



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND**

MAFI21-105_ MAFGM2016-02

2 March 2016

MEMORANDUM FOR AMC/PACAF/USAFE

FROM: HQ AMC/A4
402 Scott Drive Bldg 1600
Scott AFB, IL 62225

SUBJECT: Mobility Air Force Guidance Memorandum to MAFI 21-105, *Fabrication Program*

1. By order of the Commander, Air Mobility Command, this Guidance Memorandum immediately implements changes to MAFI 21-105, *Fabrication Program*, 22 May 2014. Compliance with this memorandum is mandatory. To the extent its directions are inconsistent with other Mobility Air Force publications, the information herein prevails, in accordance with AFI 33-360, *Publications and Forms Management*.
2. This Guidance Memorandum provides corrections and additional guidance for the implementation of aircraft marking in support of a Dedicated Crew Chief program. The attached memorandum lists changes to MAFI21-105 dated 22 May 2014.
3. The guidance in this Memorandum becomes void after one year has elapsed from the date of this Memorandum, or upon publication of an Interim Change or rewrite of the affected publication, whichever is earlier.

STACY T. HAWKINS
Brigadier General, USAF
Director of Logistics, Engineering and
Force Protection

Attachment
Guidance Changes

ATTACHMENT

Guidance Changes

(Change) 5.5.2.1. Nose Art: AMC/A4. E-mail request with WG/CC approval, justification, and the design and tail number to amc.a4.aircraftmarkings@amc.af.mil. For PACAF and USAFE, route requests to respective A4M and courtesy copy AMC/A4M, Command Fabrication Functional/Corrosion Manager.

(Change) 5.5.2.2. Tail Flash: AMC/A4. E-mail request with WG/CC approval, justification, and the design and tail number to amc.a4.aircraftmarkings@amc.af.mil. For PACAF and USAFE, route requests to respective A4M and courtesy copy AMC/A4M, Command Fabrication Functional/Corrosion Manager.

(Change) 5.5.10. Dedicated Crew Chief/Assistance Dedicated Crew Chief. If elected, Dedicated Crew Chief (DCC) and assistant DCC names will be applied IAW TO 1-1-8 and placed on interior placards or exterior of the aircraft. The preferred method is for the DCC to apply and remove decals utilizing Avery® HP 700 High Performance Calendared Series vinyl. This will allow all units to participate in the DCC program. See Attachment 2, Tables A2.1 through A2.10, MARKING LOCATION BY AIRFRAME. Units will be consistent when selecting interior or exterior placards. Aircraft will adhere to sanitization methods for all aircraft IAW TO 1-1-8, paragraph 8.4.2.1.

(Change) 5.5.10.1. Prior to operations into combat designated zones, regardless of tour length, all marking will be sanitized IAW TO 1-1-8. Consistency across the wing is paramount. MAJCOM/A4, WG/CCs, and MXG/CCs are authorized to direct the removal of all names for the duration of contingency operations.

(Change) 5.5.10.2. The name will consist of the abbreviated rank, first name, and last name. The first name can be either the given proper name (William, Robert, Daniel, etc.) or the more familiar shorter form (Bill, Bob, Dan, etc.). The use of an individual's middle name or initial is optional. For extremely long names, it is permissible to use the individual's rank, first initial and last name or to use smaller letters to accommodate the entire name.

(Change) 5.5.10.3. Nicknames are not authorized. Size and font are at the MXG/CC's discretion; size not to exceed 2 ½ inches; standardized within the wing. Unit mascot graphics, i.e., razorback and eagle head (outlines or silhouettes) may be used as the forward edge of the placard or crew chief block. For standardization purposes, either all or none of the wing aircraft will bear the graphic.

(Change) 5.8.1. Wing Commanders must submit waiver requests to their MAJCOM A4M (AMC/PACAF/USAFE) and courtesy copy AMC/A4M, Command Fabrication Functional/Corrosion Manager. Waivers that are in violation of aircraft technical data will not be accepted. Waiver requests must include the following:

(Replace) Table A2.1. C-5 Markings.

Note: Reference Drawings 201211891 (exterior finishes) and 201211892 (exterior markings) for additional information.

Marking	Location	Size	Color/Finish
United States Flag	Both sides of vertical stabilizer, bottom of flag on WL 626, top of flag horizontally centered between the 10 percent chord front beam and the 64 percent rear chord beam. (European One and White Cap; leave flag where currently positioned.)	Matte: 24 X 48 inches Gloss: 31.5 X 60 inches	Matte finish
“AMC” Tail Marking	Both sides of vertical stabilizer, top of letters 12 inches below bottom of flag. Top of letters will be horizontally centered between the 10 percent chord front beam and the 64 percent rear chord beam.	18 inches	37038
Tail Band Stripes	2-inch upper stripe located 12 inches below bottom of “AMC”. 2-inch lower stripe located 18 inches down from bottom of upper stripe. Stripe will run horizontally from aft edge of the leading edge seam, back to trailing edge of the rudder.	As required	37038
Radio Call Numbers	Both sides of vertical stabilizer, top of numbers located 12 inches below bottom of lower stripe. Top of numbers will be horizontally centered between the 10 percent chord front beam and the 64 percent rear chord beam.	18 inches	37038
Local Station Numbers (last 4 digits of aircraft serial number)	Both sides of fuselage, top of numbers grounded on stringer 12 on left side and stringer 11 on right side of fuselage, forward edge of number 9 inches aft of nose seam	12 inches	37038
Super Galaxy	C-5M ONLY, Tail Stripes: 2.0 inch upper stripe located 12.0 inches below tail numbers; 2.0 in lower stripe located 18.0 in below upper stripe. Stripes run horizontally from leading edge seam to leading edge of the rudder	2 inches (width)	37038

	center “Super Galaxy” between stripes.		
Air Mobility Command	Bottom of visor with “Y” in “mobility” centered above antenna	10 inches	37038
Unit Identifier	Both sides of the fuselage, centered under identification number. Top of numbers and letters located 10 inches below bottom of identification numbers.	10 inches	37038
Associate Unit Identifier	Both sides of the fuselage, centered under unit identifier. Top of letters and numbers located 6 inches below bottom of unit identifier.	10 inches	37038
Air Force Outstanding Unit Award	Centered on door, bottom of decal 3 inches above the crew entry door.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Exterior: Left side of fuselage only, 6 inches below and centered on the command emblem.	MXG CC Discretion	37038 See paragraph 5.5.10
Aircraft Name	Left side of fuselage, may be one or two lines. Vertical Position: Centered on AMC emblem. Horizontal Position: Beginning of first letter in line with the beginning of the “O” in U.S. Air Force.	10 inches	37038
Command Emblem	Both sides of fuselage, top of emblem placed 2 inches below clear view window, aft-most portion placed 2 inches forward of window centerline.	34 inches	As required. See Table 6.1.
AFRC Emblem	Both sides of fuselage. Located aft of AMC emblem with 4 inches between the aft-most edge of AMC emblem and leading edge of AFRC emblem. Top of AFRC emblem even with top of AMC emblem.	34 inches	As required. See Table 6.1.
National Star Insignia Outline	Both sides of fuselage, centered 59 inches aft	50 inches of FS 1964 on WL 258.	37038

(Replace) Table A2.2. C-17 Markings.

Marking	Location	Size	Color/Finish
United States	Bottom of flag is located 42 inches	24 X 48 inches	Matte finish

Flag	above top edge of the upper tail band stripe, with the top forward corner of the flag located 1 inch from the VOR/LOC-2 antenna, same location both sides of vertical stabilizer.		
“AMC” Tail Marking	Bottom of letters are located 12 inches above top edge of the top tail band stripe and centered on an (invisible) vertical line drawn parallel with vertical stabilizer trailing edge that intersects the center of the flag, same location both sides.	18 inches	37038
Tail Band Stripes	2-inch stripes, top of upper stripe located at vertical stabilizer coordinate ZV134. Top of lower stripe is located 18 inches below bottom of upper stripe. Stripes run horizontally from aft edge of leading edge seam to trailing edge of rudder both sides.	As required	37038
Radio Call Numbers	Both sides of vertical stabilizer, top of numbers located 12 inches below bottom of lower tail band stripe, centered on an invisible vertical line drawn parallel with the vertical stabilizer trailing edge, intersecting center of the flag.	18 inches	37038
Unit Identifier	Both sides of fuselage, centered on the identification number, top of numbers 6 inches below bottom of the identification numbers.	10 inches	37038
Associate Unit Identifier	Both sides of fuselage, centered on AMC unit identifier, top of numbers 6 inches below bottom of AMC unit designator.	10 inches	37038
AF Outstanding Unit Award	Centered 3 inches above crew entry door.	See Figure 5.2.	See Figure 5.2.
Command Emblem	Both sides of fuselage, most forward edge of emblem located 3 inches aft of fuselage light ring, bottom tip of emblem almost touching longeron L-32, same location.	34 inches	As required See Table 6.1.
AFRC Emblem	Located aft of the command emblem with 12 inches between aft edge of AMC command emblem and leading edge of AFRES emblem (12 inches at the nearest point), top of emblem even	34 inches	As required See Table 6.1.

	with top of AMC emblem.		
Crew Chief Block	Left side of fuselage only. Centered between aft edge of crew entrance door and fuselage light hinge. Bottom of block located 6 inches above top of beef-up band	MXG CC discretion	37038 See paragraph 5.5.10
Aircraft Name	Centered horizontally on the crew entry door. Bottom of marking 11 inches from top of door. Use Century Schoolbook font on two lines...arranged into a football shape.	Length of marking should be between 55 and 65 inches.	37038
Local Station Numbers (last 4 digits of the aircraft serial number)	Both sides of fuselage, centered below the lower aft corner of the downview window, with the top of the numbers on fuselage coordinate Z-192.	18 inches	37038
National Star Insignia Outline (Fuselage)	Both sides of fuselage, centered on the centerline of the aft fuselage formation light, with the insignia leading edge located 6 inches aft of the light.	30 inches	37038
U.S. Air Force Marking	Both sides of fuselage, located 12 inches aft of fuselage station 27.200 and 35.38 inches above longeron 1-25.	24 inches	37038

(Replace) Table A2.3. C-130 Markings.

Note: Refer to USAF Paint Drawing E 201122423 and Exterior Markings Drawing # 201122424 for specific J model markings. Reference Drawing #s 9276080, 9276081 and 9276082 for legacy.			
Marking	Location	Size	Color/Finish
United States Flag	Both sides vertical stabilizer, bottom of flag located 154 inches above horizontal stabilizer with bottom of flag centered horizontally on vertical stabilizer.	24 X 48 inches	Matte finish
“AMC” Tail Marking	Both sides of vertical stabilizer, top of letters located 10 inches below and centered under flag.	12 inches	37038
Tail Band Stripes	2-inch upper stripe located 10 inches below bottom of “AMC,” 2-inch lower stripe located 12-inches below bottom of upper stripe. Top horizontal stripe will run from 25 inches forward of leading edge seam to trailing edge of rudder, not to extend onto rudder trim tabs; bottom stripe	As required	37038

	will run from 27 inches forward of leading edge seam to trailing edge of rudder.		
Radio Call Numbers	Both sides of vertical stabilizer, top of numbers located 10 inches below bottom of lower tail band stripe, centered under flag.	12 inches	37038
Local Station Numbers (Last 4 digits of aircraft serial number)	Placed on both sides of fuselage, 3 inches aft of pilot's kick window. Bottom of marking parallel to bottom of pilot's kick window.	6 inches	37038
"U.S. AIR FORCE" Fuselage Marking	Both sides of fuselage, fwd edge grounded to F.S. 172, bottom edge grounded on W.L. 235.	15 inches	37038
Unit Identifier	Both sides of fuselage, 6 inches below local station numbers. Centered on local station numbers.	6 inches	37038
Air Force Outstanding Unit Award	Centered 3 inches above crew entry door.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Left side of fuselage only, 2 inches forward of crew entry door in line with top door seam	MXG CC discretion	37038 See paragraph 5.5.10
Aircraft Name	TBD		
Command Emblem	Both sides of fuselage, bottom of emblem level even with top of crew entry door, centered over first fuselage window at FS 277. (see below for C-130J placement)	24 inches	As required. See Table 6.1.
National Star Insignia Outline	Both sides of fuselage; see drawing 9144700.	30 inches	37038
Ice Detection Marking	Installed on both wing leading edges, starting at OWS 517, extending outboard to required length. Chordwise dimension equals 12 inches on top and bottom of leading edge.	26 X 24 inches	37038

(Replace) Table A2.4. C-130 Markings (PACAF).

Note: Refer to USAF Paint Drawing E 201122423 and Exterior Markings Drawing # 201122424 for specific J model markings. Reference Drawing #s 9276080, 9276081 and 9276082 for legacy.

Marking	Location	Size	Color/Finish
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American Flag	Both sides of the vertical stabilizer. Top of American flag is located 6” below the vertical stabilizer antenna; centered on vertical stabilizers (excluding rudder measurements).	24 X 48 inches	Matte Finish
Wing Insignia	Center 8 inches above first porthole window aft of crew entry door on left fuselage.	12 inches	Black
Squadron Insignia	Right fuselage symmetrically located same as wing insignia.	12 inches	Black
Aircraft Commander and Crew Chief Names	Locate bottom of name block on WL 175.0 and center between FS 175.0 and FS 210.0.	MXG CC discretion	Subdued See paragraph 5.5.10
Nose Numbers	Locate on both sides of fuselage 6 inches below kick windows and centered on fuselage station 116.0. Number will consist of last four digits of aircraft serial number.	6 inch block letters	Black
Tail Stripe	Starting at vertical stabilizer station 259 and extending up 6 inches.	6 inch wide stripe	Squadron’s Color
Unit Unique Silhouette	Center between PACAF insignia and Unit designator.	24 X 36 inches	Contrasting black and gray
Wing Designation	4 inches below and centered on nose numbers	6 inch block letters	Black
Radio Call Numbers	Centered on both sides of the vertical stabilizer; bottom of radio call number located at vertical stabilizer station 36. Centered between FS 1068.0 and 1122.0.	15 inches	37038
Armament Placard	Top of placard located 15” below top of CED door and 5” aft of the door. The word “ARMAMENT” will be located ¾” below upper border of placard.	16 X 10 inches with 1 inch border	37038
Unit Identifier	Bottom of unit identifier is located at vertical stabilizer station 63.0 and centered between FS 1068.0 and 1122.0.	36 inches	37038
Command Insignia (PACAF)	Bottom of command insignia is located at vertical stabilizer station 111.0. Emblem centered on FS 1090.0.	30 inches (subdued)	As required. See para 6.1. & 6.2.
Unit Unique Markings	517 AS (Elmendorf) “Firebird” Silhouette White tail stripe		

	36 th AS (Yokota) Samurai” Silhouette Red tail stripe		
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(Replace) Table A2.5. C-130 Markings (USAFE).

