GEOREF EXPORT FILE MANUAL

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This manual covers basic concepts (Part 1), data elements (Part 2), sample records (Part 3), and standard lists (Appendices).

PART 1

Part 1 consists of some definitions, including document type and bibliographic level, which lead to a matrix of data elements used. Also in this part is a section on file format.

DOCUMENTS AND BIBLIOGRAPHIC RECORDS

Documents

A <u>document</u> is any published or unpublished item which is to be described in a bibliographic record.

A document need not be a single physical item. It may be an article, chapter or other contribution; it may be a volume or monograph, or it may be a serial or collection which is to be treated as a single item for purposes of recording.

Specific classes of document (types of bibliographic entity) which are covered in GeoRef are:

- Serials (including series, and serial contributions or articles)
- Monographs (including books, book chapters, and collections)
- Reports (including report chapters)
- Theses and dissertations
- Maps
- Conference documents (including individual conference papers)

Bibliographic records

A <u>bibliographic record</u> is defined as a collection of information which pertains to a single document, and which is stored in machine-readable form as a self-contained and unique logical structure.

A bibliographic record is made up of a number of <u>data fields</u>.

Bibliographic description

The <u>bibliographic description</u> of a document is a collection of information which is intended to provide a unique and unambiguous reference, such as will enable a librarian to identify and retrieve the document, or an intending purchaser to order it from the publisher or other source. A bibliographic description is made up of a number of <u>data elements</u>.

Data elements and data fields

A <u>data element</u> is a piece of information forming part of the bibliographic description and having a specific functional relationship with the content of the document to which the record refers.

Examples of data elements are: title, author name, report number, etc.

Data elements are separately identified within the machine record so that each element can, if desired, be independently accessed and manipulated by computer program. This is achieved by dividing the bibliographic record into a series of <u>data fields</u>, identified by <u>field numbers</u> or <u>tags</u>. Data fields are further subdivided into <u>subfields</u>, introduced by <u>subfield identifiers</u>. Each data element normally occupies a given subfield of a tagged data field.

TYPE OF BIBLIOGRAPHIC ENTITY

Introduction

The types of documents and literature (bibliographic entities) covered in GeoRef are:

- Serials
- Books
- Reports
- Theses and dissertations
- Conference documents
- Maps

In practice, the selection of data elements to be included in the bibliographic record is usually guided by a prior selection of the type(s) of bibliographic entity to which the document is re-garded as belonging. In many cases, this selection is straightforward and unique: for example, it is usually easy to identify a thesis. Sometimes, however, a document may have the characteris-tics of more than one type (for example, "serial" and "report"). In this event, AGI treats the document as belonging to more than one type, and includes data elements pertaining to each type. While it is recognized that hard and fast definitions of type of bibliographic entity cannot be provided, this chapter attempts to set out some guidelines for the interpretation of the six types listed above.

Serials

The following definition of a serial adopted for GeoRef is based on that given in the <u>Guidelines for the International Serials Data System (ISDS)</u>:

A <u>serial</u> is a document in print or in non-print form, issued in successive parts, usually having numerical or chronological designations, and intended to be continued indefinitely.

Serials include periodicals, newspapers, journals, annuals (reports, yearbooks, directories, etc.), recurring proceedings of conferences or transactions of societies, and monographic series.

It should be noted that this definition covers unnumbered series but excludes collections. A <u>col-lection</u> consists of a predetermined finite number of separate works (i.e. monographs) which have individual titles which are different from the title of the collection and which may be pro-duced or issued simultaneously or separately over a period of time. A collection, the composition of which is predetermined and finite, should be distinguished from a <u>monographic series</u> which consists of a number of separate works with individual titles (i.e. monographs), usually related to one another in subject, issued in succession, normally by the same publisher and in uniform style with a collective title, and intended to continue indefinitely.

Books

The term "book" is used for a document which is not serial, except for reports, theses, and separately published maps (see below).

For purposes of GeoRef, books include not only printed publications as defined above but any non-serial self-contained item in any medium, including CD-ROM, diskettes, audio-visual media such as microfilm, microfiche, audio - or video - cassette, etc. Multi-volume works with one or a collective title only may also be considered as monographs provided the number of individual volumes is finite and none of these has a separate title.

A book may contain individual chapters or parts by separate authors. When this occurs, GeoRef treats such chapters or parts as documents in their own right.

Reports

Like books, reports are difficult to define; the following definition is suggested as a guideline. A report is an item, usually not available to be purchased through normal commercial channels, but obtainable from the organization responsible for its issue or from a clearing house such as the United States Government NTIS (National Technical Information Service). It is usually - but not always - identified by a report number, and may exhibit some of the characteristics of a serial, in that the numbering scheme often has a component for "report series" and there may sometimes be a series title.

Theses and dissertations

Theses and dissertations may be defined as treatises which have been submitted to a university or other educational institution in fulfillment of the requirements for a higher degree course. Most frequently they are not "published" in a conventional sense, but they may be available through the university concerned or through a clearing house system.

Maps

In GeoRef, a distinction is made among (1) less formal maps in a document which are the size of a page or less, (2) more formal maps, including maps which are tipped in, are fold outs or are included in a pocket and (3) maps which are separately published.

Maps in group (1) are noted in the illustrations field as "sketch maps." The document type M (map) is not assigned for sketch maps.

Maps in group (2) are entered in the map type field and in the map scale field. In map type, a description of the map is entered, selected from a list of map types (see Appendix "Map Types"). If the map has a scale, the scale is entered in the map scale field in the form 1:250,000. For these maps, a document type M is added to the bibliographic description of the document. The M is not the first document type for the record, in this case, e.g. for a map in a pocket of a report series, the document types would be SRM.

Maps in group (3) have their own bibliographic description. The author, title, and source information in the reference are those of the map, and map type and map scale fields are included.

For these separately published maps, the document type M appears first in the document type field.

Conference documents

Conference documents are individual papers or collections of papers presented at a conference and may be published or otherwise disseminated as books, serial articles, serial issues or as reports.

For any document identified as being or belonging to a conference proceedings, a small set of additional data elements is defined, to be added to the set of essential elements required for whatever main type of bibliographic entity is invoked.

Type of bibliographic entity codes

In the bibliographic record, the type or types of bibliographic entity to which the document described is considered to belong is represented by a code or codes in field Z04 (see below).

Except for Conference, which must be used in combination, codes for the following types of bibliographic entity may be used, either in isolation or in combination, if the document has characteristics of more than one type:

> S - Serial
> B - Book
> R - Report
> T - Thesis or Dissertation
> M - Map
> C - Conference

The selection of essential data elements for the bibliographic description is dependent, first, on the assignment of the document to a given type or types of bibliographic entity and, secondly, on a decision as to the bibliographic level at which the document is to be treated. The notion of bibliographic level is defined below.

BIBLIOGRAPHIC LEVEL

Analytic Level

A bibliographic record at the analytic level describes a bibliographic item which is part of a larger work and the bibliographic description of which cannot stand alone, i.e. it can only be described adequately, as an individual item, by reference to one or more of the other more inclusive parts of the larger work in which it is contained.

Examples are: a chapter in a monograph; a section of a report; an article in a journal issue; a map in a report, book or atlas; a paper in a volume of conference proceedings.

Monographic Level

A record at the monographic level describes a document which can be considered as a self-contained bibliographic entity. In other words, contrary to a document described at the analytic level (an analytic), it can be described as a piece in its own right.

Typical examples are: a book or monograph, a report, a thesis.

Although a record at the monographic level may describe a monograph as a separate entity in its own right, it may also include details of the collection or series of which the monograph is a part.

Collective Level

A record at the collective level describes a document which is composed of at least two but usually more individually entitled works, which may be produced or issued simultaneously or separately over a period of time, but which consists of a definite number of constituent works. Whereas the time span over which a collection is being published may be indefinite, the contents of a collection is well defined and not meant to be expanded indefinitely.

An example of a collection is: *The Geology of North America*, a series of monographs in GSA's DNAG Project.

A bibliographic record at the collective level describes a collection as an entity in its own right. Bibliographic records for monographs and analytics in the collection will include collective titles.

Serial Level

A record at the serial level describes a bibliographic entity which is issued in successive parts, usually but not necessarily having numerical or chronological designations, and intended to be continued indefinitely.

Examples are: journals, periodicals, newspapers, annuals (reports, year books, directories, etc.), recurring transactions of learned societies, monographic series.

It should be noted that the essential difference between a serial and a collection, as defined here, is that the number of constituent parts of a collection is pre-determined as finite (actual formal publication or other form of distribution possibly taking place in different stages), whereas both contents and period of publication of a serial are open-ended.

As a final point of terminology with regard to the concept of bibliographic levels, note that, although a record describing a document may be composed of more than one bibliographic level, the record as a whole is to be considered as being at one (main) bibliographic level only which is always the lowest (least inclusive) level. For example, a record which describes a chapter in a monograph which is itself a volume in a series will contain an analytic part for the chapter, a monographic part for the volume and a serial part for the series. This record as a whole, however, is said to be at the analytic level because this is the lowest level which it contains. There is an inherent logic for this convention: the lowest bibliographic level always describes the document or part of a document for which the bibliographic record was created in the first place. In the example given, the record was created to draw the attention to the chapter; the monograph

and the series being described only for the purpose of easier identification of the location of the chapter. A similar analysis can be applied to all records composed of more than one bibliographic level.

The selection of data elements (see below) is guided not only by the assignment of the document to one or more "types of bibliographic entity" but also by the main bibliographic level at which the document is described.

In the Reference Manual four main bibliographic level occurrences are considered:

>A (A/S, A/M, A/M/C, A/M/S);
>M (M, M/C, M/S);
>C;
>S.

In composite bibliographic level representations (e.g. A/M/C, M/S, etc.), the <u>first</u> bibliographic level symbol (i.e. A or M) indicates the <u>main</u> bibliographic level. The main or only bibliographic level is identified by a code in field Z05 (see below).

BIBLIOGRAPHIC DATA FIELD MATRIX

This matrix constitutes a complete reference list of the bibliographic data fields which are defined in full in Part 2 of the Manual, and from which a selection must be made in order to construct a bibliographic record appropriate to a particular type of bibliographic entity described at one or more bibliographic levels.

In the matrix the data fields are shown in alpha-numeric sequence of field codes or tags, which are three-character codes starting from A01 and Z01.

For each data field the matrix shows the bibliographic level or combination of bibliographic levels for which the field (or, more precisely, the data element to be entered in it) is rated as "essential" or "mandatory". This mandatory status of the fields is represented by the character "E", "C", "M", "R", or "T" as appropriate (see note (1) to the matrix). A blank against a field in any position of the table means that use of this field in that particular case is either optional or irrelevant.

Status <u>essential</u> or <u>mandatory</u> is defined as meaning that any data element so described must be included in the bibliographic description if it is either present on or derivable from the original document.

TABLE OF DATA ELEMENTS AND THEIR STATUS

Tag	Name of Field/Data Element	Status								
		Bibliographic Level								
		A/S	A/M	A/M/S	A/M/C	M	M/S	M/C	S	C
A01	ISSN	E		E			E		E	
A02	CODEN									
A03	Title of Serial	E		E			E		E	
A05	Volume Identification Data (First Order Designation)	E		E			E			
A06	Issue Identification Data (Second Order Designation)	E		E			E			
A08	Title of Analytic	E	E	E	E					
A09	Title of Monograph		E	E	E	E	E	E		
A10	Title of Collection				E			E		E
A11	Person associated with Analytic	E	E	E	E					
A12	Person associated with Monograph		E	E	E	E	E	E		
A13	Person associated with Collection or Serial									E
A14	Affiliation - Analytic	E	E	E	E					
A15	Affiliation - Monograph						E			
A16	Affiliation - Collection or Serial									
A17	Corporate Body Associated with Analytic	E	E	E	E					
A18	Corporate Body associated with Monograph		E	E	E	E	E	E		
A19	Corporate Body associated with Collection or Serial									E
A20	Collation - Analytic	E	E	E	E					
A21	Date of Publication	E	E	E	E	E	E	E	E	E
A22	Date other than Date of Publication									
A23	Language of Text	E	E	E	E	E	E	E	E	E
A24	Language of Summary									
A25	Publisher: Name and Location (Monograph, Collection or Serial)	E	E	E	E	E	E	E	E	E
A26	ISBN		E	E	E	E	E	E		E
A27	Edition		E	E	E	E	E	E		E
A28	Collation - Collection									E
A29	Collation - Monograph					E	E	E		
A30	Name of Meeting	C	C	C	C	C	C	C	C	C
A31	Location of Meeting	C	C	C	C	C	C	C	C	C
A32	Date of Meeting	C	C	C	C	C	C	C	C	C

Tag	Name of Field/Data Element	Status								
		Bibliographic Level								
		A/S	A/M	A/M/S	A/M/C	M	M/S	M/C	S	C
A39	Report Number	R	R	R		R	R			
A41	University or Other Educational Institution		T			T	T			
A42	Type of Degree		T			T	T			
A43	Availability of Document	R	R	R		RT	RT			
A45	Number of References									
A46	"Summary Only" Note									
Z01	Identification Number	E	E	E	E	E	E	E	E	E
Z03	Category	E	E	E	E	E	E	E		E
Z04	Document Type (S, B, R, T, C, M)	E	E	E	E	E	E	E	E	E
Z05	Bibliographic Level (A, M, C, S)	E	E	E	E	E	E	E	E	E
Z15	Abstract									
Z24	Annotation (not common data)									
Z32	Illustration									
Z33	Map Scale					M	M			
Z34	Map Type	M	M			M	M			
Z35	Medium of Source									
Z36	Coordinates									
Z37	Affiliation, Secondary									
Z38	Source Note (common data)									
Z39	Country of Publication	E	E	E	E	E	E	E	E	E
Z43	Reference Source	E	E	E	E	E	E	E	E	E
Z44	Update Code	E	E	E	E	E	E	E	E	E
Z50	Index Term	E	E	E	E	E	E	E	E	E
Z60	Research Program									
Z61	Holding Library									
Z62	URL									
Z63	Target Audience									
DOI	Digital Object Identifier									

The symbols heading the columns indicate single bibliographic levels or combinations of bibliographic levels in documents to be described. The meaning of the symbols is as follows:

A = analytic level
M = monographic level
S = serial level
C = collective level.

In the columns of the table, the "mandatory" or "essential" status of a data element in a particular field, at a given bibliographic level or combination of bibliographic levels, is indicated by the symbol "E". In principle a "status E" data element is essential for any type of bibliographic en-

tity described at the indicated bibliographic level or combination of bibliographic levels. When a data element is essential only for either a conference document, map, report or thesis, this has been indicated by the symbols "C", "M", "R", and "T" respectively.

SELECTION OF DATA ELEMENTS

For the purpose of bibliographic description, all documents can be divided into the two basic categories of serials and non-serials. The non-serials include books, theses and dissertations, and non-serial reports and maps.

Serials

(a) Individual <u>articles or contributions in a particular issue of a serial</u> (analytic level). The symbolic representation of such a bibliographic item in the matrix is <u>A/S</u>.

(b) <u>Complete serial issues or parts</u> which are described as single documents (monographic level). The symbolic representation of such items is <u>M/S</u>.

(c) Individual <u>monographs</u> which are part of a <u>monographic series</u> (monographic level). In this case the symbolic representation is also <u>M/S</u>.

(d) <u>Serials</u> described as entities in their own right (i.e. described at the <u>serial level</u>). The symbolic representation of serials thus described is <u>S</u>.

Non-serials

(a) A non-serial (i.e. finite) <u>collection of books</u> treated as a single entity (collective level). The symbolic representation of such a document in the matrix is <u>C</u>.

(b) A <u>book, thesis, or non-serial report or map</u> treated as a single, self-contained bibliographic entity (monographic level). The symbolic representation of such a document in the matrix is <u>M</u>.

