

# information bulletin

Volume 32 Number 3

July 2001



Western Association of Map Libraries

*"... to encourage high standards in every phase of organization  
and administration of map libraries. ..."*

The **Western Association of Map Libraries** is an independent association of persons. The Membership has defined its Principal Region for meeting locations as: the Provinces of Alberta and British Columbia, and the States of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

Membership in WAML is open to any individual interested in furthering the purpose of the Association, which is "to encourage high standards in every phase of the organization and administration of map libraries." Membership includes receipt of all issues of the *Information Bulletin* and *Electronic News & Notes* (if an email address is provided), mail announcements of WAML meetings, voting privileges and receipt of WAML ballots.

Dues are US\$30 per year and all memberships begin July 1. You may join any time of the year by sending your name, address, phone, fax, email address and US\$30 to the WAML Treasurer at the address below. Make checks payable to "WAML" or the "Western Association of Map Libraries." Lifetime membership is open to any individual for a one-time payment of US\$500. In addition to all membership privileges listed above, Lifetime Members also receive a copy of each volume published in the WAML Occasional Paper series. For more information about WAML, its purpose, meetings and membership, see the WAML Web site at <[www.waml.org](http://www.waml.org)> or contact an officer listed below.

WAML and its *Information Bulletin* operate on a membership/volume-year basis. Subscriptions begin July 1 and end on June 30 the following year. Mid-year joiners/subscribers will receive back issues for that year. Back issues of the *Information Bulletin* are available for US\$10/volume, or portion thereof, from the Subscription Manager at the address shown below.

Subscriptions to the *Information Bulletin* are US\$25 per volume year. The *Information Bulletin* is issued three times each year: Issue #1 in November, Issue #2 in March, and Issue #3 in July. In addition to the subscription cost, US\$3 is charged for postage to Canada and US\$5 is charged for mailing to countries outside of the US and Canada.

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Western Association of Map Libraries

Volume 32, No. 3

INFORMATION BULLETIN

July 2001

Table of Contents

Features and Photoessays

Minutes of the Cartographic Users Advisory Council.....168
Alexander Dallas Bache and Jedediah Hotchkiss: Mapping Virginia during the Civil War by Brooks C. Pearson.....179
Early Soil Maps of California, 1900 - 1940, A Bibliography with Indexes by Richard Soares .....189

Atlas and Book Reviews edited by Kathy Rankin .....204

Books Reviewed: Infinite Perspectives: Two Thousand Years of Three-Dimensional Mapping, reviewed by Mary L. Larsgaard, Mapping the Great Irish Famine: A Survey of the Famine Decades, reviewed by Greg Armento, Nevada Map Atlas, reviewed by Christopher J.J. Thiry, The Jefferson Stone: Demarcation of the First Meridian of the United States, reviewed by Penelope Whitten and Hammond World Atlas, 3rd edition reviewed by Jason Vaughan.

New Mapping of Western North America compiled by Ken Rockwell.....208

WAML Business

President's Message .....163
Fall, 2001 Meeting Announcement, Portland, Oregon.....164
Minutes of the WAML Spring Meeting, Provo, Utah by Wendie Helms.....166

News & Departments

Benchmarks .....213
Canadian News.....213
Cataloging News .....214
Conferences & Classes.....215
Digital Spatial Data.....216
Employment.....231
General News.....219
Internet Resources.....221
New Publications.....207
Periodical Articles .....224
US Federal, State and Local Government News .....226

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### ***Editor's Message***

Greetings to WAML Members and Subscribers —

Since the WAML meeting in Provo, I have been working gather the various reports and contents for this issue. Many thanks to everyone who worked to get their contributions in for this issue. In addition to the report of the Cartographic Users Advisory Council, you will find an article on Civil War mapping and a cartobibliography of California soil survey maps, by our own Rich Soares.

By now, many of us have found a way to map out 2000 Census data. It appears that I lucked out, as the Arizona Redistricting Commission sent copies of the PL 94-171 CD-ROM to libraries. Thus, I was able to quickly download and format the Arizona data. I have also been experiencing the joys of ArcMap, ArcCatalog, and ArcToolbox, the new versions of ArcView. Although there have been a few problems, I *have* managed to make a map with the new software. More information on ArcView 8.1 will appear in a future issue.

I would like to greet our new *Electronic News & Notes* Editor, Adonna Fleming, of the University of Northern Colorado. If you have any contributions for *News & Notes*, please send them to her at [acflemi@unco.edu](mailto:acflemi@unco.edu). Best wishes to all of you for an enjoyable summer.

Linda  
**Linda Zellmer**  
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The *Information Bulletin* and WAML *Electronic News & Notes* are published by the Western Association of Map Libraries as tools for communicating with its Membership and Subscribers; however, opinions expressed in these publications do not necessarily reflect an official Association position.

#### **CONTRIBUTION GUIDELINES FOR THE INFORMATION BULLETIN**

Please submit material in electronic form. You may send material via e-mail as an attachment or regular mail (3.5" diskette, PC, Microsoft Word preferred). A file may also be posted on a server where the Editor may download it. Photographs should be black & white glossy prints or digital image files. Please contact the Editor if you have any questions. *IB* copy deadlines are: September 1 for Issue No. 1, January 1 for Issue No. 2, May 1 for Issue No. 3

#### **FEATURE ARTICLES**

Submit contributions and ideas for articles to the *IB* Editor, Linda Zellmer. These may include, but are not limited to, feature articles about maps and map librarianship, GIS and geospatial data use and services in libraries, mapping agencies, conference reports, historic mapping and future mapping trends, information about a specific map library or collection, map use or user studies, map librarianship training and cartobibliographies. "Something to Make Your Life Easier" features a procedure, handout, Web page or brochure to share that may help other map librarians in their work.

#### **PHOTO ESSAYS**

Contributions and ideas for photo essays are accepted by Ross Togashi, Photo Essay Editor.

#### **REVIEWS**

Atlas and book reviews and reviews of digital cartographic products, software and data are welcome. Contact the Atlas & Book Review Editor, Kathy Rankin or the Editor, Linda Zellmer. Hardware and Reproduction Technology reviews may be sent to the Micrographics/Technology Editor, Larry Cruse.

**CONTRIBUTION GUIDELINES FOR WAML *ELECTRONIC NEWS & NOTES***

Submit items to the *IB* Editor, the *News & Notes* Editor or the appropriate State or Province Editor at any time for inclusion in the WAML *Electronic News & Notes*. *E-N&N* is a monthly publication that is compiled and posted on the WAML Web site at (<http://www.waml.org>). The *E-N&N* Editor appreciates receiving contributions via e-mail, but accepts regular mail as well. Please flag time-sensitive items in the subject line.

Back issues of WAML *E-N&N* are also available for viewing at the WAML Web site. Selected WAML *E-N&N* items also appear in the *Information Bulletin*.

*E-N&N* includes the regular feature "New Mapping of Western North America." Submit citations for new print and digital maps and atlases of the *western United States and Canadian Provinces* to Ken Rockwell, New Mapping Editor and include ordering information if possible.

Contributions to *E-N&N* may include people news such as promotions, job changes, retirements and obituaries. Also, cartographic cataloging news, conference/class announcements, job announcements, industry/map dealer news, announcements of new cartographic materials (maps, atlases, data and software, CDs, URLs), citations for articles/special journal issues, preservation news, remote sensing news and agency news are welcomed.

Potential sources for news item include: communications with colleagues, listservs (please acknowledge original author and listserv), Web sites (use search engines & search for maps, atlases, cartography, geospatial data, GIS and your state, county or city), automated notification services, journals and newspapers, vendor, publisher and agency catalogs and newsletters and conference announcements.

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State and Province Editors will accept contributions at any time for their state or province and will forward them for publication. State and Province Editors have volunteered to be especially vigilant for news, notes, ideas for feature State and Province Editors will accept contributions at any time for their state or province and will forward them for publication.

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President: David Deckelbaum  
 Vice President/President Elect:  
 Christopher J.J. Thiry  
 Secretary: Wendie Helms  
 Treasurer: Muriel Strickland  
 Past President: Greg Armento

### Appointees

Archivist - Julie Sweetkind, (2000- )  
 Business Manager - Richard  
 Soares (1997- )  
 Subscription Manager - Jim  
 O'Donnell, (1997- )  
 Web Manager – Linda Zellmer  
 (1999- )

### Membership/Hospitality Committee

Julie Hoff (1998- )  
 Cynthia Jahns (1998- )  
 Wendie Helms (1998- )

### Nominating Committee

Greg Armento (2000-01)  
 Need additional members

### Publications Advisory Committee

#### (PAC)

Phil Hoehn (1999- )  
 David Deckelbaum (1999- )

#### Ex Officio:

Linda Zellmer, *IB* Managing Editor  
 (2000- )  
 Richard Soares (1998 - )

### PAC Microforms Subcommittee

Larry Cruse (1993- )

### Representatives/Liaisons

To AACCCM - Mary Larsgaard  
 (1992- )  
 To ACMLA - Tim Ross (1991- )  
 To ALA/MAGERT – Needs repre-  
 sentative  
 To CCISA – Linda Zellmer (1999- )  
 To CUAC -  
 Janet Collins (1996- );  
 Christopher J.J. Thiry (1998- )  
 To GIS - Richard Spohn (1996- )  
 To IFLA - Barbara Haner (1989- )  
 To SLA/G&M - Muriel Strickland  
 (1985- )

## *President's Message*

Greetings Friends and Colleagues,

It has been a quick year as President of WAML. During my term in office, thanks to Linda Newman and Rich Soares, we have had two very successful meetings in Reno and Provo respectively. They deserve the grateful thanks of the entire membership. The *Information Bulletin* is being compiled, edited, and produced very efficiently by Linda Zellmer. We appreciate her fine efforts.

Thanks to our Treasurer, Muriel Strickland for keeping us on a sound financial footing. Wendy Helms' diligent note taking has recorded for posterity the minutes of Executive Board meetings and her contributions are much appreciated. A large measure of gratitude is owed to Jim O'Donnell, our subscription manager, and Rich Soares, our business manager, for their continuing efforts to direct money into the WAML coffers. As President I am sandwiched between two other individuals, Greg Armento, Past-President and Chris Thierry President Elect. To Greg I owe a debt of thanks for his guidance and advice. To Chris I wish for him an enjoyable and successful year in office.

By and large WAML is an organization that seems to run itself. Many long time members have already served terms as officers, but for relative newcomers or anyone who has remained under the radar of the Nominating Committee year after year please reflect on the what WAML has meant to you as map library professional. Consider all the wonderful camaraderie and exchange of information that occur at every meeting or that are present in every page of the *IB*. Please give strong consideration to future service to this organization. It has been a pleasure serving as president this last year. Thanks!

david

*David Deckelbaum, UCLA*

**Preliminary Meeting Announcement  
Western Association of Map Libraries  
Oregon Historical Society  
Portland, Oregon  
October 3-6, 2001**

**Tentative Speakers:**

- Stewart Allen, Raven Maps
- Dr. William Loy, University of Oregon. The New Atlas of Oregon
- Sheri Schneider, Oregon Natural Resources Conservation Service
- Linda Ashkenas, Pacific Northwest Ecosystems Research Consortium
- Judy Birney, Oregon Office, Bureau of Land Management
- Ian Maiden, Oregon Department of Geology and Mineral Industries
- Lew McArthur, Oregon Geographic Names
- James Niehues, Map Maker, Mapping Ski Areas

The Oregon Historical Society collects, preserves, exhibits and publishes resources related to Oregon History. Their Collections contain books, photographs, film, manuscripts, maps, artifacts, and oral histories on Oregon. The Society is located in Portland's Cultural District.

