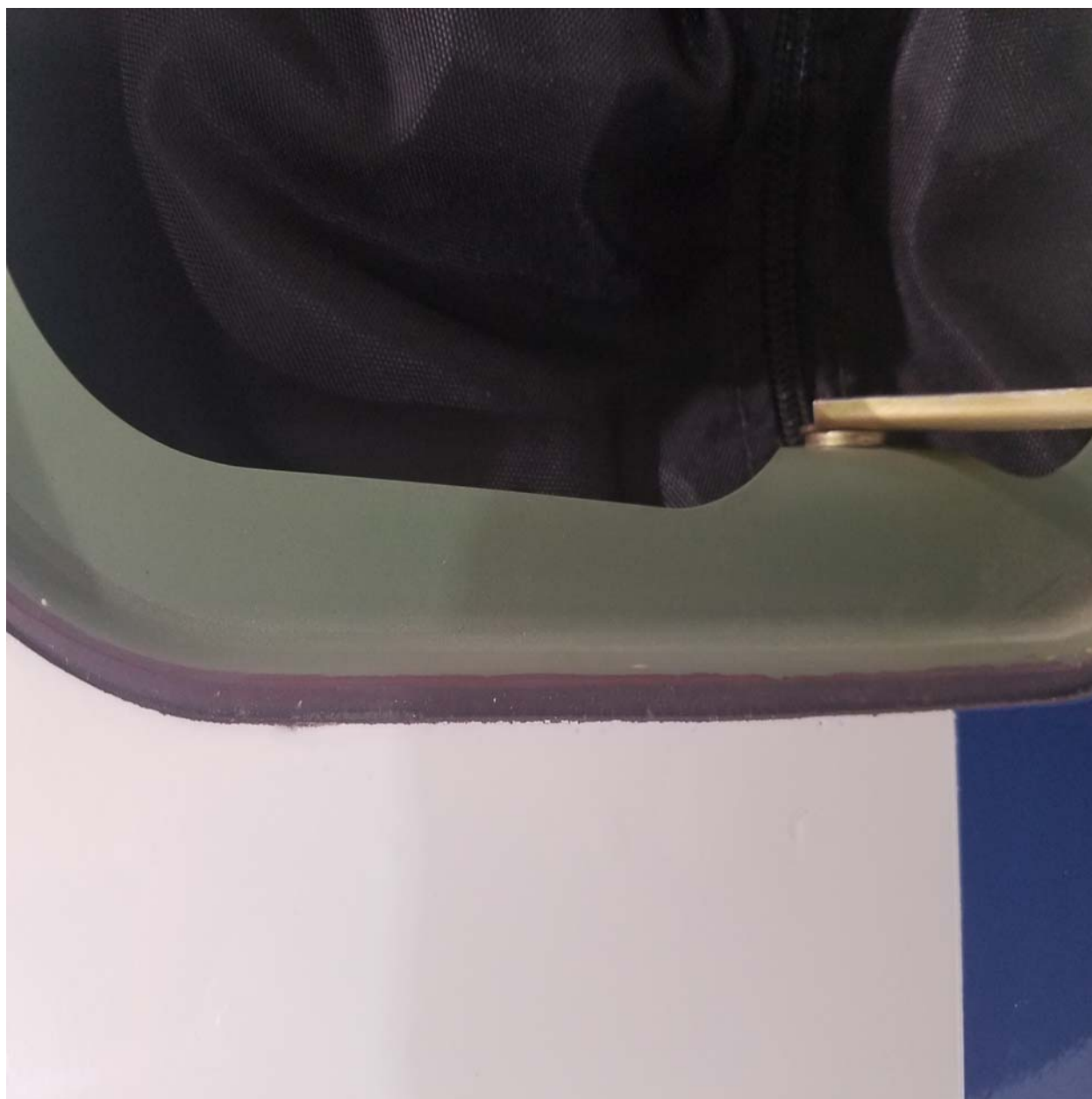


Figure 1, Sheet 2. Acceptable, No Over-spray

Latch Inspection

- (1) Open door and inspect for distortion and abnormal wear.
- (2) Close left latch, leaving right latch open. Refer to Figure 2.



Figure 2. Right Latch Test - Close Left Latch

- (3) Close door and right latch. Refer to Figure 3.



Figure 3. Right Latch Test - Door Closed with Right Latch Only

- (4) Pull out one inch on the upper left side of the door. Refer to Figure 4.
- (a) Door remains closed.