(c) A <u>book</u> described as an <u>individual part</u> of a <u>collection</u> (monographic level). In this case the symbolic representation is <u>M/C</u>.

(d) A <u>chapter</u>in a book or report, treated as a separate entity (analytic level). Symbolic representation: <u>A/M</u>.

(e)A <u>chapter in a book</u>, treated as a separate entity, the book forming part of a <u>collection</u> (analytic level). Symbolic representation: <u>A/M/C</u>.

FILE FORMAT

Records are in files named by GeoRef entry year with an extension, "tag", i.e. with GRF1976. Within each GeoRef entry year file, the records are sorted by the ID in Z01, e.g. 1976-000001,

1976-000002, 1976-000003, etc. Each GeoRef entry year file consists of the records added to the GeoRef database during that production year. For any given production year, AGI adds records published in the current year as well as records from prior years. Consequently the file GRF1976 will contain records to documents published in 1976 and earlier years, i.e. entry year (part of the ID in field Z01) does not equal publication year (field A21).

Each bibliographic record consists of a set of data elements appropriate for the document cited, selected according to the preceding matrix. The data elements are in order by tag, except for Z01, the ID, which is first. Each data element consists of a $ followed by a tag followed by a space followed by data. A carriage return separates the data elements, and two carriage returns separate the records.

The data portion of each data element consists of one or more subfields. Subfields are defined for each data element in Part 2. Subfields are separated by the character "@". If a data element has only one subfield, or only the first is present, there will be no @ in the data. For some data elements, the data can begin with @ if the first subfield is not included. E.g. the data in A29, Collation—Monographic, may be "@unpaginated", if the number of pages, which belongs in subfield 1, is not given in the document (see Part 2, A29).

Some data elements are repeated, when appropriate. When this happens, the tag is not repeated and the data is separated by a vertical bar. For example, if a paper has three analytic authors, T. Jones, B. Smith and G. Igo, the analytic author field is: $A11 Jones, T. | Smith, B. | Igo, G.

PART 2

DATA ELEMENTS

Part 2 of this Manual provides detailed definitions of data elements, arranged in a alphanumeric order of data field codes.

Each data element is defined in terms of:

    (a) A brief summary of the essential features (<u>Field definition</u>)
    (b) A detailed description of the data element (<u>Data description</u>)
    (c) <u>Examples</u>, wherever necessary and appropriate.

A01: ISSN (INTERNATIONAL STANDARD SERIAL NUMBER)

1. <u>Field definition</u>

Tag:		A01
Subfields:	1.	Type of Media
	2.	ISSN: fixed length nine characters. Character set restricted to numerals only, except for the last character which may be a numeral or letter 'X', and a hyphen between the fourth and fifth characters.
Repeatable:		Yes

Each Field A01 begins with one of the following single-letter codes for Type of Media:
                P   Print
                E   Electronic

2. <u>Data description</u>

Field A01 is used to enter the International Standard Serial Number (ISSN) as a unique identification of a serial title.

The ISSN is an 8-digit number, the last figure being a check character. Because of the method of check-digit calculation, the last character may either be numeric or letter 'X'. Where the ISSN appears on the original document it is preceded by the letters 'ISSN', and the number itself is divided into two four-character groups with a hyphen as separator. It should be entered in field A01 with a hyphen, but without the text 'ISSN'.

The assignment and dissemination of ISSN are the responsibility of the International Serials Data System, based on an International Center in Paris (International Center for the Registration of Serial Publications) and National or Regional Centers.

The format and basic requirements for the assignment of ISSN are defined in ISO 3297-1975: <u>Documentation - International standard serial numbering (ISSN)</u>, fuller details of ISSN assignment and the operation of ISDS are given in <u>Guidelines for ISDS</u>.

3. Example

ISSN as shown on the piece: "ISSN 0046-9963".

Contents of field A01: P @0046-9963

A02: CODEN

1. Field definition

Tag: A02
Subfield: CODEN: fixed length, six characters. Character set restricted to upper-case letters and numerals. The sixth character is a check digit or pseudocoden, fixed-length, six characters. Pseudocodens, included when no CODEN was known, have a first character "#" followed by five numbers.
Repeatable: No

2. Data description

Field A02 may be used to enter a unique identification of a serial title in the form of the CODEN. This field is optional for a serial when the ISSN is entered.

CODEN are unique, unambiguous, six-character codes assigned to the titles of serial and non-serial publications in all subject areas. In CODEN for serial titles, the first five characters are alphabetic, e.g. JACSAT for Journal of the American Chemical Society.

The sixth character in all CODEN is a computer-calculated, alphabetic or numeric check character, e.g. JACSA<u>T</u> and MKDHA<u>2</u>. The check character is designed for use in computer-based systems to detect transcription or keyboarding errors in the CODEN notation.

For more information on CODEN contact:

> International CODEN Service
> c/o Chemical Abstracts Service
> P. O. Box 3012
> Columbus, OH 43210
> USA

The pseudocoden is used when neither an ISSN nor a CODEN is known. The pseudocoden is a code assigned by AGI and is unique for GeoRef.

3. Examples

Example 1

Journal title: "Annalen der Physik"

CODEN: "ANPYA2"

Contents of field A02: ANPYA2

Example 2

Journal title: Seismological Society of America, Eastern Section, Annual Meeting

Since neither an ISSN or a CODEN was known for this, AGI assigned it a pseudocoden.

Contents of field A02: #03735

A03: TITLE OF SERIAL

1. Field definition

Tag:	A03
Subfield:	Title
Repeatable:	No.

2. Data description

Field A03 is used for the title of a serial which is the ISDS key title, if it can be established.

Key titles are established by the ISDS as described in Guidelines for ISDS. They can only be established officially by an ISDS center. They are derived from the title information appearing in the publication, with the proviso that the subtitle is not part of the key title. They are distinctive in that if necessary additions such as place of publication or commencing date, distinguished by being in parentheses, are added to the title to make them so. If an official key title is not available, one may be constructed according to ISDS Guidelines and entered in the field.

3. Example

Key title: "Annals of Physics (New York)"

Contents of field A03: Annals of Physics (New York)

A05: VOLUME IDENTIFICATION DATA
(FIRST ORDER DESIGNATION)

1. Field definition

Tag:	A05
Subfield:	Volume Identification Data
Repeatable:	No

2. Data description

Field A05 is used to record the description relating to the primary or most inclusive level of the scheme of numbering (enumeration) supplied by the publisher to identify the physical bibliographic units of a work. Exception: When a publisher renumbers the issues each year, but does not provide a volume number, the publication year is included by GeoRef in A05 and the issue numbers go into A06. The first order designation usually appears in or on the work, accompanied by a caption such as 'Volume', 'Number', 'Part', 'Band', or 'Neft'.

Field A05 is used to enter the volume number itself, without 'captions' (e.g. 'Vol', 'v', 'Tom', 'Band'). The volume number should be entered in Arabic numerals.

Field A05 may also be used to enter other information relating to the identification of a volume, which should be in the language and precise wording of the original document, transliterated if necessary.

3. Examples

Example 1

Volume number: "Volume XVI"

Contents of field A05: 16

(without 'caption': volume number converted to Arabic numerals and entered in subfield 1)

Example 2

Volume number not given: issues numbered within year: "1971"

Contents of field A05: 1971

Example 3

Volume XIX. Centenary volume

Contents of field A05: 9, Centenary volume

Example 4

Volume information: Memoire extraordinaire (without a volume number)

Contents of field A05: Memoire extraordinaire

A06: ISSUE IDENTIFICATION DATA
(SECOND ORDER DESIGNATION)

1. Field definition

Tag:	A06
Subfield:	Issue Identification Data
Repeatable:	No

2. Data description

Field A06 is used to record the character(s) distinguishing between works that carry identical first order (A05) designation statements, and to record character(s) of works which have no first order designation statements, e.g. when a publisher renumbers issues each year but does not pro-vide a volume number, the publication year is included by GeoRef in A05 and the issue numbers

go into A06. The second order designation may include a directly associated modifying term such as "Part 1", "Supplement 7", etc.

Field A06 is used to enter the issue or part number itself, without 'captions' (e.g. 'No.', 'n'). The issue number should be entered in Arabic numerals.

Field A06 may also be used to enter other information relating to the identification of an issue or of any subdivision of or supplement to an individual issue, which information should be in the language and precise wording of the original document, transliterated if necessary.

3. Examples

Example 1

Issue number is "No. 8"

Contents of field A06: 8

Example 2

Issue number is "No. 1157". It is a special "Centenary Issue".

Contents of field A06: 1157, Centenary Issue

A07: OTHER IDENTIFICATION OF SERIAL ISSUE

1. Field definition

    Tag: A07
    Subfield: Other issue identification
    Repeatable: No

2. Data description

Field A07 was used in GeoRef to record information to identify a serial issue other than the issue number in A06. Presently A07 is no longer used in GeoRef and such other information is now put in A06, however A07 is still found in older GeoRef records.

Subfield 1 Other issue identification

3. Examples

Issue designation No. 8, supplement

Contents of field A07: supplement

A08: TITLE OF ANALYTIC

1. Field definition

    Tag: A08

Subfields: 1:   Code for form of title
            2:      Title
Repeatable: Yes, if it is required to enter more than one form of title (e.g. Parallel titles, original and translated titles or modified titles)

Note that A03 is TITLE OF SERIAL, A09 is TITLE OF MONOGRAPH, A10 is TITLE OF COLLECTION

2. Data description

Subfield 1: Code for Form of Title

Each field A08 begins with one of the following single-letter codes for form of title.

O Original title, i.e. the title, if any, as given on the document entered in the original language and alphabet

M Original title in original language and alphabet, but modified or enriched in content as part of the cataloguing process

L Original title transliterated or transcribed as part of the cataloging process. Used only for Cyrillic alphabet in GeoRef.

T Original title translated (with or without modification of content) as part of the cataloging process

Subfield 2: Original Title

The title of an analytic (paper in conference proceedings, or Festschrift article, review, letter in newspaper, book chapter, etc.). Field A08 is used only for titles at the analytic level.

The title may be entered exactly as given on the document or it may be translated, transliterated or otherwise modified.

The title should always be entered in full, along with subtitle.

The following conventions are to be applied for this field:

(a) Field A08 may be repeated to allow for the inclusion of the original title and/or title modified or translated as part of the cataloging process.

(b) When the original title is in a character set other than Cyrillic, which GeoRef does not transliterate, e.g. Chinese, then only a translated title, in English, is included.

(c) Any modification made by the editor/indexer will be denoted by a Code of M in Subfield 1.

(d) When the language of the original title is English, there is no translated title.

(e) The text of the title is entered following the GeoRef rules for capitalization (see appendices).

(f) If the document text is published in multiple languages, the original title field will contain multiple titles in those languages, in a single field.

3. Examples

Example 1

Original title of article in serial:
"Antarctic circumpolar current: Space and time fluctuations in the Drake Passage".

Entered as on the document in field A08:
O @Antarctic circumpolar current; space and time fluctuations and the Drake Passage

Example 2

Original title of article in serial is in Russian.

Contents of field A08 (two A08 fields are included in record):

Transliterated title:
L @Organizatiya kontrolya v avtomatizirovannom spravochno informatisionnom tsentre po ehlektrotekhnike

Translated title: (Tag repeated in the same record.)
T @Organisation of control at an automated electrical engineering reference information center

Example 3

Original title of article in a serial is in Chinese.

Content of field A08 is a translated title only.

A09: TITLE OF MONOGRAPH

1. Field definition

   Tag: A09
   Subfields: 1:   Code for Form of Title
               2:    Title
   Repeatable: Yes, if it is required to enter more than one form of title (e.g. Parallel titles, original and translated titles or modified titles)

Note that A03 is TITLE OF SERIAL, A08 is TITLE OF ANALYTIC, A10 is TITLE OF COLLECTION

2. Data description

Subfield 1: Code for Form of Title

Each field A09 begins with one of the following single-letter codes for form of title.,

O Original title i.e. the title or parallel title and subtitles, if any, as given on the document entered in the original language and alphabet

M Original title in original language and alphabet, but modified or enriched in content as part of the cataloging process

L Original title transliterated or transcribed as part of the cataloging process. Used only for Cyrillic alphabet in GeoRef.

T Original title translated (with or without modification of content) as part of the cataloging process

Subfield 2: Title of a monograph

The title of an item at the monographic level, e.g.:

a) Book published as a single piece
b) Book forming part of a series or collection of books
c) Report
d) Thesis or dissertation

The title may be entered exactly as given on the document or it may be translated, transliterated or otherwise modified.

The title should always be entered in full, along with subtitle.

The following conventions are to be applied for this field:

(a) Field A09 may be repeated, to allow for the inclusion of the original title and/or a title modified or translated as part of the cataloging process.

(b) When the original title is in a character set other than Cyrillic, which GeoRef does not transliterate, e.g. Chinese, then only a translated title, in English, is included.

(c) Any modification made by the editor/indexer will be denoted by code M in subfield 1.

(d) When the language of the original title is English, there is no translated title.

(e) The text of the title is entered following the GeoRef rules for capitalization.

(f) If the text of the document is repeated in multiple languages, the original title field will contain multiple titles in those languages in a single field.

3. Examples

Example 1

Original title of monograph:
        "Antarctic circumpolar current: Space and time fluctuations in the Drake Passage".

Entered as on the document in field A09:

     O @Antarctic circumpolar current; space and time fluctuations and the Drake Passage

Example 2

Original title of monograph is in Russian.

Contents of field A09 (two A09 fields are included in record):

Transliterated title:

     L @Organizatiya kontrolya v avtomatizirovannom spravochno informatisionnom tsentre po ehlektrotekhnike

Translated title: (Tag repeated in the same record.)

     T @Organisation of control at an automated electrical engineering reference information center

Example 3

Original title of monograph is in Chinese.

Content of field A09 is a translated title only.

A10: TITLE OF COLLECTION

1. Field definition

Tag:		A10
Subfields:	1:	Code for Form of Title
	2:	Title
Repeatable:		Yes, if it is required to enter more than one form of title (e.g. Parallel titles, original and translated title or modified title).

Note that A03 is TITLE OF SERIAL, A08 is TITLE OF ANALYTIC, A09 is TITLE OF MONOGRAPH

2. Data description

Subfield 1: Code for Form of Title

Each field A10 begins with one of the following single-letter codes for form of title.

1   Original title i.e. the title or parallel title and subtitle, if any, as given on the document entered in the original language and alphabet

2   Original title in original language and alphabet, but modified or enriched in content as part of the cataloging process

3   Original title transliaterated or transcribed as part of the cataloging process. Used only for Cyrillic alphabet in GeoRef.

4   Original title translated (with or without modification of content) as part of the cataloging process

Subfield 2: Title of a Collection

The title of a non-serial collection. The title of a serial should be entered in field A03.

Although field A10 always refers to a collection of items, it may occur in a record at the monographic or analytic levels, for example when the record refers to a single volume forming part of a collection, or to a chapter in a book which is itself part of a collection.

The title should always be entered in full, along with subtitle. Optionally parallel titles (translations of the title into other languages appearing on the piece) may be entered.

The title may be entered exactly as given on the document or it may be translated, transliterated or otherwise modified.

The following conventions are to be applied for this field:

a) Field A10 may be repeated, to allow for the inclusion of the original title and/or a title modified or translated as part of the cataloging process.

b) When the original title is in a character set other than Cyrillic, which GeoRef does not transliterate, e.g. Chinese, then only a translated title, in English, is included.

c) Any modification made by the editor/indexer will be denoted by a code M in Subfield 1.

d) When the language of the original title is English, there is no translated title.

(e) The text of the title is entered following the GeoRef rules for capitalization.

(f) If the text of the document is repeated in multiple languages, the original title field will contain multiple titles in those languages, in a single field.

