

**BY ORDER OF THE COMMANDER
AIR FORCE GLOBAL STRIKE
COMMAND**



**AIR FORCE GLOBAL STRIKE
COMMAND INSTRUCTION 21-105**

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Supplement**

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**CORROSION PREVENTION
AND CONTROL PROGRAM**

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Maintenance of Military Material*, and is consistent with AFPD 13-5, *Air Force Nuclear Enterprise*. It references Department of the Air Force Instruction (DAFI) 21-101, *Aircraft and Equipment Maintenance Management*, and Air Force Manual (AFMAN) 21-202, *Missile Maintenance Management*, and establishes policy and assigns responsibility to establish and support the Corrosion Prevention and Control Program for Air Force Global Strike Command (AFGSC). This instruction applies to AFGSC Regular Air Force, Air Force Reserve Command (AFRC) and to the Air National Guard (ANG) Classic Associate units associated with AFGSC. It does not apply to United States Space Force. This publication may be supplemented at any level, but all supplements must be routed to the Office of Primary Responsibility (OPR) of this publication for coordination prior to certification and approval. The authorities to waive wing, and unit level requirements in this publication are identified with a tier number (“T-0, T-1, T-2, T-3”) following the compliance statement. See Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes*

and Procedures, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained In Accordance With (IAW) AFI 33-322, *Records Management and Information Governance Program*, and disposed of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the OPR, AFGSC/A4MQ, using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Publication*; route DAF Form 847s from the field through the appropriate functional chain of command to AFGSC.A4M.workflow@us.af.mil.

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SUMMARY OF CHANGES

This publication has been substantially revised and must be completely reviewed in its entirety. Major changes include mural guidance for Missile Alert Facilities, Nose Art routing procedures, adds MH-139 helicopter guidance, updates specific markings and paint colors for aircraft and missiles, changes specific responsibilities for Corrosion Control and Prevention Managers and the addition of facility requirements in accordance with AFI 32-1024, *Standard Facility Requirements*.

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Chapter 1

ROLES AND RESPONSIBILITIES

1.1. Headquarters (HQ) AFGSC/A4M Responsibilities. HQ AFGSC/A4M will designate the AFGSC Fabrication Functional Manager or Low Observable (LO) Functional Manager as the Command Aircraft Corrosion Prevention and Control Program Manager. The program manager will:

1.1.1. Manage the Corrosion Prevention and Control Program for all assigned aircraft.

1.1.2. Coordinate all nose art request packages thru AFGSC/A1 and JA prior to submission to AFGSC/A4 for final approval. Once approved, package will be forwarded to AFGSC/HO and applicable unit historian for archive.

1.1.3. Represent command at assigned weapon systems Corrosion Prevention Advisory Boards (CPAB), AF/DoD corrosion conferences, field surveys, and other Environmental/Technical conferences as applicable.

1.1.4. Ensure adequate corrosion control training is available and current for all aircraft and Aerospace Ground Equipment (AGE) maintenance personnel.

1.1.5. Serve as the Command's interface with Air Education and Training Command (AETC) and the Air Force Institute of Technology (AFIT) for corrosion training course content changes.

1.1.6. Coordinate Major Command (MAJCOM) approval for test programs through appropriate Weapon System Team.

1.2. Wing Commander Responsibilities. The WG/CC will:

1.2.1. Approve all aircraft paint waivers and nose art requests. Ensure all requests have been routed through local Historian, Public Affairs, Wing Corrosion Manager, and Judge Advocate (JA) office. Submit all required documents to the HQ AFGSC/A4M, Aircraft Corrosion Prevention and Control Program Manager via Task Management Tool.

1.3. Maintenance Group Commander Responsibilities. The MXG/CC (or equivalent) will:

1.3.1. Ensure adequate corrosion control facilities are available to wash aircraft, perform minor maintenance, and paint assigned aircraft on a year-round basis. An outside wash rack may be used on an interim basis when weather conditions permit and when approved by Base Civil Engineer.

1.3.2. Ensure requirements outlined in UFC 4-211-02, *Corrosion Control and Paint Facilities*, and DAFMAN 32-1084, *Standard Facility Requirements*, are met for Support Equipment (SE) and aircraft small parts. **Note:** This capability can be incorporated in the aircraft corrosion control facility if space permits.

1.3.3. Ensure facility control technology meets local, state, and federal Environmental Protection Agency requirements in conjunction with current National Emission Standards for Hazardous Air Pollutants.

1.3.4. Ensure frequency of wash/rinse cycles are maintained in accordance with Technical Order (T.O.) 1-1-691, *Cleaning and Corrosion Prevention and Control, Aerospace and Non-Aerospace Equipment*, and revised as necessary based on changes in mission and location.

1.3.4.1. Ensure Plans, Scheduling & Documentation (PS&D) section schedule aircraft washes through applicable Maintenance Information System (MIS).

1.3.4.2. Ensure waiver requests are submitted for any assigned aircraft wash that will be overdue more than 30 days with an official memo to HQ AFGSC/A4M prior to the 30th day from the due date.

1.3.4.2. **(ELLSWORTHAFB)** Ensures Quality Assurance (QA) adequately evaluates corrosion control programs through inspection and maintenance follow-up evaluations.

1.3.4.2.1. Notification shall include:

1.3.4.2.1.1. Aircraft tail number.

1.3.4.2.1.2. Date of last wash.

1.3.4.2.1.3. Reason for overdue condition.

1.3.4.2.1.4. Corrective action taken to prevent further occurrences.

1.3.4.2.2. MAJCOM Corrosion Program Manager ensures routing of waiver request to System Program Office (SPO) engineer and the Air Force Corrosion Prevention Control Office. The SPO engineer has final approval authority for waiver requests IAW T.O. 1-1-691 Chapter 3.

1.3.4.2.3. When aircraft are in severe corrosion environments, report overdue Clear Water Rinse (CWR) to AFGSC/A4M within seven calendar days after the 30th day of the CWR requirement IAW T.O. 1-1-691 Chapter 3.

1.3.4.3. **(Added-ELLSWORTHAFB)** Ensures QA evaluates a minimum of 10 percent of all aircraft washes.

1.3.5. Appoint, in writing, a Wing Corrosion Manager.

1.3.5.1. Wing Corrosion Manager will be a 2A7XX AFSC

1.4. Wing Corrosion Manager Responsibilities. Wing Corrosion Manager will:

1.4.1. Serve as the focal point for all aircraft and SE cleaning, corrosion and organic coating related information and taskings.

1.4.2. Serve as the point of contact for corrosion prevention and control between the MXG and AFGSC/A4M.

1.4.3. Ensure creation of a supplement to this instruction, to include, but not limited to the following:

1.4.3.1. Numbered Air Force (NAF), Wing, Operations Group (OG), Operational Test (OT) and Bomb Squadron commander aircraft designation and marking requirements of identified aircraft.

1.4.3.2. Local unit marking requirements (e.g. tail stripes, crew names, nose art, etc.).

1.4.3.3. Aircraft paint identification placard size, shape, and information requirements.

1.4.4. Train wash crew supervisors in all aspects of aircraft wash and to develop and implement a wash crew supervisor training plan. Units may designate a 7-level technician to fulfill these training responsibilities. **(T-3)**.

1.4.5. Ensure development and utilization of local aircraft wash checklists IAW T.O. 00-5-1.

1.4.6. Ensure personnel are trained prior to taking receipt/custody of wash rack facilities and equipment.

1.4.6.1. Base-specific training is required for all newly assigned personnel. Training from another base is not sufficient.

1.4.6.2. Ensure training is documented in appropriate training records.

1.4.6.3. **(Added-ELLSWORTHAFB)** Follow procedures listed in the wash rack checklist and on the Ellsworth AFB's B-1B aircraft wash local job guide is (LJG)-28MXG-19-02.

1.4.7. Enforce the use of approved coating materials and cleaning compounds as determined by T.O.s, Qualified Products Listings (QPL), and Qualified Products Database (QPD).

1.4.7.1. **(Added-ELLSWORTHAFB)** The Wing Corrosion Manager (WCM) will validate use of approved coating materials and cleaning compounds throughout the maintenance group (MXG) annually or sooner at the request of the maintenance group commander (MXG/CC).

1.4.8. Ensure coating system scoring and maintenance is accomplished IAW [paragraph 2.2.2](#).

1.4.9. Maintain records of all approved requests for aircraft names, nose art, tail flashes, internal nose art, and score sheets of maintained aircraft, as well as appointment letters for the Wing Corrosion Manager and Wash Rack Facility Manager. Maintain full length color photographs of all approved aircraft names and nose art along with approval documentation.

1.4.10. Attend assigned weapon systems CPAB, AF/DoD corrosion conferences, field surveys, and other Environmental/Technical conferences as specified by the Command Aircraft Corrosion Prevention and Control Program Manager.

1.4.11. **(Added-ELLSWORTHAFB)** Ensures all maintenance personnel will receive corrosion awareness training during initial and annual maintenance refresher training. This training is conducted by the Military Training Flight Instructors from the 28th Maintenance Group, and is a condensed version of the "Corrosion and Prevention" Computer Based Training (CBT) that is offered on the 376th Training Squadron's SharePoint.

1.4.12. **(Added-ELLSWORTHAFB)** Ensure all Maintenance Group sections with support equipment designate a Corrosion Control representative to monitor and schedule equipment for paint as needed.

1.5. Maintenance Supervision Responsibilities. Maintenance Supervision will:

1.5.1. Ensure owning activities wash and clean their aircraft and SE, as outlined in specific T.O.s. **(T-3)**.

1.5.1.1. Ensure Wing Corrosion Manager and/or Aircraft Structural Maintenance (ASM) personnel assist the owning activities in their corrosion prevention efforts by accomplishing scheduled corrosion inspections on aircraft, support, and test equipment. **(T-3)**.

1.5.2. Ensure wash crew supervisors are experienced/qualified 7-levels or above. **(T-3)**. Wash crew supervisors will be trained by the Wing Corrosion Manager or a qualified 7-level ASM technician. **(T-3)**. Training shall be documented in the wash crew supervisor's training record.

1.5.3. Ensure trained wash crew supervisors are present throughout the duration of aircraft washes. **(T-3)**.

1.5.4. Provide a task trained and qualified aircraft wash crew. Ensure availability of Personal Protective Equipment (PPE) within the work center. When possible, the crew should include a dedicated crew chief or assistant dedicated crew chief.

1.6. ASM/Low Observable Aircraft Structural Maintenance (LOASM) Section Chief Responsibilities. ASM/LOASM Section Chief will:

1.6.1. Ensure no other maintenance is accomplished on aircraft, equipment, or within environmentally controlled/cordoned off areas when hazardous/toxic materials are in use that requires the use of specialized PPE. In the event specialized respiratory protection equipment is required, personnel will be properly fitted for the equipment and trained in its use IAW AFI 48-137, *Respiratory Protection Program*.

1.6.2. Forecast funding to attend and participate in applicable CPABs and other corrosion/structural related programs/meetings.

1.6.3. Submit CPAB agenda items to the Aircraft Corrosion Prevention and Control Program Manager in HQ AFGSC/A4M.

1.6.4. Appoint, in writing, a Wash Rack Facility Manager.

1.7. Wash Rack Facility Manager Responsibilities. Wash Rack Facility Manager will:

1.7.1. Ensure the required number and size of fire extinguishers are available and serviceable IAW weapon system specific technical data and local requirements.

1.7.2. Ensure grounding points are inspected and approved IAW T.O. 00-25-172.

1.7.3. Ensure fall protection equipment is available, used, and maintained IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, to allow coverage of all surface areas of aircraft during washing operations.

1.7.4. Ensure aircraft wash rack has cleaners identified in weapon system specific technical data. When cleaning products are not listed in weapon system specific technical data, ensure at least two types of approved cleaners IAW T.O. 1-1-691 are properly used, to include proper mix ratio and the correct cleaner for each area cleaned.

