

**NOT MEASUREMENT SENSITIVE**

MIL-B-3461G  
 AMENDMENT 4  
15 July 1993  
 SUPERSEDING  
 AMENDMENT 3  
 28 May 1993

# **MILITARY SPECIFICATION**

## **BUTTON, INSIGNIA, METAL, UNIFORM AND CAP**

This amendment forms a part of MIL-B-3461G, dated 30 September 1979, and is approved for use by all Departments and Agencies of the Department of Defense.

Page 2

### **Paragraph 1.2 -**

Under "Type I, Style 1 - Air Force, Silver Plated" - add:

"Class A - Air Force (With Coat-of-Arms Design)  
 Class B - Air Force (With Wings & Star Design)"

Under "Type I, Style 3, Class A, Subclass 1" - Delete "(Officers)" and delete "Subclass 2" in its entirety.

Under "Type II, Style 3, Class A, Subclass 1" - Delete "(Officers)" and delete "Subclass 2" in its entirety.

Under "Type II, Style 3, Class B, Subclass 1" - Delete "(Officers)" and delete "Subclass 2" in its entirety.

Under "Type II Style 5, Class A" - add:

"Subclass 1 - Male  
 Subclass 2 - Female"

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Paragraph 1.2.1 - Delete Table I in its entirety and add the following Table I:

AMSC N/A

FSC 8455

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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"TABLE I. Button sizes (in lignes)1/

ARMY	AIR FORCE	MARINE CORPS	NAVY	COAST GUARD	COAST GUARD AUXILIARY	ARMY JROTC	ARMY 2/ SPECIAL	ARMY CORPS OF ENGINEERS
20	20	--	--	--	--	--	--	--
--	--	22	--	--	--	--	--	--
--	--	--	22-1/2	22-1/2	22-1/2	--	--	--
25	25	--	--	--	--	25	25	25
--	--	27	--	--	--	--	--	--
--	--	--	28	28	28	--	--	--
30	30	--	--	--	--	30	--	30
--	--	--	35	35	35	--	--	--
36	36	--	--	--	--	36	36	36
--	--	40	40	40	--	--	--	--
--	45 3/	--	--	--	--	--	--	--

1/ A tolerance of  $\pm 1$  ligne will be permitted.

2/ Army Special buttons are restricted for use by the United States Army Band and Ceremonial Units of the U.S. Army 3rd Infantry.

3/ Air Force uses 45 ligne buttons only with Type I, Style 1, Class A buttons."

Section 2. APPLICABLE DOCUMENTS - delete in its entirety and add the following paragraphs for Section 2:

"2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

NN-P-71 - Pallets, Material Handling Wood Stringer Construction  
2-Way and 4-Way (Partial)  
PPP-B-636 - Box, Shipping, Fiberboard  
PPP-B-676 - Boxes, Set Up

MILITARY

MIL-P-15011 - Pallets, Material Handling, Wood Post Construction, 4-W  
Entry

**STANDARDS****FEDERAL**

FED-STD-151 - Metals; Test Methods

**MILITARY**

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes  
 MIL-STD-129 - Marking for Shipment and Storage  
 MIL-STD-147 - Palletized Unit Loads

(Unless otherwise indicated, copies of federal and military specifications, standards and handbooks are available from: Standardization Document Order Desk, Building 4D, Section D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents, drawings and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

**COMMERCIAL ITEM DESCRIPTION**

A-A-1249 - Paper, Wrapping, Tissue  
 A-A-52094 - Thread, Cotton

**DRAWINGS****THE INSTITUTE OF HERALDRY (TIOH)**

4-4-92 - Buttons, Insignia, Metal, Uniform and Cap

(Copies of specifications, standards, drawings and specification sheets required by the contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

(Figure 1 is a miniature copy of a Institute of Heraldry drawing and is for information only.)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are issues of the documents cited in the solicitation (see 6.2).

**AMERICAN SOCIETY FOR TESTING AND MATERIALS**

ASTM-D-3951 - Standard Practice for Commercial Packaging

(Application for copies of ASTM publications should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

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(Non-government standards and other publications are normally available from organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other information services.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specification sheets or MS standards), the text of this document takes precedence. Nothing in this document however, supersedes applicable laws and regulations unless a specific exemption has been obtained."

