1.0   Introduction

The CONSER (Cooperative Online Serials) Program has recently
developed and published its policies and practices for cataloging
remote access computer file serials. Module 31 of the CONSER
Cataloging Manual (CCM), "Remote Access Computer File Serials,"
was drafted by Melissa Beck of UCLA and covers cataloging
policies for remote access computer file serials. [1] The module
opens with a full discussion of the kinds of online resources
CONSER considers to be remote access computer file serials. Also
included in the module are policies for periodicals in multiple
file formats, the recording of location and access information,
and other significant bibliographic information. These policies
were developed over many months in consultation with a number of
other projects, institutions, offices, and individuals active in
the field of networked information and remote access computer
file serials.

Module 31 defines a "remote access computer file serial" as
follows:

> A remote access computer file serial is a work issued in
> designated parts for an indefinite period of time (i.e.,
> that meets the definition of a serial); and in a
> machine-readable format, accessed "via input/output devices
> connected electronically to a computer" (AACR2). This is in
> contrast to a direct access computer file serial which is
> issued in a physical carrier, for example CD-ROMs or floppy
> disks.

> The most frequently encountered type of remote access serial
> is an electronic journal or newsletter available through a
> computer network, such as the Internet. [2]

Module 31 also states that CONSER does not consider the following
to be serial publications: list server discussion lists
(including digests), catalogs, databases, Gopher and World-Wide
Web servers, and other online services.

(The remainder of this paper will use the term "electronic
serial" to mean "remote access computer file serial" unless the
more specific term is needed for clarity.)

The effort to develop cataloging tools for networked resources
and electronic serials spans many years and involves numerous
players in different areas of the library community. This has
been an ongoing process involving individuals closely attuned to
the major developments in the publishing community. Over the
years, CONSER has followed the numerous advances in the standards

for cataloging electronic serials. With the integration of
USMARC bibliographic formats, now in process, serials catalogers
will soon be in position to utilize all the computer file
bibliographic record elements. CONSER has taken a major step in
developing policies for these new elements with the publication
of Module 31 of the CCM. We will first present a broad overview
of a number of related efforts and developments in the publishing
and library communities, and then discuss the development of
Module 31 of the CCM and the major issues it addresses.

2.0 Electronic Serials on the Internet

In the late 1980s, the electronic serials available on the
Internet were primarily distributed as ASCII files via discussion
lists (direct e-mail or Telnet were sometimes used instead). A
variation on this approach was to distribute a table of contents
file instead of the entire issue. After reading the table of
contents file, the user would access the issue (or separate
articles) using e-mail or FTP. Over time, other file formats,
such as Adobe Acrobat, PostScript, and WordPerfect were used to
supplement or replace ASCII files. This overcame some of the
limitations of ASCII files, such as their lack of fonts or
graphics.

In the early 1990s, a greater range of Internet technologies were
used to distribute or access electronic serials, including
Archie, Gopher, USENET newsgroups, and WAIS. Gopher archives
were especially important, because they allowed users to easily
browse and retrieve current and back issues of electronic
serials. WAIS and other searching tools allowed publishers to
create searchable databases of their electronic journals.

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After the 1993 release of NCSA's Mosaic World-Wide Web browser,
overall use of the Web increased dramatically. A variety of
other Web browsers, such as Netscape, have subsequently been
developed. Widespread use of Web browsers, with their easy-to-
use graphical user interfaces, have transformed information
distribution on the Internet. Using the Web, publishers can
easily distribute hypertext documents with multimedia components
to a global audience, and they have been actively experimenting
with Web versions of new or existing electronic serials.

2.1 Basic Cataloging Questions with Electronic Serials

This rapid development in the organization and presentation of
electronic serials has raised a variety of basic cataloging
questions. Internet services, such as discussion lists and
World-Wide Web servers, have challenged serials librarians to
reconsider aspects of the traditional definition of seriality,
especially with regard to citable issues and their designations.

The display of bibliographic information has also become more
complex with electronic serials. Often, this information is
dispersed over several files, giving catalogers multiple sources
for description that can contain different presentations of
bibliographic information. The availability of multiple document
formats has generated questions about computer file editions and
the number of catalog records needed to represent them. Many
institutions have also been hesitant to include catalog records

for Internet resources because of uncertainty about how to record
location and holdings information.

