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DEPARTMENT OF DEFENSE

STANDARD PRACTICE
BAR CODING FOR MAPPING, CHARTING, AND GEODESY PRODUCTS

AMSC N/A

AREA MCGT

FOREWORD

DEPARTMENT OF DEFENSE

1. This Standard is approved for use by all Departments and Agencies of the Department of Defense.

2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Director, Defense Mapping Agency, ATTN: TI (ST A-10), 8613 Lee Highway, Fairfax, VA 22031-2137 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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1. SCOPE

1.1 Scope. This standard defines the requirements for bar coding of MC&G products.

1.2 Purpose. Conformance to this standard will assure uniformity of treatment among all mapping and charting elements engaged in a coordinated production, maintenance and distribution program.

1.3 Application. This standard shall be used whenever bar codes are depicted on MC&G products.

1.4 Security. Bar codes generated by the use of these standards shall be unclassified. The DMA inventory system is operated at the unclassified level.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, and 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all requirements documents cited in sections 3, 4, and 5 of this standard, whether or not they are listed.

2.2 Government documents.

2.2.1 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 current Department of Defense Index of Specifications and Standards (DODISS) and the supplement thereto, cited in the solicitation (see 6.2).

FEDERAL

Cataloging Handbook H2-1	Federal Supply Classification, Part 1, Groups and Classes.

MILITARY

MIL-STD-11898	STANDARD DEPARTMENT OF DEFENSE BAR CODE SYMBOLOGY

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

2.2.2 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.

NATO STANAG 3676 MARGINAL INFORMATION ON LAND MAPS, AERONAUTICAL CHARTS AND PHOTOMAPS'

(Copies of STANAG 3676 are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094).

2.3 Order of precedence.. In the event of a conflict between the text of this document and the references cited herein the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. DEFINITIONS

3.1 Consumable Item of Supply. (1) An item of supply (except explosive ordnance, major end items of equipment, and reparables) that is normally expended or used up beyond recovery in the use for which it is designed or intended. (2) Each item produced, co-produced, or foreign produced and distributed by DMA.

3.2 DMA Stock Number. (1) A variable length identification number, composed of a maximum of fifteen alphabetic and numeric characters, which represent a specific MC&G Product Series and Sheet number. (2) A DMA reference number that is used to identify and order a specific MC&G product.

3.3 Edition number. The number that designates the edition for a DMA MC&G product.

3.4 Effective date. The day that a product becomes effective for use by customers. Used instead of edition numbers on frequently updated products, such as FLIPS.

3.5 Federal Logistics Information System (FLIS). The comprehensive Government-wide system used to catalog, stock number, maintain, and disseminate logistics information for items of supply.

3.6 Federal Supply Classification (FSC). A series of four numerals at the beginning of the National Stock Number (NSN) that designates the general commodity grouping of the item of supply; e.g., Class 7641, Aeronautical, MC&G Products.

3.7 Human Readable Interpretation (HRI). The exact interpretation of the encoded bar code data presented in a human-readable font.

3.8 National Codification Bureau (NCB) Code. The first two digits of the National Item Identification Number (NIIN), used to identify the country of origin for the item. All U.S. manufactured items have a code of '00' (cataloged before 1975) or '01' (cataloged in 1975 or later). Exception: For foreign produced MC&G Products that are distributed by DMA, the NCB shall ordinarily be '01'.

3.9 National Item Identification Number (NIIN). A series of nine numerals within the National Stock Number (NSN) that differentiates each individual supply item from all other supply items. The first two digits signify the National Codification Bureau (NCB) which assigned the NIIN, while the last seven digits are sequentially assigned by the Federal Logistics Information System (FLIS).

3.10 National Stock Number (NSN). A thirteen-position number used to identify items of supply. It consists of a four-position Federal Supply Classification (FSC) and a nine-position National Item Identification Number (NIIN).

3.11 Quiet Zone. The area immediately preceding the start character and following the stop character. This area contains no markings and provides the same reflectance as the spaces.

4. GENERAL REQUIREMENTS

4.1 3 of 9 bar code description. The 3 of 9 bar code description is explained in MIL-STD-11898.

4.2 HRI. The NSN number and edition number shall be encoded and printed. The start and stop asterisks shall not be printed. The HRI is intended to be used only for human recognition and is not intended to be machine readable.

5. DETAILED REQUIREMENTS

5.1 Minimum Dimensions.

Bar Code Height. 6.35mm (.25")
Space between code and Human Readable Interpretation (HRI) .25mm (.01")
Text "NSN" 3.175mm (.125")
NSN number height. 3.175mm (.125")
DMA stock number height. 3.175mm (.125")
Text "DMA STOCK NO.", and "ED. NO." or "EFF. DATE" 1.8mm (.07")
Edition number height. 3.175mm (.125")
Minimum margin below HRI. 1.524mm (.06")
Quiet zone before and after code. 6.35mm (.25")
Space between bar codes 12.7mm (.5")

5.2 Dimensions not listed. All dimensions not listed shall adhere to MIL-STD-11898.

5.3 Bar code content. The bar code shall consist of the thirteen-digit NSN and the edition number. The bar code shall be preceded by a start code followed by the NSN, stop code, minimum 12.7mm (.5") space, start code, and the edition number or effective date of three to five digits, as appropriate, ending with a stop code. (see FIGURE 1).

Hydrographic example with edition number:

Hydrographic example with effective date (year/month):

Aeronautical example with effective date (year/julian date):

FIGURE 1. NSN/Bar Code examples.

