

Please note that the purpose of this document is to facilitate the work of the Committee and to provide a means for outreach to both library and non-library cataloging communities. This document is intended for the exclusive use of CC:DA and its cataloging constituencies, and is presented as a discussion document in the ongoing process of rule revision. Under no circumstances should the information here be copied or re-transmitted without prior consultation with the current Chair of CC:DA.

To: Adam Schiff, Chair, CC:DA
From: MAGERT Cataloging and Classification Committee
Subject: Rule change proposals for cartographic materials

As per CC:DA discussions during Midwinter 2001, here is the packet of rule revisions relating to cartographic materials, with the following changes from what was presented at Midwinter:

- a. The proposed rule with all revisions is given at the end of the ALA response; verb tenses have been changed to the imperative.
- b. The CCC response to 3.3B1 included a better phrasing of the sentence relating to enclosing scale in brackets, and that has been incorporated into the proposed rule.
- c. Rewrite of 3.3B4-3.3B6: There will be only one rule for multiple scales, to apply to all cartographic materials. Rules following 3.3B4 (3.3B7 and 3.3B8) have been renumbered.
- d. One of the Canadian members of AACCCM noted that 3.3B7 (the new 3.3B5) had a loophole, so I've rewritten the first sentence and added a second paragraph as per her rewrite.
- e. The addition of CCC's 3.5C2 is accepted by ALA. Rules following 3.5C2 have been renumbered.

Following are a history of the cartographic-materials proposals, the rules involved, the explanation for how the rules are presented, and the rule proposals.

A. History of proposals

The Anglo-American Cataloguing Committee for Cartographic Materials met in Washington, D.C., September 8-14, 1998 to revise *Cartographic Materials: A Manual of Interpretation for AACR2*. All five member countries, Australia, Canada, New Zealand, the United Kingdom, and the United States were represented. While two of the countries (Australia and the United Kingdom) did not send representatives from their national cataloging agency the spokesperson for that country had conferred with and was also serving as representative for the national cataloging agency.

The participants in the meeting were: Paige Andrew (Pennsylvania State University) representing the Northeast Map Organization (NEMO); HelenJane Armstrong (University of Florida) representing the Committee on Southeast Map Libraries, Southeast Division, Association of American Geographers (COSML); Francis Herbert (Royal Geographical Society) representing the British and Irish Committee on Map Information and Catalogue Systems (BRICMICS); Judy Kuhagen (Library of Congress, Cataloging Policy and Support Office) representing the Library; Mary Larsgaard (University of California, Santa Barbara) representing the American Library Association, Map and Geography Round Table (ALA/MAGERT) and the Western Association of Map Libraries (WAML); Elizabeth Mangan (Library of Congress, Geography and Map Division) Secretariat; Dorothy McGarry (retired) representing the Special Libraries Association (SLA); Velma Parker (National Archives of Canada) representing the Archives; Dorothy Prescott (retired), representing the Australian Map Circle; Barbara Story (Library of Congress, Geography and Map Division) representing the Library; Michela (Shay) Turnbull (National Library of New Zealand) representing the National Library; and Grace Welch (University of Ottawa) representing the Association of Canadian Map Libraries and Archives (ACMLA). The suggested rule changes and new rules in this document are the result of the committee's work, either to incorporate new data or to clarify the existing text to reflect actual cataloging practice of all five countries.

In addition to reviewing the text of *Cartographic Materials* for consistency with the 1988 revision of AACR2 as well as subsequent updates, the committee incorporated additional rules to accommodate information prescribed by the U.S. Federal Geographic Data Committee's *Content Standards for Digital Geospatial Metadata*. Because there was not time during the week-long meeting fully to analyze and evaluate changes needed to accommodate electronic resources, an international subcommittee was formed to look at cataloging for cartographic electronic resources. The subcommittee was made up of members from Canada and the United States, the countries that have produced a considerable amount of digital spatial data and that need to catalog it. The subcommittee's recommendations have been incorporated as part of this document. An international committee to look at the cataloging of rare cartographic materials, with members from Australia, Canada, and the United Kingdom, was also formed. This subcommittee's work has been completed, and there are no changes to the rules; rather there is a consolidation of what is prescribed for rare materials in general. There was an additional subcommittee which focussed on the cataloging of remote-sensing images; again, no changes to the rules were found necessary.

During the year 2000, MAGERT presented two packets of rule proposals concerning cartographic materials. The first was presented at ALA Midwinter; it is now 4JSC/ALA/31. The second was presented at ALA Annual; it is now 4JSC/ALA/31/ALA follow-up. The third was presented at ALA Midwinter of 2001; it is CC:DA/MAGERT/2001/1.

JSC has had constituent responses only to ALA/31, not to ALA/31/ALA follow-up or to CC:DA/MAGERT/2001/1. Those responses are:
4JSC/ALA/31/ACOC response
4JSC/ALA/31/BL response
4JSC/ALA/31/CCC response
4JSC/ALA/31/LC response.

During JSC's September meeting in London, Brian Schottlaender and I presented the proposals in ALA/31. All non-Area 3 proposals were dealt with during this September meeting. But it rapidly became obvious that for Area 3 proposals, before decisions could be made it would be essential for all the various

constituencies to read and respond to all of the JSC constituent responses, given that these responses presented different points of view not just from ALA/31 but from each other. I therefore requested that JSC consideration of Area 3 proposals be tabled until the next JSC meeting (April 2-4, 2001, Library of Congress, Washington, DC). JSC agreed.

During the months of October and November, members of MAGERT's Cataloging and Classification Committee (CCC), and members of the Anglo-American Cataloguing Committee for Cartographic Materials (AACCCM) read and responded, in emails to me, to the JSC responses to ALA/31. The following group of rule proposals is composed of the joint opinion of the MAGERT CCC. This group of rule proposals also includes rule proposals in 4JSC/ALA/31/ALA follow-up; this latter inclusion was at the express request of JSC, who preferred to have one document of cartographic-materials proposals, rather than two. In the weeks following ALA Midwinter 2001 up to the first week of February, the same groups responded to followup matters noted in the beginning of this memo.

B. List of rule proposals

Itemized below are the proposals, some of which were discussed at ALA Midwinter 2001* and some of which were discussed at previous ALA CC:DA meetings**.

- 3.0A1 **
- 3.3 *
- 3.3A1 *
- 3.3A3 *
- 3.3B1 *
- 3.3B3 *
- 3.3B4 *
- 3.3B5 *
- 3.3B6 *
- 3.3B7 *
- 3.3B8 ** (since JSC agreed with what was presented)
- 3.3B9 *
- 3.3C2 *
- 3.3D1 *
- 3.3D2 withdrawn, and therefore does not appear in this package
- 3.3E *
- 3.3F *
- 3.3G and 3.3G1 *
- 3.3H *
- 3.5C2 *
- 3.7B2 **
- 3.7B8 **
- 3.7B10 **
- 3.7B12 **
- Glossary **

C. Method of presentation of proposals

Each proposal – except the ones that have no JSC constituent responses and therefore need not be discussed at the ALA Midwinter 2001 meeting which has resulted in this final document – is composed of three sections:

- I. Original ALA proposal;
- II. JSC responses;
- III. MAGERT response, with revised rule proposal as appropriate.

Over the years that I have been a CC:DA member, one matter which has somewhat irritated me has been flipping through the pages of several documents in order to get all of the responses to a proposal. I have therefore compiled these, on the grounds that it makes it quicker and easier for us in CC:DA to have all pertinent information for a proposal in one place, rather than having to hunt around for it. I realize this is not the traditional method of CC:DA presentation, and am requesting that we give it a try. This method has certainly worked very well, over the past two months, for getting opinions from all MAGERT CCC and AACCCM members.

3.0A1

I. ALA proposal

The scope for cartographic materials uses the term navigational when it should be nautical, since all charts are navigational (see also request for Glossary changes). Also, in keeping with the requested change in the specific material designation, the phrase *map section* should be changed to *section*.

CURRENT RULE

3.0A1. The rules in this chapter cover the description of cartographic materials of all kinds. Cartographic materials include all materials that represent the whole or part of the earth or any celestial body. These include two- and three-dimensional maps and plans (including maps of imaginary places); aeronautical, navigational, and celestial charts; atlases; globes; block diagrams; map sections; aerial photographs with a cartographic purpose; bird's-eye views (map views); etc. They do not cover in detail the description of early or manuscript cartographic materials, though the use of an additional term in the physical description (see 3.5B) and/or the use of the specific instructions in chapter 4 will furnish a sufficiently detailed description for the general library catalogue. For items falling within the scope of other chapters but presenting cartographic information (e.g., some wall charts, some playing cards), consult the rules in this chapter in conjunction with those of the chapter appropriate to the item.

PROPOSED RULE

3.0A1. The rules in this chapter cover the description of cartographic materials of all kinds. Cartographic materials include all materials that represent the whole or part of the earth or any celestial body. These include two- and three-dimensional maps and plans (including maps of imaginary places); aeronautical, ~~navigational~~ nautical, and celestial charts; atlases; globes; block diagrams; ~~map~~ sections; aerial photographs with a cartographic purpose; bird's-eye views (map views); etc. They do not cover in detail the description of early or manuscript cartographic materials, though the use of an additional term in the physical description (see 3.5B) and/or the use of the specific instructions in chapter 4 will furnish a sufficiently detailed description for the general library catalogue. For items falling within the scope of other chapters but presenting cartographic information (e.g., some wall charts, some playing cards), consult the rules in this chapter in conjunction with those of the chapter appropriate to the item.