3.0 Cataloging Standards for Computer Files

Since the 1980s, problems associated with cataloging electronic
serials have received attention at numerous ALA Computer Files
Discussion Group meetings. Discussions covered the application
of the Anglo-American Cataloging Rules, 2nd ed. (AACR2), Chapter
9, "Computer Files" [3] and the International Standard
Bibliographic Description for Computer Files (ISBD (CF)). [4]
Among the issues discussed included an integrated USMARC format
that could contain serial and computer file elements in one
record; guidelines for implementing AACR2, Chapter 9; and
problems associated with electronic access and holdings
information.

In June 1991, the ALA Machine Readable Bibliographic Information
Committee (MARBI) discussed a number of data elements needed to
accommodate the description and access of a broad array of
networked resources. [5] The group focused on data resources
(e.g., electronic text and data files) as the kind of electronic
resources that are more amenable to bibliographic description
using AACR2, Chapter 9 and the USMARC bibliographic format. Work
was begun to identify specific record elements that could be used
to expand the USMARC format to accommodate these resources. This
work was later reflected in MARBI Proposal 93-4, which made
recommendations for the following elements and fields: 008/26
(type of computer file), 256 (computer file characteristics), 516
(type of computer file or data note), and 856 (electronic
location and access).

Changes to the 008/26 fixed-field element that were approved by
MARBI include the addition of four "type of file" codes to
enhance fixed-field retrieval of various types of computer files.

Recommendations for the 256 field included an expansion of
descriptors beyond the three terms now provided for use by AACR2:
"computer data," "computer programs," or "computer data and
programs." This change was aimed at allowing catalogers to
choose user-oriented descriptions of computer files from an open
list of descriptors which might include such terms as "electronic
newsletter" or "electronic book."

The proposal also recommended making field 516 obsolete since
"nature and scope" data is generally provided in a 500 field, and
an open list of descriptors available for use in the 256 would
provide "type of file" information in a more complete fashion.

The 516 field recommendation was not approved. Nor was the 256
field recommendation, because expansion of the file
characteristics field is governed by AACR2, and it requires a
change in cataloging rules. The 256 field recommendation was
taken up by the ALA Committee for Cataloging: Description and
Access (CC:DA) for consideration under a separate proposal.

The following recommendations for changes to the 856 field were

approved by MARBI. The proposal advocated that data elements in
the 856 field be parsed for portability between systems and
formats, with the expectation that systems would provide machine
links to the actual publications. It also took into
consideration the Internet Engineering Task Force's work on the
Universal Resource Locator (URL) and the Universal Resource Name
(URN). The URL was later incorporated for use in the 856 field.
The MARBI proposal also cited the need for guidelines on the use
of AACR2 and USMARC, and it noted the phenomenal rise in the
number of electronic serials being published.

The Network Development and MARC Standards Office at the Library
of Congress has made available updated guidelines on the use of
the 856 field. [6] These guidelines cover its numerous subfields
and different indicator values that identify the various modes of
access. They now include an expansion of the modes of access
that can be identified in the field and new coding for dial
access.

On another front, the ISBD (CF) Review Group recently issued a
draft of the second edition of the standard that proposes several
changes to better handle files available on the Internet. [7]
Among the changes is an expanded list of terms for use in the
file characteristics area of the record (USMARC field 256). The
April 1995 Summary Report of the ISBD (CF) Review Group proposed
that "the whole treatment of the designation of file [be]
thoroughly reworked and developed, with area 3 (file
characteristics area) emerging as the one most thoroughly changed
in revised CF." [8] The second edition draft supports continuing
use of "computer data" and "computer programs," but includes
several lists of additional descriptive terms (e.g., computer
journal, computer newsletter, and computer interactive
multimedia). One advantage in using this area of the record
instead of a note field is the more prominent position of the
information which follows the title and edition statements in the
record. Development of the field in the ISBD (CF) could increase
the likelihood of an expansion of the field in the rules.

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4.0 OCLC and Internet Resources

OCLC's two Internet projects have been instrumental in focusing
librarians' attention on the means and methods for describing
electronic serials.

OCLC's first project, which was conducted in 1992, tested
existing cataloging tools and focused on the application of AACR2
and USMARC. As part of this cataloging experiment, use of a
coded USMARC location and access field for electronic resources
was tested. Field 852 from the USMARC Format for Holdings Data
was used to record network location information in parsed
subfields. The project resulted in MARBI Proposal 93-4, which
included a number of recommendations (as outlined above), along
with the addition of the 856 field for electronic location and
access.

