

3-1 Depaint/Application and Corrosion Inhibiting Application Processes

3-1 Depaint/Sealant Clean and Removal/Corrosion Inspection/Corrosion Inhibiting Application/Reseal/ Paint

Note

Aircraft with removed paint system shall not be stored/parked outside of a hangar space during DLM processing. The depot activity shall remove paint from the exterior surface of the aircraft, prepare surface for chemical conversion coating (clean aircraft surface), apply chemical conversion coating (8 hours maximum after cleaning), perform corrosion inspection, correct all corrosion discrepancies, clean and reapply chemical conversion coating, as required, prime, reseal, and paint the P-3 aircraft using processes and materials that provide an equivalent or better quality than those currently being used. The paint removal process used by the depot activity shall meet the requirements of NA 01-1A-509 and all applicable environmental regulations. The paint removal process shall not degrade the integrity of the aircraft surfaces and the following specific aircraft areas: fiber glass, titanium, antennas, aluminum surfaces; and does not cause hydrogen embrittlement to steel fasteners or high strength steel components. Detailed paint removal process shall not employ the use of any mechanical means, such as power sanders or grinders, except as authorized by NAVAIR. Authorization for mild mechanical paint removal method exists when the proper procedure is followed. The depot activity is responsible for requesting the Government AGR for current policy regarding mild mechanical paint removal. As of this writing, current authorization and policy is given by AIR-4.1.3/L8048 letter of 01 OCT 98. Summary of procedure: Chemical stripping has been performed and an assessment of any remaining paint has been conducted to determine proper removal of remaining paint. After this assessment, remaining paint shall be removed by abrading the aircraft exterior surface with Scotchbrite pads or mats per MIL-A-9962 wet with MEK. Alternative solution to wet Scotchbrite pads is to mix equal parts of water, MIL-C-85570 detergent and MIL-T-6090 thinner. Fresh water rinse shall follow this solvent step. If paint residue still exists after this procedure, then use mild mechanical paint removal as follows. Mechanical sanding is permitted using a 320 grit or finer at the beginning. Grit lower than 280 is not allowed. Mechanical unit shall not be rated higher than 60 psi. Mechanical means shall be limited to areas requiring paint removal. Prevent unnecessary metal removal. The contractor shall verify metal thickness and other physical and functional properties remain within limits. Sealant will be removed, as required, to perform corrosion inspection, using non abrasive equipment, i.e. non metallic scrapers. Paint shall be removed from interior finishes only to the extent necessary to correct corrosion and restore protective coatings. The depot activity shall inspect the aircraft for corrosion, cracks, and skin damage and make all necessary repairs prior to painting the aircraft.

Note

All negligible damage corrosion discrepancies are considered basic to this TRD and shall be corrected.

Chemical conversion coating shall be applied as soon as possible after corrosion discrepancies are corrected (8 hours maximum after cleaning). The exterior finish shall meet the American Society for Testing Material (ASTM) criteria, as it applies to the current finished exterior. This criterion is outlined in MIL-C-85285B and MIL-P-85582. The critical areas are: tensile properties, corrosion resistance, infrared reflectance, adhesion, flexibility, flexibility at low temperatures, gloss, solvent resistant, fluid resistance, ability to be cleaned, weather resistance, humidity resistance, heat resistance and tape resistance. The depot activity shall apply stencils and markings to the exterior of the aircraft. The aircraft paint colors, type paint, primer, chemical conversion coatings, paint scheme, and sealant application shall be per NA-01-75PAA-2-2.1, and US Customs and Border Protection drawings. Non-standard paint finishes and color schemes are applied as specifically requested by US Customs and Border Protection. Application of non-standard paint finishes and color schemes are considered basic to the TRD.

3-1.1 Exterior Aircraft Paint Removal

Requirement – Remove paint from the exterior surfaces of the aircraft except for the wing splice gaps and horizontal stabilizer plank seams.

NOTE

The rotodome external surface is composed of both fiberglass and aluminum. Do not use chemical stripper that can damage the fiberglass material.

- If required remove paint from rotodome antenna IAW NA 01-1A-22 (Aircraft Antenna Covers and Radomes).

Performance Specification - This requirement is met when:

- All items including, but not limited to composite materials, transparent plastic or glass surfaces on the aircraft which may be adversely affected by the paint stripper are adequately protected.
- Prior to any paint removal operations, protect exterior exposed areas not subject to paint removal.
- Wing plank splice gaps are protected.
- Horizontal stabilizer plank seams are protected.
- 3M polyurethane leading edge tape from the wing, horizontal and vertical stabilizers has been removed.
- Exterior surface finish paint completely removed.
- Paint will be removed from rain erosion or painted fiberglass radomes if fiberglass is delaminated, or paint thickness exceeds 10 mils (0.010 inch) (do not remove paint when damage is confined to rain erosion coating only). If required, remove paint from radomes per NA 01-1A-509.

3-1.2 Paint Removal, Exterior Detail

Requirement - Remove paint in detail from the wing plank splice gaps and horizontal stabilizer plank seams.

Performance Specification: This requirement is met when:

- Paint has been removed from wing plank splice gaps and horizontal stabilizer plank seams. Paint removal of the wing plank splice gaps and horizontal stabilizer plank seams shall be accomplished using a flap brush per NA 01-1A-509.

Note

Chemical strippers shall not be used in the above areas.

