

Subject: Inspection and Maintenance of Polished Window Frames  
Aircraft: Eclipse 500 and 550  
Effectivity: Aircraft with Polished Window Frames  
Applicability: Aircraft with Polished Cockpit Window Frames that are Not Protected by a Polyurethane Clear Coat

## 1. SUMMARY

This SIL reviews the inspection and maintenance procedures for polished cockpit window frames that are not protected by a polyurethane clear coat. Regular maintenance and restoration of the polished finish prevents damaging oxidation and corrosion.

## 2. BACKGROUND

EAI has received inquiries from owner/operators and maintainers regarding the inspection and maintenance procedures for polished cockpit window frames.

## 3. ECLIPSE ACTION

EAI has issued this SIL to review the inspection and maintenance procedures for polished cockpit window frames.

The Eclipse 550 Aircraft Maintenance Manual (AMM) has a window frame inspection requirement included in the 300 hour/24 month inspection and a Chapter 20 visual assessment.

The Eclipse 500 AMM will be revised to include a similar 300 hour/24 month inspection requirement and Chapter 20 visual assessment.

## 4. SUGGESTED OPERATOR ACTION

Owner/operators and maintainers should always follow all applicable AMM policies and procedures.

The 300 hour / 24 month inspection in Chapter 5 of the Eclipse AMM includes inspecting the polished cockpit window frames for corrosion and oxidation as part of the forward fuselage zonal inspection. This inspection must be performed by a person authorized to perform maintenance per 14 CFR Part 43.3 or other applicable regulation.

Chapter 20 of the Eclipse AMM includes visually assessing the polished cockpit window frames for corrosion and deterioration of the finish no less than every 90 days. Visually assessing the condition of the window frames is not a Chapter 4/5 requirement and does not have to be performed by a person authorized to perform aircraft maintenance.

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If the inspection or visual assessment finds deterioration of the finish it must be restored to prevent corrosion and structural damage to the window frames. Restoration of a window frame finish generally falls into one of three levels of cleaning and polishing based on the level of deterioration and the product required.

1. If the finish shows slight deterioration it can be cleaned by hand with Nulmage PC2300 polished metal cleaner.

**Acrylic windshields and all side windows must be masked off before using Nulmage to clean a window frame.**

2. If cleaning with Nulmage does not restore the finish or if it shows moderate deterioration, such as dulling, oxidation, or discoloration, the windshield frames should be re-polished using Nushine II S.

**Re-polishing window frames with Nushine II S requires masking off all windshields and side windows, adjacent painted surfaces should also be masked off.**

3. If the finish deterioration is more significant, polishing with Nushine II grade A or C may be required.

**When any Nushine II grade other than S is used to polish a window frame, all windshields, side windows, and adjacent painted surfaces must be masked off.**

Figures 1 and 2 are examples of masking off windows and painted surfaces.

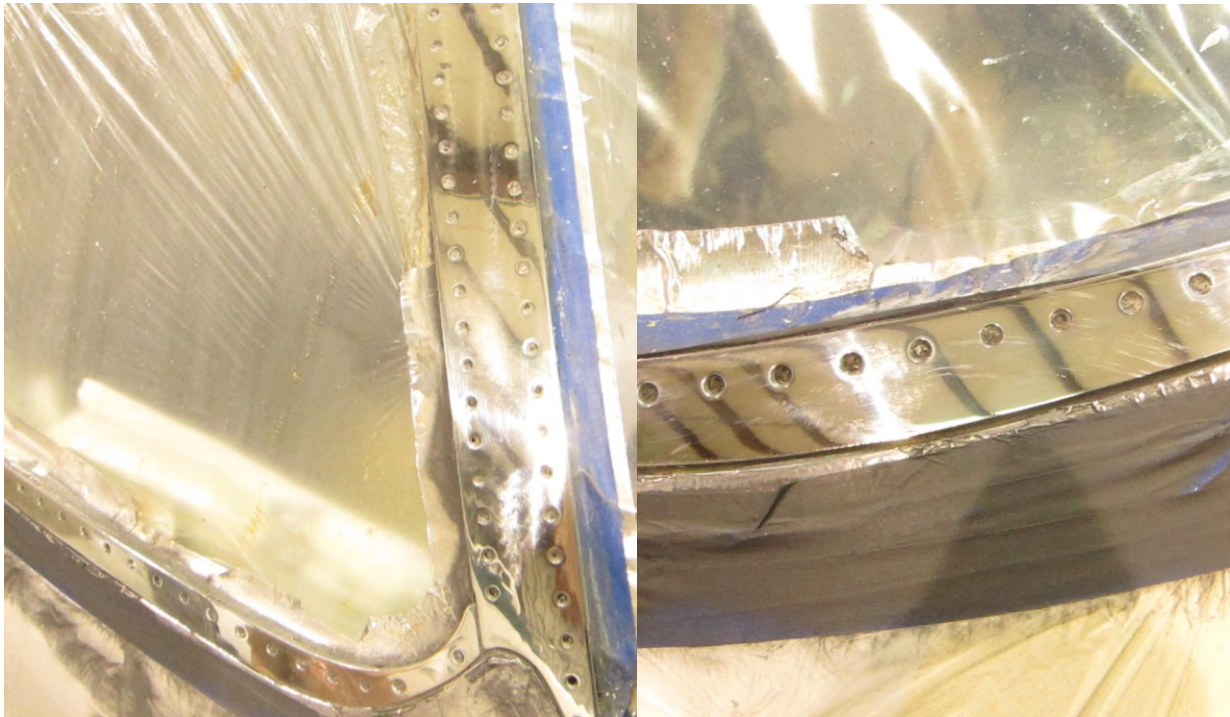


Figure 1

Figure 2

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## 5. ADDITIONAL NOTES

Nulmage PC2300 polished metal cleaner, and all grades of Nushine II metal polish are available from the Nuvite Chemical Compounds Corporation (<http://www.nuvitechemical.com/>). In addition to ordering the product, the website contains recommended procedural information for application of Nulmage and the Nushine II metal polishing system. The manufacturers' recommended procedure must be followed at all times when polishing window frames.

**Use caution when polishing window frames to not remove any material. Removal of material may require extensive structural repair to assure design strength requirements are maintained.**

Applying preservative or protective material to components is defined as preventive maintenance by 14 CFR Part 43 Appendix A paragraph (c)(10). Per 14 CFR Part 43.3 paragraph (g) the holder of a pilot certificate issued under part 61 may perform preventive maintenance on any aircraft owned or operated by that pilot which is not used under part 121, 129, or 135 of the regulations provided that work does not involve complex assembly operations.

Note: An aircraft maintenance record entry must be made per 14 CFR Part 43.9 describing the work performed when the window frames finish is restored by polishing or cleaning. This entry may be made by a pilot and may be returned to service using the pilots certificate number.

## 6. EXPORT CONTROL

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