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TECHNICAL MANUAL

EXTERIOR FINISHES, INSIGNIA AND MARKINGS  
APPLICABLE TO AIRCRAFT AND MISSILES

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**SECTION I****GENERAL****1-1. PURPOSE.**

1-2. These instructions provide a uniform system of applying and maintaining standard exterior finishes, distinguishing insignia and special purpose markings on all USAF aircraft and missiles.

**NOTE**

Paint or other markings shall not be applied to the external surface of missiles when the application of such interferes with the launching, operation or aerodynamic characteristics of the missiles.

**1-3. GENERAL INSTRUCTIONS.**

1-4. Using organizations of USAF aircraft and missiles are responsible for the maintenance and application of exterior finishes, distinguishing insignia and special purpose markings reflected herein. This responsibility encompasses the repainting of exterior finishes, replacement of illegible and special purpose markings and the application of omitted insignia and markings as specified herein.

**NOTE**

Marking requirements as contained herein are also contained in Specification MIL-M-25047.

**1-5. MAJOR AIR COMMAND REGULATIONS.**

1-6. Exterior finishes, distinguishing insignia and special purpose markings for aircraft and missiles of major air commands and activities subordinate thereto shall be reflected in pertinent major air command regulations. Additional insignia and markings, as well as major changes to existing insignia and markings, shall be reflected in such regulations either by amendments or inclosures thereto.

1-7. Only insignia and markings identified in pertinent major air command regulations or those reflected in this technical order are authorized for use on USAF aircraft and missiles.

**NOTE**

Deviations from standard markings are authorized for aircraft assigned to 1254th Air Transport Wing (Special Missions), MATS. Marking of these aircraft will be as approved by Headquarters USAF.

1-8. Each major air command shall coordinate its proposed regulations or other directives relative to exterior finishes, distinguishing insignia and special purpose markings with MOAMA, Attn: MONKSC, prior to release for publication and distribution.

1-9. Each major air command shall furnish Headquarters AFLC, Attn: MCMTA, published copies of its insignia and marking regulations. Each major air command shall also furnish such regulations to the applicable prime aircraft or missile AMA reflected in T.O. 00-25-115.

**1-10. ESTABLISHING REQUIREMENTS FOR INSIGNIA AND MARKINGS.**

1-11. Additional insignia and markings proposed for in-service aircraft or missiles not included in this technical order shall be coordinated with MOAMA prior to approval by the procuring activity. This provision applies to existing insignia and markings for new aircraft or missiles not included herein. The following information shall be submitted for coordination:

**a. Purpose.**

b. Furnish MOAMA (MONKSC) with two sets of exterior marking drawings showing marking locations on aircraft or missiles by station number and water line (W/L) reference points, dimensions and color scheme.

**1-12. REQUISITIONING PROCEDURE.**

1-13. Markings required on Air Force equipment listed in technical orders under Illustrated Parts Breakdown will be requisitioned on Air Force Form 124A in accordance with AFR 6-4 from the appropriate AMA or Air Force Depot indicated in T.O. 00-25-115.

1-14. Broad Application Markings (listed below) will be manufactured, stored and issued by SMAMA, PDO. Use Air Force Form 124A for requisitioning.

**a. National Star Insignia.****b. USAF Marking.**

- c. U.S. AIR FORCE Marking.
- d. Aircraft Serial Numbers.
- e. Aircraft Identification Numbers.
- f. Radio Call Numbers.
- g. American Flag Markings.

1-15. The following sizes are standard for American Flag Markings when applied on USAF aircraft:

- a. 19 x 36 inches.
- b. 21 x 40 inches.
- c. 25 x 48 inches.
- d. 31.5 x 60 inches.

#### NOTE

American Flag Markings are authorized for use on Presidential, Air Attache and MATS aircraft. (See MATS Service Manual MM 66-4 for MATS aircraft authorized American Flag Markings). Instructions pertaining to American Flag Markings for Air Attache aircraft also apply to other aircraft authorized use of American Flag Markings (see paragraph 3-61).

1-16. Non-standard Air Force markings such as command or squadron insignia will be locally purchased in accordance with AFR 6-4/AFLC Supplement I and AFR 67-3.

1-17. APPLICABLE AIRCRAFT MANUAL REFERENCE.

1-18. The broad coverage of this technical order will not allow the inclusion of markings which are peculiar to a specific aircraft/missile. Instructions

for such markings and their location and for the use of non-standard or non-specification finishing materials will be included in the applicable aircraft/missile publication.

1-19. Additional instructions and directives applicable or allied to the application and maintenance of finishes and markings of aircraft and missiles are reflected in the following:

- a. T.O. 00-110N-5, Radioactive Decals - Removal from Aircraft Parts and Equipment.
- b. T.O. 00-110-1, Decontamination (TM3-220).
- c. T.O. 00-25-107, AFLC Maintenance Technical Assistance to Air Force Field Activities.
- d. T.O. 00-25-115, AFLC Maintenance Engineering Prime AMA and AF Depot.
- e. T.O. 00-25-116, Maintenance Responsibilities of AFLC Organizations in Overseas Theaters.
- f. T.O. 1-1-1, Cleaning of Aeronautical Equipment.
- g. T.O. 1-1-2, Corrosion Control and Treatment for Aircraft and Missiles.
- h. T.O. 1-1-8, Application of Organic Coatings (Paints and Allied Materials).
- i. T.O. 1-1-25, Inspection of Fabric Covered Surfaces.
- j. T.O. 1-1A-11, Engineering Handbook Series for Aircraft Repair - Fabric Repair and Doping.
- k. T.O. 42A-1-1, Health Promotion of Personnel Engaged in Doping and Painting.

## SECTION II

## STANDARD EXTERIOR FINISHES FOR USAF AIRCRAFT AND MISSILES

## 2-1. METAL EXTERIOR FINISHES.

2-2. Exterior alclad skin surfaces of the aircraft and missile will usually require additional surface protection for corrosion prevention. Such surface areas which are subjected to ambient temperatures above 300°F, exhaust trails, gun and rocket blasts, acid spillage, salt water spray, synthetic lubricants, and abrasive action effected during maintenance and operation of the aircraft and missile will require additional surface protection. Paint alone will not provide complete corrosion prevention; regular scheduled surface washing, cleaning and touch-up of the aircraft and missile will minimize the probability of corrosion. Environmental operating conditions shall be appraised when determining the extend of external surface protection required for aircraft and missiles.

2-3. Only exterior finishes which are specified in this technical order, or which are included in pertinent major air command regulations, will be applied on USAF aircraft and missiles.

2-4. The standard exterior finish for clad and non-clad aluminum surfaces for aircraft and missiles is an aluminized acrylic nitrocellulose lacquer system applied in accordance with T.O. 1-1-8. This system consists of one coat of wash primer, Specification MIL-C-8514, one coat of lacquer primer, Specification MIL-P-7962, and two coats of aluminized acrylic nitrocellulose lacquer, Specification MIL-L-19537. For magnesium surfaces the exterior finish is the same as above except that two coats of lacquer primer, Specification MIL-P-7962, and three coats of acrylic lacquer, Specification MIL-L-19537, shall be applied.

## 2-5. PROTECTIVE FINISHES FOR SURFACES EXPOSED TO HIGH TEMPERATURES.

2-6. Surfaces which are exposed to exhaust gases, corrosive fluids, gun and rocket blasts and accelerated environmental elements and areas known to be subject to corrosive attacks for which ambient temperatures do not exceed 350°F shall be finished in accordance with paragraph 2-4.

2-7. Surfaces exposed to ambient temperatures ranging from 350°F to 500°F shall be finished with black enamel, heat resistant, Specification MIL-E-5557. The extent of application shall be restricted to a

minimum required area since the paint color contrasts with the surfaces of the aircraft and missile. Do not apply this finish over wash primer or chromate primer.

2-8. Thermal Resistant Finish. All USAF aircraft which are programmed to participate in thermo-nuclear tests normally shall be protected with a thermal resistant finish. This finish system shall consist of an epoxy resin primer, Specification MIL-C-27316, and a polyurethane topcoating, Specification MIL-C-27227. Application instructions are included in T.O. 1-1-8. Authorization for applying thermal resistant finishes will be obtained from the System Support Manage (SSM).

2-9. Anti-Glare Finishes. Aircraft surfaces which reflect an objectional glare to the pilots and crew shall be finished with a lusterless black or olive drab enamel or lacquer. Use Specification MIL-E-5556 enamel or Specification MIL-L-19533 lacquer for anti-glare purposes. Standardization of these areas shall be maintained on each type of aircraft.

2-10. Acid-Proofing Finishes. Special acid and alkali resistant coating, Specification MIL-C-7439, shall be applied to areas such as battery compartments, buffet and lavatory areas susceptible to acid and alkali spillage. The areas to receive the coating shall be cleaned in accordance with T.O. 1-1-1, and the coating applied in accordance with T.O. 1-1-2.

2-11. Solar-Resistant Finishes. Aircraft used as personnel carriers may be painted white to reduce the cabin temperatures. Major air command regulations will include specific areas on aircraft within the command to be solar-resistant finished. The lower boundary of the white finish shall be parallel to and border the uppermost point of the row of windows. If an aircraft has more than one row of windows, the lower boundary shall be centered between the rows. Specification MIL-E-7729 enamel or Specification MIL-L-19537 lacquer may be used for solar-resistant finishes. This finish shall be white, color No. 17875. Application shall be in accordance with procedures contained in T.O. 1-1-8.

2-12. Fabric Exterior Finishes. All fabric aircraft surfaces, such as control surfaces, shall be aluminized when re-covering is necessary or when major fabric repairs are required. Fabric surfaces, and



each separately replaceable fabric section of a combination metal and fabric covered surface, shall be dated in the following manner by service activities when they are re-covered or refinished:

a. When re-covered, the following markings shall be applied to the trailing edge: Performing base or depot's supply account number (FB0000), number of coats or clear dope, coats of pigmented dope, type of dope and date applied. Example: FB2049-CND4-APND2-5 Oct 64, or FB2049-CBD4-APBD2-5 Oct 64. This denotes Sacramento Air Materiel Area applied four coats of clear nitrate (or butyrate) dope followed by two coats of aluminum pigmented nitrate (or butyrate) dope on the 5th of October 1964.

b. When refinishing, the activity accomplishing the work shall apply the marking to the trailing edge follows: Reinstall the original code marking installed by the activity re-covering the article and add a marking showing the number of coats of rejuvenating dope (if used), followed by the number of coats of pigmented dope, type of dope and date applied. Example: FB2049-CND4-APND2-5 Oct 64 - FB2596-RND1-APND2-10 Feb 65. This indicates that Sacramento Air Materiel Area re-covered and applied finish as outlined above, followed by rejuvenating and two coats of aluminum pigmented nitrate dope applied by Selfridge Air Force Base the 10th of February 1965. The letters "N" and "B" will indicate the type of dope used (nitrate or butyrate). The code numbers of the activity accomplishing rejuvenation or redoping represent the AF supply account number. Part II, Volume I of USAF Supply Manual 67-1 provides a listing of activities and their account numbers.

2-13. Exterior fabric parts shall be doped in accordance with procedures outlined in T.O. 1-1A-11.

2-14. Finishes for Propellers. Only lusterless black finish will be applied to propellers for anti-glare purposes or for corrosion resistance. To protect against corrosion, repaired hollow steel blades from which any of the protective plating has been removed shall be painted as outlined in the following instructions. Lusterless Black, Color No. 37038, will be applied by spraying the hub and each propeller blade while it is in a horizontal position, and retaining the propeller in this position until the paint materials have set. Over one light coat of zinc chromate primer, Specification MIL-P-7962, apply one light coat of lacquer, Specification MIL-L-19538, Color No. 37038. The finish shall extend to within four or six inches of the propeller tip, as applicable. The propeller shall be checked for balance. Exercise care to mask off any angular graduation markings on the propeller hub or blades. The space between the blade shank and barrel shall be masked off to prevent paint from contacting the seals.

## NOTE

When necessary, three or four blade metal propellers may be lightly touched up between overhauls while installed on the aircraft. Care shall be exercised to apply proportionate amounts of finish to each blade to maintain proper blade balance. Where anti-glare finish can be applied to all blades of a propeller assembly in proportionate amounts, propeller balance need not be accomplished. This is not to be interpreted as authorization for deletion of propeller blade balance at overhaul or at any other time when balance is normally required.

## 2-15. IDENTIFICATION MARKING OF APPLIED FINISHES ON AIRCRAFT AND MISSILES.

2-16. External Finish Identification. Finish coating applied to external surfaces of aircraft and missiles shall be identified by marking with descriptive stencils or decals. Identify coating applied separately to external surfaces such as the wing (or sections thereof of painted-in sections), the fuselage, fixed and movable control surfaces, landing gear, or engine cowling by marking within the area coated. When exteriors of aircraft or missiles are painted as a whole with the same coating system throughout there is no requirement to separately identify painted sections. Identify coating types in letters not less than 1/2 inch in height (for optimum letter sizes, see paragraph 3-31) in a color contrasting to the base coating.

## NOTE

Inspection plates, access doors and similar small areas painted with the same coatings as adjacent areas need not be separately identified.

2-17. Location of Finish Identification Marking. Coating identification markings for aircraft or missiles which are painted as a whole, using the same coating throughout on exterior surfaces, shall have the marking located on the right under surface of the horizontal stabilizer when possible. On aircraft or missiles whose configuration makes this impracticable or impossible, place identification markings on an aft portion comparable in location and visibility. Markings for separately painted areas shall be located within the painted area and when possible in a position discernible from ground level.

## NOTE

Coating identification markings shall not be applied over thermally reflective coatings of the polyurethane system.

2-18. Informational Requirements in Finish Identification Markings. Finish identification marking may be applied by stencil or in the form of an exterior decal conforming to Specification MIL-D-8634 and will furnish the following coded information :

a. Activity applying finish; contractors to be identified in accordance with USAF Specification Bulletin 52; military activities to be identified by Supply Account Number in accordance with Part II, Volume I of USAF Supply Manual 67-1.

b. Date of completion of application by day, month and year.

c. Number of coats, giving appropriate Military or Federal Material Specification, or manufacturer's name and material part number.

**EXAMPLES:**

No. 1 - FB2019/31 Jun 64/1-MIL-P-7962/2-MIL-L-19537.

No. 2 - FB2019/31 Jun 64/1-RTP-HIDE/2-XYZ-WETT.

No. 3 - XX/31 Jun 64/1-RTP-HIDE/2-RTT-HIDE.

Example No. 1 indicates that MOAMA on 31 June 1964 applied one coat of primer, Specification MIL-P-7962, and two coats of acrylic topcoat, Specification MIL-L-19537.

Example No. 2 indicates that MOAMA on same date applied one coat of primer, Part No. RTP, manufactured by the Hide Paint Company, and two coats of topcoat, Part No. XYZ, manufactured by the Wett Paint Company.

In example No. 3, XX signifies a contractor facility accomplished the painting on 31 June 1964 with one coat of Part No. RTP primer and two coats of Part No. RTT topcoat, both manufactured by the Hide Paint Company.

## SECTION III

STANDARD INSIGNIA AND SPECIAL PURPOSE MARKINGS FOR  
USAF AIRCRAFT AND MISSILES

## 3-1. USAF STANDARD IDENTIFICATION MARKINGS.

3-2. The following identification markings shall be applied on all USAF aircraft and shall be applied on missiles as indicated in following note:

ITEM	GENERAL LOCATION
National Star Insignia	Wing and/or Fuselage
USAF Marking	Aircraft or Missile Wings
U.S. AIR FORCE Marking	Aircraft or Missile Fuselage
Serial Number	Fuselage
Aircraft Identification (Buzz No.)	Aircraft Fuselage
Radio Call Number	Aircraft Vertical Fin or Missile Fuselage

**NOTE**

Serial numbers and engine warning stripes will be the only exterior markings on operational ballistic missiles except that for public display purposes, in parades, news photos, or training films missiles shall be marked with all USAF identification markings referenced above. Commanders shall be responsible for insuring that appropriate markings are applied for such occasions.

## 3-3. NATIONAL STAR INSIGNIA.

3-4. Description. The National Star Insignia, of the design represented in figure 3-1, shall be installed on all USAF aircraft and on missiles as indicated in note above. The insignia shall consist of an insignia-white five-pointed star located within an insignia-blue circumscribed circle. An insignia-white rectangle shall be located on each side of the star. The top edge of the rectangle shall form a straight line with the upper edges of the horizontally apposed star points. An insignia-red horizontal stripe shall be centered in each end of the rectangle. An insignia-blue border shall outline the entire insignia.

## 3-5. Dimensions (Figure 3-1).

a. The dimensions of the insignia shall be determined by the diameter of the circumscribed circle which is standardized in multiples of five inches.

b. The width of each end of the rectangle shall equal  $1/2$  the radius of the circle; the length shall equal one radius (excluding border).

c. The width of the insignia-red stripe, horizontally centered in each end of the rectangle, shall equal  $1/6$  of the radius of the circle (excluding border).

d. The width of the insignia-blue border shall equal  $1/8$  the radius of the circle (excluding border).

e. Construction of the five-pointed star may be accomplished by marking off five equidistant points on the circumscribed circle and connecting each point to the non-adjacent points.

**CAUTION**

Sharp pointed, metal marking instruments shall not be used in the lay-out of insignia and markings on USAF aircraft or missiles.

3-6. Color Deviation. The insignia-blue border and insignia-blue circle may be omitted when the National Star Insignia is applied on blue or black finishes.

## 3-7. LOCATION OF NATIONAL STAR INSIGNIA.

## 3-8. Aircraft Wing Installation.

a. The National Star Insignia shall be applied on the upper surface of the left wing and on the lower surface of the right wing or guide vanes.

b. Each insignia will be positioned at a point inboard from each wing tip equal to  $1/3$  the distance from the wing tip to the wing-fuselage mating point. The border of the insignia will be tangent to the movable control surface cut-out.

c. The wing insignia may be moved in the minimum required distance to avoid structures which would alter the insignia pattern. However, symmetry will be maintained with the USAF marking on the opposite wing surface.

d. The wing insignia shall be positioned so that in normal flight attitude the top point of the star points forward and a line through the center of the insignia and the top star point is parallel to the direction of flight.

e. On swept wings or wings of variable sweep the National Star Insignia shall be positioned as illustrated in figure 3-2. The insignia or any part thereof shall not extend to movable flight control surfaces. The insignia shall be applied so the line through the center and the top point of the star is perpendicular to the constant 50 percent chord line of the wing.

3-9. Dimensions of Aircraft Wing Insignia. The National Star Insignia selected for the wing shall not exceed a maximum diameter of 60 inches nor have a minimum diameter of less than 20 inches (excluding border). The diameter of the circumscribed circle will be the standard size closest to but not exceeding 75 percent of the distance between the wing leading edge and the movable surface cut-out at the point of application.

#### 3-10. AIRCRAFT FUSELAGE OR HULL INSIGNIA.

3-11. Location. The National Star Insignia will normally be applied on each side of the fuselage, midway between the wing trailing edge and the leading edge of the stabilizer. The insignia may be moved forward or aft the minimum distance required to avoid transparent material or areas exposed to extreme heat which would scorch or otherwise damage the insignia. The insignia may extend over doors and emergency exits, but the insignia shall not extend over window areas or other such openings which would change the design of the insignia.

#### 3-12. Aircraft Fuselage Insignia Dimension.

a. The insignia will be the standard size closest to, but not exceeding, 75 percent of the fuselage height at the point of application. The diameter of the blue circle will not exceed 50 inches nor be less than 15 inches (excluding border) unless otherwise indicated in figure 3-7 thru figure 3-65. Symmetry will be maintained when applying the insignia on each side of the fuselage.

b. Approval of alternate location for the fuselage insignia will be coordinated with MOAMA, Attn: MONKSC.

#### NOTE

The National Star Insignia may be omitted from the fuselage of small aircraft when sufficient space is not available to include the aircraft identification number (buzz number) and the insignia.

#### 3-13. MISSILE FUSELAGE INSIGNIA.

a. The National Star Insignia will be applied and maintained on each side of the fuselage midway between the nose and the tip of the tail, but may be moved forward or aft of the midpoint to avoid structures which would change the insignia pattern. On small missiles where sufficient space is not available for both the fuselage insignia and the U.S. AIR FORCE markings, the fuselage insignia may be omitted.

b. The fuselage insignia on the horizontally viewed missile shall be positioned so that a line through the top star point and the center of the insignia is parallel to the missile longitudinal center line.

#### 3-14. Missile Fuselage Insignia Dimension.

a. The insignia will be the standard size closest to, but not exceeding, 75 percent of the diameter of the fuselage at the point of application. The diameter of the blue circle shall not exceed 60 inches nor be less than 10 inches (excluding border). Symmetry shall be maintained when applying the insignia on each side of the fuselage.

b. Missiles having a diameter too small to accommodate minimum size National Star Insignia are exempt from this requirement.

#### 3-15. HELICOPTER AND CONVERTIPLANE.

a. Four National Star Insignia shall be applied on the aircraft fuselage. The insignia shall be located so that the insignia will be visible from each side, above, and from below. Because of design configuration the insignia shall be located so as to provide maximum discernment. Such locations shall be standardized on like model series helicopters.

b. The dimensions of the insignia shall be determined by the diameter of the blue circle. The diameter of the insignia will not exceed 50 inches nor be less than 15 inches. The selected insignia will be the standard size closest to, but not exceeding, 75 percent of the fuselage height at the point of application. Symmetry will be maintained when applying insignia on each side of the fuselage.

c. The National Star Insignia will be applied on vertical surfaces so that in normal flight attitude the top point of the star points upward; on horizontal surfaces the top point of the star will point forward in the direction of flight.

### 3-16. GENERAL SPECIFICATION FOR USAF STANDARD IDENTIFICATION MARKINGS FOR AIRCRAFT AND MISSILES.

Vertical Block (Chamfered Gothic) type letters and arabic numerals shall be used when applying identification markings. See figure 3-3 for construction of letters and numerals. Unless otherwise specified herein, insignia-blue, Color No. 15044, will be used on aluminized or white surfaces; either gloss enamel, Specification MIL-E-7729, or lacquer, Specification MIL-L-19537, is acceptable. Gloss black, Color No. 17038, may be used as a substitute for the insignia-blue. Insignia-white, Color No. 17875, will be used on red finishes. Insignia-red, Color No. 11136, will be used on black finishes.

### 3-17. Wing Marking - USAF.

3-18. The marking USAF shall be applied on the lower surface of the left wing and the upper surface of the right wing on all USAF aircraft and missiles incorporating wings or guide vanes of sufficient size to accommodate this marking. The lower wing surface markings shall be omitted when thermal resistant finishes have been applied. The height and location of the markings USAF will correspond, if at all possible, with the National Star Insignia applied on the opposite wing. The top of the letters shall be toward the leading edge of the wing or guide vane.

### 3-19. Aircraft Fuselage Marking - U.S. AIR FORCE.

a. Letter width shall be equal to  $2/3$  the letter height, except that width of the "I" shall be equal to  $1/6$  the letter height.

b. Letter stroke and spaces shall be equal to  $1/6$  the height, except that space between "period" and "S" and "period" and "A" shall be  $1/3$  letter height.

c. Space between AIR and FORCE shall be one letter width.

### NOTE

The markings USAF, U.S. AIR FORCE, and the National Star Insignia shall not be altered in location, dimension, or configuration from the specifications reflected herein to accommodate any major air command and organizational insignia or marking.

### 3-20. Fuselage Marking - U.S. AIR FORCE - Horizontally Viewed Missiles.

3-21. The marking U.S. AIR FORCE shall be placed and maintained on each side of the fuselage of all horizontally viewed missiles.

a. The U.S. AIR FORCE marking shall be located at a point aft of the nose, approximately  $1/8$  the distance from the nose to the tip of the tail, but may be moved forward or aft to avoid structures which would alter the marking pattern.

b. The marking shall be placed on the fuselage longitudinal center line and read from left to right.

### 3-22. Horizontally Viewed Missile Marking Dimension.

a. The letter width shall be equal to  $2/3$  the letter height, except that width of the "I" shall be equal to  $1/6$  the letter height.

b. The letter stroke and spaces shall be equal to  $1/6$  the letter height, except that space between "period" and "S" and "period" and "A" shall be equal to  $1/3$  the letter height.

c. Space between AIR and FORCE shall be equal to  $2/3$  the letter height.

### NOTE

Missiles viewed in an attitude of  $60^\circ$  or greater to the horizon are considered to be vertically viewed missiles. Missiles viewed in an attitude of less than  $60^\circ$  to the horizon are considered to be horizontally viewed missiles.

### 3-23. Fuselage Marking - U.S. AIR FORCE - Vertically Viewed Missiles.

a. The markings U.S. AIR FORCE shall be placed and maintained on each side of the fuselage of all vertically viewed missiles.

b. The U.S. AIR FORCE marking shall be located as near the nose as is practical.

c. The marking shall be placed on the center line of the missile and shall read from top to bottom with the missile in a vertical position (ready for launching).

### 3-24. Vertically Viewed Missile Marking Dimension.

a. Letter width shall be equal to  $2/3$  the letter height, except that width of the "I" shall be equal to  $1/6$  the letter height.

b. Letter stroke shall be equal to  $1/6$  the letter height.

c. Space between the letters "U" and "S" shall be equal to  $2/3$  the letter height.

d. Space between the letters U.S. and the AIR and the AIR and FORCE shall be equal to the letter height.

e. Spaces between letters shall be equal to 1/3 the letter height.

**NOTE**

The periods which are normally placed after the "U" and "S" shall be omitted when the U.S. AIR FORCE marking is vertically installed (read from top to bottom).

**3-25. AIRCRAFT IDENTIFICATION NUMBER.**

a. Identification number will be established and maintained on each side of the fuselage of all liaison,

trainer, fighter and light bombardment type aircraft, including like aircraft assigned overseas theaters. National Guard and Department of the Army aircraft are excluded from this provision.

b. Aircraft identification numbers will consist of two letters and three numerals. The first letter will identify the type of aircraft, the second letter will be the letter equivalent for the aircraft model and the numerals will be the last three numerals of the aircraft serial number (refer to table 3-1) with the letters and numbers separated by a dash.

TABLE 3-1.

AIRCRAFT IDENTIFICATION NUMBERS			
LETTER DESIGNATION FOR TYPE	MODEL	LETTER EQUIVALENT FOR MODEL	
	Light Bombardment Aircraft		
B	26	C EXAMPLE: On B-26, A AF No. 43-22465, B the identification marking would be BC-465.	
B	57		
B	66		
	Fighter Aircraft		
F	4 (Formerly F-110)	J EXAMPLE: On F-105, A AF No. 59-67126, T the identification marking would be U FH-126. V W B C G H E	
F	5 (Formerly N-156)		
F	80		
F	84		
F	86		
F	89		
F	100		
F	101		
F	102		
F	104		
F	105		
F	106		
	Trainer Aircraft		
T	28	L EXAMPLE: On T-29, J AF No. 42-36867, R the identification marking would be F TJ-867. G	
T	2		29
T	33		
T	37		
T	38		
T	39		
	Utility Aircraft		
U	3 (Formerly L-27)	L EXAMPLE: On U-6, K AF No. 52-6079, G the identification marking would be M UG-079.	
U	4 (Formerly L-26)		
U	6 (Formerly L-20)		
U	7 (Formerly L-21)		
U	10 (Formerly L-28)		

c. Letters and numerals will be of uniform height and the largest size practicable with the available space at the point of application. The maximum height will be 48 inches and the minimum 12 inches. The width of the letters and numerals will be 2/3 the height; stroke and space will be 1/6 the height.

d. Aircraft permanently assigned at the same installation and having identical aircraft identification numbers will be further identified by applying a suffix letter. The suffix letter will be uniform in size with the basic aircraft identification number.

e. Aircraft identification markings shall be standardized and uniformly maintained on similar type aircraft in each organization. Color and style of aircraft identification numbers shall be the same as that reflected in paragraph 3-16.

### 3-26. MISSILE IDENTIFICATION NUMBER.

a. The identification marking for USAF missiles shall consist of not less than five numerals. Identification numbers will be derived from the missile serial numbers. Arabic numerals will be used when applying missile identification numbers.

b. The first numeral of the contract year and the hyphen in the missile serial number shall not be used in the identification number.

c. If five numerals are not available in the missile serial number from which to derive five numerals for an identification marking, zeroes will be used to produce five numerals. Example: The identification marking for missile serial number 58-7 will be 80007.

d. Should more than five numerals be available, the last five numerals of the missile serial number will be used. Example: The identification marking for missile number 58-968574 will be 68574.

### 3-27. Dimension of Missile Identification Number.

a. The numbers or designators shall be of a size discernible at a distance of 50 yards.

b. Number height will be no less than nine inches.

c. Number width shall normally be 2/3 the height, but when numbers this size cannot be applied due to lack of space, they will be as large as possible.

d. The stroke of numerals shall be equal to 1/6 the numeral height.

e. Spaces between numerals shall be equal to 1/6 the numeral height.

### 3-28. Location of Missile Identification Number.

a. Identification numbers shall be placed and maintained on each side of the vertical fin or guide vane on USAF missiles. Missiles which do not incorporate fins or guide vanes will have the identification marking applied to the aft fuselage.

b. On horizontal viewed missiles the identification number will be applied on a horizontal plane with the U.S. AIR FORCE marking.

c. On vertically viewed missiles the identification number shall be applied on a plane at right angles to the U.S. AIR FORCE marking or missile longitudinal center line.

d. The identification number shall be placed on each stage of multistage missiles.

e. Colors for identification numbers will be the same as that reflected in paragraph 3-16.

### 3-29. AIRCRAFT SERIAL NUMBER.

3-30. The individual aircraft serial number and fuel designator shall be applied to all USAF aircraft (including helicopters), using capital letters. The following markings, properly filled in, shall be stenciled on the left side of the fuselage near the pilot's compartment.

#### EXAMPLE:

U.S. AIR FORCE CO-F-102A

AF SERIAL NO. 56-0000A

BLOCK NO. 00 (if applicable)

SERVICE THIS AIRCRAFT WITH

GRADE MIL-F-0000 FUEL

3-31. The components assignment "A" shall also appear as a suffix immediately following the serial number. Lettering size will be commensurate with the following requirements:

TOP OF FORWARD FUSELAGE ABOVE GROUND LEVEL	LETTER SIZE
0 thru 144 inches	1 inch
145 thru 216 inches	2 inches
217 and over	3 inches

### 3-32. MISSILE SERIAL NUMBER.

3-33. The missile serial number will be placed immediately under the U.S. AIR FORCE marking, using lettering sizes prescribed in paragraph 3-31. The U.S. Air Force serial number will be applied by stencil rather than free hand lettering.

**3-34. SPECIAL PURPOSE MARKINGS.**

3-35. Jet Aircraft and Missile Warning Stripe. A two-inch wide insignia red warning stripe shall be painted around the outside of the power plant housing of aircraft and missiles which are powered by jet engines to mark the plane of rotation of the turbine rotor. Any aircraft or missile utilized equipment that incorporates turbine rotors will also be marked with the two-inch wide red stripe if at all possible. The stripe is to warn ground personnel not to stand in line with this area when the jet engine or engines are running or when turbine rotors are in motion as there is a possibility of turbine rotor failure and resultant injury to personnel.

**NOTE**

Painting of the two-inch wide red stripe is not required on those aircraft that have been painted white to reduce thermal radiation.

**3-36. ORGANIZATIONAL EMBLEMS, INSIGNIA AND MARKINGS.**

**NOTE**

The use of approved organizational emblems for USAF aircraft and missiles is outlined in AFR 900-3.

3-37. Insignia and markings for aircraft and missiles of major air commands and activities subordinate thereto currently in use shall be reflected in pertinent regulations of the major air command concerned. Additional insignia and markings, as well as major changes to existing insignia and markings, shall be reflected likewise in pertinent major air command regulations, or by amendment or inclosure thereto. Specific locations for organizational insignia and markings shall be as specified in pertinent major air command regulations.

3-38. In all cases, command and organizational insignia shall be clearly subordinate to the USAF standard distinguishing insignia, and markings shall not be altered in location, dimension or configuration from the specification noted herein to accommodate any major air command or organizational insignia or markings. Commanders shall insure that the command insignia and markings have been removed from aircraft and missile prior to transfer out of the command. Major air command insignia and markings shall not exceed 2/3 the size of the USAF standard distinguishing insignia and markings.

3-39. Location of Organizational Emblems, Insignia and Markings for Aircraft. Specific locations for organizational insignia and markings are not mandatory but points between the wing and tail surfaces on opposite sides of the fuselage are considered most desirable. The size of the insignia will not

exceed 50 percent of height of fuselage at point of application. Similar aircraft in the same organization will have the same size insignia. If applied to other than smooth surfaces, insignia may be painted on aluminum sheet which is bolted or screwed securely to rigid members of the aircraft.

3-40. Location of Organizational Emblems, Insignia and Markings for Missiles. Command and organizational insignia and markings should be located approximately 1/3 the fuselage length aft of the nose on opposite sides of the missile fuselage, but may be moved forward or aft to avoid structures which would alter the design of the markings. A space equal to the diameter of the National Star Insignia shall be maintained between the standard USAF markings and insignia and all major command insignia and markings.

**NOTE**

Changes and modifications to missile configuration which would require change in location or dimension of standard USAF markings may be affected. However marking data shall be submitted to MOAMA, Attn: MONKSC, at an early date for approval and updating of this technical order. Research and development missiles shall be marked in accordance with the instructions of this technical order insofar as practical. Deviations shall be submitted to MOAMA, Attn: MONKSC, with information as to why deviation was required.

3-41. Marking Requirements for New Aircraft or Missiles. Project officers shall forward two sets of exterior marking drawings for new aircraft or missiles to MOAMA, Attn: MONKSC, for coordination and inclusion herein. In all cases the marking proposal shall be forwarded no later than 60 days prior to delivery of the first production model.

**NOTE**

Manufacturer's name, designator and popular name are specifically prohibited from use on all aircraft and missiles except as specified herein.

**3-42. RADIO CALL NUMBERS.**

a. Radio call numbers consisting of five numerals shall be maintained on all USAF aircraft. The five numerals shall be applied to each outboard side of the vertical fin on (wing type) aircraft and on each outboard side of the fuselage or hull of the helicopters.

b. Radio call numbers consisting of five numerals shall be derived from the aircraft serial number.



c. The first numeral of the contract year and the hyphen which is reflected in the aircraft serial number shall not be used in radio call numbers.

d. Radio call numbers shall consist of the last five numerals of the aircraft serial number.

e. In the event the aircraft serial number does not consist of five numerals the second numeral of the aircraft contract year (omitting the hyphen) shall then be used.

f. Zeroes shall be used to fill in and shall follow the second numeral in the contract year when five numerals are not available.

**EXAMPLE:** Aircraft Serial No. 59-12 would read 90012 as the radio call number

g. All radio call panels installed within aircraft, including helicopters, shall be revised to reflect the radio call number as applied on the aircraft.

h. The established standard minimum size for radio call numerals is 6 inches wide and 9 inches high for liaison, utility, trainer and fighter type aircraft (single and twin engines); 8 inches wide and 12 inches high on twin engine cargo and fighter bomber type aircraft; 12 inches wide and 18 inches high on heavy bombardment and four engines cargo or trainer type aircraft. The stroke and space for radio call numerals shall be 1/6 the height. In the event the space is not available for these standard sizes, the numerals shall be the largest sizes which can be applied consistent with existing space.

i. Colors for radio call number will be insignia-blue when applied on aluminized surface (jet black may be used as a substitute), insignia-red when applied on black finishes, and insignia-white on red finishes.

j. Decalcomanias conforming to Specification MIL-D-8634 may be used in lieu of paint when applying and maintaining radio call numbers on the aircraft.

#### NOTE

To avoid duplication of identical aircraft radio call numbers, the symbol 0- shall precede all radio call numbers inclusive of radio call panels on aircraft which are 10 years old. Age of aircraft is to be determined by contract serial number without regard to when it was accepted by the Air Force.

#### 3-43. PROPELLER MARKINGS.

a. American propeller blades, design No. A-2721107, A2891100 and A-2891106, used in sets in Aero Products propellers, and design No. C-2721200 and C-381306, used in sets in Curtiss propellers, shall be identified by a yellow stripe 3/8-inch in width and 3/8-inch inboard of the yellow tip. O.A. Smith propeller blades, design prefix SPA, used in sets in Curtiss propellers, shall be identified by two 3/8-inch yellow stripes, one 3/8-inch inboard of the yellow tip and the other 3/8-inch inboard from the first. These stripes shall extend completely around the blade section. The stenciled markings between the 18 and 24 inch stations in the cambered side of the propeller blades shall be retained. When the exact location of the blade reference station is known, a stripe of yellow paint 1/8-inch wide, two inches long and spaced equidistant between the leading and trailing edge of the blade will be placed on the thrust face of the reference station. Unless the exact location of the reference station on the blade is known no attempt will be made to identify this location by the aforementioned stripe.

b. A four-inch yellow tip shall be maintained as safety measure on all aircraft propellers which are less than 15 feet in diameter. Propellers which are 15 feet or more in diameter shall require a six-inch yellow tip. Lusterless lacquer, Specification MIL-L-19538, Color No. 33538, will be used for this application.

c. Propeller tips may be marked with a yellow reflective liquid, aerosol spray type, to define the path of the propeller track in the dark.

#### NOTE

Propellers shall be checked for balance after complete refinishing and required markings have been applied. Minor touch-up is authorized between overhaul periods. However, care shall be taken to insure a proportionate quantity of paint is applied on each blade.

#### 3-44. HELICOPTER ROTOR BLADE MARKINGS.

a. Classification numbers shall be stenciled on the main rotor blades of all helicopters by facilities authorized to balance or alter the blades. Three numbers shall be utilized; the first shall be the weight in pounds of the blade expressed in decimal form; the second shall be the distance in inches from the center of rotation to the center of gravity of the blade; the third number shall be the distance in inches from the leading edge of the blade to the center of gravity of the blade chord-wise.

**EXAMPLE:** 57.2-75.5-5.2, when the blade has a weight of 57.2 pounds with the center of gravity 75.5 inches from the center of rotation, and the chordwise center of gravity is 5.2 inches from the leading edge of the blade. Stenciling, approximately 3/4-inch in height, shall be accomplished with a paint or dope which contrasts well with the color of the blade. The preceding information is to be stenciled on the flat surface on the ground side of each blade at inboard or butt end of main rotor blade.

b. Identifying color bands painted on the tail rotor blade housing by the contractor shall be maintained and an identifying dot, approximately 1/2-inch in diameter, of the same color as appears on the housing shall be painted on the butt end of the blade for matching purposes. Color markings specified in paragraph 3-45 shall be applied to prevent accidents due to lack of visibility.

c. The color bands installed by the contractor on the tip of main rotor blades shall be maintained along with matching colors on the housing. Different colors are required on the blades for tracking as well as matching purposes.

d. A warning sign shall be painted on both sides of the tail boom of all helicopters employing vertical tail rotors. A typical example of the recommended warning is shown in figure 3-4, and minor variations make it adaptable to all types of helicopters. The letters shall be approximately 2 inches high with warning arrow of appropriate size as indicated.

**3-45. Tail Rotor Blade Marking.** To promote ground safety, all helicopter tail rotor blades except Sikorsky blades utilizing "B" and "B" bonding and having vinyl plastic tape installed shall be marked as follows:

Prime surface with one light coat of lacquer primer, Specification MIL-P-7962.

b. Apply a six-inch band red lacquer, Specification MIL-L-19538, Color No. 31136, to the tail rotor tip, followed by a six-inch band of insignia white lacquer, Specification MIL-L-19537, Color No. 17875, and another six-inch band of red lacquer.

c. Following the second band of red lacquer, Specification MIL-L-19538, Color No. 31136, apply a band of black lacquer, Specification MIL-L-19538, Color No. 37038, to within six inches of the hub.

d. Paint the remaining six inches of the tail rotor blade with red lacquer, Specification MIL-L-19538, Color No. 31136.

## NOTE

To avoid the possibility of unbalanced condition, application of the color scheme outlined above shall be limited to new blades or to overhauled blades. Only contractors or overhaul agencies shall apply these markings to the tail rotor blades of USAF helicopters.

### 3-46. PROPELLER WARNING STRIPES AND SIGNS (EXTERIOR).

Mark that area of the fuselage which is in the plane of the propeller path with a red stripe three inches wide extending completely around the fuselage, whenever it does not interfere with standard USAF markings or insignia.

## NOTE

The propeller warning stripe shall not extend through standard USAF markings or insignia.

Maintain a space of three inches between the ends of the propeller warning stripe and any standard USAF marking and insignia. The word PROPELLER reading vertically from top to bottom shall be superimposed on this stripe in white, Color No. 17875, letters two inches high placed at sufficiently frequent intervals to indicate the dangerous area. The word DANGER shall be applied perpendicular to the word PROPELLER on each side of the warning stripe, with an arrow pointing from the word DANGER toward the stripe. Letters in the word DANGER shall be two inches high and the arrows shall be four inches long. The word DANGER and the arrows shall be red, Color No. 509. The propeller warning stripe for those aircraft that have been painted jet black shall be white, Color No. 17875. The word PROPELLER superimposed thereon shall be red, Color No. 509; The word DANGER and the arrows shall be white, Color No. 17875.

### 3-47. EXIT WARNING STRIPES AND SIGNS.

An insignia red warning stripe three inches wide shall be marked inside the fuselage on both sides of bomb bays, or other openings within six feet of either side of the propeller disc to warn personnel of the proximity of propellers, if such openings may be used as exits from the aircraft and if there is danger of personnel walking into the propellers after leaving the openings. Stripes shall extend from the center of the fuselage or the top of the opening, whichever is higher, to the lowest extremity of the opening. The word PROPELLER, reading vertically from top to bottom, shall be superimposed on the stripes in white, Color No. 17875, letters two inches high to indicate dangerous area. The word DANGER in red, Color No. 509, letters shall be applied perpendicular to and centered with respect to the word PROPELLER on each side of the stripe with a red, Color No. 509, arrow pointing toward the stripe. Letters shall be two inches high and arrows four inches long.

**NOTE**

On aircraft having engines staggered in the wing, a marking similar to that described in paragraph 3-46 shall also be placed on the cowling of the next inboard engine to mark the plane of rotation of the propeller disc.

**3-48. ESCAPE PANELS - INTERNAL MARKINGS.**

a. Markings for identification of escape hatches, doors and exits on the interior of aircraft shall be painted orange-yellow, Color No. 13538. Use black, Color No. 17038, on yellow surfaces. Materials for identification markings shall conform to Specification MIL-E-7729 or MIL-L-19537. Retro-reflective material conforming to Specification MIL-R-13689 (CE) may be used for these markings to facilitate identification in the dark.

b. Paint an orange-yellow band to mark the complete periphery of the escape exit for the crew. The band will have a minimum width of one inch and a maximum width of two inches, divided equally, if possible and practicable, between the door mounting and the escape door itself. Where the lining will cover the identification marking band on the inside of the aircraft, continue the marking onto the lining.

c. The words EMERGENCY EXIT, in orange-yellow, shall be painted or stenciled on the escape hatch, door or exit or any covering thereof in the most readily visible location. Letters will preferably be two inches high and shall not be less than one inch wide.

d. Paint handles, releases, catches and knobs for inside hatches and exit doors and their soundproofing (or lining) orange-yellow. Suitable descriptive wordings, readily visible, shall be painted or stenciled on the door or structure of the aircraft, whichever is nearer the emergency release, to identify and explain its operation. This wording shall be at least 1/2 inch high and preferably one inch high. Use standard English terminology such as PULL, PUSH, TURN or SLIDE.

e. Exits which are adequate for air, ground and ditching escape shall have the words EMERGENCY EXIT centered in the most visible location on the inside of the door or hatch.

**NOTE**

The authority for aircraft emergency entry and exit markings is Specification MIL-A-25165.

f. Exits which are not adequate for all three phases of escape shall be marked EMERGENCY EXIT and for specific usage as follows: GROUND USE ONLY, GROUND AND DITCHING USE ONLY, etc.

**3-49. ESCAPE PANELS - EXTERNAL MARKINGS.**

a. Markings identifying escape hatches, doors and exits on the outside of aircraft shall be orange-yellow, Color No. 13538; on yellow surfaces use black, Color No. 17038. If enamel is used, it will conform to Specification MIL-E-7729; if lacquer is used, it will conform to Specification MIL-L-19537. Retro-reflective material conforming to Specification MIL-R-13689 (CE) may be used for these markings to facilitate identification in the dark.

b. Mark all external releases for operation of emergency exit panels EXIT RELEASE on the outside of the aircraft to facilitate quick identification. The wording that describes the operation of the exit release will be standard English terminology such as PULL, PUSH, TURN or SLIDE. Letters shall be at least one inch high and preferably two inches high.

**NOTE**

Certain provisions of this section pertaining to Emergency Escape and Entry markings are subject to international standardization agreements (see ABC Air Standard 51/2 and NATO, STANAG 3230) and shall not be changed except under emergency conditions without prior coordination with the Air Standardization Committee (ASCC). All requests for changes in existing markings or supplemental markings will be submitted to Headquarters MOAMA, Attn: MONKSC, for approval.

**3-50. MARKINGS FOR EMERGENCY ENTRY OR EXIT.**

a. Markings for aircraft emergency entry or exit shall be in orange-yellow, Color No. 13538. Use black, Color No. 17038, on yellow-orange backgrounds. Lacquer will conform to Specification MIL-L-19537. If enamel is used, it will conform to Specification MIL-E-7729. Retro-reflective material conforming to Specification MIL-R-13689 (CE) may be used for these markings to facilitate identification in the dark.

b. Secondary openings such as auxiliary exits, windows and navigator's domes are usually smaller than primary openings, making entrance or exit more difficult. If the structure immediately surrounding secondary openings, is free from heavy structural members such as bulkheads and main longitudinal members, and from oxygen fuel and oil lines and

battery leads, it shall be marked with an orange-yellow broken band. Place band at the extreme boundary of the above described area both insides and outside of the fuselage. Segments of the broken band shall be 1/2 inch wide, one inch long and approximately 12 inches apart. Where the band will be covered with soundproofing, the soundproofing (or lining) shall be marked also. CUT HERE FOR EMERGENCY RESCUE shall be printed or stenciled inside of, parallel with and adjacent to, the broken band identifying the area on the outside of the aircraft where forced entry can be made for rescue purposes. CUT HERE FOR EMERGENCY EXIT shall be painted on a similar location inside the aircraft. Letters shall be one inch high. If the area to receive the lettering is covered by soundproofing (or lining), the letters shall also be stenciled on the soundproofing (or lining).

c. Visually inspect the aircraft for areas which may be cut through for rescue when entrance or exit cannot be made in any other manner. Visual inspection must be used because relocation and reinstallation of equipment and furnishings may have been made which would not be indicated on the installation drawing of the aircraft. These areas should be as close to normal stations of personnel as possible except that they shall not be placed at spots where personal injury to occupants would probably result from forced entry. Paint or stencil corner markings on the inside and outside of the fuselage marking the limits of these areas. The horizontal and vertical bars of the corner markings shall be three inches long and one inch wide. CUT HERE FOR EMERGENCY RESCUE shall be painted or stenciled in the center of the four corner markings on the outside of the aircraft and CUT HERE FOR EMERGENCY EXIT shall be placed in a similar location inside the aircraft. Letters shall be one inch in height. Soundproofing shall also be painted if it covers markings or words. These markings need not be placed on B-47 aircraft which are of such construction that openings could not be cut into them with safety.

**CAUTION**

Cutting of fuel, oil, hydraulic lines, oxygen lines, or electrical wiring under crash conditions may result in a fire, or explosion, or increase the severity of an existing fire. These possibilities shall be taken into consideration when emergency escape areas are being chosen for identification markings.

**3-51. SPECIAL MARKINGS FOR NORMAL/EMERGENCY EXTERNAL CANOPY RELEASE ACCESSES ON JET AIRCRAFT.**

a. All normal and emergency external canopy release accesses on jet aircraft shall be painted orange-yellow, Color No. 13538.

b. Canopies and hatches jettisoned by cartridge actuated devices shall be marked in accordance with the examples portrayed in figures 3-64 and 3-65.

c. In order to clear other markings or obstructions, the axis of the large arrow may be rotated 45 degrees below or above the horizontal position. The arrow may be located forward or aft of the access door.