Note: Refer to USAF Paint Drawing E 201122423 and Exterior Markings Drawing # 201122424 for specific J model markings. Reference Drawing #s 9276080, 9276081 and 9276082 for legacy.			
Marking	Location	Size	Color/Finish
United States Flag	Both sides vertical stabilizer: Vertical: Bottom at vertical stabilizer station 154.0. Horizontal: Centered on FS 1090.0.	24X48 inches	Matte finish
Unit Designator (Command Aircraft only)	Vertical: Bottom at vertical stabilizer station 14.0. Horizontal: Centered between FS 1068.0 and 1122.0.	15 inches	Subdued
Base Designator	Vertical: Bottom at vertical stabilizer station 63.0. Horizontal: Centered between FS 1068.0 and 1122.0.	36 inches	Subdued
Tail Numbers	Both sides of vertical stabilizer: Vertical: Bottom at vertical stabilizer station 36.0. Horizontal: Centered between FS 1068.0 and 1122.0.	15 inches	37038
Nose Numbers (Last three/four digits of tail number)	Both sides of Fuselage: Vertical: 6” below pilot’s kick window. Horizontal: Leading edge of nose number located at center of pilots kick windows.	6 inches	37038
Unit Identifier	Both sides of fuselage, 6 inches below and centered on nose numbers.	6 inches	37038
Air Force Outstanding Unit Award	Centered 3 inches above crew entry door.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Left side of Fuselage only: Vertical: Above crew door at WL 195.0. Horizontal: Between FS 204.0 and FS 240.0.	MXG CC discretion	Subdued - See paragraph 5.5.10.
USAFE Command Insignia	Both sides of Fuselage: Vertical: 6 inches above window on WL 195.0.	30 inches	Subdued

	Horizontal: Centered on FS 277.0.		
Organizational Insignia (Commanders aircraft only)	Left side of Fuselage only: Vertical: 6 inches above window on WL 195.0. Horizontal: Centered on FS 317.0.	30 inches	Subdued

(Replace) Table A2.6. KC-10 Markings.

Marking	Location	Size	Color/Finish
Tail Band Stripes	Top of upper 2-inch stripe will be 18 inches down and parallel to V476.250; top of lower 2-inch stripe will be located 12 inches below the bottom of the upper stripe.	As required	37038
US Flag	Both sides of vertical stabilizer, 100 inches up from ZID 92.5, grounded on aft spar. (White Cap paint scheme will leave existing painted-on flag in place.)	24 X 48 inches	Matte finish
“AMC” Tail Marking	Both sides of vertical stabilizer, top of letters 20 inches below bottom of flag, grounded on aft spar.	12 inches	37038
Radio Call Numbers	Both sides of vertical stabilizer. Top of numbers 20 inches below bottom of “AMC” tail marking grounded on aft spar plane.	12 inches	37038
Unit Identifier	Both sides of the fuselage, 45 inches down and level from FRP, grounded at aft point of FS 392.	10 inches	37038
Associate Unit Identifier	Both sides of fuselage. Located 5 inches below and centered on AMC unit identifier.	10 inches	37038
Local Station Numbers (Last 4 digits of aircraft serial number)	Centered on both sides of nose landing gear follow-up doors.	12 inches	37038
Air Force Outstanding Unit Award	Left fwd side of fuselage 5 inches up and level with FRP, grounded at aft point with FS 383.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Left side of fuselage, 12 inches aft of crew entry door, grounded 5 inches up from L27 (#2 skin longeron).	MXG CC discretion	37038 See paragraph 5.5.10.
Aircraft Name	TBD		
Command Emblem	AMC both sides of fuselage, 12 inches aft of crew entry door, grounded 5 inches up from L27 (#2 skin longeron).	34 inches	As Required. See Table 6.1.
AFRC Emblem	Both sides of fuselage. Centered	34 inches	As Required.

	between aft edge of AMC emblem and leading edge of formation light. Grounded 5 inches up from L27 (#2 skin longeron).		See Table 6.1 .
National Star Insignia Outline	Both sides of fuselage, according to Douglas drawing (NXE6403).	30 inches	37038
Boom Elevators	Highest numeric designator of station assigned (22d, 458th, 905th, etc.) centered on the underside of the left elevon and alpha designator (ARW, OPG, AFRC, etc.) centered on underside of the right elevon.	10 inches	36622

(Replace) Table A2.7. KC-135 Markings.

Marking	Location	Size	Color/Finish
Tail Band Stripes	2-inch upper stripe grounded at WL 568.90, top of the lower 2-inch stripe located 12 inches below the bottom of the upper stripe.	As required	37038
US Flag	Both sides of vertical stabilizer, bottom of flag on WL 447, centered between stabilizer leading and trailing edges, not including rudder.	21 X 40 inches	Matte finish
National Star	Locate and size according to TO 1C-135-3-8	See TO 1C-135-3-8	37038
“AMC” Tail Marking	Both sides of vertical stabilizer, centered between stabilizer leading and trailing edges, not including rudder, 12” below US Flag.	12 inches	37038
Radio Call Numbers	Both sides of vertical stabilizer. Top of numbers 12 inches below “AMC” tail marking, centered between stabilizer leading and trailing edges, not including rudder.	12 inches	37038
Unit Identifier	Both sides of the fuselage, centered, and 6 inches under identification numbers.	6 inches	37038
Associate Unit Identifier	Both sides of fuselage. Located 6 inches below and centered on AMC unit identifier.	6 inches	37038
Local Station Numbers (Last 4 digits of aircraft serial number)	Both sides of fuselage. Locate according to TO 1C-135-3-8.	6 inches	37038
Air Force Outstanding Unit	Centered 3 inches above the crew entry door.	See Figure 5.2 .	See Figure 5.2 .

Award			
Crew Chief Block	Left side of fuselage only; 6 inches below and centered on the command emblem.	MXG CC discretion	37038 See paragraph 5.5.10.
Aircraft Name	TBD		
Command Emblem	Both sides of fuselage, 16 inches aft of crew entry door, 6 inches below USAF markings. (Do not paint "US Air Force" on camouflage aircraft.)	34 inches	As Required. See Table 6.1 .
AFRC Emblem	Both sides of fuselage. Most forward leading edge will be located 14 3/8 inches aft of the most aft edge and aligned with the top of the AMC decal.	34 inches	As Required. See Table 6.1 .
Boom Elevators	Highest numeric designator of station assigned (22d, 458th, 905th, etc.) centered on the underside of the left ruddervator and alpha designator (ARW, OPG, AFRC, etc.) centered on underside of the right ruddervator.	10 inches	36622

(Replace) Table A2.8. KC-135 Markings (PACAF).

Marking	Location	Size	Color/Finish
Unit Identifier (PACAF)	Locate 24 inches down from bottom of command emblem. Last letter of designator will end 17 inches in from leading edge of tail.	36 inches	Black
Command Emblem (PACAF)	On both sides of tail, command insignia will be located 24 inches below tail stripe and 17 inches in from leading edge of tail.	24 inches (subdued)	Black silhouette
American Flag	Center on vertical stabilizer with bottom of flag 79 inches above top of UHF antenna.	40 X 23 inches	See TO 1C-135-3-8
Wing Insignia	Locate on left fuselage centered on Fuselage Station 360 & Water Line 214.	24 inches	Black silhouette
Squadron Insignia	Locate on right fuselage centered on Fuselage Station 360 and Water Line 214. Insignia should be symmetrical with wing insignia.	24 inches	Black silhouette
Aircraft Commander and Crew Chief Names	Aircraft commander name block located on left fuselage 5-1/2 inches from bottom edge of windscreen. Locate crew chief names 24 inches below bottom of wing insignia and centered on Fuselage	MXG CC discretion	Local Instruction

	Station 360.		
Nose Numbers	Last four digit of aircraft serial number. Start numbers on left fuselage at FS 277.0 with bottom of numbers on WL 200.0. Start numbers on right fuselage at FS 203.6 with bottom of numbers on WL 200.0.	6 inch block numbers	Black
Tail Stripe	Horizontal wrap around stripe. Top of stripe located at WL 557.1.	24 inches	Squadron color
Unit Unique Silhouette	Center between PACAF insignia and unit designation on outside of vertical stabilizer (excluding rudder measurements).	24 X 36 inches	Local Instruction
Ruddervator Markings	Numeric and alpha designator of assigned squadron centered on the underside of the left and right ruddervator.	8 inch block letters	Black
Unit Unique Markings	909 th ARS (Kadena) "Samurai" silhouette Tail stripe will consist of white stripe with 1 inch orange and black tiger stripe bands along top and bottom	See Location	See Location

(Replace) Table A2.9. KC-135 Markings (USAFE/RAF Mildenhall, England).

Marking	Location	Size	Color/Finish
Tail Band Stripes	Horizontal between WL 568.9 and WL 553.90 * The stars represent each aircraft type the wing has operated in its history; B-17, B-47, KC-97, U-2, DC-130, CH-3, Q-147, Minuteman, and KC-135.	See Color/Finish	Vinyl Decal: Three stripes 5.5 inches ea in height; Blue, White, Red with 9 stars (5 On blue/4 on red)
Royal AF Mildenhall Station Crest	Both sides of vertical stab; 1 inch aft of leading edge seam line with upper portion of crown centered between two top stripes	48 inches (height)	Vinyl Decal; full color Ref slide: #4 item B
Unit Identifier (Mildenhall - "Box D")	Locate 24 inches down from bottom of command insignia. Last letter of designator will end 17 inches in from leading edge of tail.	42 inches (squared)	Vinyl Decal; 42" x 42" black background, 34" white "D" centered on background.
"USAFE" Tail	Both sides of vertical stab; centered	12 inches	37038

Marking	between stabilizer leading edge and trailing edge (not including rudder) and 12 inches below “Square D”		
Radio Call Numbers	Both sides of vertical stab; centered between stabilizer leading edge and trailing edge (not including rudder). Top edge of numbers is 12 inches below USAFE command code	12 inches	37038
Ruddervator markings	“100 ARW” in white, Raphael style font lettering, with a 20 degree right slant, 2.5 inch stroke, applied on both UPPER and LOWER surfaces. Upper surface will be readable through the boom operator’s window, lower surface readable by receiving aircrew.	15 inches	36622
Command Emblem (USAFE)	Right side only: centered vertically on down stroke of first “R” in U.S. Air Force next to AMC emblem	24 inches	37038
Organizational Insignia	Left side: centered vertically on down stroke of first “F” in U.S. Air Force	24 inches	37038
Nose Bandit Mask	2 inch wide flat black outline from BL 178.0 to WL 200.0 right and left side of fuselage, outlining the top and sides of the windscreen, windshield glare area, and lower nose radome area.	Wing CC discretion	37038
Local station numbers (nose numbers)	Right side per 1C-135-8. Left side: Located 7 inches forward of the crew entry door, parallel with the top of the pressure door.	6 inches	37038
Unit Identifier	Right Side per 1C-135-8. Left side: omitted due to nose art (Nose decal has “100 ARW” on top.	6 inches	37038
Crew Chief Block	Positioned with top edge below fuselage skin lap joint at WL 187 and centered at body station 375.	MXG CC discretion	Local Instruction

(ADD) Table A2.10. KC-46 Markings.

Note: Only mandatory markings are allowed. Leave all markings as manufacture produced. No waivers or optional markings will be accepted. Follow aircraft specific TO/Commercial Manual for Grey Tail markings guidance.

Marking	Location	Size	Color/Finish
US Flag	See TO/ Commercial Manual	See TO/	See TO/

		Commercial Manual	Commercial Manual
National Star	See TO/Commercial Manual	See TO/Commercial Manual	See TO/Commercial Manual
Radio Call Numbers	See TO/ Commercial Manual	See TO/ Commercial Manual	See TO/ Commercial Manual
“U.S. AIR FORCE” Fuselage	See TO/ Commercial Manual	See TO/ Commercial Manual	See TO/ Commercial Manual

**BY ORDER OF THE
AIR MOBILITY COMMAND, PACIFIC
AIR FORCES, UNITED STATES AIR
FORCES EUROPE COMMANDER**

MOBILITY AIR FORCE INSTRUCTION 21-105

22 MAY 2014

Maintenance

FABRICATION PROGRAM



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing website at <http://www.e-Publishing.af.mil>.

RELEASABILITY: There are no releasability restrictions on this publication.