3.3

I. Original ALA proposal

Because rules are being added to accommodate additional material-specific details for cartographic electronic resources, it would be helpful to indicate the order of the information for Area 3. The cartographic community would like the more general File characteristics information to precede the specific details of a cartographic electronic resource. Additionally, since a cartographic item can also be an electronic resource and/or be issued serially, it would be helpful to indicate the overall order for Area 3 when multiple chapters are consulted in cataloguing.

CURRENT RULE

3.3. MATHEMATICAL DATA AREA

Contents:

- 3A. Preliminary rule
- 3B. Statement of scale
- 3C. Statement of projection
- 3D. Statement of coordinates and equinox

PROPOSED RULE

3.3. MATHEMATICAL AND OTHER MATERIAL-SPECIFIC DETAILS DATA AREA

Contents:

- 3A. Preliminary rule
- 3B. Statement of scale
- 3C. Statement of projection
- 3D. Statement of coordinates and equinox
- 3E. File characteristics
- 3F. Digital graphic representation
- 3G. Geospatial reference data
- 3H. Numeric and other data related to serials

3.3 (continued)

II. JSC responses

ACOC RESPONSE

3.3 The Australian Committee on Cataloguing supports the change of name for the area, and the addition of the elements 'Digital graphic representation' and 'Geospatial reference data'. Providing there are no overriding reasons for the order given, we would prefer that the order of these two elements be reversed so that it parallels the order in MARC 21.

JSC may also wish to consider treating 'File characteristics' and 'Numeric and other data related to serials' as part of a new generic order of preference in 1.3.

3.3. MATHEMATICAL AND OTHER MATERIAL-SPECIFIC DETAILS DATA AREA

Contents:

- 3A. Preliminary rule
- 3B. Statement of scale
- 3C. Statement of projection
- 3D. Statement of coordinates and equinox
- 3E. File characteristics
- 3F. Geospatial reference data
- 3G. Digital graphic representation
- 3H. Numeric and other data related to serials

CCC RESPONSE

3.3 CCC agrees.

LC RESPONSE

3.3: (1) We agree with the proposal to rename area 3. (2) Regarding the inclusion of "3E. File characteristics" under "Contents;" we wish to defer consideration until a decision regarding area 3 for chapter 9 has been made.

3.3 (continued)

III. ALA response

1. We thank JSC for agreeing to the renaming of 3.3.
2. We note that the decision to retain area 3 in Chapter 9 has been made so therefore the inclusion of 3.3E (File characteristics) is acceptable.
3. After considerable discussion of our experience cataloging electronic cartographic materials, the map-library community requests that 3.3G (Geospatial reference data) be removed from area 3 and that instead this information be included in area 7 as a note on area 3. We have therefore taken 3.3G (Geospatial reference data) out of 3.3, and instead have written a revised 3.7B8 which includes an example of this information. The former 3.3H (Numeric and other data related to serials) is now 3.3G.
4. While generally it is not appropriate to use the M word (MARC 21) in an AACR2 rule discussion, since this was specifically mentioned (relating to the order of information – that is, in the ACOC response, that 3.F and 3.G should be reversed, to match MARC order) we are addressing the matter.

The new MARC fields for electronic cartographic materials were presented to MARBI – in 1994 – because of a U.S. Presidential Executive Order that directed all Federal agencies to begin using the Content Standard for Digital Geospatial Data effective January 1 of 1995. None of us had any cataloging experience using these fields and yet it was essential that these fields be approved by MARBI in sufficient time that Federal agencies would be able to use the fields in a MARC environment. Thus at the time the proposal was prepared, we were forced to work by sheer logic, and decided that it made sense within that context to have 3F (e.g., “Raster ; pixel”; MARC 352) come after 3G (detailed projection, grid, etc., information; MARC 343 and 343) so that it would follow as closely as possible after the projection information that is given in MARC 255 subfield b. MARBI was very understanding of the entire situation, and approved the fields as provisional.

As we catalog more and more digital geospatial data, we have come to the realization that while our initial theorization – that users need to know whether an electronic item is raster or vector very early on (since it determines what software may be used to manipulate the data) – is correct, the detailed projection, grid, etc., information is more appropriately given in Area 7.

3.3 (continued)

PROPOSED RULE

3.3. MATHEMATICAL AND OTHER MATERIAL-SPECIFIC DETAILS DATA AREA

Contents:

- 3A. Preliminary rule
- 3B. Statement of scale
- 3C. Statement of projection
- 3D. Statement of coordinates and equinox
- 3E. File characteristics
- 3F. Digital graphic representation
- 3G. Numeric and other data related to serials

3.3A1

I. No ALA original proposal

This came about from JSC responses to ALA proposal for 3.3A3.

II. JSC responses

CCC RESPONSE (from 3.3A3)

We suggest that only an additional statement be given at rule **3.3A1. Punctuation** (cf. 1.8A1):

CURRENT TEXT

3.3A1. Punctuation

For instructions on the use of spaces before and after prescribed punctuation, see 1.0C.

Precede this area by a full stop, space, dash, space.

Precede the projection statement by a semicolon.

Enclose the statement of coordinates and equinox in one pair of parentheses.

If both coordinates and equinox are given, precede the statement of equinox by a semicolon.

Precede the statement of epoch by a comma.

PROPOSED TEXT

3.3A1. Punctuation

For instructions on the use of spaces before and after prescribed punctuation, see 1.0C.

Precede this area by a full stop, space, dash, space.

Precede each repetition of this area by a full stop, space, dash, space.

Precede the projection statement by a semicolon.

Enclose the statement of coordinates and equinox in one pair of parentheses.

If both coordinates and equinox are given, precede the statement of equinox by a semicolon.

Precede the statement of epoch by a comma.

Furthermore, given that this area now stipulates other material specific details (i.e., file characteristics, digital graphic representation, geo-spatial reference data, and numeric and other data related to serials), augmenting rule **3.3A1** to encompass the details now appearing in the new subrules should also be considered.

3.3A1 (continued)

LC RESPONSE (for 3.3F-3.3G)

Nevertheless, we recommend that at least the punctuation of the data elements be included in AACR2. Suggested revision for 3.3A1:

3.3A1. Punctuation

For instructions on the use of spaces before and after prescribed punctuation, see 1.0C.

Precede this area by a full stop, space, dash, space.

Precede the projection statement by a semicolon.

Enclose the statement of coordinates and equinox in one pair of parentheses.

If both coordinates and equinox are given, precede the statement in one pair of parentheses.

Precede the statement of epoch by a comma.

Precede the object type by a space, colon, space.

Precede the format name by a space, semicolon, space.

Enclose each statement on the number of objects in parentheses after the object type.

If both point/vector object count and VPF level are given, precede the VPF level by a space, semicolon, space.

Enclose each set of projection or ellipsoid parameters in parentheses.

Separate the multiple parameters by a space, semicolon, space.

Precede the secondary/related reference method by a space, colon, space.

III. ALA response

We agree with JSC responses that note that the repeatability of an area, and the punctuation, need to appear in 3.3A1 and are not appropriate in 3.3A3.

The Canadian members of the Anglo-American Cataloguing Committee for Cartographic Materials (AACCCM) have kindly written the following response.

We agree with the CCC proposal for the addition of :

Precede each repetition of this area by a full stop, space, dash, space.

and with the LC proposal to add the punctuation for the new rules. The LC proposal has a typographical error:

If both coordinates and equinox are given, precede the statement in one pair of parentheses.

This should read:

If both coordinates and equinox are given, precede the statement of equinox by a semicolon.

3.3A1 (continued)

In addition, we would like to move the instructions for object count to follow the instruction for object type, as this arrangement more closely follows the order of the rules. Since we have recommended that 3.3G (Geospatial reference data) information be included in a note (3.7B), we have deleted these three sentences - which appear in the LC proposal - from the following proposed rule :

Enclose each set of projection or ellipsoid parameters in parentheses.
Separate the multiple parameters by a space, semicolon, space.
Precede the secondary/related reference method by a space, colon, space.

PROPOSED TEXT

3.3A1. Punctuation

For instructions on the use of spaces before and after prescribed punctuation, see 1.0C.

Precede this area by a full stop, space, dash, space.

Precede each repetition of this area by a full stop, space, dash, space.

Precede the projection statement by a semicolon.

Enclose the statement of coordinates and equinox in one pair of parentheses.

If both coordinates and equinox are given, precede the statement of equinox by a semicolon.

Precede the statement of epoch by a comma.

Precede the object type by a space, colon, space.

Enclose each statement on the number of objects in parentheses after the object type.

Precede the format name by a space, semicolon, space.

If both point/vector object count and VPF level are given, precede the VPF level by a space, semicolon, space.

3.3A3

I. Original ALA proposal

In 1982 the MARC format was changed because of the difficulty in coding multiple scales in a machine-readable record for an item with two unrelated scales. This change forced the use of separate scale statements, to enable MARC coding, rather than combining the information in a single scale statement. The cartographic community believes this new rule is needed to clearly indicate that Area 3 can contain multiple scale statements or Area 3 information as directed in chapter 9 and/or chapter 12.