1.7.5. Ensure wash rack facility and surrounding area is kept clean and properly maintained.

1.7.6. Procure PPE used during wash process. Maintains wash rack facilities and equipment in serviceable condition (i.e., water hoses, pumps, air hoses, powered wash equipment, SE, PPE, etc.). This may not apply to units utilizing wash contracts.

1.7.7. **(Added-ELLSWORTHAFB)** The primary wash rack facility is Dock 74; the alternate wash rack facility is Dock 93.

1.8. Wash Crew Supervisor Responsibilities. Wash Crew Supervisor will:

1.8.1. Provide safety briefings explaining hazards associated with wash rack operations.

1.8.2. Ensure aircraft wash crews are task trained and qualified.

1.8.3. Ensure proper safety equipment, PPE, cleaning materials and fall protection lifeline cables (installed when required) are properly maintained IAW manufacturer's instructions and DAFMAN 91-203.

1.8.4. Document the requirement for wash, sign the wash completion, and document the lubrication requirement in the Air Force Technical Order (AFTO) Form 781A, *Maintenance Discrepancy and Work Document*, or other electronic form of documentation.

1.8.5. Ensure all wash rack equipment is inspected for serviceability (e.g., water hoses, pumps, air hoses, powered wash equipment, support equipment, etc.).

1.8.6. Ensure wash rack facility, surrounding area and equipment is clean and equipment is properly stored before and after use.

1.8.7. **(Added-ELLSWORTHAFB)** The Aircraft Structural Maintenance (ASM) Section will train the aircraft wash super to ensure personnel comply with the provisions provided in this supplement. Training will be provided by the WCM appointed ASM 7-level Wash Rack Manager Trainers quarterly or as necessary.

1.8.8. **(Added-ELLSWORTHAFB)** Aircraft washes/corrosion inspections/ paint scoring will be scheduled in Integrated Maintenance Data System (IMDS) every 180 days IAW technical order (TO) 1-1-691, *Cleaning and Corrosion Prevention and Control, Aerospace and Non-Aerospace Equipment* Table 3-1. Aircraft that are operating off-station for more than 20 days shall follow the wash intervals of the off-station location.

1.8.9. **(Added-ELLSWORTHAFB)** Aircraft clear water rinse requirements will follow TO 1-1-691 and will only be waived under situations where airfield limitations prevent the ability to do so. Clear water rinse requirements can only be waived by the MAJCOM Corrosion Program Manager in conjunction with the Aircraft System Program Director who has the final approval authority.

1.8.9.1. **(Added-ELLSWORTHAFB)** Immediately after all required wash actions have been completed the following procedures will be followed.

1.8.9.1.1. **(Added-ELLSWORTHAFB)** Aircraft requiring painting actions that do not involve mechanical removal of coatings will be reconfigured with flaps and slats in the down position.

1.8.9.2. **(Added-ELLSWORTHAFB)** Aircraft requiring painting actions that involve mechanical removal of coatings will be scheduled and moved to the Corrosion Control Facility, at the earliest possible opportunity. Mechanical removal of coatings and painting operations are restricted to the limitations approved by the Bio-Environmental Flight.

1.8.10. **(Added-ELLSWORTHAFB)** For aircraft with sniper pods attached, cover the entire sniper (POD) with barrier paper and non-adhesive tape IAW TO 1B-1B-2-12JG-40-1, *Servicing-Special* Section 12-41-01.

1.8.11. **(Added-ELLSWORTHAFB)** Follow procedures listed in wash facility safety briefing. **(Attachment 3)**

1.8.12. **(Added-ELLSWORTHAFB)** Only Aircraft Structural Maintenance personnel shall perform aircraft inspection work cards specified for accomplishment by Aircraft Structural Maintenance in the -6 T.O.

1.9. (Added-ELLSWORTHAFB) Aerospace Ground Equipment (AGE) Flight Chief Responsibilities.

1.9.1. **(Added-ELLSWORTHAFB)** Ensure an effective corrosion control program is established and enforced for assigned equipment.

1.9.1.1. **(Added-ELLSWORTHAFB)** Appoint in writing, an AGE Corrosion Control Program Manager.

1.9.2. (Added-ELLSWORTHAFB) AGE Corrosion Control Program Manager Responsibilities.

1.9.2.1. **(Added-ELLSWORTHAFB)** Ensure the paint condition is scored and rated on all assigned AGE units annually IAW TO 35-1-3, *Corrosion Prevention, Painting and Marking of United States Air Force (USAF) Support Equipment (SE)*. Aircraft and Equipment Maintenance Management paragraph 4.5.2.9., and update changes to the score/rating as needed and as equipment is painted. The AGE units will only be painted to control corrosion, not for beautification.

1.9.2.2. **(Added-ELLSWORTHAFB)** Develops and implements a tracking system to prioritize complete paint for AGE equipment based on a “worst is first” principle.

1.9.2.3. **(Added-ELLSWORTHAFB)** AGE will schedule corrosion inspections for corrosion control personnel. These inspections will be conducted within the AGE shop during other scheduled maintenance inspections, to ensure the scheduled inspections are all performed simultaneously to reduce equipment downtime. Assessment priorities are recorded in a database for paint/corrosion conditions. AGE corrosion inspections will be rated on the following table IAW TO 35-1-3 as follows:

Table 1.1. (Added-ELLSWORTHAFB) AGE Corrosion Inspection Rating Table.

Category 1	New paint or recently touched-up
Category 2	Minor corrosion
Category 3	Moderate corrosion
Category 4	Severe corrosion or Surface Rust with pitting (75% of total exterior)

1.9.2.4. **(Added-ELLSWORTHAFB)** Ensure a Work Center Event (WCE) for ASM/Corrosion Control Work-Center Code STRU is entered in IMDS signifying the unit requires painting.

1.9.2.5. **(Added-ELLSWORTHAFB)** Ensure AGE is washed and defueled prior to paint operations.

Chapter 2

AIRCRAFT CORROSION PREVENTION AND CONTROL PROGRAM

2.1. General Policy.

2.1.1. Maintain aircraft paint scheme, markings, and decals IAW T.O.s 1-1-8, 1-1-691, 1-1-694 and this instruction.

2.1.1.1. Damage markings on Low Observable Aircraft is authorized IAW T.O. 1-1-694 Chapter 4 to easily identify damage and track defects.

2.1.1.2. **(Added-ELLSWORTHAFB)** Maintenance Group (MXOS), Plans, Scheduling, and Documentation shall notify Aircraft Structural Maintenance to perform a 2A773 corrosion control acceptance inspection utilizing paint scoring sheet (See [attachment 4](#)) on all aircraft returning from Programmed Depot Maintenance. This inspection will be completed at the earliest convenience after the aircraft's arrival to home station. Panels will not be removed until after the inspection. 2A773 personnel will evaluate the quality and appearance of the entire aircraft, paint defects, and aircraft markings. If discrepancies are noted, a Quality Deficiency Report will be initiated by the Wing Corrosion Manager and forwarded to the 28th Maintenance Group Quality Assurance Office for final coordination.

2.1.2. Do not apply unauthorized decals or markings to aircraft. All deviations must be approved by the designated waiver authority and final packages will be sent to AFGSC/A4M for filing. Include digital photographs using criteria in [paragraph 2.2.4.23](#).

2.1.3. Aircraft transferring from other commands should comply with AFGSC instructions within 90 days after transfer. **(T-3)**.

2.1.4. Appearance Standards. Maintain aircraft paint, markings, and corrosion preventive coatings in a manner that will enhance the overall appearance and provide for the best corrosion protection.

2.1.4.1. Markings, warnings, and decals shall be legible and distinct.

2.1.5. Repainting aircraft, communications-electronic systems, or support equipment solely for beautification purposes is not authorized. **(T-3)**.

2.1.6. CPAB requirements for aircraft units will be fulfilled through the annual aircraft/helicopter CPABs.

2.1.7. Apply soil barrier, as needed, to the tail boom areas affected by engine exhaust on the UH-1N and MH-139 helicopters. **(T-3)**.

2.1.8. Aircraft coatings. Repair deteriorated aircraft coatings and areas of corrosion when discovered in order to provide continued surface protection. For metals unable to receive a primer, protect with an approved coating such as corrosion preventative compound.

2.1.9. **(Added-ELLSWORTHAFB)** When prioritizing the schedule for aircraft and/or support equipment painting, 28th Maintenance Squadron Refurbishment Section (28 MXS/MXMFS) Aircraft Structural Maintenance, 28th maintenance Group Maintenance Operations Plans and Scheduling (28 MXG/MXOS), Plans, Scheduling, and Documentation and owning units must attend the shared resources meeting to coordinate and schedule paints based on the date last painted, score of coating, and mission requirements.

2.1.9.1. **(Added-ELLSWORTHAFB)** Aircraft paint touch ups are restricted to the facility limitations and the operations approved by the Bio-Environmental Flight. Each aircraft scheduled for touchup paint will be allotted time as follows: The number of days is determined by 28 MXS/MXMFS Aircraft Structural Maintenance for sanding, touchup coating application, and external marking, plus 3 days for paint cure at 75 degrees or higher IAW TO 1-1-8, *Application and Removal of Organic Coatings, Aerospace and Non-Aerospace Equipment* Paragraph 6.12.8.

2.1.9.2. **(Added-ELLSWORTHAFB)** Aircraft will be washed IAW TOs 1B-1B-23, *Corrosion Control* and 1-1-691 within 72 hours of touch-up procedures and no more than one sortie will be flown after wash prior to paint operations.

2.1.9.3. **(Added-ELLSWORTHAFB)** Any aircraft scheduled for paint touchups and/or special markings will be in the appropriate hangar and ready for maintenance no later than 0600 on the scheduled day or rescheduled to prevent conflicts.

2.2. Aerospace Vehicle Coating and Marking Requirements.

2.2.1. This section provides guidance for applying command approved, non-United States Air Force (USAF) standard aircraft coatings and markings as authorized in T.O. 1-1-8. Paint schemes/configurations and USAF standard aircraft markings will be applied in accordance with T.O. 1-1-8 and the applicable aircraft technical order.

2.2.2. Coating System Scoring and Maintenance. All AFGSC units, except for the 509 BW B-2 fleet, are required to score aircraft coating systems every 6 months, or as designated by aircraft specific technical guidance, to determine when restoration or touch-up is required. Aircraft painting will be scheduled on a “worst is first” basis to maintain coating system integrity. Supervisors will use rating to determine corrosion treatment/paint scheduling priority. Units are required to adopt maintenance-painting techniques IAW T.O. 1-1-8 to maintain aircraft corrosion protection between overcoats.

2.2.2.1. **(Added-ELLSWORTHAFB)** See [Attachment 4](#) for 28th Bomb Wing B-1B paint score sheet.

2.2.3. Paint scheme. UH-1N aircraft will use a camouflage paint scheme on main airframes. MH-139 aircraft will maintain FED STD 36118 Grey Type IV paint scheme on main airframes.

2.2.4. Aircraft markings will be applied to aircraft as specifically authorized by this instruction, T.O. 1-1-8, and the applicable aircraft technical orders. LO aircraft markings not currently approved require a waiver from HQ AFGSC/A4M with System Program Directorate (SPD) approval due to strict survivability analysis requirements. Aircraft inputs to depot will be marked IAW with Air Force directives and this instruction only, unless otherwise approved by HQ AFGSC/A4M. HQ AFGSC/A4M is the point of contact for B-1, B-2, B-52, E-4B, UH-1N, MH-139, and T-38A aircraft painting and markings. All aircraft markings and basic paint

schemes will be maintained intact, legible and distinct in color. Command standardization of markings by Mission Design Series (MDS) is of primary concern. AFGSC specific requirements are located within [Attachment 2](#).

2.2.4.1. Stenciling. Markings may be applied using stencils or decals. Refer to T.O. 1-1-8 and T.O. 1H-1(U)N-3, *Structural Repair, USAF Series TH-1H and UH-1N Helicopters*, if applicable, to determine the compatibility of stenciling paints, paint finishes and decal applications.