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Certified by: HQ AMC/A4
(Brig Gen Richard O. Middleton II)

Supersedes: AMCI 21-105, 11 MAR
2004; AMCI 21-119, 30 Dec
2006

Pages: 44

This instruction implements policy guidance in Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, and AFI 21-124, *Oil Analysis Program*. This instruction provides guidance and direction necessary to develop an effective, Aircraft Metals Technology Program, Nondestructive Inspection (NDI) Program, and Aircraft Structural Maintenance (ASM) Program. This instruction applies to all active duty MAF platforms assigned to AMC, USAFE and PACAF. AMC, USAFE and PACAF units will follow this instruction. This publication applies to Air National Guard (ANG) and Air Force Reserve Command (AFRC) associate units when AMC is the lead. All AMC, PACAF and USAFE Maintenance Squadrons (MXS) and Equipment Maintenance Squadrons (EMS) with Fabrication Flights or any of the sections in this instruction shall maintain a current copy of this instruction. Supplements will not lessen the requirements nor change the basic content or intent of this instruction. Process supplements in accordance with (IAW) AFI 33-360, *Publications and Forms Management*. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from field through the appropriate functional chain of command to HQ AMC/A4M, 402 Scott Drive Building 1600, Scott AFB IL 62225-5300. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS). Contact supporting records managers as required. See Attachment 1 for a glossary of references and supporting information.

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed. Significant changes were made to Aircraft Metals Technology, NDI, and Aircraft Structural Maintenance (to include corrosion control) sections. Major changes include adding NAS 410 certification requirements, updated weld certification requirements, and corrosion control instructions. This publication outlines the criteria for applying/removing markings to the C-5, C-17, C-130, KC-10, and KC-135 airframes.

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Chapter 1

AIRCRAFT METALS TECHNOLOGY PROGRAM (2A7X1)

1.1. MAJCOM/A4M Responsibilities.

1.1.1. Manages the command Aircraft Metals Technology Program.

1.1.2. Designates a SNCO to manage the program and perform the following responsibilities:

1.1.2.1. Manage the Aircraft Metals Technology program for command.

1.1.2.2. Manages the welder certification program IAW T.O. 00-25-252, *Aeronautical Equipment Welding*, and this instruction.

1.1.2.3. Approves all intra-command Aircraft Metals Technology TDY manning assistance requests.

1.1.2.4. Develops and coordinates command policy and procedures for Aircraft Metals Technology functions.

1.1.2.5. Coordinate intra-command 2A7X1 equipment transfers.

1.1.2.6. Coordinate on and approve Technical Order Publication Change Requests (PCR) and Source Maintenance and Recoverability Code reviews applicable to the MT community.

1.1.2.7. Support the Air Force Metals Technology Office (MTO) by participating in MTO equipment evaluations, field surveys, MTO Integrated Process Teams (IPT), MTO Product Improvement Teams (PIT), Air Force MTO managers' meetings/working groups and advisory board meetings.

1.1.2.8. Serves as the MAJCOM voting authority during Utilization and Training Workshops (U&TW).

1.2. Maintenance Group Commander Responsibilities.

1.2.1. Certifying official for unit level welding examination. May delegate responsibility in accordance with T.O. 00-25-252.

1.3. Maintenance Squadron Commander Responsibilities.

1.3.1. Ensures funding is available for Aircraft Metals Technology personnel to be certified at an Air Logistics Center (ALC) to perform welding operations when local certification capabilities do not exist.

1.4. Fabrication Flight Chief Responsibilities.

1.4.1. Ensures all journeyman, craftsman or civilian equivalent welders assigned to the Aircraft Metals Technology section are certified IAW T.O. 00-25-252 to perform welding operations in the following base metal groups: I-Carbon and Low Alloy Steel, II-Stainless Steels, III-Nickel Base Alloys, IV-Aluminum Base Alloys, V-Magnesium Base Alloys, VI-Titanium Base Alloys, VII-Cobalt Base Alloys. Exception: Civilian equivalents that are not in mobility positions are required to be certified in groups I, II, III, IV, and VI. Flight Chiefs

may add additional requirements, but may not take away from the previously mentioned groups.

1.4.2. Ensures all Active Duty, Reserve, Air National Guard, and civilian equivalents are qualified to the 6G-position in accordance with TO 00-25-252.

1.4.3. Determines if welders should be qualified by an ALC or locally. If qualification will be accomplished at an ALC, ensures funding is forecasted.

1.5. Aircraft Metals Technology Responsibilities.

1.5.1. Ensures assigned Aircraft Metals Technology personnel maintain welding certifications outlined in paragraph 1.4.1 and 1.4.2.

1.5.2. Coordinates requests for an ALC or other qualified organization to qualify welders. If qualification and certification is accomplished locally, coordinates certification requirements with the NDI section to ensure x-ray capability and required image quality indicators are present.

1.5.3. Ensures correct completion of DD Form 2757, *Welding Examination Record*, for shop welders.

1.5.3.1. The Observing Official shall be a 7-level Aircraft Metals Technology technician or civilian equivalent welder and will sign block 13.

1.5.3.2. Examiners shall only perform tests for which they are qualified. Visual examination will be conducted by a 7-level Metals Technology technician or civilian equivalent welder. Radiographic examinations will be conducted by a qualified NDI technician or civilian equivalent. Examiners will sign and date block 18, documenting completion of the visual and radiographic inspections IAW TO 00-25-252.

1.5.3.3. The Welder's Supervisor will function as the Testing Official. They will complete block 20a and 20b. The welder's supervisor may also perform Examiner duties and date/sign block 18, when applicable.

1.5.3.4. The Certifying Official will be the MXG/CC or designated representative and will sign/date block 21a and 21b.

1.5.4. Ensures journeymen are weld certified NLT 12 months after award of 5-skill level (individuals that PCS from another MAJCOM that do not have the same requirements will be certified within 6-months of assignment).

Chapter 2

NONDESTRUCTIVE INSPECTION PROGRAM (2A7X2)

2.1. MAJCOM/A4M Responsibilities.

2.1.1. Manage the command NDI program and Oil Analysis Program (OAP).

2.1.2. Designate a Command Functional Manager to manage the program and perform the following responsibilities:

2.1.2.1. Manage the command NDI program.

2.1.2.2. Support the Air Force NDI Office by participating in NDI equipment evaluations, field surveys, NDI Integrated Process Teams (IPT), NDI Product Improvement Teams (PIT), Air Force NDI managers' meetings/working groups and advisory board meetings.

2.1.2.3. Approve all intra-command NDI TDY manning assistance requests.

2.1.2.4. Develop and coordinate command policy and procedures for NDI and OAP functions.

2.1.2.5. Ensure personnel performing NDI inspections are certified IAW AFI 21-101, *Aircraft and Equipment Maintenance Management*, and National Aerospace Standard Certification & Qualification of Nondestructive Test Personnel (NAS 410) as applicable.

2.1.2.6. Coordinate intra-command 2A7X2 equipment transfers.

2.1.2.7. Coordinate and approve on Technical Order Publication Change Requests (PCR) and Source Maintenance and Recoverability Code reviews applicable to the NDI community.

2.1.2.8. Serves as the MAJCOM voting authority during U&TW.

2.2. Wing Commanders Responsibilities.

2.2.1. Ensures NDI and Joint Oil Analysis Programs are maintained IAW AFI 21-124, *Oil Analysis Program*, applicable Technical Orders and directives.

2.3. Maintenance Group Commander Responsibilities.

2.3.1. Establishes and maintains an effective qualification and certification program for civilian NDI technicians in accordance with NAS 410 and the NDI written practice.

2.3.2. The MXG/CC or designated representative serves as the NAS 410 certifying authority for granting of NAS 410 certification of civilian NDI technicians.

2.4. Maintenance Squadron Commander Responsibilities.

2.4.1. Ensures only properly trained personnel with AFSC 2A7X2, or NAS 410 certification for civilian technicians operate NDI equipment and perform NDI.

2.4.2. Ensures visual inspections are not performed by NDI personnel unless specifically called for by technical orders.

2.4.3. Ensures personnel performing NDI inspections are certified IAW AFI 21-101, Maintenance Management of Aircraft, and National Aerospace Standard Certification & Qualification of Nondestructive Test Personnel (NAS 410) as applicable.

2.5. NDI Responsibilities.

2.5.1. Organizes, directs and manages the Wing NDI Program IAW T.O. 33B-1-1, *Nondestructive Inspection Methods, Basic Theory* and other applicable directives.

2.5.2. Ensures personnel performing NDI inspections are certified IAW AFI 21-101, *Aircraft and Equipment Maintenance Management*, and/or *National Aerospace Standard Certification & Qualification of Nondestructive Test Personnel* (NAS 410) as applicable.

2.5.3. Ensures all NDI equipment required to perform NDI on assigned weapon systems and support equipment is authorized, available and operational.

2.5.4. Ensures NDI personnel do not make serviceability determinations of materials and components except when directed to do so by specific directives.

2.5.5. Ensures accurate oil analysis data is distributed to the central Air Force database as required.

2.5.6. Ensures all deployable spectrometers are properly secured and protected before being deployed out of the OAP Laboratory.

2.5.7. Ensure the accomplishment and documentation of daily standardization checks IAW applicable technical data on all assigned spectrometers as required by TO 33-1-37-2.

2.5.8. Ensures all assigned spectrometers are left in standby mode when not being used, except when unit is being prepared for deployment (or other required movement outside the NDI/OAP facility) and during transportation to new location.

2.5.9. Ensures all assigned oil analysis spectrometers are Joint Oil Analysis Program (JOAP) approved and certified IAW TO 33-1-37-1, *Joint Oil Analysis Program Manual*.

2.5.10. Requests contractor repair through the Air Force OAP Office whenever an oil analysis spectrometer cannot be repaired locally or is out of service due to maintenance for more than 24 hours.

2.5.11. Forecasts funding for personnel to attend training courses and participate in applicable NDI conferences or working groups.

Chapter 3

AIRCRAFT STRUCTURAL MAINTENANCE AND CORROSION CONTROL PROGRAM (2A7X3)

3.1. Corrosion Control Philosophy.

3.1.1. Corrosion has a direct impact on the readiness of Air Force systems. It must be prevented, identified, and repaired as prudently as possible.

3.1.2. Corrosion minimization on Air Force 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.

3.1.3. The AMC corrosion management 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.

3.1.4. All aircraft and ground equipment users and maintainers must attend periodic corrosion prevention and identification training as per section 3.19.1 of this instruction. Awareness is the key to an effective corrosion management program.

3.2. Policies and Procedures.

3.2.1. Cross flow of information is essential for a successful program. All program managers are authorized direct communication with their counterparts (MAJCOM and ALC program managers) on any matter pertaining to the AMC corrosion management program, within the parameters of local chain-of-command policies.

3.2.2. All maintenance and operations personnel, regardless of AFSC, are responsible to document potentially corroded structures/components on the proper maintenance forms. The structural maintenance work center evaluates corrosion discrepancies to determine proper treatment or repair. The list of publications in [Attachment 1](#) is provided to ensure personnel are aware of applicable procedural documents.

3.2.3. It is not economically feasible to remove corrosion from common hardware (screws, nuts, etc.), therefore, replace corroded hardware as necessary in accordance with applicable technical data.

3.3. Protective Coating Maintenance:

3.3.1. Maintenance painting is defined as the application of coatings to aerospace equipment where the existing coating system is deteriorated or missing. Maintenance painting must be kept to a minimum and must comply with federal, state, and local environmental regulations. Maintenance painting of aircraft accomplished solely for cosmetics is highly discouraged because of environmental and coating thickness restrictions.

3.3.1.1. All touch-up painting will be accomplished from seam-to-seam, and will be masked at the edges. Where a seam is not reasonably accessible, a “simulated” seam may be created. No unmasked spray touch-up is authorized.

3.3.1.1.1. Atomized spray, paint brushing, and rolling are authorized methods for paint/primer application. Units limited by local environmental restrictions should maximize the use of brushing and rolling techniques. Coating film thickness must be carefully monitored when using these methods.

3.3.1.2. Units equipped with environmentally compliant aircraft painting facilities and adequate manpower may perform complete overcoating of aircraft with command/A4M approval.

3.3.1.3. Aircraft paint data placards must not be permanently removed. When complete overcoats are accomplished, the paint data on the old placard will be annotated on the AFTO Form 95, *Significant Historical Data*, and a new placard with new data will be applied.

3.3.1.3.1. All full scuff sanded and overcoated aircraft require an additional paint identification block for each coating system applied (in addition to the original paint identification block for each coating system applied) per TO 1-1-8.

3.3.1.4. When large portions of aircraft are repainted (i.e. full wing, large portions of fuselage, flight controls, etc.), the AFTO Form 95 will be annotated with type of paint and exact location.

3.3.1.4.1. When large sections are repainted refer to applicable weapon system TO for potential Weight and Balance (W&B) requirements.

3.4. MAJCOM/A4M, Responsibilities.

3.4.1. Manage the command's ASM and corrosion control program. Office of primary responsibility (OPR) for providing oversight and ensuring AMC has viable aircraft and ground equipment corrosion management program.

3.4.2. Designate a SNCO to manage the program and perform the following responsibilities:

3.4.2.1. Manage the ASM program for Command.

3.4.2.2. Serve as the Command Corrosion Control Manager.

3.4.2.3. Support AF Corrosion Control Prevention Executive (CCPE) by participating in working groups, advisory boards and providing corrosion data for the annual corrosion report.

3.4.2.4. Support Air Force Corrosion Prevention and Control Office (AFCPCO) by participating in equipment evaluations, corrosion program managers meetings, advisory boards, executive council meetings, and field surveys.

3.4.2.4.1. Coordinate with the Air Force Corrosion Prevention Control Office in selection and accomplishment of command Corrosion Survey at a minimum of every 5 years.

3.4.2.4.2. Represent command at assigned weapon systems corrosion prevention advisory boards (CPAB), AF/DoD corrosion conferences, and field surveys.