The Society's Map Collection contains over 30,000 maps, related to Western Exploration, the Oregon Territory, and the Pacific Northwest Region. These maps show the growth of knowledge about Oregon, its topography and social development. The Collection contains maps of the Territory, the State, its cities and counties, and as well as thematic maps on mining, forestry, railroads, coasts and rivers, soils, farmlands, land claims, Indians, and explorations.

Our host will be Elizabeth Winroth, Maps Librarian, Oregon Historical Society, 1200 SW Park Avenue, Portland, Oregon 97205-2483. E-Mail: Lizw@ohs.org

Watch for more information in WAML Electronic News and Notes (<http://www.waml.org/newsnts.html>) and on the WAML Meetings (<http://www.waml.org/wmlmtgs.html>) web site.



## Minutes WAML 2001 Spring Meeting Provo, Utah

### Executive Board Minutes WAML 2001 Spring Meeting Brigham Young University May 9, 2001

Present: David Deckelbaum, Christopher Thiry, Greg Armento, Jim O'Donnell, Muriel Strickland, Linda Zellmer, Richard Soares, Kathryn Rankin, Dorothy McGarry, Janet Collins and Wendie Helms.

The WAML Executive Board Meeting was called to order by President David Deckelbaum at 9:30 P.M., May 9, 2001. The Executive Board met the evening before previously scheduled in order to allow some members to attend a map preservation workshop the next morning.

**1) Treasurer's Report:** The report was given by Muriel Strickland. Income: ACMLA did a lot of work at the Spring, 2000 joint meeting. WAML made money from the joint sponsorship. Expenses: Photographs in the IB used to create some of the heavy IB costs. Because photos are now placed electronically, issues are less expen-

sive to produce. WAML contributed towards Mary Larsgaard's travel expenses to AACR2 in London. Income added to balance forward: \$23,835 (approx.). Expenses: \$15,423.35. In savings account 4/12/01: \$10,211.41

**2) Business Manager's Report:** Richard Soares reported that he has taken classes in MS Office software. He is moving in between a Mac computer and Access software on his new PC. He will send a report when finished. There are still orders waiting to be filled.

**3) Subscription Manager's Report:** Jim O'Donnell reported we are doing well. Subscriptions are up. Payments are still coming in for volume 32. Some payments for volume 33 came ahead of time.

Since WAML is not an incorporated organization we need to follow-up on simplifying check signing problems.

There was a suggestion to obtain a copy of the mailing labels of the *SLA Geography & Map Division Bulletin*.

**4) IB Editor's Report:** Linda Zellmer. Linda printed 325 issues of the IB. We discussed postage rates, and whether or not they will affect the IB. Some rates will change June 1, 2001.

Linda discussed articles for the future and future issues of the IB: ArcView 8.1; formatting data for Census 2000; Genealogy; Atlas of the Phoenix Metropolitan Area.

We discussed changing a traditional policy of publishing addresses in the IB, because some do not like their home address published. For example, we could place an insert in issues to members but not in institutional copies, or distribute the list by e-mail instead. Can we always tell when an address is a home address? Muriel will ask the question of members.

We discussed advertisements in the IB. We need a "News and Notes" Editor. We discussed advertising the IB by putting our table of contents on Maps-L, as was done recently by ALA Magert for *Baseline*.

**5) Vice President** Chris Thiry discussed future meeting sites. The Fall Meeting will be held October 3-6, 2001 in Portland, Oregon. Sponsor, Elizabeth Winroth. Mary Larsgaard will host the Spring, 2002 meeting at University of California Santa Barbara, March 20 - 23. The Fall 2002 meeting is in Honolulu (no date set). Spring 2003 is in Palo Alto; Fall, 2003: Santa Cruz; All of 2004 and Spring 2005: Open; Fall 2005: Fairbanks, Alaska.

**6) Past President,** Greg Armento discussed the slate for the next election.

**7) Membership/Hospitality Committee:** Wendie Helms reported that she and Cynthia Jahns will assist with registration. We are looking for replacements on the committee. David Deckelbaum will ask for volunteers.

**8) Katharine Rankin, Book Review Editor:** reported that she is getting a good number of reviews.

**9) Janet Collins, WAML CUAC Representative:** reported on the April CUAC meeting. She emphasized the importance of continuing representation at the future meetings, promoting visibility and identifying issues. Minutes of the CUAC meeting will be organized and released on Maps-L, and published in the *Information Bulletin*.

The meeting adjourned at 11:00 p.m.

Respectfully submitted  
Wendie Helms  
Secretary

## Business Meeting Minutes Friday, May 11, 2001

The Business meeting was called to order by President David Deckelbaum at 3:00 P.M. Secretary, Wendie Helms, read a brief summary of the Executive Board Meeting minutes.

Treasurer Muriel Strickland presented the Financial Report. WAML received a check from ACMLA for \$1400.00 for the joint Spring, 2000 meeting in Edmonton, Canada. The balance forward from July 1, 2000 added to income totaled approximately \$23,835. Expenses totaled \$15,423.35. The savings account balance for April 12, 2001 equals \$10,211.41. Muriel sent reminders for payments of membership dues. WAML membership went up. Her new e-mail address is [mstricklandsd@cs.com](mailto:mstricklandsd@cs.com).

Chris Thiry, Vice President, discussed future meetings: The Fall Meeting will be held October 3-6, 2001 in Portland, Oregon. Sponsor, Elizabeth Winroth has everything under control with space for a few more speakers. NACIS meets at the same time in Portland. Mary Larsgaard will host the Spring, 2002 meeting at University of California Santa Barbara, March 20 - 23. The Fall 2002 meeting is in Honolulu (no date set). Spring 2003 is in Palo Alto; Fall, 2003: Santa Cruz; All of 2004 and Spring 2005: Open ... we are looking for places; Fall 2005: Fairbanks, Alaska.

Richard Soares, Business Manager, reported that Riley Moffat's book is still the best seller even though the price was increased. He has a better computer with which to make reports. He now uses MS Office and E-fax to keep costs lower.

Jim O'Donnell gave the Subscription Manager's report. The *Information Bulletin* is back on schedule thanks in

part to Kathryn Womble. The number of subscriptions is 165. Our rates are \$35.00 US for volume 33. \$1400.00 is in the savings account, so we are doing well.

## Liaison Reports

**AACCCM (Anglo-American Cataloguing Committee for Cartographic Materials):** The AACCCM has been working through the MAGERT Cataloging and Classification Committee to submit proposals for revisions to AACR2R to the ALCTS CCS Committee on Cataloging: Description and Access. The CC:DA can submit proposals to the Joint Steering Committee (JSC) for Revision of AACR. The AACCCM wishes to get AACR2R changed in some places to reflect practice by cartographic materials catalogers. After the JSC meets and decides which changes it will approve, the AACCCM will work to get out a revised edition of *Cartographic Materials: a Manual of Interpretation for AACR*. The previous edition was published about 1982, and many changes are needed, including accounting for aerial photographs and electronic geospatial data.

**ACMLA:** At the meeting in Montreal there will be a lot of pressure on the Committee on Government to make digital materials more available to the universities. Breakthroughs will not help WAML now, but perhaps in the future. Geography Departments have had to use U.S. materials in the past.

**CCISA:** Linda Zellmer reported that a meeting may be organized in the future.

**CUAC:** Janet Collins and Chris Thiry reported. The minutes of the April, 2001 Cartographic Users Advisory

Council meeting will be written up in detail and submitted later on Maps-L. Six organizations sent representatives to discuss federal programs in Washington, D.C. Janet Collins' term ends next year. We will need a replacement for her. It was a good meeting with more interactive discussion between CUAC representatives and government representatives than before. GPO acknowledged and thanked the library community for having written to representatives in Congress resulting in fewer budget cuts. Congress needs to know actual cases and reasons why USGS should not stop printing altogether. GPO is relying on the web to release products, but it is not the easiest way for libraries and the public. Some examples: printing problems, finding materials on-line, and archiving. Some Census 2000 products will be released in DVD format. We should use an internal DVD, not external. Much more information was given which will be written up in the CUAC minutes on Maps-L and in the IB.

**GIS:** Richard Spohn reported that GIS had a great meeting in Reno. They welcome members to join. They will meet in Boston the November 1<sup>st</sup> weekend. Geonet and Maps-L discussion lists will advertise the meeting.

**IFLA:** Dorothy McGarry reported it would be good to attend the IFLA meeting August 16 - 25, 2001 in Boston if you are interested in cartographic materials.

**SLA:** Geography and Map Division had a full schedule for the San Antonio meeting. The Division received a grant to allow for programming related to Geographic Information Systems to inform more SLA members about GIS.

**Depository Library Council:** Linda Zellmer reported that President Bush's Administration has not appointed a new public printer yet, so there are no decisions being made at the federal level. The NCLIS report was released. There is a move toward more electronic resources and less paper. We cannot be sure of the implications on Map Libraries. Senator Lieberman has a new proposal for revising the Depository Library Program.

President David Deckelbaum announced the need for a new *News & Notes* editor for the *Information Bulletin*. David said we may be able to increase subscriptions to the *Information Bulletin* by appealing to SLA G & M members who do not have a journal. Tell them to talk to Jim O'Donnell.

Greg Armento reminded us a WAML election is coming up, and we need more people to run. David Deckelbaum presented a certificate to Greg Armento for his time on the Executive Board, and to Richard Soares for his work hosting the Provo WAML meeting. The Business Meeting ended about 3:45 P.M.