2.2.4.2. Command Insignia. The application of the command insignia on aircraft is mandatory. Size and location of command insignias by MDS are specified in [Attachment 2](#).

2.2.4.3. Organizational Insignia (Wing). The application of wing insignia is mandatory. Insignia will be applied IAW [Attachment 2](#). **Note:** Wing Insignia is optional for UH-1N and MH-139 aircraft. If used, Wing insignias will be the same color scheme as the command insignia.

2.2.4.4. Organizational Insignia (Squadron). Squadron insignia may be applied to aircraft at the wing's option IAW [Attachment 2](#). **Note:** Squadron Insignia is optional for UH-1N and MH-139 aircraft. If used, Squadron insignias will be the same color scheme as the command insignia.

2.2.4.5. Distinctive Unit Aircraft Identification Marking. The application of the unit designator is mandatory for AFGSC aircraft unless otherwise directed. HQ AFGSC/A4M is the OPR for the assignment of unit designators. The primary factor used to determine appointment of unit designators is the aircraft/unit assignment location. T.O. 1-1-8, or the applicable aircraft technical guidance, will provide color restrictions and location for the unit designator. The unit designator will be applied in accordance with guidelines in [Attachment 2](#) and [Attachment 3](#).

2.2.4.6. Tail Stripe/Art. Tail stripes/art are applied as a wing option, used to identify aircraft operation squadrons and display unit heritage. The Wing Commander must approve all tail stripe/art designs. Each operations squadron may have a tail stripe/art unique to that squadron. The use of the same tail stripe/art by two or more squadrons within a wing is not permitted. The stripe may be any color or pattern and may contain a logo. Photographs of locally approved tail stripe designs must be provided to HQ AFGSC/A4M for review and file. Units will not repaint tail flashes/stripes during deployed operations. See [Attachment 2](#). **Note:** MH-139 does not have an approved tail stripe/art location.

2.2.4.6.1. Tail stripes/art previously approved are authorized, permitting designs meet criteria outlined in [paragraph 2.3.6](#).

2.2.4.7. Tail Markings (UH-1N applicable): See [Attachment 2](#).

2.2.4.8. Aircrew and Crew Chief Names (Optional). Aircrew/Crew Chief names may be applied to all command aircraft. Crew Chief/assistant(s) names may be applied to all aircraft assigned to units with an established Dedicated Crew Chief (DCC) program. All names must be removed IAW T.O. 1-1-8 prior to deployment from home station in direct combat zones or when participating in contingencies that may subject aircraft to hostile fire abroad. Application of nicknames, punctuation, and/or call signs is not permitted. All

aircraft in the wing will be standard with exception of the designated Commander's aircraft, which may have different lettering but will not exceed established height requirements (N/A for B-2). UH-1N lettering will not exceed 3" height. A background block for pilot/Crew Chief names may be used. The block should be in contrasting color to the section of the aircraft where applied. MH-139 does not currently have approved lettering. For B-1 and B-52 aircraft, the Wing Commander may approve a locally designed name block to promote unit pride. Photographs must be provided to HQ AFGSC/A4M for review and file. See [Attachment 2](#) for approved locally designed name blocks.

2.2.4.9. Commander's Aircraft Markings. Commander's aircraft referred to in this instruction are those designated as NAF, Wing, or OG commanders of flying squadrons and OT aircraft. The NAF Commander may select one wing within the command to have an aircraft specifically marked. Wing Commanders may select one aircraft per MDS to apply commander type markings. All other commanders are authorized only one aircraft each to be marked with standardized commander type markings. Standard insignias and markings will not be altered in location, dimension, or configuration to accommodate commander's aircraft markings. The following are markings authorized for use on commander's aircraft:

2.2.4.10. Wing and/or NAF insignias. The wing and/or NAF insignias will be applied on the right forward fuselage and a collage of assigned flight/operations squadron insignias will be applied on the left forward fuselage.

2.2.4.11. Highlighting of unit designator and bomb wing designator. All highlighting will be done in contrasting gray, black or white if it meets primary basecoat gloss requirements (i.e., gloss, camouflage or gunship). All unit designators and serial numbers will remain on vertical stabilizers or as depicted in applicable technical orders.

2.2.4.12. Wing Commanders must approve the markings. Final packages will be sent to AFGSC/A4M for filing. Include digital photographs using criteria in [paragraph 2.2.4.23](#).

2.2.4.13. Nose Numbers (optional). If used, aircraft nose numbers shall be in block or Helvetica letters, not to exceed five digits. Specific location and size for each different type aircraft is listed in [Attachment 2](#). The paint material(s) used to apply nose numbers shall have the same gloss requirement as the base aircraft coating.

2.2.4.14. Bomber Combat Marking. Designated bomber aircraft with a successful weapons release in combat operations are authorized to display a conventional bomb and/or Joint Air-to Surface Stand-Off Missile (JASSM) silhouette on that aircraft. These markings will be applied in contrasting shades that conform to the basic aircraft camouflage requirements. B-1, B-2 and B-52 combat marking configurations are located within [Attachment 2](#).

2.2.4.15. Nose Art. For purposes of clarification, "nose art" shall be the term used to identify specialized artwork applied to any area of the aircraft. Wing Commanders may designate one aircraft within the wing to apply the "Let's Roll" design. The aircraft selected is at the Wing Commander's discretion. Waivers for additional aircraft will not be considered. B-1 and B-52 art is authorized on the left side of the aircraft only. B-2 nose art is authorized on the inner mold line of the left main landing gear door. E-4B nose art is authorized on the interior of the crew entry area in conjunction with the crew chief placard

and/or on the exterior, left side of the aircraft only. UH-1N nose art is authorized on the Upper Hinged Nose Door of the aircraft only and art is limited to size of the door. Authorized nose art is limited to 3 feet by 3 feet in size. All nose art information shall be incorporated in each base's supplement to this instruction. Nose art shall meet the following criteria:

- 2.2.4.15.1. Be distinctive, symbolic, and designed in good taste.
 - 2.2.4.15.2. Enhance unit pride.
 - 2.2.4.15.3. Comply with equal opportunity policies.
 - 2.2.4.15.4. Match gloss requirements of the basic paint scheme and utilize MDS approved paint or stencil material.
 - 2.2.4.15.5. All designs will be reviewed per [paragraph 1.2.1](#) and approved by WG/CC. Once approved by the WG/CC, send final packages to AFGSC/A4M for filing. Include digital photographs using criteria in [paragraph 2.2.4.23](#). AFGSC/A4M will ensure packages are forwarded to AFGSC/HO and WG Historian.
 - 2.2.4.15.6. Nose art previously approved is authorized, permitting designs meet criteria outlined in [paragraph 2.2.4.15](#) thru [paragraph 2.2.4.15.5](#).
- 2.2.4.16. Unique Unit Markings.
- 2.2.4.16.1. Anniversary Markings. When applied, anniversary markings will not interfere with required aircraft markings and must be removed immediately after the anniversary period (1-year maximum). Waivers are not required. Wing Commanders must approve the markings, and digital photographs must be provided to AFGSC/A4M for review and file.
 - 2.2.4.16.2. State flags and logos other than anniversary type are not considered unit unique markings.
- 2.2.4.17. Aircraft Naming. Route requests to name AFGSC aircraft through wing Public Affairs (PA) to AFGSC/A4M. AFGSC/A4M will coordinate with AFGSC/PA before submitting to AFGSC/A4 for approval. This includes markings previously considered unit unique and are community related/appreciation types such as "Spirit of," "City of" and "State of." Naming aircraft is a tradition designed to commemorate or honor individuals, geographic locations, or events either for the support provided by the Air Force on a long-term basis, or because of its significance to Air Force history or heritage. Recommendations must include a proposed name, suggested aircraft and tail number, and detailed justification for the proposed name. Contact wing Public Affairs office for details.
- 2.2.4.18. Aircraft Travel Pods. Travel pods will be painted in gloss paint the same color as the aircraft with no additional markings. Travel pods designated for commanders may contain the position and name of the individual and appropriate insignia. Lettering may be of any color and style, but shall not exceed 6" height. Commander's travel pod paint scheme, final marking sizes, and placements will be approved by the WG/CC and documented within local unit operating instructions. **(T-3)**.

2.2.4.19. Paint Identification Placard. The paint identification block is a mandatory marking. The block may be of a unique design, or state outline, but must not exceed 6” by 6” size and will match the color of other markings on the aircraft. Waiver requests are not required for this item. However, WG/CC approval is required, and photographs of the design must be provided to HQ AFGSC/A4M for review and file (not applicable for B-2).

2.2.4.20. Competition Aircraft. Units participating in competitions will follow the guidelines established in competition rules for aircraft appearance. Competitions shall be considered "come as you are" and no waivers will be granted. "Come as you are" is defined as no special effort, painting, or additional markings applied to enhance or improve the overall appearance of the aircraft. This includes polishing of titanium, commander markings, etc.

2.2.4.21. Aircraft Transfer. The following markings must be removed prior to formal transfer of aircraft to other units or MAJCOMs (aircraft retiring to the Aerospace Maintenance and Regeneration Group, need not have any markings removed).

- 2.2.4.21.1. Organizational insignias.
- 2.2.4.21.2. Distinctive unit aircraft identification.
- 2.2.4.21.3. Tail stripe.
- 2.2.4.21.4. Aircrew and Crew Chief names.
- 2.2.4.21.5. Unit-unique markings.
- 2.2.4.21.6. Nose art may be retained if gaining unit agrees.

2.2.4.22. Waivers. Wing Commanders must submit waiver requests for non-standard markings to HQ AFGSC/A4M for approval/disapproval. Waivers that are in violation of aircraft technical orders will not be accepted. Waiver requests must include the following:

- 2.2.4.22.1. Clear statement of present procedure/markings.
- 2.2.4.22.2. Clear statement of proposed change.
- 2.2.4.22.3. Justification to include historical significance, if applicable.
- 2.2.4.22.4. Photographs: Two high-quality digital color photographs, one of present marking and one of requested change.

2.2.4.23. Photo Requirements. All photo requirements may be met by a high-quality digital photograph. All AFGSC units must submit one full length (landscape orientation) of the commander's aircraft each time a marking change occurs to HQ AFGSC/A4M for review and file. Units will provide photos of unique markings for all local option changes authorized by this instruction (e.g., tail stripe/name block design and/or color changes, paint data placard, nose art, etc.) to HQ AFGSC/A4M for review and file.

2.2.4.24. Total Force Integration (TFI). For TFI locations under the classic association, coordination is required from both Wing Commanders to identify specific aircraft for unit identification and/or organizational insignia changes. These proposed changes are in support of ownership, pride and esprit de corps between active duty, reserve, and guard partnering wings. Once insignia change is approved by the owning WG/CC, the supporting documents will be routed to HQ AFGSC/A4M for validation IAW T.O. 1-1A-8.

2.3. AGE Tone-Down Procedures.

2.3.1. When feasible, equipment will be completely stripped and properly prepared IAW T.O. 1-1-8 and T.O. 35-1-3, *Corrosion Prevention and Control, Cleaning, Painting, and Marking of USAF Support Equipment (SE)* before applying polyurethane coatings.

2.3.2. Minimum reflectorizing requirements will be IAW T.O. 35-1-3. Black subdued reflectorized tape will be used in lieu of white when left optional by T.O. 35-1-3.

2.3.2.1. **(Added-ELLSWORTHAFB)** The AFGSC decal shall be placed 11 inches below the tail stripe and 7 inches above the top of the (EL). The AFGSC decal must be centered on the trailing edge of the L on the left side and centered on the trailing edge of the E on the right side. Once the correct placement is determined and the patch is applied, it must be edge sealed (See [Attachment 2](#), Figures [1](#) and [2](#)).

2.3.3. Dedicated squadron identification markings will not exceed a 2” by 6” area below two field numbers if the equipment area permits.