3. Example

Collection entitled "The Geology of North America"

Contents of field A10:
        O @The geology of North America

A11: PERSON ASSOCIATED WITH ANALYTIC

1. Field definition

Tag: A11
Subfields: 1:   Name as derived from the document
             2:    Role: a description in free form of the relationship between the person cited and the bibliographic item to which the record refers (optional element)
             3:    Alternate spelling

Repeatable: Yes: each different person to whom reference is made in the bibliographic record requires a separate repetition of field A11.

2. Data description

Field A11 is used to enter the name of a person who is associated with an analytic, as author, translator, illustrator, etc.

Field A11 is used only for names associated with records at the analytic level.

Selection of names to be entered in the bibliographic record

(a) Author: The names of all individual authors associated with a given analytic are entered in the bibliographic record.

(b) Persons other than the author associated with an analytic may be entered; but these are not re-garded as essential elements in the bibliographic description.

Subfields

Subfield 1: Name as derived from the document, in inverted form, but otherwise unaltered except for transliteration if necessary.

Subfield 2: If subfield 2 is missing, the role is assumed to be Author. Roles may be Editor, Compiler, or Translator. Other roles may be used as required.

Subfield 3: Alternate spelling. If the name on the document is transliterated and the translitera-tion scheme used differs from the one used for GeoRef, the one used for GeoRef is given in this subfield.

3. Examples

Authorship as shown on the document:
        "By Richard P. Wendt and Mohammed Shamin.

Contents of field A11:
        First A11: Wendt, Richard
        Second A11: Shamin, Mohammed

A12: PERSON ASSOCIATED WITH MONOGRAPH

1. Field definition

Tag:		A12
Subfields:	1:	Name as derived from the document.
	2:	Role: a description in free form of the relationship between the person cited and the bibliographic item to which the record refers (optional element)
	3:	Alternate spelling
Repeatable:		Yes: each different person to whom reference is made in the bibliographic record requires a separate repetition of field A12.

2. Data description

Field A12 is used to enter the name of a person who is associated with an item at the mono-graphic level, e.g.:
      (a) Book published as a single piece;
      (b) Volume forming part of a series or collection of books;
      (c) Report;
      (d) Thesis or dissertation;
      (e) Translation of any of the above.

Selection of names to be entered in the bibliographic record

(a) Authors: The names of all individual authors associated with a given item at the mono-graphic level are to be entered in the bibliographic record.

(b) Other persons associated with a monograph: Provision has been made to enter the names of persons associated with a monograph, other than the authors. These may include: editor, compiler, translator, etc. It is expected that for monographic items it would be normal prac-tice to regard editors' names as an essential element, and most others as optional.

Subfield 1: Name as derived from the document, in inverted form, but otherwise unaltered ex-cept for transliteration if necessary.

Subfield 2: Role: If subfield 2 is missing, the role is assumed to be Author. Roles may be Edi-tor, Compiler, or Translator. Other roles may be used as required.

Subfield 3: Alternate spelling. If the name on the document is transliterated and the translitera-tion scheme used differs from the one used for GeoRef, the one used for GeoRef is given in this subfield.

3. Examples

Title page: "Edited by Alexander A. Broido"

Contents of field A12: Broido, Alexander A. @editor

A13: PERSON ASSOCIATED WITH COLLECTION

1. Field definition

   Tag: A13
   Subfields: 1:   Name as derived from the document
             2:      Role: a description in free form of the relationship between the person cited and the bibliographic item to which the record refers (optional element)
             3:      Alternate spelling
   Repeatable: Yes: each different person to whom reference is made in the bibliographic record requires a separate repetition of field A13.

2. Data description

Field A13 is used to enter the name of a person who is associated with a collection. Usually this will be the name of an author or editor of a collection. Format is as for A11 and A12

A14: AFFILIATION, PRIMARY ANALYTIC

1. Field definition

    Tag: A14
    Subfields: 1:   Name of organization
               2:     Address or location
               3:     Country Code
               4:     Country
    Repeatable: No

2. Data description

Field A14 is used to enter the name and address of an organization to which the primary author (first author cited) associated with an analytic is affiliated. Affiliations of others associated with the analytic are entered in Field Z37, Affiliation, secondary.

Subfields

Subfield 1: Name of organization. Where several levels of the organization are cited (e.g. laboratory, faculty, university), they should be entered in descending order of scale, from the larger unit to the smaller. For large and complex organizations, such as some university or government departments, discretion may be exercised in omitting intermediate levels, the inclusion of which does not add significant information to the entry, provided always that the most specific unit is cited and that the entry provides an unambiguous identification of the organization.

The name of the organization should be entered in the language of the document (unless the name shown on the document is itself a translation and the name in its original language is known, in which case the latter form should be entered if better known). The following conventions apply:

(a) If transliteration is required, see Appendix "Transliteration".

(b) The full form of the name should be entered even if an abbreviation or acronym is found on the document being recorded. However, if the official or formal name of an organization is usually quoted in the form of an acronym (e.g. IBM, Aslib), this may be entered as the full form in subfield 1.

Subfield 2: Address of organization. The address or location of the organization should be entered in subfield 2.

Subfield 3: Country code. The country of the affiliation may optionally be entered in subfield 3, using the three-character alphabetic codes.

Subfield 4: Country name, in English in Appendix "Country Codes".

3. Examples

Example 1

Affiliation as on the document:
"Lubrication Research Laboratory,
Department of Mechanical Engineering,
School of Engineering and Applied Science,
Columbia University,
New York, NY 10027"

Contents of field A14:
Columbia University, Lubrication Research Laboratory @New York, NY @USA
@United States

Example 2

Authorship as on the document: "THOMAS C. LOWE,
Informatics Inc.,
Bethesda, Maryland

Contents of field A14:
Informatics @Bethesda, MD @USA @United States

A15: AFFILIATION, PRIMARY - MONOGRAPH

1. Field definition

Tag: A15
Subfields: 1:   Name of organization
              2:    Address or location
              3:    Country code
              4:    Country
Repeatable: No

2. Data description

Field A15 is used to enter the name and address of a single organization to which the Primary
author (first author cited) associated with a monograph is affiliated. Monographic items include:
(a)   Book published as a single piece;
(b)   Volume forming part of a series or collection of books;
(c)   Report;
(d)   Translation of any of the above.

Field A15 is not used for the affiliation of individuals associated with theses: see field A41:
DEGREE-GRANTING INSTITUTION.

Subfields

Subfield 1: Name or organization. Where several levels of the organization are cited (e.g. labo-
ratory, faculty, university), they should be entered in descending order of scale, from the larger
unit to the smaller. For large and complex organizations, such as some university or government

departments, discretion may be exercised in omitting intermediate levels, the inclusion of which does not add significant information to the entry, provided always that the most specific unit is cited and that the entry provides an unambiguous identification of the organization.

The name of the organization should be entered in the language of the document (unless the name shown on the document is itself a translation and the name in its original language is known, in which case the latter form should be entered if better known). The following conventions apply:

(a) If transliteration is required, see Appendix "Transliteration".

(b) The full form of the name should be entered even if an abbreviation or acronym is found on the document being recorded. However, if the official or formal name of an organization is usually quoted in the form of an acronym (e.g. IBM, Aslib), this may be entered as the full form in subfield 1.

Subfield 2: Address of organization. The address or location of the organization should be entered in subfield 2.

Subfield 3: Country code. The country of the affiliation may optionally be entered in subfield 3, using the three-character alphabetic codes.

Subfield 4: Country name, in English in Appendix "Country Codes".

A16: AFFILIATION, PRIMARY - COLLECTION

1. Field definition

```
Tag:          A16
Subfields:  1:      Name of organization
            2:      Address or location
            3:      Country code
            4:      Country
Repeatable:       No
```

2. Data description

Field A16 is used to enter the name and address of a single organization to which the primary person associated with a collection is affiliated.

Subfields

Subfield 1: Name of organization. Where several levels of the organization are cited (e.g. laboratory, faculty, university), they should be entered in descending order of scale, from the larger unit to the smaller. For large and complex organizations, such as some university or government departments, discretion may be exercised in omitting intermediate levels, the inclusion of which does not add significant information to the entry, provided always that the most specific unit is cited and that the entry provides an unambiguous identification of the organization.

The name of the organization should be entered in the language of the document (unless the name shown on the document is itself a translation and the name in its original language is

known, in which case the latter form should be entered if better known). The following conventions apply:

(a) If transliteration is required, see Appendix "Transliteration".

(b) The full form of the name should be entered even if an abbreviation or acronym is found on the document being recorded. However, if the official or formal name of an organization is usually quoted in the form of an acronym (e.g. IBM, Aslib), this may be entered as the full form in subfield 1.

Subfield 2: <u>Address of organization</u>. The address or location of the organization should be entered in subfield 2.

Subfield 3: <u>Country code</u>. The country of the affiliation may optionally be entered in subfield 3, using the three-character alphabetic codes.

Subfield 4: <u>Country name</u>, in English in Appendix "Country Codes".

A17: CORPORATE BODY ASSOCIATED WITH ANALYTIC

1. <u>Field definition</u>

Tag:		A17
Subfields:	1:	Full name of corporate body
	2:	Address of corporate body
	3:	Country code
	4:	Country
	5:	Role: a description in free form of the relationship between the organization cited and the bibliographic item to which the record refers (optional element)
Repeatable:		Yes: if there is more than one corporate body associated with an analytic each one cited in the bibliographic record requires a separate repetition of field A17.

Note that Field A14 is AFFILIATION, PRIMARY–ANALYTIC and that Field Z37 is AFFILIATION, SECONDARY.

2. <u>Data description</u>

Field A17 is used to enter the name, the address and country of a corporate body associated with an analytic (paper in conference proceedings, article, letter, book chapter, etc.). Where more than one corporate body is cited in connection with an analytic, field A17 may be repeated as many times as required. Field A17 is not used for author affiliations (see field A14).

Where several levels of the organization are cited (e.g. laboratory, faculty, university), they should be entered in descending order of scale, from the larger unit to the smaller. For large and complex organizations, such as some university or government departments, intermediate levels, the inclusion of which does not add significant information to the entry, may be omitted provided always that the most specific unit is cited and that the entry provides an unambiguous identification of the organization.

Beginning in 1996, for reports the corporate body field is used for performing organizations with the role performer, and for sponsoring organizations with the role sponsor.

The names of a corporate body should be entered in the language of the document (unless the name shown on the document is itself a translation, and the name in its original language is known, in which case the latter form should be entered if better known). The following conventions also apply:

(a) If transliteration is required, see Appendix "Transliteration".

(b) The full form of the name should be entered even if an abbreviation or acronym is found on the document being recorded. However, if the official or formal name of an organization is usually quoted in the form of an acronym (e.g. IBM, Aslib), this may be entered as the full form in subfield 1.

Subfields

Subfield 1: Full name of corporate body. The full name of the corporate body should be entered in subfield 1, or an acronym or abbreviation if the corporate body is usually referred to in this form.

Subfield 2: Address of corporate body. The address or location of the corporate body is entered in subfield 2.

Subfield 3: Country code. The country of the corporate body is entered in subfield 3, using the three-character alphabetic code of ISO 3166: Codes for the representation of names of countries.

Subfield 4: Country. The name of the country, in English.

3. Example

A report funded by the Environmental Protection Agency, Office of Ground Water Protection.

Contents of Field A17:
     U. S. Environmental Protection Agency, Office of Ground Water
     Protection @sponsor

A18: CORPORATE BODY ASSOCIATED WITH MONOGRAPH

1. Field definition

Tag:		A18
Subfields:	1:	Name of corporate body
	2:	Address of corporate body
	3:	Country code
	4:	Country
	5:	Role: a description in free form of the relationship between the organization cited and the bibliographic item to which the record refers (optional element)
Repeatable:		Yes: if there is more than one corporate body associated with a monograph, each one cited in the bibliographic record requires a separate repetition of field A18.

Note that Field A15 is AFFILIATION, PRIMARY–MONOGRAPH and Field Z37 is AF-FILIATION, SECONDARY.

2. <u>Data description</u>

Field A18 is used to enter the name and, optionally, the address and country of a corporate body associated with an item at the monographic level, e.g.

    (a) Book published as a single piece;
    (b) Volume forming part of a series or collection of books;
    (c) Report;
    (d) Translation of the above.

Field A18 is not used for author affiliations. See Field A15.

Beginning in 1996, for reports the corporate body field is used for performing organizations with the role performer, and for sponsoring organizations with the role sponsor.

<u>Subfields</u>

Subfield 1: <u>Full name of corporate body</u>. The full name of the corporate body should be entered in subfield 1, or an acronym or abbreviation if the corporate body is usually referred to in this form.

Subfield 2: <u>Address of corporate body</u>. The address or location of the corporate body is entered in subfield 2.

Subfield 3: <u>Country code</u>. The country of the corporate body is entered in subfield 3, using the three-character alphabetic code of ISO 3166: <u>Codes for the representation of names of countries</u>.

Subfield 4: <u>Country</u>. The name of the country, in English.

3. <u>Example</u>

A report funded by the Environmental Protection Agency, Office of Ground Water Protection.

Contents of Field A18:
       U. S. Environmental Protection Agency, Office of Ground Water
       Protection @sponsor

A19: CORPORATE BODY ASSOCIATED WITH COLLECTION

1. <u>Field definition</u>

Tag:		A19
Subfields:	1:	Full name of corporate body
	2:	Address of corporate body
	3:	Country code
	4:	Country
	5:	Role: a description in free form of the relationship between the organization cited and the bibliographic item to which the record refers (optional element)

Repeatable: Yes: if there is more than one corporate body associated with a collection, each one cited in the bibliographic record requires a separate repetition of field A19.

2. <u>Data description</u>

Field A19 is used to enter the name and, optionally, the address and country of a corporate body associated with a collection. Where more than one corporate body is cited in connection with a collection, field A19 may be repeated as many times as required.

Field A19 is not used for personal author affiliations. See Field A16.

Beginning in 1996, for reports the corporate body field is used for performing organizations with the role performer, and for sponsoring organizations with the role sponsor.

<u>Subfields</u>

Subfield 1: <u>Full name of corporate body</u>. The full name of the corporate body should be entered in subfield 1, or an acronym or abbreviation if the corporate body is usually referred to in this form.

Subfield 2: <u>Address of corporate body</u>. The address or location of the corporate body is entered in subfield 2.

Subfield 3: <u>Country code</u>. The country of the corporate body is entered in subfield 3, using the three-character alphabetic code of ISO 3166: <u>Codes for the representation of names of countries</u>.

Subfield 4: <u>Country</u>. The name of the country, in English.

3. <u>Example</u>

A report funded by the Environmental Protection Agency, Office of Ground Water Protection.

Contents of Field A19:
       U. S. Environmental Protection Agency, Office of Ground Water Protection @sponsor

A20: COLLATION - ANALYTIC

1. <u>Field definition</u>

Tag: A20
Subfields: 1:   Page numbers as in the work
           2:     Additional information on pagination (optional)
Repeatable: No

2. <u>Data description</u>

Field A20 is used to enter the page numbers of an individual contribution, e.g. a journal article, or a chapter in a book, a section in a report or a paper in a conference proceedings. Page numbers may be represented by a single number if the contribution is contained entirely within one page; or by first and last page numbers, if the contribution occupies a continuous 'run' of pages; or by a string of single numbers and/or pairs of numbers in the case of discontinuous pagination.

Field A20 occurs only in records at the analytic level. For COLLATION - MONOGRAPH see field A29, COLLATION - COLLECTION see field A28.

Subfields

Subfield 1: Page numbers. Subfield 1 is used to enter the page numbers as given on the document. If roman numerals are used, they are converted into arabic numerals.

All numbers (including first and last numbers of a sequence such as 1234-1235) should be entered in full. A hyphen is used to separate the first and last page numbers of a continuous sequence. Commas are used to separate individual page numbers or pairs of numbers where pagination is discontinuous, as '27-40, 44, 46-51, 53, 55'.