3-52. Installation of Placards in Aircraft. Accomplish installation of aircraft cockpit placards required by interim technical orders by coating the back of the placard with a clear lacquer, varnish or similar substance. Apply an additional coat of clear lacquer, varnish or similar substance over the front of the placard. If desired by the Base Commander, such placards may be made of aluminum or other metal and attached to the surface of the aircraft cockpit by bolts or screws.

**3-53. IDENTIFICATION OF JETTISONABLE AIRCRAFT COMPONENTS.**

a. Jettisonable aircraft canopies shall have the aircraft radio call number stenciled on the outside of the canopy frame on the left-hand side six inches from forward end, using one-inch high numbers provided sufficient space is available. If sufficient space is not available to accommodate one-inch high numbers, they will be as large as space permits.

b. Jettisonable aircraft wing and pylon tanks shall have the aircraft radio call number stenciled on both sides and as near the center line of the tank as possible, using one-inch high numbers. Other jettisonable components such as pylons and external stores, excluding munitions, shall be marked.

c. Ejection seats shall have the aircraft radio call number stenciled on the front side of the seat back near the top edge, using one-inch high numbers and letters. Position radio call number so as to avoid contact with parachute gear. The following is an example for marking seats in some B-47 aircraft:

51-24865 to 24865	51-24865 to 24865
NAV	PLT PLT PLT
51-24865 to 24865	51-24865 to 24865
CO-PLT	CO-PLT ECM-OPR ECM-OPR

d. Color of the enamel or lacquer used to stencil numbers and letters on jettisonable aircraft components will be dependent upon the color that provides the greatest contrast with the surrounding area.

**3-54. MARKING OF EMERGENCY LIGHTING SYSTEMS- CARGO AND TRANSPORT TYPE AIRCRAFT.**

a. Cargo and transport type aircraft which have flashlights located adjacent to each natural or emergency exit as an emergency lighting system will have a band of phosphorescent paint, Federal Specification TT-P-54, approximately 1/2 inch wide applied around the base of the flashlight mounting. This will provide a rectangular frame outlining the light. The paint may be applied to the mounting flanges along the sides of the light holder if the installation is such that the paint cannot be applied to the surface on which the light mounting is installed.

b. Allow the phosphorescent paint to dry approximately 8 hours, then apply a protective coat of varnish, Federal Specification TT-V-109, over it. This will lengthen the useful life of the paint.

**3-55. Marking for Walkways.** All walkways shall be differentiated from other external surfaces of the aircraft by a black stripe two inches wide (Color No. 17038). The surrounding areas immediately adjacent to the walkway shall be marked NO STEP.

**3-56. Data Cards.** Data Cards shall be pasted in the pilot's compartment in a readily accessible position or suitably mounted on plywood. A transparent material or clear shellac shall be used over the face of the mounted data card.

**3-57. Power Plant Assembly Removal.** When making a power plant assembly change, all points of disassembly shall be painted with a band not to exceed one inch in width, using orange enamel conforming to Specification MIL-E-7729, Color No. 12197.

**NOTE**

To preclude entry of paint chips into hose, tubing or conduit the marking shall not be placed closer than two inches to the disconnect or the "B" nut.

**3-58. DECALCOMANIAS.**

a. Decals may be used in lieu of paint on missiles or on subsonic aircraft for all external and internal markings required by this technical order. For external use, decals must conform to the requirements of Specification MIL-D-8634, Type I solvent activated and Type II pressure sensitive. For internal use, conformance with Specification MIL-D-8635 is required.

b. Vinyl film decals, Specification MIL-D-8634, Type I and II, and Specification MIL-D-8635, Type II solvent activated and Type V pressure sensitive, are applied as outlined in paragraph c through g.

c. Remove all oil, grease and dirt from application surface in accordance with cleaning procedures outlined in T.O. 1-1-1.

d. Remove paper backing from the film. To start, flick corner of decal from film side sharply and rapidly with thumb or index finger. This will separate film from paper liner.

**NOTE**

The paper backing is removed dry without immersion in water or other solvents.

e. For pressure sensitive decals, activation of adhesive is not required. Applications should not be made below 60°F. For solvent activated decals, place face side down on a piece of absorbent paper. Moisten a felt pad with cyclohexanone. The adhesive surface of film shall be lightly wiped with moistened felt pad to make adhesive tacky, not wet. Be sure to wipe beyond all corners and edges.

f. Position decal and adhere one edge to surface. Hold remainder of decal slightly away from surface until firmly wiped down with plastic applicator. Once adhered, decal shall not be removed. Go over all edges to insure good edge contact. Puncture any air bubbles with pin point tool and work air out with finger nail or plastic applicator.

g. Seal all leading edges of decal with liquid edge sealer supplied by manufacturer.

**NOTE**

Special application techniques are required for decals larger than 12" x 12". These are described in instructions supplied by the manufacturer.

**3-59. Material Repair.** For removal of all types of paint from metal surfaces, use paint and varnish remover, Specification MIL-R-25134, in accordance with T.O. 1-1-8. For removal of dope from fabric surfaces use cellulose nitrate dope and lacquer thinner, Federal Specification TT-T-266. On aircraft having laminar flow wings, paint should be removed only from the trailing 60 percent of the wings. Sand the edges at the 40 percent chord enough to FEATHER but exercise care that the cladding is not removed. This is necessary in order that the special putty and surface on that portion of the wings be left undisturbed.

**3-60. FEDERAL STANDARDS AND ANA BULLETINS FOR COLORS.**

Colors of paints specified in this technical order are listed in ANA Bulletin 157, 166 and Federal Standard 595.

3-61. MARKINGS FOR AIR ATTACHE AIRCRAFT. The standard markings shall be an American Flag located on both sides of the vertical stabilizer and the marking UNITED STATES OF AMERICA applied on both sides of the fuselage parallel to and above the top of the windows. The flag shall be placed above all other markings of significance. The using organization commander may choose the exact location for the flag, giving due consideration to eye appeal and balance. The flag shall be positioned horizontally and in such a manner that the union shall be uppermost. The bars of the flag shall appear to be trailing at all times. Additional instructions on the use and display will be found in AFM 900-2. For standard flag sizes refer to paragraph 1-15.

3-62. MARKINGS FOR DRONE AIRCRAFT. Drones are any remotely controlled recoverable pilotless aircraft or missiles modified or developed to perform the mission of a target for weapons evaluation or crew training. Drones will be painted and marked as follows:

The paint to be used on drone aircraft is fluorescent red-orange, Specification MIL-P-25163, Color No. 633. Prepare and paint the surface in accordance with T.O. 1-1-8.

b. All numerals, letters and markings, except the National Star Insignia, applied on a fluorescent red-orange area shall be black lacquer, Specification MIL-L-19537, Color No. 17038.

3-63. MARKINGS FOR SEARCH AND RESCUE AIRCRAFT. Additional required markings for aircraft engaged in search and rescue operations shall have markings applied as indicated in paragraphs 3-63 through 3-68, using lacquer, Specification MIL-L-19537, or enamel, Specification MIL-E-7729. Although these markings are applicable to large seaplanes and amphibians, they can be used on any aircraft if the size is made appropriate to the aircraft. Air-Sea rescue identification numbers shall be the last three numerals of the serial number.

3-64. Wing Tips.

a. Wing tip floats and struts shall be painted yellow-orange, Color No. 13538.

b. Upper and lower surfaces of both wing tips shall be painted yellow-orange from the wing tip inboard a distance equal to seven percent of the wing span (float excluded). A black border six inches wide shall be added inboard, using Color No. 17038.

3-65. Wing, Center Section. Approved using command forms for finishing of the center section, including the rear projection portion of the engine nacelles, should be consulted for marking to be applied in this area.

3-66. Rear Hull (or Fuselage). A 36-inch orange-yellow band placed approximately 3 feet forward of the leading edge of the horizontal stabilizer shall encircle the aft portion of the hull (or fuselage) but shall not extend onto the last step of the keel. Two six-inch black stripes shall be added as borders.

3-67. Vertical Stabilizer and Rudder. Using vertical block type white letters, Color No. 17875, the word RESCUE shall be applied on a blue background, Color No. 15044, to both sides of the vertical stabilizer and rudder appropriately spaced between the radio call numbers and the top of the vertical stabilizer. The letters will be a minimum height of six inches and the blue background a minimum of 12 inches in height. If larger lettering is used, the background should be increased proportionally. A three-inch wide band, yellow-orange, Color No. 13538 shall be applied at the top and bottom of the blue background.

3-68. Helicopters (Fuselage). The word RESCUE shall be marked in black at the widest part of the top and bottom of the fuselage, using vertical block type letters as large as available space will permit.

3-69. SPECIAL TRAINER MARKINGS. Painting of ring cowls is authorized in colors as directed by the Commander of the Air Training Command.

3-70. INSTRUMENT TRAINER MARKINGS. Aircraft used only for instrument training may be distinguished, at the discretion of the Commander of each particular command, as follows, except that such markings shall not be applied to first line combat type aircraft.

a. Rudders and vertical fins painted insignia-red, Color No. 509.

b. Insignia-red stripes, 18 inches wide and appropriately spaced, extending diagonally (45° to axis of the aircraft) across the fuselage, creating a barber pole effect.

c. Ring cowls will be painted insignia-red.

d. Multi-engine aircraft nose sections to be painted insignia-red from the cockpit forward.

3-71. ATC AIRCRAFT. Trainer type aircraft in use at installations under the jurisdiction of the Commander, Air Training Command, may, for purposes of increased discernibility, have the following markings applied locally. These will be of corresponding type materials applied over the aluminized finish.

a. Orange-yellow or light yellow on upper and lower surfaces of wing.

b. Orange-yellow or light yellow on all surfaces of the empennage.

c. Where dope must be used, two coats of dope will be required to hide the aluminized dope, but more than two coats will have a deteriorating effect on the finished fabric. For this reason, only touch-up should be accomplished after the original application of two coats.

3-72. TOW TARGET AIRCRAFT. Aircraft regularly assigned to tow target service may be marked as follows with international orange, Color No. 12197, paint materials of applicable type applied over the bare metal or previously applied paint material.

a. All the external surface of one and two engine aircraft shall be painted, except the underside of the fuselage and the underside of the wings.

b. On four engine aircraft, paint shall be applied to the top 18 inches of the vertical stabilizer, and to the top of the tips of the wing and the horizontal stabilizer to 18 inches from the tips. Stripes one foot wide parallel to the longitudinal axis of the aircraft and spaced eight feet apart shall be painted on top of the wing and the horizontal stabilizer. In addition, three one-foot stripes shall be painted completely around the fuselage, spaced evenly, between the trailing edge of the wing and the leading edge of the horizontal stabilizer. Stripes are not to extend through the National Star Insignia, and any other required markings shall be repainted if they have been covered by these markings.

3-73. FIGHTER AIRCRAFT (FLEXIBLE GUNNERY TRAINING). Authority is granted to paint fighter aircraft used in flexible gunnery training, for the purpose of making gun camera attaches on bombardment aircraft, in suitable contrasting colors, where required, so that the aircraft will be readily distinguishable when filmed against a cloud of terrain background.

3-74. HELICOPTERS, PILOT TRAINING. Helicopters used in pilot training may have the fuselage finished in international orange, Color No. 12197; light yellow, Color No. 13655; or orange-yellow, Color No. 13538, for purpose of visibility.

3-75. AIR NATIONAL GUARD AIRCRAFT.

a. All Air National Guard aircraft shall be marked with USAF markings with the exception of the identification numbers (Buzz).

b. USAF exterior finishes, insignia and markings are applicable to Air National Guard aircraft.

c. Air National Guard aircraft will be further identified with the state name and ANG insignia as specified in ANGR-66-01.

3-76. DISTINCTIVE MARKINGS FOR AIRCRAFT. Aircraft used in joint (USAF/ARMY) training exercises shall be marked, using Specification MIL-P-6884 temporary identification paint. Marking patterns and colors may be selected by the commands that will best suit the particular requirement. Arctic and conspicuity marking patterns as contained in figures 3-7 thru 3-54 may be helpful in determining patterns for distinctive marking purposes.

#### NOTE

The least amount of coverage to accomplish the desired discernibility should be taken into consideration when applying distinctive markings since these markings are only of a temporary nature.

3-77. MARKINGS FOR USAF AIRCRAFT SUPPLIED UNDER MAP.

a. Aircraft which are to be delivered in crates, or as deck loads on carriers, will not have the USAF markings. USAF markings are the National Star Insignia, the markings USAF on the wing, the marking U.S. AIR FORCE on fuselage and Radio Numbers on the vertical stabilizer. Other markings authorized by this technical order may be retained on aircraft along with the USAF markings, if desired, until USAF markings are removed.

b. Aircraft which are to be flown to destinations by USAF pilots shall have USAF markings (the markings USAF and U.S. AIR FORCE may be omitted) until title has passed to recipient country. At such time it shall become the responsibility of the Chief of the Air Force Section of the MAAG, or appropriate military mission, to see that USAF markings are removed. However, should the MAAG determine in specific instances that the country does not have the capability to install its insignia and markings, arrangements should be made with the appropriate AFLC agency to have this done during deprocessing.

c. Aircraft being flown to this country from MAP countries by USAF pilots will require USAF markings.

d. Aircraft which are to be transported on board of aircraft carriers but are flown off carriers at destination by USAF pilots shall be marked as in paragraph b.

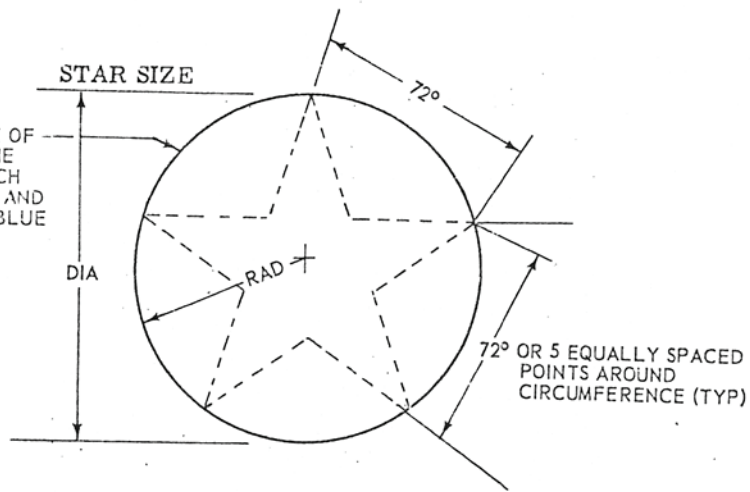
e. USAF markings may be applied, using any material or method that will last until the aircraft reaches the point of delivery.

**3-78. AIRCRAFT AND MISSILES MARKING SPECIFICATIONS AND ILLUSTRATIONS.**

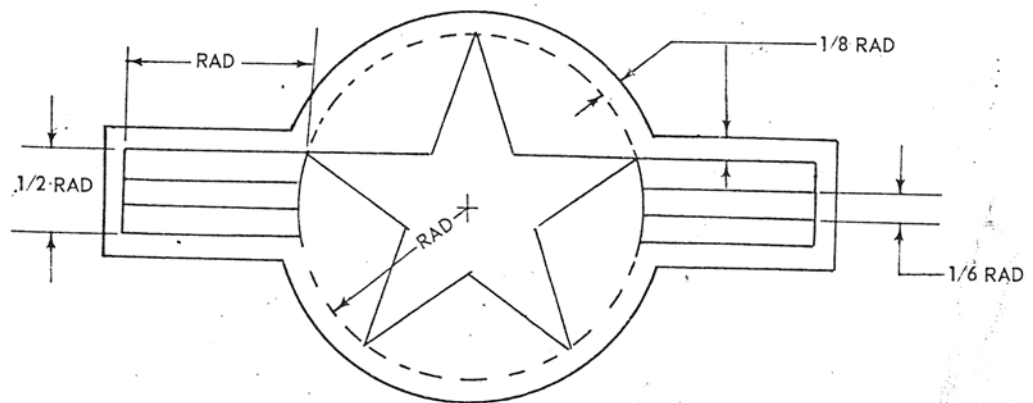
In order to standardize locations for exterior markings on USAF aircraft and missiles specific marking data as contained in figure 3-7 thru 3-65 shall be adhered to.



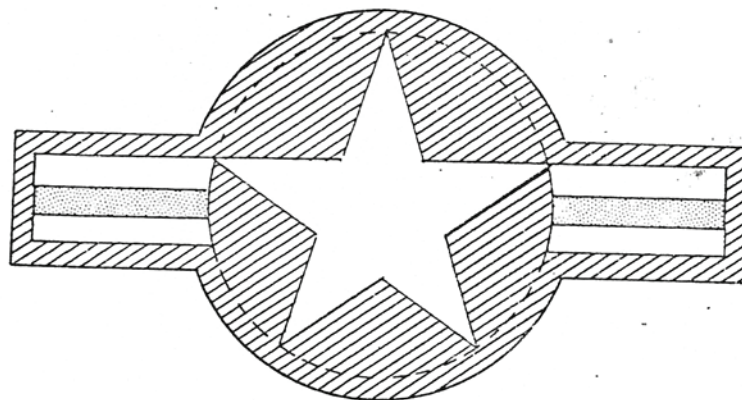
WHEN REFERENCE IS MADE TO SIZE OF INSIGNIA THE REFERENCE IS TO THE SIZE OF THE BASIC CIRCLE ON WHICH THE WHITE STAR IS CONSTRUCTED, AND NOT TO THE OUTER EDGE OF THE BLUE OUTLINE.



TEMPLATE OR STENCIL LAYOUT



CONSTRUCTION DETAILS



COLOR DIAGRAM




-  INSIGNIA RED
-  INSIGNIA WHITE
-  INSIGNIA BLUE

Figure 3-1. National Star Insignia.

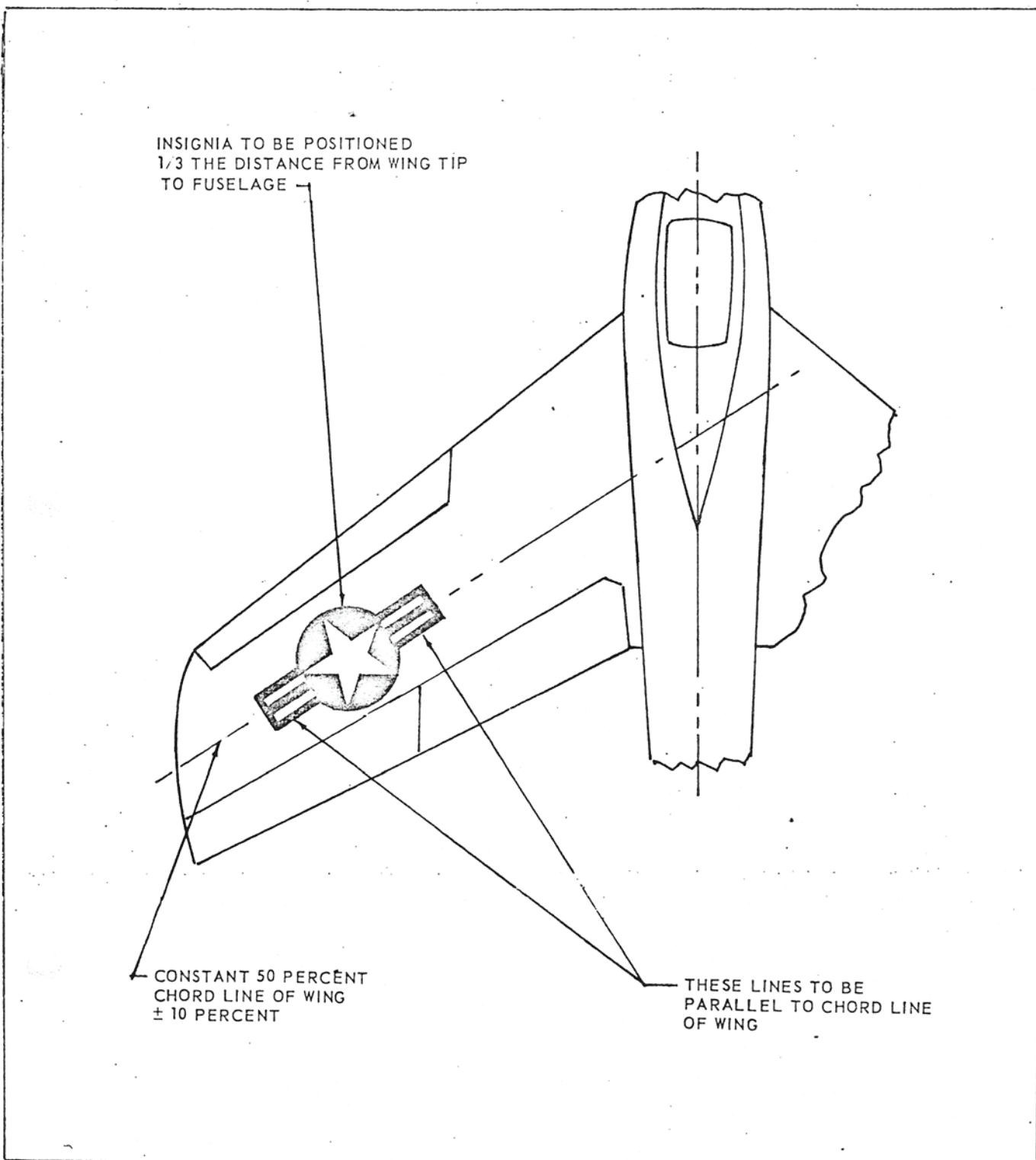
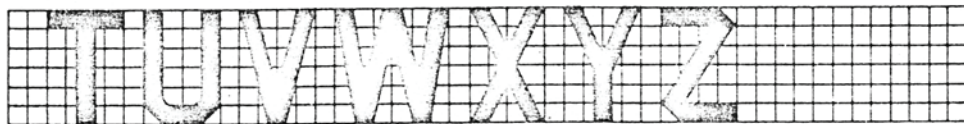
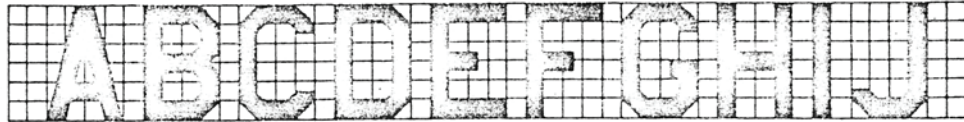


Figure 3-2. National Star Insignia on Swept Wings.

## FORM OF LETTERS AND NUMERALS

### SINGLE STROKE GOTHIC VERTICAL LETTERING



WIDTH OF LETTERS TO BE  $\frac{2}{3}$  OF HEIGHT  
 WIDTH OF LETTERS "M" AND "W" SAME AS HEIGHT  
 WIDTH OF LETTER "I" AND NUMERAL "1" TO BE  $\frac{1}{6}$  OF HEIGHT  
 STROKE TO BE  $\frac{1}{6}$  OF HEIGHT  
 SPACE BETWEEN LETTERS AND NUMERALS TO BE  $\frac{1}{6}$  OF HEIGHT  
 SPACE BETWEEN WORDS TO BE  $\frac{2}{3}$  OF HEIGHT.

#### VERTICALLY APPLIED LETTERING:

SPACE BETWEEN LETTERS AND NUMERALS  $\frac{1}{6}$  HEIGHT  
 SPACE BETWEEN WORDS SAME AS HEIGHT

Figure 3-3. Form of Letters and Numerals.

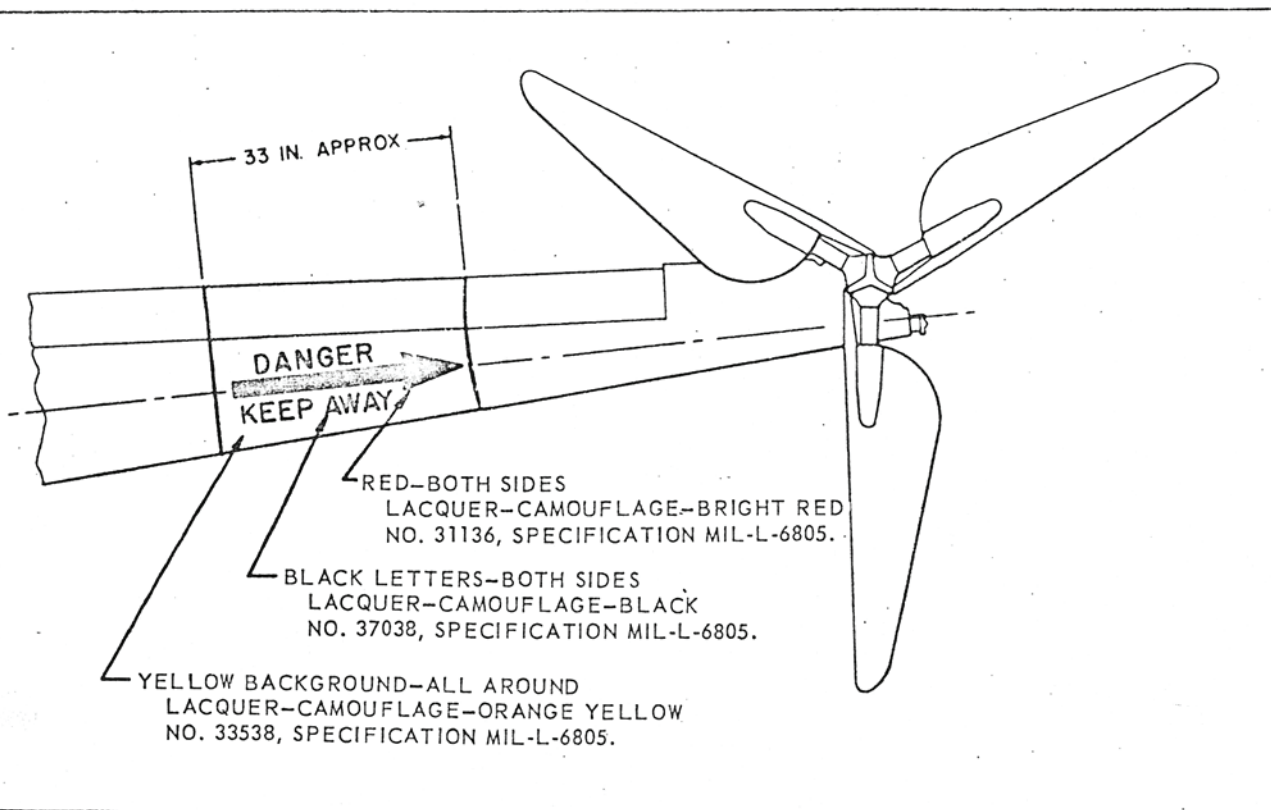


Figure 3-4. Helicopter Tail Boom Markings.

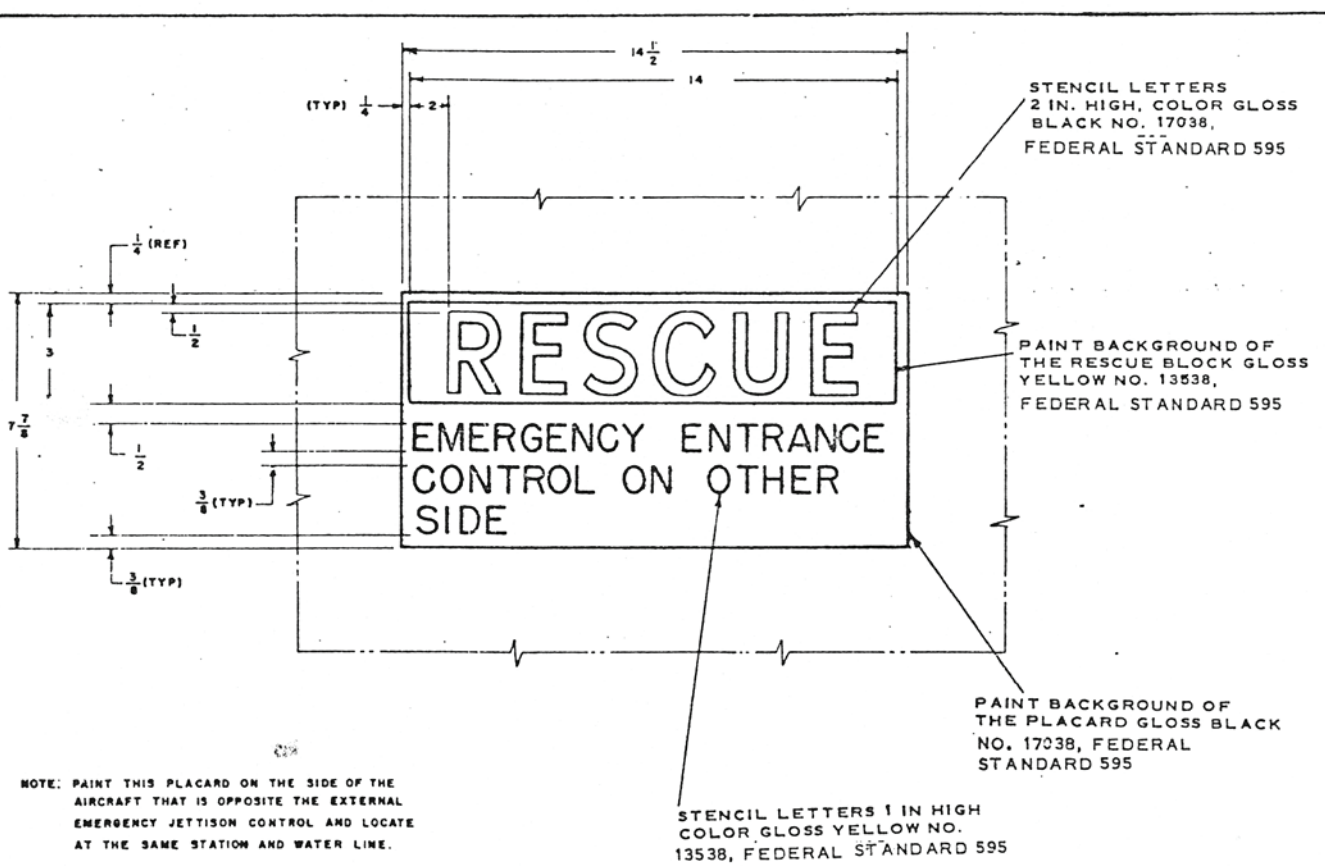


Figure 3-5. Emergency Instruction Markings.

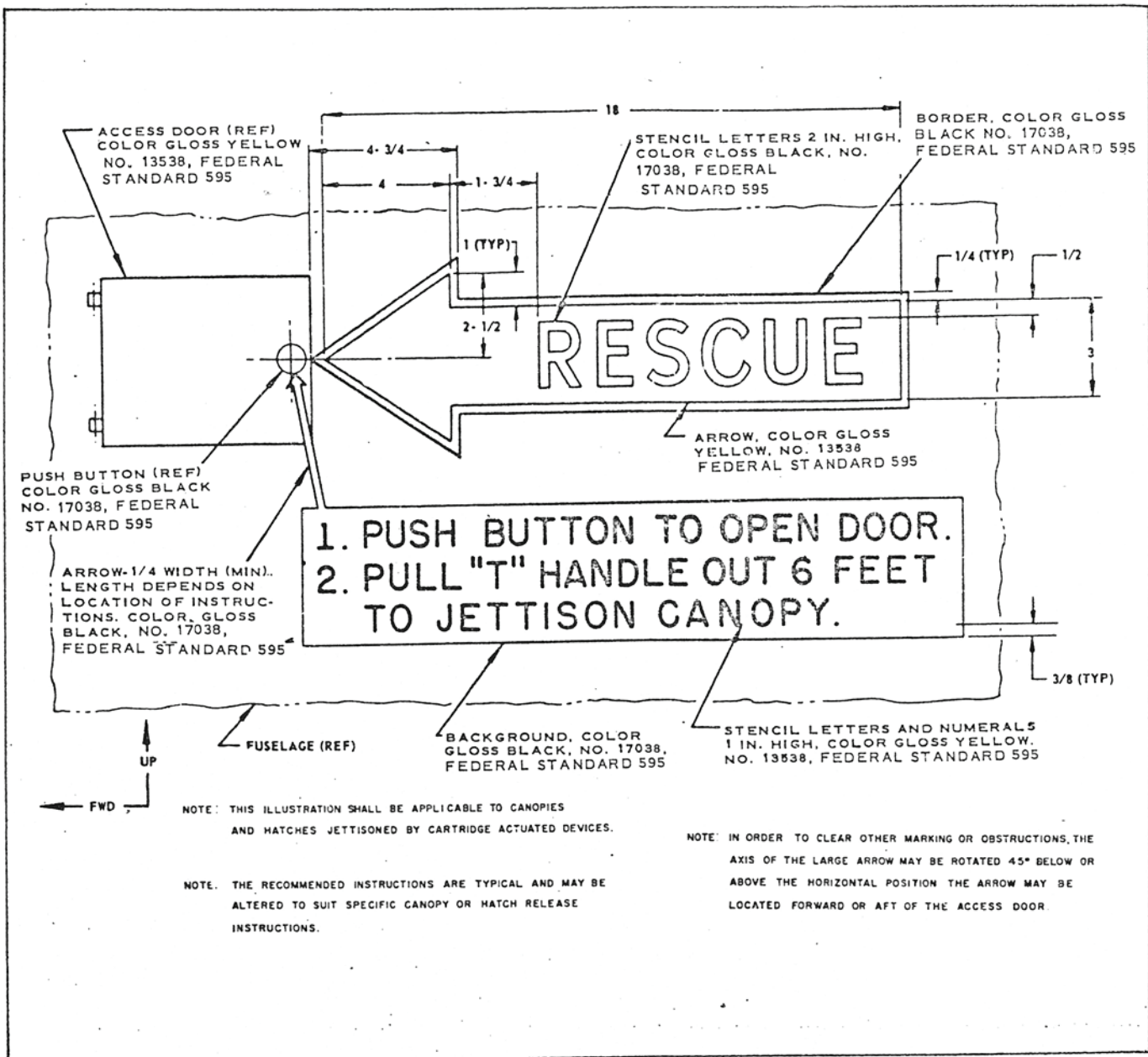


Figure 3-6. Emergency Entry Markings.

## B-26 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-7)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044, Stars, Bars - Code 17875. Stripes - Code 509
D. National Star	On under surface of right wing and top surface of left wing.	40-inch star	Background, Border - Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538
K. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044

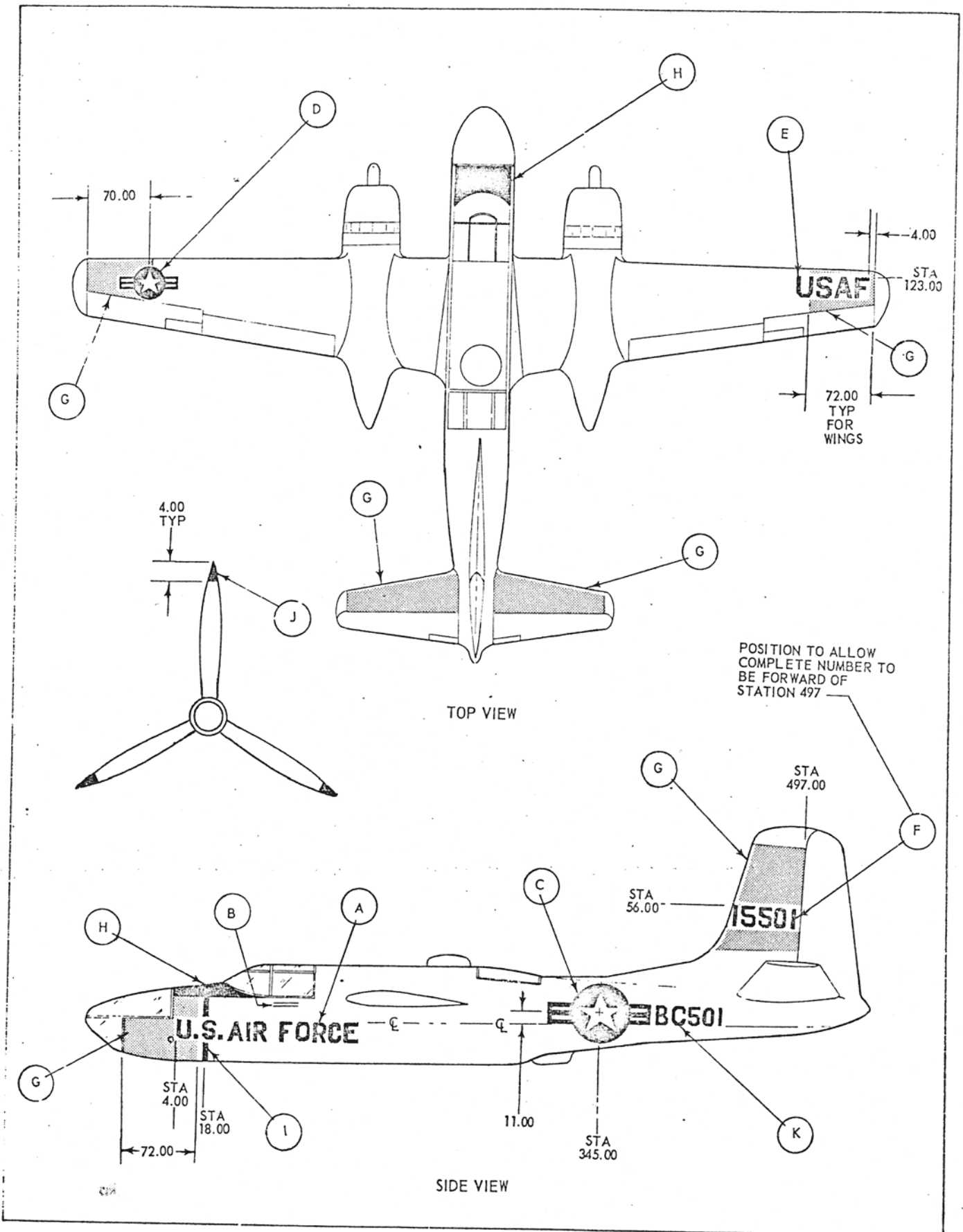


Figure 3-7. B-26 Aircraft Marking Specification.

## B-47 AIRCRAFT MARKING SPECIFICATIONS (SEE FIGURE 3-8)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 24 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border - Code 15044. Stars, Bars, - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and on top surface of left wing	50-inch star	Background, Border - Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and on under surface of left wing	Letters 36 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpits		-Code 37038
I. Jet Warning Stripe	Around engine cowling at Station 183.0	To be a 2-inch stripe encompassing the lower 270 degrees of the engine cowling	-Code 509
J. Walkways		Border 2 inches wide	-Code 17038



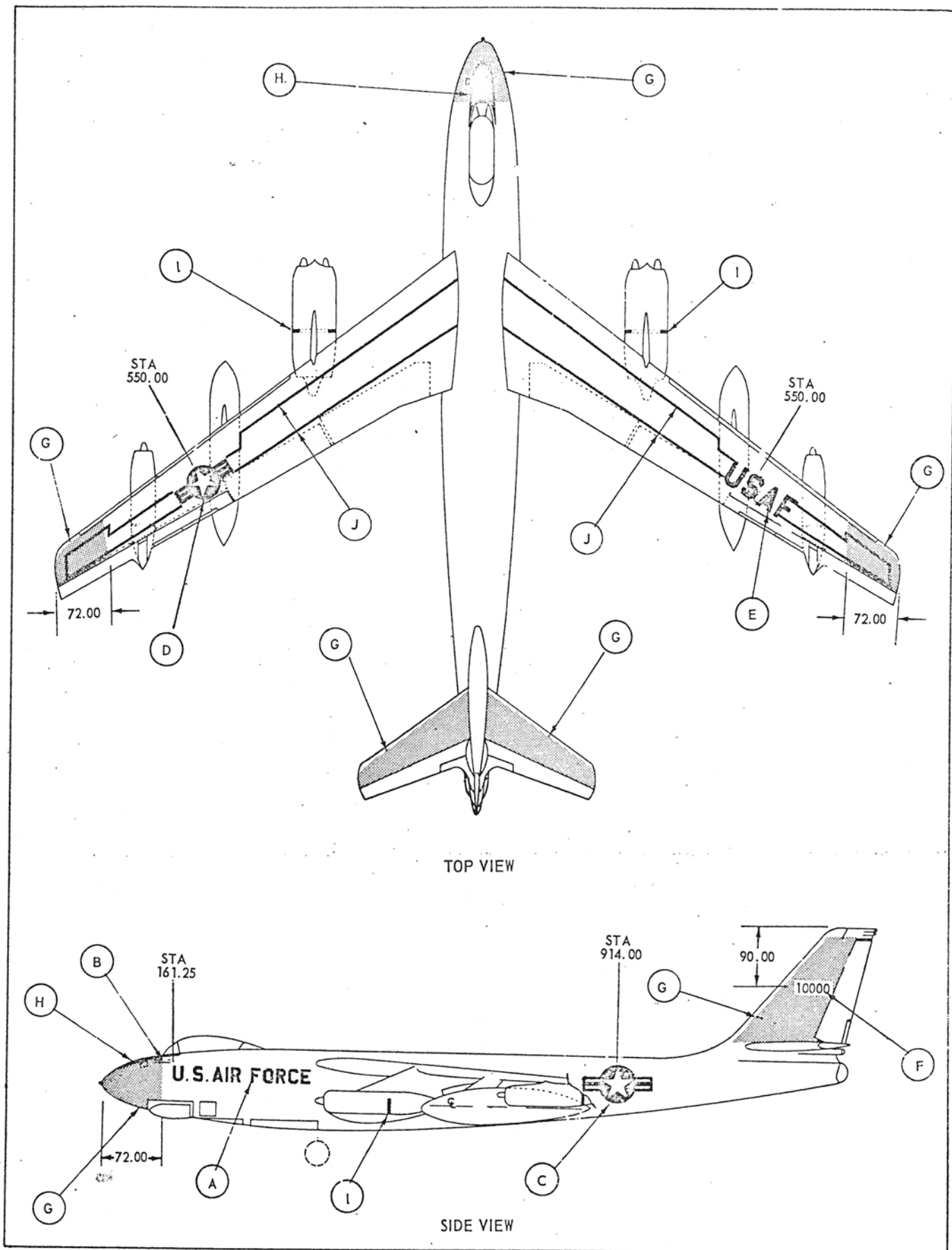


Figure 3-8. B-47 Aircraft Marking Specification.

## B-50 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-9)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border - Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	50-inch star	Background - Border, Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 60 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 18 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Propeller Caution Band	On fuselage through same plane of propeller travel	3 inches wide	Band, Arrows - Code 504. Danger - Propeller - Code 17875.
I. Propeller Tips	On both sides	6 inches from tip	-Code 33538

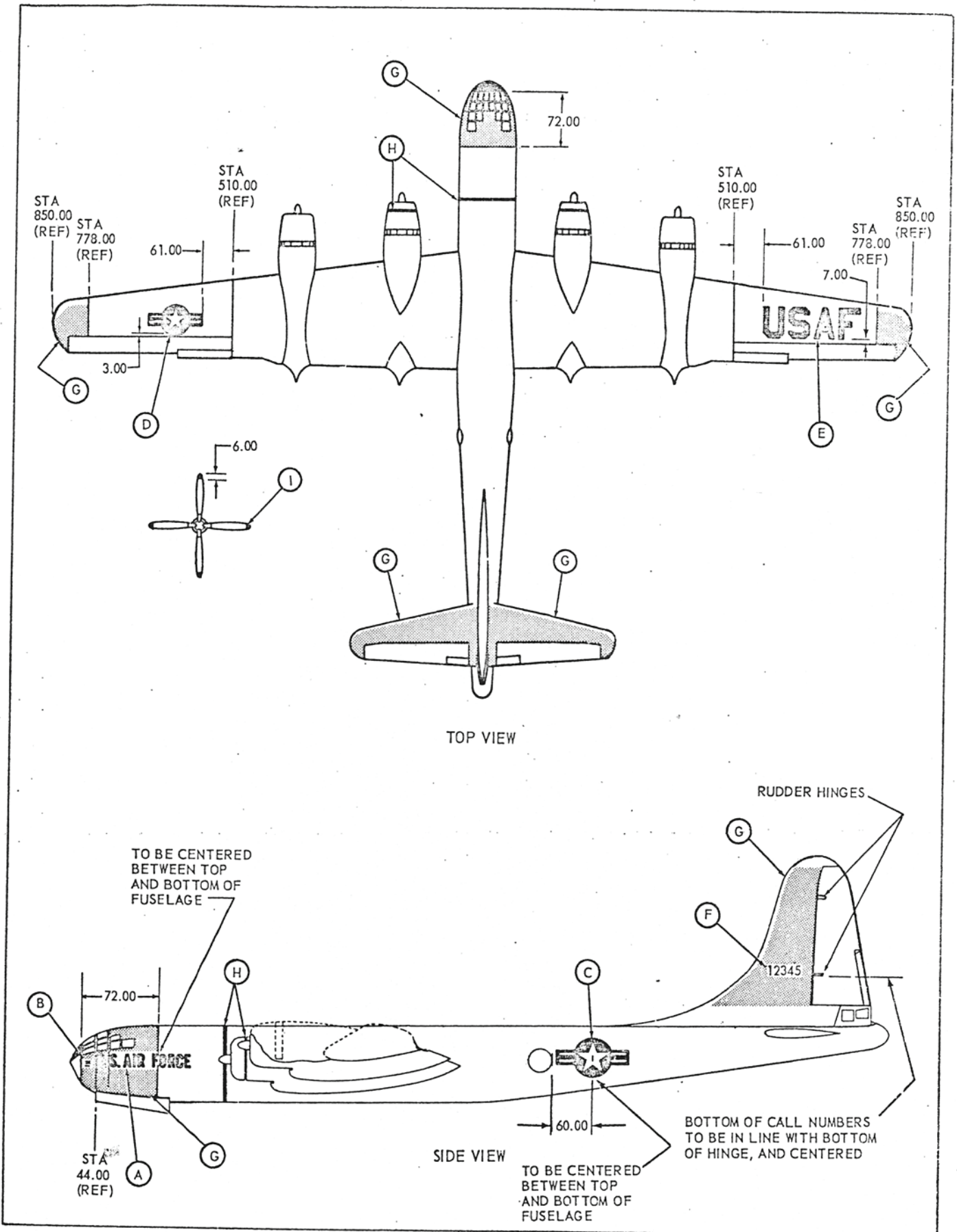


Figure 3-9. B-50 Aircraft Marking Specification.