3.4.2.4.2.1. Advocate AMC maintenance unit attendance and active participation at weapon system-specific CPABs.

- 3.4.2.5. Approve all intra-command ASM TDY manning assistance requests.
- 3.4.2.6. Develop and coordinates command policy and procedures for ASM functions.
- 3.4.2.7. Represent command at 2A7X3 utilization and training workshops. Provide corrosion and structural input to career field managers in all maintenance AFSCs.
 - 3.4.2.7.1. Forecast and ensure scheduling of 2A7X3 supplemental training.
- 3.4.2.8. Coordinate intra-command 2A7X3 equipment transfers.
- 3.4.2.9. Ensure adequate corrosion control training is available and current for all aircraft and AGE maintenance personnel.
- 3.4.2.10. Coordinate and approve on Technical Order Publication Change Requests (PCR) and Source Maintenance and Recoverability Code reviews applicable to the ASM community.
- 3.4.2.11. Serves as the MAJCOM voting authority during U&TW.

3.5. Wing Commander Responsibilities.

- 3.5.1. Ensures all operators and maintainers remain cognizant of the adverse effects of corrosion and actively pursue ways to reduce the occurrence of corrosion on assigned equipment.

3.6. Maintenance Group Commander Responsibilities.

- 3.6.1. Establishes and maintains an effective corrosion prevention and control program.
- 3.6.2. Ensures adequate facilities, equipment, manpower, material and funding are available to support a sound corrosion prevention and control program. The minimum requirements are:
 - 3.6.2.1. Providing a facility for maintenance painting assigned aircraft on a year round basis.
 - 3.6.2.2. Facilities will meet Federal, State, and Local requirements.
 - 3.6.2.3. Ensuring requirements outlined in AFI 32-1024, *Standard Facility Requirements*, are met for support equipment (SE) and aircraft small parts. This capability can be incorporated in the aircraft corrosion control facility if space permits.
 - 3.6.2.4. Ensures facility control technology meets local, state and federal Environmental Protection Agency requirements in conjunction with current National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 61 and 63].
- 3.6.3. Ensures adequate wash facilities are available year-round. This may be accomplished in any way deemed prudent for the locale and mission of the unit. This requirement may be met with one or more of the following:
 - 3.6.3.1. A specially designed corrosion control facility completely enclosed, heated with environmentally controlled ventilation and waste disposal systems, and equipped with all utilities necessary for accomplishing all facets of aircraft corrosion control.
 - 3.6.3.2. An environmentally compliant enclosed or covered wash rack.

3.6.3.2.1. An outside wash rack may be used on an interim basis when weather conditions permit and when approved by Base Civil Engineer.

3.6.4. Appoints by letter, a Wing Corrosion Program Manager (2A773) to ensure all facets of corrosion prevention are being conducted throughout the wing.

3.6.5. Appoints an aircraft wash facility manager to provide continuity and ensure proper equipment and materials are maintained at the facility.

3.6.5.1. Reference paragraph 3.7.14. for contracted wash requirements.

3.6.6. Appoints personnel authorized to sign-off contract washes.

3.6.7. Ensures frequency of wash/rinse cycles are maintained IAW 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.

3.6.7.1. Request approval for any aircraft wash overdue to MAJCOM Corrosion Program Manager and Weapon Specific Systems Manager per TO 1-1-691. Notification shall include aircraft tail number(s), date of last wash, reason for overdue condition, and corrective action taken to prevent further occurrences. MAJCOM Corrosion Program Manager will ensure routing of waiver request to system program office (SPO) engineer and Air Force Corrosion Prevention and Control Office (AFCPCO). The SPO engineer has final approval authority for waiver requests.

3.6.8. Ensures Plans, Scheduling & Documentation section(s) schedule aircraft washes through applicable MIS.

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

3.7. Wing Corrosion Program Manager Responsibilities.

3.7.1. The wing corrosion program manager serves as the wing focal point for all aircraft and support equipment cleaning, corrosion and organic coatings related information and taskings. The wing corrosion program manager shall organize, direct, and manage the wing/group corrosion management program according to: AFI 21-101, *Aircraft and Equipment Maintenance Management*; AFI 20-114, *Air and Space Equipment Structural Management*; TO 1-1-691, *Cleaning and Corrosion Prevention and Control, Aerospace and Non-Aerospace Equipment*; TO 1-1-8, *Application and Removal of Organic Coatings, Aerospace and Non-Aerospace Equipment*; TO 1-1-689-3, *Cleaning and Corrosion Control Volume III Avionics and Electrics*, TO 35-1-3, *Corrosion Prevention, Painting, and Marking of USAF Support Equipment*, applicable weapon system specific -3 (*structural repair manual*), -23 (*corrosion repair manual*), and this instruction.

3.7.2. Before reassignment or retirement the corrosion manager will ensure their successor is appointed early enough to provide an effective turnover of the corrosion program. The outgoing corrosion manager must confer with the Fabrication Flight Chief and Aircraft Structural Maintenance supervisors to identify a replacement. The formal appointment must be made by the MXG/CC in writing. A copy of the new appointment memo will be sent to HQ AMC/A4M, Command Fabrication Functional/Corrosion Manager, within 60 days of the appointment.

- 3.7.2.1. The wing corrosion manager will be a 2A7X3, 2A790, or civilian equivalent.
- 3.7.3. Ensures creation of a wing supplement to this instruction to include, but not limited to the following:
 - 3.7.3.1. Local unit marking requirements, i.e., nose art, names, etc.
 - 3.7.3.2. Local unit tail stripe information: color number, approved design, dimensions, etc.
 - 3.7.3.3. Aircraft paint identification placard size, shape, and information requirements.
 - 3.7.3.4. Local aircraft paint and support equipment scoring procedures.
 - 3.7.3.5. Local corrosion prevention training requirements.
 - 3.7.3.6. Reference location of approval letters for aircraft names and nose art on aircraft assigned to unit.
- 3.7.4. Ensures corrosion inspections are accomplished during each phase/periodic/isochronal inspection for aircraft and equipment assigned.
- 3.7.5. Ensures corrosion prevention and treatment procedures are performed within technical order requirements.
- 3.7.6. Ensures only qualified product list (QPL) and/or the Qualified Product Database (QPD) authorized wash agents are utilized for overall and spot washes. Use of unapproved commercial or household cleaners is strictly prohibited. The current QPL/QPD can be accessed at <https://assist.dla.mil/quicksearch/>.
- 3.7.7. In conjunction with the local Supply/Hazmart pharmacy, ensure only products from QPLs/QPDs approved for aircraft/aerospace equipment are being used.
- 3.7.8. Develop and submit comments or recommendations for improvement of the corrosion control program to HQ AMC/A4M, Command Fabrication Functional/Corrosion Manager.
- 3.7.9. Establish and chair a local corrosion prevention working group to formalize the wing corrosion management program. Working groups may meet as frequently as necessary to maintain an effective program, but will meet at least annually. This working group should meet approximately 90 days prior to the next scheduled applicable weapons system CPAB to formalize action items. Minutes will be published and are recommended to be maintained at least 3 calendar years for continuity purposes.
 - 3.7.9.1. As a minimum, membership will include the unit corrosion manager, flight line (owning unit) maintenance supervisors, Maintenance Operations Flight schedulers, ASM supervisors, AGE supervisors, and appropriate quality assurance representatives.
 - 3.7.9.2. Submit CPAB action items to the Command Fabrication Functional. Action items may be submitted throughout the year and must focus on structural integrity, extended service life, and improved repair techniques for the weapon system.
 - 3.7.9.3. Attend assigned weapon system CPAB or send a qualified representative.
- 3.7.10. Serve as wing corrosion program POC for all outside agencies.
- 3.7.11. Will forecast or Program Objective Memoranda (POM) for funding requirements in order to attend DOD, Air Force and AMC Corrosion Manager meetings and workshops.

3.7.12. Ensures unit's corrosion related training courses are administered as intended by the MAJCOM and AFI. An initial interactive course with location specific supplemental training and annual refresher training is the minimum. See paragraph 3.19.1.

3.7.13. Determines the adequacy of corrosion control work cards for assigned equipment based on mission and location.

3.7.14. At units utilizing wash contractors, the wing corrosion manager must be thoroughly familiar with contract specifications, applicable technical orders, and inspection/acceptance criteria. The wing corrosion manager will be included in the coordination process of all new/updated wash contracts.

3.7.15. Will maintain records of all approved requests for Aircraft Names and Nose Art.

3.7.15.1. Maintain full length color photographs of all approved Aircraft Names and Nose Art. Full length color copies of photos, along with approval documentation, shall be sent to MAJCOM/A4M for filing.

3.8. Fabrication Flight.

3.8.1. Recommends a wing corrosion manager to the MXG/CC. The Corrosion Manager must be appointed by the MXG/CC in writing. A copy of the appointment memo will be sent to HQ AMC/A4M, Command Fabrication Functional/Corrosion Manager, within 60 days of the appointment.

3.8.1.1. Forecasts/requests funding for wing corrosion control manager attendance at Corrosion Control Working Groups, Corrosion Prevention Advisory Boards, and other pertinent meetings as required.

3.8.2. Recommends a qualified 5-level or above as the wash rack facility manager to ensure proper cleaning materials, equipment and supplies are maintained in accordance with applicable technical orders, AFI 21-101 and MAJCOM supplements.

3.8.2.1. Not required when utilizing contracted washes and this position is captured in the contract.

3.9. Aircraft Structural Maintenance (ASM) Responsibilities.

3.9.1. Recommend a wing corrosion manager to the MXG/CC, through the Fabrication Flight Chief.

3.9.2. Serves as the ASM technical assistant to the Group Commanders and Command Fabrication Functional Manager.

3.9.3. Requests depot assistance IAW T.O. 00-25-107, *Maintenance Assistance*, through the MAJCOM weapon system manager with an information copy to MAJCOM/A4M, Command Fabrication Functional Manager, when corrosion treatment/repairs exceed technical order limits.

3.9.4. Ensure a corrosion control facility housekeeping program is developed and followed IAW AFI 21-101.

3.10. Wash Rack Facility Manager Responsibilities.

3.10.1. Ensures fall protection equipment is used and maintained IAW AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, to allow coverage of all surface areas of aircraft during washing operations.

3.10.2. Ensures aircraft wash rack has cleaners identified in weapon system specific technical data.

3.10.3. Ensures wash rack facility and surrounding area is kept clean and properly maintained.

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

3.11. Wash Crew Supervisor Responsibilities.

3.11.1. Provides daily safety briefings explaining hazards associated with wash rack operations.

3.11.2. Ensures aircraft wash crews are task trained and qualified.

3.11.3. Ensures proper safety equipment, personal protective equipment and cleaning materials are serviceable and properly used IAW AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*.

3.11.4. Enters the requirement for wash, signs the wash completion and enters the lubrication requirement in the AFTO Form 781A, *Maintenance Discrepancy and Work Document* or other electronic form of documentation.

3.11.5. Ensures that fall protection is serviceable and inspected prior to use IAW AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*.

3.11.6. Ensures aircraft are properly grounded as required IAW T.O. 00-25-172 and weapon system-specific technical data.

3.11.7. Inspects all wash rack equipment for serviceability (i.e. water hoses, pumps, air hoses, powered wash equipment, support equipment, etc) prior to use.

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

3.12. Maintenance Operations Flight (Plans & Scheduling)

3.12.1. Ensures frequency-of-cleaning/wash cycles are established for assigned aircraft to maximize corrosion prevention. Monitors aircraft wash schedules to eliminate overdue washes. In no case will unit wash cycles exceed the maximum wash cycles listed in T.O. 1-1-691.

3.13. Aircraft Maintenance Unit Responsibilities.

3.13.1. Coordinate and schedule the use of wash rack facilities for other than isochronal /phase washes.

3.13.2. Appoints an experienced/qualified wash crew supervisor. This person will be trained according to paragraph 3.13.5.

3.13.3. Ensures trained wash crew supervisors are present throughout the duration of aircraft washes.

3.13.4. Provides a task trained, appropriately equipped and qualified aircraft wash crew, to include as a minimum, a dedicated crew chief and/or assistant dedicated crew chief and personnel protective equipment within the work center.

3.13.5. The wing corrosion manager and owning unit supervisors/managers train and qualify personnel on aircraft washing and cleaning. Personnel assigned as wash supervisors, cleanliness inspectors, aircraft wash personnel and wash contractor quality assurance evaluators will complete the Aircraft Washing Procedures (Course C6ANU00TVT0001) video downloadable from <https://a4mxtng.csd.disa.mil> (under the heading of “Course List” choose “general” then choose the course title).

3.13.6. Ensure AMC Form 1017, *Aircraft Wash Supervisor and Employee’s Certification*, is completed once during the initial wash training process and when work processes equipment, materials, or conditions change.

3.13.7. Ensure a cleanliness inspection of aircraft is accomplished after completion of the aircraft wash, using AMC Form 1018, *Aircraft Wash Cleanliness Inspection Checklist*. An owning work center supervisor (production superintendent or dock chief, as appropriate) will sign-off the cleanliness inspection. The key is to have supervisory personnel or production inspectors that did not participate in the wash perform the cleanliness inspection. Local requirements may be added to the checklist to enhance the unit cleanliness program.

3.13.7.1. The isochronal/phase inspection dock supervisor may accomplish the cleanliness inspection for isochronal/phase aircraft washes only.

3.13.7.2. Refer to paragraph 3.15.8 for contracted washes

3.13.8. After the cleanliness inspection is completed the inspector clears the AFTO Form 781A, *Maintenance Discrepancy and Work Document*, entry for “aircraft cleanliness inspection due after wash.”

3.13.9. The wash supervisor ensures the facility and equipment is cleaned and properly stored at completion of each wash.

3.13.10. Maintenance personnel who remove/install aircraft panels and doors must ensure seals are serviceable and sealant applied to panels and fasteners as specified in applicable aircraft technical orders.

3.13.11. Maintenance personnel shall report all corrosion deficiencies through the applicable MIS IAW 00-20 series technical orders. Accurate documentation of maintenance actions in support of the corrosion control program is essential to support future manning, equipment requirements, training and parts/material procurement requirements.