Subfield 2: Additional information on pagination. Subfield 2 is used to enter additional or alternative page numbers, or pagination which cannot be expressed in the manner defined for subfield 1.

3. Examples

Example 1

Paper occupies page 1234 only.

Contents of field A20:
    1234

Example 2

Paper occupies pages 1234 to 1246.

Contents of field A20:
    1234-1246

Example 3

Paper occupies pages 33 to 37, 41 and 43.

Contents of field A20:
    33-37, 41, 43

Example 4

Paper is unpaginated.

Contents of field A20:
    @unpaginated

A21: DATE OF PUBLICATION

1. Field definition

```
Tag:              A21
Subfield:    1:   Date in ISO standard format
Repeatable:       No
```

2. Data description

Field A21 is used to record the date of publication of a document.

The following are examples of dates which are to be regarded as dates of publication:

(a) The date of a serial issue or part. This should be the date printed on the document as this is the date by which the issue or part is known.

(b) The imprint date of a monograph or collection.

(c) The date of a report: if there is available both a date when the report is completed and a date when it is published, enter the date of publication in field A21.

(d) The date of a thesis or dissertation: if there is available both the date when the thesis or dissertation is submitted and a date of publication (which may be, for example, the date of typing), enter the date of publication in field A21.

Subfields

Subfield 1: ISO standard date. This subfield is used to enter a date or dates in accordance with ISO 2014-1976. This International Standard prescribes that a date should be entered as a numeric string of the form YYYYMMDD, where: YYYY represents the year in full; MM represents the month as a two-digit number in the range 01 to 12. The last one or two digits in the year may be replaced by '?' if uncertain.

3. Examples

Example 1

Date on document: "29th May 1971"

Contents of field A21:
      19710529

Example 2

No date on document; believed to be between 1960 and 1969.

Contents of field A21:
      196?

A22: DATE OTHER THAN DATE OF PUBLICATION

1. Field definition

```
Tag:              A22
```

Subfields: 1:   Date in ISO standard format
Repeatable: Yes

2. Data description

Field A22 is used to record the date when a document was actually issued, as opposed to the publication date on the document, when both dates are given on the document. The date of publication is recorded in field A21. Field A22 is optional.

A23: LANGUAGE OF TEXT

1. Field definition

Tag: A23
Subfields: 1:   Language code
             2:          Name of language in English
Repeatable: Yes: if a document is in more than one language.

2. Data description

Field A23 subfield 1 is used to enter a fixed length code indicating the language in which the text of the item appears. A set of codes which may be used is found in Appendix "Language Codes".

If the original text appears in more than one language, all languages concerned are cited in field A23 which is repeated for each language cited. Field A23 may be used in records at any bibliographic level. Note that it is the lowest level which determines the bibliographic level of a record.

3. Examples

Example 1

Language of document: English

Contents of field A23:
        EL @English

Example 2

Languages of document: Dutch and German

Contents of repeated fields A23:
        DU @Dutch
        GE @German

A24: LANGUAGE OF SUMMARY

1. Field definition

Tag: A24

Subfields: 1:   Language code
                2:      Name of language
Repeatable: Yes, if the summaries are in more than one language.

2. Data description

Field A24 subfield 1 is used to enter a fixed-length code indicating the language of summaries given on the original piece. It is used only where the original document carries summaries in a language or languages different from that (those) of the text, i.e. different from the language(s) mentioned in A23.

A set of codes which may be used is found in Appendix "Language Codes".

Field A24 should be repeated for each summary language.

Field A24 may be used in records at any bibliographic level.

3. Example

Languages of summaries: English, French

Contents of repeated fields A24:
        EL @English
        FR @French

A25: PUBLISHER: NAME & LOCATION (MONOGRAPH, COLLECTION OR SERIAL)

1. Field definition

Tag: A25
Subfields: 1:   Publisher name
                2:      Location
                3:      Country code
                4:      Country name in English
Repeatable: Yes: where more than one publisher is cited field A25 should be repeated as many times as required.

2. Data description

Field A25 is used to enter the name and location of an organization cited as publisher of a monograph, collection or serial. For COUNTRY OF PUBLICATION CODE see Appendix "Country Codes". Theses and some reports do not have a Publisher field. As of 1996, sponsors of reports are in A17, A18, A19, Corporate Author.

Subfields

Subfield 1: Publisher name, entered as given on the document or the wording may be changed to make the publisher's name clearer, for instance, abbreviations may be spelled out.

Subfield 2: Location. The location of the publisher is entered in subfield 2. Usually this con-
sists of the town or city, followed by county, province or state if required.

Subfield 3: Country code from Appendix "Country Codes".

Subfield 4: Country name, in English.

3. Examples

Example 1

Publisher as given on the document:
        "Phaidon Press, 5 Cromwell Place, LONDON SW7"

Contents of field A25:
        Phaidon Press @London @GBR @United Kingdom

A26: ISBN (INTERNATIONAL STANDARD BOOK NUMBER)

1. Field definition

Tag:		A26
Subfield:	1:	ISBN (International Standard Book Number): fixed length, nine numeric digits, one check digit, numeric or X, and three spaces or hyphens.
Repeatable:		Yes, where the work carries more than one ISBN, field A26 may be repeated as many times as required.

2. Data description

Field A26 is used to enter an International Standard Book Number (ISBN). Only the number it-
self including spaces or hyphens should be entered in subfield 1 (not the letters 'ISBN' which
may precede the number as printed on the piece).

Field A26 can apply only to a monographic or collective item; but it may appear in a record at
the analytic level, for example if the record refers to a chapter in a work which carries an ISBN.

3. Example

ISBN as shown on the document:
        "ISBN 0 571 08989 5"

Contents of field A26:
        0 571 0898 5

A27: EDITION

1. Field definition

Tag:		A27
Subfield:	1:	Edition number or edition statement: variable length
Repeatable:		No

2. Field description

Field A27 is used to record the edition number or a statement relating to an edition of a monograph or collection.

Subfield

Subfield 1 should contain one or more digits or an edition statement. Roman numerals should be converted to arabic and ordinals should be entered as pure numbers, without suffixes such as "th".

3. Examples

Example 1

Edition as indicated on the document: "XIIth edn."

Contents of field A27: 12

A28: COLLATION - COLLECTION

1. Field definition

   Tag: A28
   Subfields: 1:   Number of pieces: variable length, numeric only
   Repeatable: No

2. Data description

Field A28 is used to describe the physical pieces which together constitute a collection to which the bibliographic record refers.

In the simplest case, the only description required may be the number of pieces, e.g. sheets or volumes, which together constitute the collection. This number, and nothing else, is entered in subfield 1, as one or more numeric digits.

3. Examples

Example 1

The item consists of 24 volumes

Contents of field A28: 24

A29: COLLATION - MONOGRAPH

1. Field definition

   Tag: A29
   Subfields: 1:   Number of pages
              2:     Additional information on pagination (optional)

Repeatable: No

2. Data description

Field A29 is used to describe the collation details of a monograph, including:

(a) Book published as a single piece;
(b) Volume forming part of a series or collection of books;
(c) Separately published map;
(d) Report;
(e) Thesis or dissertation.

For COLLATION - COLLECTION see field A28. For COLLATION - ANALYTIC see field A20.

Subfields

Subfield 1: Number of pages. Enter the total number of pages in subfield 1. The number of pages is that of the main numbering system in the document. Pages numbered with Roman numerals are not included in the count.

Subfield 2: Additional information on pagination.

3. Examples

Example 1

A document consists of pages numbered 1-8

Contents of field A29: 8

Example 2

A document has unnumbered pages

Contents of field A29: @unpaginated

Example 3

A map of 1 sheet

Contents of field A29: @1 sheet

A30: NAME OF MEETING

1. Field definition

Tag: A30
Subfields: 1:   Name of meeting
Repeatable: No

2. Data description

Field A30 is used to enter the name of a meeting (conference, symposium, etc.), if the document to which the record refers constitutes the proceedings of a meeting. The name of the meeting should be entered in the form in which it appears on the document.

Field A30 may be used in records at all bibliographic levels.

3. Examples

Example 1

The name of the conference, of which the proceedings are being recorded, is "Seventh International Conference on the Physics of Semiconductors".

Contents of field A30:
> Seventh international conference on the Physics of semiconductors

A31: LOCATION OF MEETING

1. Field definition

Tag:		A31
Subfields:	1:	Location of meeting
	2:	Country code
	3:	Country name, in English
Repeatable:		No

2. Data description

Field A31 is used to enter the location of a meeting, the name of which has been entered in field A30.

Subfields

Subfield 1: Location of meeting, entered in free form. The amount of detail required will be dictated partly by the nature of the location, and partly by the information available on the document. If the country is given in the form of a code in subfield 2, it should not be included in subfield 1.

Subfield 2: Country code. The country in which the meeting is entered in subfield 2, using the three-character alphabetic codes in Appendix "Country Codes". Field A31 may be used in records at all bibliographic levels.

3. Example

Location of meeting as given on the document:
> "Reading, Berks., England"

Contents of field A31:
> Reading, Berks. @GBR @United Kingdom

A32: DATE OF MEETING

1. Field definition

    Tag: A32
    Subfields: 1:   Date in YYYYMMDD format: fixed length, eight-digit numeric
                 2:       Inclusive dates
    Repeatable: No

2. Data description

Field A32 is used to enter the begin date and inclusive dates of a meeting, the name of which has been entered in Field A30.

Field A32 may be used in records at all bibliographic levels.

The <u>beginning date</u> of the meeting should be converted into ISO standard format and entered in subfield 1. Inclusive dates should be entered in subfield 2.

<u>Subfields</u>

Subfield 1: <u>ISO standardized date</u>. This subfield is used to enter the begin date in accordance with ISO 2014-1976. This International Standard prescribes that a date should be entered as a fixed-length eight-digit numeric string of the form YYYYMMDD, where YYYY represents the year in full, MM represents the month as a two-digit number in the range 00 to 12 (MM = 00 if no month is cited); DD represents the day as a two-digit numeric in the range 00 to 31 (if no day is cited DD = 00).

Subfield 2: <u>Inclusive dates</u>. In certain circumstances it may be desired to enter the date exactly as found in the document, or to record more information than it is possible to enter within the constraints of the ISO standard format in subfield 1. This should be done in subfield 3. This subfield may also be used to record a non-Gregorian date in free form, if the date on the original is not according to the Gregorian calendar. In such cases an approximate equivalent Gregorian date should be entered in subfield 1 in square brackets.

3. <u>Examples</u>

<u>Example 1</u>

Dates of meeting:
       "27th June - 3rd July 1971"

Contents of field A32:
       19710627@June 27-July 3, 1971

<u>Example 2</u>

Date of meeting (full single date):
       "15th October 1973"

Contents of field A32:
      19731015 @October 15, 1973

A39: REPORT NUMBER

1. Field definition

Tag: A39
Subfields: 1:   Report number
Repeatable: Yes: if a report carries more than one number, field A39 may be
                         repeated as many times as required.

2. Data description

Field A39 is used to enter a number which identifies a report (but not a contract or grant number).

Frequently the report number may include a component which identifies a report series: the number entered in field A39 should include this component, even if the report series is separately identified elsewhere in the record (e.g. by ISSN).

If the report carries more than one identification number, field A39 may be repeated as required.

Field A39 may be used in records at any level.

3. Examples

Example 1

"Report No. 89-435 (a U. S. Geological Survey Open-File Report)

Contents of field A39: OF 89-435

Example 2

"Report No. AIP ID 70-P" (non-U.S. government agency report)

Contents of field A39: AIP ID 70-P

A41: UNIVERSITY OR OTHER EDUCATIONAL INSTITUTION

1. Field definition

Tag: A41
Subfields: 1:   Full name of university or other institution
            2:     Location of institution
            3:     Country code
            4:     Country name, in English
Repeatable: No

2. Data description

Field A41 is used to enter the name of the university, or other degree-granting institution, to which a thesis or dissertation was submitted.

Subfields

Subfield 1: Full name of institution. The full name of the institution should be entered in sub-field 1.

Subfield 2: Location of institution. The address or location is entered in subfield 2.

Subfield 3: Country code. The country of the institution is entered in subfield 3, using the three-character alphabetic code from Appendix "Country Code".

Subfield 4: Country. The country name, in English, is entered here.

3. Example

Thesis was submitted to University of Kansas, United States

Contents of field A41:
        University of Kansas @Lawrence KS @USA @United States

A42: TYPE OF DEGREE

1. Field definition

    Tag: A42
    Subfield: 1:   Type of degree
    Repeatsble: No

2. Data description

Field A42 is used, in a record which refers to a thesis or dissertation, to enter a note on the type of degree for which the thesis or dissertation was presented. This information may be entered in free form.

GeoRef uses "Doctoral", "Master's", and "Bachelor's".

3. Example

Type of degree: "Ph.D."

Contents of field A42: Doctoral

A43: AVAILABILITY OF DOCUMENT

1. Field definition

    Tag: A43
    Subfields: 1:   Name of organization
                 2:     Address of organization (optional)

	3:	Country code (optional)
	4:	Country
Repeatable:		Yes, if available from more than one organization

2. <u>Data description</u>

Field A43 is used to enter the source for obtaining the document to which the bibliographic rec-ord refers. This field is mandatory for reports, theses and all documents which are not available through the usual commercial channels. Field A43 may be used in records at all bibliographic levels.

Entry in field A43 should be made according to the usual conventions for entry of corporate bod-ies so that this field may be used for retrieval. See field A17 for these comventions.

3. <u>Examples</u>

<u>Example 1</u>

A report is available from the National Technical Information Service, Springfield VA, United States

Contents of field A43:
        NTIS @Springfield VA @USA @United States

A45: NUMBER OF REFERENCES

1. <u>Field definition</u>

Tag:		A45
Subfield:	1:	Number of references
Repeatable:		No

2. <u>Data description</u>

Field A45 is used to enter the number of references cited in the document to which the biblio-graphic record refers. It will contain either a number (usual), or the number of pages, e.g. "5 p."

Field A45 may be used in records at all bibliographic levels.

3. <u>Example</u>

<u>Example 1</u>

"27 references"

Contents of field A45: 27

<u>Example 2</u>

5 pages of references

Contents of field A45: 5 p.

A46: 'SUMMARY ONLY' NOTE

1. Field definition

   Tag: A46
   Subfield: 1:   'Summary only' note
   Repeatable: No

2. Data description

Field A46 is provided in order to enter the information that the original document referred to in the bibliographic record is itself only a summary, and not the full text (as is often the case, for example, with conference proceedings).

The content of field A46 may be Y only.

This field may be used at any bibliographic level.

Z01: IDENTIFICATION NUMBER

1. Field definition

   Tag: Z01
   Subfield: 1:   Identification number
   Repeatable: No

2. Data description

Field Z01 is used to uniquely identify a record. Each ID number has a fixed length of 11 characters with the form YYYY-NNNNNN. The YYYY part contains the year in which the record was added to the GeoRef database (not necessarily the same year as the publication year in field A21). The NNNNNN part is a number which starts over at 000001 each new year. These ID numbers are assigned consecutively to records when they begin the production process. But since the records progress through the production process at varying rates, there will be gaps in the ID numbers during a current production year, and a few gaps in earlier years.

Subfield 1: Identification number.

3. Example

ID number assigned to the record is 1995-025481

Contents of field Z01: 1995-025481

Z03: CATEGORY CODE

1. Field definition

   Tag: Z03

Subfields: 1: Category code
                 2: Category name
Repeatable: Yes, if it is required to apply more than one category number to a document.

2. <u>Data description</u>

Field Z03 is provided for entering one or more category codes applied to the document from the classification scheme used by GeoRef.