NEW RULE

3.3A3. This area is repeatable.

If more than one material specific detail area is required, give them in the following order: mathematical data, file characteristics, including digital graphic representation and geospatial reference data, and numeric and/or alphabetic, chronological, or other designation.

Scale not applicable (W 138°59'—W 93°47'/N 74°25'—N 69°16'). —Computer data (17 files : 692,560,000 bytes)

II. JSC responses

ACOC RESPONSE

3.3A3 This new rule proposal is attempting to address both the order in which to record the materials specific details, and the repeatability of the field.

The order in which to record the material specific details is covered sufficiently by the revision of rule 3.3. Throughout AACR2 areas of the description of an item are governed by their order in the rules, and a specific rule is not required for this purpose.

The proposed wording, 'this area is repeatable,' does not conform to aACR2 style conventions. We believe an additional statement at rule 3.3A1 as proposed in the 4JSC/ALA/31/CCC response is a better solution. We also agree with the 4JSC/ALA/31/CCC response that repetition of the same material specific data is covered by rules 3.3B3 to 3.3B6. See also our later comments on rule 3.3B4.

If JSC does decide to add this new rule, 'detail' should be replaced with 'details' as in rule 1.3. The Australian Committee on Cataloguing does not agree with the new rule proposal 3.3B9 regarding scale for electronic resources, and therefore does not agree with the example provided. It would also be more helpful to include two more examples, one incorporating multiple scale statements and another incorporating numeric or other serials related data.

3.3A3 (continued)

CCC RESPONSE

3.3A3. The proposed wording “This area is repeatable” does not conform to AACR language and style. We suggest that only an additional statement be given at rule **3.3A1**.

Punctuation (cf. 1.8A1):

CURRENT TEXT

3.3A1. Punctuation

For instructions on the use of spaces before and after prescribed punctuation, see 1.0C.

Precede this area by a full stop, space, dash, space.

Precede the projection statement by a semicolon.

Enclose the statement of coordinates and equinox in one pair of parentheses.

If both coordinates and equinox are given, precede the statement of equinox by a semicolon.

Precede the statement of epoch by a comma.

PROPOSED TEXT

3.3A1. Punctuation

For instructions on the use of spaces before and after prescribed punctuation, see 1.0C.

Precede this area by a full stop, space, dash, space.

Precede each repetition of this area by a full stop, space, dash, space.

Precede the projection statement by a semicolon.

Enclose the statement of coordinates and equinox in one pair of parentheses.

If both coordinates and equinox are given, precede the statement of equinox by a semicolon.

Precede the statement of epoch by a comma.

Furthermore, given that this area now stipulates other material specific details (i.e., file characteristics, digital graphic representation, geo-spatial reference data, and numeric and other data related to serials), augmenting rule **3.3A1** to encompass the details now appearing in the new subrules should also be considered.

Since rule **3.3A1. Punctuation** indicates that this area is repeatable, the new rule **3.3A3** would then only have to stipulate the order of the material specific details as follows:

3.3A3. If more than one material specific detail area is required, give them in the following order: mathematical data, file characteristics, including digital graphic representation and geospatial reference data, and numeric and or alphabetic, chronological, or other designation.

Scale not applicable (W 138°59'—W 93°47'/N 74°25'—N 69°16'). — Computer data (17 files ; 692,560,000 bytes)

With regard to repetition of the same material specific data (e.g., scale statement) it appears that rules 3.3B3 to 3.3B6 already address these situations. Please see also our comments at **3.3B4**, **3.3B5** and **3.3B6**.

3.3A3 (continued)

LC RESPONSE

3.3A3: (1) The first sentence in the proposal (“This area is repeatable.”) is already covered by 0.25. Therefore, we recommend that it not be included in 3.3A3. (If retained, the same statement would need to be added to 5.3, 9.3 (if retained), 11.3, and 12.3.) (2) We agree with the proposal to specify the order of the area 3 data elements. (The proposal to include “file characteristics” will need to be deferred until a decision regarding area 3 for chapter 9 has been made.)

III. ALA response

We agree that the first statement (“This area is repeatable”) is now covered by the addition to 3.3A1 and so is no longer necessary.

We would like to amend further the wording of the proposed rule; since we have recommended that 3.3G (Geospatial reference data) information be included in a note (3.7B8), the phrase, “geospatial reference data,” has been deleted from the sentence.

PROPOSED RULE

3.3A3. If more than one material specific detail area is required, give them in the following order: mathematical data; file characteristics; digital graphic representation; and numeric and/or alphabetic, chronological, or other designation.

Scale not given (W 138°59'—W 93°47'/N 74°25'—N 69°16'). — Electronic data

Note: MAGERT thanks the Canadian contingent of AACCCM for writing the bulk of this response.

3.3B1

I. Original ALA proposal

In providing a scale statement, the rules currently instruct a cataloguer to base the statement on the following types of scale information, in the following order of preference

- 1) a representative fraction (e.g. 1:1,000,000)
- 2) a verbal statement of scale (e.g. one to a million, 1 inch = 1 mile)
- 3) a bar scale, which graphically represents the scale based on the length of a line,
or
a grid of known scale (e.g. latitude and longitude, township and range system)
- 4) comparison with another item of known scale.

In order to provide a scale using the third method a cataloguer must use a cataloguing tool known as a natural scale indicator to determine a representative fraction by placing it along the base line of the bar scale or line in the grid, and estimating where the line crosses the scale indicator, which is rarely on a line of exact scale. This method results in an estimated scale rather than a computed scale and thus the change in the language in the fourth paragraph of the rule.

In practice, most cataloguing institutions which deal with cartographic materials, including the Library of Congress, cannot afford to determine a scale by comparison to a item of known scale. Since the statement *Scale indeterminable* is not an accurate statement when an agency judges that it is too costly to attempt comparison, the cartographic community has been using the statement *Scale not given*, as was the phrasing in AACR1. We believe that this practice should be codified in the rule, while still providing for the option to determine a scale through comparison for those agencies for whom giving scale is a necessity.

3.3B1 (continued)

CURRENT RULE

3.3B1. Give the scale of a cartographic item (except as noted below) as a representative fraction expressed as a ratio (1:). Precede the ratio by *Scale*. Give the scale even if it is already recorded as part of the title proper or other title information.

Scale ca. 1:36,000,000
(*Scale as it appears on the item*)

Bartholomew one inch map of the Lake District [GMD]. — Rev. — Scale 1:63,360

If a scale statement found in the chief source of information or accompanying material is not expressed as a representative fraction give it as a representative fraction in square brackets.

Scale [1:253,440]
(*Scale statement reads: 1 inch to 4 miles*)

If a representative fraction or other scale statement is found in a source other than the chief source of information or accompanying material (e.g., on a container or case not used as the chief source), give the scale as a representative fraction in square brackets.

Scale [1:63,360]

If no scale statement is found in the chief source of information or accompanying material or on the item's container or case, compute a representative fraction from a bar graph or a grid or by comparison with a map of known scale, and give it in square brackets preceded by *ca.*

Scale [ca. 1:63,360]

If no scale can be determined by any of the above means, give *Scale indeterminate*.

3.3B1 (continued)

PROPOSED RULE

3.3B1. Give the scale of a cartographic item (except as noted below) as a representative fraction expressed as a ratio (1:). Precede the ratio by *Scale*. Give the scale even if it is already recorded as part of the title proper or other title information.

Scale ca. 1:36,000,000
(*Scale as it appears on the item*)

Bartholomew one inch map of the Lake District [GMD]. — Rev. — Scale 1:63,360

If a scale statement found in the chief source of information or accompanying material is not expressed as a representative fraction give it as a representative fraction in square brackets.

Scale [1:253,440]
(*Scale statement reads: 1 inch to 4 miles*)

If a representative fraction or other scale statement is found in a source other than the chief source of information or accompanying material (e.g., on a container or case not used as the chief source), give the scale as a representative fraction in square brackets.

Scale [1:63,360]

If no scale statement is found in the chief source of information or accompanying material or on the item's container or case, ~~compute~~ estimate a representative fraction from a ~~bar graph scale~~ graph scale or a grid ~~or by comparison with a map of known scale, and give it in square brackets preceded by ca.~~ Give the representative fraction preceded by ca. in square brackets.

Scale [ca. 1:63,360]

If no scale can be determined by any of the above means, give *Scale* ~~indeterminable~~ not given. Optionally, estimate a scale by comparison with a map of known scale and give it in square brackets preceded by ca. If no scale can be determined by either estimation or comparison, give the statement *Scale indeterminable*.

3.3B1 (continued)

II. JSC responses

ACOC RESPONSE

3.3B1 The Australian Committee on Cataloguing supports the revised wording as it is more accurate, i.e., replacing 'compute' with 'estimate', and 'bar graph' with 'bar scale'.

We also agree that estimation of the scale by comparison with another map should be optional, as is appropriate to the third level of description. We do not agree with the proposed re-wording in 4JSC/ALA/31/CCC response, as this would reverse the change. It is not usual in AACR2 to make the optional provision the one which supplies less information.

The following typing error should be corrected: 'preceeded' should be spelt 'preceded'.

CCC RESPONSE

3.3B1. We suggest the following rewording of the fourth to sixth paragraphs of this rule.