- Defective sealant has been removed from the wing plank splice gaps and horizontal stabilizer plank seams using non-metallic scrapers.
- Paint removed from deteriorated finish within battery compartments.

3-1.3 Clean Aircraft

Requirement -After paint removal, clean aircraft of all contaminants.

Performance Specification - This requirement is met when:

- Surfaces to be refinished are completely free of all surface contaminants (clean aircraft per the NA 01-1A-509).
- A water break free surface is established.

3-1.4 Chemical Conversion Coating

Requirement -Apply chemical conversion coating per NA 01-1A-509 to the areas of the aircraft where paint was removed.

Performance Specification -This requirement is met when:

- A water break free surface is established.
- Chemical conversion coatings applied to bare metal surfaces exposed by the action of chemical paint removal.

Note

Chemical conversion coating must be applied within 8 hours after aircraft cleaning has been accomplished.

3-1.5 Exterior Corrosion Inspection

Requirement - Perform corrosion inspection of the exterior of the aircraft.

Note

All corrosion discrepancies shall be corrected IAW NA 01-1A-509.

Performance Specification - This requirement is met when:

- Corrosion Inspection has been completed.
- Discrepancies have been recorded.
- All corrosion is removed using the mildest methods per NA 01-1A-509 (do not use chemicals to remove corrosion).

3-1.7 Exterior Aircraft Priming

Requirement - Apply primer coating per NA-01-1A-509 to the areas of the aircraft where paint was removed.

Note

The aircraft paint colors, type paint, primer, chemical conversion coatings, paint scheme, and sealant application shall be per NA-01-75PAA-2-2.1, US Customs and Border Protection drawings. Listed in Section 10 of this TRD, and the NA 01-1A-509 technical manual. If there is a conflict between the NA 01-75PAA-2-2.1 and the US Customs and Border Protection drawings, the US Customs and Border Protection drawings shall take precedence.

Performance Specification - This requirement is met when:

- All aircraft surfaces and components, as required by applicable drawing/specification, unless otherwise directed by this specification are primed.

3-1.8 Exterior Aircraft Sealing/Painting

Requirement - Reseal/paint all aircraft surfaces and components from which paint was removed or that require refinishing incidental to the paint removal process.

Note

All resealing, interior and exterior is considered basic to this TRD.

Performance Specification - This requirement is met when:

- Sealant removed during the paint removal/inspection process has been reapplied.
- All damaged, deteriorated or missing sealant replaced per NA 01-75PAA-2-2.1.
- Horizontal stabilizer fasteners are resealed.

- Wing panel splice gaps are resealed per NA 01-75PAA-2-2.1.
- Aircraft and components are painted per NA 01-75PAA-2-2.1.

- Exterior finish, markings, and insignias applied per NA 01-75PAA-2-2.1.
- Rain erosion coating applied after completion of inspection/repair only if local repair action is necessary per NA 01-75PAA-2-2.1.
- Teflon filled polyurethane paint (preferred method) or 3M polyurethane leading edge tape (3M polyurethane leading edge tape is authorized only for Gray/White paint scheme aircraft) is applied on all aircraft leading edges per NA 01-75PAA-2-2.1.
- 3M polyurethane leading edge tape to leading edge surface of tank five fuel drain mast and blade antennas is applied as required.
- Exterior finishes meet the requirements of MIL-F-18264D and MIL-F-7179.

3-1.8.1 Exterior Paint Scheme Marking

Requirement- Identify the exterior paint finish IAW MIL-F-18264D.

Performance Specification: This requirement is met when:

- Depot activity has applied markings consisting of a circular patch approximately 2 1/2 to 4 inches in diameter. The patch shall be located on the starboard side of the fuselage, under the horizontal stabilizer, and shall contain:
 - Depot activity and location.
 - Date of completion of paint application (month, day, and year).
 - Identification by specification number of every coating of the general system applied to the exterior of the aircraft.

3-1.9 Interior Aircraft Refinishing

Requirement - Refinish all aircraft interior surfaces.

Note

Interior surfaces are all aircraft surfaces, excluding areas defined as exterior. Interior aircraft surfaces are considered any area of the aircraft within a specific zone and covered by an exterior skin, plank, access panel, door, antennas, radomes, or leading edge. The zonal inspection areas required by this TRD are listed in the NA 01-75PAA-6-3 and provide detailed definitions of interior surfaces of the aircraft. They include, but not are limited to, under floor area, inside access panels, access panel surfaces, flap wells, wheel wells, hydraulic service center, rudder/elevator booster "hell hole" and APU compartments, inside bomb bay, inside fuel cell cavities, etc.

Performance Specification: This requirement is met when:

- All interior surface areas affected by compliance with or incidental to the inspection requirements of this TRD are refinished.

Note

All refinishing is considered basic to this TRD. It is the restoration of an existing surface finish without complete removal of all of the existing finish. The process of refinishing includes cleaning affected area to remove all loose and scaling paint or other finish material, defective sealant, soil, and contaminants; feather edging the original finish to smooth Surface; application of new finish coatings (including sealant, chemical conversion coating, primer and top coats) to provide protection from corrosion and to provide uniform appearance.

- All missing or illegible interior surface markings are applied or replaced, ensuring all warning markings and emergency escape exits are correctly and legibly marked in accordance with NA 01-75PAA-2-2.1.