

MIL-S-29108A(SA)

15 March 1978

SUPERSEDING

MIL-S-29108(SA)

16 February 1972

## MILITARY SPECIFICATION

## SHAPE, DAY SIGNAL, MARITIME

This specification is approved for use by the Naval Supply Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

1.1 Scope. This specification covers the requirements for a day signal shape for shipboard use.

1.2 Classification. The day signals covered by this specification shall be of one type and size in the color or colors specified (see 6.2).

## 2. APPLICABLE DOCUMENTS

2.1 Issue of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein.

## SPECIFICATIONS

## FEDERAL

- |         |  |
|---------|--|
| T-C-571 | - Cord, Cotton, General and Special Purpose, Sash and Venetian Blind |
| V-T-276 | - Thread, Cotton   |
| V-T-295 | - Thread, Nylon  |

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Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Officer-in-Charge, Navy Clothing and Textile Research Facility, 21 Strathmore Road, Natick, MA 01760 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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FSC 8345

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QQ-A-225/8 - Aluminum Alloy Bar, Rod, Wire and Special Shapes:  
Rolled, Drawn or Cold Finished  
CCC-C-419 - Cloth, Duck, Cotton, Unbleached, Plied-Yarns, Army  
and Numbered  
CCC-D-950 - Dyeing and Aftertreating Processes for Cotton Cloths  
DDD-L-20 - Label, For Clothing, Equipage and Tentage (General Use)  
PPP-B-636 - Boxes, Shipping, Fiberboard

MILITARY

MIL-H-15021 - Hooks, Snap Bolt, Swivel-Eye and Rings  
MIL-G-16491 - Grommet, Metallic  
MIL-C-43307 - Cord, Nylon, Solid Braid, General Purpose

STANDARDS

FEDERAL

FED-STD-751 - Stitches, Seams and Stitchings

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by  
Attributes  
MIL-STD-129 - Marking for Shipment and Storage  
MIL-STD-147 - Palletized and Containerized Unit Loads 40" x 48"  
Pallets, Skids, Runners, or Pallet Type Base  
MS-27980 - Fasteners, Snap, Style 2  
MS-27981 - Fasteners, Snap, Style 2A

DRAWINGS

U. S. Navy Clothing and Textile Research Facility

16-1-224 - Shape, Day Signal, Maritime - Assembly  
16-1-225 - Shape, Day Signal, Maritime - Frame Assembly  
16-1-226 - Shape, Day Signal, Maritime - Cover Assembly

(Figures 1, 2 and 3 are miniature reproductions of Drawing Nos. 16-1-224, 16-1-225 and 16-1-226 and are attached for information only.)

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

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## LAWS AND REGULATIONS

### U. S. POSTAL SERVICE MANUAL

(Copies of the manual may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.)

\* 2.2 Other publication. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT  
National Motor Freight Classification

(Application for copies should be addressed to American Trucking Association, Attn: Tariff Order Section, 1616 P Street, N.W., Washington, D.C. 20036.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT  
Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, South Riverside Plaza, Chicago, IL 60606.)

UNITED STATES ARMY COLOR CARD  
FOR BRANCHES, AGENCIES, ETC.

(Application for copies should be addressed to The Color Association of the United States, Inc., 200 Madison Avenue, New York, NY 10016.)

## 3. REQUIREMENTS

3.1 Guide sample. Samples, when furnished, are solely for guidance and information to the contractor (see 6.3). Variations from this specification may appear in the sample, in which case this specification shall govern.

3.2 First article. When specified, the contractor shall furnish sample unit(s) for the first article inspection and approval (see 4.2 and 6.2).

### 3.3 Materials.

#### 3.3.1 Cover.

3.3.1.1 Cloth cover. The cover shall be made of cotton duck material conforming to type III of CCC-C-419 and have a minimum weight of 9.85 oz./sq. yd. (0.33 kg/sq. m.).

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\* 3.3.1.1.1 Color. The color of the cloth shall be Scarlet, Cable No. 65006, Black, Cable No. 65018 or Bleached White, as specified (see 6.2), and dyed in accordance with type I, class C of CCC-D-950, except that only colorfastness to weathering and sulphur content shall apply to red and black colors. Napthol dyes will be permitted to obtain the red shade. When a black and white color combination is specified for the cover, the two (2) center segments (operation 3.b) shall be black and the color shall be alternated on the remaining typical segments. The facings (operation 3.c) and reinforcing patches (operations 3.d and 3.e) shall be black.