3.14. Avionics Responsibilities.

3.14.1. All avionics work sections must be familiar with TO 1-1-689-3 and have it available for use.

3.14.2. Avionics maintenance personnel shall inspect the electrical connectors of avionics bays inside equipment drawers, and so forth, for corrosion. All deficiencies noted during these inspections will be appropriately documented. When corrosion discrepancies are

discovered that may affect aircraft structural integrity or safety of flight/operation or are beyond the using organization's capability to evaluate/repair, an aircraft structural maintenance specialist will be requested.

3.14.3. When corrosion damage is beyond the capability of the shop, request assistance from the aircraft structural maintenance element and the wing corrosion manager.

3.15. Quality Assurance Responsibilities.

3.15.1. Evaluate at least 10% of all aircraft washes and at least 10% of all AGE washes for compliance with applicable technical data.

3.15.2. Evaluate the quality of 10% of all aircraft and equipment corrosion inspections.

3.15.3. Periodically review wash rack cleaning agents for QPL/QPD compliance.

3.15.4. QA in concert with the Wing Corrosion Manager will ensure an acceptance inspection is accomplished on all depots, GRIP, and/or other off station paints upon return to home station.

3.15.5. Ensure personal protective equipment (PPE) is serviceable and properly utilized.

3.15.6. Contract quality assurance evaluator (QAE) for aircraft washes will evaluate at least 10% of all aircraft washes. QAE should maintain a file of discrepancies for consideration during contract rewrites. If a current contract specifies a different level of inspection than that specified herein, the contract will take precedence. Future contracts will incorporate the 10% inspection rate as a minimum.

3.15.7. The QAE will use locally developed aircraft wash cleanliness forms and checklists to evaluate contract wash compliance.

3.15.8. Contract washes will be signed off by personnel authorized in writing by the maintenance group commander.

3.16. Aerospace Ground Equipment (AGE) Flight Chief Responsibilities.

3.16.1. Ensure AGE work center personnel attend AGE corrosion training.

3.16.2. The corrosion manager, in concert with the AGE supervisor and unit maintenance-training manager, will develop a corrosion prevention and control training curriculum. The AF Corrosion Prevention and Control CBT is available on ADLS.

3.16.3. The corrosion manager, in conjunction with the AGE supervisor, will determine the training interval. The training interval shall be at least annually.

3.16.4. Owning work center supervisor is responsible for establishing and enforcing an effective corrosion program on assigned AGE and support equipment.

3.16.5. Aircraft structural maintenance and AGE supervisors determine repainting requirements.

3.16.5.1. Complete overcoating of equipment is accomplished on an as-needed basis. AGE should not be overcoated solely for the purpose of cosmetics. A local scoring system should be developed to determine the next piece of equipment to receive corrosion preventative maintenance. Equipment most in need of corrosion preventive measures (not time) should receive priority in the work schedule.

3.16.5.1.1. Complete overcoating of equipment may be accomplished to apply the new SE standard color (26173 FED-STD-595, MIL-PRF-85285). However, this shall be accomplished on the units' regular corrosion schedule and equipment will be aligned with the new scheme on an attrition basis.

3.16.6. The use of corrosion preventive compounds (CPC) is encouraged (hinges, fasteners, wheel lugs, latches, etc).

3.16.7. Owing work center personnel may treat small chips in the paint with CPCs listed in TO 35-1-3. For more permanent repairs of small chipped areas, use authorized coating systems that are contained in items such as but not limited to: SEMPENS, Preval compressed air spray pacs, Clip-Pacs, Brush and Roller, or AKZO Nobel Two-Component MIL-PRF-85285 Aerosol can. Larger areas will be treated by the aircraft structural maintenance work center or if applicable, contracted sources.

3.16.7.1. Units will familiarize themselves with AGE painting materials and processes IAW TO 35-1-3 prior to awarding off-base contracts to get AGE painted. Units will verify specifications for primer and topcoat, and color number requirements and ensure that these are addressed in the contract.

3.16.8. AGE SE will be painted IAW T.O. 35-1-3.

3.16.9. Ensures an automated system is used to schedule and document AGE painting.

3.16.10. Enforces the proper use of approved cleaning compounds IAW T.O. 35-1-3, *Corrosion Prevention and Control, Cleaning, Painting and Marking of USAF Support Equipment (SE)*, and the QPL or QPD.

3.16.11. AGE and support equipment must be cleaned during each periodic or annual inspection, or more often, as determined by the owning work center supervisor.

3.17. Aircraft Cleaning.

3.17.1. A complete exterior and interior cleaning will be accomplished on all aircraft as directed by TO 1-1-691 and weapon system-specific technical data. This will be accomplished during scheduled wash cycles, before isochronal or phase inspections, and prior to refurbishments.

3.17.1.1. The following forms entries, as a minimum, are required for an aircraft wash:

3.17.1.1.1. "Aircraft wash required." Enter this in the forms on a red dash. It is cleared by the owning unit aircraft wash supervisor.

3.17.1.1.2. "Aircraft taped and prepped for wash." Enter this in the forms on a red X prior to the wash. It is cleared by the appropriate inspector after the aircraft has been de-taped, all associated equipment (such as wheel covers) is removed and associated tasks are accomplished, and the cleanliness inspection has been completed and signed-off.

3.17.1.1.3. "Aircraft post-wash cleanliness inspection due." Enter this in the forms on a red dash prior to the wash. It is cleared by the owning unit maintenance supervisor, production supervisor, or authorized contractor after completion of the cleanliness inspection.

NOTE: Definition of clean: Surfaces shall be deemed “clean” after satisfactory completion of the following method: Accomplish a close visual inspection to determine if all residue, oily film, and streaking has been removed. If cleanliness is questionable, a dry, lint free, white towel is wiped firmly across the various surfaces. If excessive soiling of the towel occurs, the surface is not clean. Wheel wells, flap wells, and exterior surfaces should be inspected using this method.

3.17.1.1.4. “Aircraft post-wash lubrication due.” Enter this in the forms on a red dash. It is cleared by the appropriate maintenance person responsible for ensuring task completion.

3.17.1.1.4.1. Proper post-wash lubrication is vital in prevention of corrosion. Lubrication prevents water intrusion in bearing cavities and subsequent corrosion damage. If technicians wash components between normal cleaning cycles (flight line or “spot” washes), re-lubrication of the affected components is required.

3.17.1.2. Units must adhere strictly to the aircraft wash and rinse cycles specified in TO 1-1-691.

3.17.1.2.1. If organizations know in advance that their aircraft or support equipment (AGE) is scheduled to deploy, they must ensure aircraft and equipment washes are considered prior to mission deployment. If a wash was recently accomplished, the owning organization maintenance supervision will determine whether another wash is necessary prior to deployment.

3.17.1.2.2. If deployed to a location where wash capability does not exist and a wash is due, enter a red dash in the AFTO form 781A stating, “Aircraft wash required upon return to home station.” If a deployed aircraft exceeds the wash due date by more than 30 days, inform the AMC Corrosion Manager.

3.17.1.2.3. When an aircraft flies over salt water below 3,000 feet, the aircrew debriefing record and AFTO Form 781A will be annotated with a “NOTE”. See TO 1-1-691 for complete guidance. Aircraft properly rinsed in taxi-through, or “bird bath” type facilities, need not comply with this requirement.

3.17.2. Aircraft latrine/urinal areas must be cleaned thoroughly to avoid corrosion damage due to effluent contamination.

3.17.3. Interior areas will be dried after washing. Any method, such as low-pressure air, low temperature heat, or sponging/mopping, may be used. Standing water in any interior area of the aircraft must be removed.

3.17.4. Pressurized water washing equipment may be used for aircraft washing IAW TO 1-1-691 and manufacturer’s instructions. However, all surfaces must be agitated with an authorized pad or other article. Pressure washing alone will not adequately remove contaminants from painted surfaces.

3.17.4.1. Lubrication must be accomplished after all pressure washes in accordance with applicable technical data.

3.17.4.2. All landing gear components will be hand washed and rinsed with low-pressure water. Refer to applicable landing gear technical orders for washing instructions.

3.18. Corrosive Chemical Contamination Guidance:

3.18.1. When a chemical leak or spill occurs aboard an aircraft, immediately notify the fire department and local hazardous material spill response team. The first maintenance person on the scene will immediately annotate the aircraft forms with type of chemical (if known) and contamination area.

3.18.2. After neutralization, immediately notify the aircraft structural maintenance element to perform a comprehensive corrosion inspection of the affected area.

3.18.3. Thoroughly clean aircraft and equipment contaminated with fire extinguishing materials as soon as possible after exposure in accordance with TO 1-1-691, *Cleaning and Corrosion Prevention and Control, Aerospace and Non-Aerospace Equipment*, Chapter 8.

3.18.4. Substances such as soft drinks, household cleaning detergents, and other commonly available chemicals, must be properly cleaned immediately if spilled in or on aircraft metal components. Common sense and prudent cleaning/rinsing are critical elements of the corrosion prevention program.

3.19. Corrosion Prevention and Control Training.

3.19.1. All aircraft maintenance personnel will receive corrosion prevention and identification refresher training at least annually. Training will be a combination of Interactive Multimedia Instruction (IMI) and location specific supplemental training. IMI training will consist of the *Aircraft Corrosion Control* video or *Corrosion and Prevention (I3ADU00TCB0002)* IMI downloadable from <https://a4mxtng.csd.disa.mil>. AFSC 2A7X3 (structural maintenance) personnel are exempt from periodic corrosion familiarization training. En-route personnel must accomplish the IMI but are exempt from the supplemental training.

3.19.2. If group block training method is used, supplemental training is conducted by the corrosion manager or designated representative holding a primary AFSC of 2A7X3 or 2A790. If block or refresher training is done on an individual basis, the supplemental training should be self-supporting; such as a short video, PowerPoint presentation, or other medium that the individual can review.

3.19.3. The corrosion manager, in conjunction with the unit maintenance-training manager, develops formal classroom training curriculum. As a minimum, the curriculum will include:

3.19.3.1. Corrosion identification procedures and techniques using the most current available Air Force aircraft corrosion visual training aids and information.

3.19.3.2. Identification of corrosion prone areas on unit specific weapon systems and equipment.

3.19.3.3. Reporting and documentation procedures for identified corrosion.

3.19.3.4. Importance of proper selection and use of sealants, corrosion preventive compounds (CPC), and lubricants.

3.19.3.5. Proper selection and use of all cleaning materials.

3.19.4. The corrosion manager periodically updates training material and information with the assistance of the unit maintenance training manager and information gained from CPABs and corrosion manager's conferences.

3.19.5. Periodic corrosion training does not replace normal on-the-job training (OJT) requirements in any career field.

3.20. Unit Corrosion Control Program Requirements.

3.20.1. Owning activities shall wash and clean their aircraft and support equipment.

3.20.2. Wing Corrosion Program Manager and/or ASM personnel will assist the owning activities in their corrosion prevention efforts by accomplishing scheduled corrosion inspections on aircraft, support, and test equipment.

3.20.3. Only Aircraft Structural Maintenance personnel shall perform aircraft inspection work cards specified for accomplishment by Aircraft Structural Maintenance in the -6 T.O. All maintenance personnel, regardless of AFSC, shall examine parts they remove and inspect the inside of all exposed areas for corrosion.

3.20.4. Maintenance personnel who remove/install aircraft panels and doors must ensure seals are serviceable and sealant applied to panels and fasteners as specified in applicable aircraft technical orders.

3.20.5. Maintenance personnel shall report all corrosion deficiencies through the applicable MIS IAW 00-20 series technical orders. Accurate documentation of maintenance actions in support of the corrosion control program is essential to support future manning, equipment requirements, training and parts/material procurement requirements.

Chapter 4

GENERAL INFORMATION

4.1. Aerospace Vehicle Coating and Marking Requirements.

4.1.1. Coating System Scoring and Maintenance. All units are required to score aircraft coating systems to determine frequency of topcoat application.

4.1.1.1. Scoring will be accomplished as required during each Home Station Check (HSC), A-Check, all transfers, and upon return from depot maintenance.

4.1.1.2. The exterior of aircraft must be clean prior to paint scoring. Supervisors will use ratings to determine corrosion treatment/paint scheduling priority.

4.1.1.3. Units are required to adopt maintenance-painting techniques (i.e., spot painting and sectionalized painting as stated in T.O. 1-1-8) to maintain aircraft corrosion protection and appearance between overcoats.

Chapter 5

AIRCRAFT MARKING POLICY

5.1. Paint Schemes/Configurations and USAF Standard Markings.

5.1.1. Paint schemes/configurations and USAF standard markings will be applied in accordance with the applicable aircraft technical order, aircraft drawings, TO 1-1-8, *Application of Organic Coatings* and this instruction. All aircraft markings will be maintained intact, legible, and distinct in color (not faded). Command standardization of markings (by mission design and series (MDS)) is of primary concern.

5.2. Standard Markings Deviations.

5.2.1. Deviations from standard markings are authorized for 89 AW aircraft when approved by HQ USAF.

5.3. Exterior Markings / Coatings.

5.3.1. All aircraft markings will be maintained intact, legible, and distinct in color (not faded). Command standardization of markings (by mission design and series (MDS)) is of primary concern.

5.3.2. All exterior aircraft markings must match the gloss level of the basecoat. No approved diffuse clearcoats are available; low-gloss materials must be used for all markings on aircraft with lusterless paint schemes.

5.3.3. Operational markings and structural coating/corrosion maintenance will take precedence over cosmetic refinements; markings, such as nose art, tail flash, and DCC names should be considered lowest priority work.

5.3.4. When large sections of an aircraft are repainted (i.e. entire wing, fuselage, or empennage) they will be documented in applicable MIS and the individual AFTO Form 95, *Significant Historical Data* for tracking purposes.