*Respectfully submitted,*  
Wendie Helms  
Secretary  
Western Association of Map Libraries

**Minutes of the Cartographic Users  
Advisory Council (CUAC)  
April 17-18, 2001  
Library of Congress  
Geography & Map Division  
Washington, D. C.**

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Western Washington University  
(WAML)  
Mike Furlough  
University of Virginia (MAGERT)  
Donna Koepf  
University of Kansas (GODORT)  
Clara McLeod  
Washington University (GIS)  
Bruce Obenhaus  
Virginia Tech (SLA G&M)  
Celia Pratt  
University of North Carolina  
(SLA G&M)  
Dan Seldin  
Indiana University (NACIS)  
Richard Spohn  
University of Cincinnati (GIS)  
Paul Stout  
Ball State University (NACIS)  
Christopher JJ Thiry  
Colorado School of Mines  
(WAML)  
Mark Thomas  
Duke University (MAGERT)

**Presenters**

Robin Haun-Mohamed (GPO)  
Tad Downing (GPO)  
Rea Mueller (USGS)

John Hebert (LC G&M)  
Jim Lusby (NIMA)  
Tim Trainor (Census)  
Roger Payne (US BGN)  
Nancy Haack (NPS)  
Christine Clarke (NRCS)  
Doug Vandegraft (F&WS)

**Attendees**

Vi Moorhead (LC Cataloging)  
Chip Woodward (LC Cataloging)  
Wilford Daniels (LC Cataloging)  
Patricia Banks (NOAA)  
Sharon Kemp (NOAA)

**Presentations****CUAC Members**

1. **Copyright and Free Access Issues**  
Mark Thomas
2. **CRADAS and Free Access**  
Janet Collins
3. **Preservation and Public Access**  
Donna Koepf
4. **GIS in Libraries**  
Mike Furlough
5. **Summary**  
Christopher Thiry

**Agencies**

1. **Government Printing Office**  
Robin Huan-Mohamed &  
Tad Downing
2. **US Geological Survey**  
Rea Mueller
3. **Library of Congress Geography  
and Map Division**  
John Hebert
4. **National Imagery and Mapping  
Agency**  
Jim Lusby
5. **Census Bureau**  
Tim Trainor
6. **US Board of Geographic Names**  
Roger Payne
7. **National Park Service**  
Nancy Haack
8. **National Resources  
Conservation Service**  
Christine Clarke
9. **Fish and Wildlife Service**  
Doug Vandegraft

The meeting began with talks by CUAC members on a number of topics. Summaries of their talks are included in the report.

## Copyright and Free Access Issues by Mark Thomas

### Copyright

The United States has a long tradition of government-funded basic research to provide the infrastructure needed for an informed citizenry and to provide the building blocks for academic and private research. It also has a tradition of copyright-free government publications, based on the belief that the property rights of government information resides with the people as a whole. This is something that sets this country apart from others—it's a tradition of which we should be proud and should try to preserve.

### Free Access

Public money has paid for the collection and compilation of the information. A corollary to this is the implication that government agencies have the obligation to provide some sort of results or output to the public who funded it: giving the deliverables to the sponsors, as it were. Dissemination is just the final step; free access should be funded at this point as an integral portion of the government research process.

The concept of Depository Libraries—the idea that government information should be deposited in repositories for the use of the public—goes back to the early 19th century. By the late 1850s, the feature of Congressional designation of depositories in districts or states had developed. The Printing Act of 1895 moved the Superintendent of Documents to the Government Printing Office (GPO) and ushered in the modern era of depositories. Title 44, chapters 19 and 13, of the US Code requires agencies to provide material

to the public through the Federal Depository Library Program (FDLP).

### Benefits to the Agency

Freely available data, whether tangible products distributed through libraries or material provided free on the Internet, is good publicity for the agency. In many cases, such as with topographic maps or nautical charts, the library acts as a “showroom,” since librarians frequently tell patrons how to purchase the products for themselves. Best selling commercial books are held by public libraries, often in multiple volumes, but this doesn't prevent them from becoming best sellers. For convenience or to have more control, many users always prefer to acquire material directly for themselves.

Even in cases, such as with many electronic products, where the a government agency disseminates material for free, the open access model has benefits for the agency. Besides advertising specific products, it “advertises” the agency; good publicity can never hurt when it's time for funding to be renewed. Familiarizing users with the products and services of the agency will build and expand the user base for that agency's services and information. The Census Bureau has sold, for instance, CDs of 1990 Census data. Nonetheless, these were also available for free to libraries through the Federal Depository Library Program (FDLP). They eventually, with the advent of the World Wide Web, put this material on the Internet. This is a good model for all agencies.

For all the reasons listed above, benefiting the general public and the issuing agency alike, we urge the federal producers of maps and geospatial data to maintain this nation's longstanding tradition of free access to government-funded information.

## Useful References

### Government Information

- American Library Association (ALA). Government Documents Round Table (GODORT). Principles on Government Information - [http://sunsite.berkeley.edu/GODORT/prin\\_GODORT.html](http://sunsite.berkeley.edu/GODORT/prin_GODORT.html)

- National Commission on Library and Information Science (NCLIS). NCLIS Principles of Public Information - [http://sunsite.berkeley.edu/GODORT/prin\\_nclis.html](http://sunsite.berkeley.edu/GODORT/prin_nclis.html)

### Federal Depository Library Program

- ALA GODORT. The Federal depository Library Program (fact sheet) - <http://sunsite.berkeley.edu/GODORT/9704fact.html>

- ALA Washington Office. Federal Depository Library Program Fact Sheet - <http://www.ala.org/washoff/fdlpbackground.html>

- United States Code. Title 44 - <http://www.access.gpo.gov/congress/cong013.html>

- United States Government Printing Office (GPO). Snapshots of the Federal Depository Library Program (historical overview) - <http://www1.access.gpo.gov/gpoaccess/fdlp/history/snapshot.html>

### CRADAS and Free Access by Janet Collins

1. A trend with your agency?
2. How do you see it changing what you do within your agency?
3. What are the potential impacts to the depository program?

4. Will we still have free access to the information through the depository program? For how long? In what format?

5. Will the information be copyrighted? Potential costs?

6. How do we respond to the public that questions taxpayer-based information being copyrighted?

7. Can we work together to assure free access to government information, ongoing participation in the depository program, and benefit everyone?

### **Preservation and Public Access for Cartographic and Spatial Electronic Data**

by Donna Koepp

1. What is your agency doing to archive your products? Will these archives be public and freely available?

2. Are snapshots at regular intervals being taken of products that are continually being updated in an electronic environment?

3. If some of your agencies' products are being produced cooperatively—either with another federal agency or with a commercial sector partner (CRADA) are these products being archived in a way that they will continue to be freely accessible to the public?

4. Have you considered, when negotiating a CRADA, fitting into the agreement enough copies of your product to fulfill the need of the GPO depository library program?

5. The Cartographic/GIS library community is an excellent way to

advertise the availability of your products and how they can be used. Is there any way you can think of that we might assist you in meeting your goals or mission?

### **GIS in Libraries by Mike Furlough**

#### **Constituencies**

- Not just the academic users
- State and local government users
- General public

#### **Information Needs**

- Basic geographic information
- Raw data
- Assistance in converting data to information

#### **Models of service**

- Data provider
- Assistance in interpretation and use of data
- No single model works for all libraries
- Campus-wide GIS support may come from other units, but frequently doesn't
- Statewide clearinghouses are not as well positioned to support public data users

#### **Levels of expertise**

- Within libraries: often home-grown or self-trained
- Within public: largely novices
- Within researchers: increasingly more novices

#### **Metadata and Cataloging**

- A struggle
- How to best catalog resources (MARC compliance)?
- How to best make use of available FGDC style metadata?
- Does the "clearinghouse" model work for all concerned?
- Who is getting left out?
- Encourage the production and distribution of metadata in standard forms
- Consider the distribution of metadata in easier to use forms for general public

### **Industry**

- Concern over industry-driven standards in format and software
- Support the development of open-standards
- Copyrights should belong to the public wherever it is possible

### **Cautions**

- Spatial data tends to have wider uses than that for which it was originally created
- We cannot always envision how data products will/should be used.
- Do not mistake delivery of geographic information for delivery of spatial data
- Web-mapping is not the same as *Spatial Analysis*
- GIS software industry is focused on government and business, not on education and the public

### **Summary by Christopher Thiry**

This is a summary of the responses CUAC received from the questions asked last year to us by Robin I Iau-Mohamed. The "X" signifies the number of times the response was given. In general, the responses came from *academic libraries with large map collections*.

#### **Most mentioned concerns:**

- Lack of printing facilities.
- High costs plotters or oversized printers.
- Purchase of, maintenance of, and lack of expertise in computer software and hardware.
- Archiving of, or lack thereof, data.
- Difficulty in finding many maps on the web.

### **Responses to Questions**

#### **1. What is the impact on libraries when mapping is online?**

- Can't support paper printing because of cost. X13

- Complexity of data and software ties up computers. X4
- Archiving of maps? X3
- Format stability? Will we be able to read CD-ROMs 20 years from now? X2
- Difficult to find on-line. X2
- Library may be by-passed. X2
- Requires less time to file and maintenance. X2
- Increased map use in general.
- Lose ability to become aware of new maps.
- Easier to keep track of.
- Finding on-line often takes more time than finding in paper.
- Raises expectations of what is available on-line.
- Many patrons only interested in digital products and forget/don't know about printed maps.
- Patrons not skilled in using them.
- Cannot use.
- Libraries of lesser means cannot keep up.
- Move collection from ownership to access.
- More up-to-date maps.
- Older items (15' topos) not on-line.
- Serious problem. Getting worse.
- Plotters/printers do not have acid-free paper or permanent ink.

## 2) How do we use online spatial/cartographic data?

- Direct patron to web site-organize them on our web site. X4
- Depends on request. X3
- Don't. X2
- Download as needed. X2
- Used to supplement collection. X2
- Many theses have maps in them. X2
- Not very useful to most patrons.
- Do catalog relevant web sites.
- Used at all levels.
- Public want very specialized data.
- Students want Arc-formatted data.
- Make maps to display topical information.

## 3) Do we download things, save things, archive them, or do we go back to the original source material each time?

- Go to source each time, but problems with broken links. X6
- Save if items cover own region. X4
- Depends. X2
- Save sometimes if patrons use it multiple times. X2
- Download especially if large file or popular site.
- Usually don't.

## 4) Do we handle electronic map needs in the library or do we send our users someplace else?

- Do not send elsewhere because we have expertise. X10
- Both. X6
- Help when possible, but limited expertise. X6
- Send to GIS lab. X3
- Let them check out CDs. X3
- They must go elsewhere because there is no place to print. X3
- Don't have GIS lab on campus.
- Patrons want to take data away.

## 5) Do we use the airport charts, obstruction charts, approach charts, etc.?

- Little use. X8
- Some use. X8
- Yes.
- Haven't received any in years.
- Use VFR Terminal charts.

## 6) What will be the impact if the USGS Open File Reports go online only?

- No consistent format. X6
- Question of archiving. X6
- Difficult to locate-not all in one place. X5
- Better than fiche. X4
- Both fiche and digital difficult to print large maps. X3
- No comprehensive index of online OFRs (in any format). X3
- More use? X2
- Save space. X2
- Requires less time to file and maintenance. X2

- Need for better equipment.
- Depends what's in OFRs. Criteria has changed.
- Same difficulty to use as fiche.
- Cannot afford to start if charge.

## Government Printing Office Report by Robin Haun-Mohamed and Tad Downing

Robin announced that this would probably be her last CUAC meeting, since there had been reorganization and reassignments at GPO, and that with the next meeting Tad Downing would officially take her place. At this meeting Tad would be learning about CUAC and commenting where he could.

Since Robin spoke to us last, GPO has experienced many changes. It was a very chaotic summer due to proposed budget cuts by Congress. There was an initial proposed cut by the House of 61%. The library community rallied with a letter campaign, testifying to Congress, newspaper articles, and in the end the GPO's budget was cut by about 6%. Throughout the summer, however, in this environment of uncertainty, the Library Program Service moved very quickly on some initiatives that they were committed to completing.