3.3.1.2 Grommets. The grommets used on the ball cover shall conform to type I, class 1, size 1 of MIL-G-16491.

3.3.1.3 Cord. The cord used for closure of the ball cover shall be of the material specified in 3.3.1.3.1 or 3.3.1.3.2.

3.3.1.3.1 Cord, cotton. Cotton cord shall conform to type I, class 1 or 2, size 6 of T-C-571.

3.3.1.3.2 Cord, nylon. Nylon cord shall be 3/16 inch (4.8mm) in diameter conforming to MIL-C-43307.

\* 3.3.1.4 Thread. The cotton thread used for sewing the covers shall conform to type IIIB, Size 10/5 of V-T-276. As an alternate, nylon thread conforming to type I, class A or B, size FF-3 of V-T-295 may be used in lieu of cotton thread. The color shall be Scarlet W, C.A. 66040 or Black AA, C.A. 66043 to approximately match the color of the basic cover material.

\* 3.3.1.5 Straps. The straps used to secure the cover to the ball frame shall be a woven tape or webbing made of cotton, nylon or a blend of both. The color shall be natural or approximately the same shade as the cover. Requirements are as follows (see 4.3.1):

Thickness - .030 to .050 inch (0.76 to 1.27 mm)

Breaking Load - 100 lbs. (min.) (445 N)

NOTE: As an alternate, the cotton duck cover cloth may be used for straps; see operation 5.b. in Table I.

3.3.1.6 Snap fasteners. The snap fasteners used on the cover straps, shall be 20 or 24 line, finish 1 or 2 and shall meet the requirements of MS-27980 or MS-27981, except that an uncapped eyelet may be used.

3.3.2 Frame.

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\* 3.3.2.1 Metal. The center rod, ribs, eyes, and washers of the ball frame shall be made of aluminum conforming to T6 temper of QQ-A-225/8. The aluminum link shall be welded together to prevent separation.

\* 3.3.2.2 Pins, cotter. The cotter pins shall be 1/8 inch (3.2mm) in diameter and 1 inch (2.5cm) long (excluding eye of cotter pin). The pins shall be made of either brass or stainless steel compositions that resist rust and corrosion by salt water. The metal compositions may be treated to meet these requirements. Testing shall be specified in 4.3.1. The size of the drilled holes for the insertion of the cotter pins shall be 5/32 to 7/32 inch (4.0 to 5.6mm).

3.3.2.3 Snap hook. The snap hook shall conform to type I, regular, of MIL-H-15021.

3.3.2.4 Snap hook ring. The snap hook ring shall be of the material specified in 3.3.2.1 and may be of a split construction.

3.4 Design. The day signal shape shall consist of a collapsible metal frame with 6 ribs and a detachable cloth cover furnished with grommets and cord to enable the cover to be closed and laced to the frame. The cover shall have inside straps with snap fasteners for attaching to the ribs of the frame. The frame shall be fitted with a snap hook (see Figures 1, 2 and 3).

3.5 Patterns. Standard patterns will be furnished by the Government. The standard patterns shall not be altered in any way and are to be used for cutting the contractor's working patterns. The working patterns shall be identical to the standard patterns (see 6.3).

3.5.1 Pattern parts. The component parts shall be cut from the material specified in accordance with the following pattern parts:

Material	Pattern parts	Cut parts
Cloth, duck, cotton	Center segment	2
	Segment, typical	5
	Facing strip	2
	Bottom and top reinforcing patch	2

3.6 Figures. Figures are furnished for information purposes only. When inconsistencies exist between the written specification and the figures, the written specification shall control.

3.7 Construction.

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3.7.1 Stitches, seams and stitchings. Stitch, seam, and stitching types specified in Table I shall conform to FED-STD-751. Seam allowances shall be maintained with seams properly sewn so that no raw edges, runoffs, twists, pleats or open seams result.

3.7.2 Thread breaks and ends of seams. Ends of all seams and stitchings when not caught in other seams or stitchings shall be backtacked not less than 1/4 inch (6.4mm). The ends of a continuous line of stitching shall be overlapped not less than 1/2 inch (12.7mm). Thread breaks and two or more consecutive skipped or runoff stitches shall be overstitched not less than 1/2 inch (12.7mm) or more than 1 inch (25.4mm) behind and beyond the defective stitching area.

