

**BY ORDER OF THE COMMANDER  
374TH AIRLIFT WING**

**374TH AIRLIFT WING INSTRUCTION  
20-114**



**19 APRIL 2012**

**Logistics**

**CORROSION CONTROL AND WASH RACK**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, and Air Force Instruction (AFI) 20-114, *Air and Space Equipment Structural Management*. This instruction establishes 374th Airlift Wing (374 AW) requirements, and policies for aircraft and support equipment corrosion prevention programs. This instruction applies to all 374 AW aircraft maintenance functions. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and dispose of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through their appropriate functional chain of command.

**SUMMARY OF CHANGES**

This document has been substantially revised and must be completely reviewed. Major changes include: Renumbered to 374 AWI 20-114; updated Philosophy; and updated all the responsibilities.

**1. Philosophy:**

- 1.1. Corrosion has a direct impact on the readiness of AF systems. It must be prevented, identified and repaired as prudently as possible.
- 1.2. Corrosion minimization on AF aircraft and ground equipment is the direct responsibility of all users and maintainers. Due consideration must be given to corrosion prevention during all planning, operation, and maintenance actions.
- 1.3. The 374 AW Corrosion program is oriented towards prevention. This is accomplished through equipment cleaning, maintenance of protective coatings, and early detection and treatment of corrosion. Strict adherence to corrosion prevention policies and technical orders is essential.
- 1.4. All maintenance and operations personnel, regardless of Air Force Specialty Code (AFSC), are responsible to document potentially corroded structures/components in the proper maintenance forms. The Aircraft Structural Maintenance (ASM) Section evaluates corrosion discrepancies to determine proper treatment or repair.
- 1.5. Clean aircraft metal components with only approved cleansers IAW the current Qualified Products List (QPL). The current QPL can be obtained from the Wing Corrosion Manager.

**2. Wing Corrosion Manager Responsibilities:**

- 2.1. Ensure that only properly trained personnel operate shop corrosion prevention equipment.
- 2.2. Works with the Fabrication Flight Chief to ensure 2A7X3 technicians receive adequate training (formal and on-the-job) to accomplish assigned tasks.
- 2.3. Oversees corrosion control maintenance actions at the aircraft wash facility and corrosion control hangar, or any other location where corrosion control maintenance actions are taking place in support of the 374 AW mission.
- 2.4. Reviews the QPL for approved corrosion control materials at least every six months as issued by the AF Corrosion Prevention and Control Office (AFCPCO). The most current document will be kept in the Wing Corrosion Manager's continuity book.

**3. Wash Rack Non-Commissioned Officer in Charge (NCOIC) Responsibilities:**

- 3.1. Ensures fall protection lifeline cables are installed when required and serviceable.
- 3.2. Ensures cleaners and equipment are authorized, procured, available and properly used, to include proper mix ratio IAW applicable T.O. or instruction.
- 3.3. Ensures wash rack facility and surrounding area are kept clean and properly maintained.
  - 3.3.1. Ensures the facility and equipment are cleaned and properly stored upon completion of each wash and Foreign Object Debris (FOD) control procedures are followed IAW paragraph 4 of this instruction.
  - 3.3.2. Ensures all wash rack equipment is in serviceable condition, and coordinates maintenance actions as needed.

3.4. Ensures Composite Tool Kit (CTK) procedures are followed and scrub pads are controlled in the same manner as rags IAW AFI 21-101, *Aircraft and Equipment Maintenance Management*, and AFI 21-101\_AMCSUP, *MAF Aircraft and Equipment Maintenance Management*.

#### **4. Aircraft Owning Activity Responsibilities:**

4.1. Appoint an Aircraft Wash Supervisor for each wash to monitor progress of the wash and ensure safe operations.

4.2. Coordinate and schedule use of the wash rack facility through the 374th Maintenance Operations Squadron Plans, Scheduling and Documentation (374 MOS/MXOOP) for aircraft washes.