PROPOSED TEXT

If no representative fraction or verbal scale is found in the chief source of information or accompanying material or on the item's container or case, estimate a representative fraction from a bar scale or a grid. Give in square brackets the representative fraction preceded by *ca.*

Scale [ca. 1:63,360]

If no scale statement or grid is found in the chief source of information or accompanying material or on the item's container or case, estimate a scale by comparison with a map of known scale and give in square brackets the representative fraction preceded by *ca.* *Optionally, give Scale not given.*

If no scale can be determined by any of the above means, give *Scale indeterminable.*

3.3B1 (continued)

LC RESPONSE

3.3B1: (1) We agree with the proposed revisions to the fourth and fifth paragraphs. (2) Regarding the “optionally” statement, we recommend deleting “either estimating or” since the entire option is dealing with comparison. Also, we strongly recommend that “*Scale indeterminable*” in the option be replaced by “*Scale not given*” so that the same terminology would be used both when the scale cannot be estimated and when the scale cannot be compared. We do not think that users would grasp the subtle differences. Suggested revision for the final paragraph:

Optionally, estimate a scale by comparison with a map of known scale and give it in square brackets preceded by ca. If no scale can be determined by comparison, give the statement *Scale not given*.

LC RESPONSE (for 3.3B9)

In addition, we recommend that the standard terminology “*Scale not given*” be used whenever the scale is not recorded for whatever reason. Suggested revision:

3.3B1. [Add as the final paragraph:]

For electronic resources, give the scale if the resource has a scale statement or if the scale is already recorded as part of the title proper or other title information. Otherwise, give *Scale not given*.

III. ALA response

Generally we are in agreement with the ACOC and LC responses. We do maintain that there is a difference between “Scale not given” and “Scale indeterminable,” but we can live with using only “Scale not given.” We also note that the CCC response has a better wording for the last sentence of the fourth paragraph, and have therefore substituted that sentence for the one in the original ALA proposed rule.

The following proposed rule now deals with the following situations:

- a. when scale should be bracketed;
- b. how scale should be determined (by computation, estimation, or comparison);
- c. when “Scale not given” and “Scale indeterminable” are to be used; and
- d. how to indicate scale for electronic cartographic materials.

3.3B1 (continued)

PROPOSED RULE

3.3B1. Give the scale of a cartographic item (except as noted below) as a representative fraction expressed as a ratio (1:). Precede the ratio by *Scale*. Give the scale even if it is already recorded as part of the title proper or other title information.

Scale ca. 1:36,000,000
(*Scale as it appears on the item*)

Bartholomew one inch map of the Lake District [GMD]. — Rev. — Scale 1:63,360

If a scale statement found in the chief source of information or accompanying material is not expressed as a representative fraction give it as a representative fraction in square brackets.

Scale [1:253,440]
(*Scale statement reads: 1 inch to 4 miles*)

If a representative fraction or other scale statement is found in a source other than the chief source of information or accompanying material (e.g., on a container or case not used as the chief source), give the scale as a representative fraction in square brackets.

Scale [1:63,360]

If no scale statement is found in the chief source of information or accompanying material nor on the item's container or case, ~~compute~~ estimate a representative fraction from a ~~bar graph scale~~ or a grid ~~or by comparison with a map of known scale, and give it in square brackets preceded by ca.~~ Give in square brackets the representative fraction preceded by ca.

Scale [ca. 1:63,360]

If no scale can be determined by any of the above means, give *Scale* ~~indeterminable~~ not given.

Optionally, estimate a scale by comparison with a cartographic item of known scale and give it in square brackets preceded by ca. If no scale can be determined by comparison, give the statement *Scale not given*.

For electronic resources, give the scale if the resource has a scale statement or if the scale is already recorded as part of the title proper or other title information. Otherwise, give *Scale not given*.

Scale 1:3,000,000
(*Scale appears in title: ArcWorld 1:3M*)

3.3B3

I. There is no ALA proposal for this rule.

II. JSC responses

LC RESPONSE

3.3B3: There is no rule revision proposal in 4JSC/ALA/31 for 3.3B3, but there are proposals to change “*Scales vary*” to “*Scales differ*” in 3.3B5 and 3.3B6, which we support. The proposed changes to 3.3B5 and 3.3B6 suggest that “*Scale varies*” in 3.3B3 should be changed to “*Scale not given*” when the scale values are not known. This proposed change in 3.3B3 would remove from AACR2 altogether the existing confusion created by the two terminologies “*Scale varies*” and “*Scales vary*.” Also, “*Scale not given*” seems the more accurate terminology for the situation being addressed. Suggested revision for the last paragraph in 3.3B3:

If the values are not known, give *Scale ~~varies~~ not given*.

III. ALA response

There is a qualitative difference between “*Scale varies*” and “*Scale not given*.” We consider this to be important information for the user and request that the rule stay as is.

3.3B4

I. Original ALA proposal

The requested modification reflects the addition of **3.3A3** and the 1982 change to the MARC format requiring separate machine-readable fields to record two unrelated scales.

CURRENT RULE

3.3B4. If the description is of a multipart item with two scales, give both. Give the larger scale first.

Scale 1:100,000 and 1:200,000

PROPOSED RULE

3.3B4. If the description is of a multipart item with two scales, give both in separate scale statements. Give the larger scale first.

Scale 1:100,000 ~~and~~ . — Scale 1:200,000

II. JSC responses

ACOC RESPONSE

3.3B4 The Australian Committee on Cataloguing agrees that rule 3.3B4 should be altered to allow for separate statements of scale.

However we also support the CCC proposal in 4JSC/ALA/31/CCC response that rules 3.3B4 and 3.3B5 are equally applicable to single part items, and that therefore 'multipart' be replaced by 'cartographic' in each. We further note that the present definition of 'multipart' in the glossary does not refer to cartographic materials, but refers specifically to monographic items.

As noted in 4JSC/ALA/31/CCC response, rule 3.7B8 should be revised accordingly.

3.3B4 (continued)

CCC RESPONSE

3.3B4 and 3.3B5. We do not understand why these two rules are applicable only to multipart items and not to single part items. We propose that “multipart” be replaced by “cartographic” (cf. 3.3B6). These proposed revisions to 3.3B4 and 3.3B5 are reflected in our comments below.

3.3B4. We do not support this proposal in its entirety. We feel that in cases when projection and/or coordinates are the same in a cartographic item, it is unnecessary to repeat that information in separate scale statements. We would like to propose the following as an option in such cases. Rule 3.3B4 would read as follows:

3.3B4. If the description is of a cartographic item with two scales, give both in separate scale statements. Give the larger scale first.

Scale 1:100,000. — Scale 1:200,000

Optionally, if the projection and/or coordinates are the same in a cartographic item with two scales, give both and give the larger scale first.

Scale 1:50,000 and 1:250,000 (W 80°—W 78°/N 47°—N 46°)

LC RESPONSE

3.3B4-3.3B6: Having more than one scale listed in the scale statement creates confusion for users since the scale order is not related to the titles of the cartographic items being transcribed in the title and responsibility area. Therefore, we propose restricting the scale statement to a single scale. The result is that if the cartographic items has more than one scale, we are recommending using “*Scales differ*” in the scale statement. We wish to point out that 3.7B8 already makes provision for giving multiple scales in the note area. Suggested revisions:

3.3B4. If the description is of a multipart item with two or more scales, give ~~both~~ *Scales differ*. ~~Give the larger scale first.~~

~~Scale 1:100,000 and 1:200,000~~

~~**3.3B5.** If the description is of a multipart item with three or more scales, give *Scales vary*.~~

3.3B6. In describing a cartographic item in which all the main maps are of one scale, ~~or two scales,~~ give the scale, ~~or both scales (in the latter case give the larger scale first).~~ If the main maps are of two ~~three~~ or more scales, give *Scales vary* differ.

Renumber **3.3B7** as **3.3B6** and **3.3B8** as **3.3B7**.

3.3B4 (continued)

III. ALA response (for 3.3B4 through 3.3B6)

1. We agree with the CCC idea of having the rules cover all cartographic materials, rather than just multipart items. There will thus be just one rule, and therefore the current 3.3B7 and 3.3B8 are renumbered as 3.3B5 and 3.3B6.
2. Re the ACOC comment that “multipart item” as currently defined in the AACR2R glossary does not include cartographic materials: after much consultation of the glossary and various dictionaries, we were saved by Judy Kuhagen’s noting JSC’s tentative approval of the following glossary entries, which take care of this problem:

Monograph. A bibliographic resource that is complete in one part or intended to be completed within a finite number of parts.

Multipart item. A monograph complete, or intended to be completed, in a finite number of separate parts. The separate parts may or may not be numbered.

3. We agree that when there is more than one title in the title statement, with the different main cartographic items having more than one scale and therefore more than one scale statement may be given, the scale statements should be in the same order as the titles are given in area 1, rather as per the CCC response, in which the largest scale is given first. Where there is only one title (e.g., a collective title) in the title statement, then largest scale is given first.
4. Re the situation when the projection and coordinates are the same, with only the scale being different: It does seem more clear to us to have one scale statement per item in this situation, and current cataloging software makes copying and pasting the first mathematical-data statement (to use as a base for other scale statements) quick and easy. Nonetheless, having all scales in one mathematical statement in such a situation is the briefer way for the cataloger to express this information. We have therefore written the proposed rule with that method as the rule, and using more than one mathematical-data statement as the option.
5. Re LC’s response concerning using “Scales differ” when there is more than one scale, instead of the current rule of using “Scales differ” when there are more than two scales: we would prefer that there be an “Optionally” statement which allows catalogers to give as many scale statements as are appropriate, given the users of the item(s) being cataloged. This is especially appropriate, given JSC’s consideration of “rule of three” changes so that optionally as many entries as the cataloger believes are required by the users may be made for, e.g., authors and titles. There are, as noted in 3 above, two situations: where there is only one title (e.g., a collective title) in the title statement; and where there is more than one title in the title statement. For the latter situation, since neither 3.1G2 nor 1.1G3 limit the number of titles that may be given for a cartographic item lacking a collective title, this would allow catalogers to provide as many mathematical-data statements as there were titles.