## B-52 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-10)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 36 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	60-inch star	Background, Border - Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	Top of left wing only	60-inch star	Background, Border - Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	Top of right wing only	Letters 60 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 18 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit, and in forward of aft radome		-Code 37038
I. Walkways		Border 2 inches wide	-Code 17038

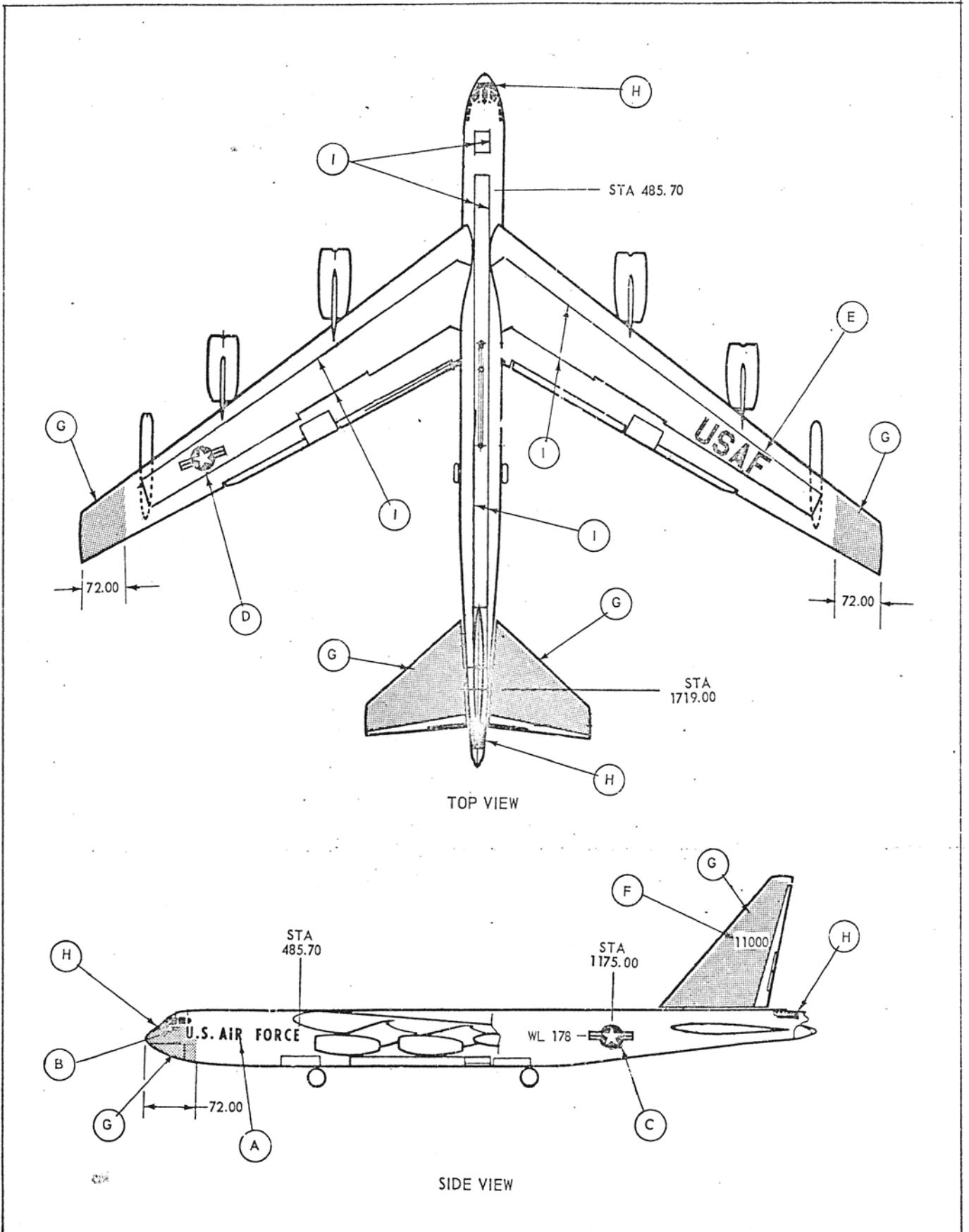


Figure 3-10. B-52 Aircraft Marking Specification.

## B-57 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-11)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirements	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	35-inch star	Background, Border - Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	60-inch star	Background, Border - Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing, under surface of left wing	Letters 50 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Jet Warning Stripe		2 inches wide	-Code 509
J. Turbine Wheel Warning Stripe		2 inches wide	-Code 509

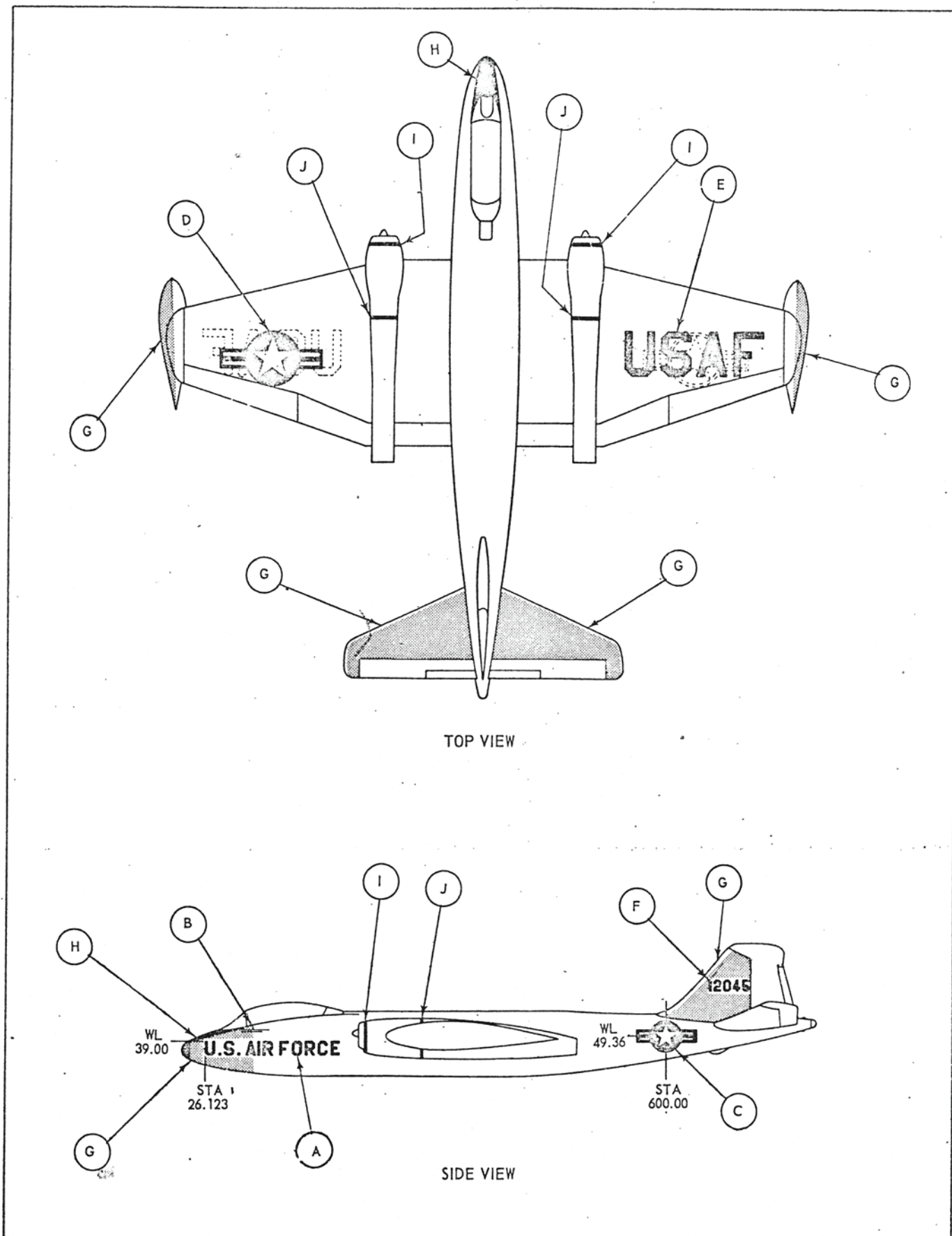


Figure 3-11. B-57 Aircraft Marking Specification.

## B-58 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-12)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On upper surface of left wing only	55-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On upper surface of right wing only	Letters 50 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Walkways		Border 2 inch wide	-Code 17038



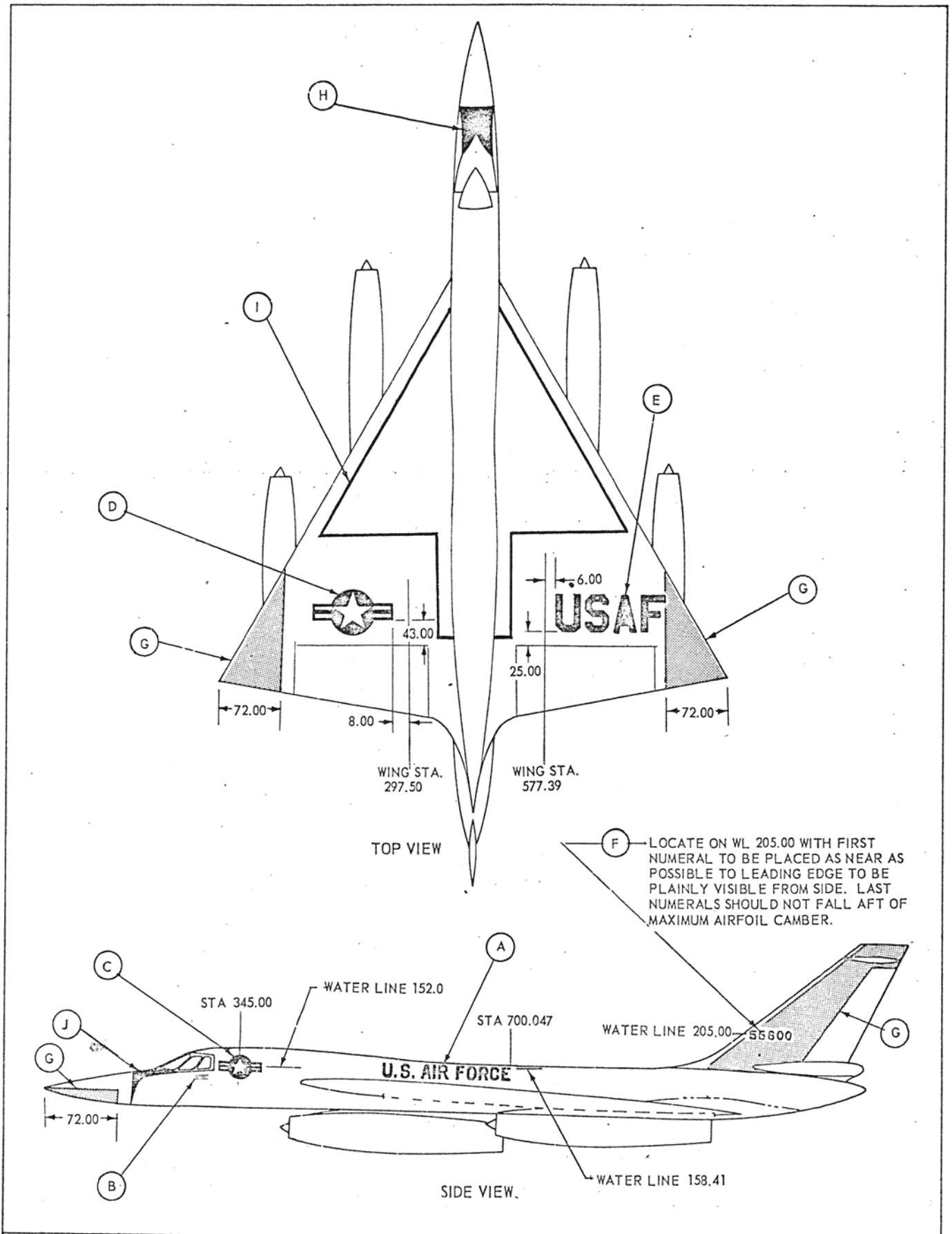


Figure 3-12. B-58 Aircraft Marking Specification.

## B-66 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-13)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border, -Code 15044, Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	35-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface; of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Number 12 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit and inboard nacelles		-Code 37038
I. Jet Warning Stripe		Two stripes 2 inches wide	-Code 509
J. Starter Turbine Warning Stripe		2 inches wide	-Code 509
K. Walkways		Border 2 inches wide	-Code 17038

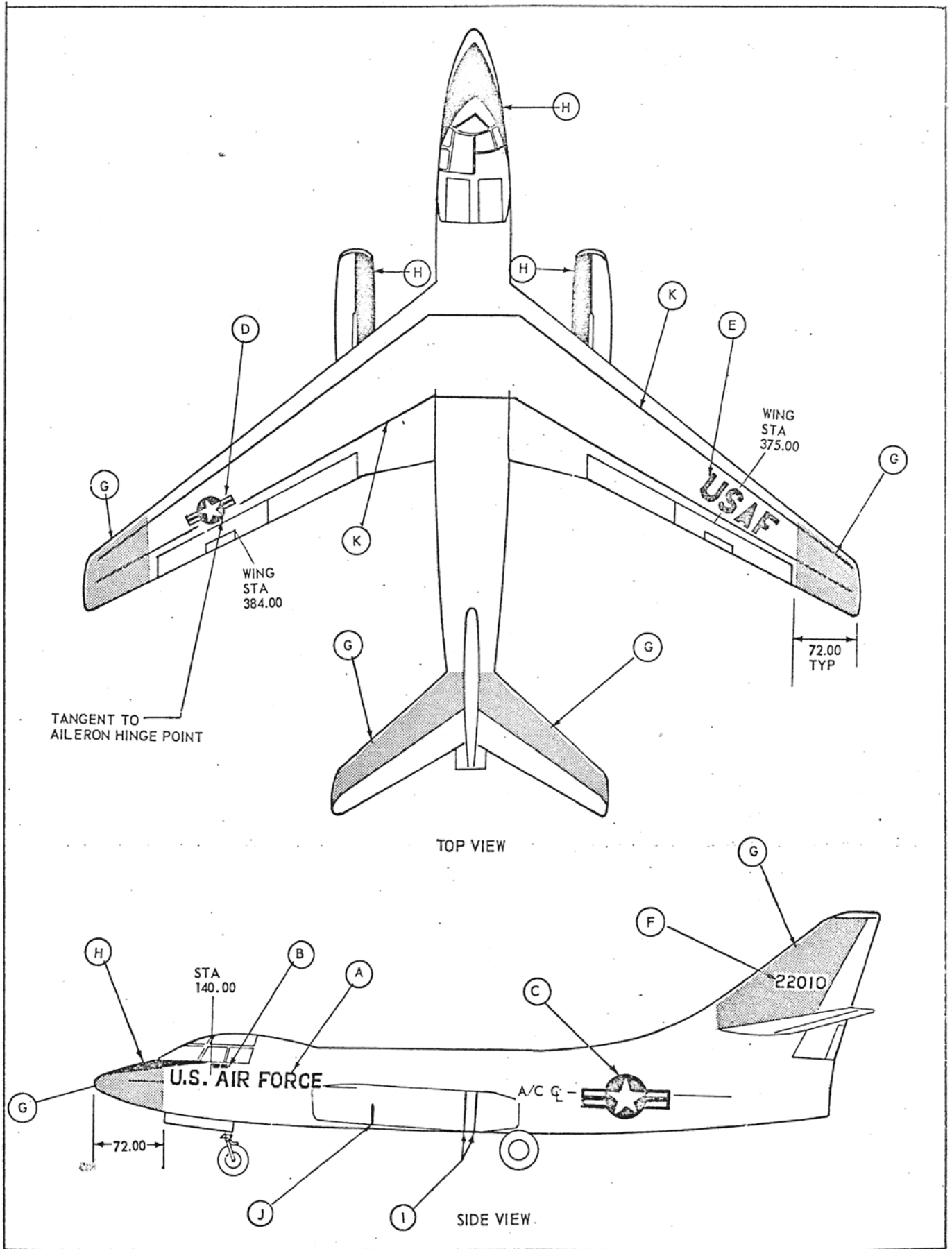


Figure 3-13. B-66 Aircraft Marking Specification.

## C-47/C-117 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-14)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 50 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit, and inboard nacelles		-Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller travel	3 inches wide	Band, Arrows; Danger - Code 509. Propeller - Code 17875
J. Propeller tips	On both sides	4 inches from tip	-Code 33538

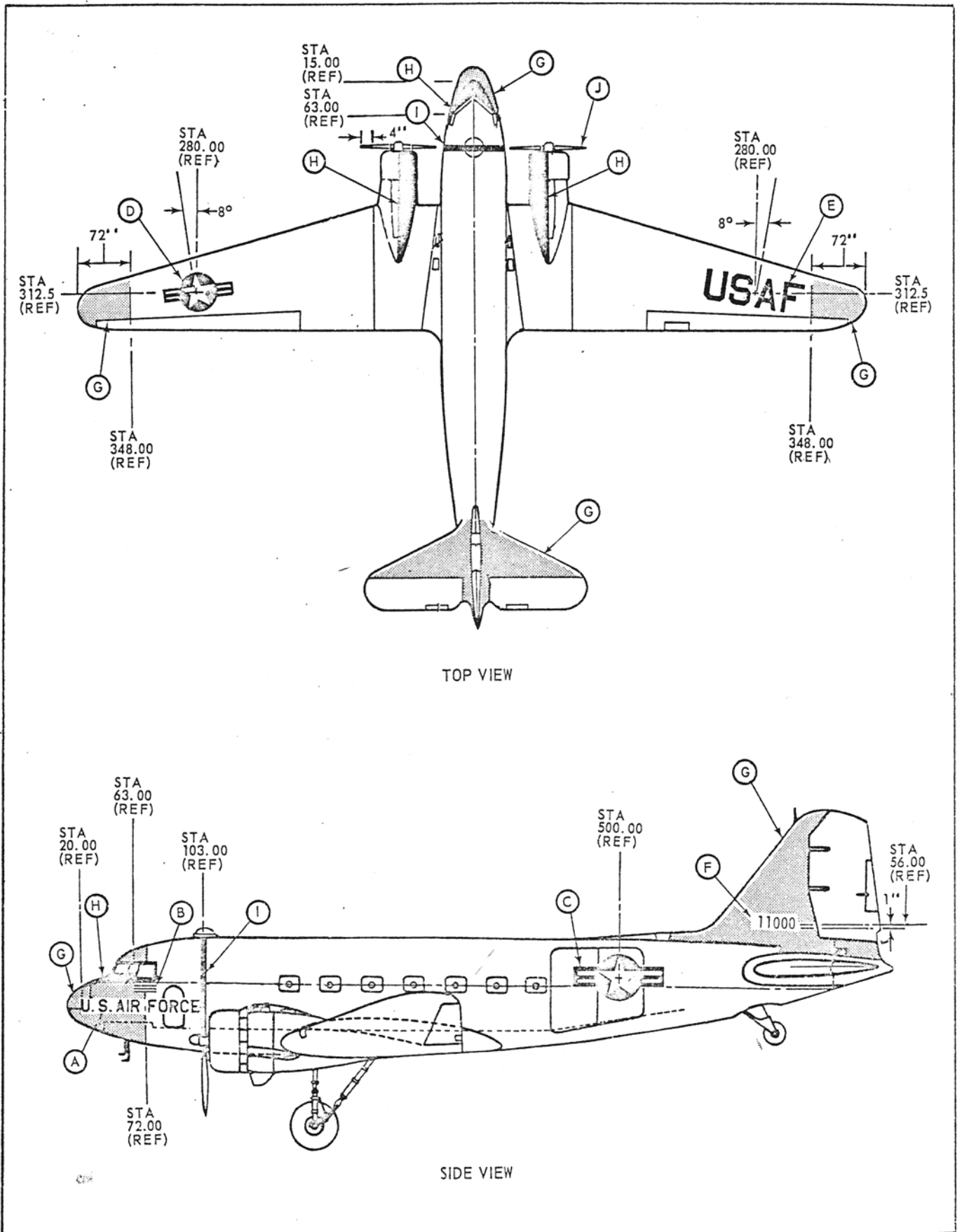
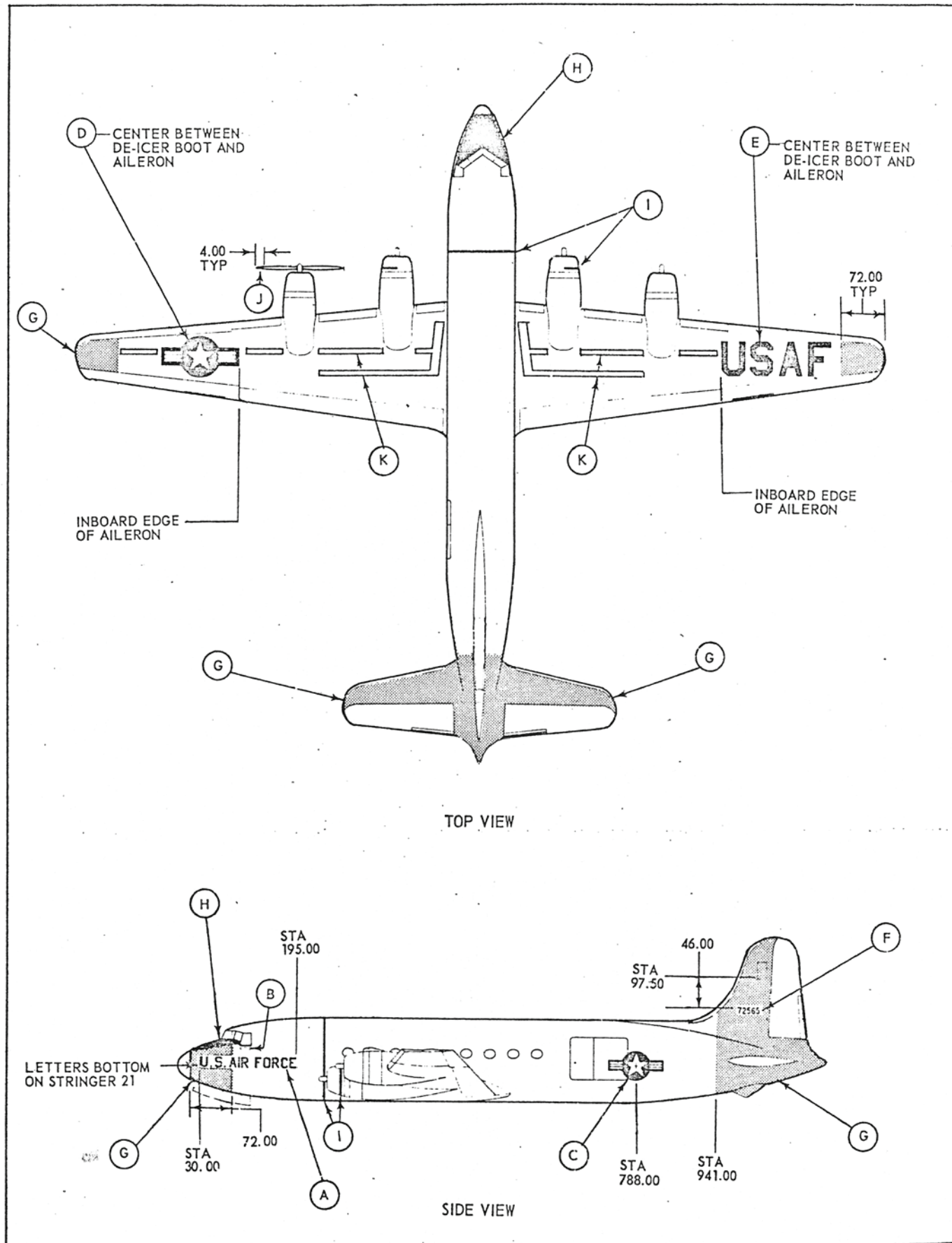


Figure 3-14. C-47/C-117 Aircraft Marking Specification.

## C-54 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-15)

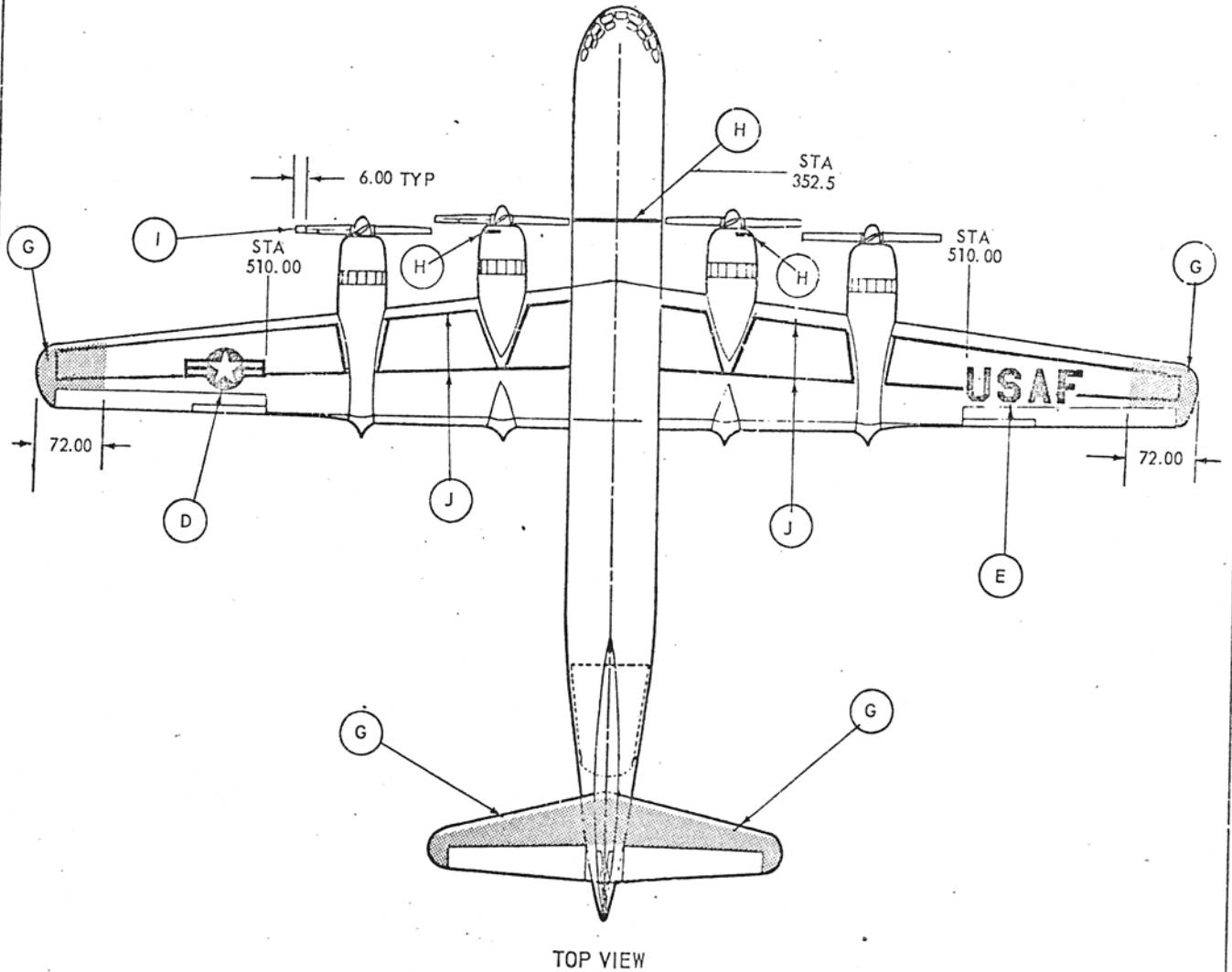
1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	45-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On Under surface of right wing and top surface of left wing	60-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	60 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Caution Band	On fuselage and inboard engine cowling through same plane of propeller travel	3 inches wide	Bands, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538
K. Walkways		Border 2 inches wide	-Code 17038



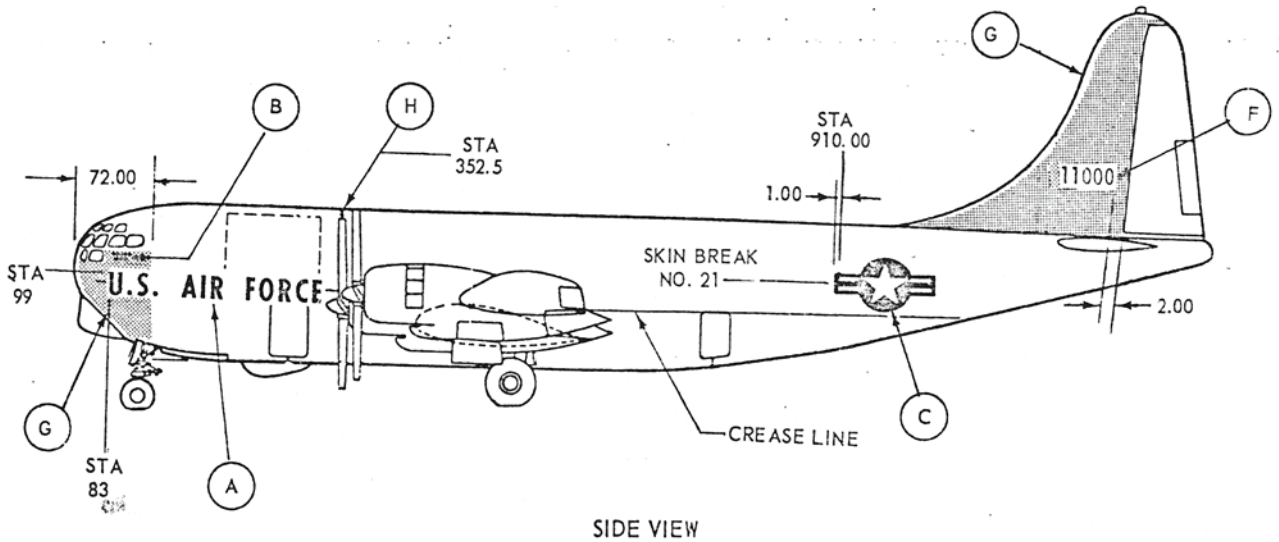
## C-97 AIRCRAFT MARKING SPECIFICATIONS (SEE FIGURE 3-16)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 30 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 60 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 18 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Propeller Caution Band	On fuselage and inboard engine cowlings through same plane of propeller travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
I. Propeller Tips	On both sides	6 inches from tip	-Code 33538
J. Walkways		Border 2 inches wide	-Code 17038





TOP VIEW



SIDE VIEW

Figure 3-16. C-97 Aircraft Marking Specification.

## C-118 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-17)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 24 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and number 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	40-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. National Star	On under surface of right wing and top surface of left wing	60-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 60 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	16 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Caution Band	On fuselage and inboard engine cowling through same plane of propeller blade travel	3 inches wide	Band, Arrows - Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538

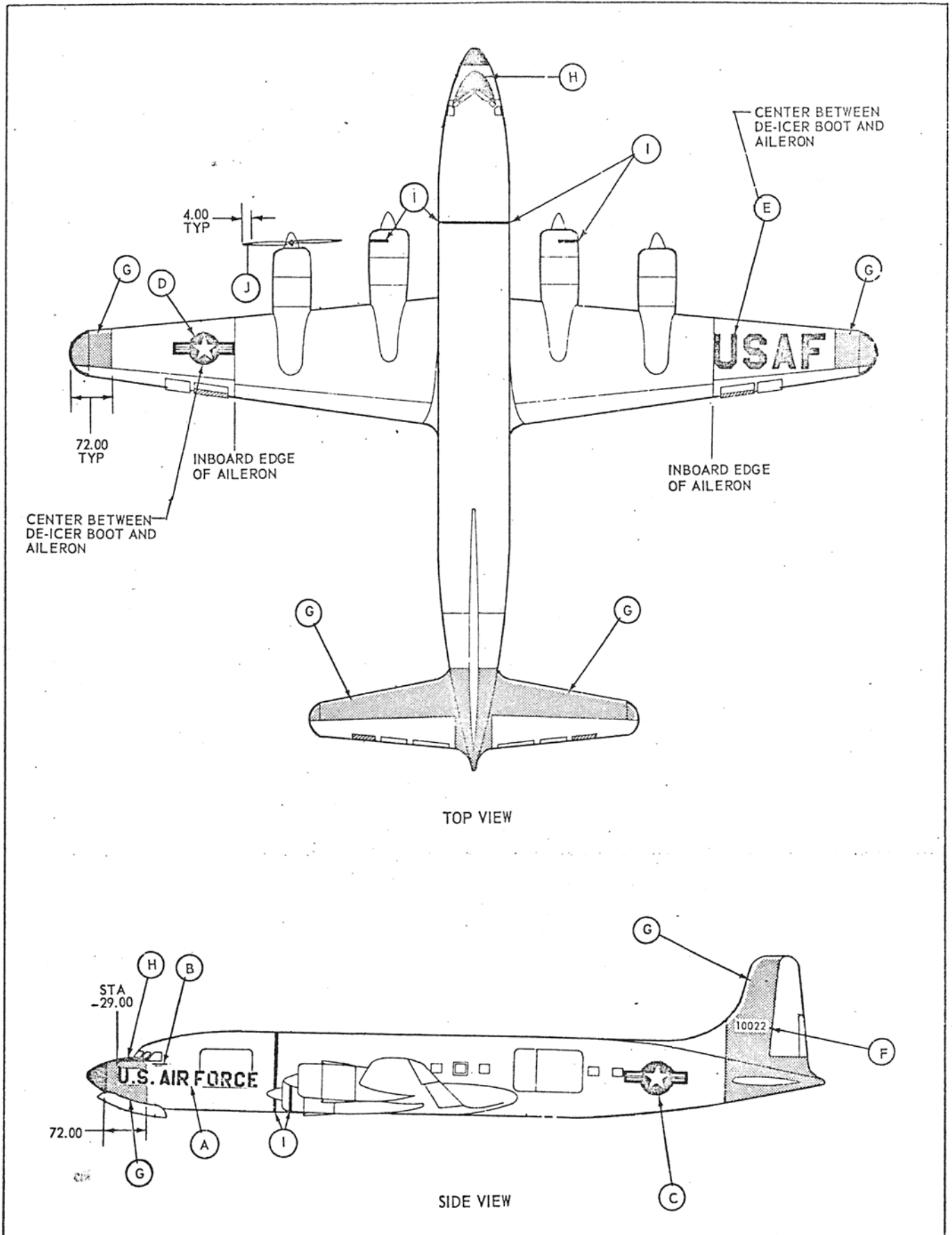


Figure 3-17. C-118 Aircraft Marking Specification.

## C-119 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-18)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letter 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	45-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	60-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 60 inches high	-Code 15044
F. Call Numbers	On outboard side of each vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller travel	3 inches wide	Band, Arrow, Danger - Code 509. Propeller - Code 17875
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538

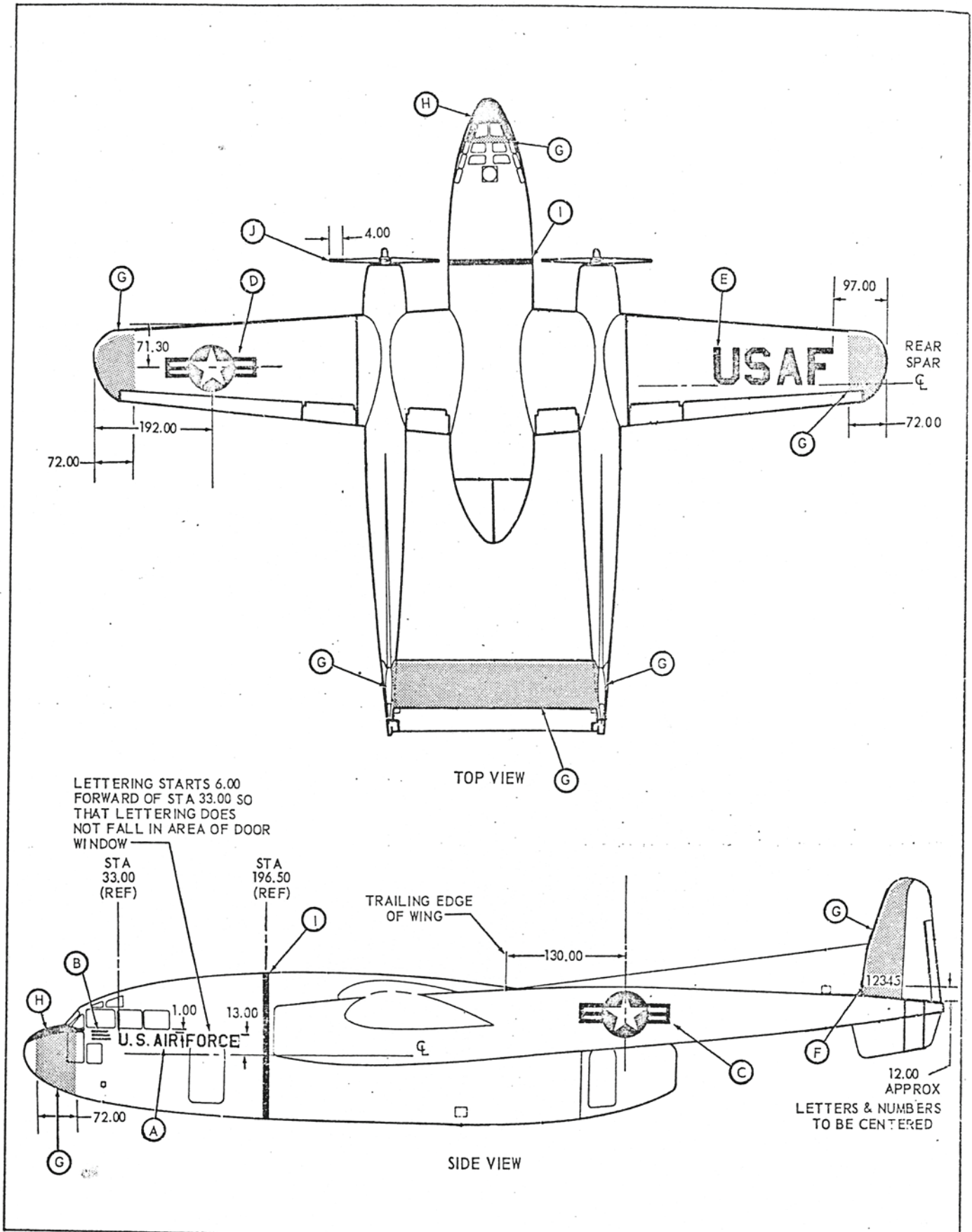


Figure 3-18. C-119 Aircraft Marking Specification.

## C-121 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-19)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 24 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and number 1 inch high	-Code 17038
C. National Star	Both sides of fuselage; Star to be centered on a line 12 inches below bottom of windows	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 60 inches	-Code 15044
F. Call Numbers	On outside surface of each outboard vertical stabilizer	Numbers 16 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Caution Band	On fuselage and inboard engine cowling through same plane of propeller blade travel	3 inches wide	Band, Danger, Arrows - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	6 inches from tip	-Code 33538

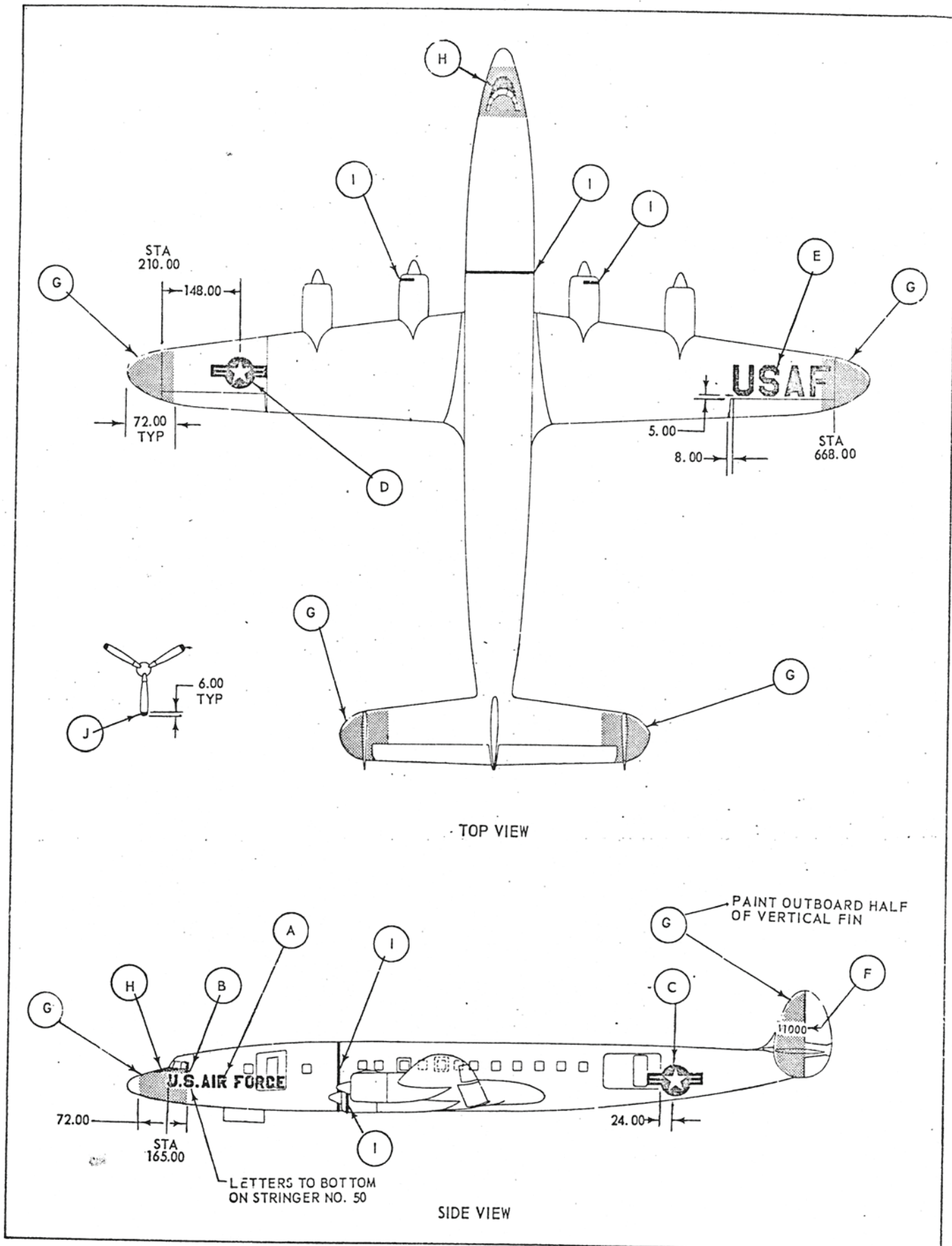
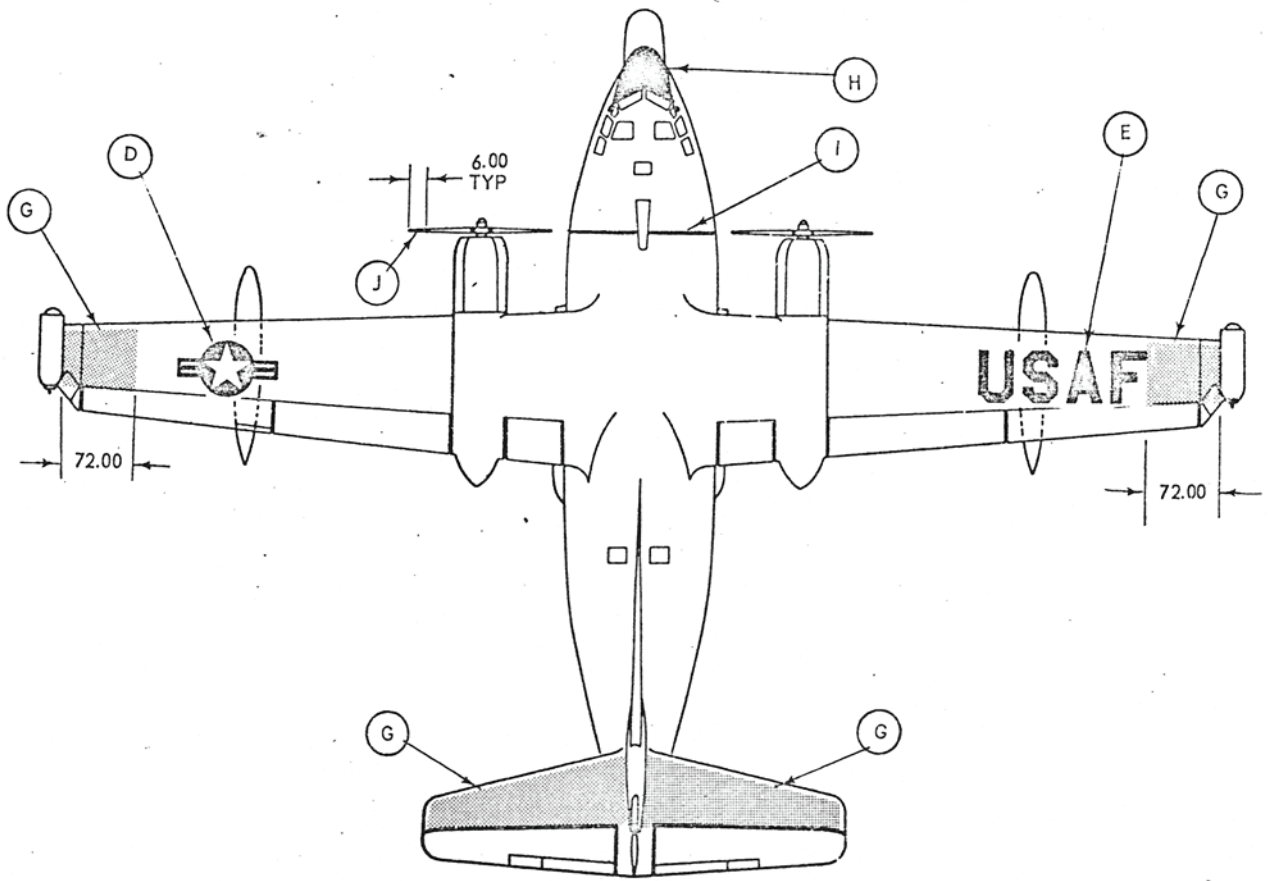


Figure 3-19. C-121 Aircraft Marking Specification.