OCLC's 1993 report on the first project, Assessing Information on
the Internet, gives a comprehensive analysis of the provision of
bibliographic information for a wide range of internet resources,
including electronic serials. [9]

A more recent OCLC Internet Cataloging Project, begun in 1995,
has also been a driving force in the increase in the number of
catalog records created for Internet serials and in the
development of consistent guidelines for creating these records.
An invitation was sent out for OCLC participants to create
records for Internet resources following local collection
development policies. In their cataloging guidelines for the
project, OCLC refers to CONSER documentation for cataloging
remote access serials, including the CONSER Editing Guide (CEG)
and Module 31 of the CCM. [10]

5.0 Early CONSER Efforts to Catalog Electronic Serials

With the integration of USMARC bibliographic formats on the
horizon in the early 1980s, CONSER developed "interim" guidelines
to catalog electronic serials in the serials format. (CONSER
catalogers have been restricted to using the serials format
because of the record distribution process for the CONSER
database.) The guidelines were considered to be "interim" until
format integration was complete. The serials format has only
recently supported certain computer file fields, with coded
information for computer files aspects to become available only
after format integration is implemented early in 1996.

By the late 1980s and early 1990s, CONSER members began to
fulfill their institutions' policies and commitments regarding
electronic serials. The National Serials Data Program (NSDP) and
the University of Michigan have led the effort in CONSER. NSDP
began to receive requests for the International Standard Serial
Number (ISSN) and created minimal-level records in the serials
format using AACR2, the Library of Congress Rule Interpretations
(LCRI), and the ISDS Manual. [11] NSDP also began to share it's
experience with other ISSN centers throughout the world. There
was active discussion within the ISSN Network whether to assign
separate ISSN to electronic versions of print serials. Several
centers began to receive ISSN requests for electronic serials and
experimented in creating catalog records for them.

By the early 1990s, the University of Michigan also began to
contribute records for electronic serials, and it later became
involved with creating records for electronic serials archived by
a project within the CICNet network. CICNet is an Internet
access service connecting institutions in a seven-state region in
the Midwest, organized by the Committee on Institutional
Cooperation (CIC). [12] The CIC Electronic Journals Collection
(CIC-EJC), part of the CICNet electronic journal archives, is an
authoritative source for electronic research and academic serial
publications. The electronic serials available on this archive
will be fully cataloged by CICNet members with the bibliographic
records contributed to the OCLC Online Union Catalog. CIC-EJC
provides a managed approach to gathering and archiving electronic
serials on its Gopher and Web servers. Cataloging of the serials
archived at the site is now being done with the cooperation of
six institutions: University of Michigan, Indiana University,
University of Illinois at Chicago, University of Wisconsin,
University of Minnesota, and Ohio State University. Operating as
associate CONSER members under the CIC project, these
institutions plan to initially contribute at least 122 full-level

records. [13]

6.0   Development of CCM Module 31

The growing number of loosely related projects indicated a real
need for consistency and guidance in applying AACR2 and using
USMARC coding for this new format of material. In 1994, CONSER
initiated the drafting of Module 31 as an opportunity to explore
some of the unresolved cataloging issues surrounding electronic
serials and to help formulate policies for fields newly available
to the serials format. Melissa Beck drafted the module in late
1994. In discussing her work at the November 1994 CONSER
Operations Meeting, she raised the following issues:

o   Is the current serials definition, outlined in AACR2
        and LCRI, adequate for Internet resources?

o   When is a document "published" in the network
        environment?

o   How many records should be created for serials issued
        in multiple document formats?

o   There are problems with identifying and citing the
        chief source and determining if a serial designation is
        present.

o   Guidance is needed in coding the new 856 field.

o   Should a new subject heading subdivision be developed
        for remote access computer files?

o   How can we best maintain catalog records for these
        dynamic materials?

To address these concerns and others, CONSER members used a
number of forums to gather insight from a wide range of library
and Internet communities.