2.3.3.1. **(Added-ELLSWORTHAFB)** The 28th Bomb Wing decal is located 6 inches below Offensive System Officer (OSO) window and the 37th or 34th Bomb Squadron decal is located 6 inches below Defense System Officer (DSO) window. (See [Attachment 2](#), [Figure 3](#) and [Figure 3.1](#)).

2.3.4. Locally devised field numbers will be black.

2.3.5. Interior areas of AGE exposed during operation will be toned down to match exterior painted surfaces. **(T-3)**.

2.3.5.1. **(Added-ELLSWORTHAFB)** Application of the EL is as follows: From the bottom of the tail flash, measure down 42 inches. This will locate the top of your EL. Layout a horizontal line using a level. Position the top edge of the EL on the horizontal line. Slide the stencil forward or aft until the lower aft corner of the L is on the left side or the E on the right side rests on the leading edge of the rudder gap panels. Note: The EL may not be centered on the tail numbers; make sure the lower aft corner of the appropriate letter rests on the leading edge of the rudder gap strip panels. Ensure the stencil is level and mark an outline of the EL. Remove the stencil and tape off the outline. Mask surrounding areas thoroughly to prevent any overspray. (See [Attachment 2](#), Figures [1](#), [1.1](#) and [2](#)).

2.3.6. AGE arriving on base and requiring tone down will be scheduled for paint within 90 days of receipt, and completed within 24 months. **(T-3)**.

2.3.6.1. **(Added-ELLSWORTHAFB)** The 37th Bomb Squadron tail stripe shall be applied as follows: Locate panel seam on the left side of vertical stabilizer. Apply masking tape along the top edge of seam and run tape from the leading edge to the trailing edge of vertical stabilizer. Once tape is applied to the left side, use it as a guide to align the tape for the right side. This will ensure both sides are equal. Measure down 15 inches from the bottom of the top tape line and lay out a reference line to which the top of your second piece of tape will be applied. Repeat procedure for the opposite side. Note: Ensure both tape lines are straight, parallel, and equal. There needs to be 15 inches between top and bottom tape lines. Apply black coating materials between tape lines and allow to cure. Measure down two inches from the bottom edge of the top tape line and up two inches

from the top edge of the bottom tape line, mask off two inches on top and bottom of 15-inch background. These areas are masked off because they will be your two inch black stripes. The tiger stripe stencil is 11 inches tall. Ensure the stencil leans backward. Align the top of the stencil with the bottom of the two inch top stripe. This will automatically align the bottom of the stencil with the top of the bottom two inch stripe. Remove transfer tape and mask surrounding area. Apply approved yellow coating material, de-mask and allow curing. Apply clear coating material and allow to cure. (See [Attachment 2](#), Figures [1](#), [1.1](#) and [2](#)).

2.3.6.2. (Added-ELLSWORTHAFB) The 34th Bomb Squadron tail stripe shall be applied as follows: Locate panel seam on the left side of vertical stabilizer. Apply masking tape along the top edge of seam and run tape from the leading edge to the trailing edge of vertical stabilizer. Once the tape is applied to the left side, use it as a guide to align the tape for the right side. This will ensure both sides are equal. Measure down 15 inches from the bottom of the top tape line and lay out a reference line to which the top of your second piece of tape will be applied. Repeat procedure for the opposite side. Note: Ensure both tape lines are straight, parallel, and equal. There needs to be 15 inches between the top and bottom tape lines. Apply red coating materials between the tape lines and allow to cure. Apply Gerber mask decal in the following manner: measure 54 inches from the trailing edge of the vertical stabilizer and center the T-bird with the wing tips at the 54 inch mark and equally spaced inside the tape lines (two inches from top and bottom edges). Apply the following reference marks before placing the four two inch tail stripes masking: the first mark will be two inches down from the bottom edge of the top tape line; the second mark will be two inches up from the top edge of the bottom tape line; the third mark will be one inch forward of the T-bird tail and the last mark will be one inch aft of the T-bird tail. Start the first two inch horizontal masking stripe at the top two inch mark and the one inch mark, forward of the T-bird tail and flow to the aft edge of the vertical stabilizer. The second stripe will be placed one inch below the bottom edge of the first stripe starting at the one inch mark, aft of the T-bird tail and flow to the aft edge of the vertical stabilizer. The third stripe will be placed one inch below the bottom edge of the second stripe starting at the one inch mark, aft of the T-bird tail and flow to the aft edge of the vertical stabilizer. The fourth stripe will be placed one inch below the bottom edge of the third stripe and at the one inch mark, forward of the T-bird tail and flow to the aft edge of the vertical stabilizer. Apply approved black coating material, de-mask and allow to cure. Apply clear coating material and allow to cure. (See [Attachment 2](#), Figures [1](#), [1.1](#) and [2](#)).

2.3.6.3. (Added-ELLSWORTHAFB) Command aircraft tail decal shall be applied as follows: Locate panel seam on the left side of vertical stabilizer. Apply masking tape along the top edge of seam and run tape from the leading edge to the aft edge of tail. Once tape is applied to the left side, use it as a guide to align the tape for the right side. This will ensure both sides are equal. Measure down 15 inches from the bottom of the top tape line and lay out a reference line to which the top of your second piece of tape will be applied. Repeat procedure for the opposite side. NOTE: Ensure both tape lines are straight, parallel, and equal. There must be 15 inches between tape lines. Measure down 2 inches from the top line and up 2 inches from the bottom tape line, mask around the 2-inch lines, this will become the 2-inch yellow stripes on top and bottom. Paint and allow to dry. Mask off the 2-inch yellow stripes previously described, and apply blue coating background and allow

to dry. Apply Ellsworth yellow lettering as a decal. Ensure it is centered top to bottom and leading edge to trailing edge, apply edge sealer after decal is applied to aircraft. (See [Attachment 2, Figure 2](#))

2.3.6.4. (Added-ELLSWORTHAFB) The commander's flagships will have a 2-inch white shadow on the EL unit designator and 1-inch white shadow on the unit insignia. (See [Attachment 2, Figure 2](#))

2.3.6.4.1. (Added-ELLSWORTHAFB) All Commander's designated aircraft will be documented and filed with approved aircraft nose art; as designation aircraft are subject to change with aircraft rotation.

2.3.6.5. (Added-ELLSWORTHAFB) These aircraft are currently approved, as of the publish date, to use the following approved nose art titles:

Table 2.1. (Added-ELLSWORTHAFB) Approved Nose Art Titles.

Aircraft	Nose Art	Aircraft	Nose Art	Aircraft	Nose Art
86-0060	Doolittle's Raiders	86-0129	Black Widow	86-0108	Alien with an Attitude
85-0069	Avenger	86-0134	Thunderbird	86-0113	Jagged Edge
85-0072	Polarized	86-0139	Dakota Drifter	86-0120	Whiskey Pete
85-0079	Master of Disaster	85-0085	Ruptured Duck	86-0121	Symphony of Destruction
85-0084	Hard Rain	86-0094	Night Hawk	86-0137	Tiger
86-0095	Dakota Demolition	86-0102	Bad Mood Rising	86-0138	Seek and Destroy
86-0111	Let's Roll	86-0104	Live Free or Die		

2.3.6.5.1. (Added-ELLSWORTHAFB) B-1 nose art shall be placed on the left-hand side of the aircraft, centered horizontally between the defensive weapons officer's and pilot's window, and vertically with the squadron decal in a manner that will not interfere or detract from the bomb squadron decal and crew names. Aircrew names and crew chief names are shown on the aircraft in [figure 3.2](#) and [figure 3.3](#). These markings are not mandatory and alternate aircrew and crew chief name placements are authorized. All nose art information to include nose art approval letters, high resolution photos, and historical information is located at the file path location below: <https://usaf.dps.mil/teams/11624/28bw/28mxg/28mxs/structures/corrosionrefurb/forms/allitems.aspx?viewid=e42ddbc4%2D415a%2D46ed%2D9bfd%2Da87e81f>

[7d48a&id=%2Fteams%2F11624%2F28BW%2F28MXG%2F28MXS%2FStructures%2FCorrosionRefurb%2F5%2E%20Nose%20Art.](#)

2.3.7. (**Added-ELLSWORTHAFB**) AGE requiring tone-down procedures will be scheduled by the AGE Corrosion Manager through the ASM Corrosion Control Non Commissioned Officer in Charge (NCOIC).

Chapter 3

ICBM CORROSION PREVENTION AND CONTROL ROLES AND RESPONSIBILITIES

3.1. HQ AFGSC/A4B Responsibilities. HQ AFGSC/A4B is responsible for overall Intercontinental Ballistic Missile (ICBM) corrosion program management within the command. HQ AFGSC/A4B will appoint an ICBM Corrosion Prevention and Control Functional Manager. The functional manager will:

- 3.1.1. Manage AFGSC's Corrosion Prevention and Control Program for the ICBM weapon system.
- 3.1.2. Serve as the command's focal point for corrosion prevention and control issues, and coordinate all actions with staff directorates as appropriate.
- 3.1.3. Ensure adequate corrosion control training is available and current for all ICBM maintenance personnel.
- 3.1.4. Serve as the Command's interface with Air Education and Training Command (AETC) and the Air Force Institute of Technology (AFIT) for corrosion training course content changes.
- 3.1.5. Ensure Air Force Materiel Command conducts annual site surveys for ICBM facilities.
- 3.1.6. Represent Command at assigned weapon systems CPAB, AF/DoD corrosion conferences, field surveys, and other Environmental/Technical conferences as applicable to ICBMs.

3.2. Wing Commander Responsibilities. The WG/CC will:

- 3.2.1. Approve all Missile Alert Facility (MAF) mural requests. Ensure all requests have been routed through Corrosion Manager for tracking.

3.3. Maintenance Group and 576 FLTS Commander Responsibilities. The MXG/CC and 576 FLTS/CC are responsible for establishing and maintaining effective Corrosion Prevention and Control Programs. The MXG/CC and 576 FLTS/CC will:

- 3.3.1. Ensure adequate facilities, equipment, manpower, material and funding are available to support a sound corrosion prevention and control program.

3.4. Unit Corrosion Prevention and Control Program Manager Responsibilities. Unit Corrosion Prevention and Control Program Manager will:

- 3.4.1. Also be the Corrosion Shop Foreman for their respective units. (576 FLTS will utilize a Corrosion Shop Foreman or QAE only). **(T-3)**.
- 3.4.2. Act as the Subject Matter Expert (SME) for all corrosion and coatings related information and taskings.
- 3.4.3. Serve as the point of contact for corrosion prevention and control between the unit and AFGSC/A4B.
- 3.4.4. Develop and publish local corrosion prevention training requirements, as required. **(T-3)**.

3.4.5. Ensure military technicians, Department of Air Force civilians, and government contracted corrosion control technicians:

3.4.5.1. Inspect for and treat corrosion IAW technical orders using approved products.

3.4.5.2. Handle and dispose of hazardous materials/waste IAW local, state, and federal guidelines.

3.4.6. Ensure only authorized chemical cleaning materials and corrosion removal methods are used, and that Safety Data Sheets are available for each chemical used.

3.4.7. Ensure required equipment is obtained for an efficient and effective corrosion prevention and control program.

3.4.8. Enforce the use of approved coating materials and cleaning compounds as determined by TOs, QPL, and QPD.

3.4.9. Attend annual CPAB, AF/DoD Corrosion Conferences, Foreman's Meeting and other Environmental/Technical conferences as specified by the ICBM Corrosion Prevention and Control Functional Manager.

3.4.10. Track MAF mural information.

3.4.11. Ensure personnel dispatched to Launch Facilities (LFs) and MAF to perform maintenance on missile systems will receive initial and annual ICBM corrosion prevention and control training IAW AFMAN 21-202, *Missile Maintenance Management*. ICBM corrosion control specialists are exempt from this requirement.

3.4.12. Ensure ICBM maintenance units use standardized AFGSC products for ICBM corrosion prevention and control training.