At the Depository Library Council meeting in October 2000, GPO presented a Superintendent of Documents directive (SOD 71) which sets policy for dissemination and distribution of materials in the Federal Depository Library Program (FDLP). Cartographic materials and their use were taken into consideration when these criteria were decided upon. A list of essential titles, which will continue to be published in paper, has also been developed. (See Administrative Notes January 15, 2001).

There have been many personnel changes at GPO. Sheila McGarr resigned in September to become the Director of the National Education Library. Robin has become the Chief of Depository Services. Tad is now wearing two hats: Acting Chief of Depository Administration Branch and Head of Cataloging Department. Coleen Davis is now heading the Depository Distribution Branch, and Vicki Barber is on special detail to the Superintendent of Document's Office.

Even with the move to an electronic transition, LPS continues to distribute a number of physical products. The numbers, however, continue to decrease. In FY2000 there were 13,660 paper titles distributed or 22.3% of all FDLP titles. This number includes USGS maps. Microfiche distribution was 14,572 titles, or 23.8% of total distribution. Online titles on GPO Access account for 11,715 titles or 19.2% distributed. Online titles from other agency websites account for 20,591 titles or 33.7% of FDLP titles distributed. The CD-ROM or DVD titles totaled 617 or just 1% of the total.

The total number of USGS map sheets distributed in FY2000 was 357,907. In 1999 it was 381,282. A title count was not available.

There is a new FDLP administrative page which is now called the FDLP Desktop. This contains cataloging and locator tools, as well as other useful tools for libraries. For example, Depository Shipping Lists are now available here in PDF format. These tools can be used for claiming as well. The Joint Operation Graphics (1501s) that Jim Lusby promised us last year will need to be surveyed with depository libraries to determine distribution.

## New Products

- Oregon GAP Analysis.
- Research Maps (R-Map) from HUD in CD-ROM.
- Digital Atlas of Central and South America.
- National Land Cover Data Base (NLCDB) is online only but has been cataloged by GPO.
- Tide Tables temporarily dropped off the distribution but are now back. 2001 will come out shortly and 2002 will come as scheduled.
- National Atlas is coming as depository when pages can be sent. Some sheets are cooperatively done and are exempt from FDLP.
- Tract maps from Census 2000 will be coming on CD and DVDs; but right now they are 'one offs'.

## Recommended Specifications

The 2001 Recommended Specifications for Public Access Workstations in Federal Depository Libraries have been issued. Special specs for cartographic data use are noted. During inspections and self-studies, GPO is looking for written policies concerning computers for use with FDLP material. Computer specifications are checked, as well as any impediments to access to computer or online information. GPO is now taking comments regarding computer specifications that will go into effect in the fall of 2002. One noteworthy change is that libraries must provide a DVD player.

Selective FDLP housing sites need to be in compliance with all requirements of the FDLP Instruction and Guidelines for Depository Libraries. A decal on the door of selected housing sites is a requirement, as well as a written agreement for the selective housing site on file at GPO.

Robin asked for our ideas and participation in the October 2001 Depository Federal Library conference. She would like us to present a session on mapping.

Tad: Electronic transition not only in FDLP, but overall libraries. Transition to electronic has driven many changes within Library Program Service and this affects everyone. GPO is evaluating, validating, acquiring and cataloging electronic resources. Catalogers evaluate web sites, point to URLs and use PURLs. The links sometimes take the user to the exact page on the Web site that they think is appropriate: a place that is in accordance with the cataloging description. The Map catalogers are doing more of this than anyone else on the cataloging staff.

## United States Geological Survey by Rea Mueller

Rea Mueller presented for the USGS. Currently, there are 55,000+ 7.5" quads that cover the entire country. The topo maps are a "national treasure". It took approximately 33 million hours to produce the topos and the cost would be \$1.6 billion at today's prices to re-do the set from scratch.

Over the next 10 years USGS, together with its partners, will implement a revision strategy that provides "truly current information" to customers in a cost effective way. This effort considers political, social, economic policy and technological challenges. Partners and stakeholders are part of the process. Implementation begins in 2002 with a vision that by the year 2010, this arrangement "will provide the nation with current, accurate, and nationally consistent basic spatial data, including digital data and



derived topographic maps". The resulting proposal from this study, *The National Map*, is available on the web at <http://nationalmap.usgs.gov>. Comments are due by June 29, 2001.

Geographic Information will be delivered in a digital world. Geospatial data can be accessed at US Geodata online and electronic publications will include search and access tools. The URL is <http://www.usgs.gov>. Phone information are at 1-888-ASK-USGS. SDTs, DLGs, DEMs and land use/land cover data are available at no charge at <http://edc.usgs.gov/doc/edchrome/ndcdbl/ndcbd.html>. Web search and access tools include National Water Stream Gauging Network, National Biological Information Infrastructure, place based scientific projects, and National Seismic Data Network. There is a new website for current Midwest flooding. GLIS will be going away and replaced by Earth Explorer. Over 60 databases will be represented. Mac users will need to use GLIS for the present.

The National Atlas will continue to be published mainly in electronic format. Some printed sheets will still be published. The updated "General Reference" sheet will be out on depository soon at larger scale and updated from the 1973 edition.

Other new products include the Pennsylvania Shaded Relief map in experimental editions, DDS-62A "Global GIS Database: Digital Atlas of Central and South America", the online version of the National Land Cover Dataset and CD-ROM of "Status and Trends publications of the Department of the Interior".

USGS' goal is to be "seamless". Design goals include web accessible, best available data, most current data,

GIS application ready, multi-resolution and full coverage. Base map layers include Elevation (NED), Land Cover (NLCD), Hydrography (NHD), Orthoimagery (DOQ, TM), and Digital Raster Graphic (DRG) along with Geographic Names (GNIS) and reference layer.

Other trends include DLG's coming out on DVD. Web mapping will not be under copyright. CRADA's will continue (e.g. Laser Scan, Microsoft, ESRI, Chicago Map Corp, Earth Data, etc.).

Seamless maps are available on demand via Map Machines at several sites including REI stores, USGS Menlo Park, USGS Reston, etc. There will be more sites in the future. Users can center on a place and buy what they want (parts of many topos) at a cost usually less than the cost of purchasing all the topos (\$6.00 as opposed to \$4.00 for a standard topo sheet). These are color laminate maps. The machines were created through a partnership between USGS and National Geographic, which acquired Wildflower Productions. Users may soon be able to place annotations on the map.

### **Library of Congress Geography and Map Division by John Hebert**

#### **Digital Program**

Three years ago EDR Sanborn and the Library of Congress Geography and Map Division signed a contract to scan all the Sanborn fire insurance maps held by the Library of Congress and EDR Sanborn. The contract has been broken because EDR Sanborn wanted new copyrights for the scanned images. The LC Geography and Map Division wants to keep the maps produced before 1923 in the public domain. Bell and Howell is placing scans of their

black and white microfilm on the web. LC G&M is talking with them about a contract to create color scans on the web. Pascagoula, Mississippi has been done as a prototype. There have been a few Sanborn maps in the LC G&M scanning program. The Division is looking for organizations that do not have a commercial interest in the scanned images to help fund the Sanborn scanning.

The LC G&M scanning program is proceeding with maps that are in the cartobibliographies created by the Division. These lists include: Panoramic Maps, Civil War, Revolutionary War, and John Hebert's Luso Hispanic Maps. The last cartobibliography contains over 1000 manuscript maps produced between 1500 and 1900. Other areas to be scanned include Russian Frontiers, Spanish Frontiers Parallel History, and Brazil. James Billington, the Librarian of Congress, has an interest in scanning maps of Italy and the Vatican, and Japan.

High quality printouts of the LC G&M scans are available from Museum Archives of Seattle. The Division has an overhead camera worth more than \$70,000 and a cradle worth about \$25,000 to scan atlases.

The Division is working to set up scanning agreements with outside organizations. A letter of agreement has been approved by LC with the Library of Virginia and the Virginia Historical Society to scan Civil War maps in their collections. It is now being studied in Richmond. LC G&M has begun discussions with Harvard for scanning maps of coastal areas in time of the American Revolution from the American Neptune. There may be some possibility of cooperation with WAML.

## Cataloging

The LC Geography and Map Division and the National Imagery and Mapping Agency (NIMA) are both using Endeavor Voyager for their Integrated Library System. Because of this, they have begun cooperating on a project for the Division to create sheet level records for the set maps. LC will acquire the records from NIMA and create records for retrospective sheets. Barbara Story is working with a Program for Cooperative Cataloging (PCC) committee chaired by Paige Andrew of Penn State to create a Core Level format for Cartographic Materials.

## Recent Acquisitions

Dr. Charles B. Peterson, a cataloger at LC G&M, has donated his collection of approximately 15,000 gasoline company maps to LC. The Division has also acquired John Snyder's collection concerning projections and manuscript maps from the National Geographic Society. They have also purchased 1:100,000 scale Soviet maps of the United States. The Division is looking for funding to purchase Soviet maps covering Alaska and Canada. In addition to the cooperative acquisitions program for foreign maps that has existed for years, the Division is working with El Instituto Nacional de Estadística, Geografía e Informática (INEGI) to acquire sets of Mexican maps at 1:50,000, 1:100,000 and larger covering different subjects.

## Summer Project

The 50th anniversary Summer Project will be held this summer with 6 participants. The Division has received 300,000 maps from NIMA. Jim Flatness, the Division's Acquisi-

tions Officer had estimated that there would be about a 60% duplication with the Division's collections. However, a sample of the maps has shown that the duplication rate is less.

## National Imagery and Mapping Agency (NIMA) by Jim Lusby

Jim Lusby began his presentation by distinguishing between NIMA customers and consumers of NIMA products. NIMA's customers are the National Defense and Intelligence agencies who require cartographic information, products and data produced by NIMA. They can also direct NIMA to produce certain products or cover specific areas of the world. The civil and law enforcement agencies, along with the general public, are the consumers. The general public consumers may not be able to receive these products because of national security issues or because of cooperative arrangements made with organizations in other nations. The overall trend in NIMA has been a move to digital products and services, with print products based on those data being produced as needed.

He emphasized the political difficulty of arranging release of sensitive data produced for military or intelligence uses. In some cases, especially for emergency or disaster-relief situations, it can be accomplished on a limited basis. But it is sometimes less easy for educational and research use. In some cases, users may be able to review data but not duplicate it or receive a permanent copy.

There is no plan to take NIMA products entirely out of the FDLP. All publicly available products, including digital products, will be placed into the FDLP within budget and cost constraints. Jim attempts to move products into that program where he can and where costs allow it.

Jim outlined many initiatives and cooperative projects with federal agencies over the past year, including NASA, USGS, FEMA, and the Secret Service. He also acknowledged the difficulty of determining public availability of various NIMA products. A web site is being worked on that will attempt to bring all of that information together in one location. No release date was given. Jim then outlined the availability and schedule for various data products:

- DOI 10 (Digital Orthorectified Imagery) - 10-meter resolution imagery is now available for public download through the NIMA Geospatial Engine (<http://geoengine.nima.mil>).