As an example, the issue of multiple document formats was also
raised in CONSER meetings at ALA Midwinter in 1995. The CONSER
Electronic Resources Task Force, which was established in the
summer of 1994, distributed a January 1995 interim report that
discussed the issue and recommended that CONSER develop proposals
on this matter. The "multiple formats" issue for catalogers
often centers on whether more than one edition is involved when
the content of different versions is essentially the same.
However, some publications do offer substantial differences in
the content of different electronic versions. Postmodern Culture
includes articles, identified as "hypermedia," that contain
image, sound, or other non-text files in the HTML version that
cannot be included in the ASCII version. [14] The HTML version
also includes hypertext links for moving to various locations
within the publication or to related documents.

To specifically gain insight into the "multiple formats"
question, an informal group of CONSER members posted queries to a

number of cataloging- and serials-related discussion lists. An
initial query was followed by a message that contained catalog
record examples showing different treatments for serials in
multiple document formats. Included in the message were single
records for titles published in multiple formats and available
via several access methods. Notes were included in the records
to describe file formats and access methods. The message also
included a two-record approach for the same titles showing ASCII
and PostScript formats described on one record and the HTML
format on another.

CONSER also sought feedback and advice on issues identified in
early drafts of the module from several offices at the Library of
Congress including: the Cataloging Policy and Support Office, the
Network Development and MARC Standards Office, the Machine
Readable Collections Reading Room, and the Computer Files Team of
the Special Materials Cataloging Division. After many months of
meetings, online discussions, and reviewing drafts of Module 31,
sufficient input and information was available for deciding on
how to handle multiple document formats, location and access
information, and other significant bibliographic information.
What follows are the major issues and how they are addressed in
Module 31.

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6.1 What Is a Remote Access Computer File Serial?

An issue that arose early in the development of Module 31
involved the kinds of online resources that are considered to be
"remote access computer file serials." Definitions for "serials"
and "remote access computer files" provided in the cataloging
rules hardly resolve the issue as to whether some of the new
types of electronic resources may be treated as serial
publications (e.g., discussion lists). [15] LCRI includes a
section that addresses "special types of publications" considered
to be serials in certain circumstances (e.g., conferences and
loose-leaf publications), without any mention of computer files
or electronic serials. [16] Module 31 takes a conservative
approach by generally including as serials only publications that
retain a print-like approach to designating individual issues
(see the definition in Section 1.0). A potential shortcoming
with this policy is that fewer new kinds of resources may be
represented in the CONSER database. Ongoing efforts by a CONSER
Electronic Resources Task Force, in consultation with the CONSER
Operations Committee, will address the issue of whether a more
inclusive serials definition is appropriate.

6.2 Networked Resources as Published Documents

Another basic bibliographic consideration involves the question
as to whether networked resources are published documents.
Guidelines for the first OCLC Internet Resources project brought
this issue into focus a few years ago. [17] Current
documentation for the ongoing project follows a practical
approach that considers all publications offered for access via
the Internet as published documents. [18] CONSER endorses this
approach as a pragmatic solution that avoids the treatment of
online resources as manuscripts. The publication area of the
record is then provided, including place of publication and name
of publisher, if available. The review draft of the second

edition of the ISBD (CF) also follows this approach: "In the context of applying the ISBD (CF), all remote access computer files are considered to be published." [19] Users may be led to believe that an item is a completed work when its authors are continuing to revise its contents without clear indications of the revisions.

6.3 Multiple File Formats

The number of records needed to describe electronic serials in multiple file formats was one of the most significant issues to resolve. Neither AACR2 nor the LCRI adequately address the question, but a clear policy is necessary for CONSER catalogers using a common database. While input from meetings and online discussions did not show uniform agreement, there was significant support for using one record for electronic serials published in multiple formats, regardless of the type of formats involved or the extent of the differences between the versions. While some consider this approach at variance with the established practice in AACR2 and LCRI for other formats, at present it seems to be the most practical approach for catalogers. An alternative was presented by these authors that proposed treatment of publications that offer significantly different versions to be treated as two editions. The proposal recommended two records if one version is in ASCII format and another includes both non-textual files (e.g., sound or graphic files) and nonlinear navigation (i.e., hypertext linking).

The single-record approach was endorsed for several reasons, including cataloging efficiency and a more useful catalog. Many believe that it will be easier for the cataloger to create a single record and that less record maintenance will be required. Another advantage with the single-record approach is that catalog users will have fewer records to review when searching for online resources. Potential disadvantages include more complex records, less detailed information in the records, and greater difficulty in identifying the specific version made available at a particular site. Nevertheless, most have applauded CONSER for its pragmatic approach to this issue.