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Delete Table II and add the following Table II:

TABLE II. Chemical composition of copper base alloys

Alloy	Copper	Nickel 1/	Lead (Max)	Iron (Max)	Manganese (Max)	Zinc	Others (Max)
Yellow Brass	63.0 - 68.5	--	0.15	0.07	--	Remainder	0.15
Red Brass	84.0 - 86.0	--	0.05	0.05	--	Remainder	0.15
Nickel Silver	63.0 - 65.5	16.5 - 19.5	0.10	0.25	0.50	Remainder	--
Low Brass	78.5 - 81.5	-- 2/	0.05	0.05	--	Remainder	0.15
Free Cutting Brass	60.0 - 63.0	--	3.75	0.35	--	Remainder	0.50 (Total)

1/ Cobalt counting as nickel.

2/ When nickel silver is used as a base material, the nickel content shall be not less than 18%.

Page 5

Paragraph 3.3.4 - Delete paragraph in its entirety and add the following:

"3.3.4 Solder.

3.3.4.1 Hard Solder. Hard solder shall have a melting point of not less than 1075 degrees Fahrenheit (561.7 degrees Celsius)."

3.3.4.2 Soft Solder. Soft solder shall be a lead-tin alloy having a melting point of not less than 375 degrees Fahrenheit (190.58 degrees Celsius)."

Paragraph 3.3.6 - Delete paragraph in its entirety and add the following:

"3.3.6 Lacquer. Lacquer shall be a pale clear synthetic lacquer. The use of a pigmented lacquer shall not be permitted except when a macublack oxidized finish is used."

Paragraph 3.5.1 - Delete paragraph in its entirety and add the following:

"3.5.1 Soldering and swedging. All soldering shall be accomplished using hard solder specified in 3.3.4.1 except buttons with short, long and regular shanks may be soldered using soft solder specified in 3.3.4.2. Joints shall be clean, smooth, strong and free from burned or reduced areas. There shall be no excess solder and all excess flux shall be removed. When hard solder is specified, hard solder specified in 3.3.4.1 shall be used. When tested as specified in 4.4.2.1, the shank shall show no break in the soldered connection or shall not become loose or wobbly. When tested as specified in 4.4.2.2, the soldered or swedged screw post shall not break loose or become wobbly. As an alternate, the Type I, Style 3 button shanks may be swedged by a cold headed process in lieu of soldering. The cold headed process shall require prior approval to ensure shanks are not loose or wobbly."

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Paragraph 3.6.1.2 - add " or red brass" after low brass in the first sentence. After the last sentence, add "All Type I, Style 3 buttons shall have a depressed back."

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Paragraph 3.6.2 - Delete "(see 6.2)" and substitute "(see 3.6.2.4 and 6.2)"

Paragraph 3.6.2.2 - add " or red brass" after low brass in the first sentence. Line 6, delete "Except for Style 3 (Marine Corps) buttons". Delete last sentence in its entirety.

Add paragraph 3.6.2.4 in the proper sequence.

"3.6.2.4 Cap button for United States Coast Guard female officers. All Type II Subclass 2 USCG 22-1/2 ligne cap buttons for United States Coast Guard female officers shall have a staple type prong attaching device. The prongs shall be 7/8 inch  $\pm$  1/8 inch (2.22 cm  $\pm$  0.32 cm) each long and shall be formed from 0.040 inch  $\pm$  0.002 inch (0.102 cm  $\pm$  0.005 cm) diameter annealed gold colored brass wire. The prong shall be centered on and fused, soldered or swedged on the back of the button so when the prongs are spread open, the prongs shall be horizontal to the button design.

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Table III - Delete in its entirety and substitute:

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"TABLE III. Weight of Gold and Silver (grains) per dozen buttons.