3.4.13. Ensure ICBM corrosion control specialists attend site-specific environmental compliance training as designated by the installation Environmental office. **(T-3)**.

Chapter 4

ICBM CORROSION PREVENTION AND CONTROL PROGRAM

4.1. General Policy.

4.1.1. Only qualified government or contract corrosion control technicians will perform coating removal/application tasks when required by applicable technical guidance.

4.1.1.1. Repainting weapon system components and structures solely for beautification purposes is not authorized.

4.1.2. Missile Engineering must coordinate all Master Change Log activities and real property/real property installed equipment changes through the Unit Corrosion Prevention and Control Program Manager.

4.1.3. On-base LF trainers will be scheduled on a 3-year cycle for corrosion inspection/treatment using the applicable LF -6 work cards.

4.1.4. Federal, state, and local environmental regulations must be followed.

4.1.5. The Society for Protective Coatings (SSPC) and the National Association of Corrosion Engineers (NACE) offer various training courses for coating systems, application and inspection. As unit funds are available, corrosion program/functional managers, instructors and evaluators should attend SSPC or NACE course(s) that relate to their position and enhance their professional knowledge.

4.1.6. Utilization of corrosion specialists for anything other than weapon system maintenance requires authorization of the MXG/CC or 576 FLTS/CC. (T-3).

4.1.7. The ICBM Corrosion Prevention and Control Program consists of frequent cleaning, corrosion inspections and early detection, application of proper treatment materials/procedures, and maintenance painting. Maintenance painting is defined for field purposes as spot painting, sectionalized painting, and complete scuff sand and overcoat. The corrosion prevention and control program is divided into three components.

4.1.7.1. Prevention. Corrosion prevention must be a proactive part of the overall program. Use of proper materials and technical order procedures during maintenance activities are critical to program success.

4.1.7.1.1. Frequent cleaning has proven to be the most effective means of preventing corrosion.

4.1.7.1.2. All maintenance personnel must perform general housekeeping and cleaning as part of every maintenance activity, supervisors are required to enforce these standards.

4.1.7.2. Detection.

4.1.7.2.1. All maintenance personnel will perform corrosion inspections as part of routine maintenance activities.

4.1.7.2.2. Supervision at all levels must emphasize active participation by all technicians during scheduled periodic inspections as well as unscheduled maintenance.

4.1.7.2.3. Conduct inspections for corrosion in concealed/hard to access locations when opened for any other work.

4.1.7.2.4. Inspections will be documented in the appropriate MIS.

4.1.7.3. Treatment.

4.1.7.3.1. Units will maintain weapon system components IAW [Attachment 4](#).

4.1.7.3.2. There are two general categories of treatment.

4.1.7.3.2.1. Remove and replace. Performed by maintenance technicians responsible for system maintenance when component is beyond repair or treatment in place is not possible or cost effective.

4.1.7.3.2.2. Treatment in place. Minor corrosion can be treated by maintenance technicians during routine maintenance as directed by weapon system specific T.O.s. Large-scale or more severe corrosion on installed equipment/components will be treated by corrosion specialists.

4.1.7.3.3. LF topside areas are extremely susceptible to environmental factors. The Corrosion Shop Foreman must exercise sound professional judgment when determining when to spot paint or completely recoat surfaces. Complete recoats are authorized for topside surfaces.

4.1.7.3.3.1. For areas other than LF topside, limit painting to the smallest practical area required to maintain a professional appearance and an effective coating system.

4.1.7.3.4. All coating systems used on weapon system components and structures, to include real property installed equipment and operational ground equipment, will comply with technical requirements in T.O.s 21M-LGM30F-101, *LGM30 Weapon System Corrosion Control and Treatment*, 1-1-8, 1-1-691, 35-1-3, or applicable equipment T.O.s.

4.1.7.3.5. Units will deplete existing stocks of paint prior to switching to color schemes specified in this instruction. All coatings purchased after implementation of this instruction will be IAW [Attachment 4](#).

4.1.7.3.6. A detailed paint plan for living facilities or other above ground facilities at the MAF is not required.

4.1.7.3.7. Repainting missile system facilities/components, communications-electronic systems, or support equipment solely for beautification purposes is not authorized.

4.1.7.3.8. Do not paint equipment/components where the operational capability or designed function of an item would be impaired by paint. Corrosion specialists will not paint the following areas:

4.1.7.3.8.1. Fabric or plastic surfaces.

4.1.7.3.8.2. Bare or untreated concrete surfaces. **Exception:** warning lines, caution lines, designators, etc. required by technical orders.

- 4.1.7.3.8.3. Surfaces in contact with weather seals and gaskets. **Exception:** surfaces specifically directed by T.O. 21M-LGM30F-101 and T.O. 21M-2 LGM30F-112, *General Inspection and Repair Procedures ICBM Systems*.
- 4.1.7.3.8.4. Radio Frequency Interference (RFI) gaskets/shields and surfaces in contact with RFI gaskets/shields.
- 4.1.7.3.8.5. Machined surfaces of moving parts.
- 4.1.7.3.8.6. Identification plates and warning signs.
- 4.1.7.3.8.7. Lubrication devices and grease fittings.
- 4.1.7.3.8.8. Electrical terminal strips, ground straps, connectors, wires, and bus bars.
- 4.1.7.3.8.9. Blast valve assemblies, hydraulic and pneumatic tubing, fittings and controls.
- 4.1.7.3.8.10. Shock Isolator piston rods.
- 4.1.7.3.8.11. Abrasive (non-skid) surfaces/floor plates.
- 4.1.7.3.8.12. Asphalt shingles.
- 4.1.7.3.8.13. Equipment drawers.
- 4.1.7.3.8.14. Sound-proofed surfaces.
- 4.1.7.3.8.15. Wooden ladders.

4.2. Murals.

4.2.1. MAF Murals (optional). For purposes of clarification, “mural” shall be the term used to identify specialized artwork applied to a MAF. All mural information, including location and size limitations as applicable, shall be incorporated in each base’s supplement to this instruction. Murals shall meet the following criteria:

- 4.2.1.1. Be distinctive, symbolic, and designed in good taste.
- 4.2.1.2. Enhance unit pride.
- 4.2.1.3. Comply with equal opportunity policies.
- 4.2.1.4. All designs will be reviewed and approved by the WG/CC. **(T-3)**.

KENYON K. BELL
Brigadier General, USAF
Director, Logistics and Engineering

(ELLSWORTHAFB)

JOSEPH L. SHEFFIELD, Colonel, USAF
Commander, 28th Bomb Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

- (Added-ELLSWORTHAFB) AFI 33-322, *Records Management and Information Governance Program*, 27 Jul 2021
- (Added-ELLSWORTHAFB) AFI 33-360, *Publications and Forms Management*, 21 Oct 2020
- (Added-ELLSWORTHAFB) AFMAN 21-202, *Missile Maintenance Management*, 28 Aug 2019
- (Added-ELLSWORTHAFB) AFPD 13-5, *Air Force Nuclear Mission*, 16 Jul 2018
- AFPD 21-1, *Maintenance of Military Material*, 1 Aug 2018
- AFPD 13-5, *Air Force Nuclear Enterprise*, 17 Jul 18
- AFI 33-322, *Records Management and Information Governance Program*, 28 Jul 21
- AFI 48-137, *Respiratory Protection Program*, 12 Sep 18
- AFMAN 21-202, *Missile Maintenance Management*, 29 Aug 19
- AFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*, 11 Dec 18
- (Added-ELLSWORTHAFB) AFPD 21-1, *Maintenance of Military Material*, 31 Jul 2018
- (Added-ELLSWORTHAFB) DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 15 Jan 2020
- (Added-ELLSWORTHAFB) DAFMAN 91-203, *Air Force Occupational Safety Fire and Health Standards*, 24 Mar 2022
- DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 Jan 20
- DAFMAN 32-1084, *Standard Facility Requirements*, 15 Jan 20
- DAFMAN 90-161, *Publishing Processes and Procedures*, 15 April 2022
- T.O. 00-5-1, *AF Technical Order System*, 25 Jan 21
- T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 21 Aug 21
- T.O. 1-1-8, *Application and Removal of Organic Coatings, Aerospace and Non-Aerospace Equipment*, 15 Dec 20
- T.O. 1-1-691, *Cleaning and Corrosion Prevention and Control, Aerospace and Non-aerospace Equipment*, 21 Aug 21
- T.O. 1-1-694, *Application and Removal of Low Observable Coatings on Aerospace*, 6 May 19
- T.O. 1B-2A-2-11GS-00-1, *Placards and Markings*, 10 Mar 21
- T.O. 1H-1(U)N-3 *Structural Repair, USAF Series TH-1H and UH-1N Helicopters*, 1 Jun 20
- T.O. 21M-LGM30F-101, *LGM30 Weapon System Corrosion Control and Treatment VAFB, Wings I, III, and V USAF SERIES LGM30G MISSILE*, 27 Jul 20

T.O. 21M-LGM30F-112, *General Inspection and Repair Procedures ICBM Systems*, 16 May 21

T.O. 35-1-3, *Corrosion Prevention and Control, Cleaning, Painting, and Marking of USAF Support Equipment (SE)*, 10 Apr 21

(Added-ELLSWORTHAFB) TO 1-1-691, *Cleaning and Corrosion Prevention and Control, Aerospace and Non-Aerospace Equipment*, 2 Nov 2009

(Added-ELLSWORTHAFB) TO 1-1-8, *Application and Removal of Organic Coatings, Aerospace and Non-Aerospace Equipment*, 8 Jun 2022

(Added-ELLSWORTHAFB) TO 1B-1B-2-12JG-40-1, *Servicing-Special*, 15 Jan 2019

(Added-ELLSWORTHAFB) TO 1B-1B-23, *Corrosion Control*, 15 Jul 2022

(Added-ELLSWORTHAFB) TO 35-1-3, *Corrosion Prevention, Painting and Marking of USAF Support Equipment (SE)*

UFC 4-211-02, *Aircraft Corrosion Control and Paint Facilities*, 1 Dec 12

Prescribed Forms

(Added-ELLSWORTHAFB) None

No forms are prescribed by this instruction

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

Abbreviations and Acronyms

(Added-ELLSWORTHAFB) 28 MXG/MXOS—28th Maintenance Group Maintenance Operations Plans and Scheduling

(Added-ELLSWORTHAFB) 28 MXS/MXMFS—28th Maintenance Squadron Refurbishment Section

AETC—Air Education and Training Command

AFRC—Air Force Reserve Command

AFGSC—Air Force Global Strike Command

AFGSCI—Air Force Global Strike Command Instruction

AFI—Air Force Instruction

AFIT—Air Force Institute of Technology

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRC—Air Force Reserve Command

AFRIMS—Air Force Records Information Management System

AFTO—Air Force Technical Order
AGE—Aerospace Ground Equipment
ANG—Air National Guard
(Added-ELLSWORTHAFB) ANG—the Air National Guard
ASM—Aircraft Structural Maintenance
(Added-ELLSWORTHAFB) CBT—Computer Based Training
CPAB—Corrosion Prevention Advisory Board
DAFI—Department of the Air Force Instruction
DAFMAN—Department of the Air Force Manual
DCC—Dedicated Crew Chief
DoD—Department of Defense
(Added-ELLSWORTHAFB) DSO—Defense System Officer
(Added-ELLSWORTHAFB) EL—Ellsworth
ESA—Electrical Surge Arrestor
HQ—Headquarters
IAW—In Accordance With
ICBM—Intercontinental Ballistic Missile
(Added-ELLSWORTHAFB) IMDS—Integrated Maintenance Data System
JASSM—Joint Air-to Surface Stand-Off Missile
LCC—Launch Control Center
LF—Launch Facility
(Added-ELLSWORTHAFB) LJG—Local Job Guide
LO—Low Observable
LOASM—Low Observable Aircraft Structural Maintenance
MAF—Missile Alert Facility
MAJCOM—Major Command
MDS—Mission Design Series
MIS—Maintenance Information System
MXG—Maintenance Group
(Added-ELLSWORTHAFB) MXG/CC—Maintenance Group Commander
NACE—National Association of Corrosion Engineers
NAF—Numbered Air Force

(Added-ELLSWORTHAFB) NCOIC—Non Commissioned Officer in Charge
OG—Operations Group
OPR—Office of Primary Responsibility
(Added-ELLSWORTHAFB) OSO—Offensive System Officer
OT—Operational Test
PA—Public Affairs
PPE—Personal Protective Equipment
(Added-ELLSWORTHAFB) QA—Quality Assurance
QAE—Quality Assurance Evaluator
QPD—Qualified Products Database
QPL—Qualified Products Listings
RDS—Records Disposition Schedule
RFI—Radio Frequency Interference
(Added-ELLSWORTHAFB) SDS—Safety Data Sheets
SE—Support Equipment
SME—Subject Matter Expert
SPD—System Program Directorate
SPO—System Program Office
SSPC—Society for Protective Coatings
(Added-ELLSWORTHAFB) STRU – ASM/Corrosion Control IMDS Work—Center Code
TFI—Total Force Integration
T.O.—Technical Order
(Added-ELLSWORTHAFB) TO—Technical Order
URD—Unit Reference Designator
USAF—United States Air Force
(Added-ELLSWORTHAFB) WCE—Work Center Event
(Added-ELLSWORTHAFB) WCM—Wing Corrosion Manager

Attachment 2

AIRCRAFT MARKING SPECIFICATIONS

A2.1. Aircraft Marking Specifications. Due to the mission of the E-4B, no command markings will be applied to the aircraft.