6.4 Multiple Sources of Bibliographic Information

Multiple sources of information about the publication is another complication for the cataloger. Cataloging rules instruct the serials cataloger to describe in the body of the record the first issue or earliest issue available. The "chief source of information" for cataloging computer files is the "title screen." This is described in AACR2 as "a display of data that includes the title proper and usually, though not necessarily, the statement of responsibility and the data relating to publication." [20] Module 31 offers detailed instructions for unconventional situations involving multiple sources of information, including how to record information from README files, table of contents files, file headers, and other electronic sources.

6.5 Computer File Characteristics Information

File characteristics information was another significant issue to
resolve. There was little support from CONSER participants for
the use of field 256 when the field was first evaluated for phase
one of format integration. The field was not considered useful
by CONSER catalogers because of the limited terms available for
the field. Use of a note field to describe computer file formats
or record a more general description of the form or genre was
considered a better approach.

CONSER currently uses field 516 (type of computer file or data
note) to record computer file characteristics information,
including format, genre, or general type of file information
(e.g., text and graphic files). The cataloger can record in a
single note field all the necessary information relating to
computer file characteristics, and use the machine-generated
display constant "type of file:" if desired. Module 31
illustrates different usage of the "type of file" note, including
notes for numeric files and files available in the ASCII,
Acrobat, and PostScript, and RichText formats.

The main disadvantage with this approach to file characteristics
information is that it is not consistent with standard
monographic cataloging practices that rely on the use of field
256. Monographic catalogers use field 538 (system details note)
for more detailed information about file characteristics. The
information, when included in field 516 or 538, is buried in the
notes area of the record which is less frequently read by catalog
users. CONSER practice now places "type of file" information in
a separate field (516) from "access and location" information
(fields 538 and 856). See Figure 1, the full record for Emerging
Infectious Diseases (EID) as displayed in the OCLC Online Union
Catalog on 2/5/96, to see how the different fields are used to
describe multiple file formats available via multiple Internet
access methods (note the use of the 516, 538, and 856 fields).
(Fixed-field information in the record will be converted by OCLC
upon implementation of format integration.)

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Figure 1. CONSER Record for Emerging Infectious Diseases.

OCLC: 31848943   Rec stat: c
Entered: 19950118   Replaced: 19960205   Used: 19951207
  Type: a   Bib lvl: s   Source: d   Lang: eng
  Repr: Enc lvl: 7   Govt pub: Ctry: gau
  Phys med: Mod rec: Conf pub: 0   Cont: ^^^^
  S/L ent: 0   Ser tp: p   Frequn: q   Alphabt: a
  Desc: a   Regulr: x   ISDS: 1
                                  Pub st: c   Dates: 1995-9999
     1   010   sn95-7042
     2   040   NSD $c NSD $d OCL $d DLC
     3   012 $l 1
     4   022 0   1080-6059
     5   037 $b Centers for Disease Control and Prevention,
1600 Clifton Rd., Mailstop C-12, Atlanta, GA 30333
     6   042   nsdp $a lcd
     7   069 1   SR0083699
     8   082 10   616 $2 12
     9   090 $b

```
    10   049      DLCC
    11   130 0    Emerging infectious diseases (Online)
    12   210 0    Emerg. infect. dis. $b (Online)
    13   222  0   Emerging infectious diseases $b (Online)
    14   245 00   Emerging infectious diseases $h [computer file] :
$b EID.
    15   246 30   EID
    16   260      Atlanta, GA : $b National Center for Infectious
Diseases : $b Centers for Disease Control and Prevention, $c
[1995-
    17   310      Four times per year
    18   362 0    Vol. 1, no. 1 (Jan.-Mar. 1995)-
    19   538      Mode of access: Internet e-mail, FTP, and World
Wide Web.
    20   500      Description based on: hypertext/World Wide Web
version; title from EID home page.
    21   516 8    ASCII, Acrobat, and PostScript file formats
    22   530      Online version of: Emerging infectious diseases
(Print).
    23   710 2    National Center for Infectious Diseases (U.S.)
    24   776 1    $t Emerging infectious diseases (Print) $x
1080-6040 $w (DLC)sn 95007041 $w (OCoLC)31848353
    25   856 0    $u mailto:lists@list.cdc.gov $i subscribe $f EID-*
$z Include desired file format following the hyphen in the
filename: IED-ASCII, EID-PDF, or EID-PS
    26   856 1    ftp.cdc.gov $d pub/EID $l anonymous $z Each issue
is in a separate subdirectory (e.g., vol1no1). There are
additional subdirectories for each file format
    27   856 7    $u http://www.cdc.gov/ncidod/EID/eid.htm $2 http
```

