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Maintenance

***PAINTING OF AIRCRAFT IN HANGERS***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This 89th Airlift Wing operating instruction establishes responsibilities and outlines procedures for paint removal and painting of aircraft, components, and support equipment in hangars 4, 6, 7, and 19. (See **Attachment 1** for list of references).

**1. Responsibilities:**

1.1. Squadron commanders, flight chiefs, and supervisors are responsible for ensuring compliance with this 89th Airlift Wing Instruction.

**2. Introduction:**

2.1. The painting of aircraft, components, and support equipment involves processes that are hazardous and must be controlled. These hazards result from using flammable and toxic chemicals, paints, and solvents. Therefore, supervisors will enforce the procedures and safety precautions outlined in this instruction and referenced directives.

**3. Procedures:**

3.1. Technical Order (TO) 42A-1-1, paragraph 3-1, defines painting restrictions as follows:

3.1.1. Space one aircraft per 10,000 square feet of hangar space or two times the required parking area of the aircraft.

3.1.2. Do not conduct painting operations within 50 feet of any aircraft or other aerospace equipment.

3.1.3. Potentially hazardous operation or ignition sources shall not be used within 50 feet of the work area, to include non-explosion proof outlets, lighting, heating, and air conditioning units.

3.1.4. A supplied air respirator is required for all spray painting operations.

3.1.5. Control air movement through hangar by varying the opening of hangar doors, and/or use an explosion proof fan or blower to remove paint vapors in confined spaces, during the paint stripping, corrosion treatment, and painting operations.

3.1.6. Base safety, fire department, bioenvironmental engineering flight, and the wing commander will approve hangar painting operations.

**NOTE:** See ETL 96-1, for maximum allowable paint usage (one quart per hour max).

3.2. When an aircraft is scheduled for painting, the owning organization will:

3.2.1. Thoroughly wash rework areas.

3.2.2. Position aircraft according to requirements stated in [3.2.1.](#) and [3.2.2.](#)

3.2.3. Check with structural maintenance shift supervisor for proper positioning of aircraft.

3.2.4. Close all aircraft doors, panels, and openings to prevent interior damage due to paint over spray.

3.2.5. Seal pitot tubes and static ports to prevent contamination.

3.2.6. Ground aircraft.

3.2.7. Disconnect aircraft power and batteries.

3.2.8. Attach appropriate danger tags.

3.2.9. Make appropriate entries in the aircraft forms.

3.2.10. Ensure hangar fire suppression system is operational.

3.2.11. Ensure a minimum of two, 50 pound 4A/60BC fire extinguishers are available at the aircraft or painting area.

3.3. Follow the same instructions for painting support equipment, with the following addition:

3.3.1. Place nonflammable floor covering under the equipment being painted.

3.3.2. Notify 89th Maintenance Squadron Production Superintendent (Mike 4) when paint application begins.

3.3.3. Mike 4 will notify all other agencies to stay clear of painting area.

3.3.4. Complete painting checklist (see [Attachment 2](#)).

#### 4. Safety:

4.1. There must be two qualified structural maintenance personnel at the painting area (IAW TO 42A-1-1, page, 3-1).

4.2. A supplied air respirator must be worn during spray applications (IAW AFOSH 48-1, AAFBI 48-101).

4.2.1. Use available supplied air sources: Rhine air pumps and air systems breathing box.

4.2.1.1. Locate supplied air source compressors away from the painting area.

4.2.1.2. Use authorized respirators from 3M Easy-air full face, 3M White cap helmet, or disposable hood type.

**NOTE:** Half face respirators will not be used.

4.3. Protective coveralls, boots, rubber gloves, and eye protection will be worn at all times when handling chemicals and when applying paints. See Air Force Form 3952 (**Chemical/Hazardous Material Request/Authorization**), and current bioenvironmental engineering survey for further guidance.

4.3.1. All personnel not directly involved in the painting process will leave the area before paint application.

4.4. Place **“Painting in Progress”** signs at all outside entrances of hangar during painting operations (IAW AFOSH 127-45).

4.5. Emergency eyewash will be available during all paint operations.

4.6. Bioenvironmental engineering flight will conduct surveys of hangars annually, or upon request of structural maintenance section.

**5. Waste Disposal:**

5.1. Dispose of hazardous waste in accordance with all current Air Force and Maryland EPA regulations.

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Commander

**Attachment 1****GLOSSARY OF REFERENCES, AND SUPPORTING INFORMATION*****References***

AAFBI 48-101, *Respirator Protection Program*  
AFI 21-105, *Aerospace Equipment Structural Maintenance*  
AAFBR 92-1, *Fire Prevention and Protection*  
AFOSH 48-1, *Respirator Protection*  
AFOSH 48-8, *Controlling Exposure to Hazardous Materials*  
AFOSH 91-66, *General Industrial Operations*  
AFOSH 127-9, *Movable Platforms*  
AFOSH 127-31, *Personnel Protective Equipment*  
AFOSH 127-32, *Emergency Shower and Eye Wash Units*  
AFOSH 127-43, *Flammable Liquids*  
AFOSH 127-45, *Hazardous Energy Control and Mishap Prevention*  
AFOSH 127-68, *Chemical Safety*  
AFOSH 127-100, *Aircraft Flight Line-Ground Operations*  
AFOSH 161-2, *Industrial Ventilation*  
AFOSH 161-17, *Standardization Occupational Health Program*  
AFOSH 161-21, *Hazardous Communication*  
T.O. 1-1-4, *Exterior Finishes and Markings*  
T.O. 1-1-8, *Application and Removal of Coatings*  
T.O. 1-1-691, *Aircraft Cleaning and Corrosion Control*  
T.O. 35-1-3, *Corrosion Prevention of Support Equipment*  
T.O. 42A-1-1, *Safety, Fire, Health of Painting*  
ETL 96-1, *Engineering Technical Letter*  
BIO Survey

## Attachment 2

## PAINTING CHECKLISTS

Painting Checklist	NAME	DATE
Painting location-( )		
Is aircraft or support equipment in proper configuration		
Is all safety equipment available		
Brief all personnel on location of eyewash		
Is oil/water separator installed between compressor and spray equipment		
Red X forms for masking aircraft		
Brief Mike 4 prior to painting		
Info forms for paint cure		
Clean up area when work is complete		
Dispose of waste IAW current MD/EPA laws		