4.2.1. In the event a wash schedule change or cancellation is needed, the owning activity will inform the Contracting Officer Representative (COR). The COR will ensure the contractor, 374 MOS/MXOOP, and the Wash Rack NCOIC are informed of all schedule changes and cancellations.

4.3. Notify the COR upon completion of the wash. The COR will accomplish and document a cleanliness inspection on the aircraft prior to release back to the owning activity.

4.3.1. The isochronal/phase inspection dock supervisor, if trained and delegated as COR, may accomplish the cleanliness inspection for isochronal/phase aircraft washes only.

4.4. Wash Crew Supervisor and an ASM representative will inspect the wash facility CTK and wash pad before beginning any aircraft wash. The Wash Crew Supervisor will sign them out from the ASM Support Section using TCMmaxx or AF Form 1297, *Temporary Issue Receipt*, indicating acceptance of the condition of the wash facility for the duration of the wash.

4.5. The Aircraft Owning Activity will perform a FOD walk before the aircraft is towed on to the wash rack and no later than 30 minutes after the aircraft is towed out of the facility.

4.6. The Wash Crew Supervisor or Aircraft Owning Activity will conduct a FOD inspection after removal of the aircraft. After the wash rack has passed their inspection, the Wash Crew Supervisor and an ASM representative will perform a joint inventory of the wash rack CTK, and sign it back in, before releasing the Wash Crew Supervisor from responsibility of the wash rack.

#### **5. Cleaning and Aircraft Wash Documentation:**

5.1. The Aircraft Owning Activity will enter the following entries into the AFTO Form 781A, *Maintenance Discrepancy and Work Document*, as a minimum, prior to an aircraft wash:

5.1.1. "Aircraft wash required" on a red "diagonal."

5.1.2. "Aircraft masked and prepped for wash" on a red "X."

5.1.3. "Aircraft post-wash cleanliness inspection due" on a red "dash."

5.1.4. "Aircraft post-wash lubrication due" on a red "diagonal."

**6. Corrosion Prevention and Control/Aircraft Wash Training:** The Wing Corrosion Manager provides Maintenance Operations Training Flight current training materials for Corrosion Awareness Training conducted in Block Training.

**7. Protective Coating Maintenance:**

7.1. Maintenance painting is defined for field purposes as spot painting, sectionalized painting, and complete scuff sand and overcoat. Maintenance painting of aircraft will not be accomplished solely for cosmetics because of environmental and overall aircraft weight and balance concerns.

7.2. The 374 MXS ASM Section will determine priority for maintenance painting by scoring all aircraft coating systems IAW T.O. 1-1-8, *Application and Removal of Organic Coatings, Aerospace and Non-Aerospace Equipment*, paragraph 8.2.4.

7.2.1. At a minimum aircraft protective coating will be scored semi-annually or at after each aircraft wash whichever is sooner. The Wing Corrosion Manager is responsible for retaining a copy of all paint scores until they are superseded, or the equipment is taken out of service.

7.2.2. Complete over coating of AGE/support equipment will be scheduled by AGE and Fabrication Flights according to mission requirements and current coating condition. Maintenance painting of deteriorated areas will be done to prevent or repair corrosion.

7.3. Non-critical corrosion control tasking (painting of FOD cans, chocks, signs etc.) will be kept to an absolute minimum. In cases where non-critical items are painted the local manufacture process will be followed.

**8. AGE Corrosion Requirements:**

8.1. AGE Flight will visually assess equipment paint condition and overall unit corrosion, at a minimum, during every scheduled periodic inspection. This includes complying with a 180 day wash cycle (IAW 35-1-3, paragraph 2.1.2., Table 2-1). Also, all AGE will have a corrosion control inspection scheduled in the MIS and performed every 2 years. This inspection will be completed and signed off in the MIS by a 5-skill level or above Aircraft Structural Maintenance (ASM) Specialist on Thursday each week, or as coordinated between AGE and ASM monitors. ASM will complete the corrosion checklist and provide it to AGE personnel for filing into the equipment historical records and/or for updating the corrosion tracker. AGE will attend the monthly scheduling meeting to ensure corrosion control painting requirements are identified and scheduled as required.