Table A2.1. B-1 Aircraft Marking Specifications.

B-1	
COMMAND INSIGNIA:	24" (subdued). Located 11" down from the tail stripe, top of patch 38" from tail leading edge and 36" from leading edge of rudder on both sides.
ORGANIZATIONAL INSIGNIA:	24" (subdued). Located 6" below and centered on the OSO/DSO windows.
UNIT IDENTIFIER:	30". Located 7" down from command insignia. On right side of tail, trailing edge of first letter will lay along a vertical line from center of sword in command insignia. On left side of tail, trailing edge of second letter in unit designator will lay along a vertical line from center of sword in command insignia.
TAIL STRIPE:	Wings will identify tail stripe specifications for authorized variants in supplements to this instruction.
PILOT/AIRCREW/CREW CHIEF NAMES:	<u>Pilot/aircrew:</u> Centered on forward escape hatch side window. <u>Crew chief/assistant:</u> Left nose gear door, centered.
NOSE NUMBERS:	Last three/four digits of tail number, 3" height, on nose gear strut, both sides.
COMBAT MARKINGS:	Bomb markings will be located on the right portion of the left nose gear door exterior. These markings will consist of a 5" conventional bomb or JASSM silhouette applied in a row not to exceed 10 in each row. Once 10 silhouettes are achieved, a single conventional bomb or JASSM silhouette with the number a "10" will represent a row.

Table A2.2. B-2 Aircraft Marking Specifications.

B-2	
COMMAND INSIGNIA:	24" (subdued). Located on left side at FS 304.5 (center of crest), with crest bottom at WL 167.2.
ORGANIZATIONAL (WING) INSIGNIA:	24" (subdued). Located on right side of aircraft at FS 304.5 (center of crest), crest bottom at WL 167.2. The WG/CC may approve an additional insignia to be installed 6" aft of organizational insignia on aircraft for esprit-de-corps in classically associated TFI units.
DISTINCTIVE UNIT AIRCRAFT IDENTIFICATION MARKING:	16" (subdued). 30° negative slant. Top of unit designator to be 15" from top of main landing gear door, 50" from extreme aft end of door.
TAIL STRIPE:	The "tail stripes" will be 18' long by 11.25" high from leading edge to trailing edge of main landing gear doors.
AIRCRAFT NAME:	(all measurements to top of letters) <u>"SPIRIT" located:</u> 10.5" from top of main landing gear door, 57" from extreme forward of door in 8" block letters with a 30° negative slant. <u>"OF" located:</u> 19.5" down from top of main landing gear door, centered underneath the "SPIRIT" in 6" block letters with a 30° negative slant. <u>"STATE/CITY" located:</u> 26.5" from top of main landing gear door, centered beneath the "SPIRIT" in 8" block letters with a 30° negative slant.
PILOT/AIRCREW/CREW CHIEF NAMES:	Pilot/Aircrew/Crew Chief names are applied IAW TO 1B-2A-2-11GS.
NOSE NUMBERS:	Nose numbers are applied IAW TO 1B-2A-2-11GS.
COMBAT MARKINGS:	Units may apply a single bomb or JASSM silhouette, not to exceed 3" height, on the exterior of the nose landing gear door for each combat sortie flown with a successful weapons release. These silhouettes will contain the appropriate combat operation acronym, (e.g., "OEF") embedded in the center of the marking.

Table A2.3. B-52 Aircraft Marking Specifications.

B-52	
COMMAND INSIGNIA:	24" (subdued). Insignia is applied to both sides of the vertical stabilizer. Top of insignia will be located 41.5" below tail stripe. Leading edge of insignia will be 62" from leading edge of tail on both sides of tail. Bottom point/tip of insignia will be located on center seam of main spar line.
ORGANIZATIONAL INSIGNIA:	24" (subdued). <u>Right side:</u> On forward fuselage, center of insignia at B.S. 218.7 and W.L.187.5. <u>Left side:</u> On forward fuselage, center of insignia at B.S. 218.7 and W.L.187.5.
DISTINCTIVE UNIT AIRCRAFT IDENTIFICATION MARKING:	Use two-letter base designation (Attachment 3) in 42" black block letters. <u>Left side:</u> Top of unit designator located 36" below box antenna. The trailing edge of the second letter is on a vertical line down from the tip of the command insignia, using the lower point of the center lightning bolt in the insignia as a line up reference. <u>Right side:</u> Top of unit designator located 36" below box antenna. The trailing edge of the first letter is on a vertical line down from the tip of the command insignia, using the lower point of the center lightning bolt in the insignia as a line up reference.
DISTINCTIVE UNIT AIRCRAFT IDENTIFICATION MARKINGS ON COMMANDER'S AIRCRAFT:	Use two-letter base designation (Attachment 3) in 42" black block letters. When used in conjunction with the bomb wing designator the location will be as follows: <u>Left Side:</u> Top of unit designator located 20" below box antenna. The trailing edge of the second letter is on a vertical line down from the tip of the command insignia, using the lower point of the center lightning bolt in the insignia as a line up reference. <u>Right Side:</u> Top of unit designator located 20" below box antenna. The trailing edge of the second letter is on a vertical line down from the tip of the command insignia, using the lower point of the center lightning bolt in the insignia as a line up reference.
DISTINCTIVE UNIT AIRCRAFT IDENTIFICATION MARKINGS ON BOMB WING COMMANDER'S AIRCRAFT:	Use two-letter base designation (Attachment 3) in 18" black block letters. <u>Left and right side:</u> Top of bomb wing designator will be located 6" below unit designator and aligned with serial numbers.

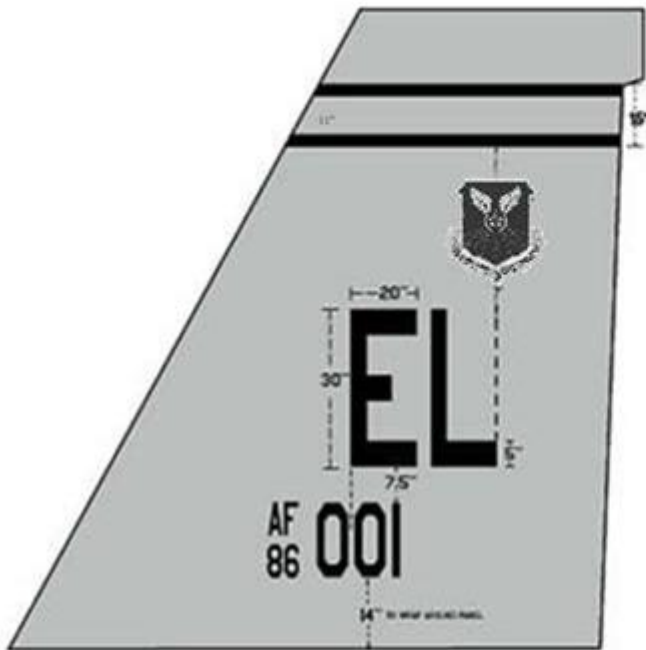
TAIL STRIPE:	The tail stripe will be applied at the upper portion of the vertical stabilizer and must be in the form of a straight horizontal stripe. The overall height will not exceed 15”.
PILOT/AIRCREW/CREW CHIEF NAMES:	<p><u>Pilot/aircrew:</u> Centered under pilot’s window.</p> <p><u>Crew Chief/assistant:</u> Block is 15” by 36”. Block is located on BS 261.00 and WL 139.00.</p> <p><u>2 BW Crew chief/assistant:</u> Block is the shape of Louisiana and 30” by 24”. Forward bottom edge of block is aligned with BS 258.70 and WL 139.</p> <p><u>5 BW Crew Chief/assistant:</u> Block is the shape of North Dakota and 15” by 35.547”. Forward bottom corner of block is aligned with BS 267 and WL 139. Style and size of letters are a unit option but will not exceed 3” height. A background block for Pilot/Crew Chief names may be used. The block should be in contrasting color to the section of the aircraft where applied. The WG/CC may approve a locally designed name block to promote unit pride.</p>
NOSE NUMBERS:	Last four digits, 12” height, located immediately aft of BS 236.30 and centered on WL 187.5.
COMBAT MARKINGS:	Bomb markings will be enclosed in a 27” by 27”, 1” bordered area centered on BS 218.70 and the bottom edge on WL 139. A conventional bomb or JASSM silhouette may be displayed in the box for each combat sortie flown with a successful weapons release. The JASSM marking will be a maximum of 10” and the conventional bomb silhouette a maximum of 5”. Once the box is full, an existing column of JASSM/Bombs will be removed and replaced with a single JASSM/Bomb silhouette containing a number 10 at the top of the applicable row.

Table A2.4. T-38 Aircraft Marking Specifications.

T-38	
COMMAND INSIGNIA:	10" centered. Insignia is applied to both sides of the vertical stabilizer. <u>Vertically:</u> Top of insignia 4" below anti-collision light. <u>Horizontally:</u> On line with trailing edge of anti-collision light.
ORGANIZATIONAL INSIGNIA:	10" (subdued/CTP, full color AT-38) centered. <u>Vertically:</u> On 3 o'clock position (left) and 9 o'clock position (right). <u>Horizontally:</u> Center of insignia 24" aft of intake lower opening.
DISTINCTIVE UNIT AIRCRAFT IDENTIFICATION MARKING:	Use two-letter base designation (Attachment 3) in 12" block letters centered. <u>Vertically:</u> 4" below command insignia. <u>Horizontally:</u> Leading edge of first letter centered on command insignia.
TAIL STRIPE:	The tail stripe will be applied at the upper portion of the vertical stabilizer and must be in the form of a straight horizontal stripe. The overall height will not exceed 9".
PILOT / CREW CHIEFS NAMES:	<u>Pilot:</u> Name centered on left forward canopy rail. <u>Assistant Crew Chief:</u> Name centered on right aft canopy rail. Style and size of letters are a unit option but will not exceed 3" in height. A background block for Pilot/Crew Chief names may be used. The block should be in contrasting color to the section of the aircraft where applied.
NOSE NUMBER:	4" block numbers. Last three/four digits of the tail number horizontally on both sides of nose gear door.
UNIQUE PAINT SCHEME:	Companion Trainer Program T-38 aircraft are authorized a gloss gray paint scheme, federal stock code number 16099.

Table A2.5. UH-1N Aircraft Marking Specifications.