LIGNE SIZE	AIR FORCE	MARINE CORPS	NAVY & COAST GUARD	NAVY	COAST GUARD AUXILIARY		ARMY SOLID DESIGN	ARMY PIERCED DESIGN	ARMY CORPS OF ENGINEERS	ARMY JROTC
	SILVER	GOLD	GOLD	SILVER	GOLD	SILVER	GOLD	GOLD	GOLD	GOLD
20	6.0	--	--	--	--	--	1.0	--	--	--
20 <u>1/</u>	20.0	--	--	--	--	--	--	--	--	--
20 <u>2/</u>	--	--	--	--	--	--	--	--	1.5	--
20 <u>3/</u>	--	--	--	--	--	--	--	--	0.5	--
22	--	0.545	--	--	--	--	--	--	--	--
22-1/2 <u>4/</u>	--	--	1.0	7.5	1.0	4.5	--	--	--	--
25	12.0	--	--	--	--	--	1.0	--	--	--
25 <u>2/</u>	--	--	--	--	--	--	--	1.5	1.5	--
25 <u>3/</u>	--	--	--	--	--	--	--	0.5	0.5	--
25 <u>5/</u>	--	--	--	--	--	--	--	--	--	0.5
27	--	0.545	--	--	--	--	--	--	--	--
28	--	--	1.25	--	1.5	6.0	--	--	--	--
30	18.0	--	--	--	--	--	1.5	--	--	0.75
30 <u>2/</u>	--	--	--	--	--	--	--	2.25	2.25	--
30 <u>3/</u>	--	--	--	--	--	--	--	0.75	0.75	--
35	--	--	2.0	18.5	2.0	9.0	--	--	--	--
36	24.0	--	--	--	--	--	2.0	--	--	1.0
36 <u>2/</u>	--	--	--	--	--	--	--	3.0	3.0	--
36 <u>3/</u>	--	--	--	--	--	--	--	1.0	1.0	--
40	--	1.51	2.5	22.5	2.5	--	--	--	--	--
45	36.0	--	--	--	--	--	--	--	--	--

1/ Cuff link button

2/ Pierced design shell

3/ Pierced design liner

4/ When the button is to be procured for use on the service cap frame or shoulder mark, the gold content specified shall not apply; however, the button front and rim shall be 24 karat gold electroplated.

5/ When the button is to be procured for use on the service cap, the gold content specified shall not apply; however, the button front and rim shall be 24 karat gold electroplated."

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Paragraph 3.7.2 - Delete paragraph in its entirety and add the following:

"3.7.2 Lacquering. Except for enameled and nickel plated buttons, the front of all buttons shall be lacquered using lacquer specified in 3.3.6. The dry lacquer film shall be hard, continuous, level and adherent and free from lint, dust and other foreign matter. When tested as specified in 4.4.6.1, there shall be no change in the appearance of the clear lacquer surface except a slight overall yellowing of the highlights. When tested as specified in 4.4.7, the lacquer shall not flake or peel."

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Table IV - Finish - Delete Type I, Style 1 in its entirety and add the following:

"Type I:

Style 1:

Class A - Silver plated, oxidized, relieved, satin finish and a mirror-like burnished rim.

Class B - Silver plated, oxidized, relieved, brushed satin finish on star and a mirror-like burnished rim.

Page 15

Table VI - Under "Assembly", change the third defect to read: "Looseness, shell edge not closed in, securely clinching the back (rotation of back within closed shell shall not exceed 10 degrees maximum)".

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Table VI - Add the following to the table.

EXAMINE	DEFECT	CLASSIFICATION		
		Major (*)	Minor	
FRONT:				
	Staple type prong			
	Not material specified.....	-	-	x
	Not properly swedged or soldered.....	-	-	x
	Not annealed.....	-	-	x

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Paragraph 4.4.8 - Delete "type IA3 or IB3, 4 ply of V-T-276" and add "Type I, or Type II, 4 ply of A-A-52094".

Paragraph 5.1.1.1.1 - Delete "Except for type I, style 3 buttons" in first line and add after "attached" in second line "Type I, Style 3 buttons".

Paragraph 5.1.1.1.1.1 - delete paragraph in its entirety and substitute the following:

"5.1.1.1.1.1 Type II, Styles 4 and 5; and Type III buttons. Twenty four (24) uniform buttons with or without toggles or twenty four (24) cap buttons of one type and size shall be evenly spaced and mounted on a white bristol board card having a minimum thickness of 0.010 inch (0.025 cm). The buttons shall be mounted by putting the button shank or staple type prong through the precut holes in the bristol board. Before the buttons are mounted, the card shall first be covered with a sheet of white glazed paper having a minimum basis weight of 55 pounds per ream and then by a sheet of white tissue paper conforming to Type I, Class 1 of A-A-1249. The two sheets