8.2. AGE will perform the following preparations before the equipment will be accepted by the Corrosion Control Section for refurbishment:

8.2.1. Non-powered equipment: Remove bumper pads, tie down straps, webbing hoses, mobility placards, stickers/stencils, and any other items that would prevent proper sanding or painting of equipment.

8.2.2. Powered equipment: Remove batteries, bleed air hoses, power cables, air conditioner and heater ducts, hydraulic test stand hoses, mobility placards, stickers/stencils, and any other items that would prevent proper sanding or painting of equipment.

8.3. All support equipment scheduled for paint will be delivered to Corrosion Control NLT 1500 hrs each Friday prior to the scheduled paint week. Equipment will be accompanied with a GO81 350 tag and will be logged into Corrosion Controls parts log by the AGE driver. Failure to prep/deliver all scheduled units on-time with the required documentation completed will result in a delay or possible refusal of item(s) for that week.

WILLIAM M. KNIGHT, Colonel, USAF  
Commander, 374th Airlift Wing

## Attachment 1

### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

#### *References*

- AFPD 21-1, *Air and Space Maintenance*, 25 February 2003
- AFPD 91-3, *Occupational Safety and Health*, 27 September 1993
- AFI 20-114, *Air and Space Equipment Structural Management*, 7 June 2011
- AFI 48-145, *Occupational and Environmental Health Program*, 15 September 2011
- AFI 91-202, *The US Air Force Mishap Prevention Program*, 5 August 2011
- AFOOSH STD 48-137, *Respiratory Protection Program*, 10 February 2005
- AFOOSH STD 91-17, *Interior Spray Finishing*, 1 September 1997
- AFOOSH STD 91-66, *General Industrial Operations*, 1 October 1997
- AFOOSH STD 91-68, *Chemical Safety*, 1 October 1997
- AFOOSH STD 91-100, *Aircraft Flight Line - Ground Operations and Activities*, 1 May 1998
- T.O. 00-20-2-WA-1, *Maintenance Data Documentation*, 1 September 2010
- T.O. 00-20-5, *Aerospace Vehicle/Equipment Inspection and Documentation*, 1 May 2005
- T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 19 January 2012
- T.O. 1-1-8, *Application and Removal of Organic Coatings, Aerospace and Non-Aerospace Equipment I*, 12 January 2010
- T.O. 1-1-690-WA-1, *General Advanced Composite Repair Manual*, 28 March 2007
- T.O. 1-1-691, *Aircraft Weapon Systems Cleaning and Corrosion Control*, 11 May 2011
- T.O. 1C-130A-23, *TECH MNL System Peculiar Corrosion Control USAF Series C130A, C130B, C130E, C130H, HC130H, HC130N, HC130P, LC130H and MC130H ACFT*, 15 October 2010
- T.O. 31-1-75, *General Maintenance Practices*, 3 April 2003
- T.O. 32-1-101, *Use and Care of Hand Tools and Measuring Tools*, 6 October 2010

#### *Adopted Forms*

- AF Form 847, *Recommendation for Change of Publication*
- AF Form 1297, *Temporary Issue Receipt*
- AFTO Form 781A, *Maintenance Discrepancy and Work Document*

#### *Abbreviations and Acronyms*

- AFSC**—Air Force Specialty Code
- AGE**—Aerospace Ground Equipment
- ASM**—Aircraft Structural Maintenance

**CBT**—Computer-Based Training

**COR**—Contracting Officer Representative

**CTK**—Composite Tool Kit

**FOD**—Foreign Object Debris

**GPC**—General Purpose Cleaner

**OJT**—On the Job Training

**PPE**—Personal Protective Equipment

**QPL**—Qualified Product List