5.3.4.1. Review applicable weapon system technical data for W&B requirements.

5.4. Aircraft Mandatory Markings

5.4.1. Letters and Numerals. These markings may be applied using any style letter/numeral (font) deemed appropriate by the wing commander. Size and location must remain standardized for all wing-assigned aircraft.

5.4.2. Standard Air Force Markings. Mandatory markings will be applied IAW TO 1-1-8, weapon system drawings, if applicable, weapon system specific TO and the applicable table in this instruction. **Tables A2.1** through **A2.10** in attachment 2 list the size, location and color of markings by aircraft type. For identification, placement, and color of mandatory markings other than those identified in this instruction, refer to the weapon system technical orders and system drawings. Deviations from standard markings are authorized for 89 AW aircraft when approved by HQ USAF.

5.4.3. US Flag. Paint may be used only when high-quality templates or silk-screen processes are used. Flag decals can be obtained by going online to the Defense Logistics Agency Document Services website at <https://www.dso.documentservices.dla.mil>. Customer

support may be reached at 1-866-736-7010. Flag decals may be purchased with the International Merchant Purchasing Authorization Card (IMPAC) card. There is no form number or part number for flag decals; therefore a “short title” should be used. The short title is either “21-inch by 40-inch Matte Finish Flag Decal” or “24-inch by 48-inch Matte Finish Flag Decal,” as applicable. Flag decals have a one-year shelf life. For best results, use 3M edge sealer part # 4150 (designed for polyester decal films).

5.4.4. Standard AMC Markings (reference Tables A2.1 through A2.10. PACAF and USAFE):

5.4.4.1. Command Insignia (Emblem).

5.4.4.2. “AMC” Tail Letters.

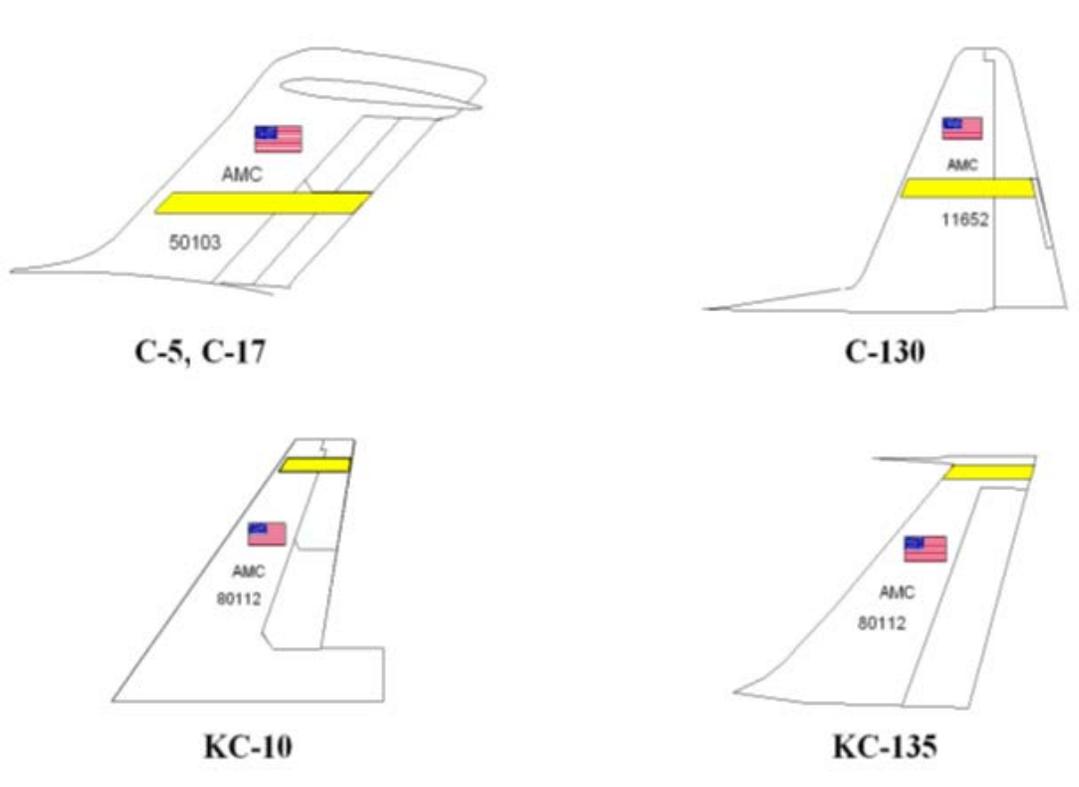
5.4.4.3. AMC Tail Stripes.

5.4.4.4. Parent Wing Unit Identifier.

5.4.4.5. Air Force Reserve Command (AFRC) Associate Wing Unit Designator and Emblem. Active duty units with attached AFRC associate wings will apply the AFRC emblem and reserve unit identifier on their aircraft. In coordination with AFRC, AMC gained reserve units will apply AMC emblems to their aircraft.

5.4.4.6. AMC ethos statement, “We Answer the Call of Others... So They May Prevail” shall be applied to wing pride aircraft on the forward left fuselage area in vinyl or paint utilizing Helvetica Medium font and per directions from AMC/A4.

Figure 5.1. Typical AMC Tail Configurations.



5.5. Optional Markings.

5.5.1. When used, the following optional markings will be applied IAW the applicable tables in this instruction. Changes/standardization of optional markings may be done on an attrition basis to minimize workload, aircraft availability, and environmental impact. **Tables A2.1 through A2.10** in Attachment 2 list the size, location and color of markings by aircraft type.

5.5.2. Approval Authority for Optional Markings. Final approval will come from the authority listed below. All levels of supervision have the responsibility to review the markings for tastefulness, appropriateness, and adherence to copyright laws. Refer to **paragraphs 5.5.2 – 5.5.10** for further guidance.

5.5.2.1. Nose Art: AMC/A4. E-mail request with wing CC approval, justification, and the design to amc.a4.aircraftmarkings@amc.af.mil.

5.5.2.2. Tail Flash: AMC/A4. E-mail request with wing CC approval, justification, and the design to amc.a4.aircraftmarkings@amc.af.mil.

5.5.2.3. Aircraft names (“City of” or “Spirit of” type markings): AF/CV. Route request through your wing CC to AMC/PA.

5.5.3. Operational markings and structural coating/corrosion maintenance will take precedence over cosmetic refinements; markings, such as nose art, tail flash, and DCC names should be considered lowest priority work.

5.5.4. Letters and Numerals. These markings may be applied using any style letter/numeral (font) deemed appropriate by the wing commander. Size and location must remain standardized for all wing-assigned aircraft.

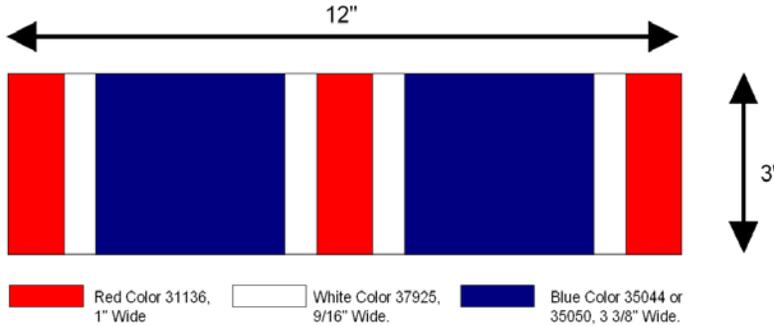
5.5.5. Nose Art. Nose art is authorized on one aircraft per flying squadron, plus the wing pride aircraft. Additionally, one aircraft per wing may have the “Let’s Roll” graphic applied as nose art (not to exceed three feet in diameter); it may be on one of the above aircraft, or in addition to the above aircraft. Nose art is not permitted on any aircraft flying missions where local populations may consider it sensitive or offensive. Art will reflect a theme of civic and community pride, be distinctive, symbolic, and designed and maintained to the highest quality standards. Positioning of nose art is at the discretion of the wing commander; however, it must be forward of the wing leading edge and not interfere with any mandatory markings. Nose art should be approximately two-thirds the size of the fuselage national star insignia, not to exceed three feet in diameter. All nose art applied to wing aircraft will be of standard size and location. Nose art and tail flash designs must be approved prior to installation. Refer to paragraph 5.5.1.

5.5.5.1. On aircraft with lusterless paint schemes, nose art and tail flash must be applied using lusterless paint and/or decals.

5.5.6. Aircraft Names. Aircraft Names are authorized on AMC/PACAF/USAFE aircraft only after approval by USAF/CV. The proposed name must either have a national or military theme or honor a locale adjacent to an AMC base or aircraft manufacturing point. Route recommendations through your wing CC to AMC/PA; include the proposed name and detailed justification. If applied in addition to nose art, the aircraft name and nose art must be complementary; the font, size, and location may be changed to complement the nose art.

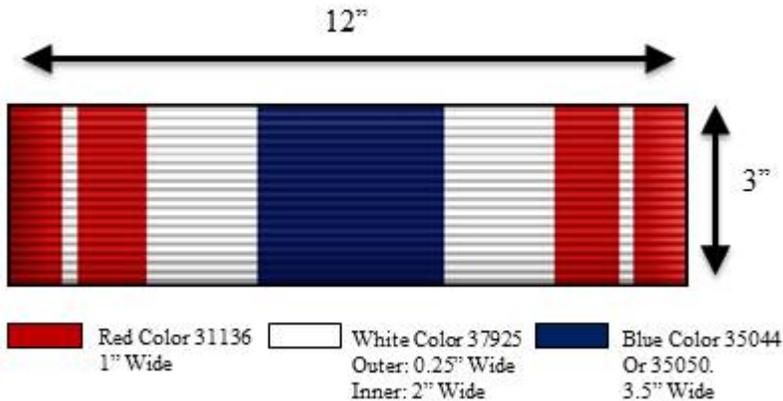
5.5.7. Air Force Outstanding Unit Award. The Air Force Outstanding Unit Award (AFOUA) may be applied if applicable. AFOUA decals, with and without oak leaf clusters, are available from <https://www.dso.documentservices.dla.mil> see para 5.4.3.

Figure 5.2. Outstanding Unit Award.



5.5.7.1. Air Force Meritorious Unit Award (MUA) may be applied immediately adjacent to the AFOUA if applicable.

Figure 5.3. Meritorious Unit Award.



5.5.8. Boom Elevator Markings. Boom elevator markings may be applied IAW the appropriate table, weapon system specific TO, and/or weapon system drawings with the approval of the wing commander.

5.5.9. Wing Pride Aircraft. Each wing commander may designate one aircraft to be the wing pride aircraft; this aircraft is authorized the additional markings stated below.

5.5.9.1. Wing CC/CV names and Group Commander’s names (list all group commanders or none) may be used in place of the DCC names. The wing designator may be included in the name block. Prior to deployment or flight into a combat zone (including transient aircraft), all names will be removed from the aircraft.

5.5.9.2. Tail Flash may contain colors/numbers of all squadrons assigned to the wing, but must remain within the tail band stripes specified in the applicable table. Refer to paragraph 5.3.

5.5.9.3. Wing mascot/logo may be applied as nose art (in addition to the one per flying squadron), paragraphs 5.5.4. and 5.5.4.1. apply.

5.5.10. Dedicated Crew Chief/Assistance Dedicated Crew Chief. If elected, Dedicated Crew Chief (DCC) and assistant DCC names will be applied IAW TO 1-1-8 and placed on interior placards. Placement of these placards will be consistent across the unit.

5.5.10.1. Prior to deployment or flight into a combat zone (including transient aircraft), all placards will be removed from the aircraft. Consistency across the wing is paramount. MAJCOM/A4 or MXG/CCs are authorized to direct the removal of all names for the duration of contingency operations.

5.5.10.2. The name will consist of the abbreviated rank, first name, and last name. The first name can be either the given proper name (William, Robert, Daniel, etc.) or the more familiar shorter form (Bill, Bob, Dan, etc.). The use of an individual's middle name or initial is optional. For extremely long names, it is permissible to use the individual's rank, first initial, and last name or to use smaller letters to accommodate the entire name.

5.5.10.3. Nicknames are not authorized. Size and font are at the wing CC's discretion; size not to exceed 2 ½ inches; standardized within the wing. Unit mascot graphics, i.e., razorback and eagle head (outlines or silhouettes) may be used as the forward edge of the placard. For standardization purposes, either all or none of the wing aircraft will bear the graphic.

5.5.11. AMU/Squadron/Wing Colors. Each operational squadron may have its colors and/or logos applied within the boundaries of the tail stripes, or the entire wing may share one tail stripe design. Refer to paragraph 5.3.

5.6. Competition Aircraft.

5.6.1. Units participating in competitions such as Airlift Rodeo will follow the guidelines established in competition rules for aircraft appearance. Competitions should 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 metal surfaces, using commander type markings, etc.

5.7. Aircraft Transfer.

5.7.1. The following markings must be removed prior to formal transfer of aircraft to other units or MAJCOMs (aircraft retiring to AMARC need not have any markings removed). Deviations from transfer requirements are authorized provided the gaining and losing units reach a mutual agreement.

5.7.2. Organizational insignias.

5.7.3. Unit identifier.

5.7.4. Tail stripe.

5.7.5. Aircrew and crew chief names.

5.7.6. Unit unique markings.

5.7.7. Nose art.

5.8. Waivers.

5.8.1. Wing Commanders must submit waiver requests to MAJCOM/A4M for coordination to obtain AMC/A4 approval/disapproval. Waivers that are in violation of aircraft technical data will not be accepted. Waiver requests must include the following:

5.8.2. Clear statement of present procedure/markings.

5.8.3. Clear statement of proposed change.

5.8.4. Justification to include historical significance, if applicable.

5.8.5. Digital color photographs, one of present marking and one of requested change. The use of a slide presentation format is allowed.