UH-1N	
COMMAND INSIGNIA:	10'' black insignia, placed on right side door, under hinge door window and centered.
ORGANIZATIONAL INSIGNIA (Optional):	10'' black insignia, placed on left side door, under hinge door window and centered.
DISTINCTIVE UNIT AIRCRAFT IDENTIFICATION MARKING:	Use two-letter base designation (Attachment 3) in 10'' black block letters placed 29.5'' above the tail stinger cowling edge and 2'' from the trailing edge.
PILOT / CREW CHIEFS NAMES (Optional):	May be applied to either or both pilot and co-pilot's doors. Style and size of letters are a unit option but will not exceed 4'' in height. A background block for Pilot/Crew Chief names may be used. The block may be in contrasting color, using approved UH-1 color scheme to the section of the aircraft where applied.
TAIL STRIPE / ART:	The tail stripe/art will be applied at the lower portion of the vertical stabilizer, with the bottom of stripe/art no less than 3.5'' above stringer cowling. The height of the stripe/art will not exceed 12.5'' from the stringer cowling edge. Art will be centered, stripe will span vertical surface. The stripe/art must match gloss requirements of the basic paint scheme, (i.e., aircraft with flat camouflage schemes require application of stripe/art in flat colors).
TAIL NUMBERS:	The serial numbers will be 5'' black block numbers, placed 15'' above stinger cowling and 2'' from trailing edge.
TAIL "USAF" MARKING:	"USAF" marking will be 5'' black block letters placed 22.5'' above stinger cowling edge with letters grounded 2'' from trailing edge.
NOSE NUMBERS (Optional):	4'' numbers. Last four digits of the tail number horizontally centered beneath the glide slope antenna.
SIDE FUSELAGE NUMBERS (Optional):	6'' numbers. Last two digits of the tail number, centered vertically and horizontally between steps on right side only, 2'' aft of crew door.

Attachment 2 (ELLSWORTHAFB)**AIRCRAFT MARKINGS:****Figure A2.1. (ELLSWORTHAFB) Standard Ellsworth Aircraft Markings, Size and Location, Left Side.****“EL” AND AFGSC PATCH APPLICATION**

(LEFT SIDE)

Notes

1. Aircraft numbers applied at Depot
2. “E” and “L” are 30” tall and 20” wide with a 5” stroke
3. Paint with 37038 Gunship Black

Figure A2.2. (ELLSWORTHAFB) Standard Ellsworth Aircraft Markings 37 BS.



Figure A2.3. (ELLSWORTHAFB) Standard Ellsworth Command Marking 34 BS.



Figure A2.4. (ELLSWORTHAFB) Ellsworth Command Aircraft Tail Markings with Shadowing, Left Side.

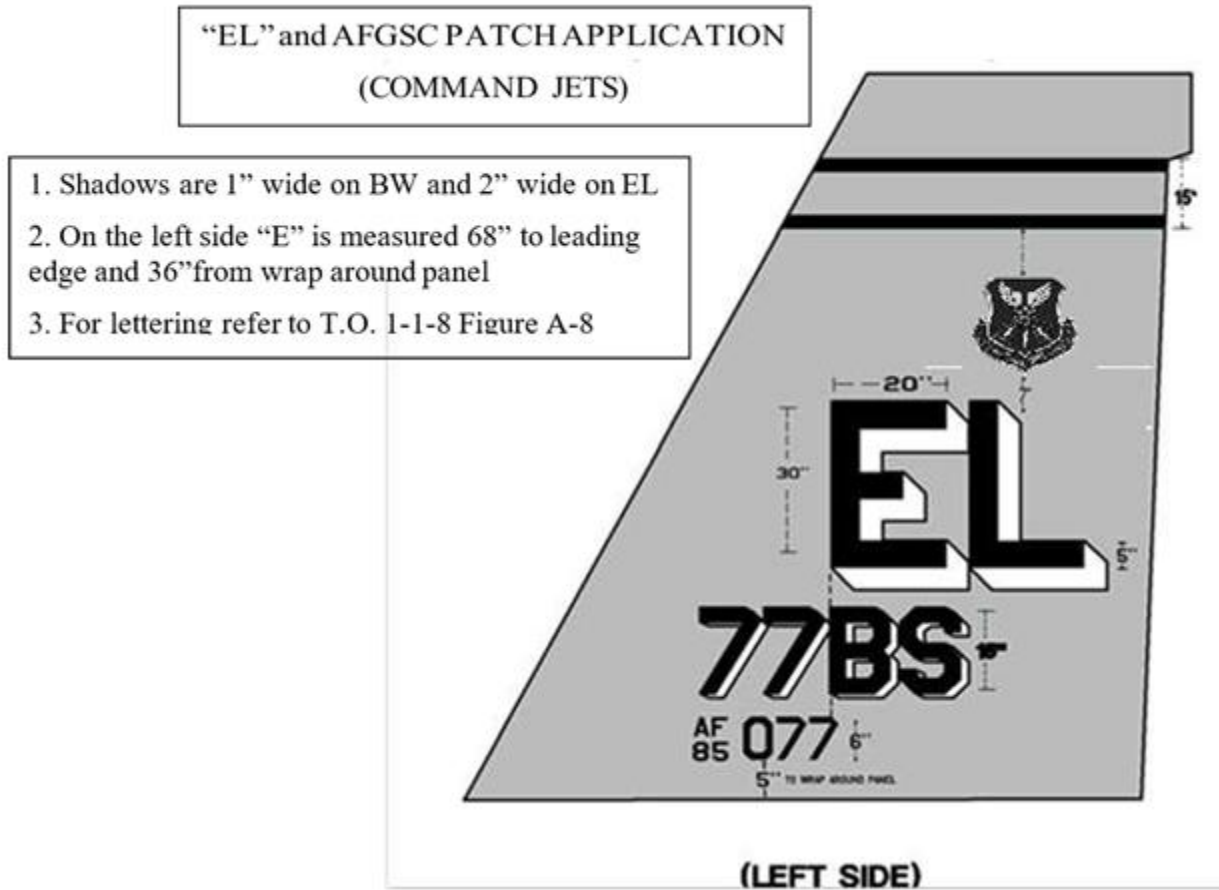


Figure A2.5. (ELLSWORTHAFB) Ellsworth Command Marking.



Figure A2.6. (ELLSWORTHAFB) Wing Insignia below OSO Window.

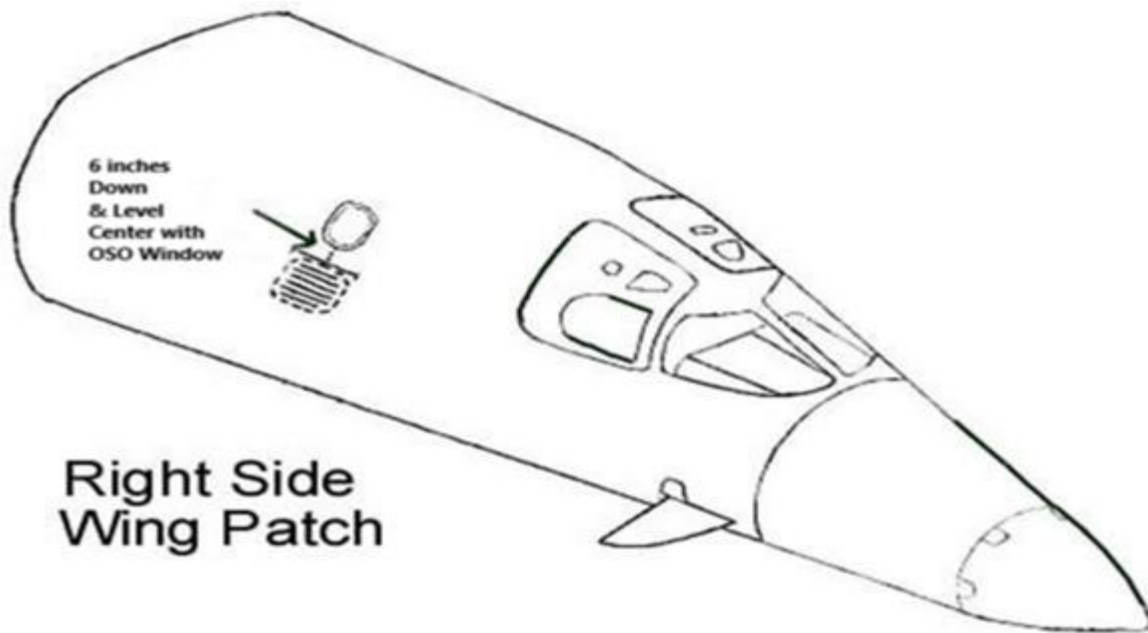


Figure A2.7. (ELLSWORTHAFB) Wing Insignia below OSO Window (In Color).



Figure A2.8. (ELLSWORTHAFB) Squadron Insignia below DSO Window.

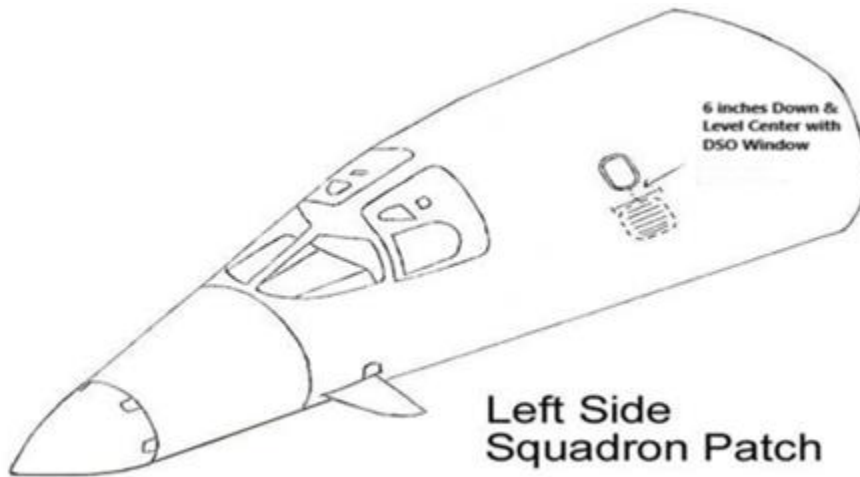


Figure A2.9. (ELLSWORTHAFB) 37 BS Insignia below DSO Window (In Color).



Figure A2.10. (ELLSWORTHAFB) 34 BS Insignia below DSO Window (In Color).



Figure A2.11. (ELLSWORTHAFB) Crew Chief Names.



Figure A2.12. (ELLSWORTHAFB) Aircrew Names.



Attachment 3

AFGSC DISTINCTIVE UNIT AIRCRAFT IDENTIFICATION MARKINGS LIST

Table A3.1. AFGSC Distinctive Unit Aircraft Identification Marking List.