Figure 4. Right Latch Test

- (5) Open door and left latch.
- (6) Close right latch, leaving left latch open. Refer to Figure 5.



Figure 5. Left Latch Test - Close Right Latch

- (7) Close door and left latch. Refer to Figure 6.



Figure 6. Left Latch Test - Door Closed with Left Latch Only

- (8) Pull out one inch on the upper right side of the door. Refer to Figure 7.
(a) Door remains closed.



Figure 7. Left Latch Test

- (9) Open door and right latch.
(10) Close door and both latches.
(11) If engagement test passed, proceed to B., Modification Option 1, No action required.

- (12) If engagement test does not pass, recommendation is to render the Stowage door INOP. Proceed to Step C., Modification Option 2 - Render Inop.

OR

- (13) If engagement test does not pass, recommendation is to replace original strikers with new striker. Proceed to Step D., Modification Option 3 - Replace Striker.

B. Modification Option 1 - No action required

If the engagement test passed, no action needs to be taken. Modification Option 2 or Option 3 (on condition) may be accomplished if requested.

C. Modification Option 2 - Render INOP

- (1) Locate spacer, P/N 53-125118-2001, (2, [Figure 8, Sheet 1](#)) on to frame and using spacer (2, [Figure 8, Sheet 1](#)) as a template, drill four holes to accommodate rivets, P/N CCR244CS-3-07PR, (4, [Figure 8, Sheet 1](#)). Refer to AMM 20-07-00.
- (2) Treat bare surfaces with Alodine (Chemical Conversion Coating). Refer to AMM 20-09-00 - Aircraft Finishes.
- (3) Fasten spacer, P/N 53-125118-2001 (2, [Figure 8, Sheet 1](#)) and nut plate P/N NAS1791A08-1, (5, [Figure 8, Sheet 1](#)) to frame using four rivets, P/N CCR244CS-3-07PR, (4, [Figure 8, Sheet 1](#)). Refer to AMM 20-07-00 - Attaching Hardware.
- (4) Repeat steps 3.C.1, 3.C.2, and 3.C.3 on opposite side.
- (5) Mark with indelible ink "Modified by SB 500-53-009" on inner door. Reference Flag Note 1, [Figure 8, Sheet 1](#) for location.
- (6) Close door and apply Placard, Door Inop, P/N 11-125116-2001, (1, [Figure 8, Sheet 2](#)) in location shown. Refer to View D.
- (7) Secure door with two screws, P/N AN525-832R10, (3, [Figure 8, Sheet 2](#)). Check for flushness between the door and surrounding aircraft skin is within $-.030/+0.030$ inch.

NOTE: If interference exists between the radius of the door doubler, P/N 52-119794 and the spacer, P/N 53-125118-2001, it is permissible to trim the spacer, P/N 52-125118-2001 to adjust the thickness of the spacer to meet flushness criteria between the surrounding aircraft skin and the door of $-.030/+0.030$ inch.

- (8) Remove (2) screws, P/N AN525-832R10, (3, [Figure 8, Sheet 1](#)) and open door.
- (9) Fill the entire periphery between doubler, P/N 52-119794 and door with sealant PRC-2001 or equivalent. Ensure adequate squeeze out upon door closure. Remove excess sealant and ensure door, when closed is flush with the surrounding aircraft skin within $-.030/+0.030$ inch. Refer to AMM 20-08-00 - Sealants and Adhesives, and Flag Note 2, [Figure 8, Sheet 1](#).
- (10) Install (2) screws, P/N AN525-832R10, (3, [Figure 8, Sheet 2](#)) to secure door. Refer to AMM 20-07-00 - Attaching Hardware.