5.9. Photo Requirements.

5.9.1. All units must submit one full length (landscape orientation) digital photo of each aircraft that has been approved for any or all of the following:” Let’s Roll” markings, nose markings, names, and tail flashes. The use of a slide presentation format is allowed. Send to MAJCOM/A4M for review and file. MAJCOM/A4M may request updated photos periodically.

Chapter 6

AIRCRAFT MARKING METHODS

6.1. Stencils.

6.1.1. Stencils may be used to apply all exterior markings. Apply stenciled markings with MIL-PRF-85285, Class H polyurethane paint or screen ink as authorized by respective weapon system.

6.2. Decals.

6.2.1. Decals may be applied to aircraft interiors and exteriors IAW TO 1-1-8. Requisition decals through the air base group (ABG) at the air logistics center (ALC) having maintenance management responsibility IAW TO 1-1-8, or Sacramento DAPS. Exterior color aircraft decals have a one-year shelf life (adhesive film on the back) after manufacture; units will limit the quantity ordered to not more than a one-year supply.

6.2.2. AMC and AFRC decals are approved for aircraft application. Application of aircraft decals to non-aircraft equipment is prohibited. Decals should be requested through the Air Force Publication web site at <https://wmsweb.afncr.af.mil/wms/Default.aspx>. Users should use their organization's account (MXG, AMXS, or equivalent); those without an account must request one via AF Form 1846, *Request for and Record of Organizational Account* (paper or electronic) before placing orders. Instructions for completing AF Form 1846 are found on the AFPDC web site. Refer to Table 6.1 for applicable form numbers.

Table 6.1. AMC Decals.

Decal Size	Non-camouflage	Subdued (Gray)
12-inch	AMC Form 696-2	NA
24-inch	NA	AMC Form 706
34-inch	AMC Form 700	AMC Form 704
34-inch (AFRC EMBLEM)	NA	AMC Form 702

6.2.3. Silk-screening. The silk-screen printing process is approved for applying markings and insignia. Only areas free from protruding bolts, screws, rivets, or complex contours should be silk-screened. If used, silk screen equipment will be procured using local purchase procedures (AFMAN 23-110) with organization and maintenance (O&M) funds.

6.2.4. Vinyl appliqués. Appliques such as those used with computerized stencil cutters are approved for application on aircraft in accordance with the manufacturer's instructions. Finish must match the gloss level of the basecoat.

RICHARD O. MIDDLETON II
Brigadier General, USAF

Attachment 1

GLOSSARY OF REFERENCE AND SUPPORTING INFORMATION

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- AFI 32-1062, *Electrical Power Plants and Generators*, 1 Jun 2005
- AFI 21-101, *Aerospace Equipment Maintenance Management*, 26 Jul 2010
- AFI 21-101, AMC Sup 1, *Aerospace Equipment Maintenance Management*, 14 Feb 2011
- AFI 20-114, *Air and Space Equipment Structural Maintenance*, 7 Jun 2011
- AFI 48-145, *Occupational and Environmental Health Program*, 15 Sep 2011
- AFI 91-202, *The US Air Force Mishap Prevention Program*, 15 Aug 2011
- AFMAN 33-363, *Management of Records*, 1 Mar 2008
- AFOOSH Std 48-137, IC2, *Respiratory Protection Program*, 10 Feb 2005
- AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 Jun 2012

Adopted Forms

DD Form 2757, Welding Examination Record
AFTO Form 781A, Maintenance Discrepancy and Work Document
AFTO Form 95, Significant Historical Data
AF Form 847, Recommendation for Change of Publication
AF Form 1800, Operator's Inspection Guide and Trouble Report

Abbreviations and Acronyms

AGE – Aerospace Ground Equipment
AFCENT – Air Force Central Command
AFI – Air Force Instruction
AFOSH – Air Force Occupational Safety and Health
AFPD – Air Force Policy Directive
AFRC – Air Force Reserve Command
AFRL – Air Force Research Laboratory
AFSC – Air Force Specialty Code
ALIS – Autonomic Logistics Information System
ALC – Air Logistics Center
AMC – Air Mobility Command
AMXS – Aircraft Maintenance Squadron
ANG – Air National Guard
APC – Advance Performance Coatings
ARC – Air Reserve Component
ASM – Aircraft Structural Maintenance
BCE – Base Civil Engineer
CC – Commander
CMS – Component Maintenance Squadron
CPAB – Corrosion Prevention Advisory Board
CPCP – Corrosion Prevention and Control Program
CTK – Composite Tool Kit
DOD – Department of Defense
DR – Deficiency Report
EMS – Equipment Maintenance Squadron
HQ – Headquarters
HVAC – Heating, Ventilation and Air Conditioning
IAW – In Accordance With
IMIS – Integrated Maintenance Information System
IMDS – Integrated Maintenance Data System
IPT – Integrated Process Teams
JOAP – Joint Oil Analysis Program
MAF – Mobility Air Forces
MAJCOM - Major Command
MDS – Mission Design Series

MSDS – Material Safety Data Sheet
NAF – Numbered Air Force
NCO – Noncommissioned Officer
NDI – Nondestructive Inspection
OAP – Oil Analysis Program
OPR – Office of Primary Responsibility
PGM – Product Group Manager
PIT – Product Improvement Team
PR – Personnel Recovery
QPD – Qualified Product Database
QPL – Qualified Products Listings
QPT – Quality Training Package
RCS – RADAR cross section
RDT&E - Research, Development, Test and Evaluation
RPIE – Real Property Installed Equipment
RTO – Responsible Test Organization
SAS – Signature Assessment System
SE – Support Equipment
SMD – Structural Management Director
SME – Subject Matter Expert
SMP – Signature Management Program
SPD – System Program Directorate
SPM – System Program Manager
TDY – Temporary Duty
TFI – Total Force Integration
T.O. – Technical Order
USAF – United States Air Force

Attachment 2

MARKING LOCATION BY AIRFRAME

Table A2.1. C-5 Markings.

Note: Reference Drawings 201211891 (exterior finishes) and 201211892 (exterior markings) for additional information.			
Marking	Location	Size	Color/Finish
United States Flag	Both sides of vertical stabilizer, bottom of flag on WL 626, top of flag horizontally centered between the 10 percent chord front beam and the 64 percent rear chord beam. (European One and White Cap; leave flag where currently positioned.)	Matte: 24 X 48 inches Gloss: 31.5 X 60 inches	Matte finish
“AMC” Tail Marking	Both sides of vertical stabilizer, top of letters 12 inches below bottom of flag. Top of letters will be horizontally centered between the 10 percent chord front beam and the 64 percent rear chord beam.	18 inches	37038
Tail Band Stripes	2-inch upper stripe located 12 inches below bottom of “AMC”. 2-inch lower stripe located 18 inches down from bottom of upper stripe. Stripe will run horizontally from aft edge of the leading edge seam, back to trailing edge of the rudder.	As required	37038
Radio Call Numbers	Both sides of vertical stabilizer, top of numbers located 12 inches below bottom of lower stripe. Top of numbers will be horizontally centered between the 10 percent chord front beam and the 64 percent rear chord beam.	18 inches	37038
Local Station Numbers (last 4 digits of aircraft serial number)	Both sides of fuselage, top of numbers grounded on stringer 12 on left side and stringer 11 on right side of fuselage, forward edge of number 9 inches aft of nose seam	12 inches	37038
Super Galaxy	C-5M ONLY, Tail Stripes: 2.0 inch upper stripe located 12.0 inches below tail numbers; 2.0 in lower stripe located 18.0 in below upper stripe. Stripes run horizontally from leading edge seam to leading edge of the rudder center “Super Galaxy” between stripes.	2 inches (width)	37038
Air Mobility Command	Bottom of visor with “Y” in “mobility” centered above antenna	10 inches	37038

Table A2.2. C-17 Markings.

Unit Identifier	Both sides of the fuselage, centered under identification number. Top of numbers and letters located 10 inches below bottom of identification numbers.	10 inches	37038
Associate Unit Identifier	Both sides of the fuselage, centered under unit identifier. Top of letters and numbers located 6 inches below bottom of unit identifier.	10 inches	37038
Air Force Outstanding Unit Award	Centered on door, bottom of decal 3 inches above the crew entry door.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Exterior: Left side of fuselage only, 6 inches below and centered on the command emblem.	Wing CC Discretion	37038
Aircraft Name	Left side of fuselage, may be one or two lines. Vertical Position: Centered on AMC emblem. Horizontal Position: Beginning of first letter in line with the beginning of the "O" in U.S. Air Force.	10 inches	37038
Command Emblem	Both sides of fuselage, top of emblem placed 2 inches below clear view window, aft-most portion placed 2 inches forward of window centerline.	34 inches	As required. See Table 6.1.
AFRC Emblem	Both sides of fuselage. Located aft of AMC emblem with 4 inches between the aft-most edge of AMC emblem and leading edge of AFRC emblem. Top of AFRC emblem even with top of AMC emblem.	34 inches	As required. See Table 6.1.
National Star Insignia Outline	Both sides of fuselage, centered 59 inches aft of FS 1964 on WL 258.	50 inches	37038
Marking	Location	Size	Color/Finish
United States Flag	Bottom of flag is located 42 inches above top edge of the upper tail band stripe, with the top forward corner of the flag located 1 inch from the VOR/LOC-2 antenna, same location both sides of vertical stabilizer.	24 X 48 inches	Matte finish
"AMC" Tail Marking	Bottom of letters are located 12 inches above top edge of the top tail band stripe and centered on an (invisible) vertical line drawn parallel with vertical stabilizer trailing edge that intersects the center of the flag, same location both sides.	18 inches	37038
Tail Band Stripes	2-inch stripes, top of upper stripe located at vertical stabilizer coordinate	As required	37038

	ZV134. Top of lower stripe is located 18 inches below bottom of upper stripe. Stripes run horizontally from aft edge of leading edge seam to trailing edge of rudder both sides.		
Radio Call Numbers	Both sides of vertical stabilizer, top of numbers located 12 inches below bottom of lower tail band stripe, centered on an invisible vertical line drawn parallel with the vertical stabilizer trailing edge, intersecting center of the flag.	18 inches	37038
Unit Identifier	Both sides of fuselage, centered on the identification number, top of numbers 6 inches below bottom of the identification numbers.	10 inches	37038
Associate Unit Identifier	Both sides of fuselage, centered on AMC unit identifier, top of numbers 6 inches below bottom of AMC unit designator.	10 inches	37038
AF Outstanding Unit Award	Centered 3 inches above crew entry door.	See Figure 5.2 .	See Figure 5.2 .
Command Emblem	Both sides of fuselage, most forward edge of emblem located 3 inches aft of fuselage light ring, bottom tip of emblem almost touching longeron L-32, same location.	34 inches	As required See Table 6.1 .
Marking	Location	Size	Color/Finish
AFRC Emblem	Located aft of the command emblem with 12 inches between aft edge of AMC command emblem and leading edge of AFRES emblem (12 inches at the nearest point), top of emblem even with top of AMC emblem.	34 inches	As required See Table 6.1 .
Crew Chief Block	Left side of fuselage only. Centered between aft edge of crew entrance door and fuselage light hinge. Bottom of block located 6 inches above top of beef-up band	Wing CC discretion	37038
Aircraft Name	Centered horizontally on the crew entry door. Bottom of marking 11 inches from top of door. Use Century Schoolbook font on two lines...arranged into a football shape.	Length of marking should be between 55 and 65 inches.	37038
Local Station Numbers (last 4	Both sides of fuselage, centered below the lower aft corner of the downview	18 inches	37038

digits of the aircraft serial number)	window, with the top of the numbers on fuselage coordinate Z-192.		
National Star Insignia Outline (Fuselage)	Both sides of fuselage, centered on the centerline of the aft fuselage formation light, with the insignia leading edge located 6 inches aft of the light.	30 inches	37038
U.S. Air Force Marking	Both sides of fuselage, located 12 inches aft of fuselage station 27.200 and 35.38 inches above longeron 1-25.	24 inches	37038

Table A2.3. C-130 Markings

Note: Refer to USAF Paint Drawing E 201122423 and Exterior Markings Drawing # 201122424 for specific J model markings. Reference Drawing #s 9276080, 9276081 and 9276082 for legacy.			
Marking	Location	Size	Color/Finish
United States Flag	Both sides vertical stabilizer, bottom of flag located 154 inches above horizontal stabilizer with bottom of flag centered horizontally on vertical stabilizer.	24 X 48 inches	Matte finish
“AMC” Tail Marking	Both sides of vertical stabilizer, top of letters located 10 inches below and centered under flag.	12 inches	37038
Tail Band Stripes	2-inch upper stripe located 10 inches below bottom of “AMC,” 2-inch lower stripe located 12-inches below bottom of upper stripe. Top horizontal stripe will run from 25 inches forward of leading edge seam to trailing edge of rudder, not to extend onto rudder trim tabs; bottom stripe will run from 27 inches forward of leading edge seam to trailing edge of rudder.	As required	37038
Radio Call Numbers	Both sides of vertical stabilizer, top of numbers located 10 inches below bottom of lower tail band stripe, centered under flag.	12 inches	37038
Local Station Numbers (Last 4 digits of aircraft serial number)	Placed on both sides of fuselage, 3 inches aft of pilot’s kick window. Bottom of marking parallel to bottom of pilot’s kick window.	6 inches	37038
“U.S. AIR FORCE” Fuselage	Both sides of fuselage, fwd edge grounded to F.S. 172, bottom edge grounded on W.L. 235.	15 inches	37038

Marking			
Unit Identifier	Both sides of fuselage, 6 inches below local station numbers. Centered on local station numbers.	6 inches	37038
Air Force Outstanding Unit Award	Centered 3 inches above crew entry door.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Left side of fuselage only, 2 inches forward of crew entry door in line with top door seam	Wing CC discretion	37038
Aircraft Name	TBD		
Marking	Location	Size	Color/Finish
Command Emblem	Both sides of fuselage, bottom of emblem level even with top of crew entry door, centered over first fuselage window at FS 277. (see below for C-130J placement)	24 inches	As required. See Table 6.1.
National Star Insignia Outline	Both sides of fuselage; see drawing 9144700.	30 inches	37038
Ice Detection Marking	Installed on both wing leading edges, starting at OWS 517, extending outboard to required length. Chordwise dimension equals 12 inches on top and bottom of leading edge.	26 X 24 inches	37038

Table A2.4. C-130 Markings (PACAF).