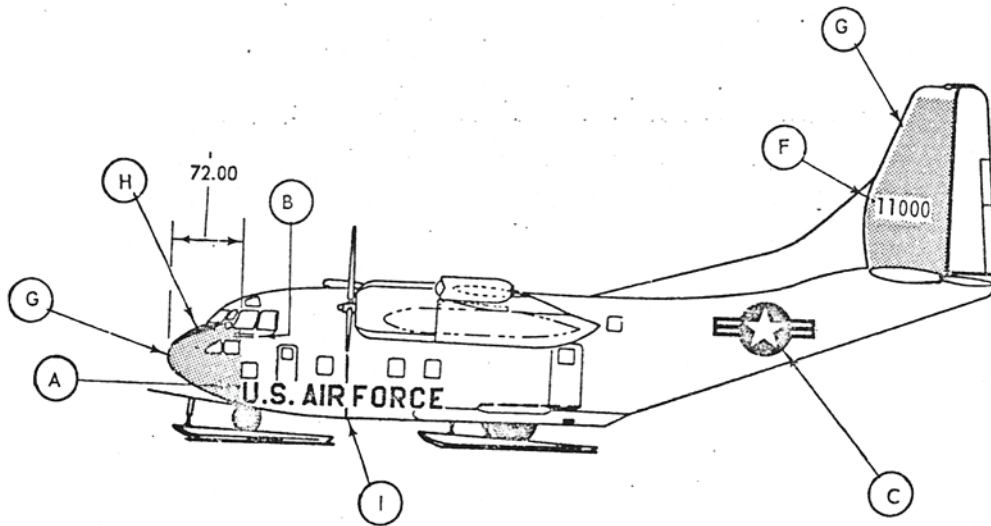
## C-123 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-20)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number, and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	60-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 60 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Number 18 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller travel	3 inches	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	6 inches from tip	-Code 33538





TOP VIEW

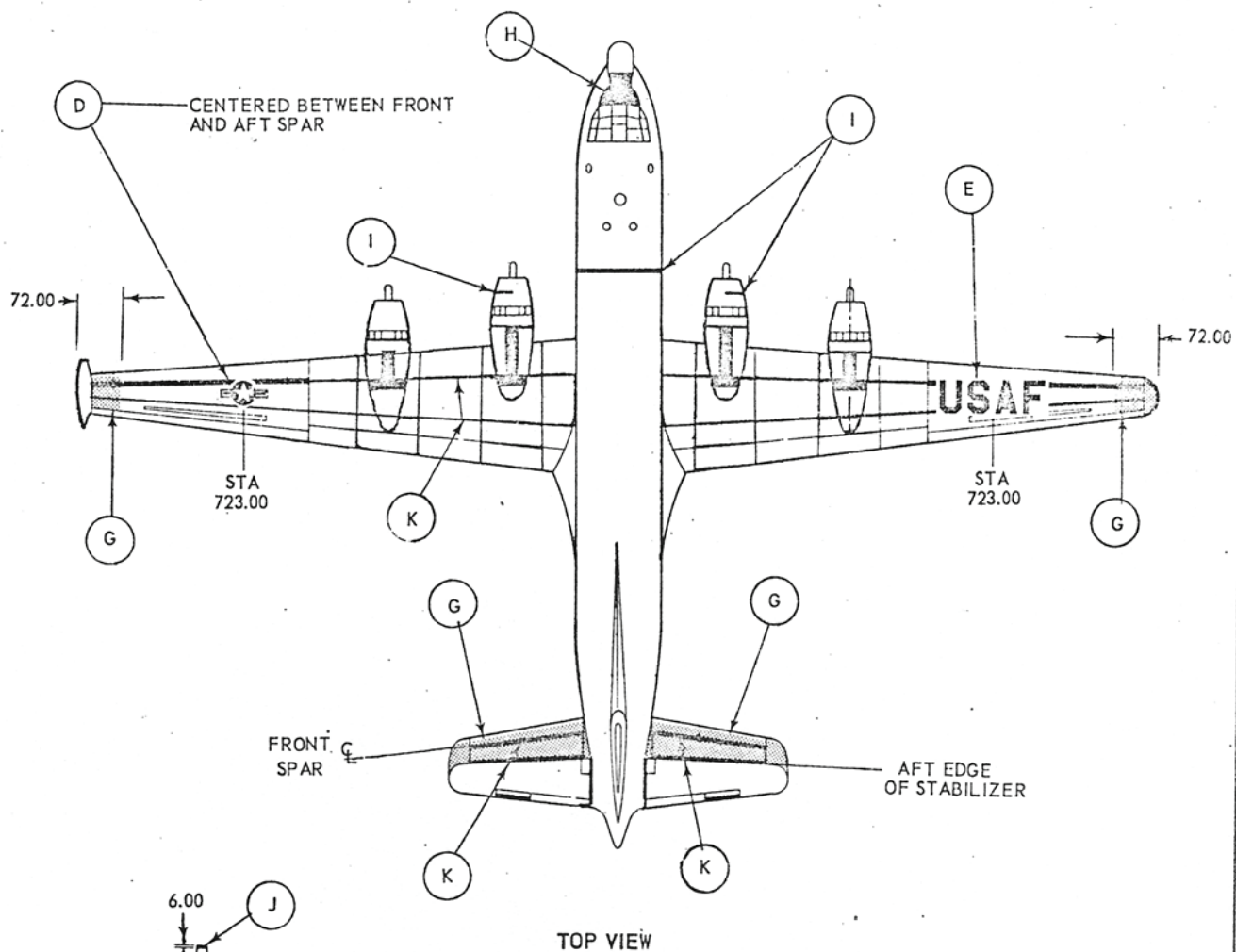


SIDE VIEW

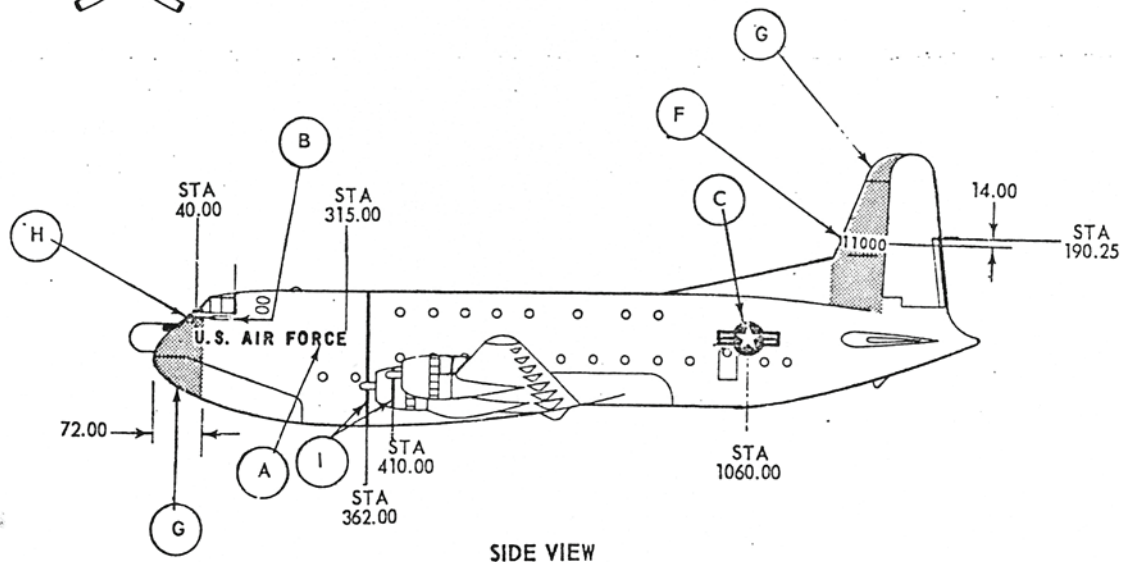
Figure 3-20. C-123 Aircraft Marking Specification.

## C-124 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-21)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 30 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers (see paragraphs 3-30 thru 3-31)	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border -Code 15044. Star, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	50-inch star	Background, Border -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 60 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 18 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Caution Band	On fuselage and inboard engine cowling through same plane of propeller travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875
J. Propeller Tips	On both sides	6 inches from tip	-Code 633
K. Walkways		Border 2 inches wide	-Code 17038



TOP VIEW



SIDE VIEW

Figure 3-21. C-124 Aircraft Marking Specification.

## C-130 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-22)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 20 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers (see paragraphs 3-30 thru 3-31)	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface or right wing and top surface of left wing	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 50 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Number 18 inches	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Jet Warning Stripe	Around each engine nacelle, and on left wheel pod only	2 inches wide	-Code 509
I. Propeller Caution Band	On fuselage through same plane of propeller travel	3 inches wide	Band-Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	6 inches from tip	-Code 33538
K. Walkways		Border 2 inches wide	-Code 17038

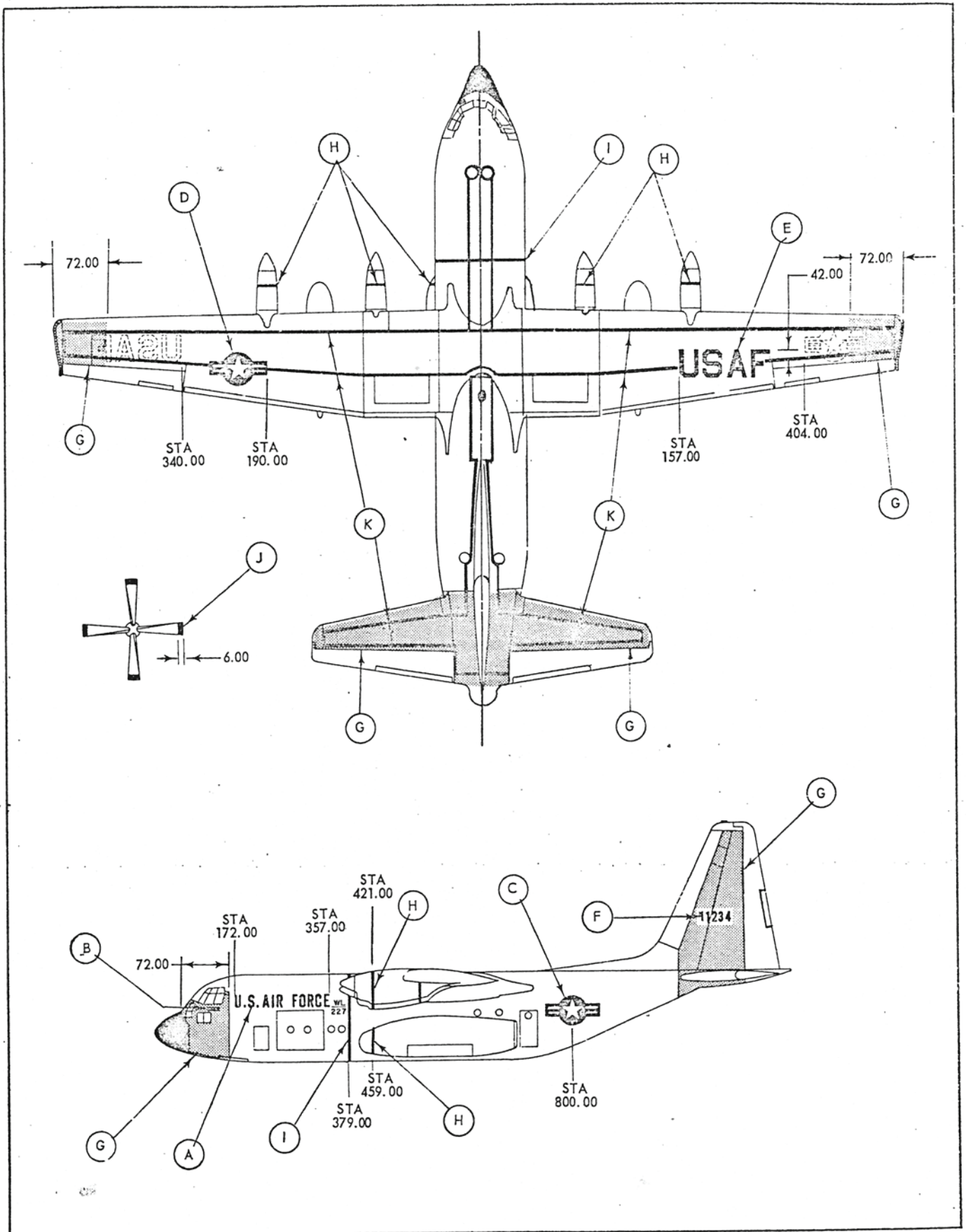
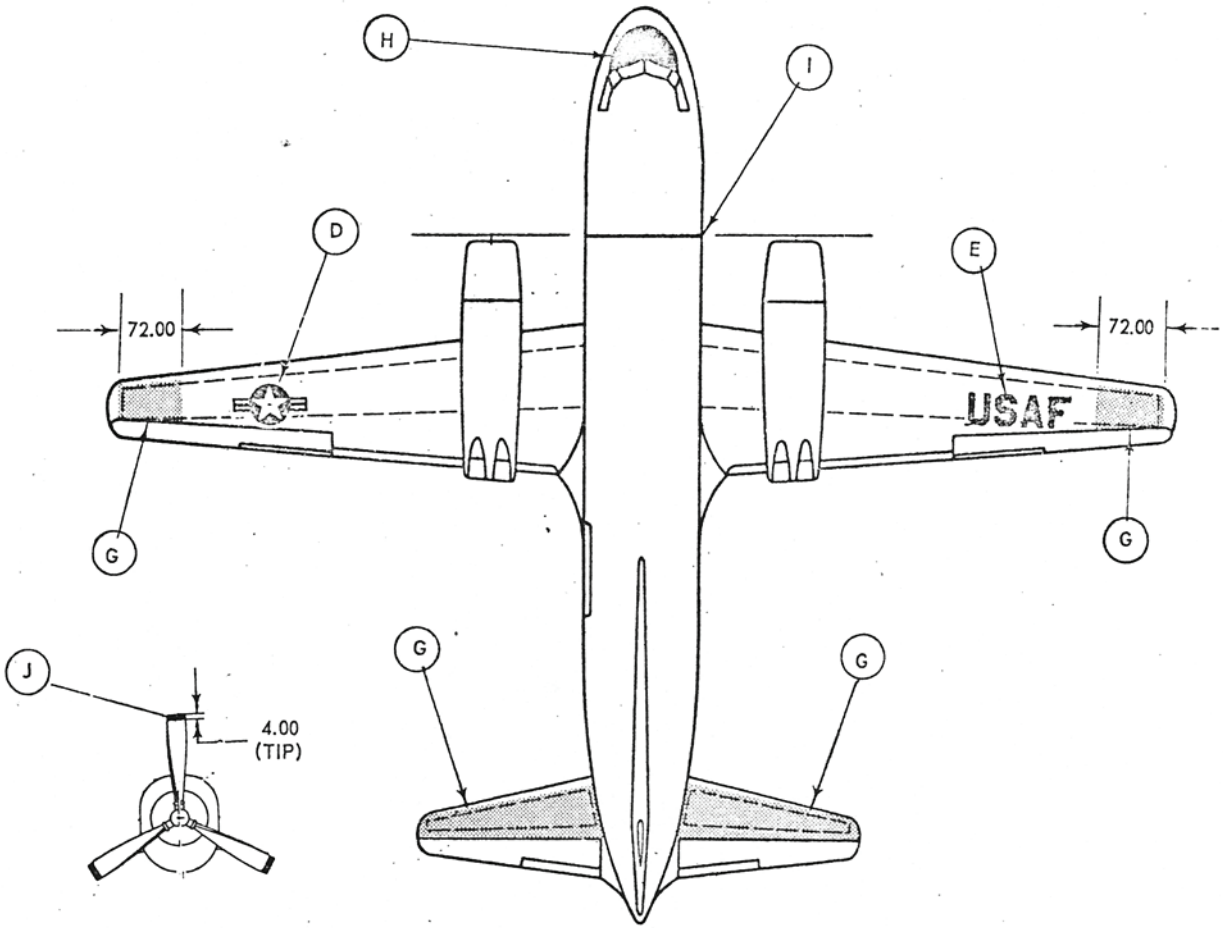


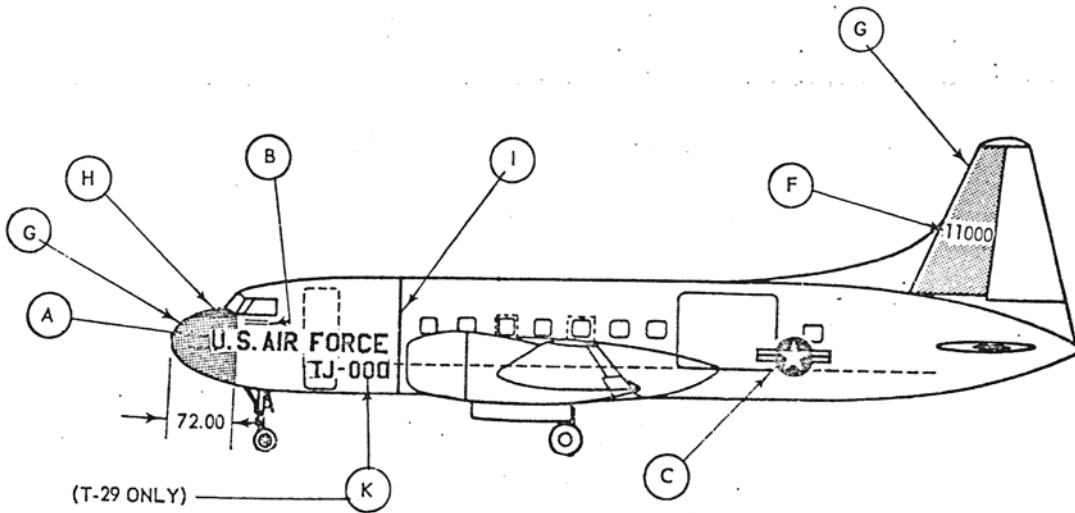
Figure 3-22. C-130 Aircraft Marking Specification.

## C-131/T-29 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-23)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	40-inch star	Background, Border -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	40-inch star	Background, Border -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 40 inches high	-Code 15044
F. Call Numbers	Both sides vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 633
I. Propeller Caution Band	On fuselage through same plane of propeller blade travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538
K. Identification Number (T-29 Only)	Both sides of fuselage	Letters and numbers 16 inches high	-Code 15044



TOP VIEW



SIDE VIEW

Figure 3-23. C-131/T-29 Aircraft Marking Specification.

## C-133 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-24)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 30 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirements	Left side of fuselage only	Letters and numbers (See paragraphs 3-30 thru 3-31)	-Code 17038
C. National Star	Both sides of fuselage	45-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	45-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 50 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 18 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Jet Warning Stripe	a. 33 inches aft of aft edge engine cowling; completely circle each nacelle. b. 20 inches forward of aft edge of engine cowling; bottom of each engine nacelle below HTP. c. Left wheel pod only.	2 inches wide	-Code 509
I. Propeller Caution Band	On fuselage through same plane of propeller blade travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	6 inches from tip	-Code 33538
K. Walkways		Border 2 inches wide	-Code 17038



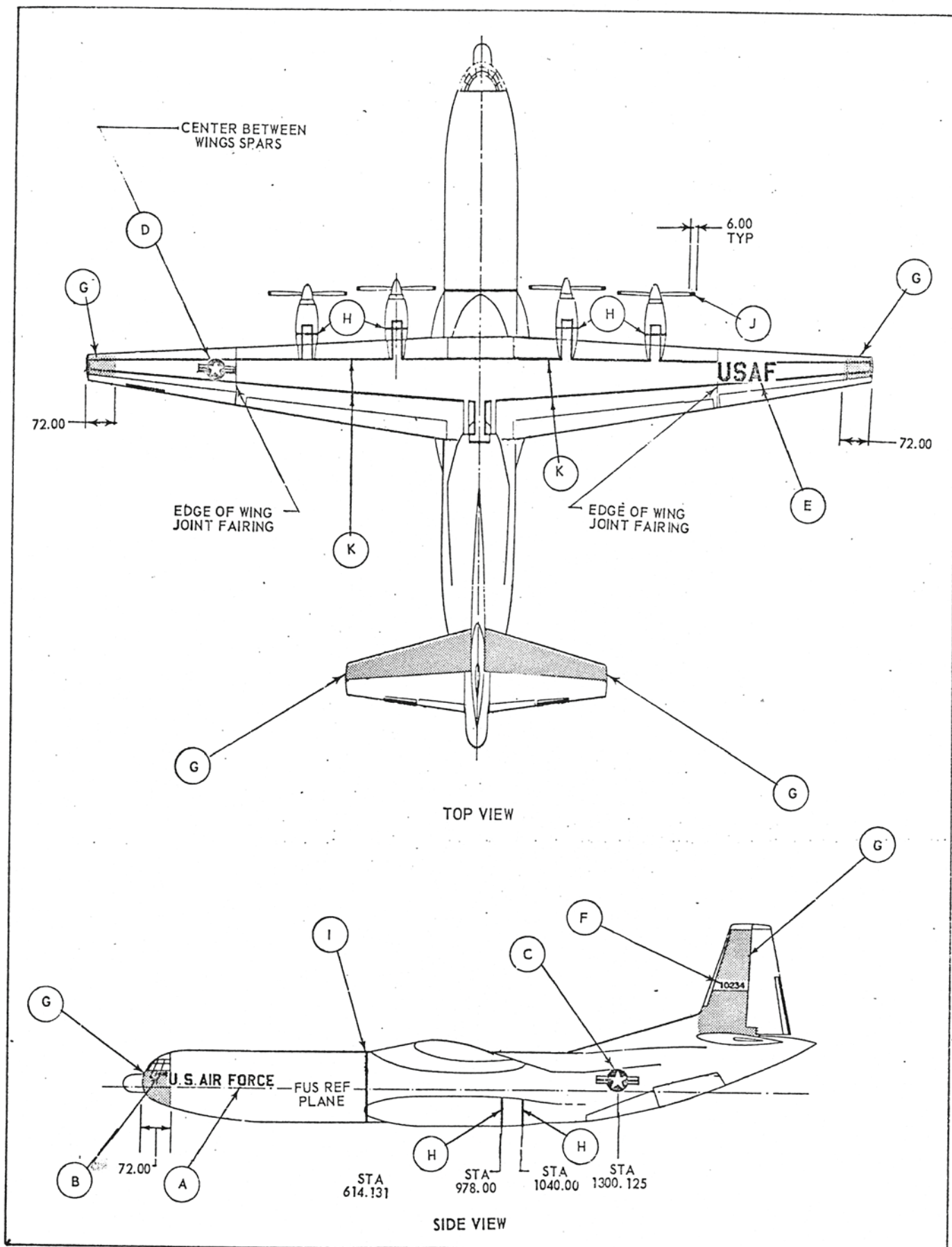


Figure 3-24. C-133 Aircraft Marking Specification.

## C-135 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-25)

1. MARKINGS	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 30 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of aircraft only	Letters and numbers (see paragraphs 3-30 thru 3-31)	-Code 17038
C. National Star	Both sides of fuselage	55-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	55-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 55 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 18 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
Jet Warning Stripe	Around each nacelle cowling	2 inches wide	-Code 509
J. Starter Turbine Wheel Warning Stripe	Around bottom half of each engine nacelle	2 inches wide	-Code 509

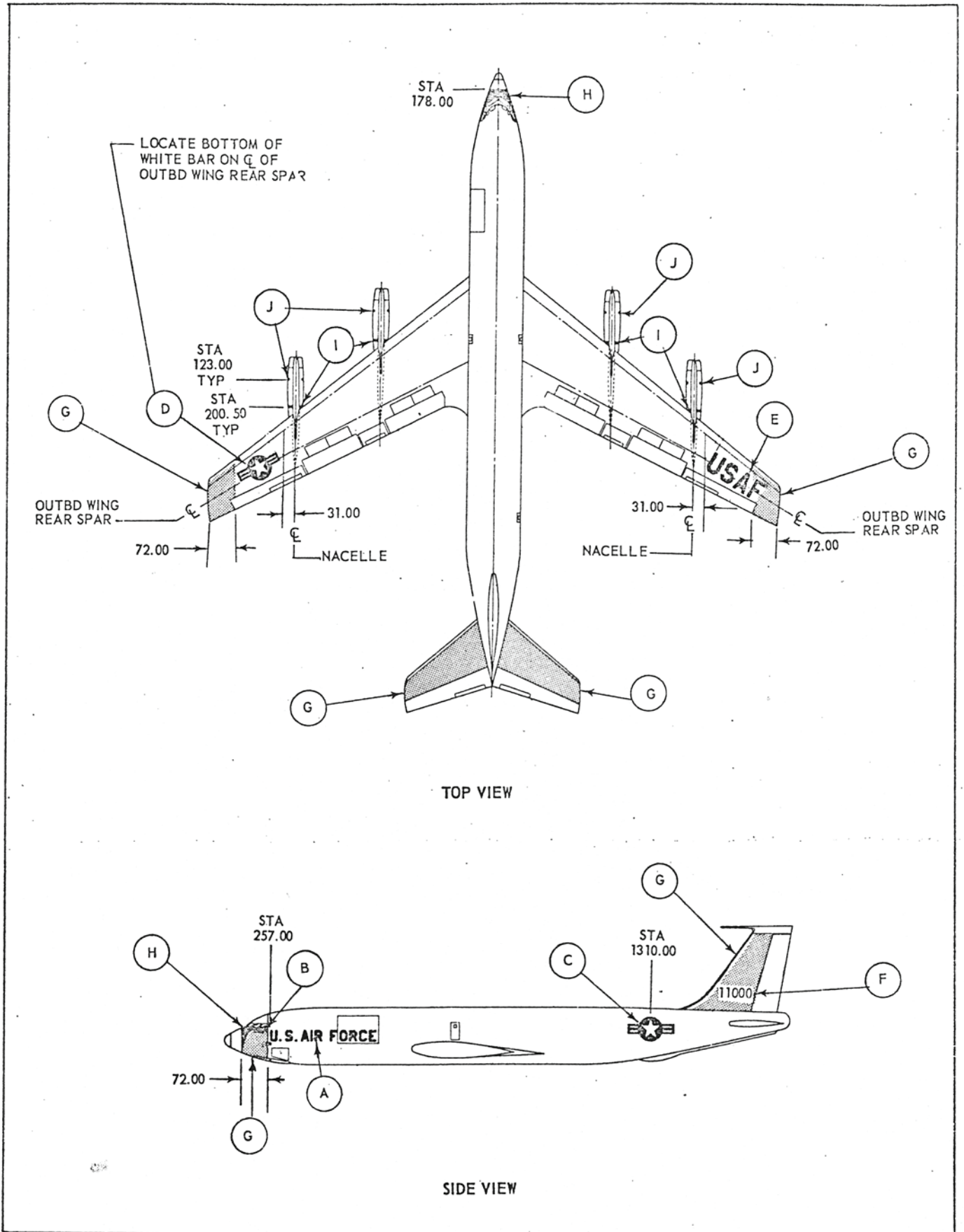


Figure 3-25. C-135 Aircraft Marking Specification.

## C-140 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-26)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of engine nacelle	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and on top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On under surface of left wing and on top surface of right wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 8 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around large insignia and marking		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
Jet Warning Stripe	Around each nacelle cowling	2 inches wide	-Code 509

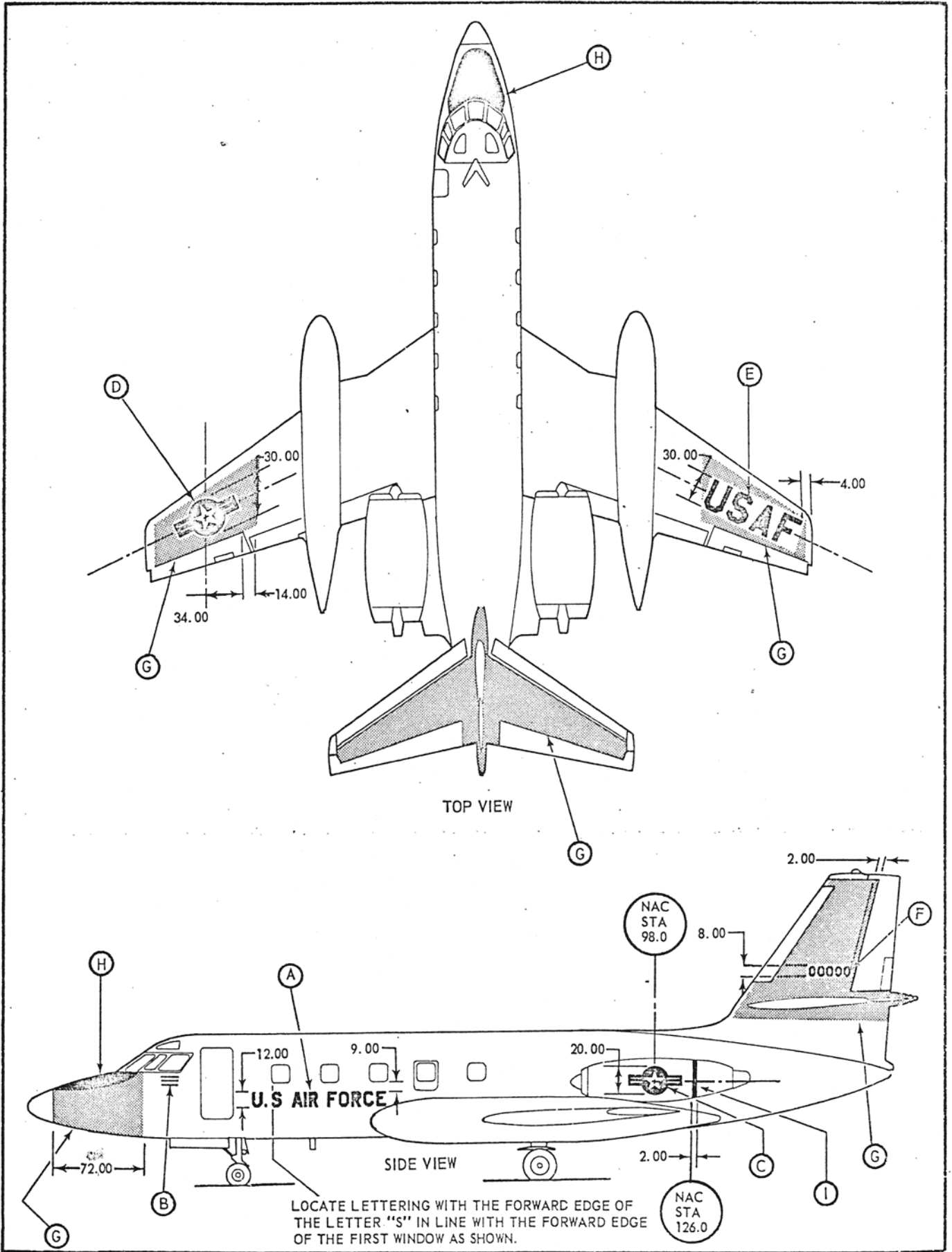


Figure 3-26. C-140 Aircraft Marking Specification.

## C-141 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-27)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 21 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On under surface of left wing and top surface of left wing	Letters 50 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 18 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Jet Warning Stripe	Around each nacelle cowling	2 inches wide	-Code 509
Walkways		Stripes 2 inches wide	-Code 17038

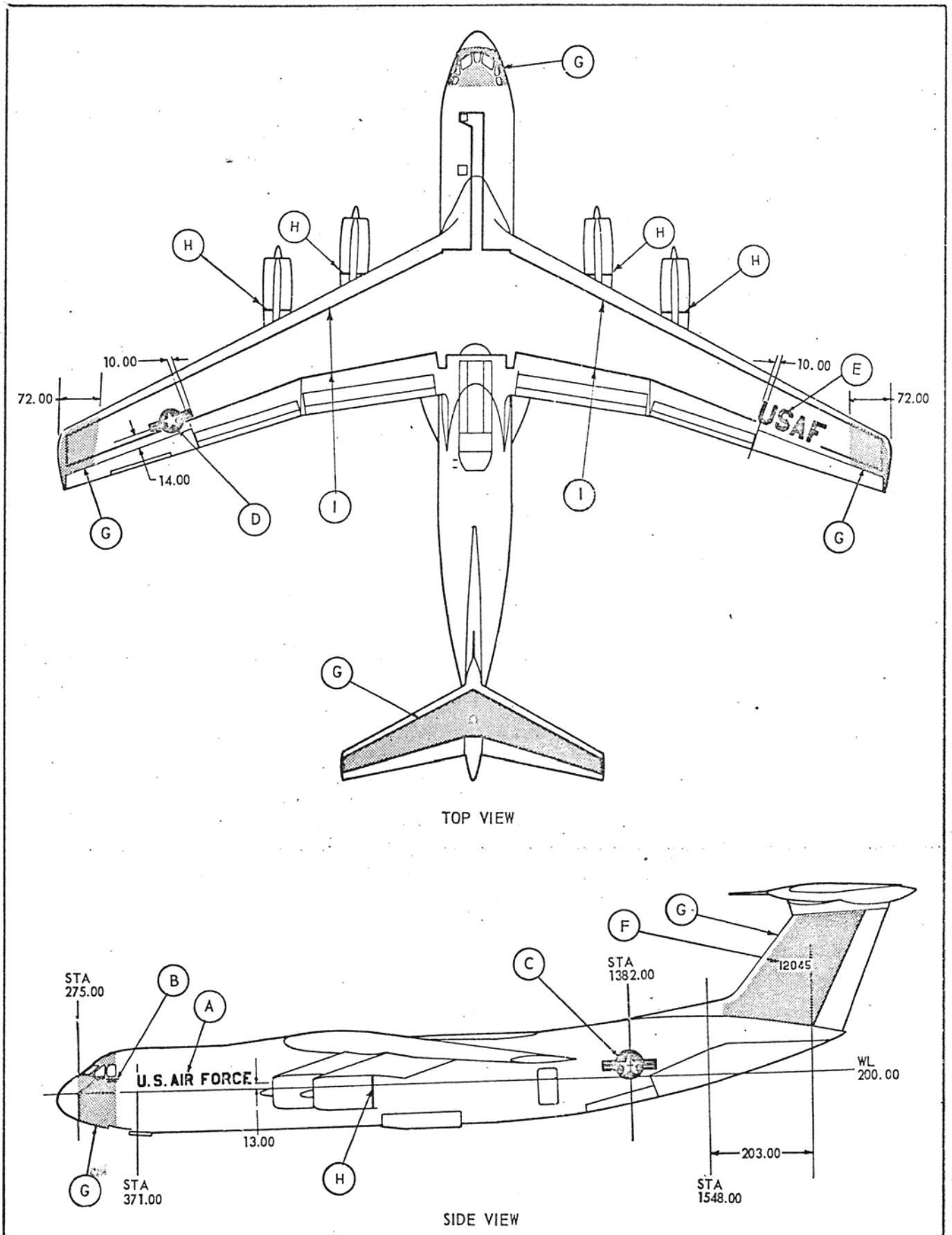


Figure 3-27. C-141 Aircraft Marking Specification.

## F-4 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-28)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing, and top surface of left wing	45-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wings and under surface of left wing	Letters 25 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 17038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044



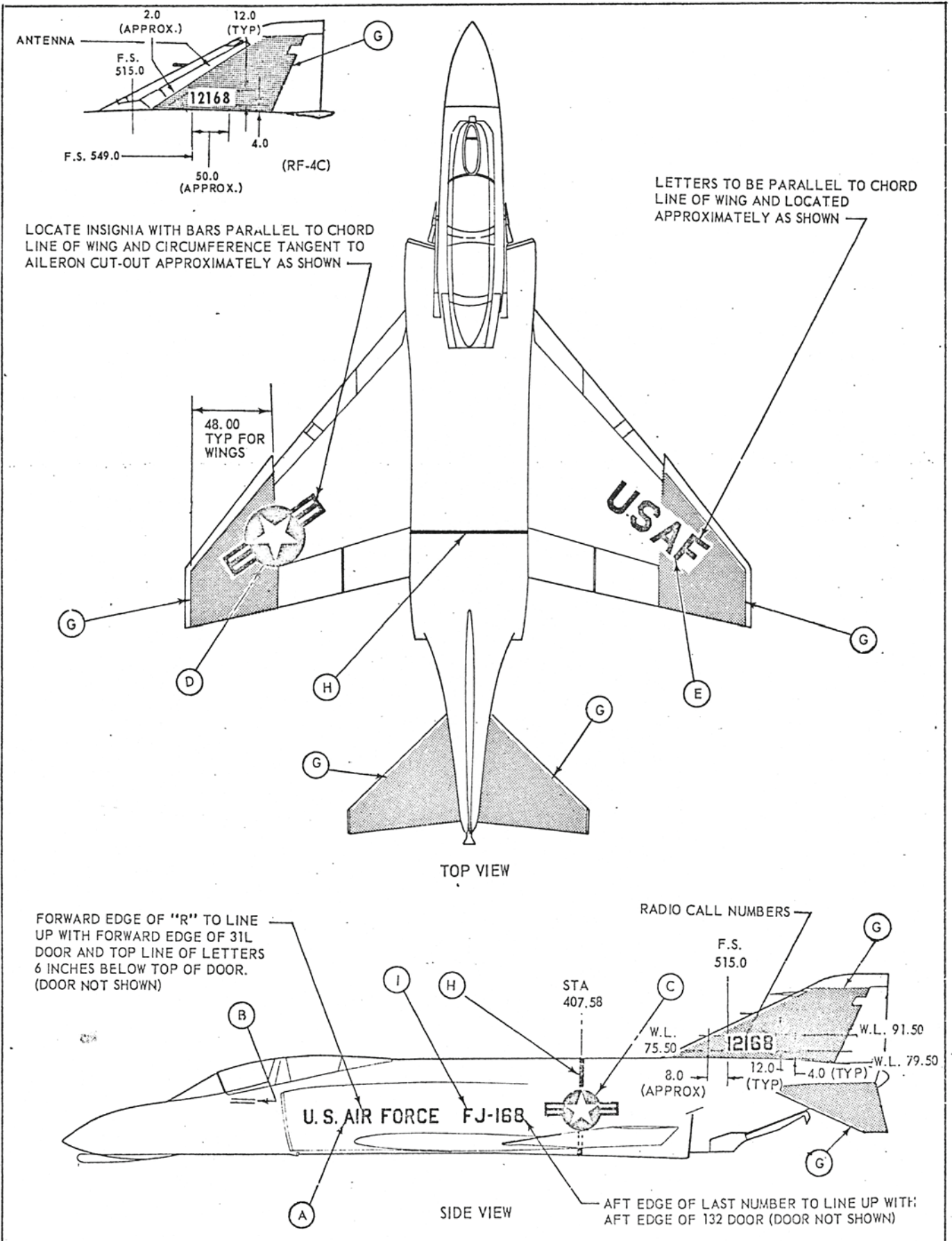


Figure 3-28. F-4 Aircraft Marking Specification.

## F-5 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-29)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and on top surface of left wing	20-inch star	Background, Border -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing under surface of left wing	Letters 20 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 9 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

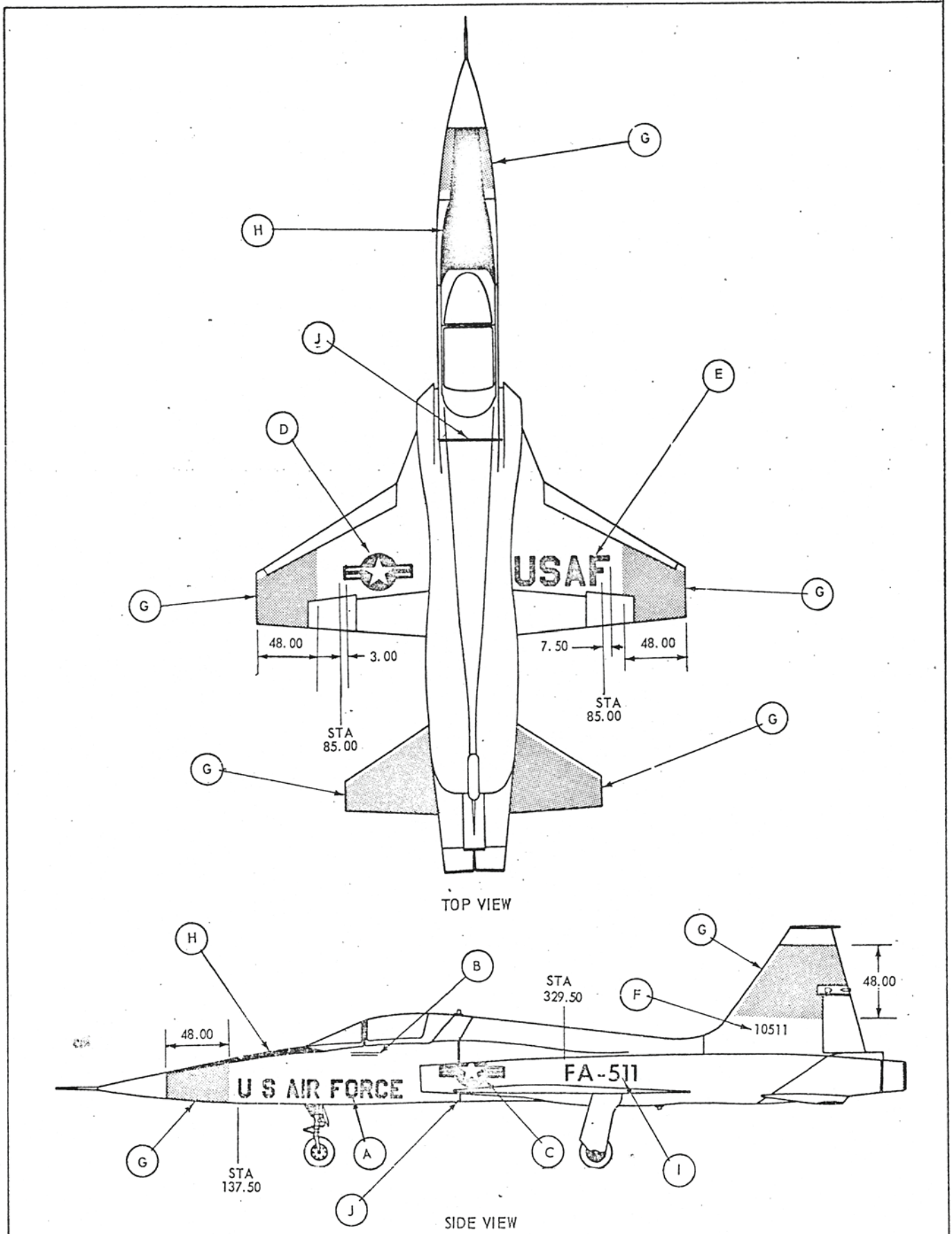


Figure 3-29. F-5 Aircraft Marking Specification.

## F-RF84 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-30)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both Sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	35-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	40-inch star	Background, Border, -Code 15044. Stars, bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 35 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 9 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

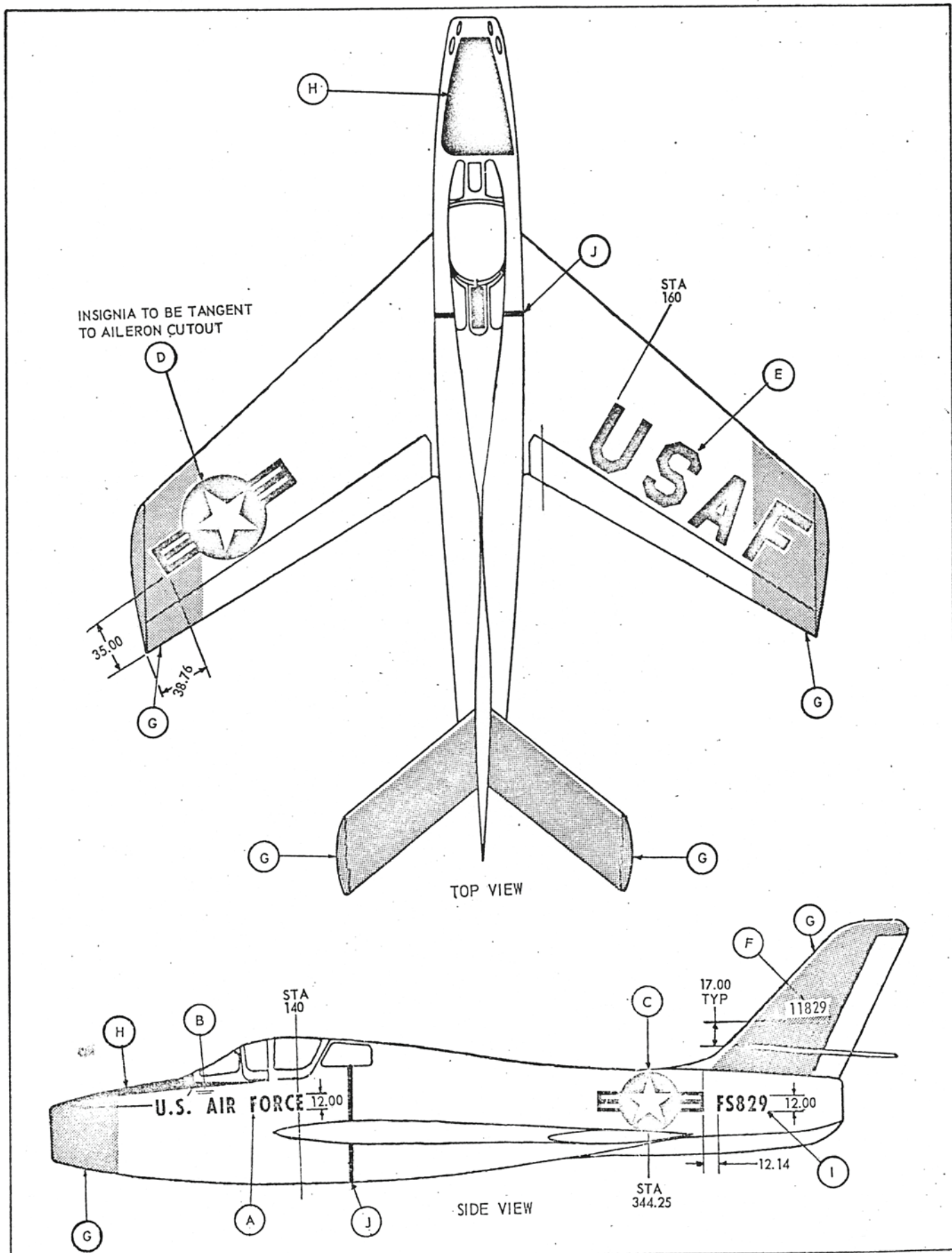


Figure 3-30. F/RF-84 Aircraft Marking Specification.

## F-86 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-31)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 15 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	25-inch star	Background, Border -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	40-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 8 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 15 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

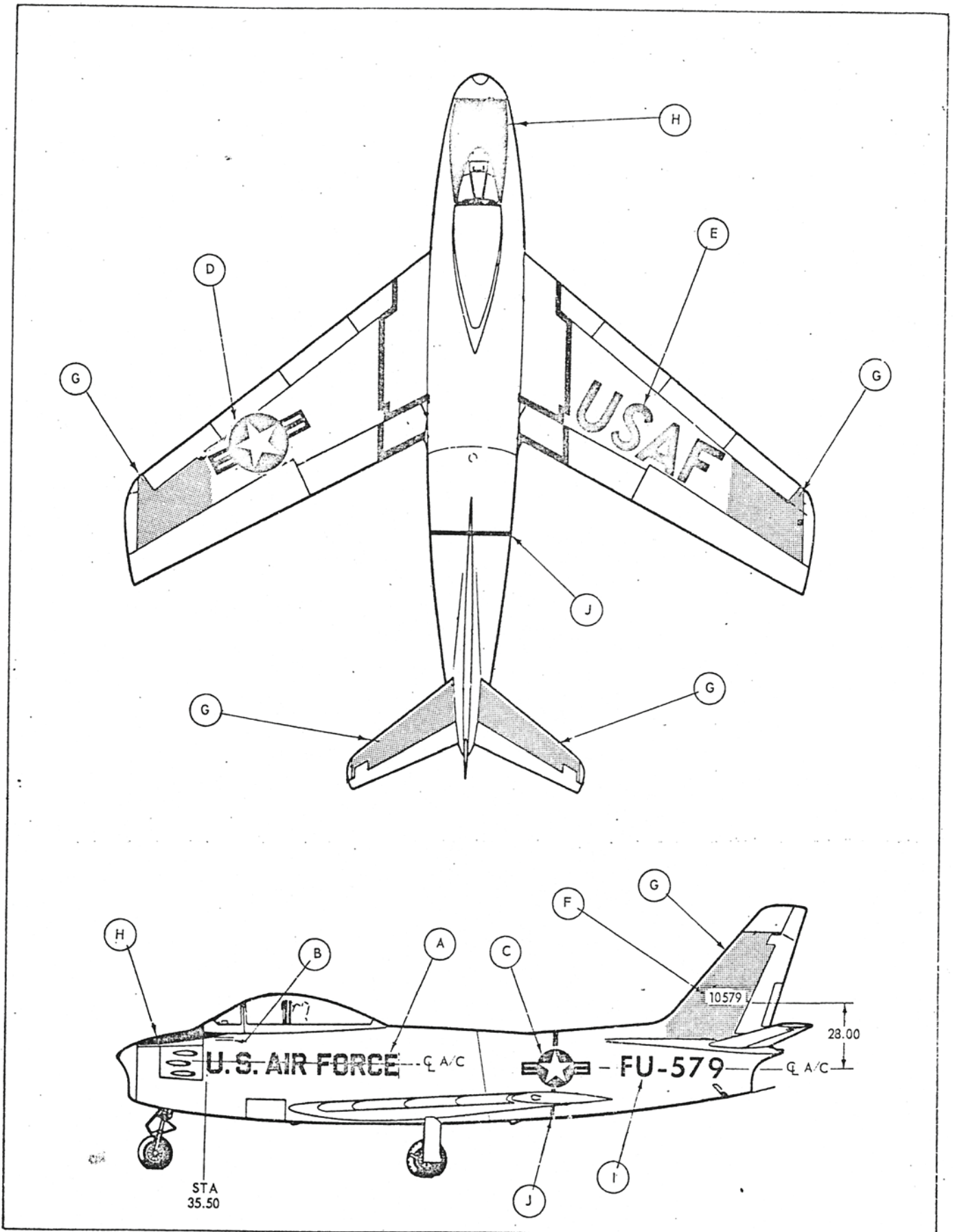


Figure 3-31. F-86 Aircraft Marking Specification.