3.7.3 Stitches per inch. The minimum and maximum number of stitches per inch shall be as specified in Table II.

\* 3.8 Manufacturing operations requirements. The day signal cover shall be manufactured in accordance with the operation requirements specified in Table I and Figures 1 and 3. The Contractor is not required to follow the exact sequence of operations listed, provided that the finished item is identical to that produced by following the sequence of operations listed in Table I. The frame shall be constructed in accordance with Figure 2.

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Table I - Construction of Frame Cover

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
1.	<p><u>Cutting</u></p> <p>a. All component parts shall be cut in strict accordance with Government patterns furnished which show shape, directional lines, and notches for proper assembly of all parts.</p> <p>b. All component parts of cloth cover shall approximate each other in shade and may be cut in both the warp and filling directions as indicated on patterns.</p>					
2.	<p><u>Replacement of defective components</u></p> <p>During the cutting and manufacturing process, components having material defects or damages that are classified as defects in Section 4 shall be removed from production and replaced with non-defective and properly matched components.</p>					
3.	<p><u>Make cover</u></p> <p>a. Join the five (5) typical segments to each other with 2 rows of stitching. The first row shall be 1/8 to 1/4 inch (3.2 to 6.4 mm) from the raw edges. The second row shall be 1/4 inch (6.4mm) gage from the first row.</p> <p>b. Join back edge of each center segment to the pre-assembled typical segments with two rows of stitching (see above operation).</p>	301	SSa-2	6-8	10/5 or FF-3	10/5 or FF-3
		301	SSa-2	6-8	10/5 or FF-3	10/5 or FF-3

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Table I - Construction of Frame Cover

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
3.	<p><u>Make cover (Cont'd)</u></p> <p>c. Attach facing strip to inside of cover along front edge of each center segment with two rows of stitching. Each row of stitching shall be 1/8 to 3/16 inch (3.2 to 4.8mm) from each folded edge of facing. The facing shall finish 1 to 1-1/8 inch (2.5 to 2.9cm) in width.</p> <p>d. Stitch, face to face, the top edge of each reinforcing patch to the top and bottom of cover, 1/8 to 3/16 inch (3.2 to 4.8mm) from raw edge.</p> <p>e. Turn reinforcing patches to inside of cover. Turn under all raw edges 1/4 inch (6.4mm) and stitch all four edges of patch 1/8 to 3/16 inch (3.2 to 4.8mm) from edge.</p>	301	LSk-2	6-8	10/5 or FF-3	10/5 or FF-3
		301	SSae-2(a)	6-8	10/5 or FF-3	10/5 or FF-3
		301	LSd-1 and SSae-2(b)	6-8	10/5 or FF-3	10/5 or FF-3
4.	<p><u>Attach grommets</u></p> <p>Attach 13 grommets, centered and equally spaced, to each facing. The center of end grommets shall be positioned 5/8 inch (15.9mm) from the top and bottom of cover, and each grommet shall be not less than 1/16 inch (1.6mm) from the closure edge. Grommets on each closure edge shall align with each other.</p>					
5.	<p><u>Prepare straps</u></p> <p>a. Straps shall finish 1 to 1-1/8 inches (2.5 to 2.9cm) wide by 4-3/4 by 5-1/4 inches (12.1 to 13.3cm) long.</p>					

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Table I - Construction of Frame Cover (cont'd)

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
5.	<p><u>Prepare straps</u> (cont'd)</p> <p>h. When the alternate cotton duck cover material is used, turn under the long raw edges 1/4 to 5/16 inch (6.4 to 7.9mm) and stitch each edge 1/8 to 3/16 inch (3.2 to 4.8mm) from the folded edge and backstitch. Ends of this strap need not be finished off.</p> <p>c. When a cotton type or webbing strap is used the ends shall be turned under and stitched 1/8 to 3/16 inch (3.2 to 4.8mm) from the folded edge or the ends shall be dipped in a water insoluble resin.</p> <p>d. When a nylon tape or webbing strap is used the ends shall be heat fused.</p> <p>e. Attach snap fastener components 1/2 to 3/4 inches (12.7 to 19.1mm) from each end of strap; measured from center of fastener. The fastener button shall be to the outside when in the closed position. The closed straps shall contain the frame ribs in their proper position when the day signal is in the open position.</p>	301	EFa-1	6-8	10/5 or FF-3	10/5 or FF-3
6.	<p><u>Attaching straps</u></p> <p>a. Two straps shall be attached to the inside of the cover at each typical segment seam, as indicated by marks on the pattern.</p>					