CODE	AIRCRAFT	UNIT/LOCATION
DY	B-1B	7 BW / Dyess AFB, TX
EL	B-1B	28 BW / Ellsworth AFB, SD
FE	UH-1N	582 HG Supporting 90 MW / F.E. Warren AFB, WY
LA	B-52H	2 BW / Barksdale AFB, LA
MM	UH-1N	582 HG Supporting 341 MW / Malmstrom AFB, MT
OT	B-52H	53 TEG / Barksdale AFB, LA
	B-1B	53 TEG / Dyess AFB, TX
MT	B-52H	5 BW / Minot AFB, ND
	UH-1N	582 HG Supporting 91 MW / Minot AFB, ND
WA	B-1B	77 WPS / Dyess AFB, TX
WM	B-2A / T-38A	509 BW / Whiteman AFB, MO

Attachment 3 (ELLSWORTHAFB)**B-1 WASH FACILITY SAFETY BRIEFING****Figure A3.1. (ELLSWORTHAFB) B-1 Wash Facility Safety Briefing.****THIS MUST BE BRIEFED AND SIGNED PRIOR TO ANY WASH****SECTION 1**

1. Fire: Call 911 to report fire. The fire alarms are located on either leading edge of the aircraft wings. Use common sense if a fire occurs; if time allows, activate the fire alarm furthest away from the fire, then exit out the closest door away from the danger. Take a head count, stay safely away, and inform emergency services when they arrive.
2. Personal protective equipment required: face shield or goggles, gloves, rain suit, and steel toe boots are mandatory when washing aircraft and when using Penair HD-1 and Cee-Bee R 681 aircraft soap regardless of what the Safety Data Sheets (SDS) states and when using the pressure washer as well as when rinsing the aircraft with water from the fire hoses even if it is only water.
3. The SDS are located in the wash supervisor's handbook.
4. Emergency shower/eye wash units are located _____ and at _____
 - a. If you wear contacts, remove them during the duration of the aircraft wash as soap can cause them to stick to your eyes.
5. The Wash Crew Team will be held responsible to ensure a FOD walk is accomplished before and after each aircraft wash. Areas to be checked are as follows: Hangar Bay, to include all door tracks with doors open and closed.
6. Remove all jewelry, rings, necklaces, etc., as they can cause harm to self during the wash.
7. Ensure fall protection is used or in place when individuals are on upper surfaces of the aircraft.
8. Eating and/or drinking is absolutely prohibited in the wash area.
 - a. Eat and drink only in the break area or outside the hangar.
 - b. Remove all wash gear and wash hands before eating to remove possible chemicals from your hands.
9. A dry pair of shoes and/or clothes is recommended for changing into after the wash.
10. Use only the approved/supplied scrub pads when washing aircraft.
 - a. Abrasive pads can create deep scratches on surfaces creating a path for corrosion to develop.
11. The soap in use is water activated only.
 - a. Soap is premixed to the proper dilution; increasing soap mixture negatively effects its cleansing ability.

12. The aircraft soap container mixes the soap to the proper ratio for use when filling wash buckets. Wash facility crews must refill foamers after wash.

13. The only authorized smoking areas are by the Fuel System Repair Facility (Dock 93) and between Dock 73 and Dock 74. The wash facility is a “NO SMOKING” facility.

a. All doors leading outside have self-closures attached to the door and will not be detached or propped open at any time for any reason.

14. If any outside party wishes to call, the number is_____.

15. The wash covers, hoses and soap dispensers are the responsibility of 28 MXS/MXMFS. They are located in Dock 74 and will be checked out before aircraft washes.

16. The wash gear, consumables, and equipment carts are the responsibility of 28 MXS/MXMFS. Contact 385-5508 or 385-1430 for replacements.

SECTION 2

Wash Team Supervisor Responsibilities:

1. Ensure entries for wash and lubes are entered in the aircraft forms.
2. If fall restraint is used it will be IAW Department of the Air Force Manual (DAFMAN) 91-203, *Air Force Occupational Safety Fire and Health Standards*.
3. All wash TOs, including the aircraft specific -23, 1-1-691 and all applicable work cards, are to be provided and maintained on hand for reference at all times by the Wash Crew Supervisor.
4. All non-wash specific tooling will be provided by the wash crews owning AMU.
5. All used scrub pads are hazardous waste and will be turned into 28 MXS/MXMFS.
6. Ensure aircraft has been properly washed, lubed, and signed off in the aircraft forms.
7. All trash and FOD will be picked up and emptied at the end of each shift and prior to leaving the hangar.
8. All bathrooms will be cleaned, to include wiping down the sinks and mopping the floors.
9. The Wash Team Supervisor is in charge of ensuring the above tasks are accomplished and will be held accountable for any damage caused by any wash crew member.
 - a. If damage was caused to the facility by any wash crew member, it will be reported to the specific building custodian or Eagle Super immediately.

10. Wash Team Supervisor will contact Corrosion Control at 385-5508 during dayshift hours or Aircraft Structural Maintenance during swings or mids at 385-1430 when wash has been completed for final walk through and inspection of wash facility and all common areas before wash crew will be released. Ensure Corrosion Control personnel/ASM sign the bottom of this sheet to ensure acceptance of the wash and equipment.

(Print) _____ (Signature) _____

Wash Team Supervisor (Printed Name/Employee #/Phone/Squadron)

(Print) _____ (Signature) _____

ASM Personnel (Printed Name/Employee #)

Attachment 4
ICBM PAINT PLAN

Table A4.1. Paint Plan.

Launch Control Center (LCC)	Paint Color Code	Color
Acoustical enclosure – external	16473	Lt Grey
Acoustical enclosure – internal	17925	White
Battery Storage below LCC floors	16473	Lt Grey
Blast door exterior and racings (except machined surfaces)	16473	Lt Grey
Blast door interior	16473	Lt Grey
Cable trays	16473	Lt Grey
Ducts, pipes and conduits	Same as associated equipment/fixtures	
Electrical Surge Arrestor (ESA) room walls/floor	16473	Lt Grey
Equipment racks	24525	Lt Green
ESA room panels, door and trim	16473	Lt Grey
External metal racks	24525	Lt Green
LCC liner	16473	Lt Grey
Miscellaneous tanks and brackets	Same as associated equipment/fixtures	
Shock isolators	17925	White
Tunnel junction floor	16473	Lt Grey
Tunnel junction walls	17925	White
Unit Reference Designator (URD) background	23538	Yellow
URD stencils	17038	Black
Launch Control Equipment Building		
Air conditioning equipment	16473	Lt Grey
Automatic switching unit	16473	Lt Grey
Diesel engines and switch gear	Per Manufacturer	Per Manufacturer
Diesel start battery rack	17038	Black
Electrical panels - exterior	16473	Lt Grey
Floors	16473	Lt Grey
Tanks, Ducts, pipes and conduits	Same as associated equipment/fixtures	
URD background	23538	Yellow
URD stencils	17038	Black
Walls	17925	White
Launch Control Support Building		
Air conditioning equipment	16473	Lt Grey
Automatic switching unit	16473	Lt Grey
Diesel engines and switch gear	Per Manufacturer	Per Manufacturer

Launch Control Center (LCC)	Paint Color Code	Color
Diesel start battery rack	17038	Black
Electrical panels - exterior	16473	Lt Grey
Floors	16473	Lt Grey
Tanks, Ducts, pipes and conduits	Same as associated equipment/fixtures	
URD background	23538	Yellow
URD stencils	17038	Black
Walls	17925	White
Launch Facility Support Building		
Air conditioning equipment	16473	Lt Grey
Diesel engine and switch gear	Per Manufacturer	
Diesel start battery racks	17038	Black
Electrical panels	16473	Lt Grey
Exhaust fan	16473	Lt Grey
Exposed metal and hangar supports	Same as associated equipment/fixtures	
Floors		Red Oxide Primer
Instrument air compressor	16473	Lt Grey
Pipes, conduits and tanks	Same as associated equipment/fixtures	
Repeater telephone set	24525	Lt Green
Under floor ducting	16473	Lt Grey
URD background	23538	Yellow
URD stencils	17038	Black
Walls	17925	White
Launch Facility Topside		
Air intake vent plate	16473	Lt Grey
Clutter plate mast	16473	Lt Grey
Collimator Bench	17925	White
Diesel fill cover (metal or fiberglass)	16473	Lt Grey
Diesel fill pipe and cap	16473	Lt Grey
Hatch covers, grates and ladders	16473	Lt Grey
IMPSS antenna	17925	White
Launcher closure arrestors (Vandenberg)	16473	Lt Grey
Launcher closure door (top trim)	16473	Lt Grey
Launcher closure door (front, metal portion)	16473	Lt Grey
Launcher closure door revetment walls (Vandenberg)	16473	Lt Grey
Launcher closure thermal shield	36440	Non-skid Grey
Launcher closure thermal shield alternate coating	16473	Non-skid Grey
Launch facility support building door/frame	16473	Lt Grey
Miscellaneous exposed metal surfaces	16473	Lt Grey

Launch Control Center (LCC)	Paint Color Code	Color
Primary access hatch hand driven linear actuator	16473	Lt Grey
Security pit and cover	16473	Lt Grey
A-Vault door	15045	Blue
Sump pump drain line	16473	Lt Grey
Transporter-erector pylons	16473	Lt Grey
Transporter-erector tie-down slots	16473	Lt Grey
UHF radio marker posts	17925	White
URD background	23538	Yellow
URD stencils	17038	Black
Launch Facility Equipment Rooms		
Walls and ceiling	17925	White
Ballistic actuator Piston Rod Support	15045	Blue
Launch tube heater	16473	Lt Grey
Umbilical retract	15045	Blue
Sump pump (SP-102) control box	No coating authorized	
Work cage distribution box	15045	Blue
Electro-Mechanical Actuator	15045	Blue
Motor generator	15045	Blue
Battery support brackets	17925	White
Launcher closure ballistic actuator	15045	Blue
Air handler control panel	16473	Lt Grey
Emergency fan	15045	Blue
Safety stripes	23538	Yellow
Air handler drain line protection ramp	23538	Yellow
Launch tube heater control panel	16473	Lt Grey
Emergency fan air duct	15045	Blue
Secondary door	24300	Sea Foam Green
Ladder (1st to 2nd level)	17925	White
Monorail I-beam assembly	17925	White
Shock isolators	24300	Sea Foam Green
Shock isolated floor movement limit lines	17038	Black
Primary door (interior)	17925	White
Primary door (exterior band)	16473	Lt Grey
Personnel access shaft	17925	White
Primary door bearing surface	17925	White
Pipes and conduits	Same as associated equipment/fixtures	
Launcher distribution panel	16473	Lt Grey
Communications jack boxes	17925	White
Rattle space EMI screen	IAW TO 21M-LGM30F-101	
Rattle space floor under foam blocks	16473	Lt Grey
Floors	16473	Lt Grey
ESA room walls/floor	16473	Lt Grey

Launch Control Center (LCC)	Paint Color Code	Color
ESA room panels, door and trim	16473	Lt Grey
Air conditioner equipment (New)	16473	Lt Grey
Electro-Mechanical Actuator support racks	16473	Lt Grey
Equipment rack air duct	17925	White
J-Ladder platform	No coating authorized	
LER Safety Posts	23538	Yellow
URD background	23538	Yellow
URD stencils	17038	Black
Launch Tube		
Launch tube steel liner	17925	White
Launch tube floor	17925	White
Pipes and conduits	17925	White
Missile suspension system travel limit markings	17038	Black
Missile suspension system and components	15045	Blue

Attachment 4 (ELLSWORTHAFB)

B-1B PAINT SCORE SHEET

Table A4.1. (ELLSWORTHAFB) B-1B Paint Score Sheet.

B-1B PAINT SCORE SHEET						
RATING SCALE DESCRIPTION		Tail #	Category 1	Category 2	Category 3	Category 4
#1. New Paint Job: Sound paint, no defects: All patches and marking legible.		Squadron	0-5	6-15	16-25	26-35
#2. Minor Defects: Small chips in topcoat less than 1in. Slight Fading. Decals slightly torn.		Date	Minor defects. Touch-up of fastener heads/small areas.	Moderate defects. Touch-up of few large areas.	Major defects. Extensive rework of multiple areas.	Severe defects. Painting required on all areas. Consider depot paint.
#3. Moderate Defects: Topcoat missing in areas larger than 1in. Noticeable fading. Moderate tearing of decals. Moderate scratches penetrating primer coating.		Total Score				
#4. Severe Defects: Severe paint deterioration. Individual areas missing up to 40% of topcoat. Stencils/Decals have severe fading or mostly torn.		Performed By				
#5. Total Paint Failure: Topcoat or primer missing on 40% of an individual area. Stencils illegible and decals missing due to wear.		NOTES				
Forward Fuselage	1 2 3 4 5	Forward Fuselage				
Intermediate Fuselage	1 2 3 4 5	Intermediate Fuselage				
Aft Fuselage	1 2 3 4 5	Aft Fuselage				
Left Wing	1 2 3 4 5	Left Wing				
Right Wing	1 2 3 4 5	Ring Wing				
Nacelles/Inlets	1 2 3 4 5	Nacelles/Inlets				
Stabilizers	1 2 3 4 5	Stabilizers				