3.3B4 (continued)

6. Since the three rules have now become one, the following justification for 3.3B5 is given here: In practice, because of the confusion about the difference between *Scales vary*, used when a cartographic item contains maps at more than two scales, and *Scale varies*, used when a single map is drawn at more than one scale (e.g., a perspective map in which the foreground and background scales differ), the cartographic cataloguing community uses *Scales differ* rather than *Scales vary*.
7. Following is the proposed rule, which is in the main a substitution of ALA's proposed rule 3.3B6.

PROPOSED RULE

~~3.3B4. If the description is of a multipart item with two scales, give both. Give the larger scale first.~~

Scale 1:100,000 and 1:200,000

~~3.3B5. If the description is of a multipart item with three or more scales, give *Scales vary*.~~

~~3.3B64. In describing a cartographic item in which all the main maps, etc. are of more than one or two scales, give the scale or both scales (in the latter case give the larger scale first). If the main cartographic items are of three or more scales, give *Scales vary differ*.~~

Optionally:

- a. If the description is of a cartographic item with two or more scales, when projections and/or coordinates are also different for each main item, give each scale in a separate scale statement. When there is more than one title, give the scale statements in the same order in which the titles are given. When there is only one title, give the largest scale first.

Scale 1:50,000 (W 94°42'04"—W 93°00'00"/N 49°00'00"—N 48°31'00"). — Scale 1:250,000 (W 94°43'—W 92°00'/N 49°00'—N 48°13')

- b. If the description is of a cartographic item with two or more scales, when projection and coordinates are the same for each main item, give the scales in one scale statement. When there is more than one title, give the scales in the same order in which the titles are given. When there is only one title, give the largest scale first.

Scale 1:7,819,000 and [ca. 1:15,000,000] (E 66°—E 138°/N 54°—N 18°)

Optionally, give each scale with its associated mathematical data in separate scale statements.

3.3B4 (continued)

Scale 1:7,819,000 (E 66°—E 138°/N 54°—N 18°). — Scale [ca. 1:15,000,000] (E 66°—E 138°/N 54°—N 18°)

3.3B5 WITHDRAWN 1/2001

3.3B6 WITHDRAWN 1/2001

3.3B7

I. Original ALA proposal

Because many cartographic items which fall under this rule do not include scale information, the cartographic community wants to clarify that when the item has a scale, which is generally the case, then *Scale not given* (see 3.3B1) is more accurate than *Not drawn to scale*. The community feels the addition of the word *consistent* clarifies the rule. Note that because 3.3B5 and 3.3B6 have been withdrawn, this rule is now 3.3B5.

CURRENT RULE

3.3B7. Give a statement of scale for celestial charts, maps of imaginary places, views (bird's-eye views or map views), and maps with nonlinear scales only if the information appears on the item. If the item is not drawn to scale, give *Not drawn to scale*.

Scale 1' per 2 cm.

PROPOSED RULE

3.3B7~~5~~. Give a statement of scale for ~~celestial charts, some maps of imaginary places, and other~~ cartographic items with nonlinear scales (e.g., celestial charts; some maps of imaginary places) only if the information appears on the item. If no scale statement is found on the item, give *Scale not given*. If the item is not drawn to scale, give *Not drawn to scale*. Do not estimate a scale.

Scale 1' per 2 cm.

II. JSC responses

ACOC RESPONSE

3.3B7 The Australian Committee on Cataloguing does not agree with the change in terminology from 'charts' to 'maps', as charts is a more accurate term.

The rationale for MAGERT's proposal is confusing, however we agree that there is a need to clarify this rule. The intent of the rule is twofold: to instruct cataloguers on how to deal with celestial charts etc. which do not have a consistent scale, and to divert them from estimating a scale for these types of materials. ACOC would prefer the following wording:

3.3B7. If no scale statement is found on celestial charts, maps of imaginary places, views (bird's-eye views or map views), and maps with nonlinear scales, give *Scale not given*. If the item is not drawn to a consistent scale, give *Not drawn to scale*. Do not estimate a scale.

Scale 1' per 2 cm.

3.3B7 (continued)

CCC RESPONSE

3.3B7. CCC is aware that this rule proposal is to be withdrawn and that a new definition for chart is being proposed. In light of this, CCC does not support the proposal in the current document.

LC RESPONSE

3.3B7: We agree with the proposal.

III. ALA response

1. We agree that “maps” should not be substituted for “charts”, since there are celestial maps that are not celestial charts. This rule is intended to apply not to all celestial maps but rather to those charts that have an angular rather than a linear scale.
2. After double-checking with cartographers, we found that both views and perspective maps are indeed drawn to a linear scale (although it varies), and should not be included in this rule. This rule is intended for maps drawn to non-linear scales, e.g., celestial charts and cartograms. Therefore the phrase “views (bird’s-eye views or map views)” should be deleted, as should the word “consistent”. For examples respectively of a perspective map and a view, see these URLs (CAUTION: files are large):
http://www.sdc.ucsb.edu/projects/ml_sacramento_map.gif
http://www.sdc.ucsb.edu/projects/ml_UCSD_map.gif
3. Maps of imaginary places can have the following types of scale: scale not given; scale in standard linear units (e.g., miles); scale in mythical linear units; and scale in nonlinear units. Therefore, “maps of imaginary places” has been prefaced with the word, “some.”
4. Note that since 3.3B4, 3.3B5, and 3.3B6 have been collapsed into one rule, this is now 3.3B5.

PROPOSED RULE

3.3B7~~5~~. Give a statement of scale for cartographic items with nonlinear scales (e.g., celestial charts; ~~some~~ maps of imaginary places), ~~views (bird’s-eye views or map views), and maps with nonlinear scales~~ only if the information appears on the item. If no scale statement is found on the item, give *Scale not given*. If the item is not drawn to scale, give *Not drawn to scale*. Do not estimate a scale.

Scale 1’ per 2 cm.

If an item is not drawn to scale, give *Not drawn to scale*. Do not estimate a scale.

3.3B8

I. Original ALA proposal

When three-dimensional cartographic models are reproduced in two dimensions the vertical scale or vertical exaggeration information is often provided and it has relevance to the two-dimensional item. The cartographic community therefore wants to include this information in the bibliographic record.

CURRENT RULE

3.3B8. In describing a relief model or other three-dimensional item, give the vertical scale (specified as such) after the horizontal scale if the vertical scale can be ascertained.

Scale 1:744,080. 1 in. to ca. 28 miles. Vertical scale ca. 1:96,000

Scale 1:250,000. Vertical exaggeration 1:5

PROPOSED RULE

3.3B8. In describing a relief model or other three-dimensional item, or a two-dimensional representation of a three-dimensional item (e.g., block diagram, profile), give the vertical scale (specified as such) after the horizontal scale if the vertical scale can be ascertained.

Scale 1:744,080. 1 in. to ca. 28 miles. Vertical scale ca. 1:96,000

Scale 1:250,000. Vertical exaggeration 1:5

II. JSC responses

ACOC RESPONSE

3.3B8 The Australian Committee on Cataloguing supports the proposed revision.

CCC RESPONSE

3.3B8 CCC agrees.

LC RESPONSE

3.3B8: We agree with the proposal.

3.3B8 (continued)

III. ALA response

We thank JSC for its favorable consideration of this rule proposal. Note that due to the collapsing of the three rules 3.3B4, 3.3B5 and 3.3B6 into one rule (3.3B4), this is now 3.3B6.

PROPOSED RULE

3.3B86. In describing a relief model ~~or~~ other three-dimensional item, or a two-dimensional representation of a three-dimensional item (e.g., block diagram, profile), give the vertical scale (specified as such) after the horizontal scale if the vertical scale can be ascertained.

Scale 1:744,080. 1 in. to ca. 28 miles. Vertical scale ca. 1:96,000

Scale 1:250,000. Vertical exaggeration 1:5

3.3B9 WITHDRAWN 1/2001

3.3C2

I. Original ALA proposal

The cartographic community feels that the word “source” is too ambiguous and therefore is requesting it be replaced with the phrase “prescribed source(s)”. Additionally, statements concerning parallels and meridians associated with projections provide additional details about the projection and therefore should remain part of the projection statement, whereas information on ellipsoids is not associated with the projection and therefore should be given in a note.

CURRENT RULE

3.3C2. *Optional addition.* Give phrases associated with the projection statement in the source of information that concern, for example, meridians, parallels, and/or ellipsoid.

; transverse Mercator proj. Everest spheroid

; azimuthal equidistant proj. centered on Nicosia, N 35°10', E 33°22'

PROPOSED RULE

3.3C2. *Optional addition.* Give phrases associated with the projection statement in the prescribed source(s) source of information that concern meridians and/or parallels, and/or ellipsoid. Information about ellipsoids may be given in a note (see 3.7B8).