Table I - Construction of Frame Cover (cont'd)

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
6.	<p><u>Attaching straps (cont'd)</u></p> <p>b. The seams shall be laid flat and the center of each strap stitched to the cover between and parallel to the two rows of seam stitching, with a 5/8 to 7/8 inch (15.9 to 22.2mm) long bartack. The width (bight) of the bartack shall not be less than 1/8 inch (3.2mm).</p>	Bartack		38-42 per Bartack	10/5 or FF-3	10/5 or FF-3
7.	<p><u>Prepare cord</u></p> <p>Cut cord lacing a minimum of 8 feet (240cm). When cotton cord is used, the ends shall be dipped to a depth of 1/2 inch (12.7mm) in a water insoluble resin to prevent raveling. The finished ends shall pass freely through the grommets. When nylon cord is used, the ends shall be heat fused to prevent raveling.</p>					
8.	<p><u>Mark label</u></p> <p>Mark label on the inside of one center segment in the general area of the seventh grommet (see 3.10).</p>					
9.	<p><u>Finishing</u></p> <p>Trim and remove all thread ends.</p>					
10.	<p><u>Attach cord</u></p> <p>Tie one end of cord lacing through an end grommet, make a loose skein out of the excess and tie in place with opposite end of cord.</p>					

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\* 3.9 Dimensions. The finished metal frame for day signal shall conform to the dimensions and tolerances of Drawing No. 16-1-225 (Figure 2). The cloth cover shall conform to the dimensions of Drawing No. 16-1-224 (Figure 1) and 16-1-116 (Figure 3). Unless otherwise specified tolerances for the cloth cover shall be as follows:

Up to and including 1 inch	- $\pm 1/16$ inch (1.6mm)
Over 1 inch	- $\pm 1/8$ inch (3.2mm)

NOTE: Dimensions specified in Figures 1, 2, and 3 may be converted to the metric system by using the following factors:

- inches to millimeters multiply by 25.4
- inches to centimeters multiply by 2.5

\* 3.10 Label marking. The day signal covers shall be marked with a label conforming to type IV, class 5 of DDD-L-20, using a white marking medium. The label shall contain the following information:

SHAPE, DAY SIGNAL, MARITIME  
 CONTRACT NO.: DSA 100-00-0-0000 (Example)  
 STOCK NO.: 8345-00-000-0000 (Example)  
 NAME OF CONTRACTOR:

3.11 Workmanship. The finished day signal shall conform to the quality established by this specification. The occurrence of defects shall not exceed the applicable acceptable quality levels.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Certificate of compliance. Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

4.2 First article inspection. The first article, submitted in accordance with 3.2, shall be inspected for compliance with design, construction, workmanship and dimensional requirements.

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4.3 Inspection Inspection shall be in accordance with the provisions set forth in MIL-STD-105, except where otherwise indicated herein.

\* 4.3.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document. The supplier shall furnish a certificate of compliance for the strap requirements of 3.3.1.5 and the rust and corrosion requirements of 3.3.2.2.

4.3.2 In-process inspection. Inspection shall be made at any point or during any phase of the manufacturing process to determine whether operations or assemblies are carried out as specified. The Government reserves the right to exclude from consideration for acceptance any material or service for which in-process inspection had indicated nonconformance.

\* 4.3.3 Examination of the end item. The defects found during the examination of the end item shall be classified in accordance with 4.3.3.1, 4.3.3.2, and 4.3.3.3. The applicable inspection levels and acceptable quality levels (AQL's) shall be as indicated in 4.3.3.4. The sample unit shall be one completely fabricated day signal (cover and frame) or one finished cover (when procured separately). The lot size shall be expressed in terms of the sample unit. When covers are procured separately, only defects applicable to the finished cover shall apply (see 4.3.3.3).