Subfield 1: <u>Category code</u>. The category code as found in the GeoRef list of categories is entered in subfield 1. This scheme consists of 30 fields of interest for the geosciences. Several of these fields are subdivided further. The basic fields are numbered 01-30 and the subdivisions are alpha letters, A, B, e.g. 01B, mineralogy of silicates.

Subfield 2: <u>Category name</u>. Refer to the Category Codes in the Appendices.

Z04: DOCUMENT TYPE

1. <u>Field definition</u>

Tag: Z04
Subfield: 1:   Type of bibliographic entity - code
Repeatable: No. However more than one type code may be entered in the single field Z04.

2. <u>Data description</u>

This field is used to denote the bibliographic entity type or types to which the document being recorded belongs.

Subfield 1: <u>Document type</u>. This subfield should be used to enter one or more of the following type codes:

S   Serial
B   Book
R   Report
C   Conference document
M   Map
T   Thesis or dissertation

3. <u>Examples</u>

<u>Example 1</u>

The document is a report. Code for report: R

Contents of field Z04
        R

<u>Example 2</u>

The document is a conference proceedings, and is part of a series.

Contents of field Z04
     SC

Z05: BIBLIOGRAPHIC LEVEL CODE

1. Field definition

  Tag: Z05
  Subfield: 1:   Bibliographic level code
  Repeatable: No

2. Data description

Field Z05 is used to enter the bibliographic level code which applies to the record at the lowest level. Only one code is permitted in Z05. Possible codes, from lowest to highest level, are:

  A   Analytic level
  M   Monographic level
  C   Collective level
  S   Serial level

The code describes the lowest level at which a record describes a document. If an analytic record has analytic and monographic and serial fields, the code in Z04 should be A, since that is the lowest level of the record.

Subfield 1: Bibliographic level code

3. Example

Record for a journal article

Contents of Bibliographic Level Code field: A

Z15: ABSTRACT

1. Field definition

  Tag: Z15
  Subfields: 1:   Abstract
  Repeatable: No

2. Data description

Field Z15 is used to enter an abstract of the content of a document. Author abstracts are present for some current journal articles and most current Master's theses. Also, most of the references in GeoRef from the GSA Bibliography and Index of Geology Exclusive of North America, published 1933-1978 include short, original abstracts.

Field Z15 is optional and may be used in records at all bibliographic levels.

3. Example

Abstracts appear in two of the sample records in Part 3 of this manual.

Z24: ANNOTATION

1. Field definition

Tag: Z24
Subfield: 1
Repeatable: No

2. Data description

Field Z24 is used to enter annotations concerning a document or a part of a document, e.g. an analytic. The notes are entered in free form. The notes include information not appropriate for other fields. Source notes go in field Z38. Includes IGCP Project numbers.

3. Examples

Example 1

A letter entitled "Cosmic nickel-iron alloy spherules from Pleistocene sediments" included in a journal.

Contents of the Annotation field: Letter

Example 2

A journal article with a normal title and authors, which is also a numbered contribution of a series apart from the journal.

Contents of Annotation field:
  Lithoprobe Contrib. No. 434

Z32: ILLUSTRATION

1. Field definition

Tag: Z32
Subfield: 1: Illustration information
Repeatable: No

2. Data description

Field Z32 is used to enter information on the type and, in some cases, the number of illustrations, including plates, tables and informal maps. The format of listing these follows a pattern to give it uniformity between references and requires certain data.

3. Examples

A Z32 field in GeoRef may indicate the presence of illustrations, e.g. "illus.", or of informal maps, e.g. "sketch maps". If tables or plates are present, the number is given, e.g. "illus. incl. 7 tables".

Z33: MAP SCALE

1. Field definition

    Tag: Z33
    Subfields: 1:   Map scale in the form 1:750,000
    Repeatable: Yes

2. Data description

Field Z33 is required when a formal map is cited, either as a separate publication or as a fold-out map or map in a pocket in another publication, and the map has a scale which can be put in the form 1:500,000 or 1:1,000,000.

Subfield 1: Map scale expressed in the form 1:250,000.

3. Example

A map in the pocket of a U.S. Geological Survey Water Supply Paper with a scale of 1:10,000

Contents of Map Scale field:
      1:10,000

Z34: MAP TYPE

1. Field definition

    Tag: Z34
    Subfield: 1:   Map type
    Repeatable: Yes

2. Data description

Field Z34 is used to enter the map type for separately published maps and maps which are fold outs or in pockets. This field, together with field Z33, map scale, provide information about relatively important and formal maps, in contrast to sketch maps which are noted in field Z32. There is an authority list of map types to be used in field Z34.

Subfield 1: This is used to enter one of the map types, selected from a list of types used by Geo-Ref, to describe the map in question (see Appendix "Map Types").

3. Example

A geological quadrangle map published in color by the U.S. Geological Survey.

Content of the Map Type field:
      colored geologic map

Z35: MEDIUM OF SOURCE

1. Field definition

Tag: Z35
Subfields: 1:   Medium of source
Repeatable: Yes

2. Data description

Field Z35 is used to enter the medium of the source document, when that medium is not paper. Examples of non-print media are diskette, CD-ROM, and microfilm.

3. Examples

A CD-ROM containing data and illustrations about the State of Virginia.

Contents of the Medium of Source field:
     CD-ROM

Z36: COORDINATES

1. Field definition

Tag: Z36
Subfield: 1:   Coordinates
Repeatable: Yes, if more than one significant location in a document is described by coordinates.

2. Data description

Field Z36 is used to enter geographic coordinates for locations which are geologically significant or important in the document. These coordinates are entered in a prescribed format by which the location is described as a rectangle, in terms of latitude and longitude. Coordinates are assigned as follows: Starting from the lower right-hand corner, a latitude is assigned, followed by the latitude of the upper right-hand corner (counterclockwise), the longitude of that point, and finally the longitude of the upper left-hand corner. Coordinates are in a fixed-length field of 30 characters. Some locations have prestored coordinates in the GeoRef Thesaurus, but these coordinates are used at the option of the GeoRef editor/indexer.

3. Example

A paper on data from cruise Jena 91-11 on the south shelf of Puerto Rico; Isla Caja de Muertos and Salinas to Jobos areas.

Content of the Coordinates field:
     N174800N180000W0661000W0664000

Z37: AFFILIATION, SECONDARY

1. Field definition

Tag: Z37
Subfields: 1:   Secondary affiliation organization
             2:         Location of address of secondary affiliation
             3:         Country code
             4:         Country
Repeatable: Yes, if there is more than one secondary affiliation.

2. Data description

Field Z37 is used to enter the affiliation organization, location or address, and country of authors other than the primary author, whose affiliations is entered in A14, A15, or A16. The format of Z37 is the same as for A14, which see.

3. Example

A journal article with three authors in which the affiliation of one of the secondary authors is the Seismological Bureau of Anhui Province, China.

Contents of the Secondary Affiliation field:
        Seismological Bureau of Anhui Province @@CHN @China

 (Note: subfield 2 is blank since the location is not known.)

Z38: SOURCE NOTE

1. Field definition

Tag: Z38
Subfields: 1:   Source note
Repeatable: No

2. Data description

Field Z38 is used to enter additional information relating to the source of a document, e.g. concerning other people or organizations involved in publication or production.

Subfield 1: The source note in free form.

3. Example

Contents of Source Note field:
        Prepared in cooperation with the Shelby County Department of Public Works

For a proceedings produced by Elsevier for the International Society of Soil Science in which the Society is listed as publisher in field A25.

Contents of Source Note field:
        Elsevier Sci. Pub.

Z39: COUNTRY OF PUBLICATION

1. Field definition

    Tag: Z39
    Subfields: 1:   Country code
                 2:     Country
    Repeatable: No

2. Data description

Field Z39 is used to enter a country code and the country in which the document being recorded was published or issued (in the case of material which is not formally published). The codes used are the three-character alphabetic codes in Appendix "Country Codes". This field is mandatory for all documents whether formally published or not.

If an item is published in more than one country, the first country listed in the document is used in field Z39.

3. Example

A document is published in Hungary (code HUN).

Contents of field Z39: HUN @Hungary

Z43: REFERENCE SOURCE

1. Field definition

    Tag: Z43
    Subfields: 1:   Reference source
                 2:     Address or location
                 3:     Country code
                 4:     Country name
    Repeatable: Yes, if reference was supplied by more than one source

2. Data description

Subfield 1: Contains a GeoRef copyright notice. If the reference was adapted from an external bibliography or database, the name of the source and its producer are given. Note: external references are converted to GeoRef format, checked by computer and by an editor, and indexed.

Subfield 2-4: Refer to external reference source producers. They are not present for references originated by GeoRef staff.

Z44: UPDATE CODE

1. Field definition

    Tag: Z44
    Subfield: Update code

Repeatable: No.

2. Data description

Field Z44 is used to enter the update code. The update code consists of six digits. The first four are the update year. The last two are the number of the update within the year. Currently, GeoRef is updated twice per month, so there are 24 updates per year and the update codes for 1996 are 199601, 199602, 199603, etc. through 199624. Prior to 1994, only the year (first four digits) is given in this field. Prior to 1960, there are gaps in update codes due to the multiyear cumulations from which the data was derived, e.g. for the years 1785-1918, the update code is 1918, the final year of the 1785-1918 cumulation of the U. S. Geological Survey Bibliography and Index of North American Geology. And 1918 is, consequently, the earliest update code.

Z50: INDEX TERM

1. Field definition

    Tag: Z50
    Subfield: 1:   Index term
    Repeatable: Yes

2. Data description

Field Z50 is used to record single-word and multi-word terms which describe the subject content of the document. Index terms may be controlled by the GeoRef Thesaurus or uncontrolled. GeoRef editor/indexers select terms from the GeoRef Thesaurus when possible, but add non-Thesaurus terms when there is no thesaurus term suitable to express a concept.

The index terms consist of specific geographic names, formation names, minerals, fossil names, geologic age terms and other systematic and non-systematic subject terms. The index terms also include more general terms which are added by computer for places and systematic terms. In 1994, the average number of index terms per reference is 16.67.

Subfield 1: Index term, either single-word or multi-word.

Z60: RESEARCH PROGRAM

1. Field Description

    Tag: Z60
    Subfields: 1:   Program name, abbreviated
                2:    Program name, spelled out in full
    Repeatable: Yes.

2. Data Description

Field Z60 is used for entering the names of geoscience research programs, in references related to those programs.

Both the abbreviation and full name of the programs are given. The abbreviation is usually an acronym.

The programs in Z60, as of 1998, are DNAG, DSDP, IGBP, IGC, IGCP, ODP, USGS, USGSOP. Most of these are also index terms and appear in the GeoRef Thesaurus.

3. Example

A reference to a publication of one of the projects of the International Geological Correlation Programme (IGCP).

Contents of Field Z60: IGCP @International Geological Correlation Programme

Z61: HOLDING LIBRARY

1. Field description

```
Tag:              Z61
Subfields:  1:    Library
            2:    Location
            3:    Country
            4:    Classification number
Repeatable:       Yes
```

2. Data Description

Field Z61 is used for entering the names of libraries which have a copy of the document being referenced. Optionally, the classification number of the document in the library can be included. This field is intended for use for field trip guidebooks, and other difficult to locate documents.

3. Example

A copy of the Association of Engineering Geologists, Texas Section, field trip held in 1976 is located at the University of Texas library in Austin.

Contents of Field Z61: University of Texas at Austin, Joseph C. Walter, Jr. and Elizabeth C. Walter Geology Library @Austin, TX @USA

Z62: URL

1. Field Description

```
Tag:              Z62
Subfields   1:    Type of URL
            2:    URL
Repeatable:       Yes, if it is required for entering more than one form of the URL.
```

2. Data Description

Field Z62 is used for entering the URLs associated with the reference.

Subfield 1:   Type of URL
Each Field Z62 begins with one of the following single-letter codes for Type of URL:

F   for full-text available on web
A   Availability
P   Publisher
S   Series

3. Example

For a reference to the full text of an article in the Journal of Environmental Hydrology, available on the Internet, the URL of the issue containing the article is

www.hydroweb.com/jeh_3_2.html

Contents of Field Z62: F @www.hydroweb.com/jeh_3_2.html

Z63: TARGET AUDIENCE

1. Field Description

Tag: Z63
Subfield: Target audience
Repeatable: Yes

2. Data Description

Field Z63 is used for entering the target audience for a reference. It is used to flag references which are suitable for special audiences.

The audiences specified in Z63 include undergraduates, K-12 students, adults, and geoscience teachers.

3. Example

The reference is to an article "Stratigraphy of the Savannah River Site and vicinity" in South-eastern Geology.

Contents of field Z63: undergraduates

DOI: DIGITAL OBJECT IDENTIFIER

1. Field description:

Tag: DOI
Subfield: DOI
Repeatable: No

2. Data description:

The DOI field is used for the unique Digital Object Identifier for an online publication. DOIs vary in length and may contain a combination of letters and numerals.

3. Example:

The DOI for an article in Water Resources Research, Vol. 39, No. 5 appears as doi: 10.1029/2001WR001010 on the publication.

Contents of the DOI field: 10.1029/2001WR001010

PART 3

EXAMPLES OF COMPLETE
BIBLIOGRAPHIC RECORDS

This part consists of complete examples for four combinations of levels and types of bibliographic entity.

Each example consists of the following:

- a citation as it appeared in the Bibliography and Index of Geology;
- reproduction of the title page and other parts from the document being recorded;
- data fields for the record in GeoRef

Example 1 : SERIAL CONFERENCE ANALYTIC

Citation from Bibliography and Index of Geology:

41660 **Tollo, Richard P.** (George Washington University, Department of Geology, Washington, DC) **and Arav, Sara**. The Robertson River igneous suite (Blue Ridge Province, Virginia); late Proterozoic anorogenic (A-type) granitoids of unique petrochemical affinity: in Basement tectonics 8; Characterization and comparison of ancient and Mesozoic continental margins; proceedings of the Eighth international conference on Basement tectonics (Bartholomew, Mervin J., editor; *et al.*), Proceedings of the International Conference on Basement Tectonics, 8, p. 425-441, illus. incl. 3 tables, geol. sketch maps, 57 ref., 1988. *Meeting:* Aug. 8-12, 1988, Butte, MT.