## F-89 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-32)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	25-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	45-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 45 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	Outboard 180 degrees of tip tanks		-Code 633
H. Anti-Glare			-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044
J. Jet Warning Stripe	Each side of fuselage	2 inches wide	-Code 509



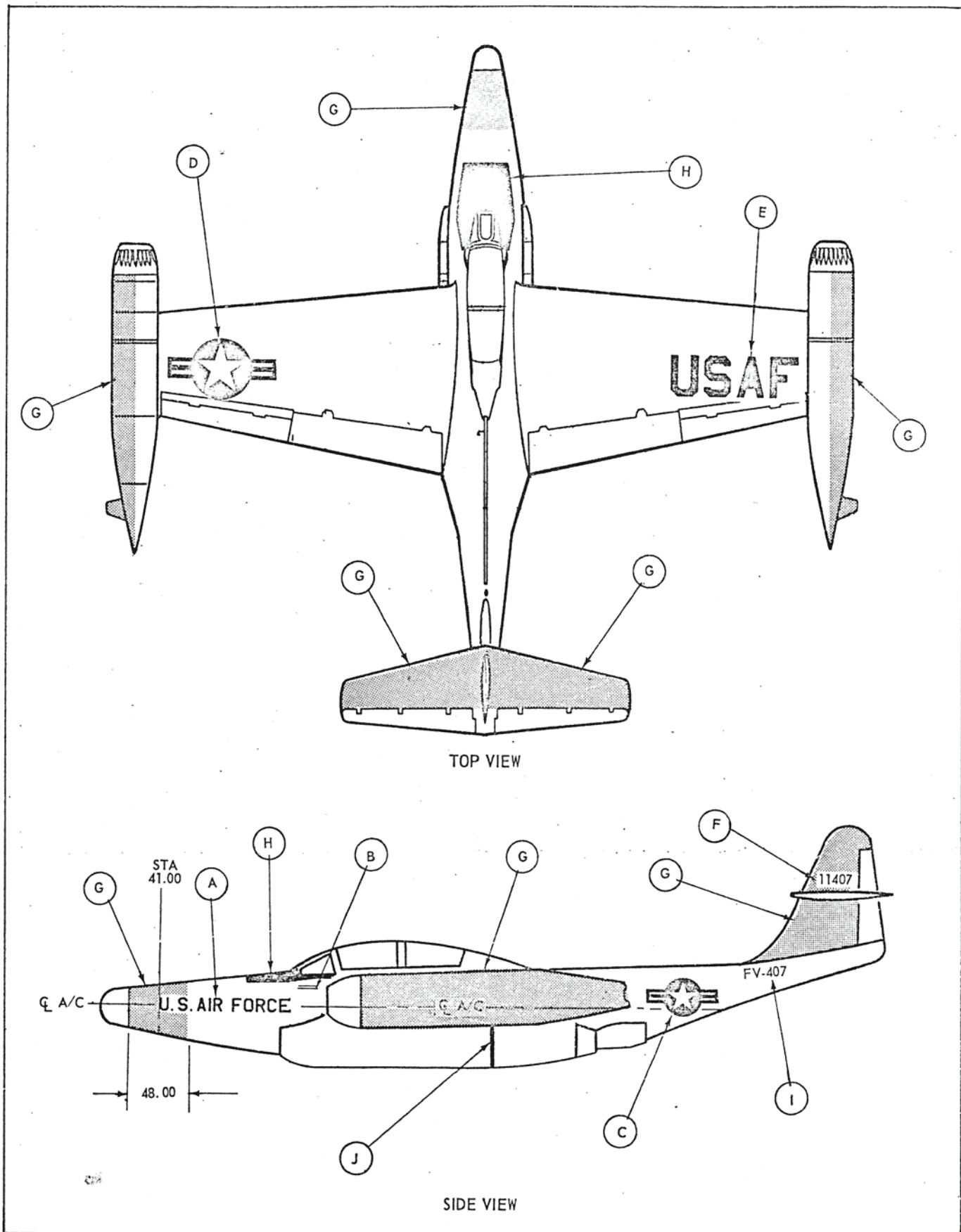


Figure 3-32. F-89 Aircraft Marking Specification.

## F-100 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-33)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 15 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	25-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	35-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters/Numbers	Both sides of fuselage	Letters and numbers 15 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	Two bands 2 inches wide	-Code 509

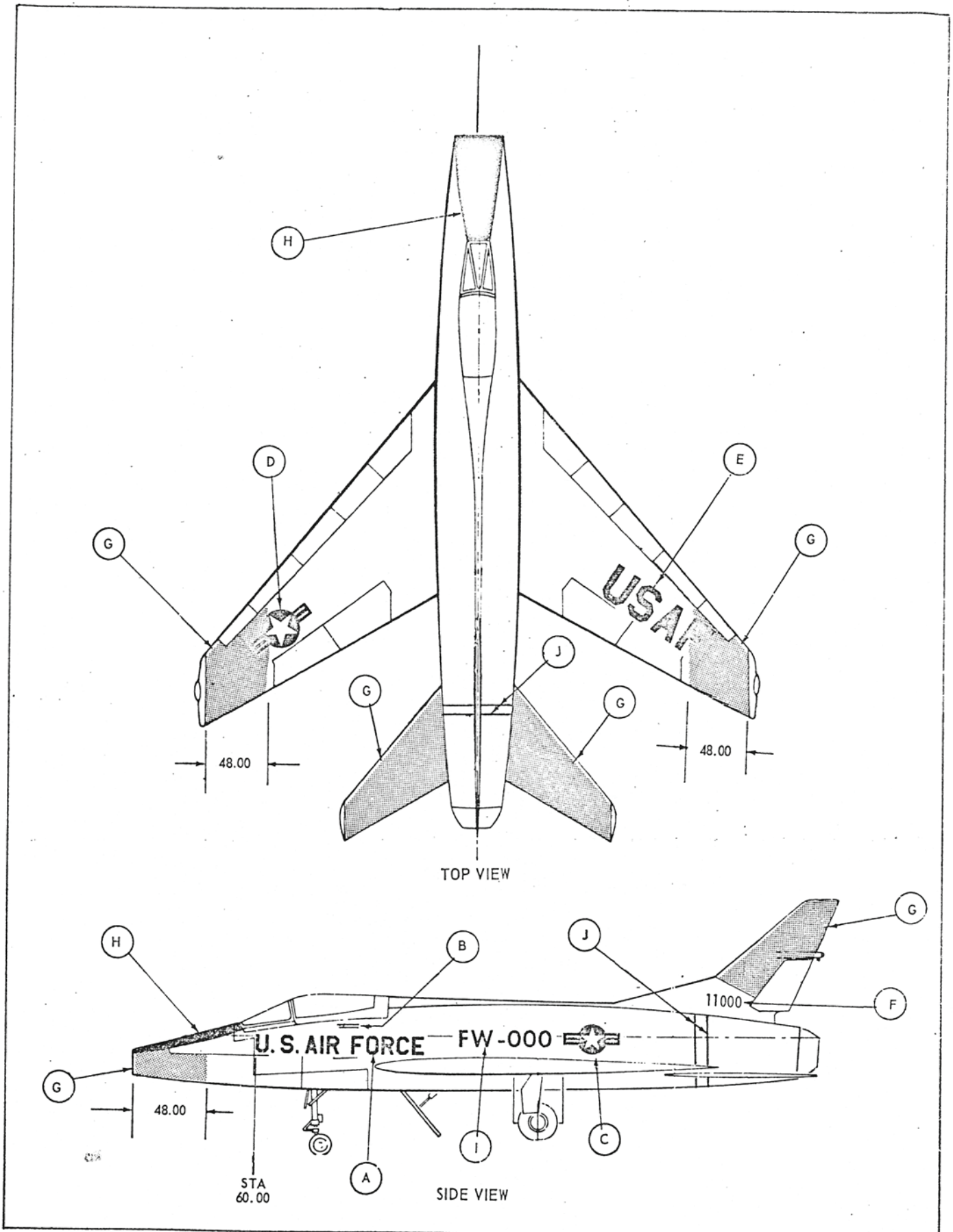


Figure 3-33. F-100 Aircraft Marking Specification.

## F-101 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-34)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	40-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right and top surface of left wing	35-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On under surface of left wing and upper surface of right wing	Letters 25 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters/Numbers	On lower center fuselage both sides	Letters and numbers 15 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

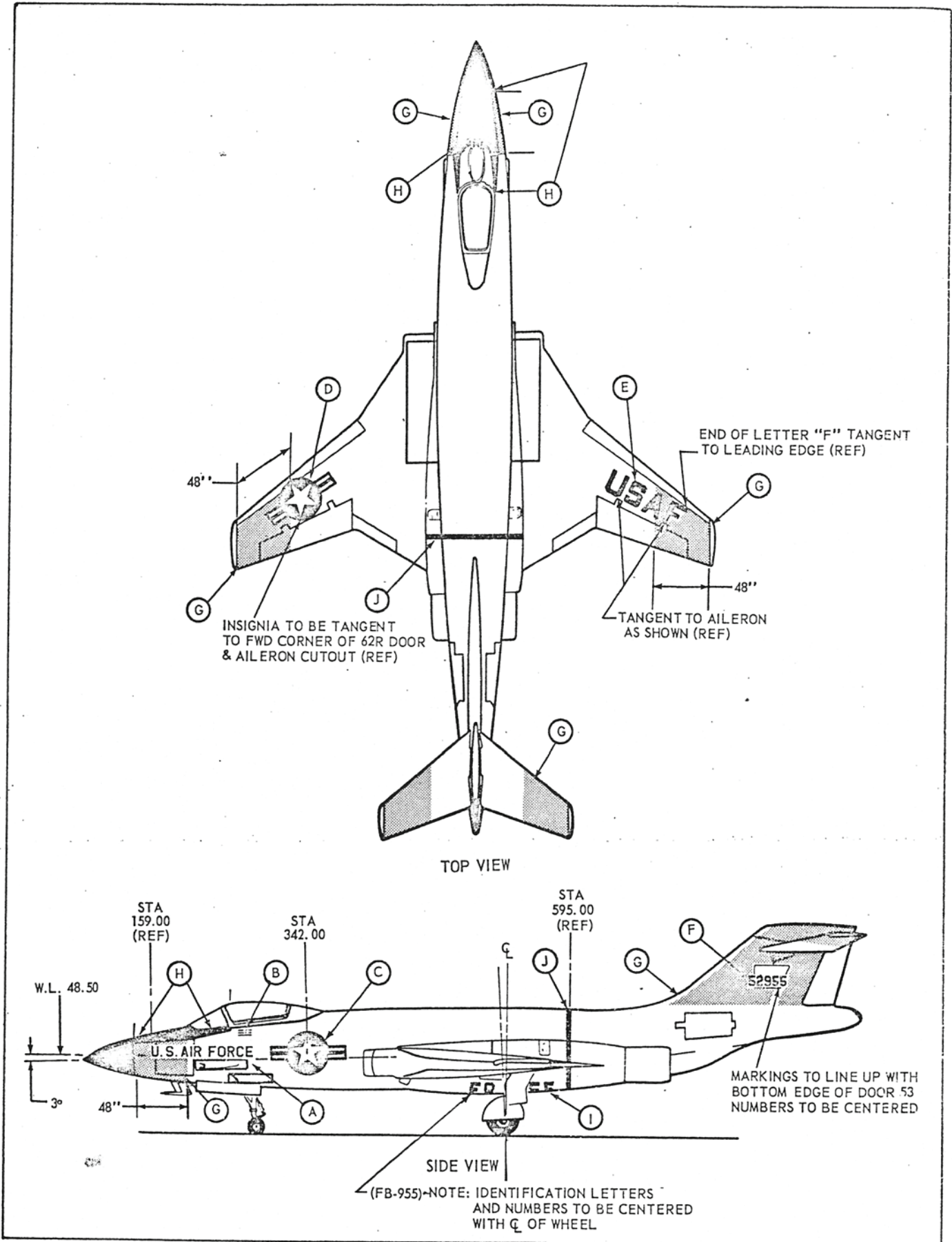


Figure 3-34. F-101 Aircraft Marking Specification.

## F/TF-102 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-35)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 21 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	40-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 21 inches high	-Code 15044
J. Jet Warning Sign	Around fuselage	2 inches wide	-Code 509

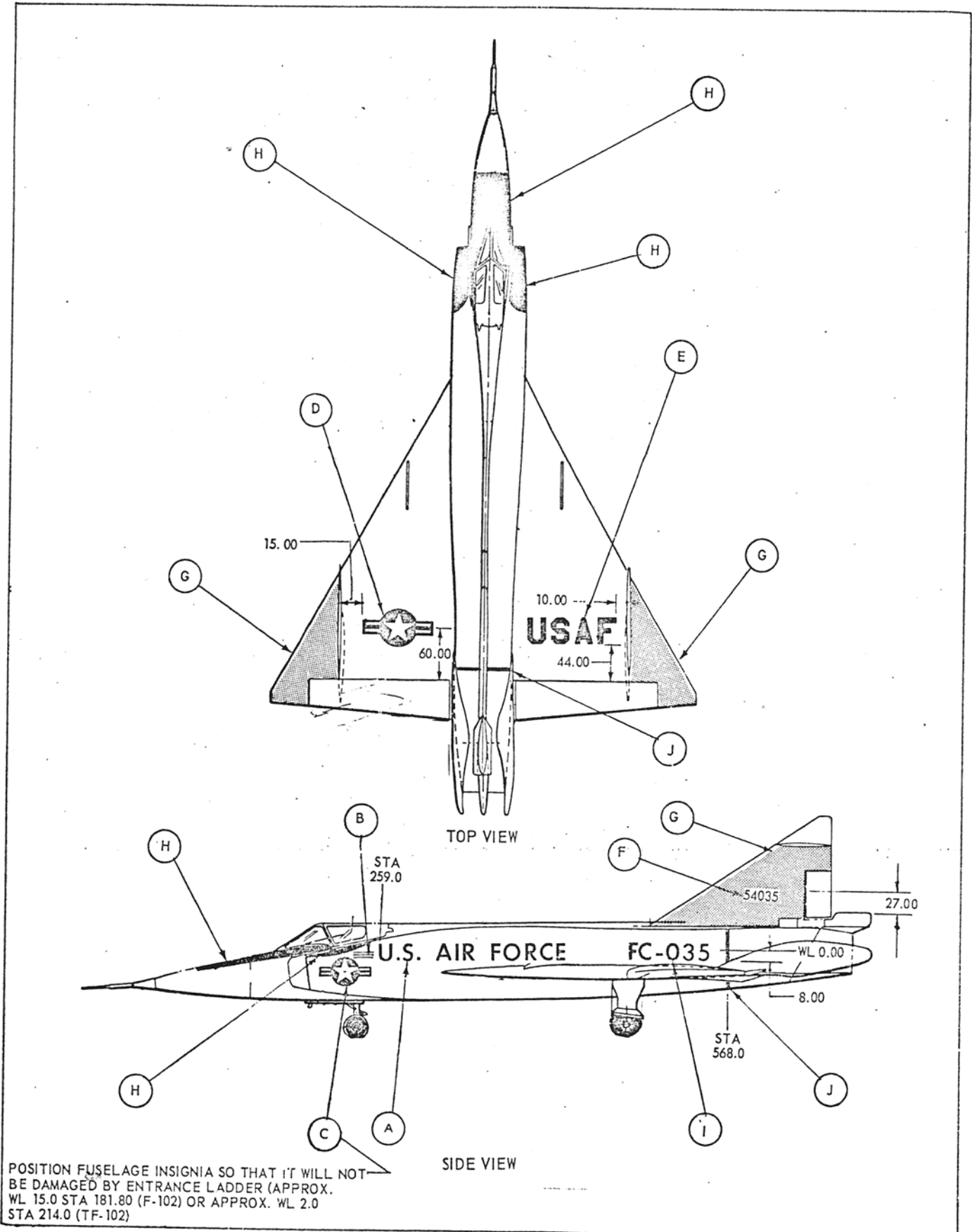


Figure 3-35. F-102 Aircraft Marking Specification.

## F-104 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-36)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 13 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 16 inches	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509



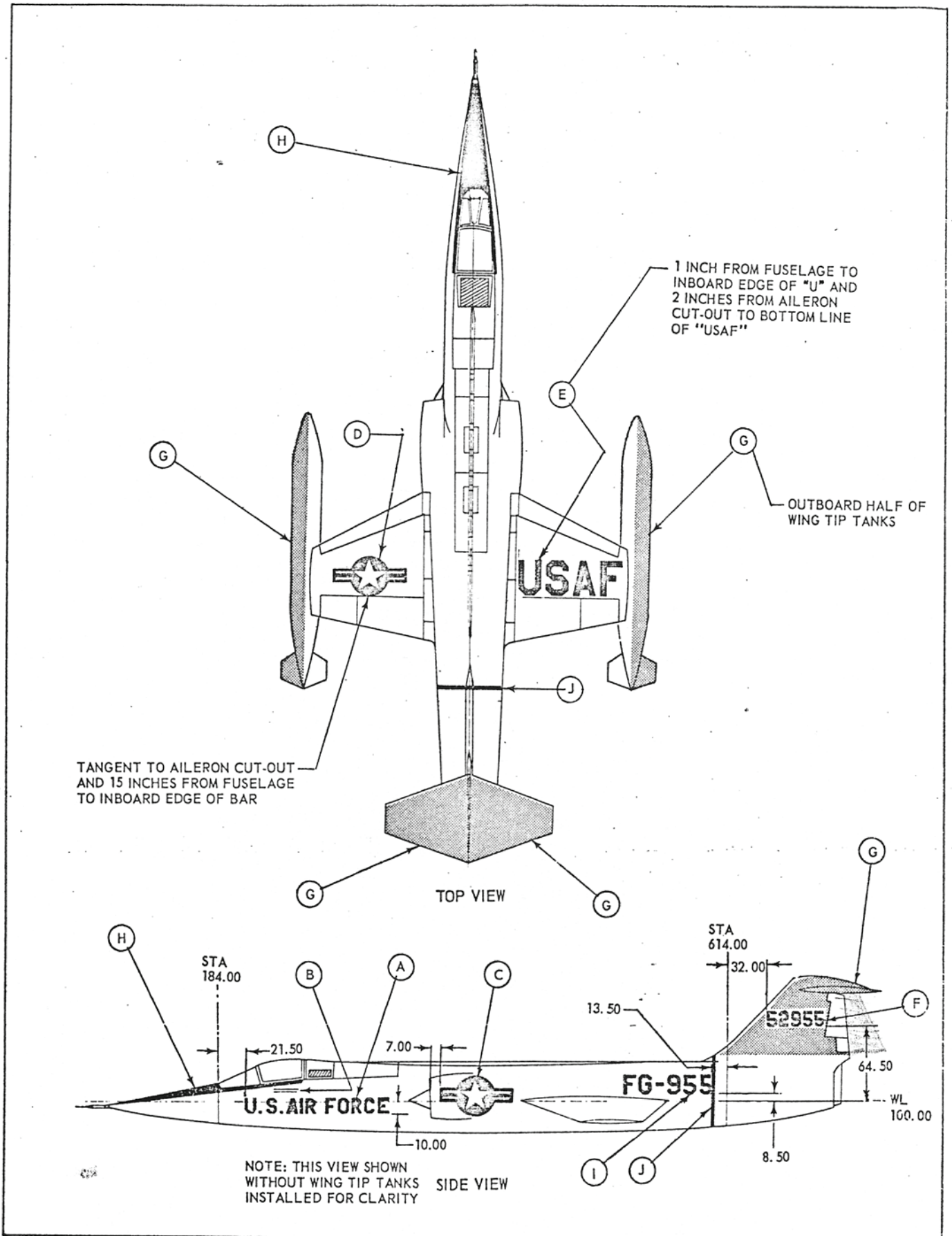


Figure 3-36. F-104 Aircraft Marking Specification.

## F-105 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-37)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and upper surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On under surface of left wing and upper surface of right wing	Letters 35 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Around cockpit		-Code 37038
I. Identification Letters and Numbers	Both sides of forward fuselage	Letters and numbers 12 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

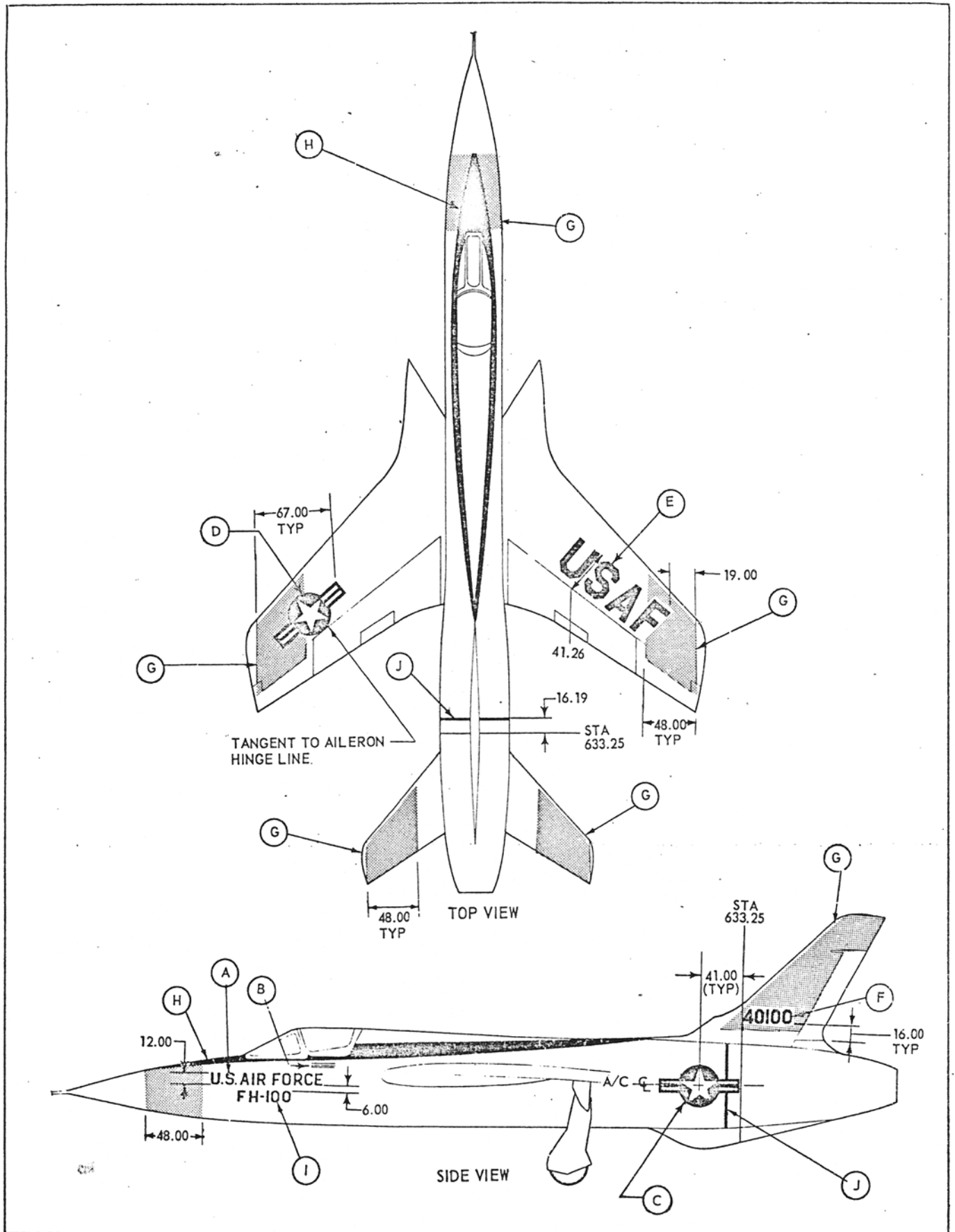


Figure 3-37. F-105 Aircraft Marking Specification.

## F-106 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-38)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 21 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	40-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 21 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

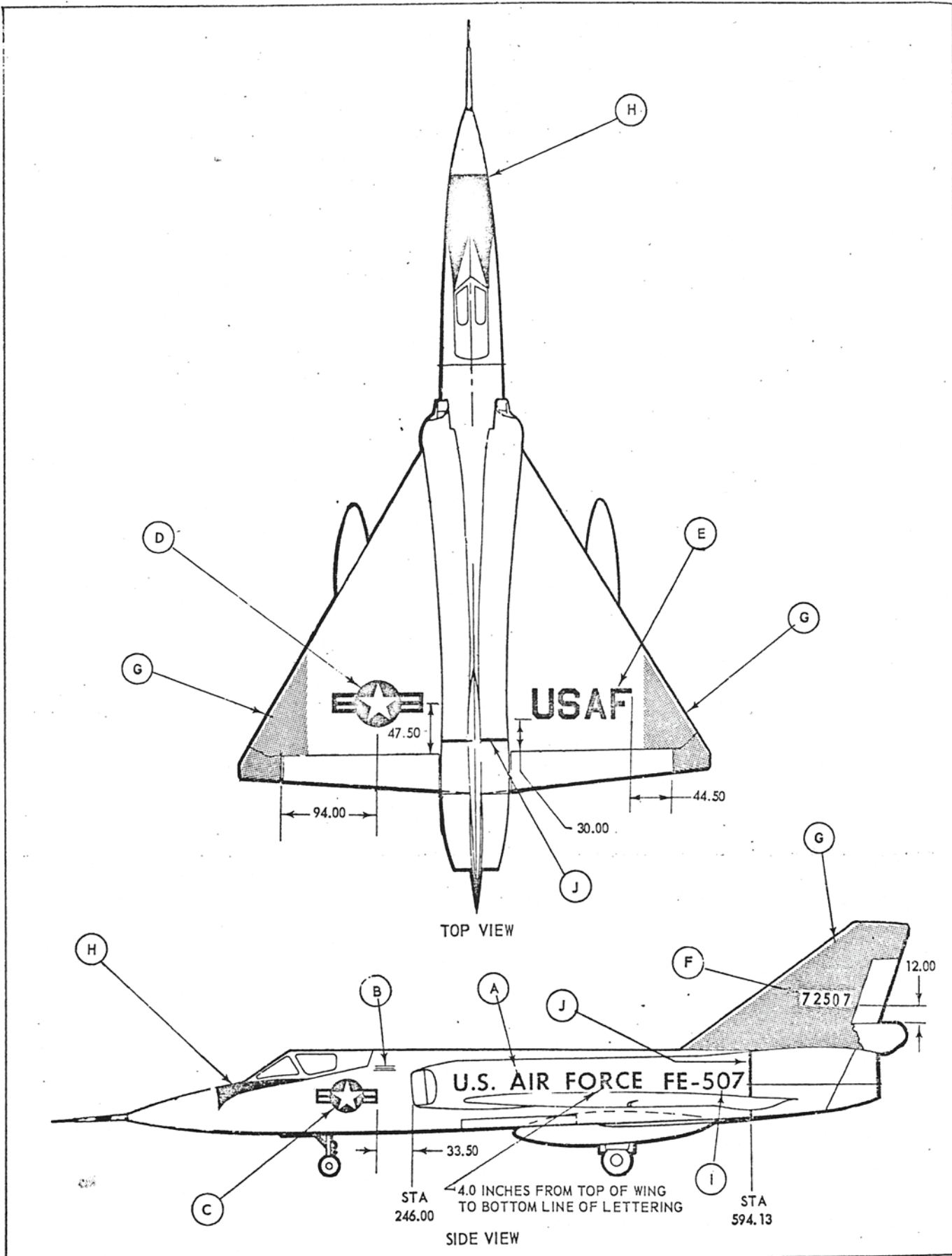


Figure 3-38. F-106 Aircraft Marking Specification.

## H-1 HELICOPTER AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-39)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 10 inches high	-Code 17875
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17875
C. National Star	Both sides of fuselage	20-inch star	Background -Code 15045. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	Located on underside of fuselage	20-inch star	Background -Code 15045. Stars, Bars - Code 17875. Stripes - Code 509.
E. National Star	On upper surface of fuselage	20-inch star	Background -Code 15045. Stars, Bars - Code 17875. Stripes - Code 509.
F. Call Numbers	Both sides of tailboom	Numbers 6 inches high	-Code 17875
G. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
H. Turbine Wheel Warning Stripe		2 inches wide	-Code 509

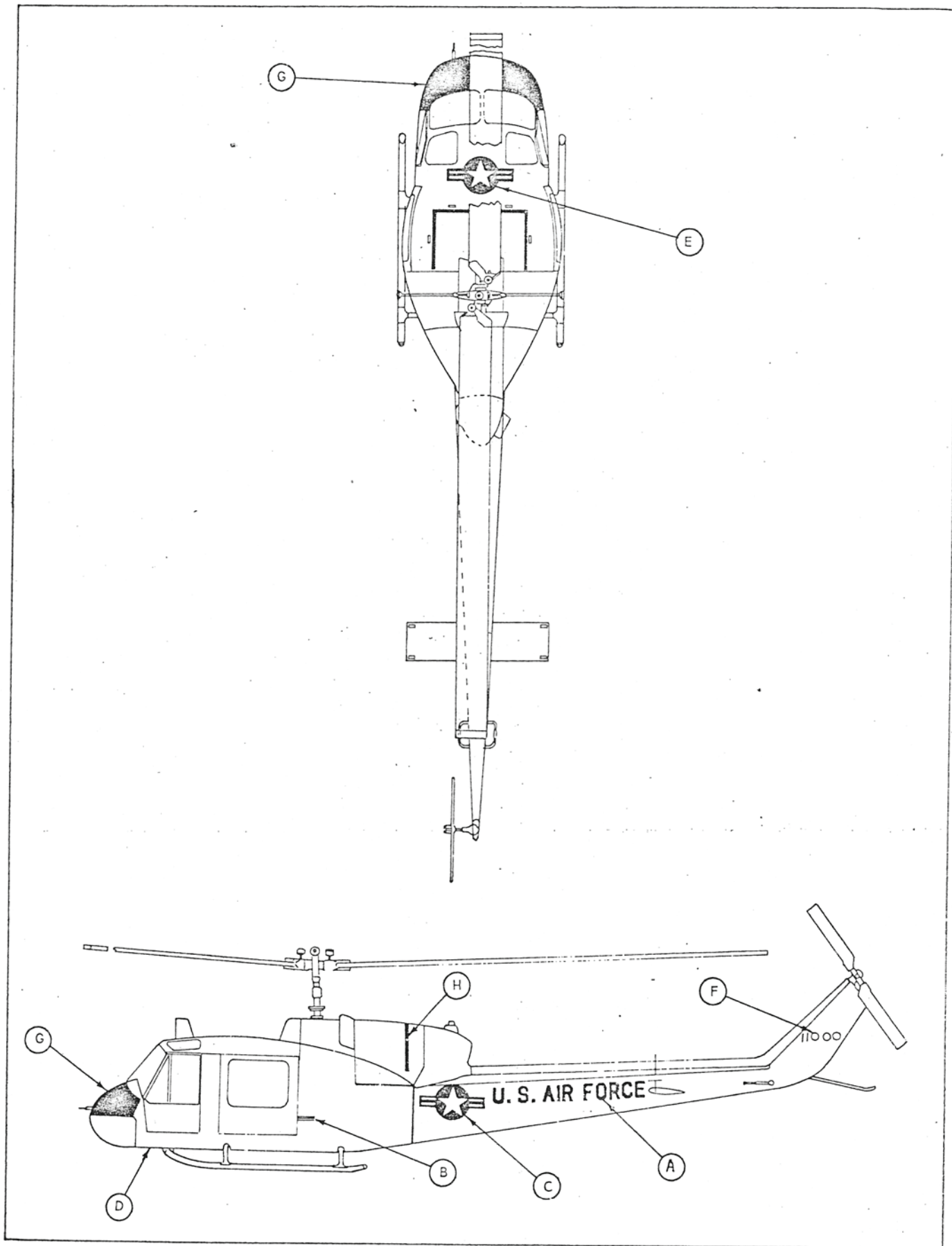


Figure 3-39. H-1 Aircraft Marking Specification.

## H-3 HELICOPTER AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-40)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U. S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	Located on underside of helicopter	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. National Star	On upper surface of horizontal fin	25-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
F. Call Numbers	Both sides of fuselage	Numbers 12 inches high	-Code 15044
G. Conspicuity/ Arctic Markings			-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038



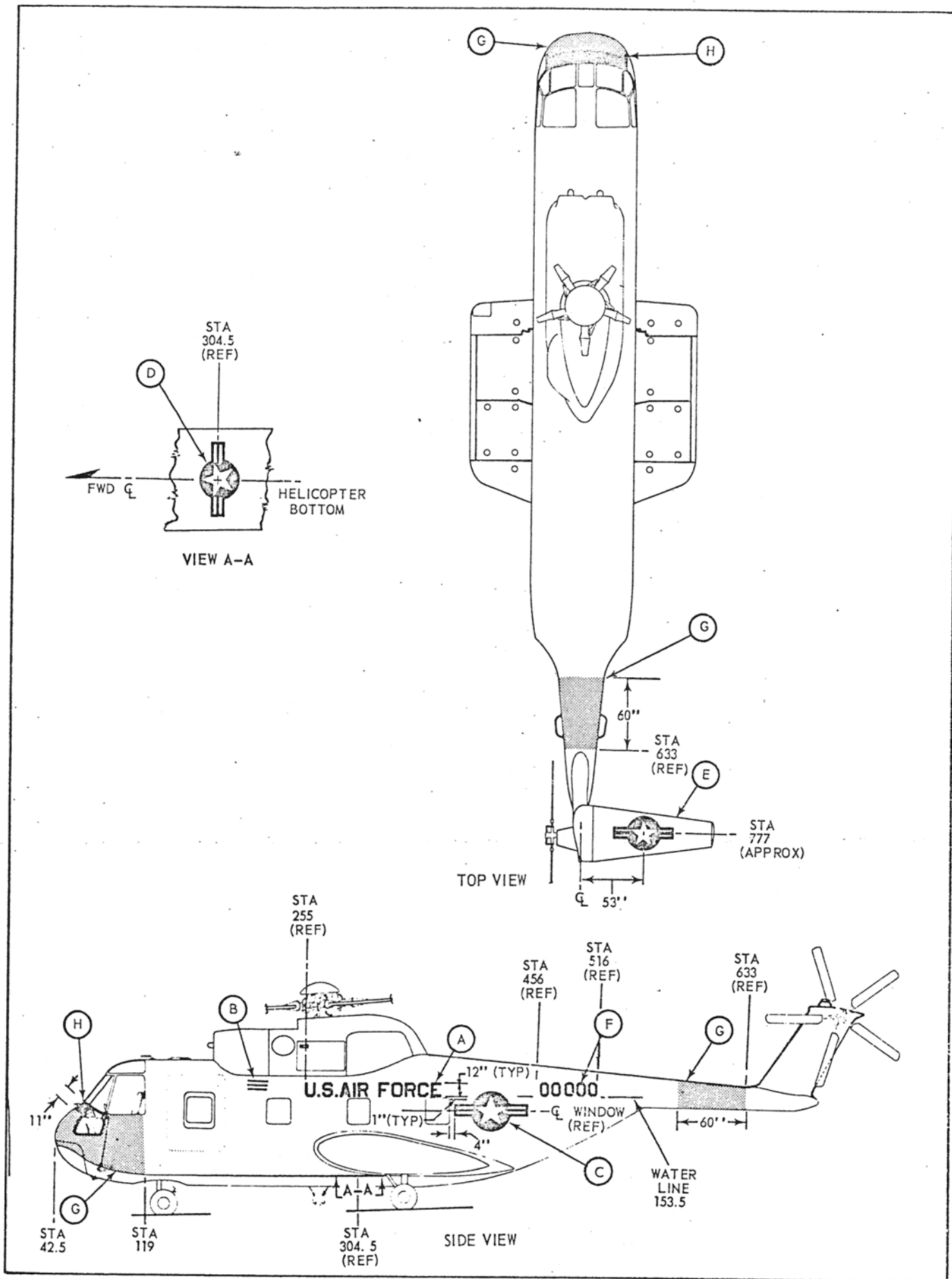


Figure 3-40. H-3 Aircraft Marking Specification.

## H-19 HELICOPTER AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-41)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under side of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. National Star	On top of engine compartment doors	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
F. Call Numbers	Both sides of tail boom top of numbers 2 inches below and parallel to boom stiffener	Numbers 8 inches	-Code 15044
G. Conspicuity/Arctic Markings (ARS Only)*			-Code 633
H. Orange-Yellow Band (ARS Only)	Around the tail cone and vertical fin		Band - Code 13538. Border - Code 17038
I. Main Rotor Tips	On both sides	6 inches from tips	-Code 33538
J. Tail Rotor Tips	On both sides		Outboard and inboard bands - Code 31136. Center Band Code 17875.

\*Aft Conspicuity/Arctic Band for H-19 Helicopters not assigned to ARS shall be marked from Station 235.0 to Station 306.0.

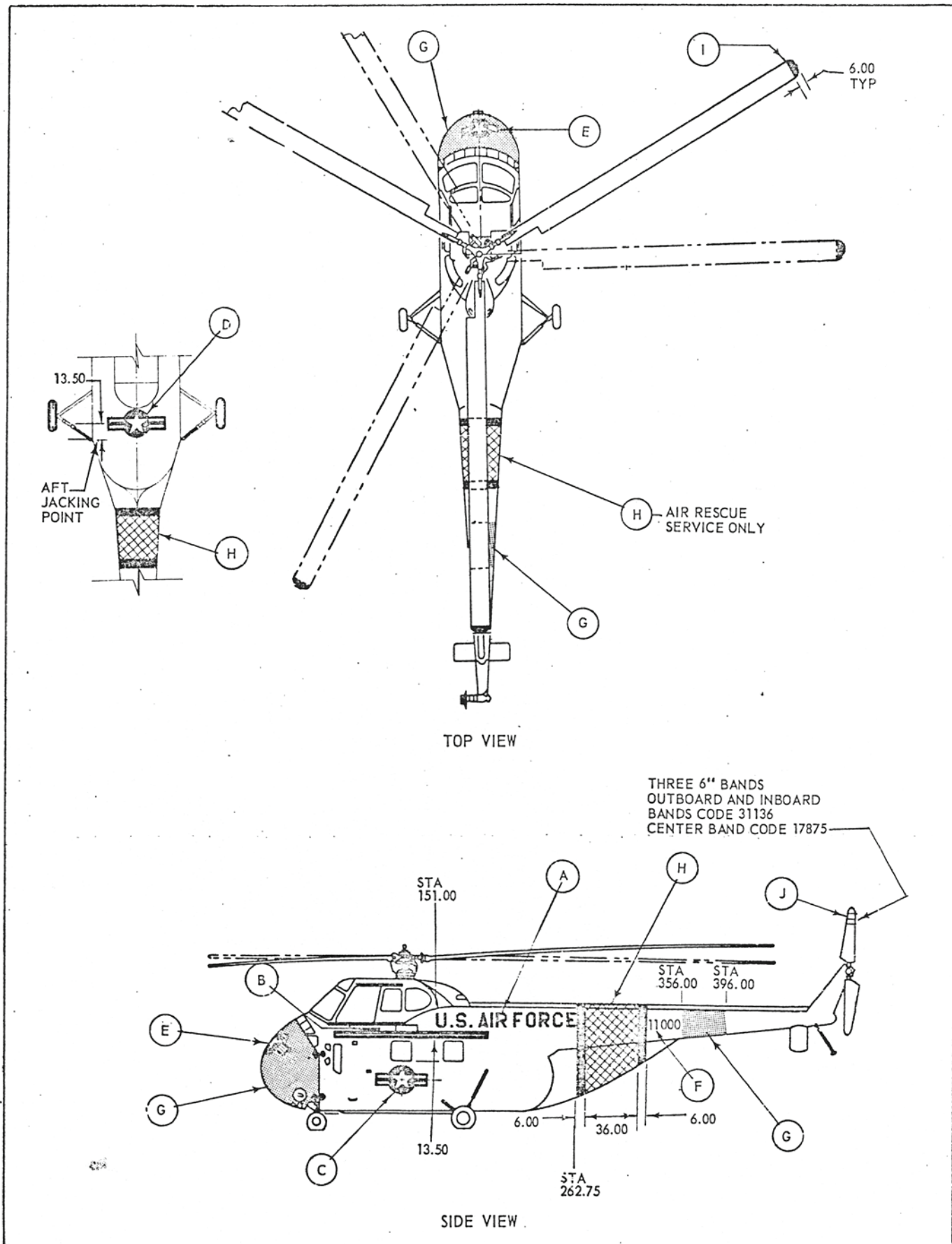


Figure 3-41. H-19 Aircraft Marking Specification.

## H-21 HELICOPTER AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-42)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	Top of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. National Star	Bottom of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
F. Call Numbers	Outboard side of both vertical fins	Numbers 9 inches high	-Code 15044
G. Conspicuity/ Arctic Markings			-Code 633
H. Orange-Yellow Band (ARS Only)	Around fuselage		Band - Code 13538. Border - Code 17038.
I. Rotor Tips	On both sides	6 inches from tip	-Code 33538
J. Walkways		Border 2 inches wide	Stripes - Code 17038

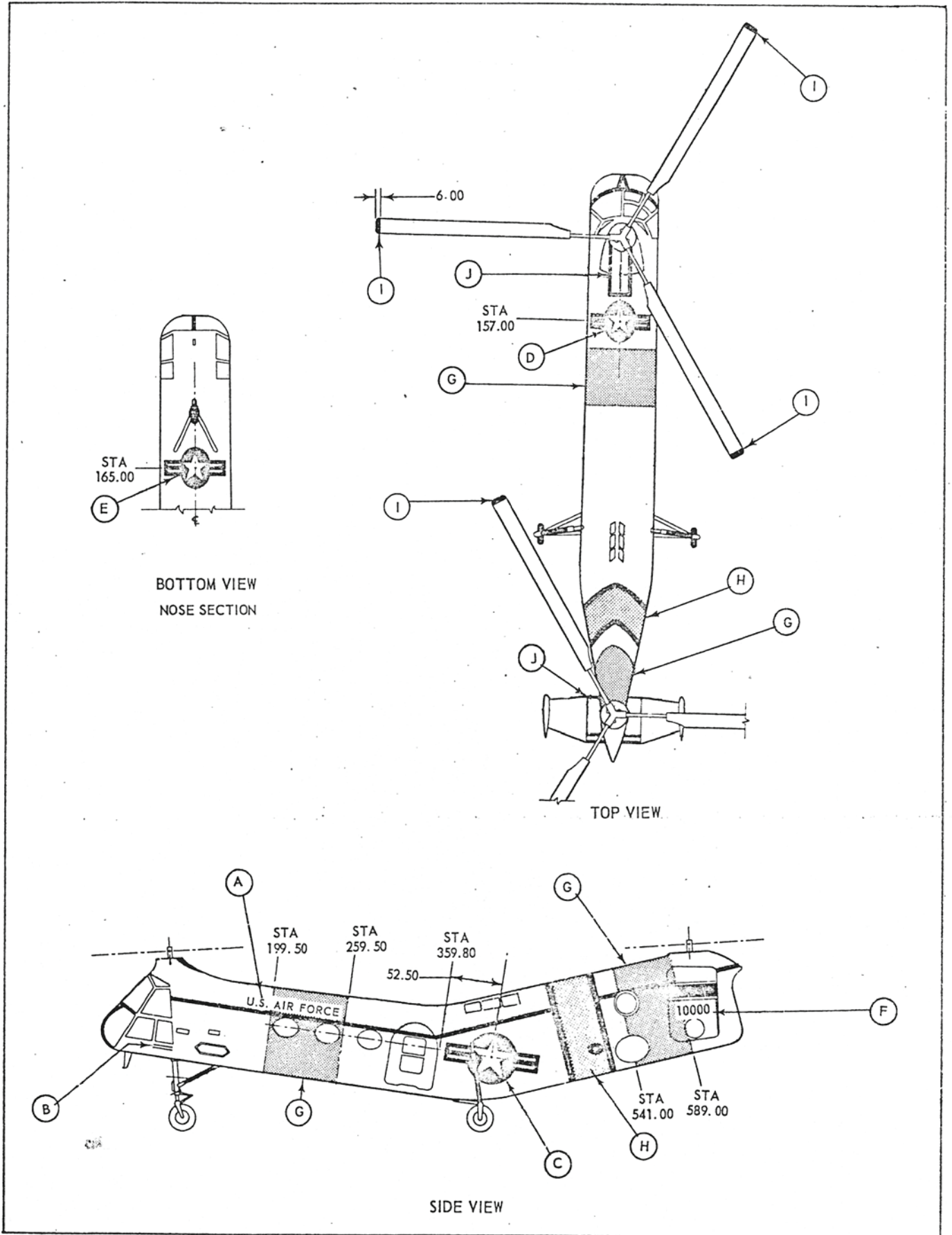


Figure 3-42. H-21 Aircraft Marking Specification.

## H-43 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-43)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage and tail boom	Letters 8 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirements	Left side of fuselage	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On underside of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. National Star	On top engine cowl	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
F. Call Numbers	Both sides of vertical stabilizer	Number 6 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	On outside surface of vertical stabilizer		-Code 633
H. Anti-Glare			-Code 37038
I. Orange-Yellow Bands (ARS Only)	Both sides of tail booms		Band - Code 13538 Border - Code 17038
J. Turbine Wheel Warning Stripe		2 inches wide	-Code 509
K. Walkways		Border 2 inches wide	-Code 17038

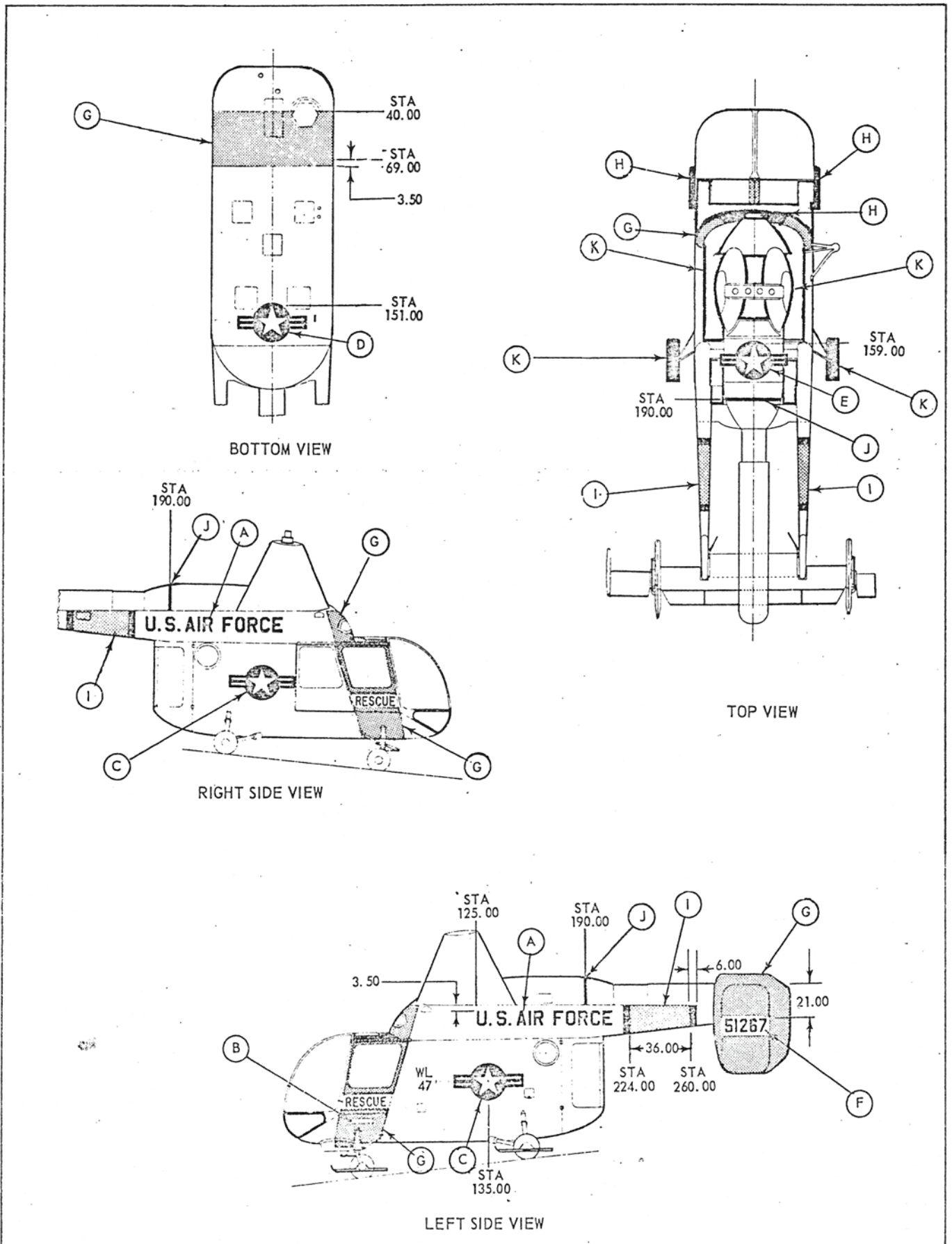


Figure 3-43. H-33 Aircraft Marking Specification.