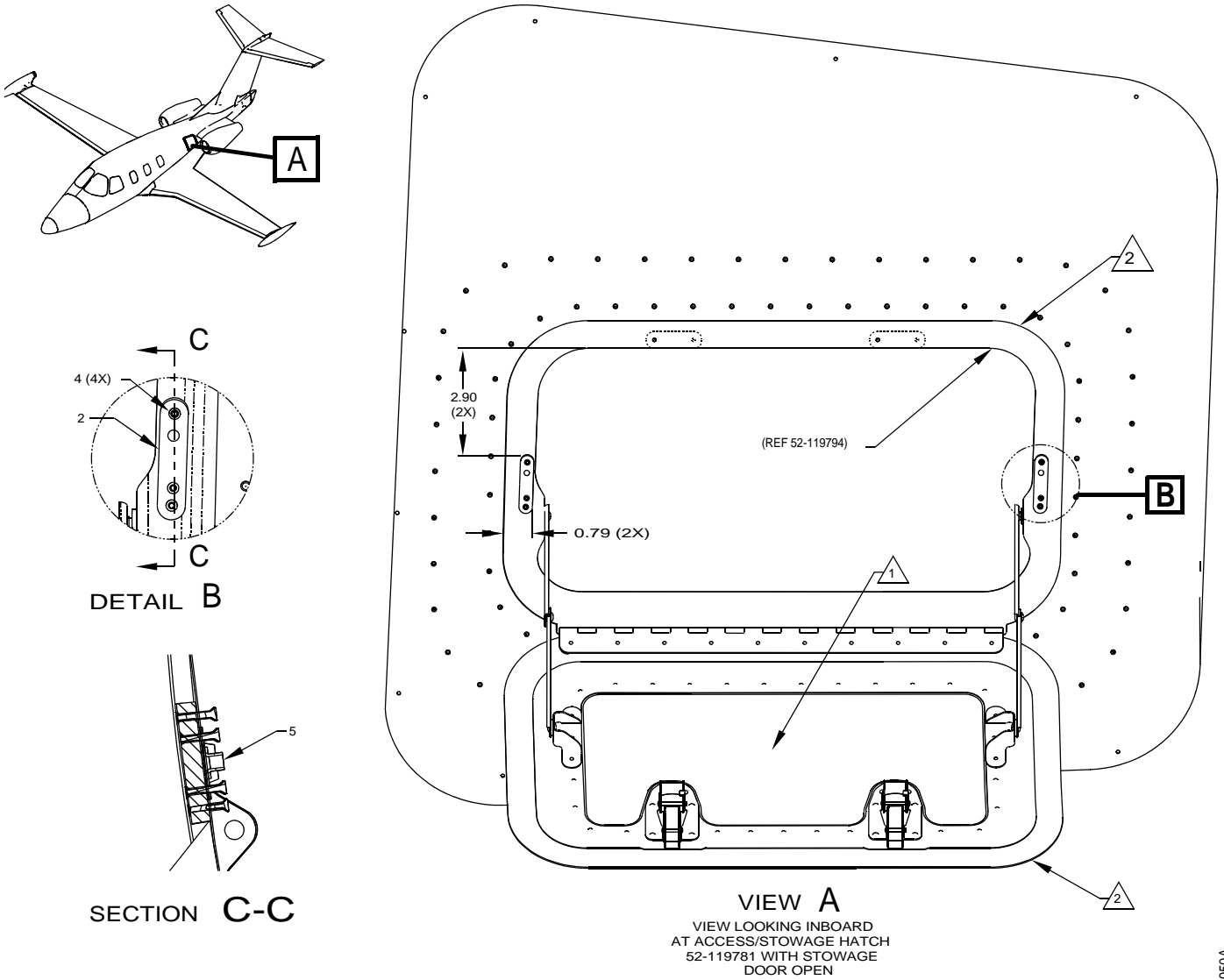
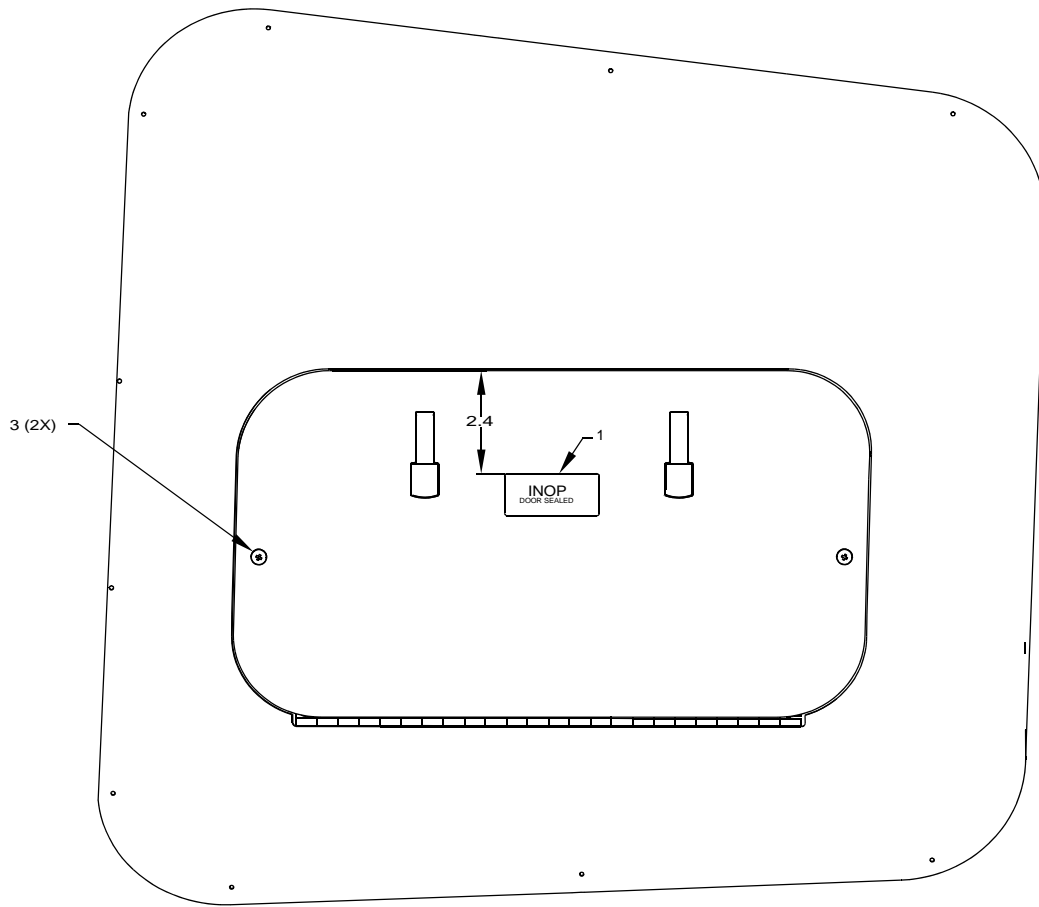


