

121 CODED DATA FIELD: CARTOGRAPHIC MATERIALS: PHYSICAL ATTRIBUTES

Field Definition

This field contains coded data relating to the physical attributes of cartographic materials.

Occurrence

Optional. Not repeatable.

Indicators

Indicator 1: blank (not defined)

Indicator 2: blank (not defined)

Subfields

\$a Cartographic Material Coded Data: Physical attributes (General) Not repeatable.

Subfield \$a Fixed-length Data Elements

Name of Data Element	Number of Characters	Character Positions
Physical dimension	1	0
Primary cartographic image	2	1-2
Physical medium	2	3-4
Creation technique	1	5
Form of reproduction	1	6
Geodetic adjustment	1	7
Physical form of publication	1	8

\$b Aerial Photography and Remote Sensing Coded Data: Physical Attributes. Not repeatable

Subfield \$b Fixed-length Data Elements

Name of Data Element	Number of Characters	Character Positions
Altitude of sensor	1	0
Attitude of sensor	1	1
Spectral bands	2	2-3
Quality of image	1	4
Cloud cover	1	5
Mean value of ground resolution	2	6-7

Notes on Field Contents

\$a Cartographic Material Coded Data: Physical Attributes (General)

\$a/0 Physical dimension

A one-character code indicates the physical dimensions of the item.

a = 2-dimensional

b = 3-dimensional

\$a/1-2 Primary cartographic image

One-character codes indicate the techniques used for the creation of the primary cartographic image. Up to two techniques can be recorded (left justified); unused positions contain blanks.

a = manually and plotted

E.g. maps produced by plotting instruments such as stereo plotters with or without computer assistance; maps drawn or painted by hand.

b = photographically

E.g. cartographic items produced by conventional (visible spectrum) aerial photographic techniques such as aerial photography, photo maps, orthophotos.

c = by computer

E.g. maps produced by a computer line printer.

d = by active remote sensing techniques

Excludes techniques covered by codes a, b, or c.

e = by passive remote sensing techniques

Excludes techniques covered by codes a, b, or c.

Examples:

Printed line map is coded: a#

Photomap enhanced with line map features is coded: ba

MSS satellite remote sensing image is coded: e#

Radar remote sensing image is coded: d#

\$a/3-4 Physical medium

A two-character code indicates the physical medium of the cartographic item. The first character of the code indicates the general type of physical medium. The second character gives the specific type. This code is used to show that the cartographic item is made of the material indicated, e.g. when the cartographic item is a metal plate, a lithographic stone, a scribed plate on a plastic base, etc. Non-photographic medium:

aa = paper

ab = wood

ac = stone

ad = metal
 ae = synthetics (e.g. plastics, vinyl)
 af = skin (e.g. parchment, vellum)
 ag = textile including man-made fibre textiles (e.g. silk, cloth, nylon)
 ah = magnetic storage medium – computer compatible
 ai = magnetic storage medium – not computer compatible
 aj = tracing paper
 ak = cardboard
 ap = plaster
 au = unknown
 az = other non-photographic medium

Photographic medium:

ba = transparent or opaque flexible base positive
 bb = transparent or opaque flexible base negative
 bc = transparent or opaque non-flexible base positive
 bd = transparent or opaque non-flexible base negative
 bz = other photographic medium

\$a/5 Creation technique

A one-character code indicates the final step creation technique of the original cartographic item.

a = manuscript
 Hand drawn, including constructions of unique items such as stone carvings, models, etc.

b = printing
 Offset, engraving, wood block print, lithographed, stamped, Braille, relief, etc.

c = photocopying
 All macroform hard copy produced directly on opaque material by radiant energy through contact or projection.

d = microphotography
 All microform copy on transparent material produced either by filming or by computer output.

u = unknown

y = the cartographic item is not a final product but is on a pre-production medium as specified in character positions 3-4, Physical medium

z = other

Examples:

Printed photomap enhanced with line map feature: b

Photomap on photographic paper: c

\$a/6 Form of reproduction

A one-character code indicates the form of reproduction of the item.

a = by hand

b = printed

c = photography

d = transfer line print (e.g., Xerox, blueprints, ozalid)

y = not a reproduction

\$a/7 Geodetic adjustment

A one-character code indicates the geodetic adjustment of the item. Further details are given in field 131.

a = no adjustment

b = adjusted but without grid system

c = adjusted with grid system

x = not applicable

\$a/8 Physical form of publication

A one-character code indicates the physical form of publication of the item.

a = single

b = in parts

Published as a series, published as a continuing resource, published in sections

c = atlas including loose-leaf published atlas

d = as a separate supplement to a journal, monograph, etc.

e = bound into a journal, monograph, etc.

z = other

\$b Aerial Photography and Remote Sensing Coded Data: Physical Attributes

\$b/0 Altitude of Sensor

A one-character code indicates the altitude of the sensor's platform for cartographic items.

a = terrestrial

b = aerial

c = space

\$b/1 Attitude of sensor

A one-character code indicates the attitude of the sensed image resulting from the angle of the sensor when recording the image for cartographic items.

- a = low oblique
- b = high oblique
- c = vertical

\$b/2-3 Spectral bands

Two numeric characters indicate the number of spectral bands involved. The number is right justified, unused positions contain zeros. Applicable only to remote sensing.

- 01 to 99 = number of bands
- xx = not applicable

\$b/4 Quality of image

A one-character code indicates the quality of the image.

- a = poor
- b = fair
- c = good
- d = very good

\$b/5 Cloud cover

A numeric character indicates the cloud cover in eighths.

- | | |
|---------------|----------------------------------|
| 1 = 1/8 cover | 5 = 5/8 cover |
| 2 = 2/8 cover | 6 = 6/8 cover |
| 3 = 3/8 cover | 7 = 7/8 cover |
| 4 = 4/8 cover | 8 = completely covered by clouds |

\$b/6-7 Mean value of ground resolution

A two-character code indicates the mean value of the ground resolution. Character position 6 carries either the numeric mean value for the resolution or an indication that it is less than 1 centimetre or greater than 9 kilometres. Character position 7 carries a code for the metric unit used. Applicable only to remote sensing.

\$b/6 Mean ground resolution values

- = less than 1 centimetre
- 1-9 = numeric value
- + = greater than 9 kilometres
- x = not applicable

\$b/7 Metric unit codes

- c = centimetres
- i = decimetres
- m = metres
- d = decametres
- h = hectametres
- k = kilometres
- x = not applicable

Examples:

Mean ground resolution of 5 centimetres: 5c

Mean ground resolution of 80 metres: 8d

Mean ground resolution of 10 kilometres: +k

Not remote sensing: xx

Related Fields

- 120 CODED DATA FIELD: CARTOGRAPHIC MATERIALS – GENERAL
- 131 CODED DATA FIELD: CARTOGRAPHIC MATERIALS – GEODETIC, GRID AND VERTICAL MEASUREMENT

These fields are used to code other attributes of cartographic materials.