5.3.1 Bar code FSC. The FSC is the first four numerals of the NSN, which represents the classification of the item, and shall be one of those listed below:

FSC	AIN
7641	Aeronautical, MC&G Products
7642	Hydrographic, MC&G Products
7643	Topographic, MC&G Products
7644	Digital, MC&G Products

5.4 Print style. HRI type shall be SWISS 742, or a visually equivalent style.

5.4.1 NSN text. The words "NSN" shall be printed in upper case under the bar code, left justified.

5.5 DMA's stock number.

5.5.1 Maximum characters in DMA's stock number. Maximum number of characters in the stock number is 15.

5.5.2 DMA stock number text and number. The words "DMA STOCK NO." shall be printed in upper case under the NSN, left justified and followed by the DMA stock number.

5.5.3 Edition number or effective date text. The words "ED. NO." or "EFF. DATE" printed in upper case shall be preceded by a minimum space of 12.7mm (.5") following the NSN.

5.5.4 Edition number or effective date. The edition number or effective date shall be printed following the words "ED. NO." or "EFF. DATE".

5.5.5 Color. The bar code shall be printed in SPC 58600 BLACK-SOLID.

5.6 Placement. The bar code with its HRI shall be located in the lower right or left corner of the product (lower right preferred), oriented horizontally. On NATO products required to adhere to STANAG 3676, for bi-marginal sheets, the block containing the series and sheet number shall be retained in the lower right corner of the sheet. However, the stock number shall be in the most bottom right corner of the sheet.

5.6.1 Individual product placement. Examples of placement are contained in the individual style sheets for the product.

5.6.2 Space conflicts. In case of conflict with space, the other margin data shall be displaced to allow for placement of the bar code and its HRI and quiet zone.

5.6.3 Margin data replaced. If the existing product has its product number, series, or edition number located where the bar code is to be placed, it shall be replaced with the Bar Code and its HRI. All existing DMA Stock Numbers located where the bar code is to be placed shall be replaced with the bar Code and HRI.

5.6.4 Disk products (laser, magnetic). Disk products shall include the bar code and HRI.

5.6.5 Magnetic tape products. Only magnetic tape products that have DMA stock numbers shall be bar coded. The bar code and HRI shall be labeled on the curved surface of the reel.

5.7 Print requirements.

5.7.1 Reflectivity and contrast. All requirements of MIL-STD-11898 shall be adhered to.

5.7.2 Code density and dimension. Code density shall adhere to MIL-STD-11898 to obtain the required space limits as defined in section 5. of this Standard. The dimensions are defined in 5.1.1 of this Standard.

5.7.3 Bar code tolerances. All tolerances shall conform to MIL-STD-11898.

5.7.4 Direct product printing. All Bar codes and HRI shall be printed directly on the paper products as they are printed.

5.7.5 Printing on paper labels. All DMA bar codes that are printed on paper labels for packaging shall conform to this specification and in addition must be at least 2mm (.08") from the edge of the label.

5.7.6 Printing verification. All bar codes shall be verified after printing to assure they can be read by bar code readers and they reflect the correct information.

5.7.7 Bar code. The bar code is acceptable if it can be successfully scanned as defined in MIL-STD-11898.

5.7.8 HRI. The HRI is acceptable if it can be read from a distance of 2 feet by a person having corrected 20/20 vision in an environment having at least one 60 watt light bulb within 20 feet from the surface.

5.8 Packaging.

5.8.1 Placement of bar codes. The bar code with its HRI shall be located on the top of the package, preferably on the lower right or left hand side.

5.8.2 Labeling. When it is not possible to fold the product so that the bar code is visible on the top of the package, a label containing the bar code and HRI shall be affixed to the package, preferably on the lower right or left hand side.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The bar coded NSN allows the Services and other customers to order MC&G products through their logistics systems and distribute MC&G products to DoD customers the same as other common items of support.

6.2 Acquisition requirements. When this standard is used in acquisition, the applicable issue of the DODISS must be cited in the solicitation (see 2.1.1).

6.3 International standardization agreements. Certain provisions of this standard are subject to international standardization agreement NATO STANAG 3676, "Marginal Information on Land Maps, Aeronautical Charts, and Photomaps". When change notice, revision or cancellation of this standard is proposed that will modify the international agreement concerned, the preparing activity will take appropriate action through international standardization channels, including departmental standardization offices, to change the agreements or make other appropriate accommodations.

6.4 Changes from previous issues. The margins of this standard are marked with vertical lines to indicate where changes (additions, modifications, corrections, deletions) from 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 notation and relationship to the last previous issue.

6.5 Subject term (key word) listing.

Bar code
DMA stock number
Human readable interpretation (HRI)
Inventory control
NSN

CONCLUDING MATERIAL

Custodian:
DMA - MP

Preparing activity:
DMA - MP

(Project MCGT-0158)

Review activities

DLA - LS

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-STD-2414	2. DOCUMENT DATE *(YYMMDD)* 25 May 1995

3. DOCUMENT TITLE: Standard Practice Bar Coding for Mapping, Charting, and Geodesy Products

4. NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed)*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*	b. ORGANIZATION	
c. ADDRESS *(Include Zip Code)*	d. TELEPHONE *(Include Area Code)* (1) Commercial (2) AUTOVON *(If applicable)*	7. DATE SUBMITTED *(YYMMDD)*

8. PREPARING ACTIVITY

a. NAME Defense Mapping Agency ATTN: TI, ST A-10	b. TELEPHONE *(Include Area Code)* (1) Commercial (703) 285-9238	(2) AUTOVON 356-9238
c. ADDRESS *(Include Zip Code)* 8613 Lee Highway Fairfax, VA 22031-2137	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA. 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	