Note: Refer to USAF Paint Drawing E 201122423 and Exterior Markings Drawing # 201122424 for specific J model markings. Reference Drawing #s 9276080, 9276081 and 9276082 for legacy.			
Marking	Location	Size	Color/Finish
American Flag	Both sides of the vertical stabilizer. Top of American flag is located 6" below the vertical stabilizer antenna; centered on vertical stabilizers (excluding rudder measurements).	24 X 48 inches	Matte Finish
Wing Insignia	Center 8 inches above first porthole window aft of crew entry door on left fuselage.	12 inches	Black
Squadron Insignia	Right fuselage symmetrically located same as wing insignia.	12 inches	Black
Aircraft Commander and Crew Chief Names	Locate bottom of name block on WL 175.0 and center between FS 175.0 and FS 210.0.	Wing CC discretion	Subdued

Nose Numbers	Locate on both sides of fuselage 6 inches below kick windows and centered on fuselage station 116.0. Number will consist of last four digits of aircraft serial number.	6 inch block letters	Black
Tail Stripe	Starting at vertical stabilizer station 259 and extending up 6 inches.	6 inch wide stripe	Squadron's Color
Unit Unique Silhouette	Center between PACAF insignia and Unit designator.	24 X 36 inches	Contrasting black and gray
Wing Designation	4 inches below and centered on nose numbers	6 inch block letters	Black
Radio Call Numbers	Centered on both sides of the vertical stabilizer; bottom of radio call number located at vertical stabilizer station 36. Centered between FS 1068.0 and 1122.0.	15 inches	37038
Armament Placard	Top of placard located 15" below top of CED door and 5" aft of the door. The word "ARMAMENT" will be located ¾" below upper border of placard.	16 X 10 inches with 1 inch border	37038
Unit Identifier	Bottom of unit identifier is located at vertical stabilizer station 63.0 and centered between FS 1068.0 and 1122.0.	36 inches	37038
Command Insignia (PACAF)	Bottom of command insignia is located at vertical stabilizer station 111.0. Emblem centered on FS 1090.0.	30 inches (subdued)	As required. See para 6.1. & 6.2.
Unit Unique Markings	517 AS (Elmendorf) "Firebird" Silhouette White tail stripe 36 th AS (Yokota) Samurai" Silhouette Red tail stripe		

Table A2.5. C-130 Markings (USAFE).

Note: Refer to USAF Paint Drawing E 201122423 and Exterior Markings Drawing # 201122424 for specific J model markings. Reference Drawing #s 9276080, 9276081 and 9276082 for legacy.			
Marking	Location	Size	Color/Finish
United States Flag	Both sides vertical stabilizer: Vertical: Bottom at vertical stabilizer station 154.0.	24X48 inches	Matte finish

	Horizontal: Centered on FS 1090.0.		
Unit Designator (Command Aircraft only)	Vertical: Bottom at vertical stabilizer station 14.0. Horizontal: Centered between FS 1068.0 and 1122.0.	15 inches	Subdued
Base Designator	Vertical: Bottom at vertical stabilizer station 63.0. Horizontal: Centered between FS 1068.0 and 1122.0.	36 inches	Subdued
Tail Numbers	Both sides of vertical stabilizer: Vertical: Bottom at vertical stabilizer station 36.0. Horizontal: Centered between FS 1068.0 and 1122.0.	15 inches	37038
Nose Numbers (Last three/four digits of tail number)	Both sides of Fuselage: Vertical: 6" below pilot's kick window. Horizontal: Leading edge of nose number located at center of pilots kick windows.	6 inches	37038
Unit Identifier	Both sides of fuselage, 6 inches below and centered on nose numbers.	6 inches	37038
Air Force Outstanding Unit Award	Centered 3 inches above crew entry door.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Left side of Fuselage only: Vertical: Above crew door at WL 195.0. Horizontal: Between FS 204.0 and FS 240.0.	Wing CC discretion	Subdued
USAFE Command Insignia	Both sides of Fuselage: Vertical: 6 inches above window on WL 195.0. Horizontal: Centered on FS 277.0.	30 inches	Subdued
Organizational Insignia (Commanders aircraft only)	Left side of Fuselage only: Vertical: 6 inches above window on WL 195.0. Horizontal: Centered on FS 317.0.	30 inches	Subdued

Table A2.6. KC-10 Markings.

Marking	Location	Size	Color/Finish
Tail Band Stripes	Top of upper 2-inch stripe will be 18 inches down and parallel to V476.250; top of lower 2-inch stripe will be located 12 inches below the bottom of the upper stripe.	As required	37038
US Flag	Both sides of vertical stabilizer, 100	24 X 48 inches	Matte finish

	inches up from ZID 92.5, grounded on aft spar. (White Cap paint scheme will leave existing painted-on flag in place.)		
“AMC” Tail Marking	Both sides of vertical stabilizer, top of letters 20 inches below bottom of flag, grounded on aft spar.	12 inches	37038
Radio Call Numbers	Both sides of vertical stabilizer. Top of numbers 20 inches below bottom of “AMC” tail marking grounded on aft spar plane.	12 inches	37038
Unit Identifier	Both sides of the fuselage, 45 inches down and level from FRP, grounded at aft point of FS 392.	10 inches	37038
Associate Unit Identifier	Both sides of fuselage. Located 5 inches below and centered on AMC unit identifier.	10 inches	37038
Local Station Numbers (Last 4 digits of aircraft serial number)	Centered on both sides of nose landing gear follow-up doors.	12 inches	37038
Air Force Outstanding Unit Award	Left fwd side of fuselage 5 inches up and level with FRP, grounded at aft point with FS 383.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Left side of fuselage only; 8 inches below and centered on the command emblem	Wing CC discretion	37038
Aircraft Name	TBD		
Command Emblem	AMC both sides of fuselage, 12 inches aft of crew entry door, grounded 5 inches up from L27 (#2 skin longeron).	34 inches	As Required. See Table 6.1.
AFRC Emblem	Both sides of fuselage. Centered between aft edge of AMC emblem and leading edge of formation light. Grounded 5 inches up from L27 (#2 skin longeron).	34 inches	As Required. See Table 6.1.
National Star Insignia Outline	Both sides of fuselage, according to Douglas drawing (NXE6403).	30 inches	37038
Boom Elevators	Highest numeric designator of station assigned (22d, 458th, 905th, etc.) centered on the underside of the left elevon and alpha designator (ARW, OPG, AFRC, etc.) centered on underside of the right elevon.	10 inches	36622

Table A2.7. KC-135 Markings.

Marking	Location	Size	Color/Finish
Tail Band Stripes	2-inch upper stripe grounded at WL 568.90, top of the lower 2-inch stripe located 12 inches below the bottom of the upper stripe.	As required	37038
US Flag	Both sides of vertical stabilizer, bottom of flag on WL 447, centered between stabilizer leading and trailing edges, not including rudder.	21 X 40 inches	Matte finish
National Star	Locate and size according to TO 1C-135-3-8	See TO 1C-135-3-8	37038
“AMC” Tail Marking	Both sides of vertical stabilizer, centered between stabilizer leading and trailing edges, not including rudder, 12” below US Flag.	12 inches	37038
Radio Call Numbers	Both sides of vertical stabilizer. Top of numbers 12 inches below “AMC” tail marking, centered between stabilizer leading and trailing edges, not including rudder.	12 inches	37038
Unit Identifier	Both sides of the fuselage, centered, and 6 inches under identification numbers.	6 inches	37038
Associate Unit Identifier	Both sides of fuselage. Located 6 inches below and centered on AMC unit identifier.	6 inches	37038
Local Station Numbers (Last 4 digits of aircraft serial number)	Both sides of fuselage. Locate according to TO 1C-135-3-8.	6 inches	37038
Air Force Outstanding Unit Award	Centered 3 inches above the crew entry door.	See Figure 5.2.	See Figure 5.2.
Crew Chief Block	Left side of fuselage only; 6 inches below and centered on the command emblem.	Wing CC discretion	37038
Aircraft Name	TBD		
Command Emblem	Both sides of fuselage, 16 inches aft of crew entry door, 6 inches below USAF markings. (Do not paint “US Air Force” on camouflage aircraft.)	34 inches	As Required. See Table 6.1.
Marking	Location	Size	Color/Finish
AFRC Emblem	Both sides of fuselage. Most forward leading edge will be located 14 3/8	34 inches	As Required. See Table 6.1.

	inches aft of the most aft edge and aligned with the top of the AMC decal.		
Boom Elevators	Highest numeric designator of station assigned (22d, 458th, 905th, etc.) centered on the underside of the left ruddervator and alpha designator (ARW, OPG, AFRC, etc.) centered on underside of the right ruddervator.	10 inches	36622

Table A2.8. KC-135 Markings (PACAF).

Marking	Location	Size	Color/Finish
Unit Identifier (PACAF)	Locate 24 inches down from bottom of command emblem. Last letter of designator will end 17 inches in from leading edge of tail.	36 inches	Black
Command Emblem (PACAF)	On both sides of tail, command insignia will be located 24 inches below tail stripe and 17 inches in from leading edge of tail.	24 inches (subdued)	Black silhouette
American Flag	Center on vertical stabilizer with bottom of flag 79 inches above top of UHF antenna.	40 X 23 inches	See TO 1C-135-3-8
Wing Insignia	Locate on left fuselage centered on Fuselage Station 360 & Water Line 214.	24 inches	Black silhouette
Squadron Insignia	Locate on right fuselage centered on Fuselage Station 360 and Water Line 214. Insignia should be symmetrical with wing insignia.	24 inches	Black silhouette
Aircraft Commander and Crew Chief Names	Aircraft commander name block located on left fuselage 5-1/2 inches from bottom edge of windscreen. Locate crew chief names 24 inches below bottom of wing insignia and centered on Fuselage Station 360.	Wing CC discretion	Local Instruction
Nose Numbers	Last four digit of aircraft serial number. Start numbers on left fuselage at FS 277.0 with bottom of numbers on WL 200.0. Start numbers on right fuselage at FS 203.6 with bottom of numbers on WL 200.0.	6 inch block numbers	Black
Tail Stripe	Horizontal wrap around stripe. Top of stripe located at WL 557.1.	24 inches	Squadron color
Unit Unique Silhouette	Center between PACAF insignia and unit designation on outside of vertical stabilizer (excluding rudder measurements).	24 X 36 inches	Local Instruction

Ruddervator Markings	Numeric and alpha designator of assigned squadron centered on the underside of the left and right ruddervator.	8 inch block letters	Black
Unit Unique Markings	909 th ARS (Kadena) “Samurai” silhouette Tail stripe will consist of white stripe with 1 inch orange and black tiger stripe bands along top and bottom	See Location	See Location

Table A2.9. KC-135 Markings (USAFE/RAF Mildenhall, England).

Note: See HQ AMC/A4 approval memo.			
Marking	Location	Size	Color/Finish
Tail Band Stripes	Horizontal between WL 568.9 and WL 553.90 * The stars represent each aircraft type the wing has operated in its history; B-17, B-47, KC-97, U-2, DC-130, CH-3, Q-147, Minuteman, and KC-135.	See Color/Finish	Vinyl Decal: Three stripes 5.5 inches ea in height; Blue, White, Red with 9 stars (5 On blue/4 on red)
Royal AF Mildenhall Station Crest	Both sides of vertical stab; 1 inch aft of leading edge seam line with upper portion of crown centered between two top stripes	48 inches (height)	Vinyl Decal; full color Ref slide: #4 item B
Unit Identifier (Mildenhall - “Box D”)	Locate 24 inches down from bottom of command insignia. Last letter of designator will end 17 inches in from leading edge of tail.	42 inches (squared)	Vinyl Decal; 42” x 42” black background, 34” white “D” centered on background.
“USAFE” Tail Marking	Both sides of vertical stab; centered between stabilizer leading edge and trailing edge (not including rudder) and 12 inches below “Square D”	12 inches	37038
Radio Call Numbers	Both sides of vertical stab; centered between stabilizer leading edge and trailing edge (not including rudder). Top edge of numbers is 12 inches below USAFE command code	12 inches	37038
Ruddervator markings	“100 ARW” in white, Raphael style font lettering, with a 20	15 inches	36622

	degree right slant, 2.5 inch stroke, applied on both UPPER and LOWER surfaces. Upper surface will be readable through the boom operator's window, lower surface readable by receiving aircrew.		
Command Emblem (USAFE)	Right side only: centered vertically on down stroke of first "R" in U.S. Air Force next to AMC emblem	24 inches	37038
Marking	Location	Size	Color/Finish
Organizational Insignia	Left side: centered vertically on down stroke of first "F" in U.S. Air Force	24 inches	37038
Nose Bandit Mask	2 inch wide flat black outline from BL 178.0 to WL 200.0 right and left side of fuselage, outlining the top and sides of the windscreen, windshield glare area, and lower nose radome area.	Wing CC discretion	37038
Local station numbers (nose numbers)	Right side per 1C-135-8. Left side: Located 7 inches forward of the crew entry door, parallel with the top of the pressure door.	6 inches	37038
Unit Identifier	Right Side per 1C-135-8. Left side: omitted due to nose art (Nose decal has "100 ARW" on top.	6 inches	37038
Crew Chief Block	Positioned with top edge below fuselage skin lap joint at WL 187 and centered at body station 375	Wing CC discretion	Local Instruction