\* 4.3.3.1 Visual examination. The finished day signal (cover and/or frame) shall be examined for applicable defects in accordance with the list below:

Examine	Defect	Classification	
		Major	Minor

I. COMPONENT(S) AND ASSEMBLY (Unless otherwise classified herein)

1.	Any component omitted, misplaced, damaged or otherwise defective	X	
2.	Any required operation omitted	X	
3.	Any required operation not as specified		X
4.	Any component other than type, size or color specified		X
5.	Any component part tight, twisted, distorted, puckered or pleated	X	

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Examine	Defect	Classification	
		Major	Minor

II. CUTTING

Any part not cut in accordance with shape or directional lines indicated on patterns or in accordance with specification requirements.

III. COVER, CLOTH

- |   |   |   |
|---|---|---|
| 1. Any hole, cut, tear, needlechew or other type weakening defect | X |   |
| 2. Any visible mend   | X |   |
| 3. Any permanent spot or stain on outside                         |   | X |
| 4. Any part badly shaded  |   | X |
| 5. Parts do not approximate each other in shade                   |   | X |
| 6. Colored segments not positioned as specified                   | X |   |
| 7. Width of strap:  |   |   |
| a. Less than 1 inch (2.5cm)                                       |   | X |
| b. More than 1-1/8 inches (2.9cm)                                 |   | X |
| 8. Length of strap:   |   |   |
| a. Less than 4-3/4 inches (12.1cm)                                |   | X |
| b. More than 5-1/4 inches (13.3cm)                                |   | X |
| 9. End of strap not finished as specified                         |   | X |

IV. COVER, HARDWARE

- |   |   |   |
|---|---|---|
| 1. Center of snap fastener from end of strap:                         |   |   |
| a. Less than 1/2 inch (12.7mm)  |   | X |
| b. More than 3/4 inch (19.1mm)  |   | X |
| 2. Any snap fastener or grommet:                                      |   |   |
| a. Omitted or does not function properly                              | X |   |
| b. Malformed, damaged, misplaced or improperly set, but functional    |   | X |
| c. Clinched too tight, cutting into fabric                            | X |   |
| 3. Grommets unequally spaced vertically by more than 3/8 inch (9.5mm) |   | X |

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Examine	Defects	Classification	
		Major	Minor
IV. <u>COVER, HARDWARE</u> (cont'd)			
4.	Grommets on each facing not aligned horizontally with each other, effecting lacing of closure seriously	X	
5.	Center of grommet(s) positioned less than 5/8 inch (15.9mm) from top and/or bottom edge of cover		X
6.	Outside edge of grommet(s) less than 1/16 inch (1.6mm) from closure edge		X
V. <u>CORD, LACING</u>			
1.	Length of lacing less than 8 feet (240cm)	X	
2.	Any cut, break or other type weakening defect	X	
3.	Permanently soiled		X
4.	Not braided firmly		X
5.	Ends of lace not dipped or fused		X
6.	Lace not one continuous length	X	
7.	Ends do not pass thru grommets freely		X
VI. <u>SEAM(S) AND STITCHING(S)</u>			
1.	Seam noticeably puckered or twisted		X
2.	End of stitching when not caught in other seams or stitching, backstitched less than 1/4 inch (6.4mm)		X
3.	Thread break repair starts less than 1/2 inch (12.7mm) or more than 1 inch (25.4mm) behind break		X
4.	Ends of a continuous line of stitching overlapped less than 1/2 inch (12.7mm)		X
5.	Color of thread used on the outside not as specified		X
6.	Stitching margin not within range specified (score only when condition exists on more than 1/2 the length of seam)		X
7.	Any open seam (a seam where one or more stitches joining a seam are broken or when two or more continuous skipped stitches or runoffs occur)	X	

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Examine	Defect	Classification	
		Major	Minor
VI. <u>SEAM(S) AND STITCHING(S)</u> (cont'd)			
8.	Raw edge:		
	a. Less than 2 inches (5.1cm)		X
	b. 2 inches (5.1cm) or more	X	
9.	Not specified seam or stitch type		X
10.	Any line of stitching omitted	X	
11.	Any line of stitching not beginning or ending where specified		X
12.	Loose stitch tension, resulting in loosely exposed loops of lower or top thread (score only when condition exists on more than 1/2 the length of seam)		X
13.	Tight stitch, tension, stitches break when normal strain is applied in the direction of the seam or stitching	X	
14.	Stitches per inch (score only when condition exists on more than 1/2 the length of seam):		
	a. One stitch less than the minimum or or any number in excess of the maximum specified		X
	b. Two or more stitches less than the minimum specified	X	
15.	Bartack(s):		
	a. Missing, insecure, misplaced or not serving intended purpose	X	
	b. Length less than 5/8 inch (15.9mm) or more than 7/8 inch (22.2mm)		X
	c. Width (bight) less than 1/8 inch (3.2mm)		X
	d. Not parallel to direction of seam		X
VII. <u>FRAME</u>			
1.	Any component part dented, bowed, sprung burred, bent, broken, malformed or otherwise impaired	X	
2.	Ribs do not rotate on center rod	X	