- DTED (Digital Terrain Elevation Data) - DTED-0 (30 arc second/1km resolution) is now available with worldwide coverage through the NIMA Geospatial Engine; users may download about 50mb worth of data at a time. DTED-1 (SRTM) (100m resolution) will be available for purchase through the EROS Data Center only for the areas in the US. The projected time frame of this release is Dec 01; Lusby is working to make this data available through FDLP but there is no definite plan for that. DTED-2 (SRTM) (30 meter resolution) will be available only for the United States sometime early 2002 (see comments on SRTM below).

- SRTM (Shuttle Radar Topography Mission) - The spring 2000 Space Shuttle mission took radar based elevation readings at 30 meter resolution over the entire world. The data is still being processed, with North America being the highest priority. Only United States data will be made available to the public as DTED-2 (see above), while the rest of the world will be restricted.

•VMAP (Vector Map) - VMAP-0 is now available with worldwide coverage through the NIMA Geospatial Engine; users may download about 50mb worth of data at a time. VMAP-0 is also available in 4 CD set for the FDLP members. GPO can survey members and provide NIMA with a quantity requirement. VMAP-1 is also available on a case by case basis. Certain areas of the world along with the United States are available for public purchase, and as such, available to the FDLP. Again, GPO can survey members for interest.

He closed by displaying a list of printed items that will be made available through FDLP. Many of these were complete sets of 1:50,000 sheets for southeast Asia; others were complete sets of 1:50,000, 1:100,000, and city graphics at scales ranging from 1:12,500 - 1:25,000 for certain nations.

### **Census Bureau, Geography Division by Tim Trainor**

Tim began by giving us an overview of American Fact Finder (AFF) at the Census web site (<http://www.census.gov>), which the agency is using to increase product availability. He demonstrated the layout of the AFF introduction page, which has general user information at the top; access to data from their web site is from a link in the lower left. The Census Bureau is getting more requests to download spatial data. Users can create thematic maps online using AFF.

Tim then talked about some of the major changes in Census geography for the 2000 census (many of these changes were things of which we were previously aware). For instance, Census is no longer using the term Block Numbering Area (BNA), but is only using the term "census tract" for

this level of geography. There is no minimum population limit for Census Designated Places (CDPs). Block numbers will consist of four digits with no alpha suffix. The redistricting TIGER/Line 2000 files currently are available and have an updated feature network. The Zip Code Tabulation Area (ZCTA) is a new level of geography for aggregating data, where each block is assigned one and only one zip code, based on 2000 blocks. Tim asked for feedback on these, especially with how water features are handled by them. The March 28, 2001, Federal Register had a notice regarding new urban and rural area criteria; after public input, there will be a new list of urbanized areas in early 2002. The Office of Management and Budget is working on new Metropolitan Area definitions based on Census 2000 using the concept of Core Based Statistical Areas; these new definitions will likely be used in 2003.

TIGER will continue to be the spatial data source for the Geography Division. In the summer of 2001 they anticipate the latest version of the 2000 TIGER/Line files, which will include the ZCTA boundaries and updated address ranges. These will be available online, on DVD, and on custom CD-ROM.

Products available from Geography include paper maps, plotted on demand on 33 by 36-inch sheets, for five dollars per sheet through the customer services branch at 301-457-1101. These are also available on the Internet and on CD in Adobe Acrobat format. These include several layers needed for redistricting purposes: county-based block maps (over 100,000 sheets), voting district outline maps (23,354 sheets, sometimes including state legislative districts), and census tract outline maps (6,514 sheets). One full set of the maps was plotted for the

Library of Congress. Color is an important component of these maps. You can Click "maps" at the census web site to go to Geographic Products; this will lead to the appropriate web page. An index map will let you determine which sheets you need. These maps are also available in Hewlett-Packard Graphics Language (HPGL), for output to plotters, but this is scheduled at present for release only on DVD due to the large file sizes. Specifications for plotter configurations are available at the web site. A CD-ROM with Acrobat files will be in depositories this summer.

Tim had a table showing the historical changes in the US center of population, as well as a map depicting the change. These are online, along with a description of the calculations used to determine this point. The 2000 center of population is in Phelps County, Missouri.

Other information available from the web site includes a map of the over 70 Census Information Centers (CICs). The American Community Survey is the proposed replacement for the decennial census long form. If the ACS is approved, the 2010 decennial form will likely be very short-maybe the size of a postcard. At present, the ACS plan involves 250,000 households per month within the survey. Finally, for geographic products, there are relationships files that relate 1990 census geography to 2000 census geography.

More forthcoming products from census will be American Indian Tract Outline maps, a Congressional district atlas for the 106th and 107th Congresses, state-based county subdivision maps, state/county outline map, and state/county metropolitan area

outline maps. Other upcoming products include digital cartographic boundary files, generalized from TIGER, available in both low and high-resolution versions. A projected Census Atlas in printed book form will include about 70 thematic maps. It will be distributed through the depository program and will probably eventually be available in Acrobat format.

Tim welcomes feedback using the email address [geography@geo.census.gov](mailto:geography@geo.census.gov).

### **Board on Geographic Names** by Roger L. Payne

Roger Payne from the Board on Geographic Names (BGN) gave an enthusiastic overview of its history, functions, and products. The Board was created in 1890 in response to the confusion caused by the variety of names given to physical features in the United States by scientific expeditions. The BGN's mission is to standardize names, establish principles and policies, and promulgate their decisions. It was established by law and its decisions are legally binding to agencies of the Federal Government. Although legal authority extends to all feature types, by its own decision, the decisions only apply to physical features, not man-made features such as roads, parks, schools, etc. The names established by the BGN cannot be copyrighted.

BGN uses the following rules to make decisions: the names must be in the Romanized alphabet, and used locally, or established by Congress or executive order or other authorities (such as local governments). Of these, "local use" takes priority. The names may be in any language. The BGN does not approve names whimsically; much thought and

research go into each decision. The process begins with the submission of a new name to BGN via their Geographic Names Information System (GNIS) (<http://geonames.usgs.gov/>) web site/database or by other means. After submission, if the name is published elsewhere in "official" sources or established by historical resources, and non-controversial, it will be added to GNIS within 30 days. Cultural (man-made) features must be held for at least 30 days in order for a thorough review to take place. Natural features not found in publications are given to state and local governments for a 45-day exam period. Problematic or commemorative names take at least four months. There is currently a moratorium on naming physical features in wilderness areas, except for safety and education reasons.

Some of the issues that BGN deals with include requests by or laws passed by Congress, commemorative names, wilderness areas, and derogatory names. A current controversy surrounds the name "squaw"; it is considered by many to be a derogatory name for a female. Five state governments are requiring that the word "squaw" appearing in a place name be changed. They are taking the initiative, not BGN, but BGN is working in cooperation with the state naming boards to make the changes official (Iowa and Indiana lack such boards).

Names are rarely changed by the BGN. Exceptions do occur. Some of the reasons names are changed include the addition of diacritic marks (as is happening extensively in Hawai'i), the elimination of duplicates and variants, and the shortening of lengthy names. The GNIS database was developed in several phases. During the first phase, the Bureau melded all of the names found on US Geological Survey maps, National Forest Service maps, National

Oceanographic Survey charts, and National Park Service maps. This yielded only 20% of the known names in the US. Phase II began in 1982. It used data from all federal, local governments, as well as historical and BGN "approved" documents. Most of Phase II is complete; only Alaska, Kentucky, Michigan, and New York have yet to be finished. The database now includes references to a name's origin if that name was the subject of a controversy since 1982. The names in GNIS do not have to be current; in fact, the database includes over 100,000 entries of places that are no more. Phase III will begin in 5 years and will be more in depth.

Federal Agencies must use the names found in GNIS; they cannot make up new ones. They may choose to leave out names. If the wrong name is used, there are serious repercussions. The least may be embarrassment; the worst could lead to safety problems and accidents.

GNIS has been incorporated into many government databases including "Gateway to Earth" by USGS, Terraserver, the National Atlas, and Landview. Landview 4 was last updated in July 2000, and contains approximately 90% of the names found on GNIS.

Since 1987, BGN has operated an electronic maintenance program. Recently, Florida and Delaware have entered in an agreement to aid with this process by keeping their respective names up to date, and more importantly, adding delineated boundaries to each name. Ultimately, the latter will allow people to spatially search GNIS. To that end, the U.S. Geological Survey is developing a new version of GNIS, and it is planned for release in October 2001. It

is geographically enabled. The new version also includes the source of the names, and the name of every map at every scale that the place name occurred.

### **National Park Service (NPS)** by Nancy Haack

Nancy indicated that there are many changes underway at the National Park Service. Many parks have geographic information systems (GIS) in place, and there are national coordinators in regional offices. The Park Service is using digital line graphs (DLG) and GIS to generate their maps.

Nancy stated that Harpers Ferry Center is located in West Virginia and is an interpretive service center for the entire park system. The center creates publications, exhibits, wayside exhibits, and films. Waysides are "up and coming" as a mapping unit in Harpers Ferry Center, creating maps for outdoor exhibits. Technical Information Center is located in NPS's Denver Service Center and is the library for internal drawings, plans and the like.

The National Park Map and Guide (map of all units of the NPS) is revised and current on the NPS website, ParkNet, at <http://www.nps.gov>. The web site includes information on programs and projects. The web site also includes entry to websites of affiliated units.

Nancy also mentioned another web site: <http://www.recreation.gov>. Recreation.gov is a partnership among federal land management agencies aimed at providing a single, easy-to-use web site with information about all federal recreation areas. The site allows you to search for recreation areas by state, by recreational activity, by agency, or by map".

"The message project" is a recent initiative of the NPS. The goal of the initiative is to bring all units together under a NPS arrowhead to create a corporate identity. Another initiative has involved the individual parks recreating maps (in-house) from existing visitor use map digital files and reproducing them as stripped down versions in their park newspapers. An example was a transportation "shuttle map" for Zion National Park. Adobe is used to create the in-house maps. Printed examples provided were: Volunteers in Parks, the National Park System Map and Guide, National Park Index, Civil War at a Glance, Hawai'i Volcanoes, Grand Canyon, and a Revolutionary War at a Glance (for the 225th anniversary), which is currently being printed.

Most derived products are printed through Park Associations, not the Government Printing Office (GPO), and are not available through the depository program. By law, the Parks have to provide park brochures.

The NPS digital visitor use maps are posted on a website (<http://www.nps.gov/carto>) which includes information on data sources and accuracy. New maps are being made with digital line graphs from USGS. Shaded relief maps are created using digital elevation models (DEM) from USGS. An example of a shaded relief map is the national parklands map of Alaska.

The NPS also works closely with the US Board on Geographic Names and the various State Boards on Geographic Names. The use of diacritical marks on maps by the NPS are now included for the parks in Hawai'i.