Data fields:

$Z01	1993029781	Identification number
$A01	P @0270-5426	ISSN
$A03	Proceedings of the International Conference on Basement Tectonics	Title of serial
$A05	8	Volume number
$A08	O @The Robertson River igneous suite (Blue Ridge Province, Virginia); late Proterozoic anorogenic (A-type) granitoids of unique petrochemical affinity	Title of analytic
$A09	O @Basement tectonics 8; Characterization and comparison of ancient and Mesozoic continental margins; proceedings of the Eighth international conference on Basement tectonics	Title of monograph
$A11	Tollo, Richard P.	Arav, Sara	Author - analytic
$A12	Bartholomew, Mervin J. @editor	Hyndman, Donald W. @editor	Mogk, David W. @editor	Mason, Robert @editor	Person associated w/monograph
$A14	George Washington University, Department of Geology @Washington, DC @USA @United States	Affiliation - analytic
$A15	University of South Carolina, Earth Sciences and Resources Institute @Columbia, SC @USA @United States	Affiliation, primary - monograph
$A20	425-441	Pagination - article
$A21	1988	Date of publication
$A23	EL @English	Language of document
$A25	Basement Tectonics Committee @[location varies] @USA @United States	Publisher
$A26	0-7923-2088-3	ISBN
$A30	Eighth international conference on Basement tectonics	Name of meeting
$A31	Butte, MT @USA @United States	Location of meeting
$A32	19880808 @Aug. 8-12, 1988	Date of meeting
$A45	57	Number of references
$Z03	05A @Igneous and metamorphic petrology	02C @Geochemistry of rocks, soils, and sediments	Category codes
$Z04	SC	Document type
$Z05	A	Document level
$Z32	illus. incl. 3 tables, geol. sketch maps	Illustration
$Z36	N383000N391500W0774500W0781500	Coordinates
$Z37	University of Montana @@USA @United States	Montana State University @@USA @United States	Queen's University @@CAN @Canada	U. S. Geological Survey @@USA @United States	Affiliation, secondary
$Z39	USA @United States	Country of publication
$Z43	GeoRef, Copyright 1995, American Geological Institute.	Reference source
$Z44	199309	Update code
$Z50	A-type granites	Appalachians	Blue Ridge Province	chemical composition	Culpeper County Virginia	Fauquier County Virginia	geochemistry	granites	igneous rocks	lithogeochemistry	North America	petrography	plutonic rocks	Precambrian	Proterozoic	Rappahannock County Virginia	United States	upper Precambrian	upper Proterozoic	Virginia	Index terms

BASEMENT TECTONICS 8

Characterization and Comparison
of Ancient and Mesozoic
Continental Margins

Proceedings of the
Eighth International Conference on Basement Tectonics,
held in Butte, Montana, USA, August 1988

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The Robertson River Igneous Suite (Blue Ridge Province, Virginia) — Late Proterozoic anorogenic (A-type) granitoids of unique petrochemical affinity

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ABSTRACT

Detailed field mapping and petrochemical analysis indicate that the previously defined Robertson River Formation encompasses a suite of A-type granitoids and felsites that intruded Middle Proterozoic gneisses in the core of the Blue Ridge anticlinorium in northern Virginia. Constituent granitoids in the northern portion of the suite include the herein named (from oldest to youngest): Laurel Mills Granite (LMG), Cobbler Mountain Alkali Feldspar Quartz Syenite (CMAS), Amissville Alkali Feldspar Granite (AAG), and Battle Mountain Complex (BMC). The Robertson River Igneous Suite includes both subsolvus (LMG) and hypersolvus assemblages, ranges from predominantly metaluminous (LMG, CMAS) to peralkaline (AAG, BMC) in composition, and displays mineralogic and bulk chemical affinities to A-type granites described from other localities. The suite exhibits a broad range in Ga/Al, Nb, Y, Zr, and Zn that corresponds closely to published values for the Younger Granites of Nigeria, which have been shown to represent anorogenic magmatic activity related to extensional tectonics. The extreme enrichment in Ga, Zr, Nb, and Zn in both suites is probably indicative of a petrologic history involving extensive F complexing, consistent with the presence of abundant fluorite and F-bearing amphiboles. Marked depletion in Sr and variable Rb/Sr ratios suggest extensive plagioclase fractionation, which is consistent with the presence of this mineral as a liquidus phase in the earliest intrusive unit of the suite. Although the generation of A-type melts does not necessarily indicate an anorogenic or rifting tectonic environment, the unique geochemical characteristics and marked similarity to the demonstrably anorogenic Younger Granites of Nigeria are consistent with the interpretation that the Robertson River Igneous Suite records an extensive period of anorogenic magmatism associated with the early phase of Late Proterozoic rifting of Laurentia.

INTRODUCTION

The Blue Ridge anticlinorium in northern Virginia (Figure 1) includes a complex series of high-grade gneissic lithologies that are Middle Proterozoic in age and are overlain by a sequence of Late Proterozoic to Early Cambrian low-grade metasedimentary and metavolcanic rocks (Espanshade, 1970; Bartholomew and Lewis, 1984; Clarke, 1984). The gneiss assemblage is interpreted to represent Laurentian basement which experienced intense Grenville-age orogenesis involving abundant plu-

Example 2:   BOOK CONFERENCE MONOGRAPHIC

<u>Citation from the Bibliography and Index of Geology:</u>

> 11057 **Duncan, Ian J., chairperson**. The Australasian Institute of Mining and Metallurgy; centenary conference: Australas. Inst. Min. and Metall., Parkville, Vict., Australia, 398 p., 1993. ISBN: 0-949106-79-8. *Meeting:* March 30 - April 4, 1993, Adelaide, South Aust., Australia. Individual papers within scope are cited separately.

<u>Data fields:</u>

$Z01	1993027262	Identification number
$A09	O @The Australasian Institute of Mining and Metallurgy; centenary conference	Title of monograph
$A12	Duncan, Ian J. @chairperson	Person associated w/monograph
$A21	1993	Date of publication
$A23	EL @English	Language of document
$A25	Australas. Inst. Min. and Metall. @Parkville, Vict. @AUS @Australia	Publisher
$A26	0-949106-79-8	ISBN
$A29	398	Collation - monograph
$A30	Australasian Institute of Mining and Metallurgy; Centenary conference	Name of meeting
$A31	Adelaide, South Aust. @AUS @Australia	Location of meeting
$A32	19930330 @March 30 - April 4, 1993	Date of meeting
$Z03	26A @Economic geology, general, deposits	Category codes
$Z04	BC	Document type
$Z05	M	Document level
$Z24	Individual papers within scope are cited separately	Annotation
$Z39	AUS @Australia	Country of publication
$Z43	GeoRef, Copyright 1995, American Geological Institute.	Reference source
$Z44	199308	Update code
$Z50	history	mineral resources	mining	production	reserves	symposia	Index terms

The Australasian Institute of Mining and Metallurgy

CENTENARY CONFERENCE

Adelaide, 30 March - 4 April 1993

Example 3:   SERIAL ANALYTIC

<u>Citation from the Bibliography and Index of Geology:</u>

36033 Poag, C. Wylie (U. S. Geological Survey, Woods Hole, MA); Powars, David S.; Poppe, Lawrence J. and Mixon, Robert B. **Meteoroid mayhem in Ole Virginny; source of the North American tektite strewn field:** Geology (Boulder), 22(8), p. 691-694, illus. incl. sects., sketch maps, 15 ref., August 1994.

<u>Data fields:</u>

$Z01	1994038901	Identification number
$A01	E @0091-7613 │ P @0091-7613	ISSN
$A02	GLGYBA	CODEN
$A03	Geology (Boulder)	Title of serial
$A05	22	Volume number
$A06	8	Part number
$A08	O @Meteoroid mayhem in Ole Virginny; source of the North American tektite strewn field	Title of analytic
$A11	Poag, C. Wylie	Powars, David S.	Poppe, Lawrence J.	Mixon, Robert B.	Author - analytic
$A14	U. S. Geological Survey @Woods Hole, MA @USA @United States	Affiliation - analytic
$A20	691-694	Pagination - article
$A21	199408	Date of publication
$A23	EL @English	Language of document
$A25	Geological Society of America (GSA) @Boulder, CO @USA @United States	Publisher
$A45	15	Number of references
$DOI	10.1130/0091-7613(1994)022<0691:MMIOVS>2.3.CO;2	Digital Object Identifier
$Z03	12 @Stratigraphy	07 @Oceanography	20 @Applied geophysics	Category codes
$Z04	S	Document type
$Z05	A	Document level
$Z15	New seismic reflection data from Chesapeake Bay reveal a buried, 85-km-wide, 1.5-2.0-km-deep, peak-ring impact crater, carved through upper Eocene to Lower Cretaceous sedimentary strata and into underlying pre-Mesozoic crystalline basement rocks. A polymictic, late Eocene impact breccia, composed mainly of locally derived sedimentary debris (determined from four continuous cores), surrounds and partly fills the crater. Structural and sedimentary characteristics of the Chesapeake Bay crater closely resemble those of the Miocene Ries peak-ring crater in southern Germany. We speculate that the Chesapeake Bay crater is the source of the North tektite strewn field.	Abstract
$Z32	illus. incl. sects., sketch maps	Illustration
$Z36	N373000N373800W0754000W0754500	N371445N371445W0760450W0760450	Coordinates
$Z39	USA @United States	Country of publication
$Z43	GeoRef, Copyright 1995, American Geological Institute. Reference includes data supplied by the Geological Society of America @Boulder, CO @USA @United States	Reference source
$Z44	199418	Update code
$Z50	Atlantic Coastal Plain	Atlantic Ocean	breccia	Cenozoic	Chesapeake Bay	clastic rocks	cores	craters	Cretaceous	eastern Virginia	Eocene	geophysical surveys	impact craters	impact features	impacts	Lower Cretaceous	Mesozoic	North American Atlantic	North American strewn field	North Atlantic	Northampton County Virginia	Paleogene	provenance	reflection methods	sedimentary rocks	seismic surveys	surveys	tektites	Tertiary	United States	upper Eocene	Virginia	Rappahannock County	Index terms
$Z62	S @http://www.gsajournals.org/gsaonline/?request=get-moreinfo& issn=0091-7613	URL

GEOLOGY

COVER: Three-layer perspective view showing the surface of Venus and the internal density structure at two different depths. The uppermost plane is a global radar image draped over global topography. The lower two levels represent an inversion of the spherical harmonic gravity and topography. The middle level shows density anomalies in the lithosphere, and downwarped regions represent thickened crust. The lowest level shows density anomalies in the upper mantle, and upwarped regions represent mantle upwellings. The tesserae, areally extensive regions of intense deformation (e.g., Alpha, Ovda, Thetis, Tellus), are all regions of thickened crust, whereas the major volcanic regions (e.g., Atla, Beta, W. Eistla) are located over mantle upwellings. The image covers from 120°W to 240°E longitude and 80°N to 50°S latitude. All data used are from the Magellan mission to Venus. See "Resurfacing history of Venus" by Robert R. Herrick, p. 703. Image processing by Scott Lee, Lunar and Planetary Institute.

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Meteoroid mayhem in Ole Virginny: Source of the North American tektite strewn field

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David S. Powars   U.S. Geological Survey, Reston, Virginia 22092
Lawrence J. Poppe   U.S. Geological Survey, Woods Hole, Massachusetts 02543
Robert B. Mixon   U.S. Geological Survey, Reston, Virginia 22092

ABSTRACT

New seismic reflection data from Chesapeake Bay reveal a buried, 85-km-wide, 1.5–2.0-km-deep, peak-ring impact crater, carved through upper Eocene to Lower Cretaceous sedimentary strata and into underlying pre-Mesozoic crystalline basement rocks. A polymictic, late Eocene impact breccia, composed mainly of locally derived sedimentary debris (determined from four continuous cores), surrounds and partly fills the crater. Structural and sedimentary characteristics of the Chesapeake Bay crater closely resemble those of the Miocene Ries peak-ring crater in southern Germany. We speculate that the Chesapeake Bay crater is the source of the North American tektite strewn field.

INTRODUCTION

Poag et al. (1992) described a late Eocene boulder bed from cores in southeastern Virginia and ascribed its origin to an impact-generated tsunami. Subsequently, addi-tional seismic reflection profiles revealed two coeval late Eocene (~35 Ma; Obrado-vich et al., 1989) impact structures, one near the head of Toms Canyon, 130 km east of Atlantic City, New Jersey (Poag et al., 1993), and the other in the lower part of Chesapeake Bay, southeastern Virginia (Powars et al., 1993).

This paper presents some of the new seismic data and revises our initial interpreta-tions of the Chesapeake Bay crater and the Exmore boulder bed.

SEISMIC EVIDENCE

Five intersecting multichannel seismic re-flection profiles traversing the lower part of Chesapeake Bay reveal a complex, 85-km-wide, peak-ring (ring of raised basement rocks that defines the inner basin) impact crater, the largest such feature known in the United States (Fig. 1). The crater's inner ba-

Figure 1. Location and principal features of Chesapeake Bay peak-ring crater compared with Miocene Ries peak-ring crater of southern Germany. Outline of Ries crater superimposed on that of Chesapeake Bay crater; small cross is center point for both. Boundaries of breccia deposits are approximate; bunte breccia is not continuous within its area of distribution; we restored original distribution on assumption that its present maximum radial distance of 37 km was originally maintained around entire circumference of crater. Grid of five lines crossing Chesapeake Bay and three lines east of Delmarva Peninsula represents navigation tracks of seismic reflection profiles; four thick segments of tracks in Chesapeake Bay indicate profiles illustrated in Figures 3 and 4. Note that core holes at Windmill Point (WP) and Newport News (NN) sampled ejecta blanket outside crater; core holes at Exmore (E) and Kiptopeke (K) sampled annular trough; inner basin has not yet been sampled.

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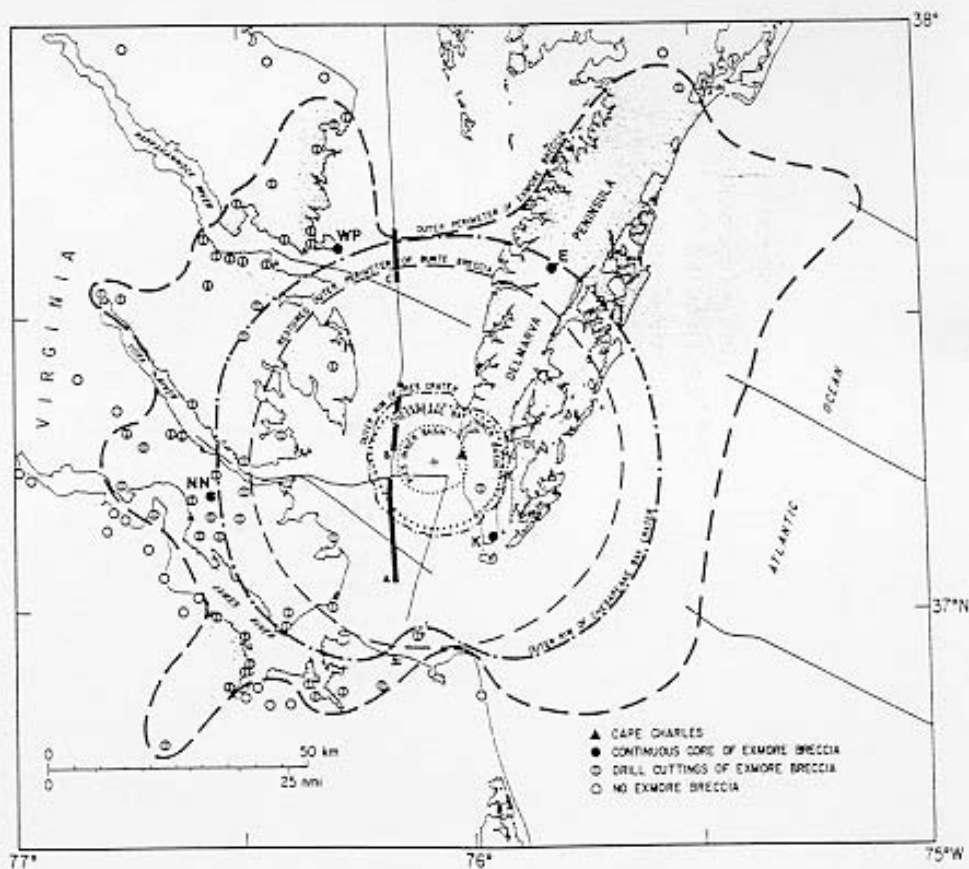
Example 4:   SERIAL REPORT MONOGRAPHIC

24309 Perry, Charles A. (U. S. Geological Survey). **Effects of reservoirs on flood discharges in the Kansas and the Missouri River basins, 1993**: U. S. Geological Survey Circular, Rep. No. C 1120-E, 20p., illus. incl. 2 tables, sketch maps, 8 ref., 1994. Floods in the upper Mississippi River basin, 1993

Data fields:

$Z01	1994023204	Identification number
$A01	0364-6017	ISSN
$A02	XICIA5	CODEN
$A03	U. S. Geological Survey Circular	Title of serial
$A09	O @Effects of reservoirs on flood discharges in the Kansas and the Missouri River basins, 1993	Title of monograph
$A12	Perry, Charles A.	Person associated w/monograph
$A15	U. S. Geological Survey @@USA @United States	Affiliation, primary - monograph
$A21	1994	Date of publication
$A23	EL @English	Language of document
$A25	U. S. Geological Survey @Reston, VA @USA @United States	Publisher
$A29	20	Collation - monograph
$A39	C 1120E	Report number
$A45	8	Number of references
$Z03	21 @Hydrogeology	22 @Environmental geology	Category codes
$Z04	SR	Document type
$Z05	M	Document level
$Z15	Analyses of floodflows in the Kansas River indicate that reservoirs contributed to reduced flooding along the Kansas and lower Missouri rivers. Results of analyses of the 1993 flooding, which include total basin rainfall, peak discharge, and total flood volume on the Kansas River, are compared with analyses of the 1951 flood, which had a similar total volume but a substantially larger peak discharge.	Abstract
$Z24	Floods in the upper Mississippi River basin, 1993	Annotation
$Z32	illus. incl. 2 tables, sketch maps	Illustrations
$Z39	USA @United States	Country of publication
$Z43	GeoRef, Copyright 1995, American Geological Institute.	Reference source
$Z44	199406	Update code
$Z50	Colorado	discharge	floods	geologic hazards	hydrographs	hydrology	Kansas	Kansas River valley	Mississippi River basin	Mississippi Valley	Missouri	Missouri River basin	Nebraska	North America	reservoirs	rivers and streams	runoff	South Dakota	surface water	United States	Upper Mississippi Valley	USGS	Index terms

EFFECTS OF RESERVOIRS ON FLOOD DISCHARGES IN THE KANSAS AND THE MISSOURI RIVER BASINS, 1993

By Charles A. Perry

Floods in the Upper Mississippi River Basin, 1993

U.S. GEOLOGICAL SURVEY CIRCULAR 1120-E

APPENDICES

COUNTRY CODES

???	???	CIV	Ivory Coast	GLP	Guadeloupe
AFG	Afghanistan	CMR	Cameroon	GMB	Gambia
AGO	Angola	COD	Congo, Democratic Republic of	GNB	Guinea-Bissau
ALB	Albania			GNQ	Equatorial Guinea
AND	Andorra	COG	Congo	GRC	Greece
ANT	Netherlands Antilles	COK	Cook Islands	GRD	Grenada
ARE	United Arab Emirates	COL	Colombia	GRL	Greenland
ARG	Argentina	COM	Comoros	GTM	Guatemala
ARM	Armenia	CPV	Cape Verde Islands	GUF	French Guiana
ASM	American Samoa	CRI	Costa Rica	GUM	Guam
ATA	Antarctica	CSK	Czechoslovakia	GUY	Guyana
ATG	Antigua	CUB	Cuba	HKG	Hong-Kong
ATN	Dronning Maud Land	CXR	Christmas Island	HMD	Heard and McDonald Islands
AUS	Australia	CYM	Cayman Islands		
AUT	Austria	CYP	Cyprus	HND	Honduras
AZE	Azerbaijan	CZE	Czech Republic	HRV	Croatia
BDI	Burundi	DDR	German Democratic Republic	HTI	Haiti
BEL	Belgium			HUN	Hungary
BEN	Benin	DEU	Germany	HVO	Upper Volta
BFA	Burkina Faso	DJI	Djibouti	IDN	Indonesia
BGD	Bangladesh	DMA	Dominica	III	International
BGR	Bulgaria	DNK	Denmark	IND	India
BHS	Bahamas	DOM	Dominican Republic	IOT	British Indian Ocean Territory
BIH	Bosnia and Herzegowina	DZA	Algeria		
		ECU	Ecuador	IRL	Ireland
BLR	Belarus	EGY	Egypt	IRN	Iran
BLZ	Belize	ERI	Eritrea	IRQ	Iraq
BMU	Bermuda	ESH	Western Sahara	ISL	Iceland
BOL	Bolivia	ESP	Spain	ISR	Israel
BRA	Brazil	EST	Estonia	ITA	Italy
BRB	Barbados	ETH	Ethiopia	JAM	Jamaica
BRN	Brunei	FIN	Finland	JOR	Jordan
BTN	Bhutan	FJI	Fiji	JPN	Japan
BUR	Burma	FLK	Falkland Islands (Malvinas)	JTN	Johnston Island
BVT	Bouvet Island			KAZ	Kazakhstan
BWA	Botswana	FRA	France	KEN	Kenya
BYS	Byelorussian SSR	FRO	Faeroe Islands	KGZ	Kyrgyzstan
CAF	Central African Republic	FSM	Micronesia, Federated States of	KHM	Kampuchea
				KIR	Kiribati
CAN	Canada	GAB	Gabon	KNA	St. Kitts-Nevis-Anguilla
CCK	Cocos (Keeling) Islands	GBR	United Kingdom		
		GEO	Georgian Republic	KOR	South Korea
CHE	Switzerland	GHA	Ghana	KWT	Kuwait
CHL	Chile	GIB	Gibraltar	LAO	Laos
CHN	China	GIN	Guinea	LBN	Lebanon

LBR	Liberia	PER	Peru	TUN	Tunisia
LBY	Libya	PHL	Philippines	TUR	Turkey
LCA	Saint Lucia	PLW	Palau	TUV	Tuvalu
LIE	Liechtenstein	PNG	Papua New Guinea	TWN	Taiwan
LKA	Sri Lanka	POL	Poland	TZA	Tanzania
LSO	Lesotho	PRI	Puerto Rico	UGA	Uganda
LTU	Lithuania	PRK	North Korea	UKR	Ukraine
LUX	Luxembourg	PRT	Portugal	URY	Uruguay
LVA	Latvia	PRY	Paraguay	USA	United States
MAC	Macau	PYF	French Polynesia	UZB	Uzbekistan
MAR	Morocco	QAT	Qatar	VAT	Vatican City State
MCO	Monaco	REU	Reunion		(Holy See)
MDA	Moldova, Republic of	ROM	Romania	VCT	Saint Vincent and the
MDG	Madagascar	RUS	Russian Federation		Grenadines
MDV	Maldives	RWA	Rwanda	VEN	Venezuela
MEX	Mexico	SAU	Saudi Arabia	VGB	British Virgin Islands
MHL	Marshall Islands	SDN	Sudan	VIR	United States Virgin
MID	Midway Islands	SEN	Senegal		Islands
MKD	Macedonia	SGP	Singapore	VNM	Vietnam
MLI	Mali	SHN	St. Helena	VUT	Vanuatu
MLT	Malta	SJM	Svalbard and Jan	VVV	International
MNE	Montenegro		Mayen Islands	WAK	Wake Island
MNG	Mongolia	SLB	Solomon Islands	WLF	Wallis and Futuna
MNP	Northern Mariana	SLE	Sierra Leone		Islands
	Islands	SLV	El Salvador	WSM	Samoa
MOZ	Mozambique	SMR	San Marino	YEM	Yemen
MRT	Mauritania	SOM	Somalia	YMD	South Yemen
MSR	Montserrat	SPM	St. Pierre and	YUG	Yugoslavia
MTQ	Martinique		Miquelon	ZAF	South Africa
MUS	Mauritius	STP	Sao Tome and	ZAR	Zaire
MWI	Malawi		Principe	ZMB	Zambia
MYS	Malaysia	SUN	USSR	ZWE	Zimbabwe
NAM	Namibia	SUR	Surinam		
NCL	New Caledonia	SVK	Slovak Republic		
NER	Niger	SVN	Slovenia		
NFK	Norfolk Island	SWE	Sweden		
NGA	Nigeria	SWZ	Swaziland		
NIC	Nicaragua	SYC	Seychelles		
NIU	Niue	SYR	Syria		
NLD	Netherlands	TCA	Turks and Caicos		
NOR	Norway		Islands		
NPL	Nepal	TCD	Chad		
NRU	Nauru	TGO	Togo		
NZL	New Zealand	THA	Thailand		
OMN	Oman	TJK	Tajikistan		
PAK	Pakistan	TKL	Tokelau		
PAN	Panama	TKM	Turkmenistan		
PCI	Pacific Islands (trust	TMP	East Timor		
	territory)	TON	Tonga		
PCN	Pitcairn Islands	TTO	Trinidad and Tobago		

LANGUAGE CODES

The following codes were devised at AGI for GeoRef and are in current use:

Afrikaans	AF	Indonesian	IN	Tamil	TM
Albanian	AL	Irish	IR	Thai	TH
Amharic	AH	Italian	IT	Turkish	TU
Arabic	AR	Japanese	JA	Turkmenistan	TR
Armenian	AM	Kazakhstan	KZ	Ukrainian	UK
Azerbaijani	AZ	Kirghiz	KI	Urdu	UR
Bashkir	BK	Kongo	KN	Uzbekistan	UZ
Basque	BA	Korean	KO	Vietnamese	VN
Belorussian	BE	Kurdish	KU	Welsh	WL
Bengali	BN	Laotian	LO	Wolof	WO
Berber	BB	Lapp	LP	Yoruba	YO
Breton	BT	Latin	LA		
Bulgarian	BU	Latvian	LV		
Burmese	BR	Lithuanian	LI		
Cambodian	CM	Luba	LU		
Catalan	CA	Macedonian	MC		
Chinese	CH	Malagasy	ML		
Croatian	CR	Malaysian	MA		
Czech	CZ	Maori	MI		
Danish	DA	Moldavian	MD		
Dutch	DU	Mongol	MG		
English	EL	Norwegian	NO		
Eskimo	EK	Panjabi	PJ		
Esperanto	ES	Persian	PE		
Estonian	EN	Polish	PO		
Faroese	FA	Portuguese	PR		
Finnish	FI	Provencal	PV		
Flemish	FL	Pushto	PU		
French	FR	Quechua	QU		
Frisian	FS	Romanian	RO		
Gaelic	GL	Romansh	RH		
Galician	GA	Russian	RU		
Georgian	GG	Serbian	SE		
German	GE	Shona	SO		
Greek	GR	Sinhalese	SI		
Guarani	GI	Slovakian	SL		
Gujerati	GU	Slovenian	SV		
Hausa	HA	Spanish	SP		
Hebrew	HE	Swahili	SH		
Hindi	HI	Swedish	SW		
Hungarian	HU	Tadzhikistan	TA		
Icelandic	IC	Tagalog	TG		
Igbo	IG	Tajik	TJ		

CATEGORY CODES

01: Mineralogy

01A: General mineralogy (Includes mineralogical methods, regional studies, mineral collecting)

01B: Mineralogy of silicates

01C: Mineralogy of non-silicates

02: Geochemistry

02A: General geochemistry (Includes geochemical methods)

02B: Geochemistry of water

02C: Geochemistry of rocks, soils, and sediments

02D: Isotope geochemistry

03: Geochronology (Includes absolute age and relative age)

04: Extraterrestrial geology

05: Igneous and metamorphic petrology

05A: Igneous and metamorphic petrology (Includes igneous rocks, metamorphic rocks, inclusions, intrusions, lava, magmas, metamorphism, metasomatism, meteor craters, phase equilibria, pre-Quaternary volcanism)

05B: Petrology of meteorites and tektites

06: Sedimentary petrology

06A: Sedimentary petrology (Includes clay mineralogy, diagenesis, heavy minerals, reefs, sedimentary rocks, sedimentary structures, sedimentation, sediments, weathering)

06B: Petrology of coal

07: Oceanography (Includes modern marine sedimentation)

08: General paleontology (Includes life origin, ichnofossils (if not related to a specific fossil group), problematic fossils, and studies which fall under more than one paleontologic category)

09: Paleobotany

10: Invertebrate paleontology

11: Vertebrate paleontology

12: Stratigraphy (Includes pre-Quaternary stratigraphy, biostratigraphy, lithostratigraphy, magnetostratigraphy, paleogeography, archaeology, changes of level, paleoclimatology, lithofacies, paleoecology, biogeography)

13: Areal geology (Includes regional studies, guidebooks, and studies which fall under 3 or more categories)

14: Geologic maps (Note: Other specific maps are found under the relevant category)

15: Miscellaneous (Includes mathematical geology, general geoscience education, annual reports of geologic surveys and associations, history, geology as a profession, forensic geology)

16: Structural geology (Includes deformation, structural analysis, tectonics, neotectonics, salt tectonics, epeirogeny, faults, folds, foliation, fractures, geosynclines, isostasy, lineation, orogeny)

17: General geophysics

17A: General geophysics (Includes physical properties of rocks and minerals)

17B: Geophysics of minerals and rocks: Includes phase transitions, high pressure-temperature studies of rocks and minerals (applied to core and mantle composition)

18: Solid-earth geophysics (Includes tectonophysics, crust, mantle, core, application of seismicity, plate tectonics, paleomagnetism, heat flow, isostasy, sea-floor spreading, magnetic field, gravity field, Earth's orbit and rotation)

19: Seismology (Includes earthquakes, seismicity, explosions, elastic waves, seismic sources)

20: Applied geophysics (Includes acoustical surveys, Earth-current surveys, electrical surveys, electromagnetic surveys, gravity surveys, infrared surveys, magnetic surveys, magnetotelluric surveys, seismic surveys, geodesy, heat flow, remote sensing, well-logging)

21: Hydrogeology (Includes water resources)

22: Environmental geology (Includes conservation, ecology, geologic hazards, impact statements, land use, pollution (including water pollution and soil pollution), reclamation, waste disposal)

23: Geomorphology (Includes erosion, mass movements, meteor craters, cryptoexplosion features, eolian features, erosion features, fluvial features, frost action, lacustrine features, shore features, solution features, volcanic features)

24: Quaternary geology (Includes Quaternary geomorphology, Quaternary glacial geology and glacial features, Quaternary stratigraphy, Quaternary archaeology, Quaternary volcanoes, Quaternary climate, Quaternary sediments, Quaternary changes of level)

25: Soils

26: Economic geology, general

26A: Economic geology, general, deposits (Includes mining geology)

26B: Economic geology, general, economics

27: Economic geology of ore deposits

27A: Economic geology, geology of ore deposits (Includes uranium ores)

27B: Economic geology, economics of ore deposits (Includes uranium ores)

28:     Economic geology of nonmetal deposits

28A: Economic geology, geology of nonmetal deposits

28B: Economic geology, economics of nonmetal deposits

29:     Economic geology of energy sources

29A: Economic geology, geology of energy sources (Includes petroleum (oil and gas), coal, and other energy sources)

29B: Economic geology, economics of energy sources (Includes petroleum (oil and gas), coal, and other energy sources)

30:     Engineering geology (Includes rock mechanics, soil mechanics, waste disposal, reclamation, dams, earthquakes, explosions, foundations, geologic hazards, highways, land subsidence, marine installations, nuclear facilities, permafrost, reservoirs, shorelines, slope stability, soil mechanics, tunnels, underground installations, waterways)

MAP TYPES

aeromagnetic maps
base maps
bathymetric maps
biogeographic maps
cave maps
climatologic maps
contour maps
economic geology maps
electromagnetic survey maps
engineering geology maps
environmental geology maps
geochemical maps
geologic maps
geologic hazards maps
geomorphologic maps
geophysical maps
geophysical survey maps
geotectonic maps
glacial geology maps
global maps
gravity survey maps
hydraulic maps
hydrogeologic maps
hydrographic maps
hydrologic maps
index maps
isobathic maps
isograd maps
isopach maps
isopleth maps
isoseismic maps
land use maps
lithofacies maps
lithologic maps
magnetic survey maps
marine geology maps
paleoclimate maps
paleocurrent maps
paleogeographic maps
photogeologic maps
physiographic maps
radioactivity survey maps
seismic survey maps
seismicity maps
seismotectonic maps

shaded relief maps
site location maps
soils maps
stratigraphic maps
structural maps
structure contour maps
surficial geology maps
tectonic maps
topographic maps

CAPITALIZATION & PUNCTUATION

TO: Editor/Indexers   DATE: September 28, 1988

FROM: Sharon Tahirkheli

SUBJECT: Title capitalization & punctuation

English-language titles:

1. Proper names are capitalized.

2. Derivatives of proper names (Atlantic region) are capitalized when used for the proper term. Example: Carlin region - for the Carlin region of Nevada; carlin-type - for the type of gold deposit.