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Examine	Defect	Classification	
		Major	Minor

VII. FRAME (cont'd)

3.	Threads stripped, wrong size or type	X	
4.	Snap hook not type specified	X	
5.	Snap hook does not operate as required	X	
6.	Ends of snaphook link not neatly butt welded		X
7.	Ends of snaphook link not welded together	X	
8.	Cotter pin not type or size specified		X

VIII. LABEL MARKING

1.	Omitted		X
2.	Marking incomplete, incorrect or illegible		X
3.	Position not as specified		X
4.	Marking shows thru to opposite side		X

4.3.3.2 Dimensional examination. The finished day signal frame and cover shall be examined for defects in dimension. Any dimension that is not within the established tolerances shall be scored as a defect. The sample unit shall be one frame and cover. The inspection level and the acceptable quality level (AQL) shall be as specified in 4.3.3.4.

4.3.3.3 Examination of cover for fit. The finished covers shall be examined for defects in fitting. Any cover that does not fit the frame properly in any respect shall be scored as a defect. The sample unit shall be one finished cover. The inspection level and acceptable quality level (AQL) shall be as specified in 4.3.3.4. When covers are procured separately, the Government will furnish the ball frame for this examination (see 6.2).

4.3.3.4 Inspection levels and acceptable quality levels. The inspection levels and acceptable quality levels (AQL's) expressed in defects per hundred units (DHU), shall be as follows:

	Inspection Level	AQL's	
		Major	Total
For Visual Examination in 4.3.3.1			
- Procured as Cover and Frame	II	6.5	15.0
- Procured as Cover Only	II	4.0	10.0
For Dimensional Examination in 4.3.3.2	S-3	One Class	4.0
For Fit Examination in 4.3.3.3	S-1	One Class	2.5



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4.3.4 Examination of packaging requirements. An examination shall be made to determine that the packaging, packing, and marking comply with the Section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery with the exception that it need not be closed. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 defects per 100 units.

Examine	Defect
Marking (exterior and interior)	Omitted, incorrect, illegible, of improper size, location, sequence or method of application.
Materials	Any components missing, damaged or not as specified.
Workmanship	Inadequate application of components, such as: incomplete closure of container flaps, loose strapping, inadequate stapling or improper taping. Bulged or distorted container.
Content	Number of end items per shipping container is more or less than required.

4.3.5 Examination for palletization. When palletization is specified (see 6.2), an examination shall be made to determine that the palletization complies with the Section 5 requirements. Defects shall be scored with the list below. The sample unit shall be one palletized unit load fully prepared for delivery. The lot size shall be the number of palletized unit loads in the end item inspection lot. The inspection level shall be S-1 and the AQL shall be 6.5 defects per 100 units.

Examine	Defect
Finished dimension	Length, width, or height exceeds specified maximum requirement.
Palletization	Not as specified. Pallet pattern not as specified. Interlocking of loads not as specified. Load not bonded with required straps as specified.
Weight	Exceeds maximum load limits.
Marking	omitted, incorrect, illegible, of improper size, location, sequence or method of application

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## 5. PACKAGING

5.1 Preservation-packaging. Preservation packaging shall be level A or C, as specified (see 6.2).

5.1.1 Level A. The cloth cover of the day signal shall be compactly arranged, folded, and securely tied with cotton tape or twine. The completely assembled metal framework shall be folded closed and the ribs secured together under moderate pressure with pressure-sensitive tape, cotton tape or twine. Each day signal, with the components prepared as specified, shall be packaged in a fiberboard box conforming to style FPF, type CF (variety SW), class domestic, grade 200 of PPP-B-636. Inside dimensions of each box shall approximate 14 inches (35cm) in length, 3 inches (8cm) in width and 28-1/2 inches (72cm) in depth. Approximate dimensions are furnished as a guide only. Each box shall be securely closed with tape in accordance with the appendix of the box specifications.