## T-28 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-44)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 15 inches high	-Code 15044
E. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On under surface of left wing and top surface of right wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 8 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 15 inches high	-Code 15044
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538



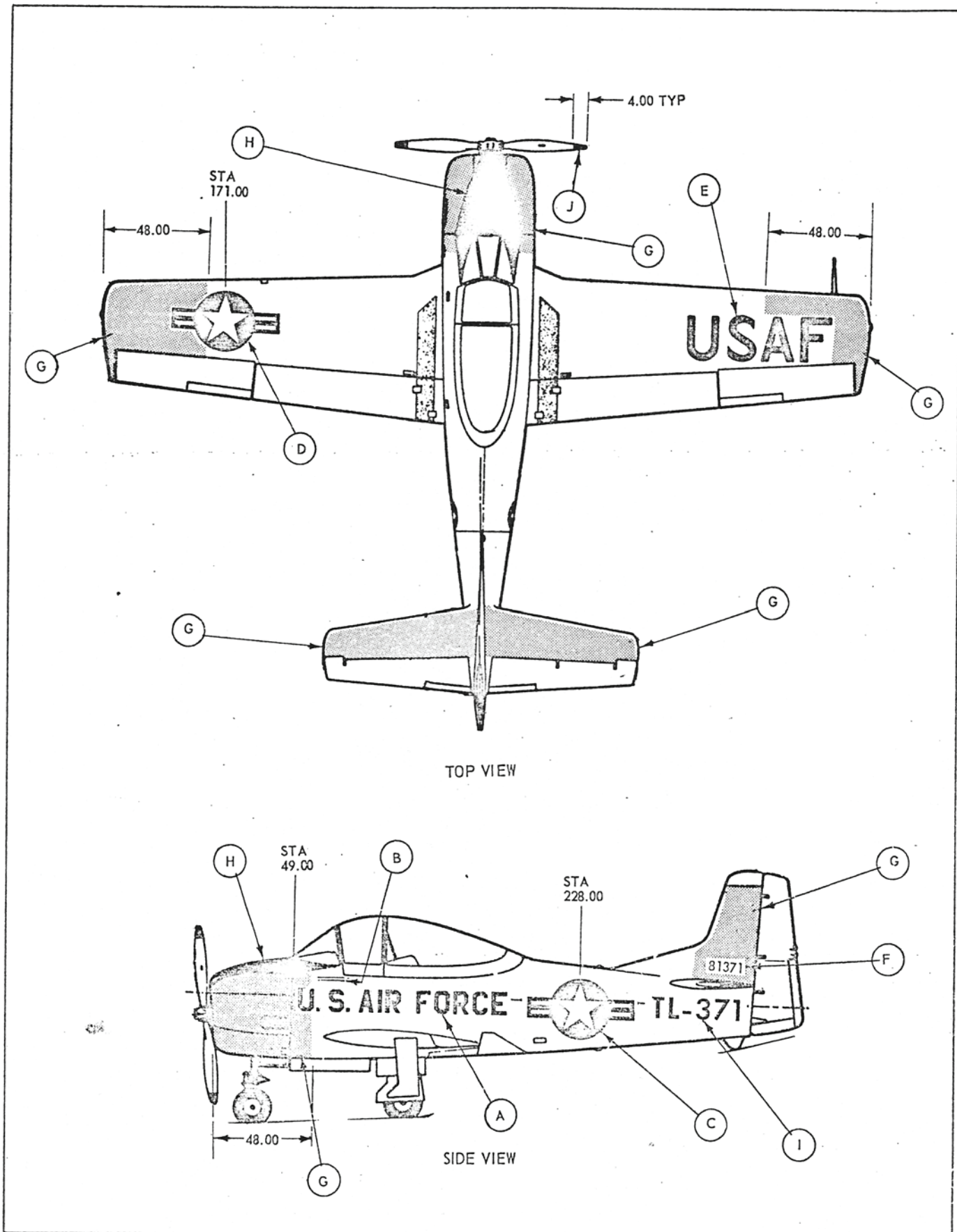


Figure 3-44. T-28 Aircraft Marking Specification.

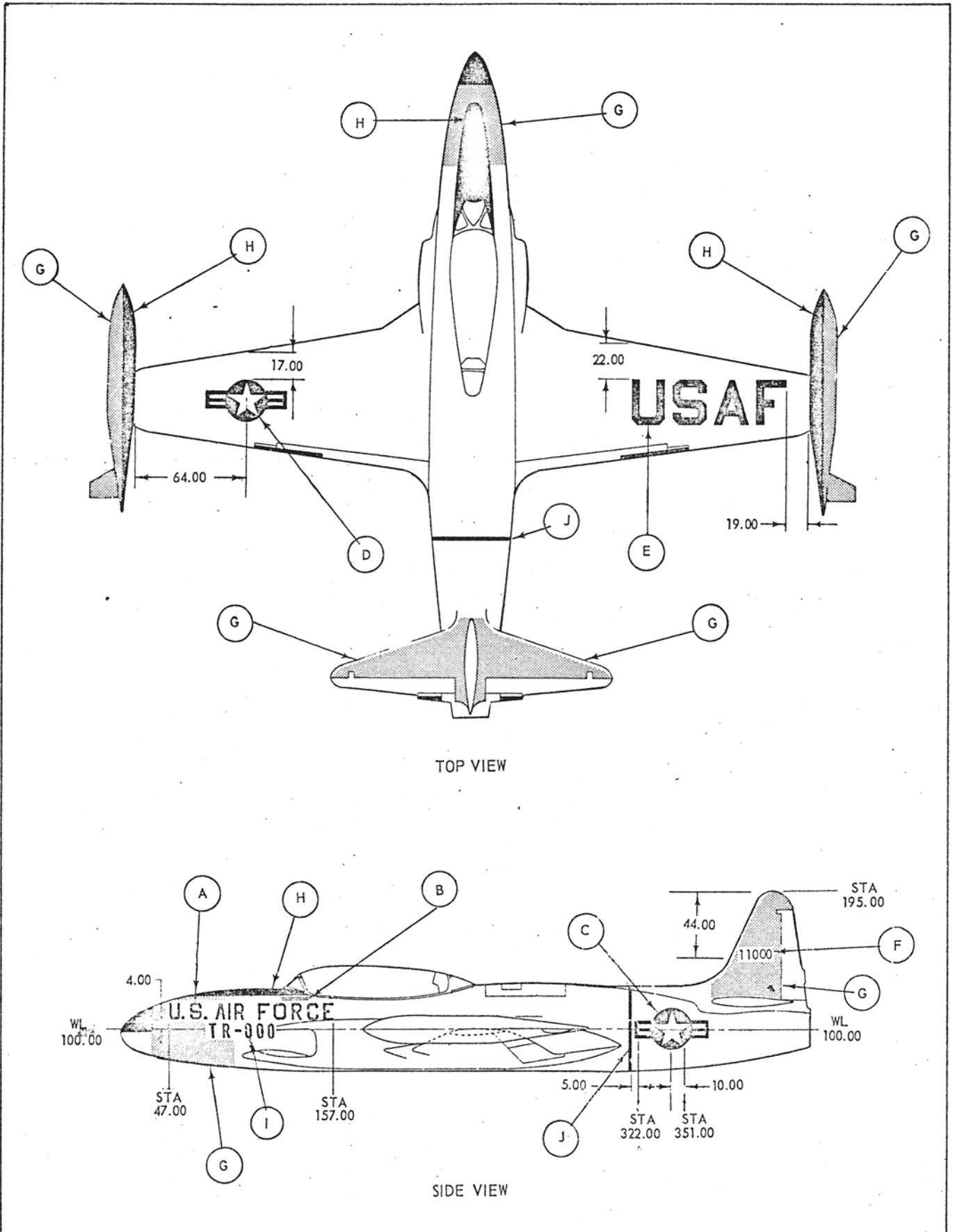


Figure 3-45. T-33 Aircraft Marking Specification.

## T-33 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-45)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
National Star	Both sides of fuselage	25-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 8 inches high	-Code 17038
G. Conspicuity/ Arctic Markings			-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit window and on inner 180 degrees of tip pods		-Code 37038
I. Identification Letters and Numbers	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044
J. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

## T-37 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-46)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 6 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	15-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	Top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 5 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Jet Warning Stripe	Around fuselage	2 inches wide	-Code 509

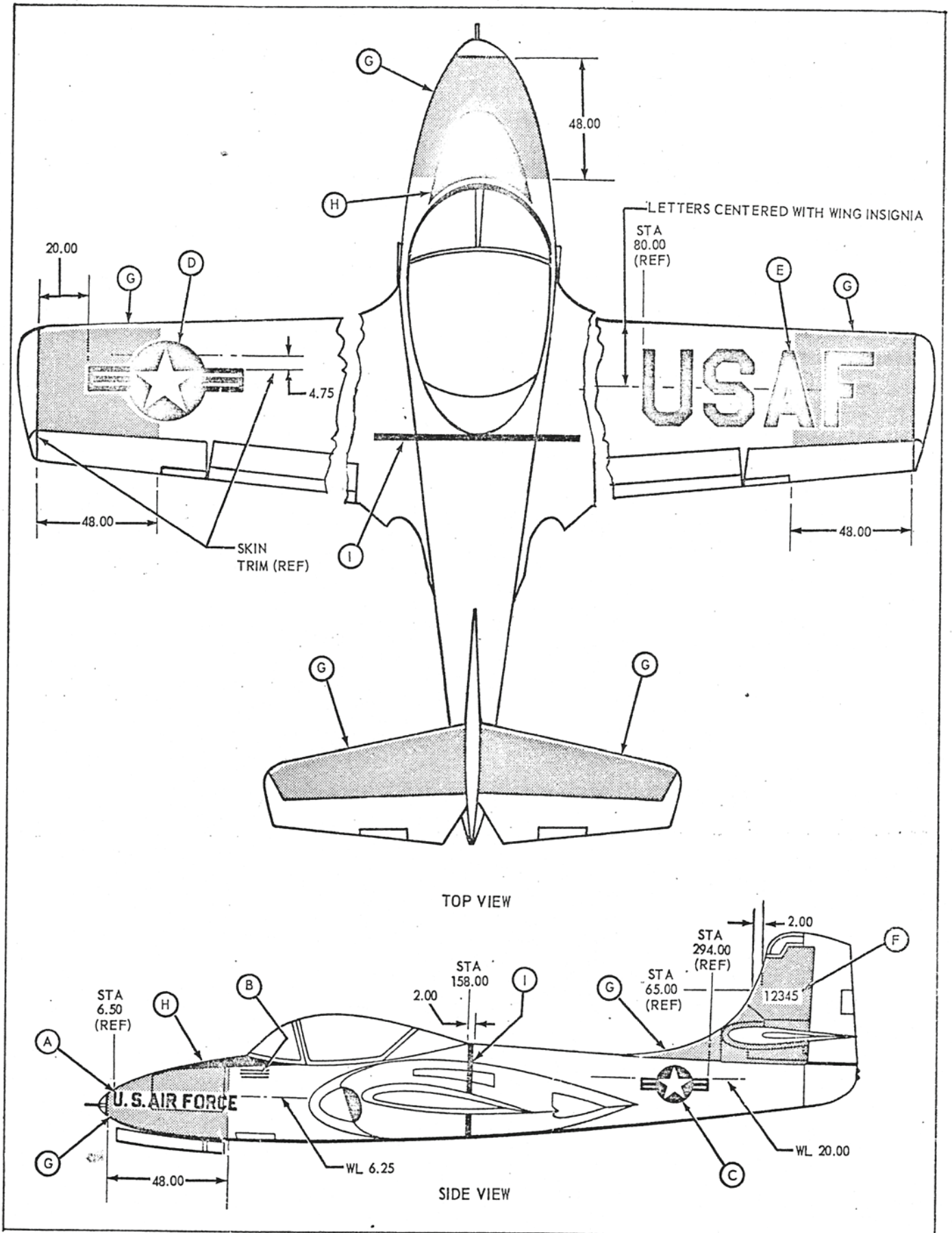


Figure 3-46. T-37 Aircraft Marking Specification.

## T-38 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-47)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 22.5 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Numbers and Letters	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044
J. Jet Warning Stripes	Around fuselage	2 inches wide. Two stripes.	-Code 509

NOTE: HQ. ATC CONTROLLED AIRCRAFT IS AUTHORIZED USE OF SPECIFICATION MIL-F-22735 FLOURESCENT FILM FOR CONSPICUITY MARKING PURPOSES.

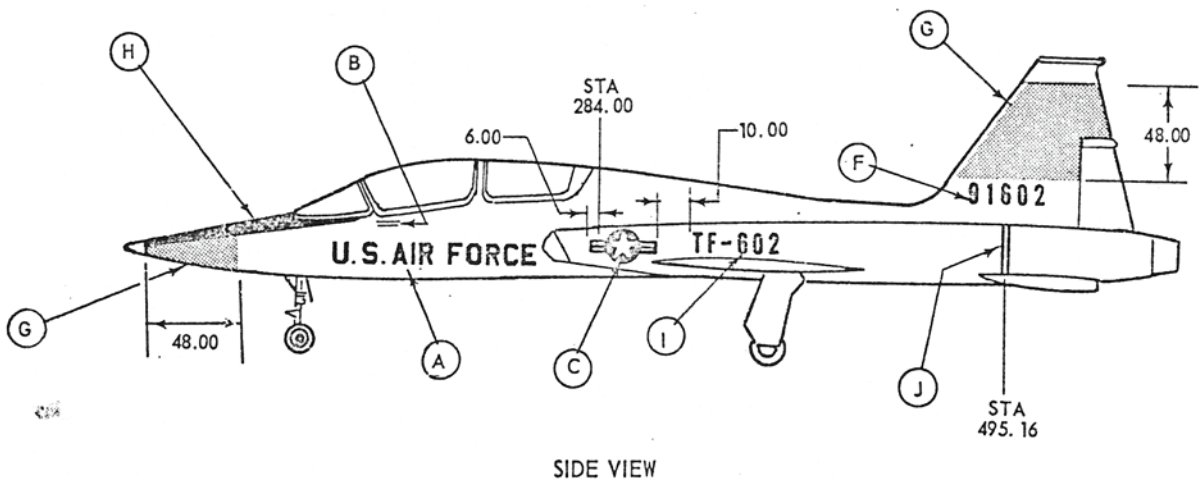
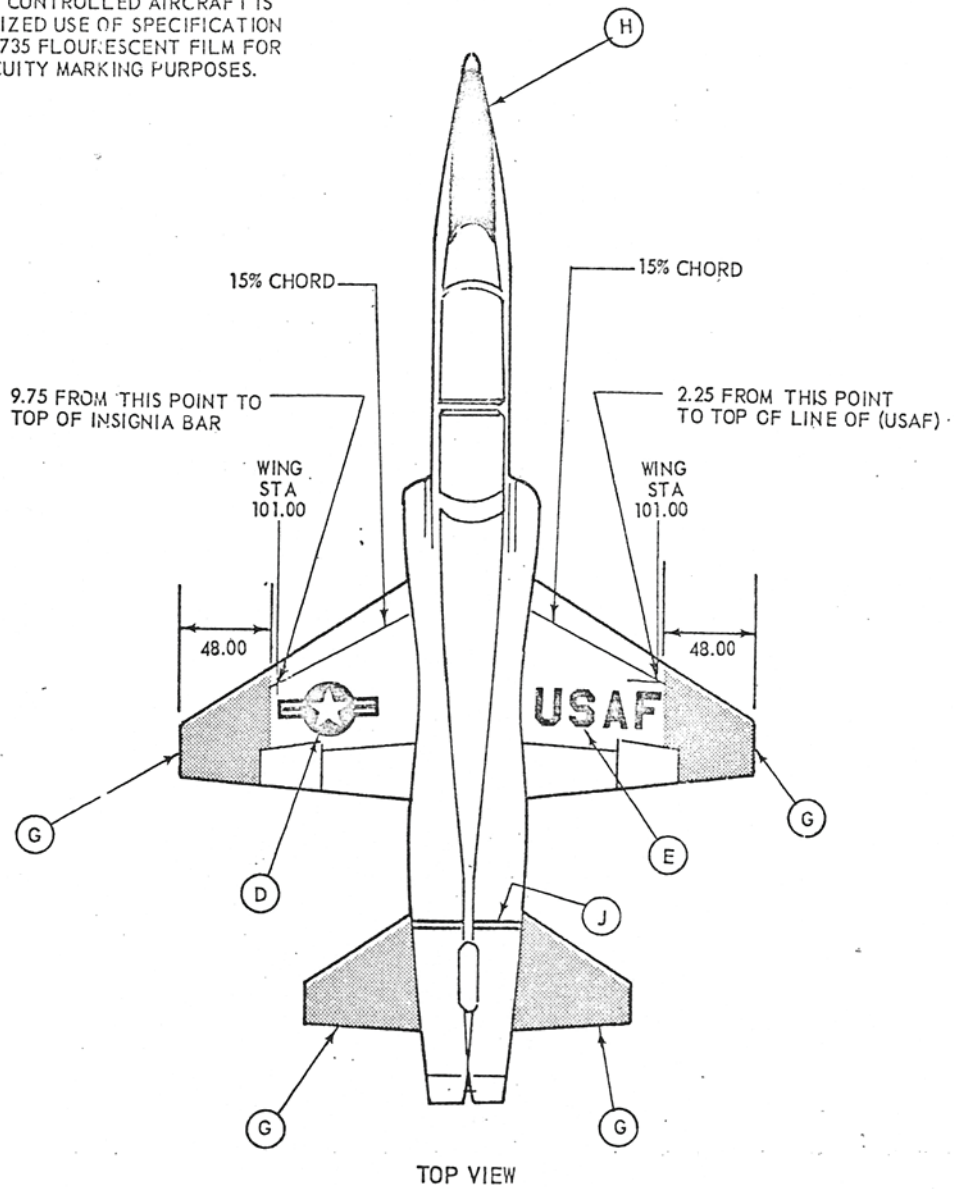


Figure 3-47. T-38 Aircraft Marking Specification.

## T-39 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-48)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and on top surface of left wing	30-inch star	Background, Border -Code 15044. Stars, Bars, - Code 17875. Stripes - Code 509.
E. USAF	Top surface of right wing and under surface of left wing	Letters 30 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer, and rudder	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Lettering and Numbers	Both sides of fuselage	Letters and numbers 12 inches high	-Code 15044
J. Jet Warning Stripes	Around each nacelle cowling	2 inches wide	-Code 509
K. Walkways		Border 2 inches wide	-Code 17038



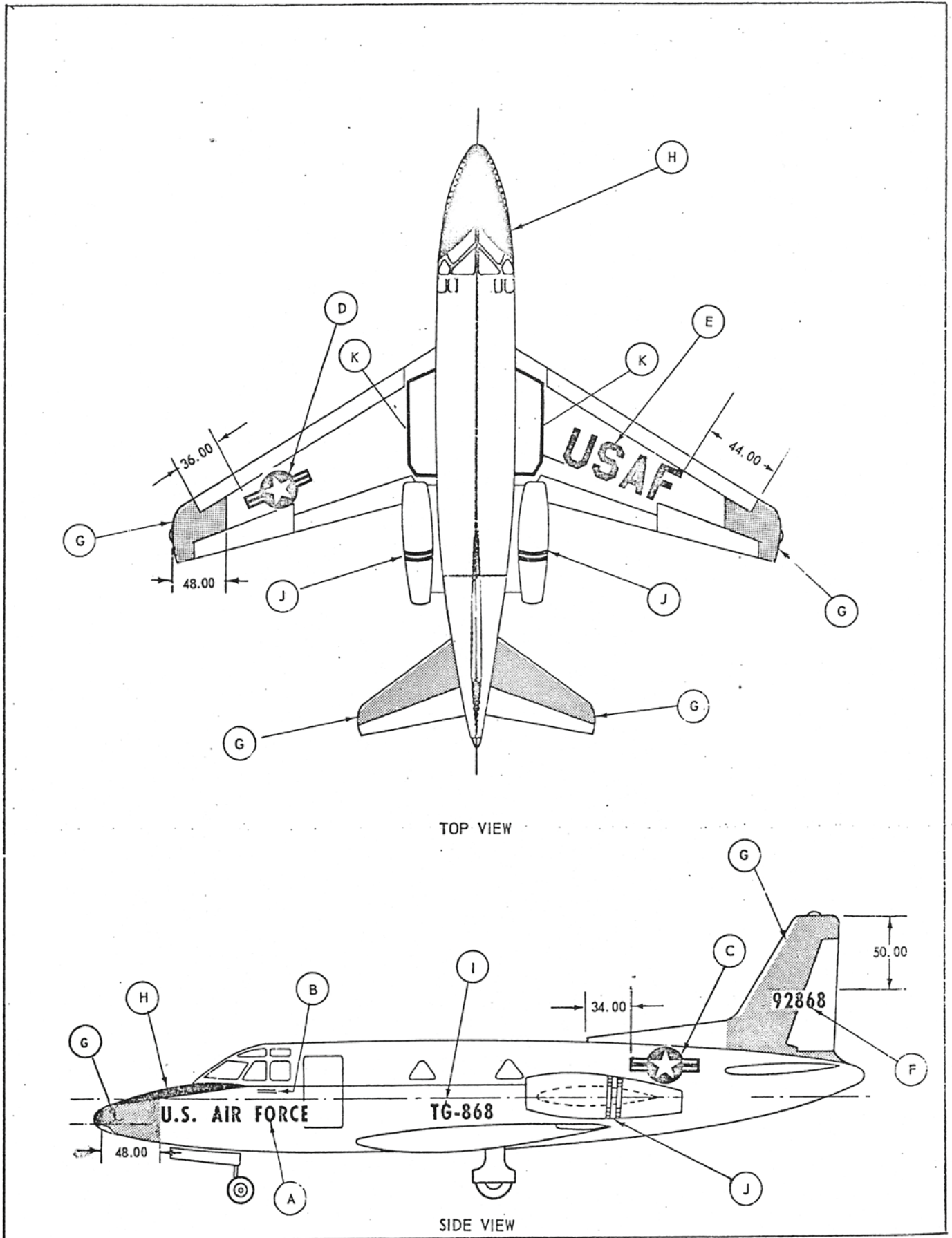


Figure 3-48. T-39 Aircraft Marking Specification.

## U-3A AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-49)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 6 inches high	-Code 17875
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17875
C. National Star	Both sides of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 24 inches high	-Code 17875
F. Call Numbers	Both sides of vertical stabilizer and rudder	Numbers 6 inches high	-Code 17875
G. Conspicuity/Arctic Markings	Outer 180 degrees of wing tip tanks		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit window and inner 180 degrees of wing tip tanks		-Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538

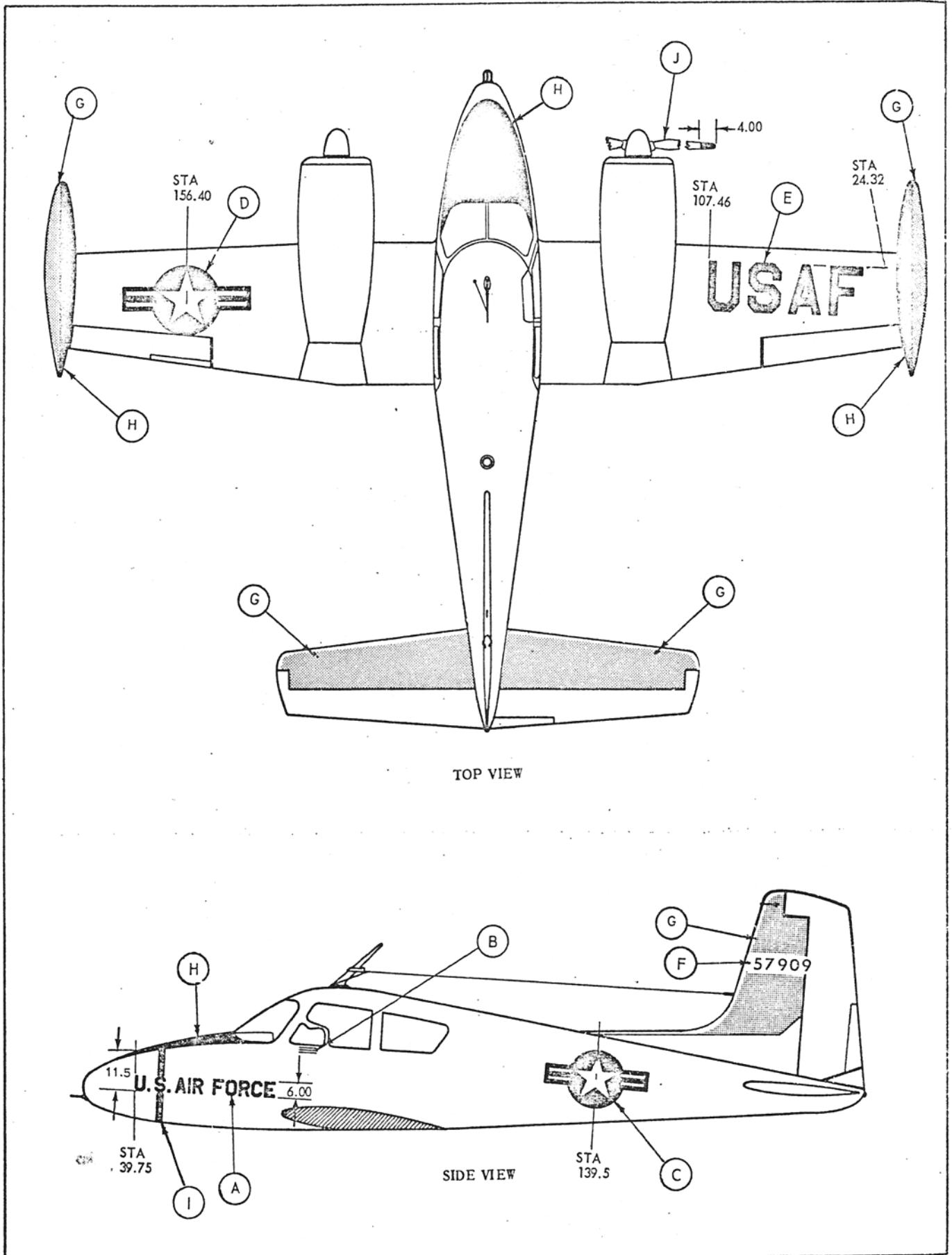


Figure 3-49. U-3A Aircraft Marking Specification.

## U-3B AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-50)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 6 inches high	-Code 17875
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17875
C. National Star	Both sides of fuselage	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 24 inches high	-Code 17875
F. Call Numbers	Both sides of vertical stabilizer, and rudder	Numbers 6 inches high	-Code 17875
G. Conspicuity/Arctic Markings	Outer 180 degrees of wing tip tanks		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit windows and inner 180 degrees of wing tip tanks		-Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller travel	2 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538

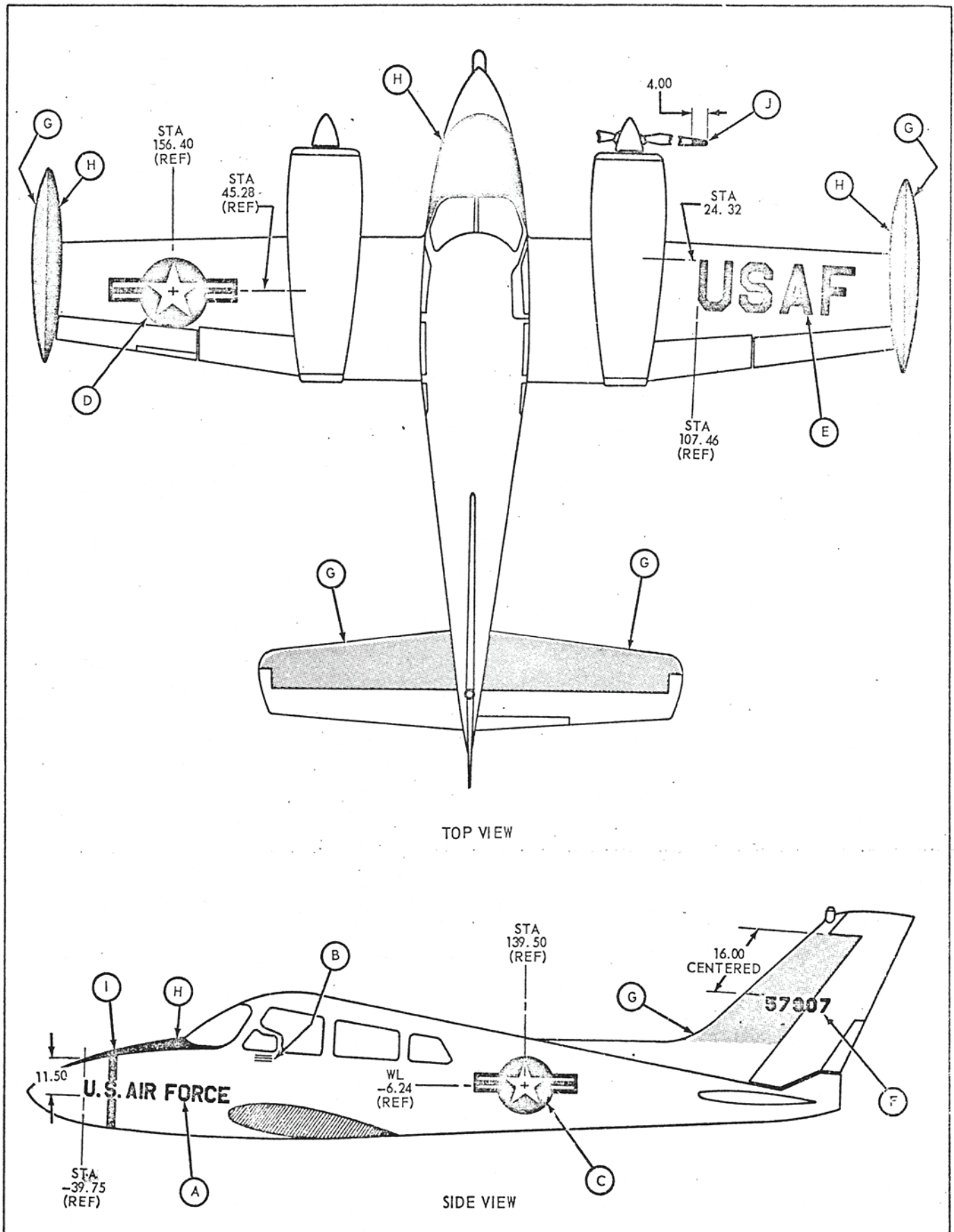


Figure 3-50. U-3B Aircraft Marking Specification.

## U-4 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-51)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 9 inches high	-Code 15044
B. Model Designation Aircraft Serial Number and Fuel Requirement	Left side of fuselage	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	15-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	20-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 22 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 5 inches high	-Code 17875
G. Conspicuity/ Arctic Markings			-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller blade travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538

## U-6 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-52)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 12 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side fuselage only	Letter and number 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	30-inch star	Background, Border, -Code 15044. Star, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	30-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On under surface of left wing and top surface of right wing	Letters 28 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer and rudder	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Propeller Tips	On both sides	4 inches from tip	-Code 33538

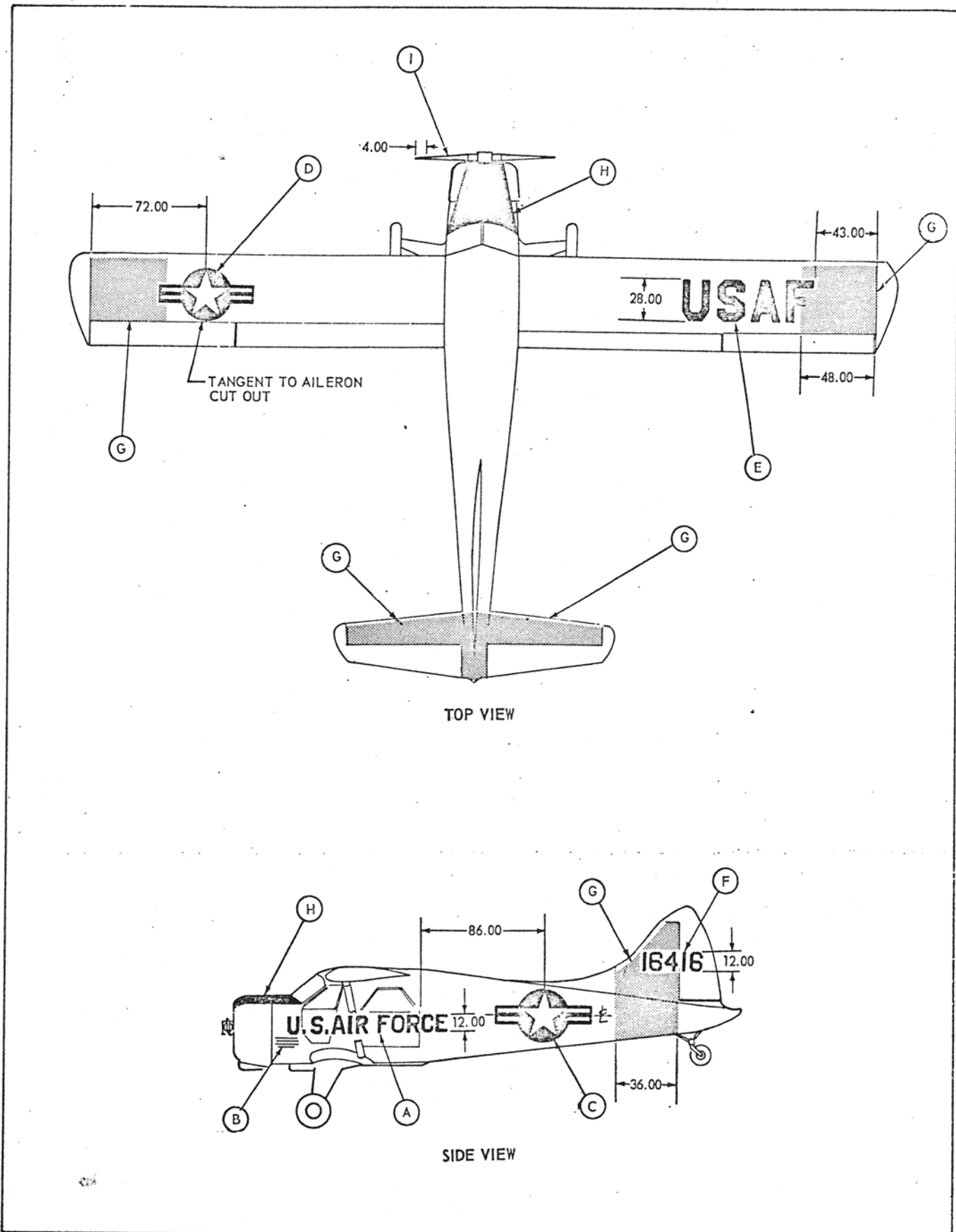


Figure 3-52. U-6 Aircraft Marking Specification.



## U-10 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-53)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 9 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and number 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	25-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	35-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On under surface of left wing and top surface of right wing	Letters 35 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer and rudder	Numbers 9 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	1-inch clearance around all large insignia and lettering		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit		-Code 37038
I. Identification Letter and Numbers	Both sides of fuselage	Letters and Numbers 12 inches high	-Code 15044
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538

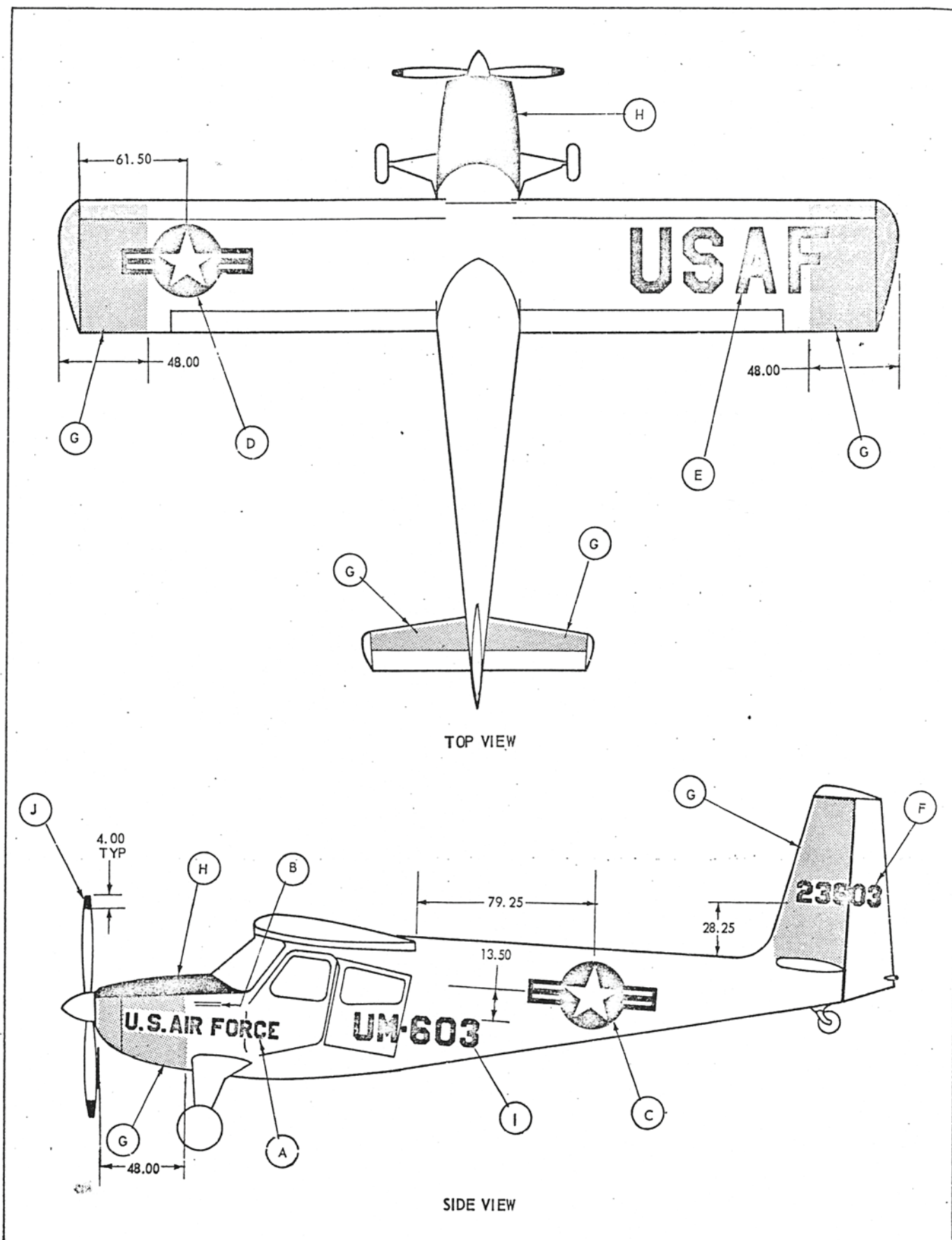


Figure 3-53. U-10 Aircraft Marking Specification.

## U-16 AIRCRAFT MARKING SPECIFICATION (SEE FIGURE 3-54)

1. MARKING	2. LOCATION	3. SIZE	4. COLOR
A. U.S. Air Force	Both sides of fuselage	Letters 18 inches high	-Code 15044
B. Model Designation, Aircraft Serial Number and Fuel Requirement	Left side of fuselage only	Letters and numbers 1 inch high	-Code 17038
C. National Star	Both sides of fuselage	35-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
D. National Star	On under surface of right wing and top surface of left wing	50-inch star	Background, Border, -Code 15044. Stars, Bars - Code 17875. Stripes - Code 509.
E. USAF	On top surface of right wing and under surface of left wing	Letters 50 inches high	-Code 15044
F. Call Numbers	Both sides of vertical stabilizer	Numbers 12 inches high	-Code 17038
G. Conspicuity/ Arctic Markings	One inch clearance around all large insignia and markings		-Code 633
H. Anti-Glare	Top of fuselage in front of cockpit (excluding antenna)		-Code 37038
I. Propeller Caution Band	On fuselage through same plane of propeller blade travel	3 inches wide	Band, Arrows, Danger - Code 509. Propeller - Code 17875.
J. Propeller Tips	On both sides	4 inches from tip	-Code 33538
K. Walkways		Border 2 inches wide	-Code 17038

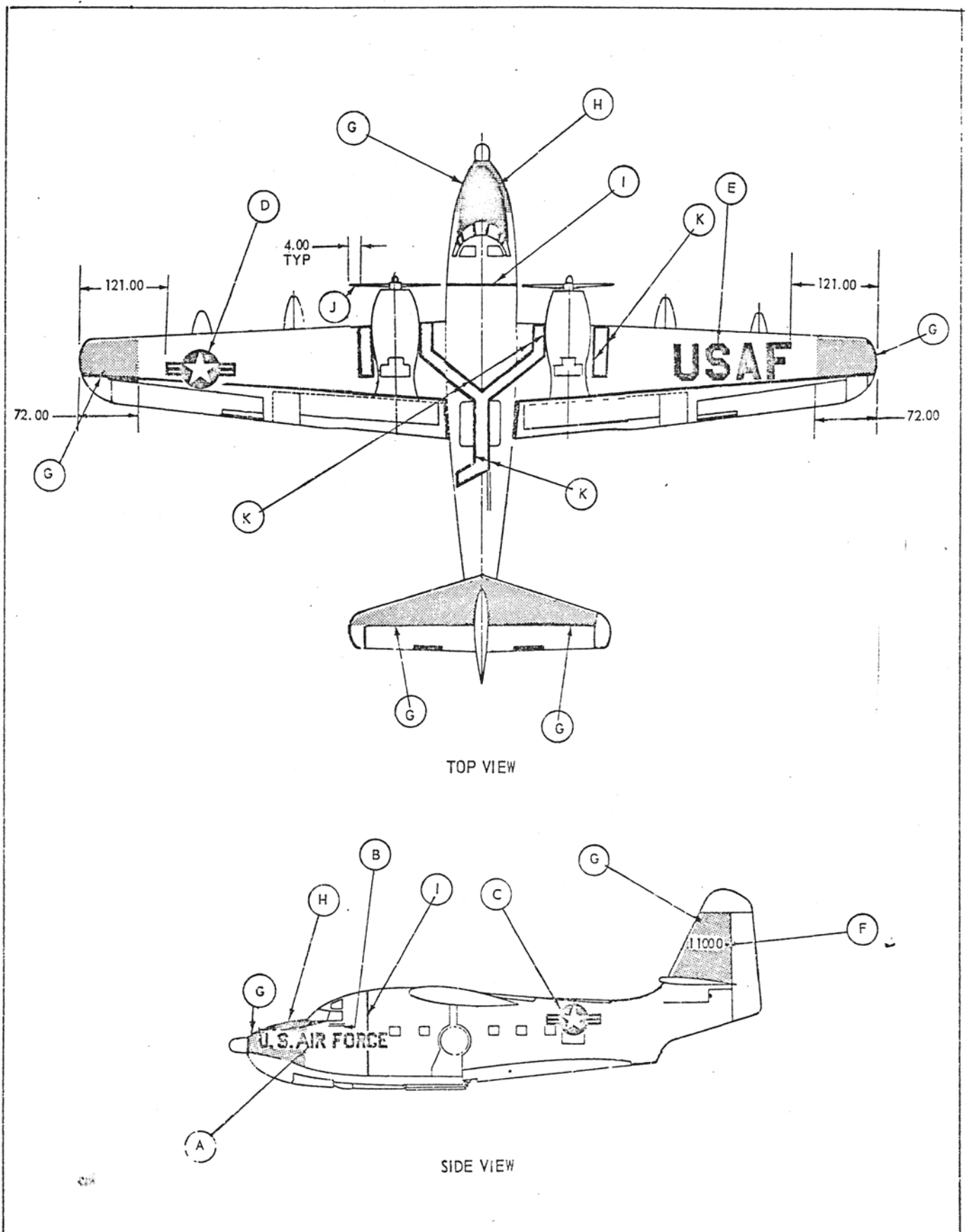


Figure 3-54. U-16 Aircraft Marking Specification.

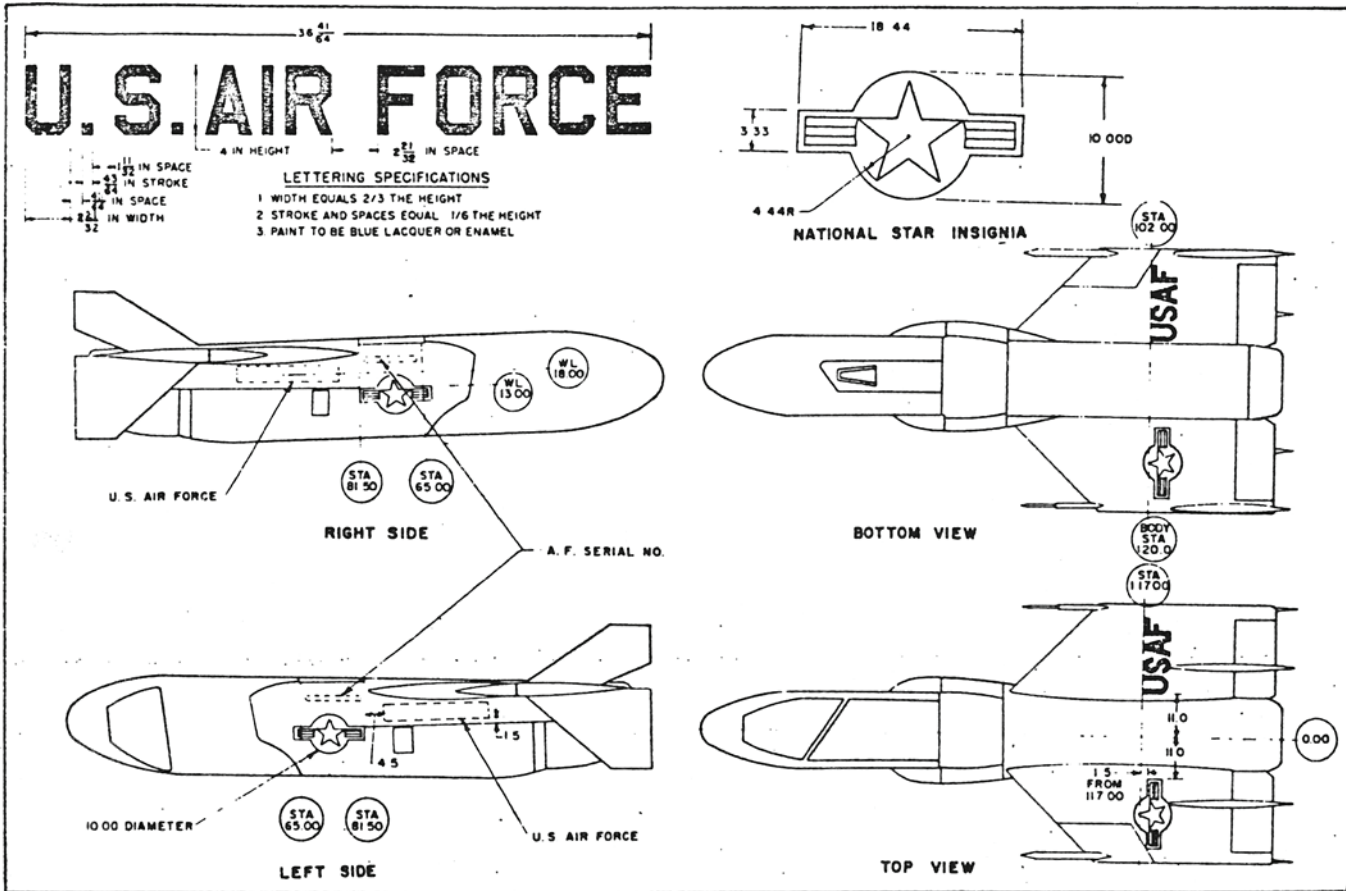


Figure 3-55. Location of Missile Markings ADM-20A.