; transverse Mercator proj. ~~Everest spheroid~~, central meridian 35°13'30"E

; azimuthal equidistant proj. centered on Nicosia, N 35°10', E 33°22'

II. JSC responses

ACOC RESPONSE

The Australian Committee on Cataloguing supports the proposed revision.

CCC RESPONSE

3.3C2. CCC agrees.

3.3C2 (continued)

LC RESPONSE

3.3C2: (1) We do not agree that “in the source of information” should be replaced by “in the prescribed source(s) of information.” Since the 3.3C2 phrases must appear with the already selected projection statement, we recommend simplifying the rule by removing the statement “in the source of information.” (2) We agree with the other changes in the proposal. Suggested revision for the first sentence:

3.3C2. *Optional addition.* Give phrases associated with the projection statement ~~in the source of information~~ that concern, ~~for example,~~ meridians, and/or parallels, ~~and/or~~ ellipsoid. **[remainder of proposed revision not transcribed]**

III. ALA response

We accept the LC revision.

PROPOSED RULE

3.3C2. *Optional addition.* Give phrases associated with the projection statement ~~in the source of information~~ that concern, ~~for example,~~ meridians, and/or parallels, ~~and/or~~ ellipsoid. Information about ellipsoids may be given in a note (see 3.7B8).

; transverse Mercator proj. ~~Everest spheroid,~~ central meridian 35°13'30"E

; azimuthal equidistant proj. centered on Nicosia, N 35°10', E 33°22'

3.3D1

I. Original ALA proposal

Since the information is being recorded in longitude/latitude order, the rule should reflect that order in the second paragraph when providing instructions on the punctuation, which are also incomplete concerning spacing.

The cartographic community is requesting an addition to the rule to provide a more accurate description of the geographic coverage of a cartographic electronic resource. This includes the coordinates of a boundary other than a rectangle and/or an area within a boundary which are excluded. We also wish to provide instructions on recording decimal coordinates in a bibliographic record, since many cartographic electronic resources use decimal rather than sexagesimal coordinates, because of the ease of computer manipulation of the decimal coordinates.

If this information is considered to be too detailed for a general cataloguing manual, these additions could be replaced with a general statement allowing for this type of information for electronic resources under the rules but leaving the specific instructions to an interpretive manual for cartographic cataloguers.

CURRENT RULE

3.3D1. For terrestrial maps, etc., give the coordinates in the following order:

westernmost extent of area covered by item (longitude)
easternmost extent of area covered by item (longitude)
northernmost extent of area covered by item (latitude)
southernmost extent of area covered by item (latitude)

Express the coordinates in degrees (°), minutes (′), and seconds (″) of the sexagesimal system (360° circle) taken from the Greenwich prime meridian. Precede each coordinate by W, E, N, or S, as appropriate. Separate the two sets of latitude and longitude by a diagonal slash, neither preceded nor followed by a space. Separate each longitude or latitude from its counterpart by a dash.

(E 79°—E 86°/N 20°—N 12°)

(E 15°00′00″—E 17°30′45″/N 1°30′12″—S 2°30′35″)

(W 74°50′—W 74°40′/N 45°05′—N 45°00′)

Optionally, give other meridians found on the item in the note area (see 3.7B8).

3.3D1 (continued)

PROPOSED RULE

3.3D1. For terrestrial maps, etc., give the coordinates in the following order:

westernmost extent of area covered by item (longitude)
easternmost extent of area covered by item (longitude)
northernmost extent of area covered by item (latitude)
southernmost extent of area covered by item (latitude)

Express the coordinates in degrees ($^{\circ}$), minutes ($'$), and seconds ($''$) of the sexagesimal system (360° circle) taken from the Greenwich prime meridian. Precede each coordinate by W, E, N, or S, as appropriate. Separate the two sets of longitude and latitude ~~latitude and longitude~~ by a diagonal slash, neither preceded nor followed by a space. Separate each longitude or latitude from its counterpart by a dash, neither preceded nor followed by a space.

(E 79 $^{\circ}$ —E 86 $^{\circ}$ /N 20 $^{\circ}$ —N 12 $^{\circ}$)

(E 15 $^{\circ}$ 00'00"—E 17 $^{\circ}$ 30'45"/N 1 $^{\circ}$ 30'12"—S 2 $^{\circ}$ 30'35")

(W 74 $^{\circ}$ 50'—W 74 $^{\circ}$ 40'/N 45 $^{\circ}$ 05'—N 45 $^{\circ}$ 00')

Optional addition. In situations where a more precise indication of geographic coverage is desired, describe each polygon using a string of coordinate pairs, in which each pair represents a vertex of the polygon.

List coordinate pairs in clockwise order, starting with the southeasternmost vertex of the polygon. In each coordinate pair, give longitude, followed by latitude, and express each in degrees, minutes, and seconds as appropriate to the size of the area being described.

Enclose each coordinate-pair string in parentheses; separate longitude from latitude in any one pair with a slash, and separate coordinate pairs within a string with space, semicolon, space.

Polygons must be closed and have non-intersecting boundaries. The first and last coordinate pairs must be the same to close the polygon.

(W 114 $^{\circ}$ /N 32 $^{\circ}$; W 117 $^{\circ}$ /N 33 $^{\circ}$; W 121 $^{\circ}$ /N 35 $^{\circ}$; W 125 $^{\circ}$ /N 43 $^{\circ}$; W 120 $^{\circ}$ /N 42 $^{\circ}$;
W 120 $^{\circ}$ /N 39 $^{\circ}$; W 115 $^{\circ}$ /N 34 $^{\circ}$; W 114 $^{\circ}$ /N 32 $^{\circ}$)

For situations in which an area or areas within a given polygon are excluded, list the coordinate pairs for any excluded area as given above, but in counterclockwise order.

(W 115 $^{\circ}$ 40'/N 33 $^{\circ}$ 15' ; W 115 $^{\circ}$ 35'/N 33 $^{\circ}$ 20' ; W115 $^{\circ}$ 55'/ N 33 $^{\circ}$ 32' ; W 116 $^{\circ}$ 5'/
N 33 $^{\circ}$ 32' ; W 116 $^{\circ}$ 10'/N 33 $^{\circ}$ 30' ; W115 $^{\circ}$ 50'/N33 $^{\circ}$ 20' ; W 115 $^{\circ}$ 40'/N 33 $^{\circ}$ 15')

3.3D1 (continued)

Optionally, for electronic resources, coordinates may be recorded as decimal. Coordinates given in decimal degrees for locations east of Greenwich and north of the equator are expressed as positive numbers and may be preceded by a plus sign. Locations west of Greenwich and south of the equator are expressed as negative numbers and are preceded by a minus sign. Do not include the plus or minus sign, but follow each coordinate by W, E, N, or S, as appropriate.

(95.15° W–74.35° W/56.85° N–41.73° N)

~~Optionally,~~ Optional addition. Give other meridians found on the item in the note area (see 3.7B8).

II. JSC responses

ACOC RESPONSE

3.3D1 The Australian Committee on Cataloguing supports the proposal to change the second paragraph to mention the longitude and latitude in the order they are recorded, and to make the punctuation explicit.

We also agree in principle with expanding the rule to include information on describing the coverage of electronic resources and on recording decimal coordinates. We would prefer a revision of the AACR2 rule rather than only including the information in an interpretive manual for cartographic cataloguers.

We support the proposal given in *4JSC/ALA/31/CCC response* to precede the co-ordinates by W, E, N, or S, as then the method of recording decimal degrees would be consistent with that used to record degrees, minutes and seconds. The change of *Optionally* to *Optional addition* in the final paragraph does not seem warranted, for the reasons given in *4JSC/ALA/31/CCC response*.

3.3D1 (continued)

CCC RESPONSE

3.3D1. CCC agrees in principle with the rule. However, we do not agree with the last sentence of the penultimate paragraph or its example. We feel that this will be confusing to the average researcher and also for the cataloguer who must remember that there are two different ways of entering this information. We would prefer the following modification to the wording and example:

Optionally, coordinates may be recorded as decimal degrees for electronic resources. Coordinates given in decimal degrees for locations east of Greenwich and north of the equator are expressed as positive numbers and may be preceded by a plus sign. Locations west of Greenwich and south of the equator are expressed as negative numbers and are preceded by a minus sign. Do not include the plus or minus sign, but precede each coordinate by W, E, N, or S, as appropriate.

(W 95.15°—W 74.35°/N 56.85°—N 41.73°)

Additionally, CCC does not support the proposal to revise “*Optionally*” in the last paragraph to “*Optional addition*”. Generally speaking, “*optional addition*” implies that additional information is *added* on to existing information (e.g., 1.1C (addition of GMD), 1.2C4 (addition of statement of responsibility to edition statement), 9.4E (addition of statement of function to the publisher). In this instance, it appears that additional information is to be given in a note and, therefore, “*Optionally*” would be the more appropriate term.

LC RESPONSE

3.3D1: We agree with the proposal.

III. ALA response

1. We accept placing letters (N;S;E;W), in all cases, in front of the coordinates to which the letters apply.
2. We accept CCC’s substitution of “Optional addition” with “Optionally.” However, decimal degrees may be used for all cartographic materials, not only those that are electronic.
3. Re the ACOC comment: we agree to leaving the rule as it is in the proposal, with the amendments as suggested by CCC.