### **National Resources Conservation Service (NRCS)** by Christine Clarke

The Natural Resources Conservation Service presentation was given by Christine Clarke, NRCS Geodata Coordinator. Formerly the Soil Conservation Service, the NRCS' mission is to provide leadership in a partnership effort to help people conserve, improve, and sustain our natural resources and environment. They oversee conservation programs mandated in farm bills and help put conservation practices on the ground. The Service has 10,000 employees in 2,400 field offices located in almost all counties in the country, in addition to state, regional and national offices. They also maintain a vast network of partners including conservation districts, state and federal agencies, Earth Team volunteers, agricultural and environmental groups and professional societies. These employees help farmers and ranchers develop conservation plans suited to their local situation.

The Service began digitizing soil surveys about 20 years ago. Today they provide information at the state level through the State Soil Geographic Database (STATSGO) and the county level through Soil Survey Geographic (SSURGO) Data Base. Both are available on the web and designed for use in geographic information systems. Online soil survey manuscripts, generally PDF versions of the printed soil surveys, are available for some counties. In addition they produce a CD with "soil explorer", a graphical interface that allows easy map generation and the raw data files for the more GIS proficient to assist their field operations. The Service is

developing an internet access tool allowing map generation on the web. This product is called the Soil Data Viewer.

Other NRCS products include the National Resources Inventory (NRI) which is a statistically based sample of 800,000 points surveyed at 5 year intervals of land use and natural resource conditions and trends on US nonfederal lands. The National Soil Information System (NASIS) is the core component of the National Cooperative Soil Survey's vision of providing a dynamic resource of soils information for a wide range of needs and is designed to manage and maintain soil data from collection to dissemination. The PLANTS Database is a single source of standardized information about plants. The National Water and Climate Center provides water and climate information and technology which support natural resource conservation. Many of these products have data available for download and can be found from the NRCS web site at <http://www.nrcs.usda.gov/>.

The Service is concerned with both data access and archiving. They are a node on the FGDC National Geospatial Data Clearinghouse and develop metadata for their datasets. They are actively archiving soils data, the traditional focus of the NRCS. Other datasets generated on an as-need local basis are not as actively archived or centralized for national use and applications.

### **Fish and Wildlife Service (F&WS) by Doug Vandegraft**

Doug introduced himself as the Chief Cartographer, F&WS. He noted that he had been a F&WS cartographer in Alaska before accepting the

job as Chief Cartographer in DC one year ago.

His presentation focused on the maps of the National Wildlife Refuges through the years. He began the discussion with a brief history of US Wildlife Refuges. The first was established in 1903 and for a number of years, maps of Wildlife Refuges were made by the General Land Office. The Fish and Wildlife Service became a unit of the Department of Interior in 1940. Until recently, most maps of Wildlife Refuges were in black and white.

Mapping of wildlife refuges at F&WS has been revolutionized with the introduction of GIS. Among other advantages, this has increased the accuracy of boundaries and land ownership data. Examples of the different types of maps produced through the years were shown. These maps are becoming more valuable as a source of information and to document changes in land ownership and refuge boundaries. A question was raised concerning the distribution of wildlife refuge maps to library depositories. This issue will be investigated.

## Alexander Dallas Bache and Jedediah Hotchkiss Mapping Virginia During the American Civil War

*by*

**Brooks C. Pearson**

### **Introduction**

This paper discusses the roles of Alexander Dallas Bache and Jedediah Hotchkiss in mapping Civil War Virginia. First, Virginia's antebellum map resources are introduced to establish an understanding of the cartographic obstacles these men faced at the conflict's commencement. Then Bache's contribution to Union mapping will be examined, followed by a discussion of Hotchkiss's Confederate topographic service. These very different individuals are seen to have made substantial, but distinct, contributions to their respective causes.

### **Virginia's Antebellum Maps**

Virginia's prewar topographical information is largely the result of private mapping efforts. Although the Corps of Topographical Engineers conducted a series of impressive antebellum mapping activities to support Federal land survey initiatives, they generally charted areas far removed from the

seat of the Civil War. Thus, these maps were frequently of little use to support military activities in most of the contested territory. In conjunction with the Office of the Coast Survey, complete surveys of the coastline of the southern states had been substantially completed by 1861 and were quickly put to use as completed maps and charts necessary to successfully implement the Union blockade (Slotten 1994) and to establish the string of coastal beachheads with which the Union began reinforcing the blockade in 1862. Nevertheless, most Virginia map resources existing at the beginning of the War were not the result of the cartographic activities of the U.S. Corps of Topographical Engineers, but from private cartographic publishers.

The first European maps of portions of what is now Virginia were constructed in the last years of the sixteenth century, but Cpt. John Smith's 1612 engraved map was the first to portray most of the present Commonwealth (this is nicely reproduced in facsimile by McCary (1957)). Augustine

Hermann's 1673 map proved a highly reliable work, especially in terms of its depiction of the coastline from the Hudson River to North Carolina. In 1751 Joshua Fry and Peter Jefferson, father of the future President, developed a four-sheet map of "the Most Inhabited Part" of the British colonies (Sanchez-Saavedra 1976). This piece served as the standard basemap for Virginia until the publication of Böye's 1828 "Map of the State of Virginia."

Hermann Böye's work is based on John Wood's surveys of Virginia, which were conducted between 1817 and his death in 1822. Böye completed the surveys for the entire state and finalized his map in 1825. This map was eventually published in both nine-sheet and four-sheet editions in 1828 by Philadelphia engravers Benjamin and Henry S. Tanner (Sanchez-Saavedra 1976). The 1859 editions (single and multiple sheet versions) of the Böye map were the product of work done by Lewis von Buchholtz, who effected a limited revision to the

original copperplates. Many errors to Böye's map were too extreme for remedy based on existing copperplates, so several serious topographical fallacies persisted in the "corrected" edition. Even given its limitations in terms of ground truth, Böye's map, with Buchholtz's revisions, constituted one of the most accessible and reliable sources of detailed data on Virginia's topography available to both Union and Confederate topographers during the Civil War (Sanchez-Saavedra 1976; Stephenson 1999).

Another figure important to cartographic knowledge of Virginia on the eve of war was William Barton Rogers. Born in Philadelphia on December 7, 1804, Rogers would ultimately propel the Massachusetts Institute of Technology to the forefront of international technological research. During the 1830s and 1840s, Rogers headed the Virginia Geological Survey's efforts to completely map the state. Although the results of Rogers' thorough geological survey of Virginia were not published as a unified map until nearly two decades after the end of the Civil War, all the constituent pieces of information were nevertheless known through the Virginia Geological Survey's dissemination initiatives before its suspension on April 1, 1842 (Ernst 1974; Lessing 1995; Roper 1991). The various reports and preliminary maps published by this Survey were thus available for application to the needs of either army in the field. The Library of Congress' (hereafter LOC) Civil War map collection contains a version of the 1859 Böye - Buchholtz single sheet "Map of the State of Virginia" (LOC 465.85) which was colored in 1862 to reflect Rogers' geologic information. Figure 1 shows a detail from this map with Harper's Ferry at top center.

For Virginia as a whole, but especially for the Piedmont, place name terminology was such that even where good base map information were available, one could not be certain that locals knew features by the geographic name coded on maps. Both nominal and topological errors plagued map users in wartime field service throughout Virginia. Further discussion of this problem can be found in Galvin (1999) and Stephenson (1999). Especially during operations in eastern Virginia, major tactical blunders resulting from poor topographic intelligence embarrassed the efforts of numerous commanders, both North and South. By contrast, the dominant tactical feature of the Shenandoah Valley during the Civil War, the shallow-grade, nearly straight, wide, and wonderfully macadamized Valley Turnpike, was seldom far out of sight, so there was much less chance of units getting lost during maneuvers there than in the more open terrain in the eastern part of the state. Problems with the quality of cartographic information plagued military operations on both sides throughout the War.

Other than the small-scale wall maps introduced here, little else in the contemporary cartobibliography afforded the same quality and accessibility to the Civil War topographical engineer. Much of the information and maps topographers (see Traas 1993 for this term's pedigree) provided for their commanders during the conflict would therefore be the result of field surveys. The individual most instrumental in providing maps to Union army and naval officers operating in Virginia was clearly A. D. Bache (as he commonly signed maps created under his supervision). For Confederate mapping of Virginia no one is held in higher esteem by history or his contemporaries than Jed. Hotchkiss (as he signed most of his wartime work). Both are discussed in the following sections.

### Alexander Dallas Bache and Union Mapping of Virginia

Alexander Dallas Bache was the principle figure to ensure that Union mapping needs were met in Civil War Virginia. He was born in Philadelphia July 19, 1806 and descended from an influential Midatlantic family. Benjamin Franklin was his grandfather, as was former Secretary of the Treasury Alexander Dallas. Bache graduated first in his class from the United States Military Academy in 1825, among the very few in West Point's history to accrue no demerits whatsoever during his or her tenure as a cadet. Following a year as instructor of mathematics and natural philosophy at the Academy, Lt. Bache spent two years as a Corps of Engineers officer assigned to assist in the construction of Ft. Adams in Newport, Rhode Island. Bache resigned his commission in 1828 to assume a professorship in natural philosophy and chemistry at the University of Pennsylvania. He remained there until 1837, a year after commencing duties as president of Girard College. His duties at Girard largely coincided with those as head of Philadelphia Central High School, an educational reformist experimental institution. Bache resigned both of these duties in 1844 to assume the position of Superintendent of the Office of the Coast Survey upon the death of its first superintendent, Ferdinand Hassler.

Bache was at the helm of the Coast Survey during both the Mexican War and the Civil War (in which his father, Hartmann Bache, was eventually breveted brigadier general of topographical engineers (Traas, 1993)). Throughout his protracted tenure, Superintendent Bache insisted on technological innovation and the maintenance of exacting scientific





Figure 1. Boye's 1859 Map of Virginia annotated with Rogers' Geologic Information (*LOC 465.85; detail*)

standards for the Survey. For example, he pioneered the use of telegraph signals as a timing device for determining longitude. Bache, a founding member of the National Academy of Sciences, was regarded among the nation's scientific leaders at the time of the Civil War. Since the Survey's responsibilities were roughly divided among civilian, naval, and army mapping, Bache became familiar with, and generally involved in, all the major explorations, mapping, land office surveying, and internal improvements of the immediate antebellum period (Manning 1988; Sloten 1994). Many of Bache's former topographer friends

saw Civil War service in non-topographic capacities as well.

When the Civil War began Bache did not initially interrupt Coast Survey activities in the South until Secessionists began to seize U.S. government property. Bache was satisfied with losing only sundry supplies and three small ships during the eventual 1861 withdrawal north. Since the Office of the Coast Survey was a Federal agency associated with peacetime mapping, Bache prudently seized the initiative to devote most of the Coast Survey's activities to the war effort. Surprisingly Congress considered a bill in late 1862

and early 1863 to abolish the Survey, but this motion was handily defeated by a 3 to 1 margin, mainly because of the Office's impressive map and chart productivity (Sloten 1994). Stephenson (1999) is mistaken in the assertion that 1862 Coast Survey productivity statistics are unavailable, for they are presented in Bache's biography (Sloten, 1994). Before the War the Office of the Coast Survey annually issued around 10,000 maps and charts to various U.S. Government agencies; in 1862 it issued 44,000 to United States Army and Naval officers and other government personnel, with continuously increasing output as

the war progressed. This high level of map output had its cost, for Bache became blind in one eye as a result of overwork during this period (Lenzen 1968), when he seldom went to bed before 3 A.M. (Cajori 1929).