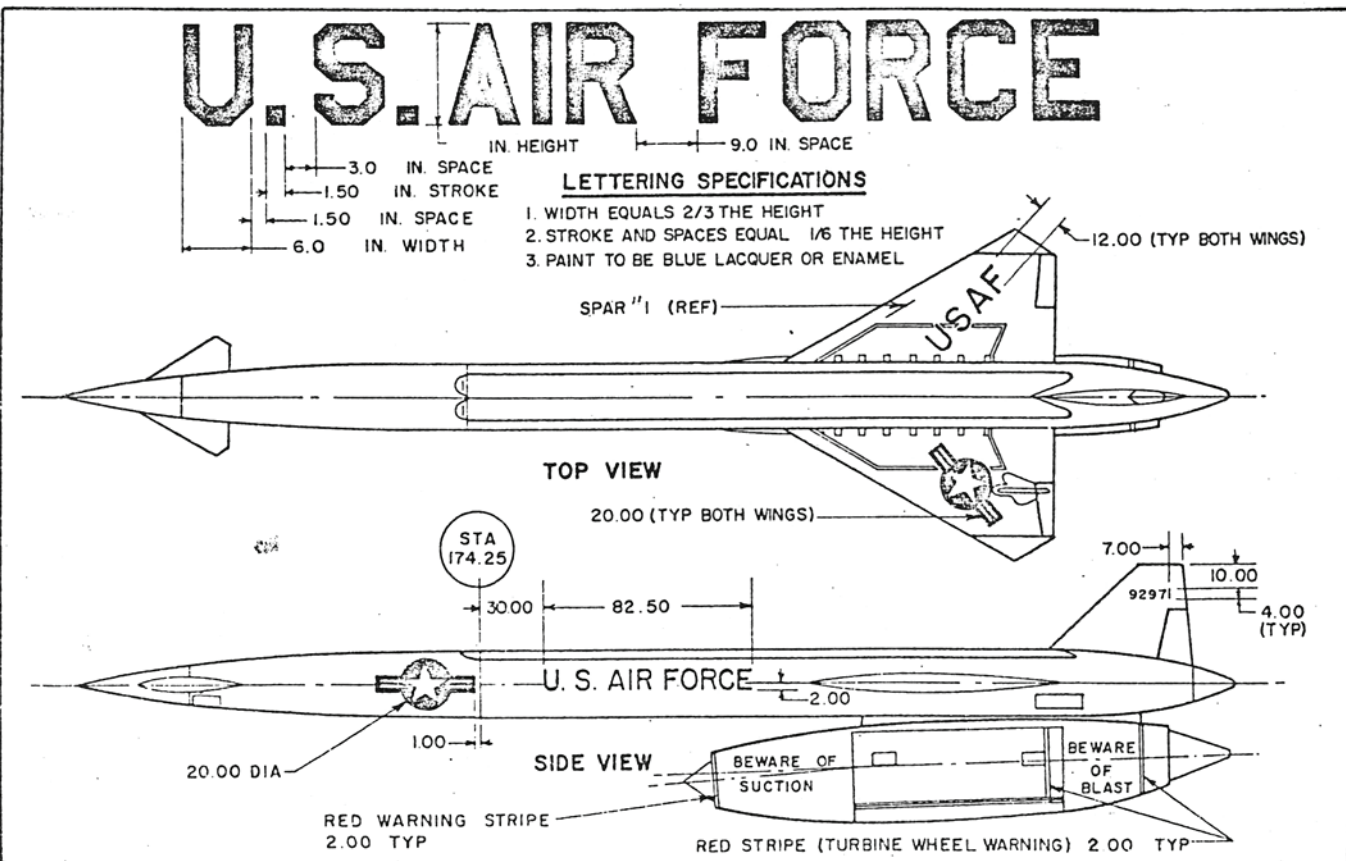


Figure 3-56. Location of Missile Markings AGM-28A.

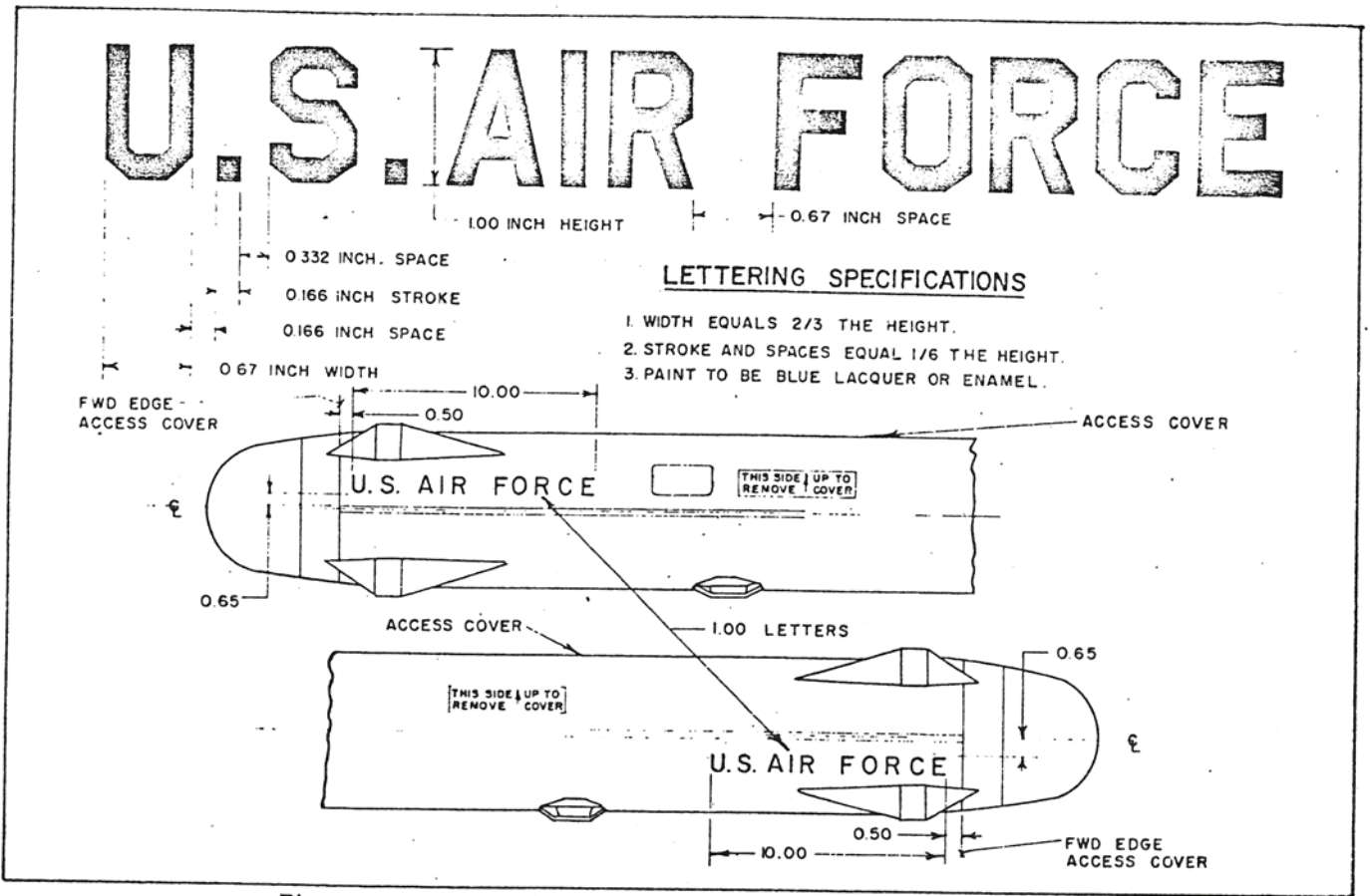


Figure 3-57. Location of Missile Markings AIM-4A, AIM-4C.

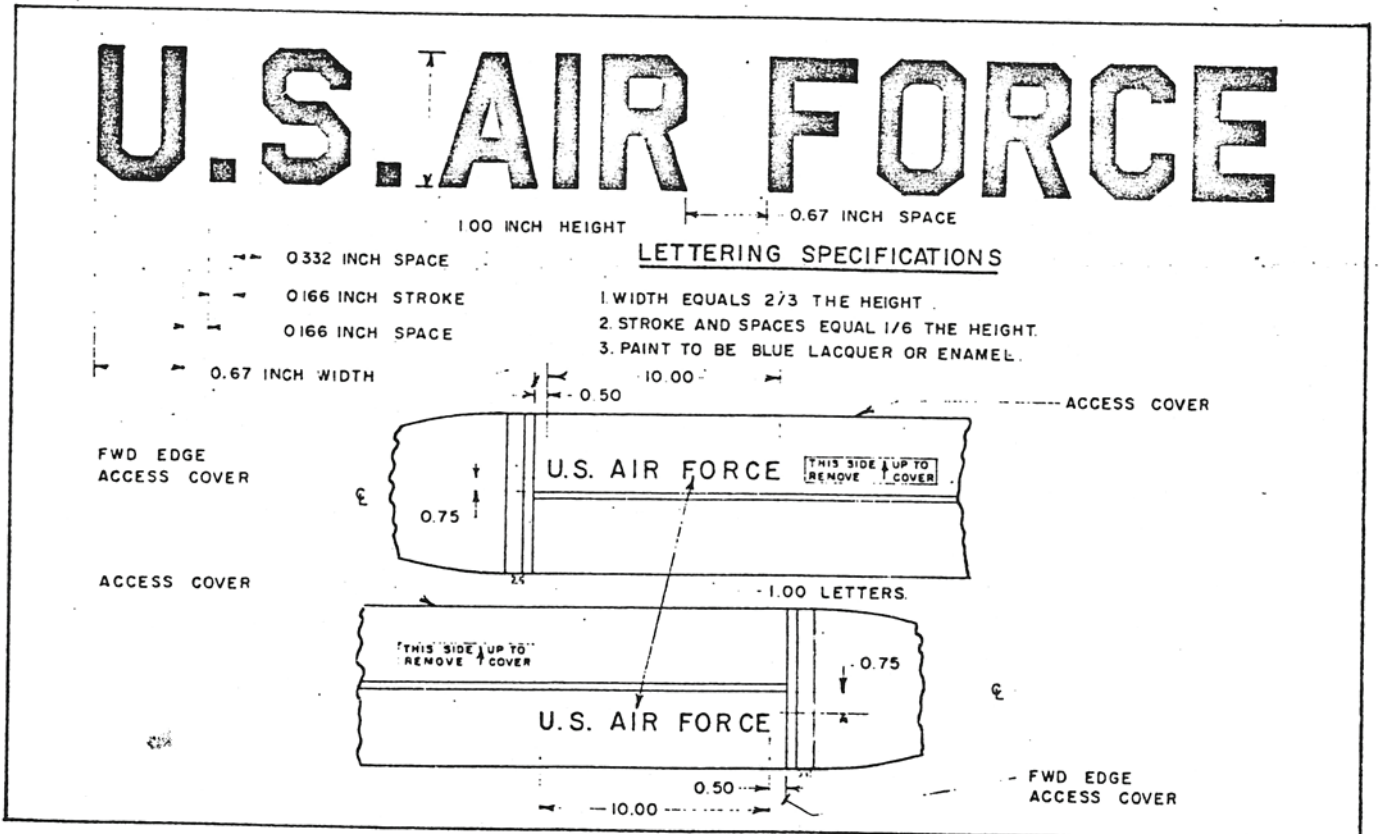


Figure 3-58. Location of Missile Markings AIM-4E, AIM-4F.

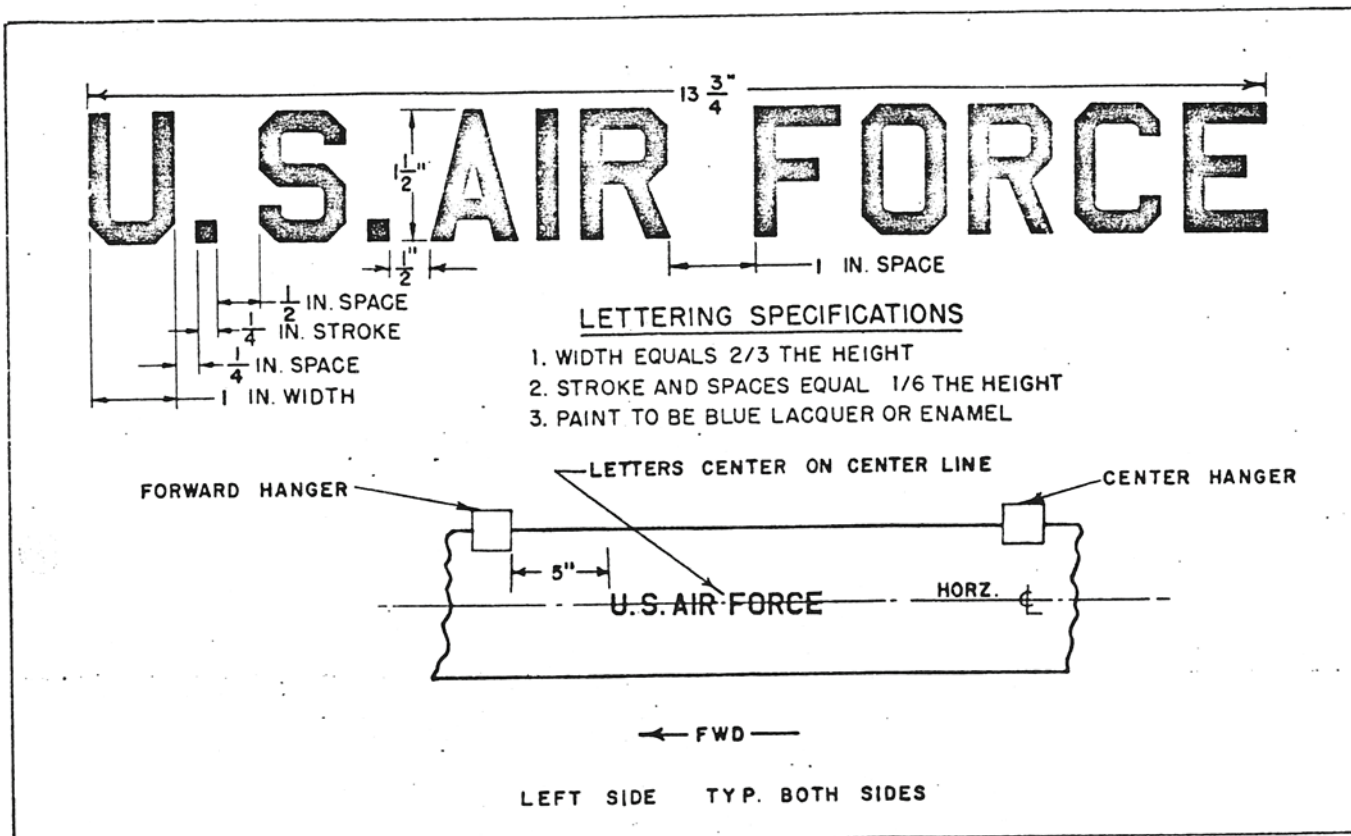


Figure 3-59. Location of Missile Markings AIM-9B.

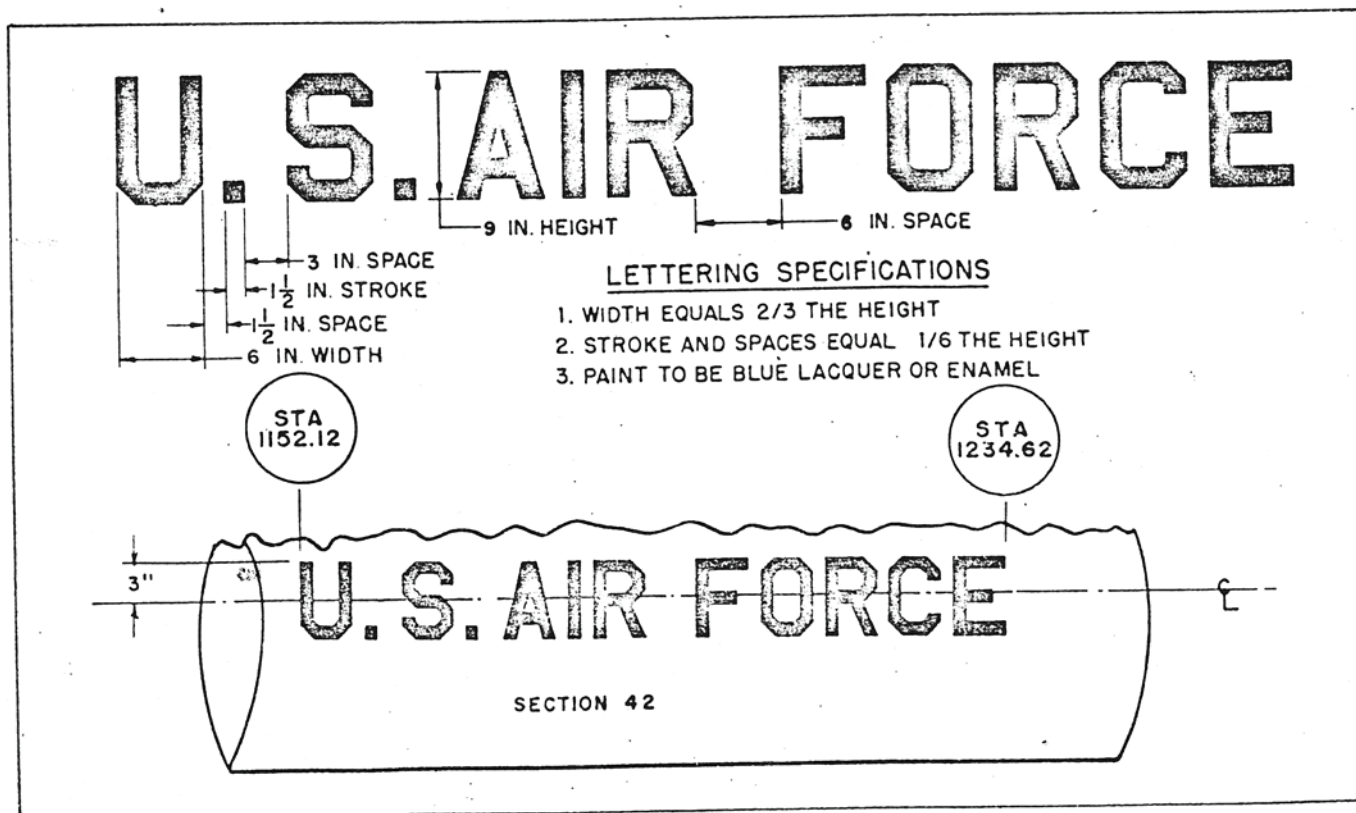


Figure 3-60. Location of Missile Markings CIM-10A.

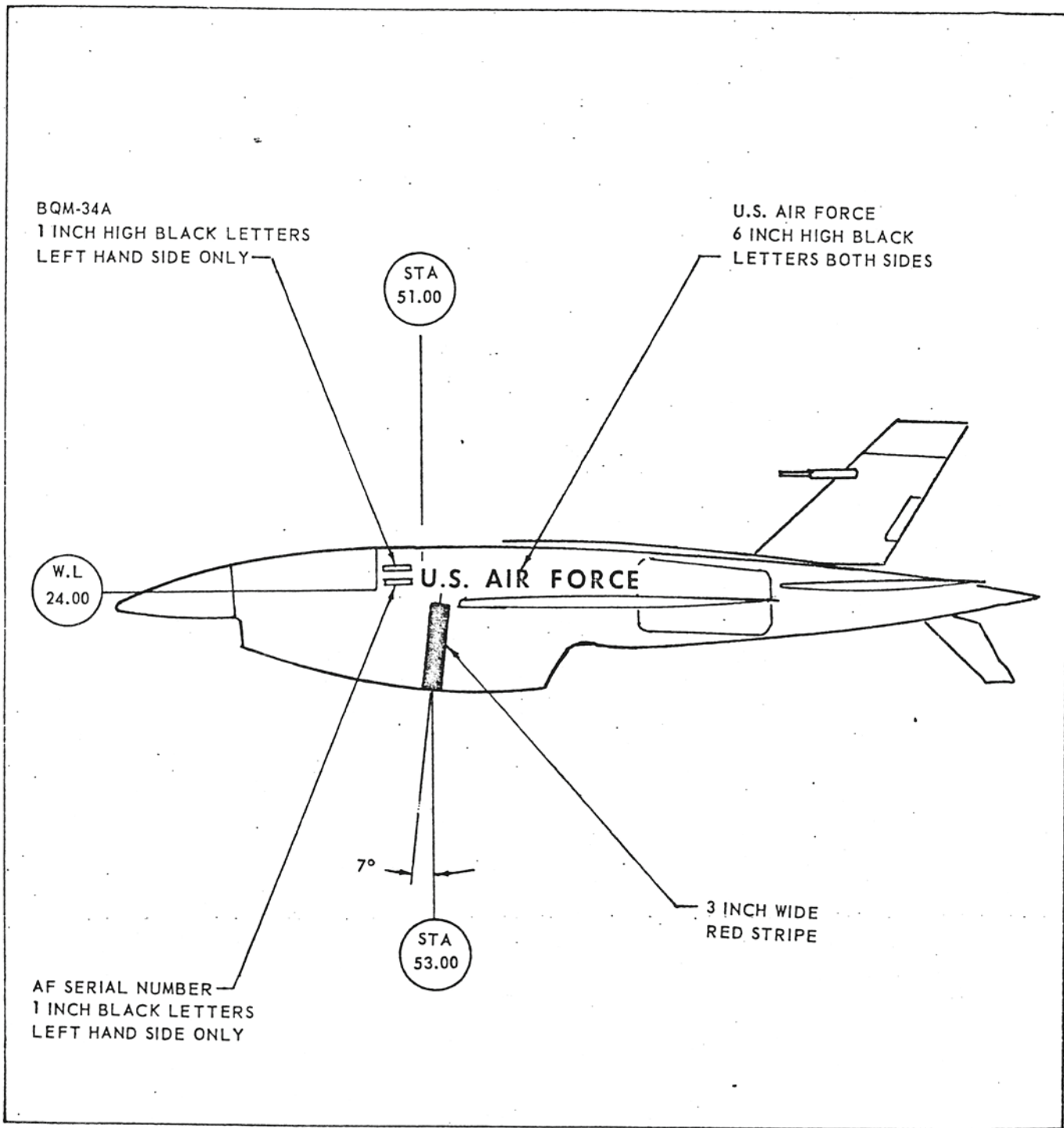


Figure 3-61. Location of Missile Markings BQM-34A.



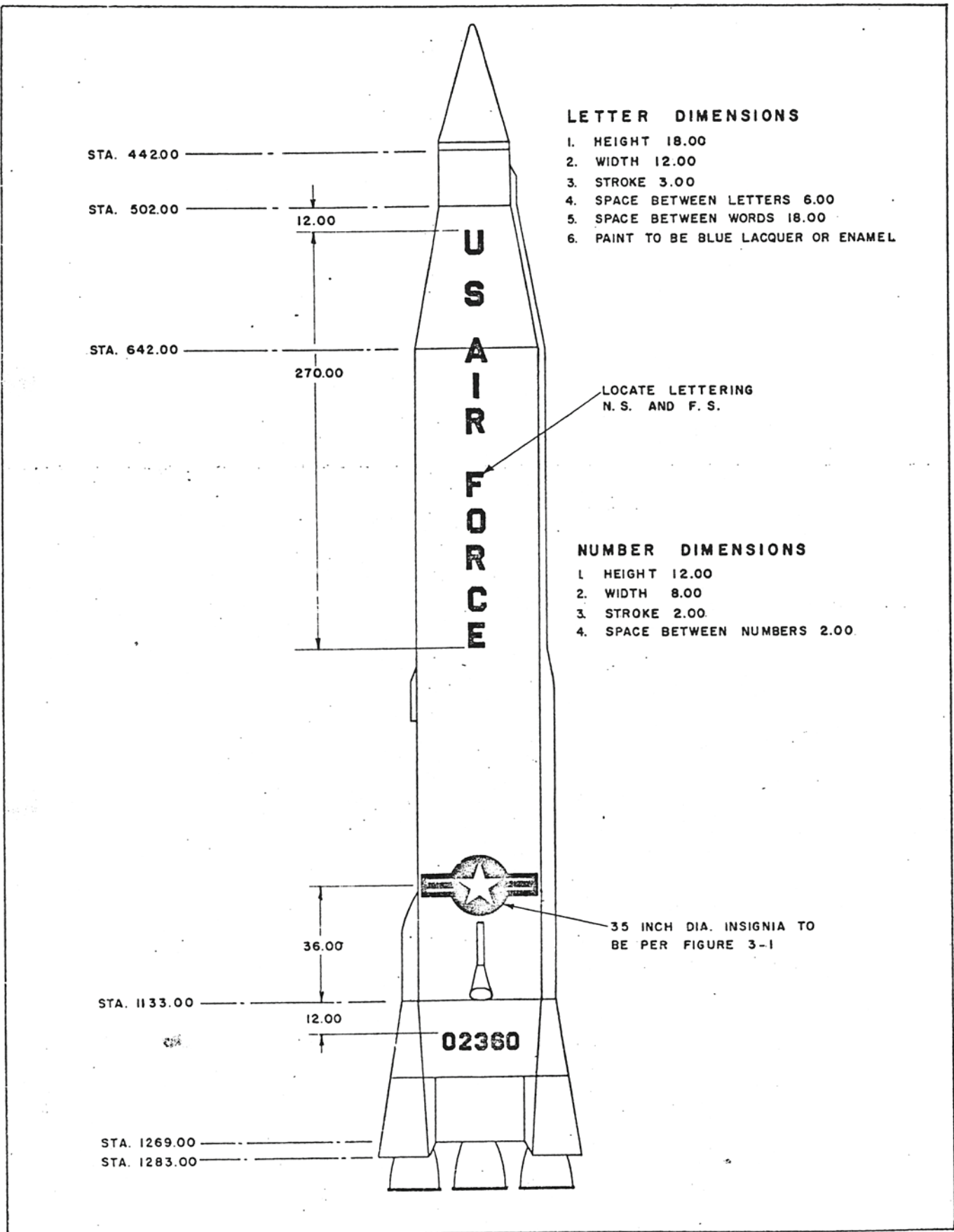


Figure 3-62. Location of Missile Markings PGM-16D.

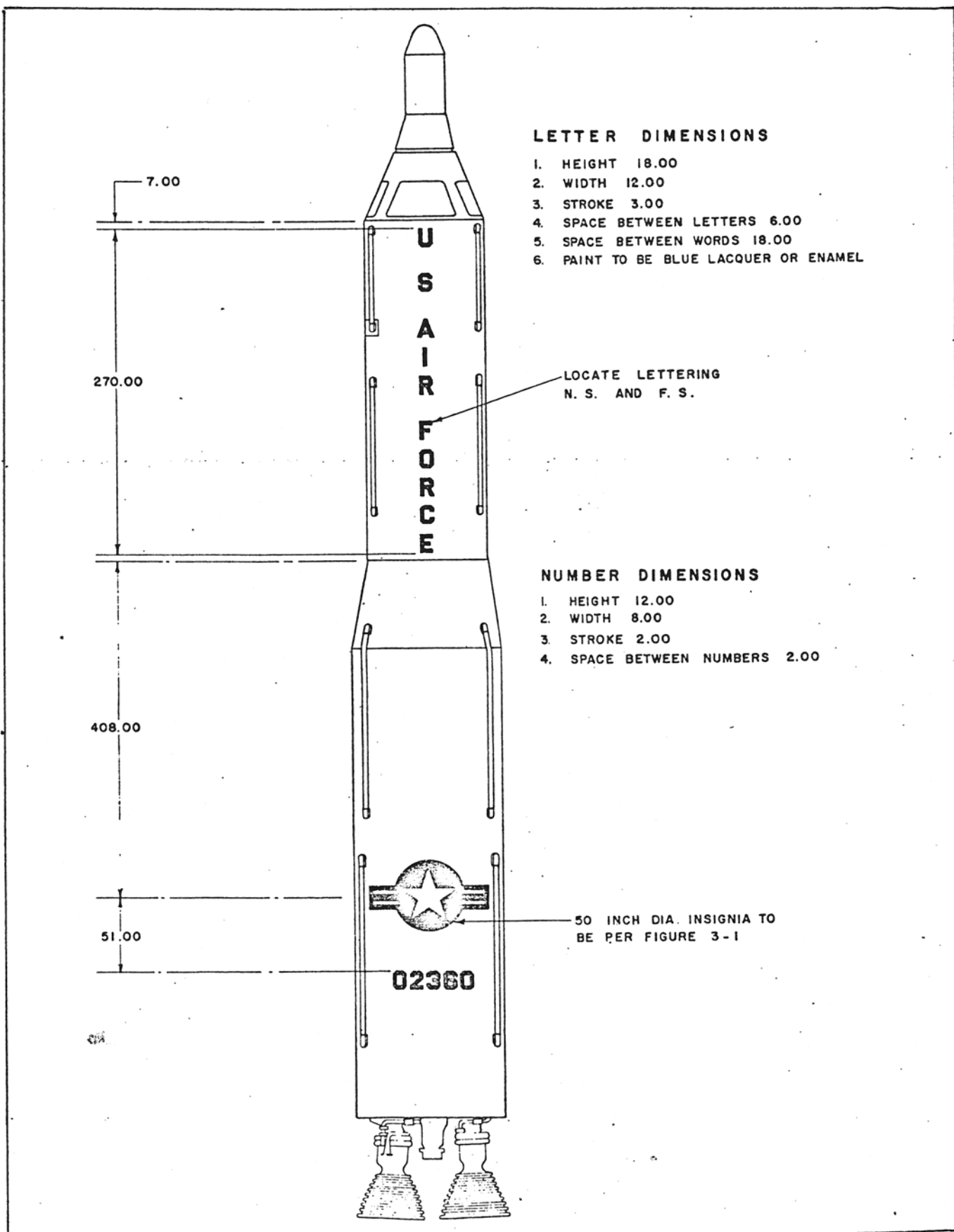


Figure 3-63. Location of Missile Markings HGM-25A.

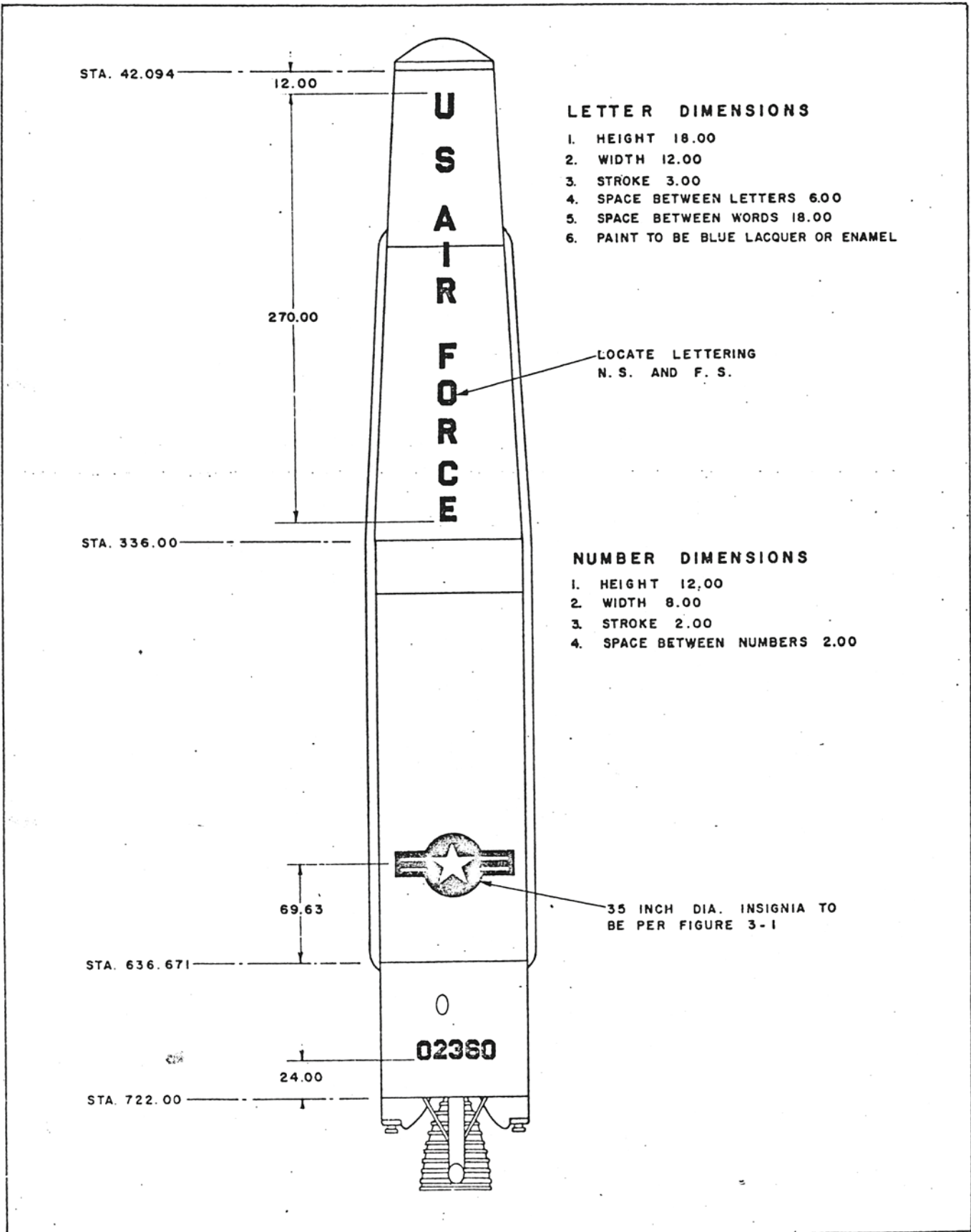


Figure 3-64. Location of Missile Markings PGM-17A.

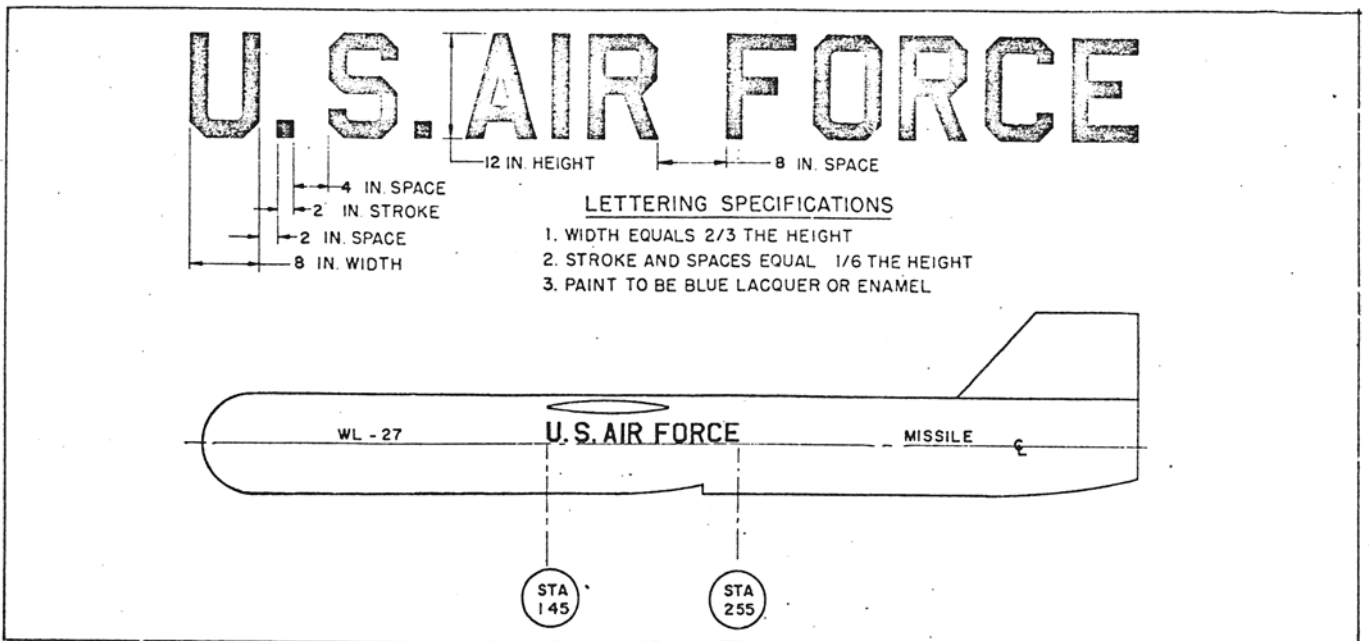


Figure 3-65. Location of Missile Markings MGM-1C, MGM-13A.

## SECTION IV

## AIRCRAFT AND MISSILE SERVICE POINT IDENTIFICATION SYMBOLS AND MARKINGS

## 4-1. GENERAL.

4-2. Symbols for service point identification, ground handling servicing points and symbols for safety shall be applied to all USAF aircraft and missiles. These symbols may be applied using either paint or decalcomanias. Each marking shall be displayed to provide the following:

a. Rapid identification of each required servicing point.

b. Identify type of ground servicing required.

c. Display warning or safety precautions which will prevent injury to personnel or damage to aircraft equipment.

**NOTE**

Specification MS33739 also reflects the markings criteria as contained herein.

4-3. Servicing instructions for hydraulic systems, landing gear and shock struts shall be provided on metal instruction plates or stenciled in a permanent and legible manner adjacent to charging points and test connections.

4-4. Printed information required in connection with symbols shall be printed in black or white depending on the background. Capital letters and arabic numerals shall be used and shall not exceed 1-1/4 inches in height.

4-5. Symbol size shall be approximately four inches in the longest dimension; however, smaller sized symbols of 1-1/2 inches may be used if required by the item or area to be marked.

4-6. Color requirement for symbols shall be as follows:

a. Filling points symbols shall be colored black or white according to the background. Refer to paragraph 4-10.a. through p.

b. Ground handling servicing points symbols shall be colored yellow and have a black or white outline according to the background. Refer to paragraph 4-11.a. through c.

c. Safety symbols shall be colored red and have a black or white outline according to the background. Refer to paragraph 4-12.

4-7. The location of each marking shall be predicated on the existing available space. They may be situated on the equipment concerned, directly below, adjacent to, or on applicable access panels. In event the service point or marking is concealed, arrows may be used to point out the location of the service point or markings. The arrow should bear a brief identification for which it is applied or the applicable service point identification or precautionary warning marking.

4-8. North Atlantic Treaty Organization code numbers cited in T.O. 42B-1-9 shall supplement the applicable service point marking. The code may be applied adjacent to, directly above, or below related servicing point.

**NOTE**

The application of NATO code numbers will be waived when it is not reflected in T.O. 42B-1-9 or may be omitted on training type aircraft and other aircraft not subject to being serviced at overseas locations.

**NOTE**

Certain provisions of this section are subject to international standardization agreements (see ABC Air Standard 11/1B and NATO, STANAG 3109) and shall not be changed except under emergency conditions without prior coordination with the Air Standardization Committee (ASCC). All requests for changes in existing markings or supplemental markings will be submitted to Headquarters MOAMA, Attn: MONKSC, for approval.

4-9. The servicing and precautionary markings of aircraft and missiles shall conform to the following paragraphs.

## 4-10. FILLING SYMBOLS.

## a. Refueling:

Four pointed filled star with applicable NATO code number.



## b. Rocket Fuels:

Filled four pointed star in filled crescent with notation of NATO code number.



c. Rocket Oxidizer:

Filled crescent with notation of NATO code number.



d. Engine Lubricating Oil:

Filled square with notation of NATO code number.



e. Hydraulic Fluid:

Filled circle with notation of NATO code number.



f. De-icing:

Filled triangle with notation of NATO code number.



g. Coolant:

Two filled horizontal bars with notation of NATO code number and percentage composition if necessary.



h. Pneumatic System:

Filled X with notation of maximum charging pressure in English and Metric Systems.



i. Oxygen (Breathing):

Two horizontal filled rectangles with notation of filling pressure in English and Metric systems. For liquid systems the word "Liquid" shall be used instead of pressure.



j. Anti-Detonant or Thrust Augmentation:

Filled chevron with notation of NATO code number.



k. Air Conditioning:

Dot pattern.



l. Inerting System:

Filled square with a quarter arc removed from each corner, with type of gas used and pressure in English and Metric Systems.



m. Fire Extinguishing System:

A filled diamond with notation showing NATO code number.



n. External Electrical Connections:

A filled vertical bar with three equally spaced horizontal bars on right hand side with notation to indicate characteristics and purpose.



o. Grounding or Earthing Receptacle:

A filled inverted "T" with two parallel bars which diminish in size.



p. Inspection of Battery:

A filled electric flash sign.



4-11. GROUND HANDLING SYMBOLS:

a. Jack Point:

Yellow filled square with two slanting legs on bottom side.



b. Slinging or hoisting Points:

Yellow filled hook on a horizontal line.



## c. Mooring or Picketing:

Yellow filled anchor.



## d. Towing:

Yellow filled ring.



## 4-12. SAFETY MARKING.

4-13. Red filled equilateral triangle with nine inch sides and with the word "DANGER" on each side of the triangle.



## 4-14. PRECAUTIONARY OR WARNING MARKINGS.

4-15. Precautionary or warning markings shall be in accordance with paragraphs 4-13 through 4-31.

## 4-16. FUEL NOZZLE GROUNDING.

4-17. Apply service point markings for Grounding or Earthing Receptacle (reference paragraph 4-10.e.) with notation "GROUND (EARTH) HERE."

## 4-18. STORAGE BATTERIES.

4-19. The notation "BATTERY LOCATION \_\_\_\_\_" with exact battery location given shall be placed on the left side of the fuselage as viewed from the rear of the aircraft.

a. The fore and aft location of the markings will be approximately in line with the trailing edge of the wing.

b. The vertical location of the markings will be at a point two to three feet off the ground with the aircraft in the wheels-up position and resting on the ground, or in case of aircraft having fixed landing gears, with the landing gear washed out.

c. In the event of interference with windows, inclosures, etc., the marking shall be placed as near the aforementioned location as is practicable.

## 4-20. EJECTION SEATS.

4-21. A red equilateral triangle with nine inch sides and with apex pointing downward with the word "DANGER" placed on each side of the triangle shall

be applied on each side of the fuselage. The word "EJECTION SEAT" in white letters shall be painted in the triangle.

## 4-22. IDENTIFICATION OF BALLISTIC HOSE OR TUBING ASSEMBLIES.

4-23. Ballistic hose or tubing assemblies leading to the ejection seat catapults shall be marked for ground rescue purposes. The marking shall be a band approximately eight inches long and shall be painted with a coat of primer, Specification MIL-P-8585, followed by a coat of yellow-orange enamel, Type I, Color No. 13538, conforming to Specification MIL-P-7729. The area selected shall be easily visible, readily accessible and as close as possible to the catapult.

## 4-24. CANOPY REMOVERS.

4-25. Aircraft containing canopy removers shall be marked "WARNING: THIS AIRCRAFT CONTAINS A CANOPY REMOVER CONTAINING AN EXPLOSIVE CHARGE" and such other notations as "SEE T.O. \_\_\_\_\_ FOR COMPLETE INSTRUCTIONS." Insert applicable technical order number in space provided.

## 4-26. MARKING FOR ELECTRICAL CONNECTIONS.

4-27. The following caution note shall be placed at points where it is necessary to break electrical connections when folding back or removing wings.

**CAUTION**

Disconnect electrical wiring before removing wings.

## 4-28. MARKINGS FOR TANK AREAS.

4-29. A red band, one inch wide, shall be painted around fuel filler caps. The band shall be approximately two inches from the cap. Fuel filler caps need not be painted.

4-30. Aircraft tanks shall have notations indicating tank capacity, type of liquid and level restrictions.

4-31. Tank markings shall be the same color as is used on the attaching lines.

4-32. Additional data, such as coolant mixture, water alcohol mixture, and grade of liquid (specified by AFLC) shall be stenciled near the filler cap in letters 1/2 inch in height.

4-33. The terminology for fuel tanks is as follows:

USE \_\_\_\_\_ OCTANE FUEL OR BETTER,  
OR USE GRADE \_\_\_\_\_ FUEL OR BETTER,  
as applicable.

## SECTION V

IDENTIFICATION OF PIPE, HOSE AND TUBE LINES FOR AIRCRAFT,  
MISSILES AND SPACE VEHICLES

## 5-1. GENERAL.

5-2. This section provides guidance for identifying the function, content and, if applicable, the hazard and direction of flow of pipe, hose and tube lines used in aircraft, missiles and space vehicles. The use of colors, words and symbols to identify functions; the use of words, including appropriate abbreviations, to identify contents and hazards; together with dimensions of tags and painted bands, is specifically prescribed. Lines, as referred to herein, include any pipe, hose or tube used to convey liquids or gases. Rigid conduit used to house electrical wires or cables are included. Fittings, valves, conduit outlets and accessories such as pipe covering and hose clamps are considered parts of a line.

## NOTE

This section contains the identification requirements of MIL-STD-1247 as applicable to aircraft, missiles and space vehicles.

## 5-3. GENERAL CLASSIFICATION OF LINES.

a. Cold Lines - Lines in which the temperature of the flowing medium is below minus 60 degrees Fahrenheit.

b. Hot Lines - Lines on which the surface temperature ranges from 200° to 325° Fahrenheit.

c. Instrument Air - Air used in conjunction with pressure operated instruments.

d. Pneumatic - Air under pressure other than instrument air.

e. Compressed Gas - Any gaseous substance under pressure, other than air, not requiring other functional identification.

5-4. General Marking of Lines. Identify each line as to function, content, hazard and direction of flow, as applicable.

a. Function is identified by use of word, colors and symbols (see figure 5-2). Tapes will normally be used for airborne lines, except that small tags of some lightweight non-corrosive metal such as aluminum alloy, stamped with contents, pressure and direction of flow, may be used on airborne cold lines.

## NOTE

Symbols and colors are not required where identification is accomplished with aluminum alloy tag.

b. Content is identified by use of lettering and symbols (see figure 5-1).

c. Hazard is identified by lettering and/or symbol. (See table 5-2.)

d. Direction of flow is identified by arrow. Use two-headed arrow for reversible flow.

e. Pressure is identified by lettering, indicating pounds per square inch (PSI).

## 5-5. METHOD USED FOR IDENTIFICATION.

a. Tape - Use color coded tape conforming to Specification MIL-T-9906 for identifying function of all lines less than four inches in diameter including hot lines where surface temperatures do not exceed 325° Fahrenheit. Tapes may also be used in an oily environment provided adhesion can be maintained. Do not use tape in engine compartment where there is a possibility of tape being drawn into engine intake. Use Specification MS16837 tapes for further identification of lines. When applying tape to lines, the tape shall completely encircle the line.

## NOTE

Cold lines may be identified by use of tape, provided adhesion can be maintained at cryogenic temperatures and can be read from the normal point of operation.

Place tapes on both ends of line. Insure that identification is visible in each compartment. Place identification tape immediately adjacent to all operating accessories such as valves, regulators, strainers, vents, etc.

b. Tags - Tags will not normally be used except for lines in an oily environment, hot lines (exceeding 325° Fahrenheit) and cold lines. Tags will conform to figure 5-5. Fabricate tags from aluminum alloy. Stamp to show function, contents (pressure, direction of flow, primary hazard, if applicable). Color coding is not required on aluminum tags.



TABLE 5-1  
FUNCTIONS AND ASSOCIATED SYMBOLS.



















FUNCTION	COLOR	FED STD 595 CODE NUMBER	SYMBOL	ILLUSTRATION
Fuel	Red	11136	4-Pointed Star	
Rocket Oxidizer	Green, Gray		Crescent	
Rocket Fuel	Red, Gray		4-Pointed Star Inside Crescent	
Water Injection	Red, Gray, Red		Inverted Chevrons	
Lubrication	Yellow	13655	Staggered Squares	
Hydraulic	Blue, Yellow		Circle	
Solvent	Blue, Brown		Horizontal Stripes	
Pneumatic	Orange, Blue		Continuous, X-Form Lattice	
Instrument Air	Orange, Gray		Continuous Zig-Zag Line	
Coolant	Blue	15102	Horizontal S	
Breathing Oxygen	Green	14187	Rectangle	
Air Conditioning	Brown, Gray		Dot Pattern	
Monopropellant	Yellow, Orange		Block T	
Fire Protection	Brown	10049	Horizontal Diamond	
De-Icing	Gray	16473	Staggered Triangles	
Rocket Catalyst	Yellow-Green		Vertical Stripes	
Compressed Gas	Orange	12197	Broad Diagonal Stripe	
Electrical Conduit	Brown, Orange		Flash of Lightning	
Inerting	Orange, Green		Staggered Pipe Crosses	

TABLE 5-2

HAZARDS ASSOCIATED WITH VARIOUS CONTENTS	
CONTENTS	HAZARDS
Air (under pressure)	PHDAN
Alcohol	FLAM
Ammonia	TOXIC
Carbon Dioxide	PHDAN
Ethylene Oxide	FLAM
Flourine	TOXIC
Foam	PHDAN
Freon	PHDAN
Gaseous Oxygen	PHDAN
Helium	PHDAN
Hydrazine	TOXIC
Hydrazine/UDMH	TOXIC
Hydrogen	FLAM
Hydrogen Peroxide	AAHM
Liquid Hydrogen	FLAM
Liquid Nitrogen	PHDAN
LPG (Liquid Petroleum Gas)	FLAM
Methylene Chloride	AAHM
Natural Gas	FLAM
Nitrogen Gas	PHDAN
Nitrogen Tetroxide	TOXIC
Nitrogen Tetroxide (gaseous)	TOXIC
Oils and Greases	FLAM
Red Fuming Nitric Acid	TOXIC
RP-1	FLAM
Trichlorethylene	AAHM
UDMH	TOXIC
Aniline, Furfuryl Alcohol - Hydrazine Mix	TOXIC
Aniline Furfuryl Alcohol Mix	TOXIC
Ethyl Alcohol - Methyl Alcohol Mix	FLAM
N-Propyl Nitrate	FLAM
Chlorine Trifluoride	TOXIC
JP-4	FLAM

**NOTE**

FLAM - (Flammable Materials). All materials known ordinarily as flammables or combustibles.