3. Common nouns and adjectives in proper names:
> Washington Monument
> San Andreas Fault
> Phosphoria Formation

> When a common noun or adjective appears between the name and another common noun or adjective:
> Raniganj coal field
> Three Sisters igneous complex
> San Andreas fault zone

4. A common noun or adjective used alone as a short-form of a specific proper name:
> the West (used for the Western U.S.)

5. Definite article in a proper name:
> The Hague
> The Geysers
> The Weald
> the Netherlands

6. Names of organizations: American Geological Institute; Working Committee for the Commission on the Geologic Map of the World

7. Countries and administrative divisions:
> the State of Virginia; Fairfax County
> Willow Creek Quadrangle; Willow Creek 1 x 2
> Quadrangle

8. Regions, localities, and geographic features: Midwest; Far East; Southeastern U.S.; Twin Pines Wilderness Study Area(s)

9. Months of the year: January

10. Geologic time periods: Jurassic; Devonian System;
All time terms such as 'upper', 'middle', 'lower', 'late', and 'early' preceding period-level names within the Paleozoic and Mesozoic eras are capitalized. The rest are not. Early Jurassic; lower Paleocene

11. Trade names: Vibroseis

12. Acronyms: AAPG

13. Names of computer programs: WATTRANS

14. Formal fossil names: Insecta; Mammalia; see List F

15. Titles of persons: Secretary of State

16.   Title of journals: International Geology Review

17.   Earth

18. First words of a title, of direct quotations, or of a formally-introduced phrase following a semicolon or a subdivision marker:
                Fossils of North America; Part 5, Invertebrata
                Comments on The geologic history of North America

19. Physiographic regions: Atlantic Coastal Plain; physiographic regions that are resultant regions are capitalized, i.e. Snake River plain, Tennessee River valley, when used in conjunction with the parent feature, Mississippi Valley; Mississippi River valley; Rio Grande Valley; Grande River valley.

20. Structural terms: Cincinnati Arch, Ozark Uplift

21. The plural form of a common noun capitalized as part of a proper name is not capitalized. Washington and Hennepin counties; Phosphoria and Isachsen formations (exception: Wilderness Study Areas).

22. Directionals:
                Southwest New Mexico
                North Michigan
                West Japan
                east-central Alabama
                South-west Mexico
                north west Maine
                southern Spain
                southwestern Morocco
                central Tennessee

23. Meeting names: Capitalize the first word of the formal meeting name. Workshop on Heavy metals in the Chesapeake Bay Tenth annual meeting of the Association of Earth Scientists 11th annual meeting on groundwater pollution; Twenty-seventh international geological congress. All other capitalization within the meeting title follows the rules set forth above.

Foreign languages:

Titles written in a foreign language are to conform to national practice in that language. The following are general guidelines. Editors who deal frequently with certain foreign languages are expected to become familiar with the practice of the languages they index.

Capitalize as in English with the following exceptions:

Danish: pronounced De, Dem, and Deres are capitalized

Dutch: if first word of a sentence is a single letter only, then the following word is capitalized.

French: months, days of the week, proper adjectives, and je are lowercased; if title commences with Le, La, Les, Un, or Une, the second word is capitalized. Informal fossil names are capitalized; age terms used as nouns are capitalized; used as adjectives they are lowercased.

German: all nouns and words used as nouns are capitalized. Proper adjectives are lowercased: die deutsche Sprache.

Polish: proper adjectives, names of months, and names of geologic periods are lowercased.

Portuguese: proper adjectives, names of months, and geologic periods used as adjectives are lowercased.

Russian: proper adjectives, names of months, and names of geologic periods, both as nouns and adjectives.

Spanish: proper adjectives, names of months, and geologic periods used as adjectives are lowercased.

Translated titles:

A translated title should reflect accurately the meaning of the original in the most concise, precise English possible. Meaningless fillers at the beginning of many foreign language titles such as 'A contribution to the knowledge of' or 'On the problem of' should not be translated. There is also no need to repeat obvious information from the original such as a chemical formula or an author's name. Carefully edit existing translated titles that are provided by many journals. Make these confirm to our usage both for names of places, punctuation, and capitalization. Remember that these are translated titles and do not need to be duplicates of what is provided in the journals. Directionals such as 'southwest' should be changed to 'southwestern'. Russian Platform should be used instead of East European Platform. In general, if we have an established form for a word it should be used. Parentheses should never appear at the end of a translated title.

Punctuation

Punctuation of titles is to be simplified as follows: periods, colons, dashes that separate related phrases are to be replaced by semicolons. The first word following a semicolon begins with a lowercased letter except when dealing with words that would normally be capitalized. Do not use a semicolon in place of a dash when the meaning of the title will be changes.

Semicolons, commas can usually be left as they are in the original title. Insert commas and semicolons into titles when incomplete punctuation is provided in the original title. Semicolons are preferred between phrases. Commas are preferred between simple lists of like things or simple hierarchies.

Parentheses at the end of original titles should be left as they are.

Examples:

1. Publication title:The geology of the Tibesti Massif - recent advances in research

   GeoRef title:The geology of the Tibesti Massif; recent advances in research

2. Publication title:Geologic education for the geologically illiterate: a global plate tectonics approach

   GeoRef title:Geologic education for the geologically illiterate; a global plate tectonics approach

3. Publication title:Middle Triassic - lower Cretaceous flora and fauna from Spitsbergen - 1: palynologic evidence

   GeoRef title:Middle Triassic - Lower Cretaceous flora and fauna from Spitsbergen; 1, Palynologic evidence

Insert commas or semicolons where appropriate in titles with incomplete punctuation.

Commuter Traffic in a Vindobonian Supermarket
Trend Surface Analysis of the Poisson's Ratio (Nonrandom Lognormal Projection) of the Sociostratigraphy of Molluscan Communities
                    Life Goes On

GeoRef title:Commuter traffic in a Vindobonian supermarket; trend surface analysis of the Poisson's ratio (nonrandom lognormal projection) of the sociostratigraphy of molluscan communities; life goes on

TRANSLITERATION

The policy of the Reference Manual is to adopt ISO standards where available and suitable.

For transliteration of Cyrillic characters, the Reference Manual recommends ISO/R9: International system for the transliteration of Slavic Cyrillic characters. However, since this contains a number of alternatives, one of these alternatives which avoids the use of diacritics has been incorporated in the scheme with a few additional alterations, in section C.1. This is referred to throughout the Reference Manual as the UNISIST recommended transliteration schedules.

Section C.2 covers transcription of languages using the roman alphabet with diacritics.

In both cases the objective is to represent the required character set within the limitations of a basic Roman alphabet, comprising letters a-z, without diacritics, so that it can readily be processed in machine-readable form by those systems that do not have diacritics available. Avoiding diacritics has meant that the ability to convert back unambiguously from the transliterated form to the original alphabet has been lost.

C.1 Transliteration of Cyrillic characters

These tables give a full non-reversible transliteration scheme for the Cyrillic alphabet and its variants.

Letter number	Cyrillic character		Used in					Proposed UNISIST transliter
			Russian	Ukrainian	Serbian	Macedon.	Bulgarian	
1	а	А	X	X	X	X	X	a
2	б	Б	X	X	X	X	X	b
3	в	В	X	X	X	X	X	v
4	г	Г	X	X	X	X	X	g
5	ѓ	Ѓ		X				gh
6	д	Д	X	X	X	X	X	d
7	ђ	Ђ			X			dj
8	ѓ	Ѓ				X		g
9	е (ё)	Е (Ё)	X	X	X	X	X	e[1]
10	є	Є		X				je
11	ж	Ж	X	X	X	X	X	zh
12	з	З	X	X	X	X	X	z

1

A-13

Letter number	Cyrillic character		Used in					Proposed UNISIST transliter
			Russian	Ukrainian	Serbian	Macedon.	Bulgarian	
13	ѕ	Ѕ				X		dz
14	и	И	X	X	X	X	X	i
15	і	І		X				i
16	ї	Ї		X				yi
17	ј	Ј			X	X		j
18	й	Й	X	X			X	y
19	к	К	X	X	X	X	X	k
20	л	Л	X	X	X	X	X	l
21	љ	Љ			X	X		lj
22	м	М	X	X	X	X	X	m
23	н	Н	X	X	X	X	X	n
24	њ	Њ			X	X		nj
25	о	О	X	X	X	X	X	o
26	п	П	X	X	X	X	X	p
27	р	Р	X	X	X	X	X	r
28	с	С	X	X	X	X	X	s
29	т	Т	X	X	X	X	X	t
30	ћ	Ћ			X			cj
31	ќ	Ќ				X		k
32	у	У	X	X	X	X	X	u
33	ў	Ў						w
34	ф	Ф	X	X	X	X	X	f
35	х	Х	X	X	X	X	X	kh
36	ц	Ц	X	X	X	X	X	ts
37	ч	Ч	X	X	X	X	X	ch
38	ѕ	Ѕ			X	X		dzh
39	ш	Ш	X	X	X	X	X	sh
40	щ	Щ	X	X			X	shch
41	ъ	Ъ	X				X	"
42	ы	Ы	X					y
43	ь	Ь	X	X			X	'
44	ђ	Ђ					X	ye

A-14

Letter number	Cyrillic character		Used in					Proposed UNISIST transliter
			Russian	Ukrainian	Serbian	Macedon.	Bulgarian	
45	э	Э	X					e
46	ю	Ю	X	X			X	yu
47	я	Я	X	X			X	ya
48	ж						X	u

[1]ye after vowel and soft and hard signs, and at beginning of words in Russian only.

SPECIAL CHARACTERS

Special characters and diacriticals in the GeoRef data, which are not on the standard keyboard, are converted as follows --

Diacriticals, Accent Marks, and Special Alphabetic Characters

Diacriticals and accent marks are not included in data exported from the GeoRef database. For example, when "è" occurs in the source document just the letter "e" will be in the GeoRef data. Some special alphabetic characters are transliterated as follows:

Special Character	GeoRef Export Character
Angstrom: Å, å	Aa, aa
Umlaut: Ä, ä, Ö, ö, Ü, ü	Ae, ae, Oe, oe, Ue, ue
Dipthong: Æ, æ, Œ, œ	Ae, ae, Oe, oe
Icelandic: D, d, Ø, ø, P, p	D, d, Oe, oe, P, p
Polish: Ł, ł	L, l

Greek Letters

Greek letters occurring in source-document titles are represented as their English-language equivalents in the GeoRef data. For example, the Greek letter "β" is represented by the word "beta" in the GeoRef data.

Mathematical Symbols

When not available on the standard keyboard, mathematical symbols occurring in source-document titles are represented by a combination of keyboard characters and spelled-out words in the GeoRef data. For example, "≠" is represented by "not =".

Special handling is given to @ when embedded in a text field. The @ is represented by [at].

Superscripts and Subscripts

Superscripts and subscripts are treated differently depending on whether they occur in the index terms or in some other part of the reference primarily in titles and abstracts. Superscripts and subscripts occurring in fields other than Z50, index term, are indicated in the GeoRef data as in the following examples:

Source Document   GeoRef Format

H_2SO_4 H (sub 2) SO (sub 4)

^{4}He   (super 4) He

Superscripts and subscripts occurring in Z50, index term, are represented in the GeoRef data as follows:

Source Document	GeoRef Format
H_2SO_4	H2SO4

DATA ELEMENTS

AUGUST 2005

The GeoRef database is produced by the American Geological Institute (AGI). Additional information on the data elements is available in the GeoRef Export File Manual, distributed by AGI. Contact Monika Long, at (703) 379-2480 or ml@agiweb.org

TAG	CONTENT
A01	ISSN* (International Standard Serial Number), e.g. 0016-7606
A02	CODEN 6-character serial code, e.g. BUGMA6
A03	Serial title The ISDS Key Title is used, when available.
A05	Volume number of serial
A06	Issue number of serial
A07	Other identification of serial
A08	Title of analytic* Original language title, transliterated title, or modified title. There may also be a translated title.
A09	Title of monograph*
A10	Title of collection*
A11	Person—analytic* (author unless otherwise noted)
A12	Person—monograph*
A13	Person—collection*
A14	Affiliation, primary—analytic
A15	Affiliation, primary—monograph
A16	Affiliation, primary—collection
A17	Corporate body—analytic*
A18	Corporate body—monograph*
A19	Corporate body—collection*
A20	Pagination—analytic, e.g. 23-35
A21	Date of publication
A22	Date, other*
A23	Language of text* Abbreviation and language, e.g. FR @French
A24	Language of summary*
A25	Publisher* Includes name, city, and country
A26	ISBN* (International Standard Book Number)
A27	Edition
A28	Number of pieces—collection
A29	Pages—monograph, e.g. 235
A30	Meeting name*
A31	Meeting location Includes city and country
A32	Meeting date
A39	Report number*
A41	Degree-granting institution
A42	Degree (bachelor's, master's, or doctoral)
A43	Availability of document* Organization where document may be obtained. Used for reports and theses.
A45	References Number of references cited in the paper.
A46	Summary only? Field indicates document cited is an abstract.
Z01	GeoRef ID Year plus sequential number, e.g. 1996-039762

Z03	Category code* One or more codes and subject categories,
	e.g. 18 @Solid-earth geophysics.
Z04	Document type (serial, book, conference, map, report, thesis)
	Each applicable type is included, e.g. SRM
Z05	Bibliographic level (analytic, monograph, collection, serial)
	One level is assigned per reference, e.g. A.
Z15	Abstract Text of abstract of the document cited.
Z24	Annotation
Z32	Illustration Describes the illustrations in the document.
Z33	Map scale* e.g. 1:250,000
Z34	Map type* e.g. lithofacies map
Z35	Medium of source* Used if document is not print, e.g. CD-ROM.
Z36	Coordinates* rectangle of area studied,
	e.g. S203500S194000W0431500W0443000
Z37	Affiliation, secondary* Included for second and subsequent authors.
	In addition to A14, A15, or A16.
Z38	Source note
Z39	Country of publication Abbreviation and spelled out country,
	e.g. CAN @Canada
Z43	Reference source*
Z44	Update code Year and number of twice-monthly update, e.g. 199607
Z50	Index term*
Z60	Research program
Z61	Holding library
Z62	URL
Z63	Target audience
DOI	Digital Object Identifier

* The asterisk, above, indicates a repeatable field. The data in repeated fields are separated by
  a vertical bar and the tag is not repeated, e.g. A11 Jones, A. F. | Smith, Dan

@ The "at" sign above is used to separate subfields

GEOREF THESAURUS FIELDS

The following fields are used in the electronic version of the GeoRef Thesaurus:

TM   Thesaurus term; record key
CO   Geographical coordinates
SN   Scope Notes
            Indexer Notes
            Year introduced or reintroduced as a valid term
BT   Broader Term, autoposted for single or multiple hierarchies
B.PRINT   Hierarchies in the order in which they appear in the published thesaurus
NT   Narrower term. All its BTs autopost
SA   See Also
UF   Use for Term. Reciprocal of U
U   Use Term. Reciprocal of UF.
V   Validation code and level on which term is valid in printed products

            Contents of V:
            1   Primary valid term
            2   Valid term
            3   Valid term
            0   Invalid term; may have a "Use" reference

TY   Type of term (e.g. geographic (O), mineral (L), etc.)

            Contents of TY:
            A   Primary terms (access points for print indexes)
            B   geochronology methods
            C   commodities
            D   elements, isotopes
            E   geologic age
            F   fossils
            G   meteorites
            H   igneous rocks
            I   sedimentary rocks
            J   metamorphic rocks
            K   sedimentary structures
            L   minerals
            M   soils
            N   sediments
            O   all geography including DSDP/ODP Sites and Legs
            R   rock formations