Bache's greatest contribution to Union military cartography was his avant garde adoption of lithographic reproduction processes in 1861, without which the Survey's level of productivity could not have been maintained. By 1862, the Coast Survey had prepared topographic maps for much of Virginia at fourteen miles to an inch (Stephenson 1999). Although manifestly more legible for field service than its predecessor, these maps were

little more than a rescaled selective simplification of the single sheet edition of the Böye-Buchholtz 1859 "Map of the State of Virginia." Successive update and revision throughout the War steadily increased utility and overall reliability so that the 1865 edition of the Coast Survey's "Map of Virginia" (Figure 2) is a much more refined piece than were its predecessors.

Their shortcomings aside, many Union officers had maps during the conflict because of the Office of the Coast Survey's valuable cartographic efforts (See note 1). McClellan even went so far as to declare in a letter to Bache that "without the Coast Survey maps it certainly would have been very difficult, if

not impossible, to have arranged and carried out most of our military operations" (quoted in Slotten, 1994, p. 110). But the Coast Survey performed more direct service to the Union cause than simply the cartographic, as 32 of the 49 Assistants to the Coast Survey in 1862 were detached to the army and navy as topographical and hydrographical engineers (Slotten 1994), a practice which persisted throughout the War.

In this capacity, Coast Survey personnel performed manifold duties. Speaking specifically of the Peninsula Campaign, McClellan declared that "it was impossible to draw a distinct line of demarcation between the duties of

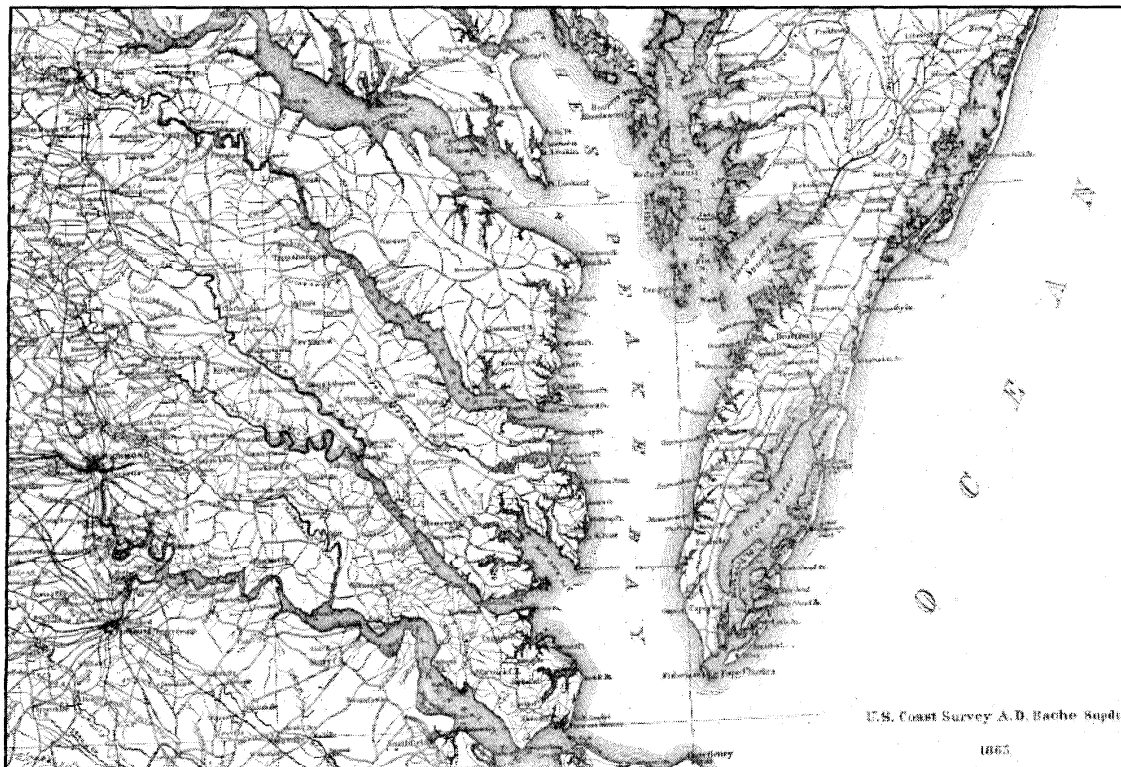


Figure 2. Portion of Bache's 1865 Map of Virginia. (NOAA Central Library, Civil War Collection.)

the two corps of engineers [Corps of Topographical Engineers vs. Corps of Engineers], so that the duties of reconnaissance of roads, of lines of entrenchment, fields for battle, and the position of the enemy [traditional topographer responsibilities] as well as the construction of siege and defensive works [traditional engineer corps duties] were habitually performed by details from either corps, as the convenience of the service demanded" (Scott 1881 Series 1, Vol. V, Ch. 14, p. 25).

There is little evidence suggesting that Bache personally conducted relevant surveys or penned war-specific maps of Civil War Virginia. Nevertheless, his salient contribution among Union topographical engineers is undoubtable. A respected scientist and savvy administrator, Bache provided the guidance to the Coast Survey which facilitated its exemplary wartime cartographic enterprises. The Union Army in Virginia had maps largely because of Bache's tireless efforts.

The strain of directing the United States' leading cartographic organization during the Civil War had pronounced physical ramifications for Bache; his health continuously deteriorated following his partial blindness in 1862. The 58 year old Bache was forced to take a vacation in 1864, ostensibly traveling to Europe to conduct triangulation and magnetic surveys for the Coast Survey (Gould 1868). That workaholic Bache was persuaded to leave the continent before the conflict's conclusion admits both to the severity of his illness and to confidence in the smooth operation of his Coast Survey toward fulfilling Union cartographic requirements. Eighteen months of grand tour did not greatly improve Bache's condition, however. He died at Newport, Rhode Island on February 17, 1867.

### Jedediah Hotchkiss and Confederate Mapping of Virginia

Without question Jedediah Hotchkiss is the most famous personality among Confederate topographical engineers, specifically, and among all Civil War topographers, generally. Scholarly fascination with Hotchkiss has been facilitated by the breadth and quality of his collection of maps from the war, most of which ultimately made it into the Library of Congress' Geography and Map Division holdings. The collection is outlined in LeGear (1977) and Stephenson (1989), while the tale of how it came to the LOC is recounted in Roper (1989).

Hotchkiss was born November 30, 1828 near Windsor, New York in Broome County. Migrating southwest up the great Appalachian valley system as a young man, he arrived in Virginia's Shenandoah Valley in 1847. There he served as headmaster of the successful Mossy Creek Academy until 1859 when he founded Loch Willow Academy at Churchville, Virginia, which was nearer his topographical engineering firm in Staunton. He ran Loch Willow with his brother Nelson until the Civil War precluded further matriculation (Craig 1965; Miller 1994; Miller 1993).

Supporting his adopted state in its secession, Hotchkiss officially entered the service of Virginia in March 1862 when he mustered into state forces as adjutant to Lt. Col. W. S. H. Baylor's regiment with the rank of Captain (Hotchkiss 1973). When those forces were subsequently mustered into Confederate service, however, all troop-elected state officers had their commissions nullified so that Richmond could ensure a more stable command structure, which was ideally reflective of officer merit. Most reasonably qualified

personnel were decommissioned at some level and returned to command, but it was during this restructuring of the Army of the Valley's order of battle that Lt. Gen. Thomas J. "Stonewall" Jackson took note of Hotchkiss, whom he had met a few times and known by reputation for several years (Miller 1993), and detailed him to be his army's topographical engineer. Although this was ultimately Hotchkiss's avenue for notoriety, it also took him out of the cycle of automatic commission in the Army of the Confederacy. This matter is discussed by Hotchkiss in his journal and is treated rather decidedly by McDonald (1967). The following details of "Captain" Jed Hotchkiss, as he signed his wartime maps, and his elusive commission draws heavily from McDonald's work.

Upon receiving his appointment to Jackson's staff Hotchkiss's prospects for commission flagged because of a bizarre series of circumstances in the Confederate high command. The government at Richmond felt it fundamental to its inception as a confederation to maintain an equitable regional balance in army command so that each state in the Confederacy would be proportionately represented among the new nation's officer corps (see Connelly and Jones (1973) for further discussion of this policy). Given the great demand for field officers and the inevitable attrition in such service, this constraint was not severely damaging for Virginians aspiring to field command. In skilled staff service, however, opportunities were limited for Virginians to acquire rank. This problem was especially acute for engineer and topographical engineer service, since the relatively higher standards of education in the Old Dominion as compared to what was typical in many other southern states meant that there was a glut of

Virginians qualified to perform engineering duties (Nichols 1957). As a result, by the time Jackson requested the confirmation of Hotchkiss' appointment as captain and chief topographical engineer for the Army of the Valley, Virginia's quota had been filled. Although he served with distinction throughout the War as chief topographical engineer for the Army of the Valley / 2<sup>nd</sup> Corps Army of Northern Virginia, Hotchkiss does not appear to have ever been commissioned by the Confederate Congress. On October 4, 1862 Confederate Secretary of War George Wythe Randolph finally granted him a temporary commission as captain of engineers, but this was purely an honorary appointment and

appears never to have been officially confirmed (McDonald 1967). Ironically, then, the War's most renowned topographical engineer appears to have remained a civilian throughout the conflict, although notable personages from both sides customarily referred to him after the war as "Captain" or "Major" Hotchkiss.

Civilian employee in the Confederate service Hotchkiss received a heady charge as his first task as Jackson's topographer: to make a map of the entire Shenandoah Valley. Receiving his commission from Jackson to make the map on March 26, 1862, Hotchkiss diligently commenced work the following morning and then devoted most of his time to it until mid-April (Hotchkiss,

1973). His journal fails to state precisely when the 254 x 111 cm (100 X 44 in.) masterpiece was presented to Jackson, but it is obvious that the Library of Congress copy (H89) was never completed. The northern quarter of the Shenandoah River is entirely absent as are most details for the region between Winchester and the Potomac. This is evident in Figure 3 which shows the Winchester area in detail from Hotchkiss's Valley Map. The Handley Library copy of Hotchkiss' Valley Map (as discussed in Roper 1989) was not examined for this study and is not described in the literature; it may be a finalized version. Omissions aside, the LOC's 1:80,000 piece is nevertheless impressive.