Figure 8, Sheet 1. Option 2 - Render Door Inoperative

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VIEW D

VIEW LOOKING INBOARD
AT ACCESS/STOWAGE HATCH
52-119781 WITH STOWAGE
DOOR OPEN

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Figure 8, Sheet 2. Option 2 - Render Door Inoperative

D. Modification Option 3 - Replace Striker

NOTE: The following measurement condition must be met to accomplish Modification Option 3.

- (1) Place both latches in closed position.
- (2) For the forwards hinge and from the hinge centerline. Obtain two measurements: Refer to [Figure 9](#)
 - (a) Measurement A: Between the hinge centerline and extreme edge of closed latch.
 - (b) Measurement B: Between the hinge centerline and the nearest edge of the door opening or the striker plate.
 - (c) Engagement (C) is defined as (A) minus (B).
 - (d) Record (A), (B), and (C) measurements.
- (3) Repeat Step 3.A.(4) for the aft hinge.
- (4) If engagement is equal to or greater than 0.34 inch on either hinge, striker replacement can not be done.
- (5) If engagement is (C) is less than 0.34 inch on both hinges, proceed to replace original strikers with new striker.

Measurement A: _____

- Measurement B: _____

Measurement C: _____

Measurement C must be less than 0.34 inch

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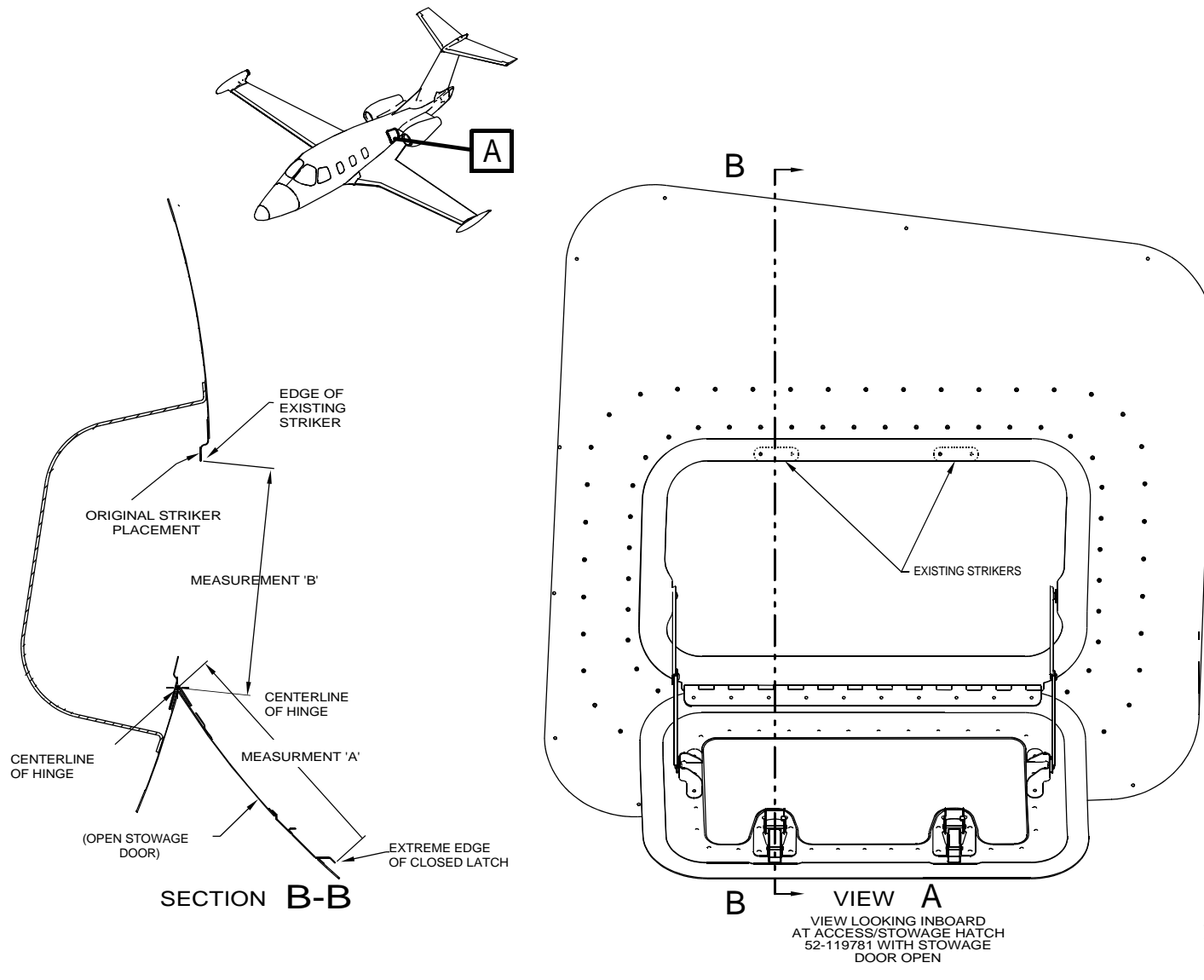
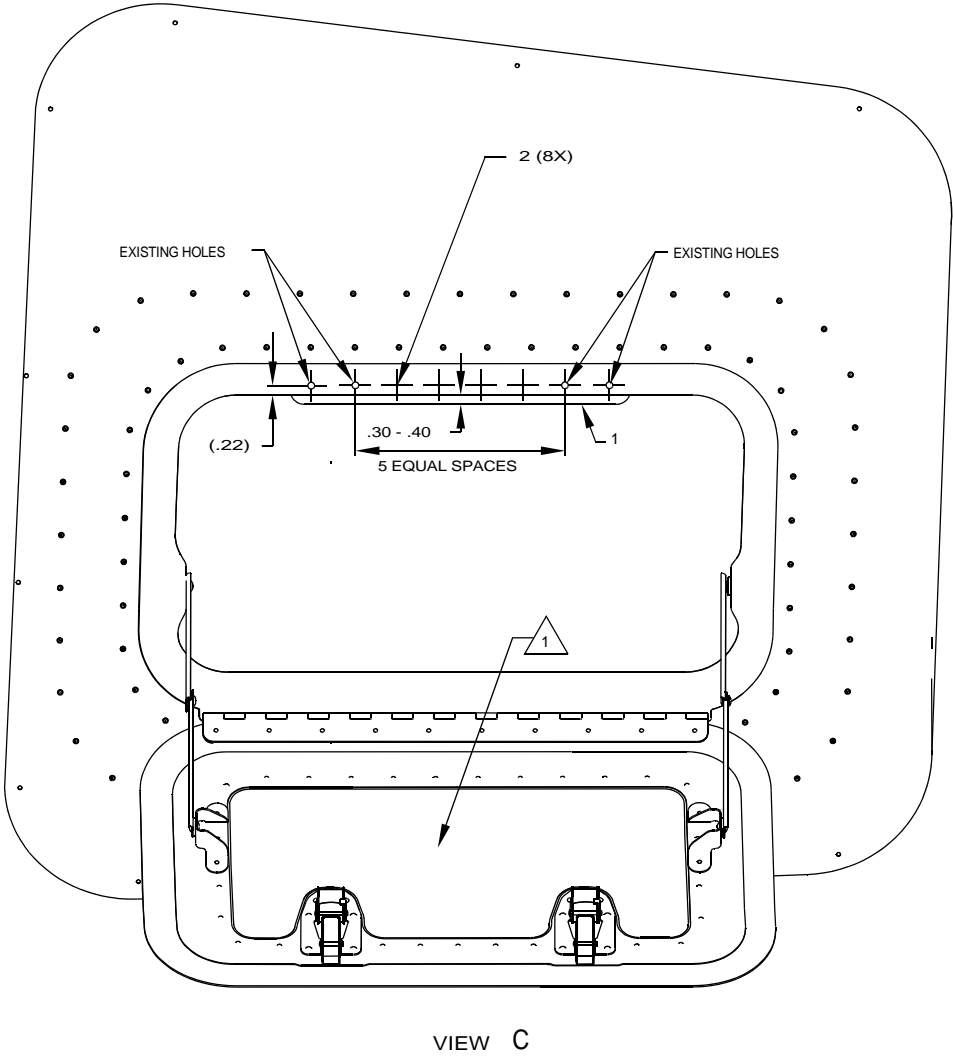