5.1.1.1 Cloth covers, when procured separately (see 6.2). Each cover shall be compactly arranged and folded. Ten (10) covers of one color only shall be neatly stacked to form an even bundle. The bundle shall be securely tied with cotton tape or twine.

5.1.2 Level C (Commercial packaging). Each complete day signal or separately procured cloth covers (see 6.2), shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The contractor may use his standard practice when it meets this requirement.

5.2 Packing. Packing shall be level A, B, or C as specified (see 6.2).

5.2.1 Level A. Six (6) day signals of one color only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container conforming to type SF, class weather-resistant, style RSC, grade V2s of PPP-B-636. Level A packages shall be packed on edge, one in length, six in width, and one in depth within a shipping container. Inside dimensions of each shipping container shall approximate 29 inches (74cm) in length, 19-1/2 inches (50cm) in width, and 14-1/4 inches (36cm) in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall be closed, waterproofed, and reinforced in accordance with the appendix of the container specification.

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5.2.1.1 Cloth covers, when procured separately (see 6.2). Sixty (60) covers of one color only, packaged as specified in 5.1.1.1 shall be packed in a snug-fitting fiberboard shipping container conforming to type SF, class weather-resistant, grade V2s, Style RSC-L of PPP-B-636. The inside of each fiberboard container shall be fitted with a taped box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Each container shall have the contents completely covered on the top and bottom with a sheet of commercial grade kraft paper. Each shipping container shall be closed, waterproofed, and reinforced in accordance with the appendix of the container specification.

5.2.2 Level B. Six (6) day signals of one color only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. Level A packages shall be packed on edge, one in length, six in width, and one in depth within a shipping container. Inside dimensions of each shipping container shall approximate 29 inches (74cm) in length, 19-1/2 inches (50cm) in width, and 14-1/4 inches (36cm) in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall be closed in accordance with Method II as specified in the appendix of the container specification.

5.2.2.1 Cloth covers, when procured separately (see 6.2). Sixty (60) covers of one color only, packaged as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each fiberboard container shall be fitted with a taped box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Each container shall have the contents completely covered on the top and bottom with a sheet of commercial grade kraft paper. Each shipping container shall be closed in accordance with Method II as specified in the appendix of the container specification.

5.2.2.2 Weather-resistant fiberboard container. When specified (see 6.2), the fiberboard shipping containers specified in 5.2.2 and 5.2.2.1 shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with the appendix of the box specification.

5.2.3 Level C (Commercial packing). Day signals and separately procured cloth covers (see 6.2), packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies.

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5.3 Palletization. When specified (see 6.2), day signals and separately procured cloth covers of one color description only, packed as specified in 5.2, shall be palletized in accordance with load type I of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. 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 pallet patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

5.4 Marking. In addition to any special marking required by the contract or order, interior packages, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129. Each bundle of separately procured cloth covers shall have a paper shipping tag attached indicating the following information:

STOCK NUMBER  
COVER, DAY SIGNAL  
COLOR  
QUANTITY

## 6. NOTES

6.1 Intended use. The day signals are intended for use as displays on ships to warn other vessels to stay clear of operations being conducted, such as: underwater operations, towing, etc.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) Color required (see 3.3.1.1.1).
- (c) Whether first article is required (see 3.2).
- (d) Selection of the applicable levels of packaging and packing (see 5.1 and 5.2).
- (e) When separate procurement of the cloth cover is desired (see 4.3.3.3, 5.1.1.1, 5.1.2, 5.2.1.1, 5.2.2.1, 5.2.3 and 5.4).
- (f) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.2).
- (g) When palletization is required (see 5.3).

6.3 Samples and patterns. For access to samples and patterns, address the procuring activity issuing the invitation for bids.