TOXIC - (Toxic and Poisonous Materials). All materials extremely hazardous to life or health, under normal conditions, as toxic or poisons.

AAHM - (Anesthetics and Harmful Materials). All materials productive of anesthetic vapors, and all liquid chemicals and compounds hazardous to life and property but not normally productive of dangerous quantities of fumes or vapors.

PHDAN - (Physically Dangerous Materials). All materials, not dangerous in themselves, which are asphyxiating in confined areas or which are generally handled in a dangerous physical state of pressure or temperature.

Locate metal tags adjacent to operating accessories, making certain they will not interfere with the operation of the accessory.

c. Paint - Enamel or lacquer conforming to Specification MIL-E-7729 or MIL-L-19537 shall be used to identify lines in engine compartments where there is a possibility of tapes being drawn into engine intakes. Paint lines larger than four inches in diameter, except that cold lines, hot lines and lines in an oily environment, shall conform to the following requirements:

(1) Lines will be color coded with paint in accordance with table 5-1. Painted bands will be located adjacent to operating accessories, junction with branch lines, and where lines pass through bulkheads.

(2) Stencils are suitable for painting the letters to identify the specific function and contents (working pressure, primary hazard, and direction of flow arrow, if applicable). Geometric symbols are not required where identification is accomplished with paints. Use black lettering on white background.

(3) Size of painted lettering and arrow:

Lines four to eight inches diameter - lettering height 1-1/4 inches.

Lines eight to 10 inches diameter - lettering height 2-1/2 inches.

Lines over 10 inches diameter - lettering height 3-1/2 inches.

Arrow stem 1/8 maximum diameter of line. Total length of arrow will be equal to diameter of lines.

(4) Word Order - The words denoting function will appear first in the printed identification. The content description will appear immediately below the statement of function. Following below these, if

applicable, will be the operating pressure, the painted arrow indicating direction of flow and the words denoting the hazard. Vertical spacing shall be such that all wording and flow symbols are evenly spaced from top to bottom of the viewing area.

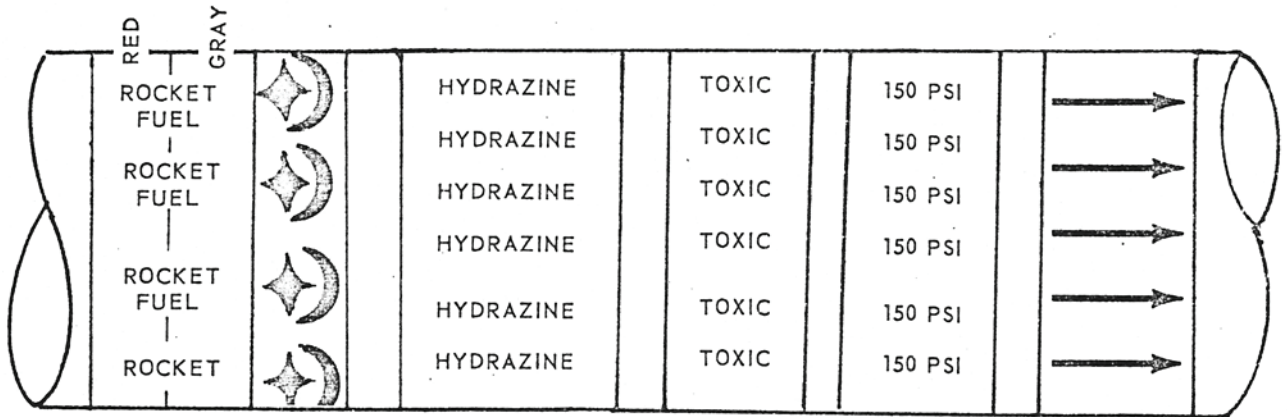
#### 5-6. MISCELLANEOUS LINES.

a. Identify wire carrying conduits with tape (electrical conduit and symbol). Add two additional markings (1) Usage, i.e., power, control, communication, etc, (2) Maximum voltage and type normally encountered, i.e., "115V 60 cycle AC", 28 VDC, etc. Conduit carrying a number of different wires serving different purposes will be marked "Electrical Conduit" (including symbol of if on tapes) only. However, those conduits which include power lines and which constitute a hazard to operating personnel shall be marked to indicate the maximum voltage normally encountered.

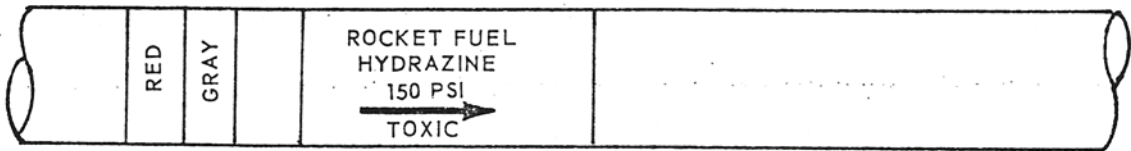
b. Flexible cables, whether metal or metal sheathed need not be identified.

c. Identify air conditioning ducts under 30 inches outside circumference with tape. Add tape indicating design temperature of flowing medium. Use paint (black lettering on white background) to identify larger than 30 inches outside circumference. Letter with 1-1/2 inch letters "Air Conditioning" in two lines, followed by third line indicating temperature of flowing medium. The sign should be as large as possible, but not to exceed 12 x 12 inches.

5-7. International Standardization Agreement. Certain provisions of this section are subject to international standardization agreements (see ABC Standard 17/3A, 17/25 and NATO, STANAG 3104) and shall not be changed except under emergency conditions without prior coordination with the Air Standardization Committee (ASCC). All requests for changes in existing markings or supplemental markings will be submitted to Headquarters MOAMA, Attn: MONKSC, for approval.



A. IDENTIFICATION GROUP, USING TAPES.



B. IDENTIFICATION GROUP, USING PAINTS.

Figure 5-1. Examples of Identification Groups.

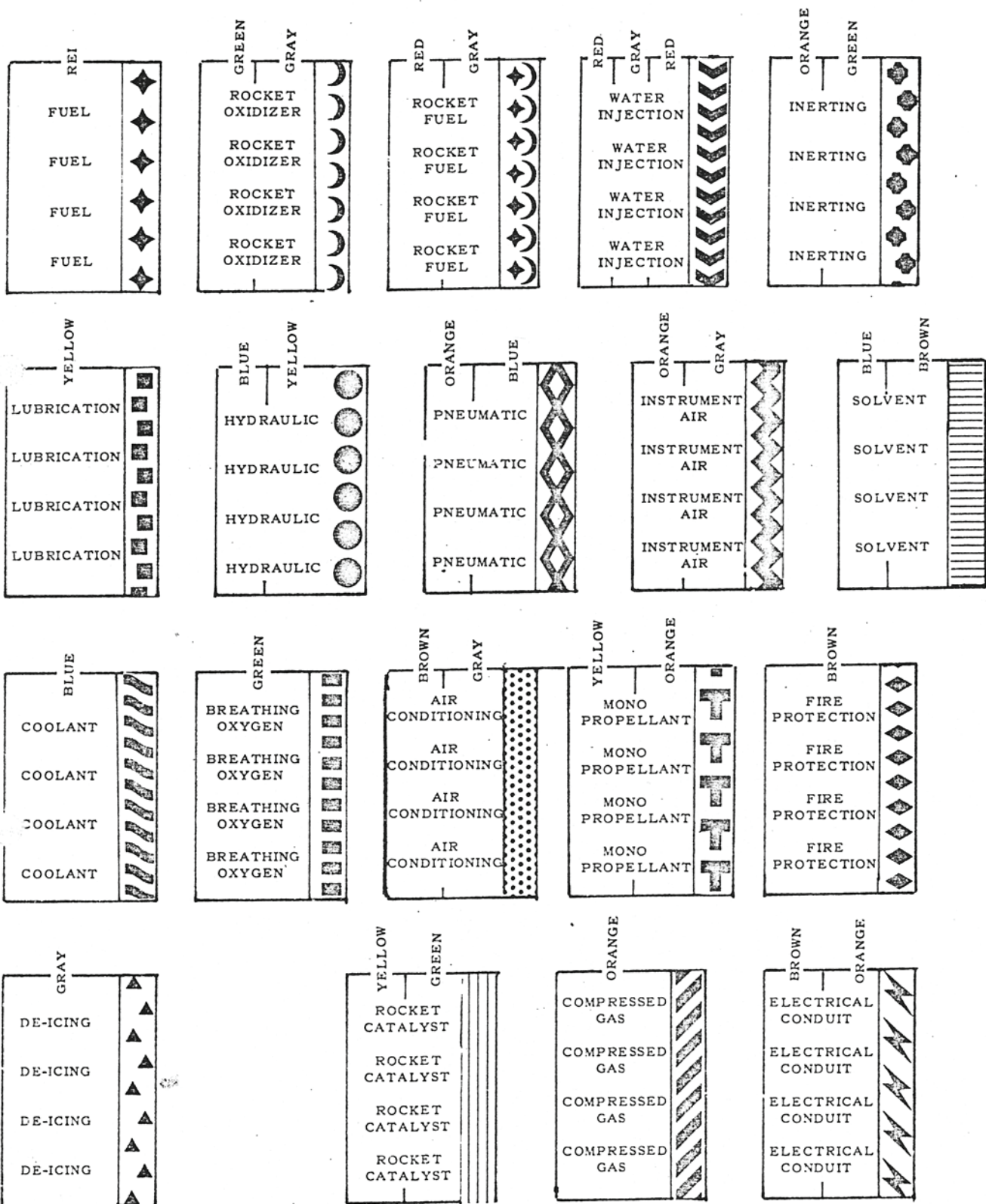
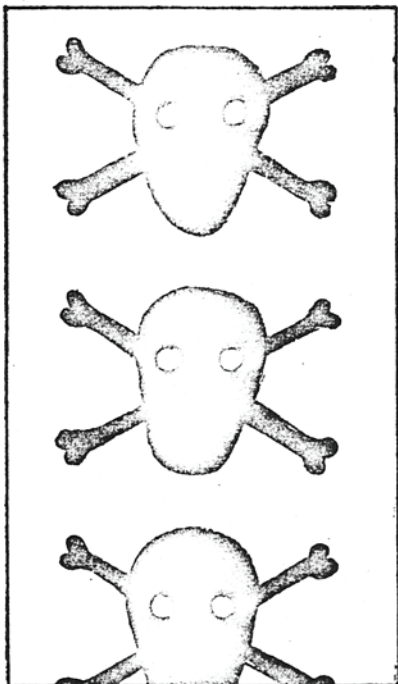


Figure 5-2. Color Coded Functional Identification Tapes.



1. WARNING SYMBOL WILL BE PRINTED ON TAPES.
2. MAXIMUM WIDTH OF TAPE SHALL BE 1/2 INCH. CLEARANCE BETWEEN THE SYMBOL AND THE EDGE OF THE TAPE ON EITHER SIDE, SHALL BE APPROXIMATELY 1/4 THE WIDTH OF THE SYMBOL.
3. SYMBOL TO BE BLACK ON A WHITE OR METALLIC (SILVERY OR CHROME) BACKGROUND.
4. SYMBOLS SHALL RECUR AT A MAXIMUM INTERVAL OF 1/4 INCH.
5. THIS SYMBOL SHOULD BE USED SPARINGLY AND SHOULD NOT BE USED ON LINES TO WARN AGAINST HIGH PRESSURE OR AGAINST A HAZARD ALREADY IDENTIFIED.
6. THE WARNING SYMBOL SHALL BE PLACED IMMEDIATELY ADJACENT TO THE IDENTIFICATION GROUP AT THE END OPPOSITE THE FUNCTIONAL TAPE.

NOTE: THIS SYMBOL MAY BE STENCILLED ON STEEL TAGS AND PAINTED BANDS, OR THE SECONDARY HAZARD WARRANTING IDENTIFICATION MAY BE WRITTEN (OR STAMPED ON ALUMINUM ALLOY TAGS) BENEATH THE PRIMARY HAZARD.

Figure 5-3. Warning Symbol.

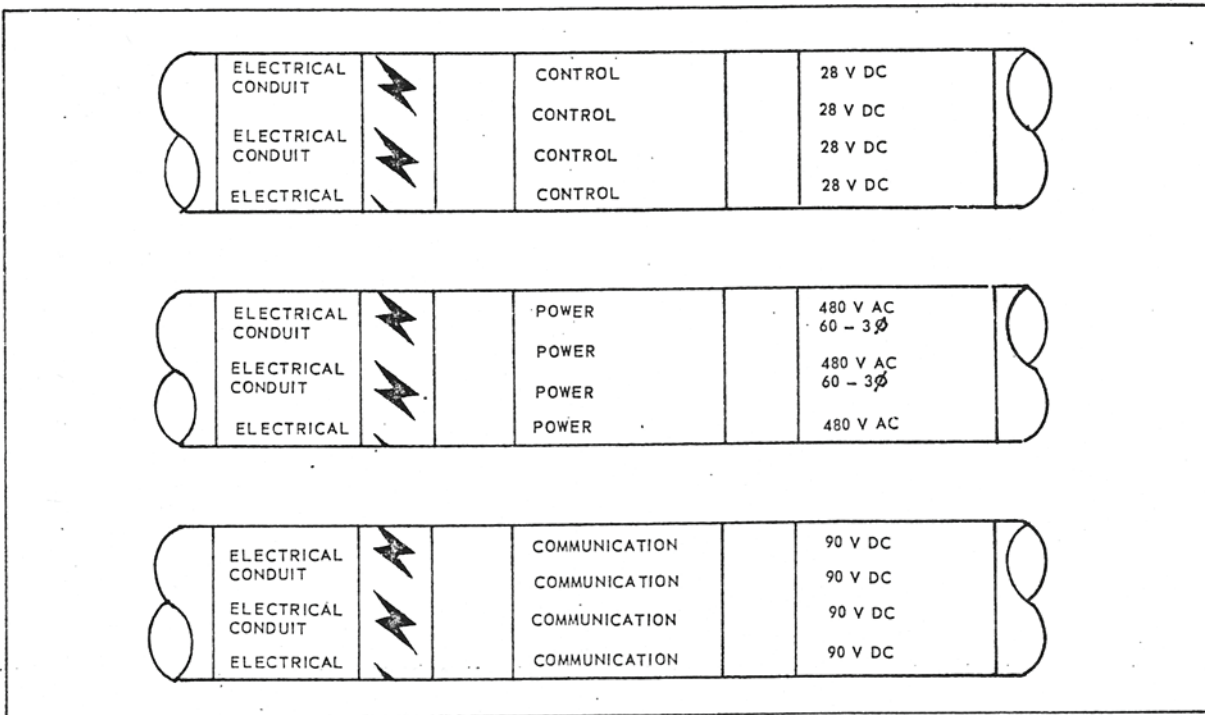


Figure 5-4. Example of Electrical Identification.

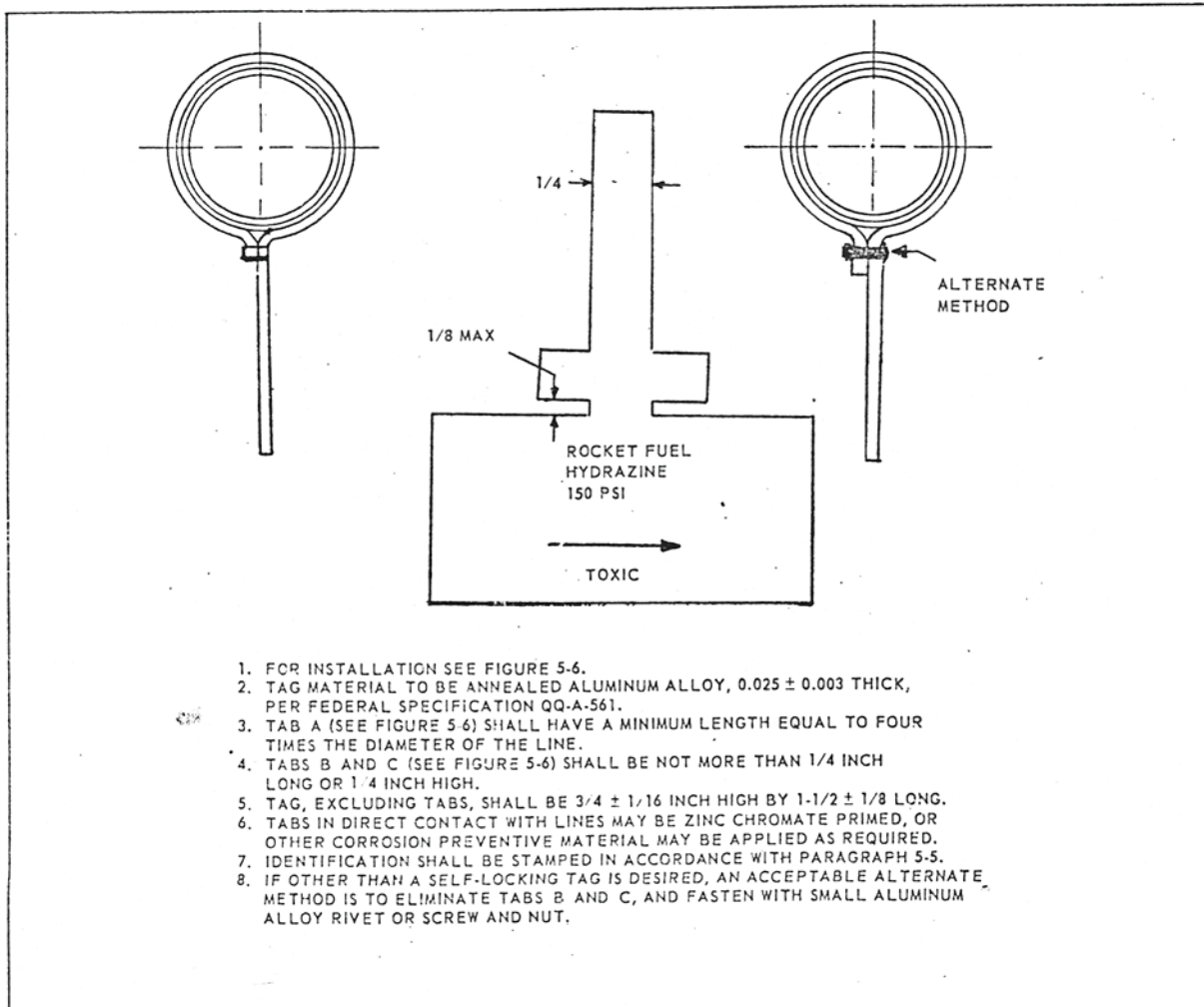
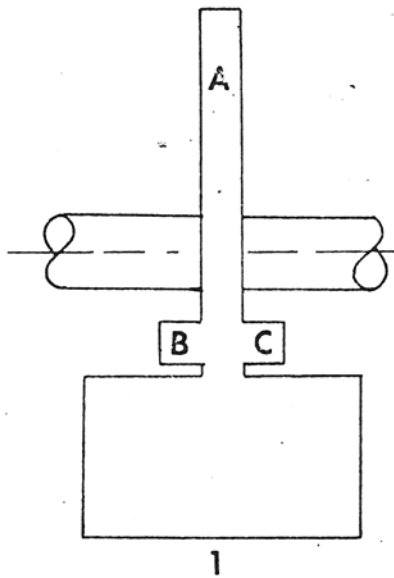
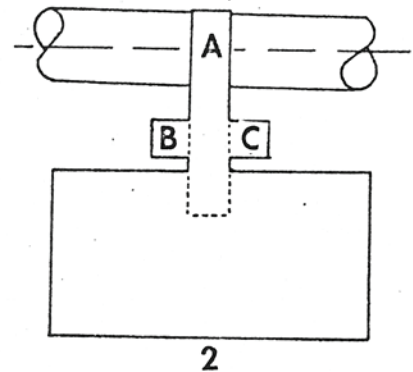


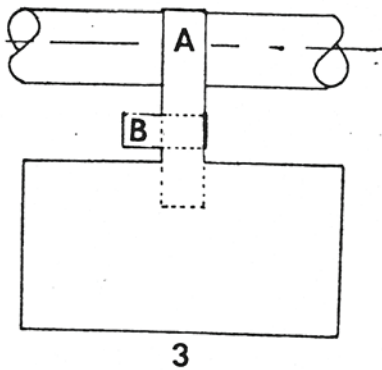
Figure 5-5. Self-Locking Tag for Airborne Lines.



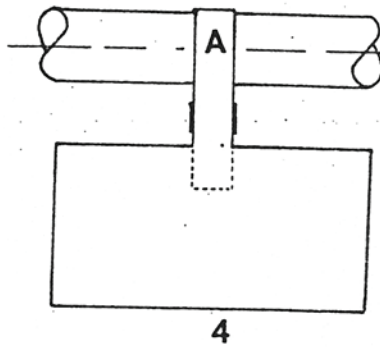
1  
PLACE TAG ON LINE, WITH  
TAB A UP, WITH SLIGHT  
CLEARANCE BETWEEN TABS  
B AND C AND LINE.



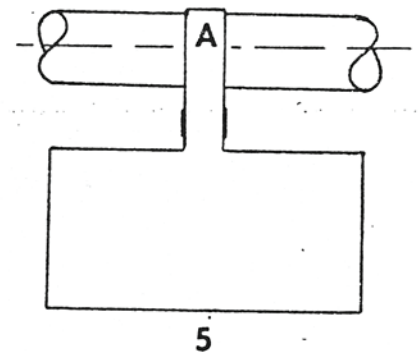
2  
BEND TAB A FIRMLY AROUND  
LINE, WITH END OF TAB  
PROJECTING ALONG THE  
REAR SURFACE OF THE TAG.



3  
FOLD TAB C TO THE REAR  
OVER TAB A.



4  
FOLD TAB B TO THE REAR,  
OVER TABS C AND A



5  
FOLD TAB A PROJECTION BACK UP  
OVER FOLDED TABS B AND C AND  
PRESS TIGHTLY AT JUNCTION UNTIL  
SUITABLE BOND IS ATTAINED. TRIM  
ANY EXCESS PROJECTION OF TAB A.

Figure 5-6. Self-Locking Tag Installation Details.



## SECTION VI

## CONSPICUITY AND ARCTIC MARKING USAF AIRCRAFT

6-1. **PURPOSE.** Conspicuity and arctic marking USAF aircraft with fluorescent paint, Specification MIL-P-21563, or fluorescent film, Specification MIL-F-22735, is to provide USAF pilots with a method for quick visual detection of other aircraft. The primary purpose of conspicuity markings is to avoid mid-air collisions whereas arctic markings are applied for the purpose of locating downed aircraft. For specific conspicuity and arctic marking data see figures 3-7 through 3-54.

6-2. **Conspicuity Marking Requirements.** Aircraft in the following categories shall be required to have conspicuity markings:

- a. Aircraft utilized by Air Training Command for the primary purpose of pilot training.
- b. Aircraft used primarily as target aircraft.
- c. AFSC Mission Aircraft.

**NOTE**

AFSC is granted a wide latitude of authority in determining conspicuity marking requirements for aircraft used in research and development test programs, including drone and director aircraft.

6-3. **Arctic Marking Requirements.** Aircraft assigned to operate beyond the zone of interior (reference T.O. 00-60A-1) shall be arctic marked, using patterns as contained in figures 3-7 through 3-54.

6-4. **Arctic Marking Exemptions.** Aircraft in the following categories are exempt from compliance with the arctic marking requirements.

- a. Air Attache assigned aircraft.
- b. Aircraft scheduled for a one-time flight through or into and return from designed cold weather areas.
- c. Active combat force "strike" aircraft assigned offensive missions into or over cold weather areas (period of 90 days or less).
- d. Alaskan Air Command is authorized use of Specification MIL-E-7729 enamel or Specification MIL-L-19537 lacquer in lieu of Specification MIL-P-21563 fluorescent paint for arctic marking purposes.

**NOTE**

Active combat force "strike" aircraft applies to aircraft assigned offensive mission(s) requiring action into or over hostile areas.

6-5. **Material Requirements for Conspicuity and Arctic Markings.** Either of the two following materials shall be used for conspicuity or arctic markings.

a. Fluorescent paint, Specification MIL-P-21563, red-orange, Color No. 633. Refer to T.O. 1-1-8 for application of fluorescent paint.

b. Pressure sensitive fluorescent film, Specification MIL-F-22735, red-orange, Color No. 633.

**NOTE**

Specification MIL-F-22735 pressure sensitive fluorescent film shall not be used on supersonic aircraft for conspicuity or arctic marking purposes.

6-6. **Application of Fluorescent Film, Specification MIL-F-22735.** Fluorescent film is a plastic film that incorporates all the required components of a fluorescent system. It is precoated with a pressure sensitive adhesive for ease of application. The adhesive is protected by a paper line which is removed without the use of water or other solvent.

**NOTE**

Avoid as much as possible application of fluorescent film to aircraft surfaces with raised head rivets, or to areas directly subjected to hot exhaust gases, Specification MIL-L-7808 lubricant or synthetic oils, or to JP-4 fuel leaks.

6-7. **Application Temperatures.** Film shall be applied at temperatures below 50°F.

6-8. **Preparation of Surfaces.** Surfaces to be marked with fluorescent film shall require stripping, cleaning and surface treatment, including a coat of zinc chromate primer, Specification MIL-P-8585 or Specification MIL-P-7962, prior to applying fluorescent film to surface.

6-9. **Application of Film.** When more than one section of film is to be applied, adjoining edges shall be overlapped a minimum of 1/2 inch. The splices shall be shingled away from slip-stream so that

overlapped edge of film is not exposed to direct blast of wind. On wing and horizontal stabilizer, start application of first section at wing tip. Apply succeeding sections toward fuselage, making overlap splices parallel to slip-stream. On vertical stabilizer apply film horizontally, starting at base and applying succeeding sections upward to tip. Film may be applied on vertical or horizontal sections of fuselage depending on size and contour of aircraft. If applied vertically, start application of first section at trailing edge of area to be marked and apply succeeding sections toward forward edge of pattern area. Apply horizontal sections to fuselage by starting at base and applying succeeding sections to top.

#### 6-10. Measuring and Cutting.

a. Measure area to be applied on aircraft and determine length of piece required. Cut proper length of piece from roll of film with sharp blade.

#### NOTE

To prevent scratching or gouging of skin, film shall not be cut on aircraft skin. Cut on smooth, hard board or wood.

b. Where contour of aircraft surface exceeds ability of film to conform without wrinkling, cut film in narrower strips or to specific shape determined by paper pattern. Size and shape will be governed by the degree of compound curvature. To prepare paper pattern, lay tracing or masking paper on curved area in question. Trace and cut paper so that pattern conforms smoothly to surface. Lay pattern in reverse on paper liner side of film. Trace outline of pattern and cut to shape.

#### NOTE

If pattern is to be used more than once, make metal template from original paper pattern. Identify and save for future use.

#### 6-11. Applying Film.

a. Position cut section of film on aircraft skin. Hold in place with several strips of one-inch masking tape. These strips also act as a hinge for application. Film is usually hinged about one-quarter distance from end which will first be applied (see figure 6-1).

b. Fold section to be applied back to the tape hinge and strip paper liner from film (see B, figure 6-1). Cut paper at the hinge with sharp blade. Do not tear (see C, figure 6-1).

c. Fold film back and hold slightly away from aircraft skin to prevent premature contact of adhesive. Start at center of hinge area and apply film to surface with plastic squeegee (see D, figure 6-1). Work

out to each edge using overlapping strokes and firm pressure. This will avoid trapped air and wrinkles. Film may be pulled up and reapplied if air is trapped or a wrinkle is started.

#### NOTE

Trimming of film is required around windows or to fit within a special design. In case of window area, apply film up to 1/2 inch of a window. Proper procedure for trimming is to stop application several inches from edge to be trimmed. Place two-inch wide piece of aluminum (covered with masking tape to prevent scratching aircraft skin) under edge of film to be trimmed. Lay another straight edge on top of film and trim with sharp blade (see E, figure 6-1). Remove aluminum cutting guides and squeegee film to surface.

d. Fold unapplied portion back and start removing paper liner away from the applied portion. Remove approximately two feet of paper, crease paper (do not cut) (see F, figure 6-1). Squeegee film to surface and continue removing paper liner in short sections and applying film (see G, figure 6-1).

e. Overlap succeeding sections of film a minimum of 1/2 inch over edge of section already applied (see H, figure 6-1).

#### NOTE

On smaller pieces, apply tape hinge to any edge of film, fold back and completely remove paper liner and apply film to surface.

f. Cut film at metal skin overlaps and access plates. Feather back 1/8 inch from metal leading edges (see I, figure 6-1). This is required for thorough edge sealing as specified in paragraph 6-12.

g. Any air bubbles observed after application of film should be punctured with a pin point and air worked out with plastic squeegee.

#### NOTE

Application of a clear acrylic ultraviolet resistant coating is not required after application of fluorescent film.

6-12. Sealing of Exposed Edges. Exposed leading edges of applied film shall be thoroughly edge sealed with a liquid sealer conforming to Specification MIL-L-19537 clear acrylic and in accordance with the following procedures.

a. Apply sealer in a smooth, continuous motion, using either the felt wick applicator as supplied or a one-inch brush.

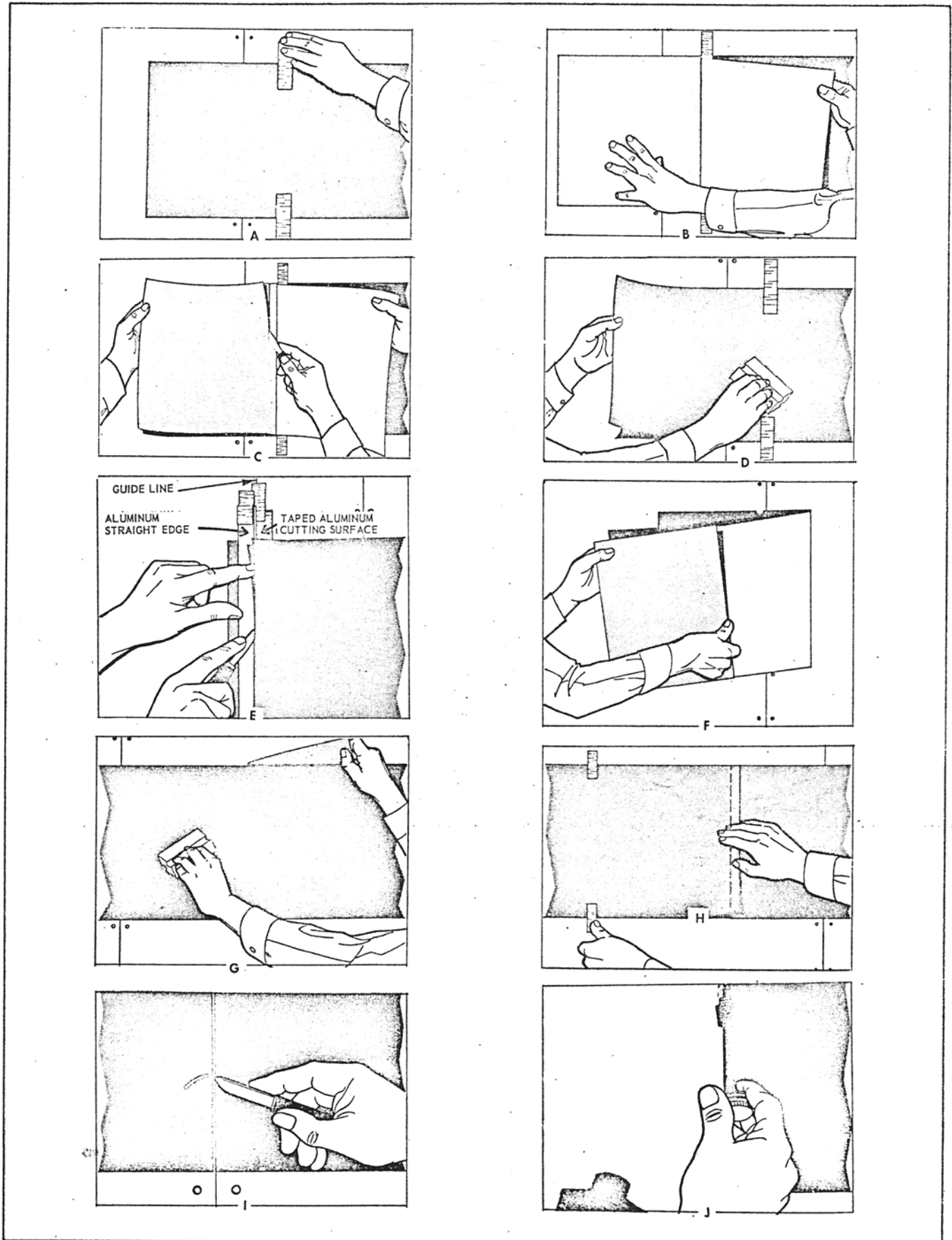


Figure 6-1. Application Technique for Fluorescent Film.

b. Sealer will extend at least 1/4 inch on each side of film edge (see J, figure 6-1).

c. All leading edges of applied film on jet aircraft shall be sealed with two coats of sealer, allowing one hour drying time between coats.

6-13. Finish Identification for Fluorescent Systems. Identify either fluorescent paint or fluorescent film in accordance with paragraph 2-15.

Example:

FB2019/31Jun64/MIL-F-22735  
FB2019/31Jun64/MIL-P-21563

6-14. Maintenance and Repair of Film. Inspect seal of all leading edges of applied film after 100 flight hours or at periodic maintenance inspection. Reapply edge sealer as required after thorough cleaning of area to be sealed. Wipe area with clean, lint-free cloth lightly moistened with solvent, dry cleaning Federal Specification P-S-661. Wipe dry with a clean, lint-free cloth.

a. Damaged areas should be carefully removed and edges trimmed smooth, using care to prevent any scouring or scratching of aircraft skin. Cut patch of film one inch larger than area to be repaired. Apply film and thoroughly seal edges as required and prescribed in paragraph 6-12.

b. Periodic cleaning of aircraft conspicuity or arctic marked with fluorescent film, Specification MIL-F-22735, requires the same cleaning process established for aircraft conspicuity or arctic marked with fluorescent paint. Refer to T.O. 1-1-1 for cleaning of aeronautical equipment.

c. To remove film, use a beveled plexiglass scraper to separate a corner of film from aircraft skin. From loosened corner gradually peel film from skin. Temperature for removal should be no lower than 70°F. Use of heat assists removal. Heat can be supplied by exposing aircraft to hot sunlight or by directing heat from a ground heater onto the film. Any adhesive remaining on aircraft skin after film

removal shall be softened and removed with a rag moistened in Specification MIL-T-19544 acrylic thinner.

### NOTE

Any area adjacent to either a replaced or repaired section of film wherein the aircraft paint system has been removed or damaged shall be touched up with a standard paint system prescribed for each aircraft type.

### 6-15. MISSION REQUIREMENTS.

a. In the event of mission requirements wherein the conspicuity or arctic markings would be detrimental to the safe accomplishment of the mission, aircraft involved will have fluorescent marking system either stripped or camouflaged. When removal can be programmed, stripping will apply. When emergencies dictate, conspicuity or arctic markings shall be camouflaged.

b. The stripped magnesium areas shall be painted with two coats of zinc chromate primer, Specification MIL-P-7962, in accordance with instructions contained in this directive. Two coats of lacquer conforming to Specification MIL-L-19537, pigmented with 12 ounces per gallon of aluminum paste, Federal Specification TT-P-320, shall be applied.

c. The stripped aluminum areas will not normally require protective coating after stripping. In event corrosion is present, treat surface in accordance with T.O. 1-1-2.

d. In the event time will not permit stripping and repainting, camouflage the conspicuity or arctic marked areas with two light coats of grey paint conforming to Specification MIL-P-6884.

### NOTE

The Specification MIL-P-6884 material can be removed with mineral spirits after the necessity for camouflage has passed without seriously affecting the fluorescent paint system.

## SECTION VII

## PAINTING AND MARKING MATERIALS

7-1. GENERAL. The materials listed will be required for compliance with this technical order. Since material requirements cannot be predetermined, the materials may be requisitioned as required from the applicable property classes.

FSN	NOMENCLATURE	SPECIFICATION	QUANTITY	APPLICATION
8010-597-9770	Coating, Compound, Phosphorescent	TT-P-54	Qt	Mounting location of flash lights (transport aircraft)
8010-898-5984	Coating, Polyurethane, Thermal Resistant	MIL-C-27227		Top finish for aircraft utilized in thermo-nuclear testing
8030-506-4030	Coating, Elastomer	MIL-C-7439	Qt	Top finish for storage battery compartment and adjacent surfaces
8030-597-0892	Coating, Compound, Metal, Pretreatment	MIL-C-8514 (AER)	Kit	Wash primer undercoat for metal surfaces
6810-637-6132	Cyclohexanone, Tech		8 oz	Required for solvent activated decals
8010-169-8268	Dope, Cellulose Nitrate, Clear	MIL-D-5552	5 Gal	Vehicle for aluminum paste
8010-168-8812	Dope, Cellulose Nitrate, Clear	MIL-D-5553	Gal	Undercoat to tauten fabric covered surfaces
8010-597-7843	Enamel, Camouflage, Olive Drab, No. 612	MIL-E-5556	Gal	Anti-glare purposes - surfaces in vicinity of cockpit
8010-597-7859	Enamel, Camouflage, Black, No. 37038	MIL-E-5556	Gal	Anti-glare purposes
8010-297-2096	Enamel, Gloss, White, No. 17875	MIL-E-7729	Gal	Solor resistant finish for passenger aircraft
8010-680-0202	Enamel, Gloss, Black, No. 17038	MIL-E-7729	Gal	Lettering and numerals on yellow surfaces. Substitute for Blue, No. 15044
8010-598-5927	Enamel, Gloss, Blue, No. 15044	MIL-E-7729	Gal	Used on white and aluminized finishes

FSN	NOMENCLATURE	SPECIFICATION	QUANTITY	APPLICATION
8010-598-5929	Enamel, Gloss, Blue, No. 15102	MIL-E-7729	Qt	Tubing identification
8010-598-5931	Enamel, Gloss, Brown, No. 10049	MIL-E-7729	Qt	Tubing identification
8010-598-2634	Enamel, Gloss, Gray, No. 16473	MIL-E-7729	Qt	Tubing identification
8010-297-2093	Enamel, Gloss, Green, No. 14187	MIL-E-7729	Qt	Tubing identification
8010-664-4768	Enamel, Gloss, Orange, No. 12197	MIL-E-7729	Gal	For marking power plants, tow target air- craft, trainer helicopter
8010-663-3018	Enamel, Gloss, Red, No. 11136	MIL-E-7729	Qt	Lettering and numerals on black surfaces
8010-598-5057	Enamel, Gloss, Yellow, No. 13538	MIL-E-7729	Qt	Escape hatches, doors, windows, etc, wingtips, floats on search and rescue aircraft
8010-597-7846	Enamel, Gloss, Red, No. 509	MIL-E-7729	Gal	Instrument training aircraft
8010-598-5945	Enamel, Gloss, Yellow, No. 13655	MIL-E-7729	Gal	Trainer helicopter
8010-166-1616	Enamel, Gloss, Heat Resisting, Type I, Black, No. 17038	MIL-E-5557	Gal	For non-corrosive resistant surface having ambient temper- ature 400° - 500°F
8010-664-4761	Enamel, Gloss, White, No. 17875	TT-E-489	Gal	Undercoat - steel (metal tags)
8010-682-6836	Kit - 3 Gal Fluorescent Paint, No. 633, 2 Gal Clear Overcoating	MIL-P-21563	Kit	Conspicuity arctic marking
9905-893-0702	Kit - One Roll, 12 in. X 50 Yds Fluorescent Film, Class I (Unperforated), Color No. 633, Spec MIL- F-22735 (WEPS); One Plastic Squeeze, 8 Oz Can Clear Liquid Sealer, Spec MIL-L- 19537; Illus Applica- tion Instructions		Kit	Conspicuity arctic marking

FSN	NOMENCLATURE	SPECIFICATION	QUANTITY	APPLICATION
9905-893-0703	Kit - One Roll 24 in. X 50 Yds Fluorescent Film, Class I (Unperforated), Color No. 633, Spec MIL-F-22735 (WEPS); One Plastic Squeeze, 8 Oz Can Clear Liquid Sealer, Spec MIL-L-19537; Illus Application Instructions		Kit	Conspicuity arctic marking
8010-530-5456	Lacquer, Lusterless, No. 33538	MIL-L-19538	Qt	Propeller
8010-251-6495	Lacquer, Colorless	MIL-L-7178	Gal	Vehicle for aluminum paste for magnesium surfaces
8010-551-7933	Lacquer, Gloss, Blue, No. 15044	MIL-L-19537	Gal	For marking white and aluminized finishes
8010-527-2507	Lacquer, Gloss, Black, No. 17038	MIL-L-19537	Gal	Lettering and numerals on yellow surfaces. Substitute for 15044
8010-527-2502	Lacquer, Gloss, Orange, No. 12197	MIL-L-19537	Gal	For marking power plants, tow target aircraft, trainer helicopter
8010-551-7932	Lacquer, Gloss, Red, No. 11136	MIL-L-19537	Gal	Lettering and numerals on black finishes
8010-551-7936	Lacquer, Gloss, Red, No. 509	MIL-L-19537	Gal	Instrument training aircraft
8010-527-2493	Lacquer, Gloss, White, No. 17875	MIL-L-19537	Gal	Propellers, lettering and numerals for search/rescue aircraft
8010-527-2518	Lacquer, Gloss, Yellow, No. 13538	MIL-L-19537	Gal	Escape hatches, doors, windows, etc, wingtips, floats, on search/rescue aircraft
8010-527-1508	Lacquer, Gloss, Clear	MIL-L-19537	Gal	Vehicle for aluminum paste
8010-530-6383	Lacquer, Lusterless, Red, No. 31136	MIL-L-19538	Qt	Propellers
8010-527-2884	Lacquer, Lusterless, Black, No. 37038	MIL-L-19538	Gal	Propellers
6810-223-9067	Naphtha, Aromatic, Type II	TT-N-97	Gal	Thinner for varnish, Specification MIL-V-6894
5350-721-8118	Paper, Abrasive, No. 400	P-P-101	50SH	Dry-scuffing wash primer

FSN	NOMENCLATURE	SPECIFICATION	QUANTITY	APPLICATION
8010-684-8960	Paint, Kit-Fluorescent, Red Orange, No. 633	MIL-P-21563	Kit	Arctic marking
8010-663-3050	Paint, Temporary, Gray, No. 36231	MIL-P-6884	10 Lb	Canouflage conspicuity marking
5120-628-5569	Plastic Applicator			For applying decals
8010-687-4019	Pigment, Aluminum Paste	TT-P-320	1 Lb	Additive for clear lacquer or varnish for aluminized finish
8010-246-0872	Primer, Zinc Chromate	MIL-P-8585	1 Gal	Undercoat for enamel
8010-526-2523	Primer, Lacquer Type	MIL-P-7962	5 Gal	Undercoat for lacquer finish
8010-817-1214	Primer, Coating	TT-P-636	Qt	Undercoat steel
8010-845-0366	Primer, Epoxy Resin	MIL-P-27316	1 Gal	Undercoat for thermal resistant finish
8010-165-5535	Remover, Paint	MIL-R-25134	55 Gal	Remove paint/varnish from metal surfaces
6850-274-5421	Solvent	P-S-661	5 Gal	Cleaner for fluorescent film
8010-223-5069	Surfacer, Liquid	MIL-S-4895	1 Gal	Grained woods - middle coat
7510-753-4727	Tape, Pressure Sensitive, Hydraulic	MIL-T-9906	Roll	Tubing identification
7510-753-4730	Tape, Pressure Sensitive, Breathing Oxygen	MIL-T-9906	Roll	Tubing identification
7510-753-4731	Tape, Pressure Sensitive, Air Conditioning	MIL-T-9906	Roll	Tubing identification
7510-753-4732	Tape, Pressure Sensitive, Fire Protection	MIL-T-9906	Roll	Tubing identification
7510-753-4733	Tape, Pressure Sensitive, De-icing	MIL-T-9906	Roll	Tubing identification (content)
7510-753-4734	Tape, Pressure Sensitive, Pneumatic	MIL-T-9906	Roll	Tubing identification
7510-753-4735	Tape, Pressure Sensitive, Electrical Conduit	MIL T-9906	Roll	Tubing identification
7510-753-4736	Tape, Pressure Sensitive, Compressed Gas	MIL-T-9906	Roll	Tubing identification
7510-753-4737	Tape, Pressure Sensitive, Coolant	MIL-T-9906	Roll	Tubing identification



FSN	NOMENCLATURE	SPECIFICATION	QUALITY	APPLICATION
7510-753-4740	Tape, Pressure Sensitive, Water Injection	MIL-T-9906	Roll	Tabing identification
7510-753-4741	Tape, Pressure Sensitive, Lubrication	MIL-T-9906	Roll	Tubing identification
7510-753-4742	Tape, Pressure Sensitive, Instrument Air	MIL-T-9906	Roll	Tubing identification
7510-753-4745	Tape, Pressure Sensitive, Skull and Crossbones	MIL-T-9906	Roll	Tubing (warning symbol)
7510-752-4728	Tape, Pressure Sensitive, Fuel	MIL-T-9906	Roll	Tubing identification (content)
7510-805-0633	Tape, Pressure Sensitive, Rocket Oxydizer	MIL-T-9906	Roll	Tubing identification
7510	Tape, Pressure Sensitive, Rocket Fuel	MIL-T-9906	Roll	Tubing identification
7510-	Tape, Pressure Sensitive, Solvent	MIL-T-9906	Roll	Tubing identification
7510-	Tape, Pressure Sensitive, Monopropellant	MIL-T-9906	Roll	Tubing identification
7510-	Tape, Pressure Sensitive, Rocket Catalyst	MIL-T-9906	Roll	Tubing identification
7510-	Tape, Pressure Sensitive, Inerting	MIL-T-9906	Roll	Tubing identification
7510-NL	Tape, Retroflective	MIL-R-13689	Roll	For discerning at night - escape hatches, doors, windows, etc.
8010-162-5289	Thinner	MIL-T-6095	Gal	Blush retarder for dope and lacquer
8010-160-5787	Thinner	TT-T-266	Gal	Lacquer thinner, removal of dope from fabric surfaces
8010-527-2897	Thinner	MIL-T-19544	5 Gal	Removal of film adhesive
6810-281-2002	Toluene	TT-T-548	Gal	Thinner-primer, Specification MIL-P-8585
8010-168-8810	Varnish, Spar	MIL-V-6894	Gal	Exterior plywood finish, topcoat for aluminized lacquer (ambient temperatures 300° - 400°F)

FSN	NOMENCLATURE	SPECIFICATION	QUALITY	APPLICATION
8010-221-2809	Varnish	TT-V-109	Qt	Topcoat for phosphorescent finish (TT-P-54)
6810-598-6600	Xylene, Technical	TT-X-916	Gal	Thinner - fluorescent paint, Specification MIL-P-21563