6.6 Location and Access Information

Describing electronic access information is another challenge for
the cataloger due to the different areas of the record involved,
including the new electronic location and access field (856).
AACR2 requires catalogers to "always specify the mode of access"
for electronic serials in a note. [21] The CONSER "mode of
access" note now includes more general information to limit
redundancy with the 856 field, which contains the detailed
information needed to locate and access documents. Serials
catalogers now use the note field 538 (system details
information) for the more general information as the field is
newly available through format integration. (CONSER records
created before 1995 included electronic access information in a
general note field.)

Development of CONSER practice for the 856 field will likely be
an ongoing process until meaningful displays are developed for
online catalogs and a certain degree of stability is found with
the resources. The field was designed to accommodate multiple
methods of access and different file formats, but the structure
of electronic serials can be complex, involving several
subdirectories and numerous files. (Many scholarly electronic
journals have individual article files to enhance article
access.) CONSER is following the standard practice of separate
856 fields for each mode of access, if known, but is not
generally adding separate fields for each format. This is mainly
due to the organization of serial publications which doesn't
always allow for a distinct path to each format. Emerging

Infectious Diseases, for example, has separate subdirectories for
each issue that include additional subdirectories for the
available formats, which, in turn, contain individual article
files. [22] (See Figure 2, which shows the multiple
subdirectories involved in accessing the complete PostScript
version of Emerging Infectious Diseases.)

+ Page 20 +


```
-------------------------------------------------------------------
Figure 2.  Subdirectories for Accessing PostScript EID Version.
-------------------------------------------------------------------

    -------------------------------------------------------------
    |   CENTERS FOR DISEASE CONTROL AND PREVENTION--FTP SITE   |
    |                    (ftp.cdc.gov)                          |
    -------------------------------------------------------------
                          |
              --------------------
              |     |     |       |
            bin   -----   usr    dev
                 |pub|
                 -----
                   |
      -----------------------------------------------------------
      |          |         |           |                    |
      |          |         |           |                    |
   Software   AboutCDC     |   infectious_diseases    laboratory_info

            ---------------------------------
            |              EID              |
            |(Emerging Infectious Diseases)|
            ---------------------------------
                        |
                        |
      -------------------------------------------------------------
      |        |        |         |           |              |
      |        |        |         |           |              |
   adobe   readme.txt  toc.txt  ---------  ---------     ---------
                                |vol1no1|  |vol1no2|     |vol1no3|
                                ---------  ---------     ---------
                                    |          |             |
      ------------------------------         |             |
      |      |        |            |         |             |
   adobe   ascii  -----------  readme.txt   |             |
                 |postscript|               |             |
                 -----------                |             |
                             ------------------------------         |
                             |      |        |            |         |
                          adobe   ascii  -----------  readme.txt |
                                        |postscript|             |
                                        -----------              |
                                                     ------------------------------
                                                     |      |        |            |
                                                  adobe   ascii  -----------  readme.txt
                                                                |postscript|
                                                                -----------
```

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The downside to this established practice for recording access
information is that essential information for retrieving a
document is found at the end of the record in a nonbibliographic
field. Display of the field is dependent on the local system,
and many do not now interpret the data for the user. This often
leaves the user having to decipher what kind of information
different subfields contain, which access methods are involved,
or which formats are available via particular access methods.
While it is likely that many online catalogs will develop more
meaningful displays for the user, location and access information
will continue to be found in two areas of the record: a
bibliographic note (field 538) and a holdings statement (field
856). Access information in the record for EID currently
consists of a 538 field and three 856 fields--one for each mode
of access (e-mail, FTP, and World-Wide Web). (Refer back to
Figure 1, which shows access and location fields.)

What is possibly a bigger issue for serials catalogers is where
to get the access information and how complete or current it is
when found. Multiple sources of information sometimes present
different statements with perhaps incomplete information that may
need to be pieced together for a complete and accurate account.
The cataloger may feel that some investigation is needed or may
simply rely on the most recent statement from the publisher.
CONSER will also pursue this issue through a task force subgroup.