3.3D1 (continued)

PROPOSED RULE

3.3D1. For terrestrial maps, etc., give the coordinates in the following order:

westernmost extent of area covered by item (longitude)
easternmost extent of area covered by item (longitude)
northernmost extent of area covered by item (latitude)
southernmost extent of area covered by item (latitude)

Express the coordinates in degrees ($^{\circ}$), minutes ($'$), and seconds ($''$) of the sexagesimal system (360° circle) taken from the Greenwich prime meridian. Precede each coordinate by W, E, N, or S, as appropriate. Separate the two sets of longitude and latitude ~~latitude and longitude~~ by a diagonal slash, neither preceded nor followed by a space. Separate each longitude or latitude from its counterpart by a dash, neither preceded nor followed by a space.

(E 79 $^{\circ}$ —E 86 $^{\circ}$ /N 20 $^{\circ}$ —N 12 $^{\circ}$)

(E 15 $^{\circ}$ 00'00"—E 17 $^{\circ}$ 30'45"/N 1 $^{\circ}$ 30'12"—S 2 $^{\circ}$ 30'35")

(W 74 $^{\circ}$ 50'—W 74 $^{\circ}$ 40'/N 45 $^{\circ}$ 05'—N 45 $^{\circ}$ 00')

Optionally, for electronic resources, record coordinates as decimal degrees. Precede each coordinate by W, E, N, or S, as appropriate.

(W 95.15 $^{\circ}$ —W 74.35 $^{\circ}$ /N 56.85 $^{\circ}$ —N 41.73 $^{\circ}$)

Optionally, express coordinates given in decimal degrees for locations east of Greenwich and north of the Equator as positive numbers; express coordinates for locations west of Greenwich and south of the Equator as negative numbers and precede with a minus sign.

Optional addition. In situations where a more precise indication of geographic coverage is desired, describe each polygon using a string of coordinate pairs, in which each pair represents a vertex of the polygon.

List coordinate pairs in clockwise order, starting with the southeasternmost vertex of the polygon. In each coordinate pair, give longitude, followed by latitude, and express each in degrees, minutes, and seconds as appropriate to the size of the area being described.

Enclose each coordinate-pair string in parentheses; separate longitude from latitude in any one pair with a slash, and separate coordinate pairs within a string with space, semicolon, space.

Polygons must be closed and have non-intersecting boundaries. The first and last coordinate pairs must be the same to close the polygon.

(W 114 $^{\circ}$ /N 32 $^{\circ}$; W 117 $^{\circ}$ /N 33 $^{\circ}$; W 121 $^{\circ}$ /N 35 $^{\circ}$; W 125 $^{\circ}$ /N 43 $^{\circ}$; W 120 $^{\circ}$ /N 42 $^{\circ}$;
W 120 $^{\circ}$ /N 39 $^{\circ}$; W 115 $^{\circ}$ /N 34 $^{\circ}$; W 114 $^{\circ}$ /N 32 $^{\circ}$)

3.3D1 (continued)

For situations in which an area or areas within a given polygon are excluded, list the coordinate pairs for any excluded area as given above, but in counterclockwise order.

(W 115°40'/N 33°15' ; W 115°35'/N 33°20' ; W115°55'/ N 33°32' ; W 116°5'/
N 33°32' ; W 116°10'/N 33°30' ; W115°50'/N33°20' ; W 115°40'/N 33°15')

Optionally, give other meridians found on the item in the note area (see 3.7B8).

3.3E

I. Original ALA proposal

The cartographic community is requesting this addition to assist in understanding the order of information for Area 3 for cartographic items which fall into multiple formats, e.g. cartographic electronic resource.

NEW RULE

3.3E. File characteristics

3.3E1. Give the file characteristics for the item as instructed in 9.3.

II. JSC responses

ACOC RESPONSE

3.3E The Australian Committee on Cataloguing agrees to the addition of new rules 3.3E and 3.3H.

However, we believe many cataloguers will find it difficult to construct an area 3 incorporating all the possible elements. For this reason we would like examples for cartographic materials to be added to Chapters 9 and 12.

CCC RESPONSE

3.3E. and 3.3E1. CCC has no comments except to note that these revisions should be coordinated with any changes to chapter 9 currently underway (e.g., possible deletion of area 3, revision of terminology).

LC RESPONSE

3.3E: We wish to defer consideration of including "file characteristics" until a decision regarding area 3 for chapter 9 has been made.

3.3E (continued)

III. ALA response

Thanks to the Canadian contingent of AACCCM for these examples.

NEW RULE

3.3E. File characteristics

3.3E1. Give the file characteristics for the item as instructed in 9.3.

Scale not given (W 138°59'—W 93°47'/N 74°25'—N 69°16'). — Electronic data

3.3F and 3.3F1

I. Original ALA proposal

The cartographic community is requesting this rule to include information about the method used to store the geospatial data. This information is generally supplied as metadata by the creator of an electronic resource and provides information on how the item can be used. The specifics of recording the information will be provided in an interpretive manual for cartographic materials.

NEW RULES

3.3F. Digital graphic representation

3.3F1. For an electronic resource, if the information is readily available, give the mechanism or storage technique (e.g., raster, vector, point) and the number of objects used to represent spatial information.

Raster : pixel (5,000 x 5,000)

Vector : edge (70) ; VPF2

Vector : GT-polygon composed of chains (70)

II. JSC responses

ACOC RESPONSE

3.3F The Australian Committee on Cataloguing supports the proposed revision. However, we would prefer this element to be 3.3G, as noted under 3.3 above. We would also like additional examples to further illustrate the rule, as proposed by CCC.

CCC RESPONSE

3.3F. and 3.3F1. CCC wishes to note that area 3 in chapter 9 is under discussion; these revisions should, therefore, be coordinated with any changes to chapter 9 currently underway. However, we would like to suggest the addition of the following examples at 3.3F1 to further illustrate the rule:

Point : entity point

Raster : pixel ; GIF 87

3.3F and 3.3F1 (continued)

LC RESPONSE

3.3F-3.3G: We agree with the proposed additions for “digital graphic representation” and for “geospatial reference data.” We also agree with the decision that the specifics for these data elements are best provided for in an interpretative manual for cartographic materials. Nevertheless, we recommend that at least the punctuation of the data elements be included in AACR2. Suggested revision for 3.3A1:

3.3A1. Punctuation

- For instructions on the use of spaces before and after prescribed punctuation, see 1.0C.
- Precede this area by a full stop, space, dash, space.
- Precede the projection statement by a semicolon.
- Enclose the statement of coordinates and equinox in one pair of parentheses.
- If both coordinates and equinox are given, precede the statement in one pair of parentheses.
- Precede the statement of epoch by a comma.
- Precede the object type by a space, colon, space.
- Precede the format name by a space, semicolon, space.
- Enclose each statement on the number of objects in parentheses after the object type.
- If both point/vector object count and VPF level are given, precede the VPF level by a space, semicolon, space.
- Enclose each set of projection or ellipsoid parameters in parentheses.
- Separate the multiple parameters by a space, semicolon, space.
- Precede the secondary/related reference method by a space, colon, space.

3.3F and 3.3F1 (continued)

III. ALA response

ALA thanks the Canadian contingent of AACCCM for the following response.

We looked at this rule again and had difficulty with some of the terms. We have come up with revisions for the words "mechanism" and "storage technique," especially as these terms are not reflected in MARC and may make it difficult for cataloguers to code correctly.

NEW RULES

3.3F. Digital graphic representation

3.3F1. For an electronic resource, if the information is readily available, give the data type (e.g., raster, vector, point), the object type (e.g., point, line, polygon, pixel), and the number of objects used to represent spatial information.

Raster : object type: pixel (5,000 x 5,000)

Vector : object type: points, lines and polygons

Vector : object type: network chains

Vector : object type: point (13671), string (20171), GT-polygon composed of chains (13672)

3.3G and 3.3G1 WITHDRAWN 1/2001

3.3H

I. Original ALA proposal

The cartographic community is requesting this addition to assist in understanding the order of information for Area 3 for cartographic items which fall into multiple formats, e.g., serially issued cartographic material.

NEW RULES

3.3H. Numeric and other data related to serials.

3.3H1. Give the numeric and/or alphabetic, chronological, or other designation information for the item as instructed in 12.3.

II. JSC responses

ACOC RESPONSE

3.3H Please see response under 3.3E.

CCC RESPONSE

3.3H. and 3.3H1. CCC agrees.

LC RESPONSE

3.3H: We do not object to adding information about area 3 for serials to chapter 3, but we wish to point out that the same provision will need to be added to 5.3, 9.3 (if retained), and 11.3.

3.3H (continued)

III. ALA response

We find it to be of considerable value to users to have this information in area 3. Because 3.3G has been withdrawn, this is now 3.3G.

NEW RULES

3.3G. Numeric and other data related to serials.

3.3G1. Give the numeric and/or alphabetic, chronological, or other designation information for the item as instructed in 12.3.

Scale 1:3,000,000 at 45° N ; polar stereographic proj. (W 140°—W 52°/N 78°—N 41°). — 1st ed. (1976)- .