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shall be of equal size with the edges aligned and shall be of sufficient size to fold over and completely enclose the face of the buttons with an overlap of not less than 2 inches (5.08 cm). The sheets shall extend beyond each end of the card so that after the buttons faces are enclosed, the extended ends can be folded over to cover the protruding shanks. At the option of the manufacturer, twenty four (24) Navy or Coast Guard cap buttons shall be packaged in a suitably sized transparent polyethylene bag of 0.0015 inch thickness ( $\pm 20$  percent tolerance). The bag shall be formed with heat sealed seams that are straight, continuous and parallel to each other and the formed edges of the bag. The final closure of the bag shall be heat sealed with the seal made as close as possible to the open end. Prior to or during the heat sealing operation, all excess air within the bag shall be expelled. Twelve (12) such packages, totalling 288 buttons shall be packed in a set-up paperboard box conforming to Type I, Variety 1, Class A, Style 4 of PPP-B-676. Closure shall be in accordance with the appendix of the box specification."

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Delete Table IX in its entirety and substitute the following:

"Table IX. Number of buttons per shipping container.

## Style 1 - Air Force

Hopper Back	25	13,824	Bulk	96
Hopper Back	36	6,048	Bulk	42
Short Shank	36	6,048	Bulk	42
Short Shank	25	13,824	Bulk	96
Regular Shank	36	6,048	Bulk	42
Screw Post, Cap	25	5,184	Carded	36
Regular Shank	45	3,168	Bulk	22

## Style 2 - Army (Pierced and Solid) and Army, Corps of Engineers

Short Shank	36	6,048	Bulk	42
Short Shank	30	13,824	Bulk	96
Short Shank	25	13,824	Bulk	96
Hopper Back	36	6,048	Bulk	42
Hopper Back	30	13,824	Bulk	96
Regular Shank W/Toggle	30	13,824	Bulk	96
Hopper Back	25	13,824	Bulk	96
Screw Post, Cap	25	5,184	Carded	36

## Style 2 - Army, JROTC Division

Regular Shank	36	6,912	Bulk	48
Short Shank	25	17,280	Bulk	120
Hopper Back	36	6,912	Bulk	48
Hopper Back	25	17,280	Bulk	120
Hopper Back	30	13,824	Bulk	96

## Style 3 - Marine Corps

Regular Shank	40	4,032	Bulk	28
Regular Shank	27	6,048	Bulk	42
Short Shank	27	6,048	Bulk	42
Screw Post, Cap	27	6,048	Bulk	42

## Styles 4, 5, 6 - Navy, Coast Guard, and Coast Guard Auxiliary

Regular Shank	40	4,032	Bulk	28
Short Shank	40	4,032	Bulk	28
Hopper Back	35	6,048	Bulk	42



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Hopper Back	22-1/2	13,824	Bulk	96
Hopper Back	40	4,032	Bulk	28
Cap (see 3.6.2.4)	22-1/2	5,184	Carded or bagged"	36

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Add the following paragraph: "5.2.4 Commercial. Buttons of one type and class only shall be preserved in accordance with the applicable requirements of ASTM-D-3951."

Add the following paragraph: " 5.4 Palletization. Unitized loads, commensurate with the level of packing specified in the contract or order, shall be palletized on a 4-way entry pallet in accordance with load Type 1A of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means C, K and L or O or P. Pallet pattern shall be in accordance with the appendix of MIL-STD-147. The pallet shall be 4-way, Type I, Class 1, Style 1, Size A, Wood Group I, II, III or IV of MIL-P-15011, or, 4-way, Type IV, V or VIII, Class 1, Style A, Size 2, Wood Group I, II, III or IV, Grade A of NN-P-71. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern used shall be approved by the contracting officer.

Paragraph 5.3 - Delete paragraph in its entirety and add the following:

"5.3 Marking. In addition to any special marking required by the contract or purchase order, unit packages, intermediate boxes, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129 or ASTM-D-3951 as applicable."

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Paragraph 6.2 - Delete second line of "(i)" in its entirety and substitute "(see 3.6.2 and 3.6.2.4)".

Custodians:

Army - IH  
Air Force - 11  
Navy - NU  
Coast Guard - CG

Preparing activity:

Army - IH

Review activities:

Air Force - 82, 99  
Navy - MC  
DLA - CT

(Project.No. 8455-0725)

User activities:

Air Force - 45  
Coast Guard - CG