7.0 Continuing CONSER Efforts

CONSER is continuing its efforts to further develop cataloging
practice for electronic serials and has recently issued new
documentation on the core record and fixed-field elements for
electronic serials. Two CONSER task forces--Electronic Resources
and Format Integration--have been working on these issues. The
Electronic Resources Task Force has been working to develop
recommendations for resolving many of the issues presented in
this article including the: definition of "remote access computer
file serials," treatment of multiple versions of electronic
serials, examination of the utility of the 856 field, and others.

The Format Integration Task Force assisted in the development of
the core record for electronic serials and in the documentation
of new computer file fixed-field elements in the CONSER Editing
Guide. Update 3 of the CONSER Editing Guide, issued spring 1996,
reflects the complete implementation of format integration and
includes the following: CONSER core record for electronic
serials, description of CONSER practice in applying 006 and 008
fixed-field elements for computer files, and the 007 field for
computer file physical characteristics.

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The second and final phase of format integration is scheduled to
take place in early 1996, and it involves the integration of the
fixed-field portion of the bibliographic record. Under current
plans, a CONSER electronic serial record will include computer
file 007 and 008 fields with a serial 006 field. (OCLC will
convert fixed-field information in CONSER records for electronic
serials by adding 008 computer file elements and converting 008
serial elements into an 006 field.) This arrangement will
effectively include in a single record all the serial and

computer file elements, along with physical description fixed-field coding for computer file characteristics (field 007).

The addition of computer file fixed-field elements to the CONSER record may well impact on other areas of the record. Also, the likely development of the file characteristics area of the record may see the addition of field 256 to the CONSER record. Developments in the application of the 856 field will likely lead to more consistent cataloging practices in recording location and access information.

Electronic serials have been on the CONSER agenda for several years now and will likely continue to be a pressing issue. CONSER will continue to rely on discussion lists for feedback from the cataloging community to assist in the continuing development of cataloging policies as well as participation in ALA, NASIG, and CONSER meetings. The continuing evolution of electronic serials will likely compel CONSER to maintain its focus in this area for some time to come.

Notes

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<URL:http://www.library.vanderbilt.edu/ercelawn/eserials.html>

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4. IFLA Working Group on the ISBD (CF), International Standard Bibliographic Description for Computer Files (London: IFLA Universal Bibliographic Control and International MARC Programme, 1990).

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6. Guidelines for the Use of Field 856 (Washington, DC: Network Development and MARC Standards Office, Library of Congress, 1995).

7. ISBD (CF) Review Group, "International Standard Bibliographic Description for Computer Files," 2nd. ed. draft (London: British Library Bibliographic Services, 1995).

8. ISBD (CF) Review Group, "Meeting of April 24-26, 1995, Summary Report," e-mail message, May 1995.

9. Martin Dillon et al., Assessing Information on the Internet (Dublin, OH: OCLC Online Computer Library Center, Office of Research, 1993).

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<URL:http://jefferson.village.virginia.edu/pmc/contents.all.html>
<URL:http://jefferson.village.virginia.edu/pmc/list_sub.html>

15. Anglo-American Cataloging Rules, 2nd ed., 1988 rev., 622.

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16. "12.0 A, Monograph vs. Serial Treatment of Publications," in Library of Congress Rule Interpretations, 2nd ed. (Washington, DC: 1990), 2-4.

17. Martin Dillon et al., "Appendix D. Guidelines for Participants," in Assessing Information on the Internet, D1-D13.

18. Nancy B. Olson, "AACR2 9.4, Publication, Distribution, Etc., Area [MARC 260]," in Cataloging Internet Resources: A Manual and Practical Guide. See <URL:http://www.oclc.org/oclc/man/9256cat/292area2.htm#9.4>.

19. ISBD (CF) Review Group, "International Standard Bibliographic Description for Computer Files," 2nd. ed. draft, 70.

20. Anglo-American Cataloging Rules, 2nd ed., 1988 rev., 624.

21. Ibid., 235.

22. Emerging Infectious Diseases is available at:

<URL:ftp://ftp.cdc.gov/pub/EID>
<URL:http://www.cdc.gov/ncidod/EID/eid.htm>
<URL:mailto:lists@list.cdc.gov>

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