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6.4 Changes from previous issue. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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Preparing Activity:  
Navy - SA

Review activity:  
Navy - SH  
DLA - CT

Project Number 8345-N126

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ITEM LIST		REVISIONS	
ITEM	DESCRIPTION	REVISION	DATE
1	ASSEMBLY	1	10-1-77
2	FRAME ASSEMBLY	1	10-1-77
3	COVER ASSEMBLY	1	10-1-77

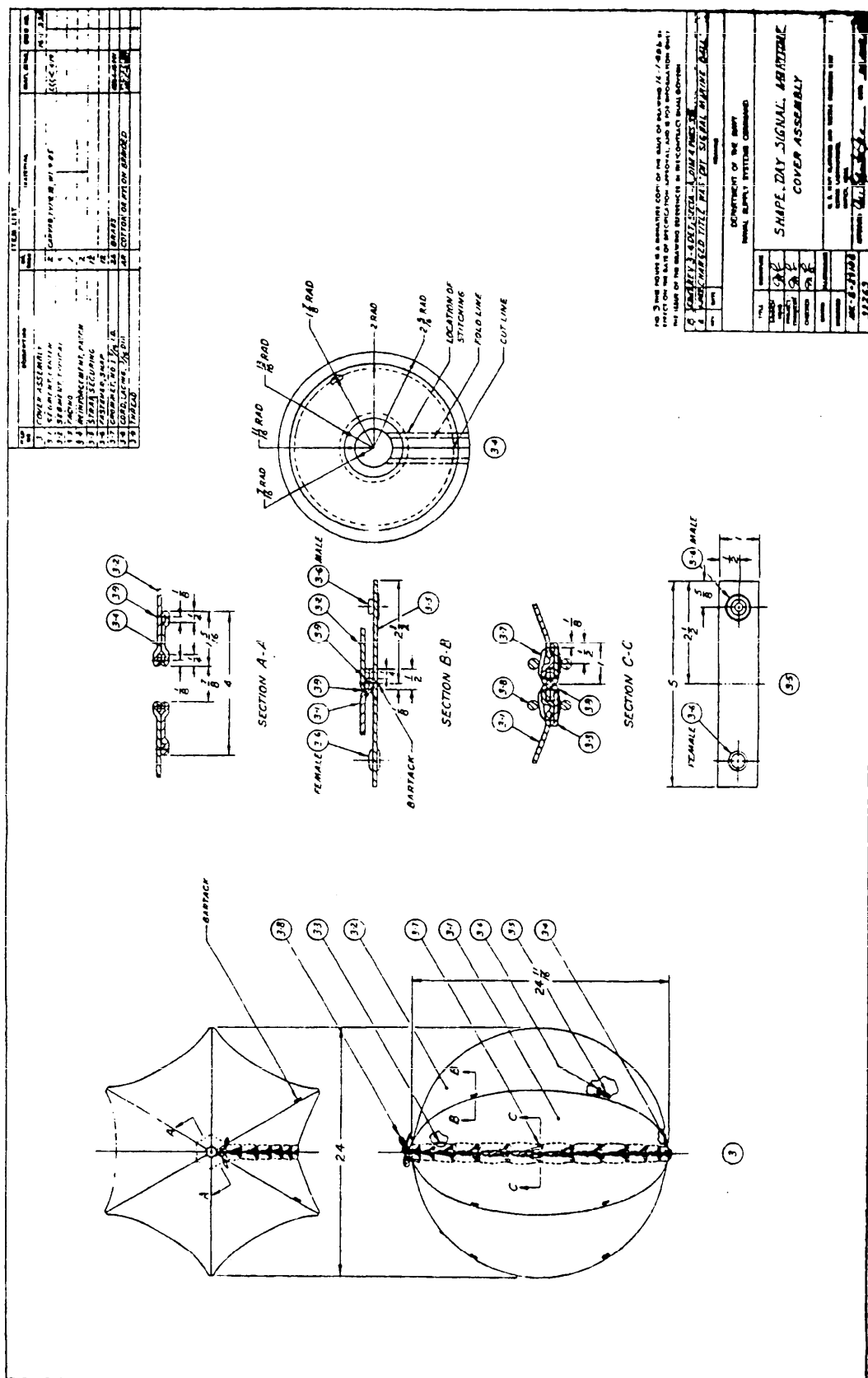
SECTION A-A  
SHOWS TO DEMONSTRATE METHOD OF  
ATTACHMENT OF ITEM 3 TO ITEM 2

1. THE POINT IS A REPRESENTATION OF THE SHIP OR MARITIME (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

2. THE POINT IS A REPRESENTATION OF THE SHIP OR MARITIME (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.



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