Figure 9. Overlap Assessment

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- (6) Remove and scrap the following:
 - (a) Rivets, P/N NAS1097AD3-3, Qty 4.
 - (b) Plate, Strike, External Stowage Compartment, P/N 52-119796-2001, Qty 2.
 - (7) Mark "Modified by SB 500-53-009" with indelible ink in location shown by Flag Note 1, [Figure 10](#).
 - (8) Locate new striker P/N 53-125117-2001 (1, [Figure 10](#)) so that engagement (C) after installation will be 0.30 - 0.40 inches using existing (4) holes from removal of original striker plates and drill (4) holes to accept rivets P/N NAS1097AD3-3. (2, [Figure 10](#)).
 - (9) Fasten new striker P/N 53-125117-2001 (1, [Figure 10](#)) to frame with (8) rivets, P/N NAS1097AD3-3. (2, [Figure 10](#)).
 - (10) If necessary, replace the form-in-place seal around door opening.
 - (a) Remove old seal.
 - (b) Clean surfaces with a clean cloth moistened with alcohol.
 - (c) Check surfaces for bare metal, treat with Alodine (Chemical Conversion Coating) and touch up with primer MIL-PRF-23377. Allow primer to dry. Refer to AMM 20-09-00 - Aircraft Finishes.
 - (d) Mask surrounding area with painters tape where contact with sealant is unwanted and to ease smoothing and clean-up.
 - (e) Apply Release Agent McLube 1733 to outer perimeter of the door, P/N 52-119782.
 - (f) Apply a bead of PRC-Desoto aerodynamic smoothing sealant (PR-2050) or PRC-Desoto epoxy sealant (PR-2001) or Class B Sealant (AC-240 B½) or Class B Sealant (AC-350 B½) to the perimeter of the door opening.

NOTE: The form-in-place seal must to allow the door, when closed, and the 311-AL Maintenance Bay Panel skin to be flush with in -.030/+0.030 inch to prevent abnormal airflow.
 - (g) Close door and allow sealant to cure.
 - (h) After sealant has cured, open door.
 - (i) Inspect the form-in-place seal for cracking, tears and flushness.
- CAUTION: Use care when cutting the sealant as not to scratch the metal.
- (j) Trim off excess sealant along the edges of the painters tape on the door.
 - (k) Remove Painters tape from all surfaces.
 - (l) Touch-up any scratched or bare aluminum with Alodine, primer and topcoat if necessary. Refer to AMM 20-09-00 - Aircraft Finishes.
- (11) Close and latch External Stowage Compartment door.



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Figure 10. Option 3 - Replace Strikers

E. Final Inspection

- (1) Remove all tools and unused materials for work area.
- (2) If all other maintenance is complete, return the aircraft to service. Refer to the AMM 20-00-02 RETURN TO SERVICE (AFTER MAINTENANCE).

F. Limitations and Procedures

N/A

G. Parts Disposition

Dependent upon action taken.

4. RECORD OF COMPLIANCE

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

5. NOTIFYING ECLIPSE AEROSPACE

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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