Scale 1:3,000,000 at 45° N ; polar stereographic proj. (W 140°—W 52°/N 78°—N 41°). — 1st ed. (1976)-3rd ed. (1978)

Scales differ. — Feb. 28-Mar. 6, 1983-Nov. 12-18, 1984.

3.5C2

I. No ALA original proposal

II. JSC response (from 4JSC/ALA/31/CCC response, June 19, 2000)

CCC would also like to suggest that a separate rule for layout be inserted as 3.5C2 (with the subsequent rules (3.5C3 -3.5C5) renumbered respectively, i.e., existing 3.5C2 renumbered to 3.5C3, etc.). The proposed rule would read as follows:

NEW RULE

3.5C2. Layout. Describe the layout of the maps on the recto and verso of the sheet(s). If the map(s) continues on the verso, use *both sides*. If there are separate maps on the recto and the verso, use *back to back*.

2 maps on 1 sheet : both sides, col.

2 maps : back to back, col.

III. ALA response

ALA agrees. Since this rule can apply to cartographic materials other than maps (e.g., remote-sensing images), we have changed the wording to reflect that.

PROPOSED RULE

3.5C2. Layout. Describe the layout of the cartographic items on the recto and verso of the sheet(s). If the item(s) continues on the verso, use *both sides*. If there are separate maps on the recto and the verso, use *back to back*.

2 maps on 1 sheet : both sides, col.

2 maps : back to back, col.

3.5C23. Give the number of maps in an atlas as instructed in 2.5C.

[examples]

3.5C34. Colour. If the item is coloured or partly coloured, indicate this. Disregard coloured matter outside a map, etc., border.

[examples]

3.5C2 (continued)

[The 2/28/00 revision of CC:DA/MAGERT/1999/1 proposed that the current **3.5C4** and **3.5C5** be renumbered as **3.5C6** and **3.5C7** respectively and that the two following new rules be inserted. These two rules now become 3.5C5 and 3.5C6; and the current 3.5C4 and 3.5C5 become 3.5C7 and 3.5C8.]

NEW RULE

3.5C5. Medium. Optionally, give the medium (e.g., pencil, ink) used to draw and colour manuscript cartographic materials. If a printed work is hand coloured, the medium may be recorded after the indication of colour.

1 map : hand col. in pencil

54 ms. maps : col., pencil and ink on mylar

3.5C6. Production method. Give the method of production (other than printing), or reproduction, if considered significant. For photomechanical reproductions either use a general term (*photocopy*), or give the generic name of the process (e.g., *blueprint, blueline, white print*).

3.5C47. Material. Give the material of which the item is made if it is considered to be significant (e.g., if a map is printed on a substance other than paper).

[examples]

3.5C58. Mounting. If a map, etc., is mounted, indicate this. Indicate the mounting of a globe.

[examples]

3.7B2 ALA proposal

The cartographic community is requesting a revision to the final example as it is written in a style that a cataloger would not normally use.

CURRENT RULE

3.7B2. Language. Give the language(s) of captions, etc., and text, unless this is apparent from the rest of the description.

In Esperanto

Includes text in Finnish, Swedish, English, and German

Place names in Italian

Legend in English and Afrikaans

Except for title and “La mer du Nord” the map is in English

PROPOSED RULE

3.7B2. Language. Give the language(s) of captions, etc., and text, unless this is apparent from the rest of the description.

In Esperanto

Includes text in Finnish, Swedish, English, and German

Place names in Italian

Legend in English and Afrikaans

In English, eExcept for title and “La mer du Nord” ~~the map is in English~~

3.7B8 ALA proposal

Because of the requested rule revisions for 3.3B5 and 3.3B6, to change *Scales vary* to *Scales differ*, the cartographic community is requesting that this corresponding note be revised to reflect this change as well.

CURRENT RULE

3.7B8. Mathematical and other cartographic data. Make notes on the magnitude of celestial charts.

Limiting magnitude 3.5

Give mathematical data not already included in the mathematical data area for remote-sensing images.

f5.844, alt. 12,000 ft.

Give other mathematical and cartographic data additional to, or elaborating on, that given in the mathematical data area.

Scale of original: ca. 1:1,300

Oriented with north to right

Prime meridians: Ferro and Paris

Scale departure graph: "Statute miles, Mercator projection"

Military grid

If the scales vary (see 3.3B5) and if one or more of the scales is readily discernible and can be expressed concisely, give the scale(s).

Scale of third and fourth maps: 1:540 000

Scales: 1:250 000, 1:200 000, 1:150 000

Predominant scale: 1:250,000

3.7B8 (continued)

PROPOSED RULE

3.7B8. Mathematical and other cartographic data. Make notes on the magnitude of celestial charts.

Limiting magnitude 3.5

Give mathematical data not already included in the mathematical data area for remote-sensing images.

f5.844, alt. 12,000 ft.

Give other mathematical and cartographic data additional to, or elaborating on, that given in the mathematical data area.

Scale of original: ca. 1:1,300

Oriented with north to right

Prime meridians: Ferro and Paris

Scale departure graph: "Statute miles, Mercator projection"

Military grid

Scale statements given in title order

If the scales ~~vary~~ differ (see 3.3B5 and 3.3B6) and if one or more of the scales is readily discernible and can be expressed concisely, give the scale(s).

Scale of third and fourth maps: 1:540,000

Scales: 1:250,000, 1:200,000, 1:150,000

Predominant scale: 1:250,000

3.7B10 ALA proposal

Because of the requested rule revision for 3.5C1 and the addition of new rules 3.5C4 and 3.5C6 (see CC:DA/MAGERT/1999/1 or 4JSC/ALA/31), to include more of the physical details in the physical description area, the cartographic community is requesting that the rule and examples be modified to reflect this change.

CURRENT RULE

3.7B10. Physical description. Make notes on important physical details that are not included in the physical description area, especially if these affect the use of the item. If the item is a photoreproduction, give the method of reproduction if it is likely to affect the use of the item (e.g., when it is a blueline print).

Irregularly shaped

Hand coloured

Printed on both sides of sheet

Photocopy

Blueprint

Photocopy, negative

Watermark: C. & I. Honig

In wooden case bearing, on its inner faces, representations of the celestial hemispheres

Bound in vellum

Legends in braille

County boundaries tactile

Mounted map created from several segments

3.7B10 (continued)

PROPOSED RULE

3.7B10. Physical description. Make notes on important physical details that are not included in the physical description area, especially if these affect the use of the item. If the item is a photoreproduction and the general term (*photocopy*) is used in the physical description area (see 3.5C5), give the ~~method of reproduction~~ generic name of the process, if it is likely to affect the use of the item (e.g., when it is a blueline print).

Irregularly shaped

Hand coloured

~~Printed on both sides of sheet~~

~~Photocopy~~

Blueprint

~~Photocopy, negative~~

Watermark: C. & I. Honig

In wooden case bearing, on its inner faces, representations of the celestial hemispheres

Bound in vellum

Legends in braille

County boundaries tactile

Mounted map created from several segments

Geographic system: coordinates ; longitude resolution: 0.0004 ; latitude resolution: 0.0004 ; unit of measure: decimal degrees

Projection: Lambert conformal conic (standard parallels: 38.3 ; 39.4 ; longitude of central meridian: -77 ; latitude of projection origin: 37.8333 ; false easting: 800000 ; false northing 0)

Horizontal datum name: North American datum of 1927 ; ellipsoid name: Clarke 1866 (semi-major axis: 6378206.4 ; flattening ratio: 294.98)

3.7B12 ALA proposal

Although the note, as written, could be used for the maps in an atlas, the more common situation for a series statement to appear on some items and not all would be in a map series. The normal description for this situation is sheets rather than maps. Therefore the cartographic community requests that the example be changed to reflect this terminology.

CURRENT RULE

3.7B12. Series. Make notes on series data that cannot be given in the series area.

Some maps have series designation: Direct route map

PROPOSED RULE

3.7B12. Series. Make notes on series data that cannot be given in the series area.

Some ~~maps~~ sheets have series designation: Direct route map

Glossary ALA proposal

While reviewing the glossary it was found that the definition for cartographic materials included a misused term and that the definition of a cartographic chart, a synonym for map, is inaccurate. Therefore the cartographic community is requesting that the three definitions be revised.

CURRENT RULE

Cartographic material. Any material representing the whole or part of the earth or any celestial body at any scale. Cartographic materials include two- and three-dimensional maps and plans (including maps of imaginary places); aeronautical, navigational, and celestial charts; atlases; globes; block diagrams; sections; aerial photographs with a cartographic purpose; bird's-eye views (map views), etc.

Chart (Cartography). *See* Map.

Map. A representation, normally to scale and on a flat medium, of a selection of material or abstract features on, or in relation to, the surface of the earth or of another celestial body.

PROPOSED RULE

Cartographic material. Any material representing the whole or part of the earth or any celestial body at any scale. Cartographic materials include two- and three-dimensional maps and plans (including maps of imaginary places); aeronautical, nautical ~~navigational~~, and celestial charts; atlases; globes; block diagrams; sections; aerial photographs with a cartographic purpose; bird's-eye views (map views), etc.

Chart (Cartography). A map designed primarily for navigation through water, air, or space. *See also* Map.

Map. A representation, normally to scale and on a flat medium, of a selection of material or abstract features on, or in relation to, the surface of the earth or of another celestial body. *See also* Chart (Cartography).