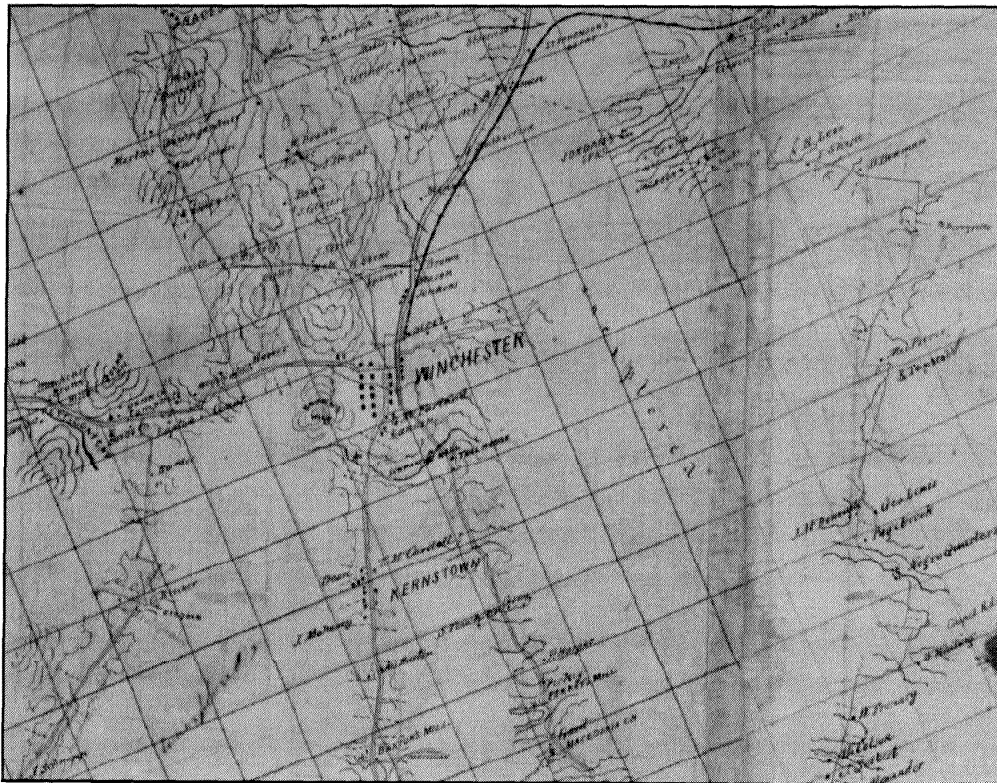


Figure 3. Map of Winchester, Virginia Area from Hotchkiss' Valley Map (LOC H89, detail)

Hotchkiss's Valley Map would serve the topographical needs of Jackson during the 1862 campaign as well as those of Maj. Gen. Jubal Early during his 1864 Valley Campaign. Historical thought has generally held that the quality of the topographical information and the map that Hotchkiss supplied to Jackson was so superior to that available to Union forces during the 1862 campaign, that they constituted a serious tactical advantage fundamental to Jackson's success in that theater (see Nelson (1992) and Krick (1996) for further discussion of Hotchkiss's contribution to Jackson's

success). Preliminary examination in my GIS lab indicates LOC H89 to have an admirable level of positional accuracy, considering that it is a pen and ink manuscript map on tracing paper which was hastily prepared under mid-nineteenth century wartime conditions.

Hotchkiss's contribution to Confederate mapping of Civil War Virginia is not limited to the preparation of monumental campaign maps. An important duty of topographical engineers was to prepare maps to illuminate the commanding officer's after action reports. Thus, Hotchkiss prepared battle maps for all

important engagements for Jackson's 1862 Shenandoah Valley Campaign and for the Army of Northern Virginia's activities from the 2<sup>nd</sup> Manassas Campaign (August 1862) onwards. The Library of Congress' Hotchkiss Collection is replete with examples of his wartime mapping. The map of the area around McDowell, Virginia, (Figure 4), which was sketched by Hotchkiss shortly after the May 8, 1862 Battle of McDowell (Hotchkiss 1973), is a fine example of the Library's extensive collection of Hotchkiss' war time mapping.

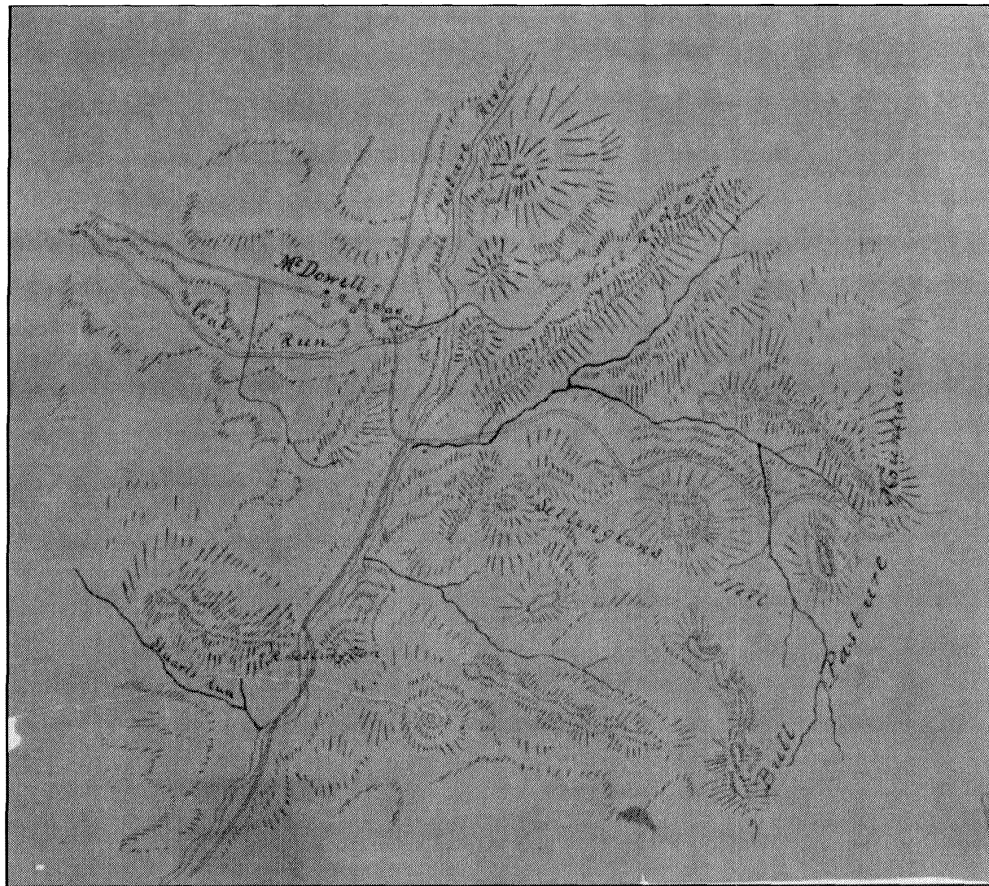


Figure 4. Hotchkiss' postbattle sketch of McDowell (LOC H94).

In accordance with McClellan's assertion, introduced above, Hotchkiss performed many tasks for the army in the field besides mapping. These activities included reconnaissance, campsite collection, demolition, guiding troops and wagon trains, and the construction of fords, roads, and bridges. Given the Confederacy's perennial shortage of staff officers, Hotchkiss' contribution to the smooth function of the army was undoubtedly reassuring to his generals. He diligently served Jackson and the 2<sup>nd</sup> Corps Army of Northern Virginia's subsequent commander Maj. Gen. Jubal Early. Several times during the War's last

year, Hotchkiss' clearheaded leadership saved the army's supply and artillery trains from capture.

After the War, Hotchkiss remained prominent in Virginia topographical engineering. Besides engaging in general survey work out of his Staunton office, he was also instrumental in developing the coal and iron resources of western Virginia and southeastern West Virginia through the preparation of appropriate maps of the region and through indefatigable marketing at home and in Europe. Hotchkiss involvement in Civil War mapping did not end with the conflict. His reputation ensured that he would

be included as a major contributor to the *Atlas to Accompany the Official Records of the Union and Confederate Armies* (republished in Davis, et al. 1983), for which he prepared or supervised the production of 58 maps. Figure 5 shows the map of the Port Republic battlefield that Hotchkiss prepared for lithograph in the atlas. Hotchkiss was, then, the Confederacy's predominant cartographer both during, and after, the war.

### Discussion

Alexander Dallas Bache and Jedediah Hotchkiss provide an interesting contrast in the history of Virginia's

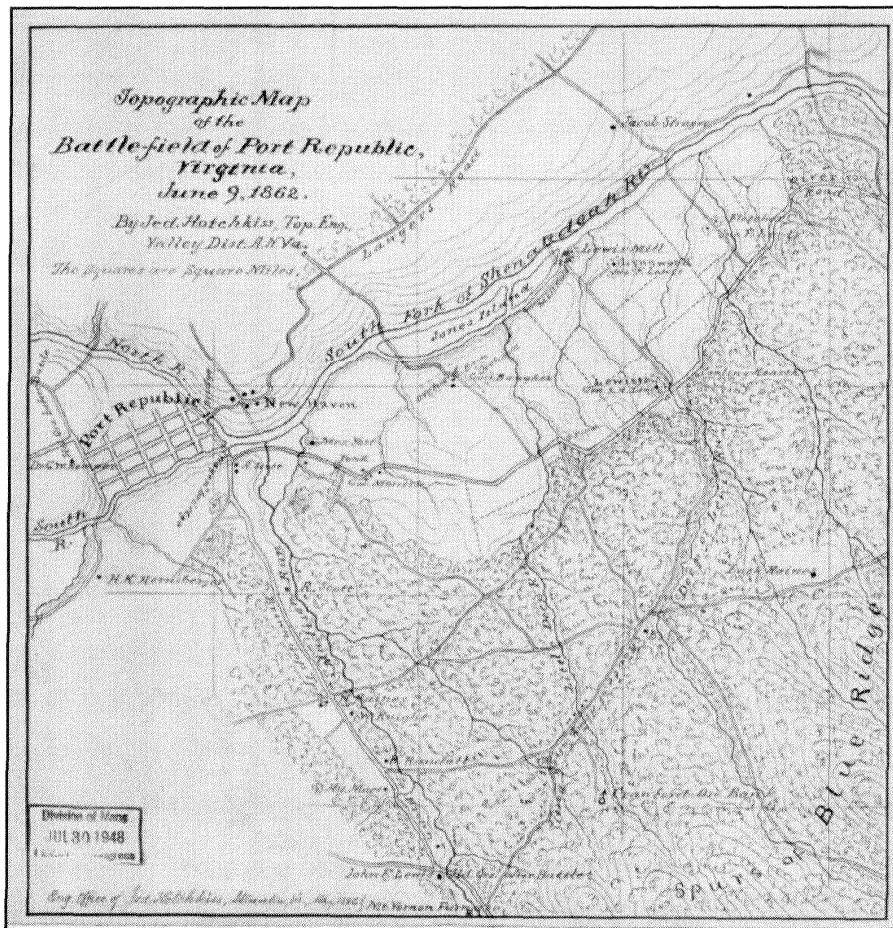


Figure 5. Hotchkiss' Map of the Port Republic Battlefield (LOC H96).

Civil War mapping. Bache was from a prominent Philadelphia family, while Hotchkiss was from yeoman stock. At the War's onset Bache was an internationally recognized scientist, while Hotchkiss was a locally renowned private school headmaster.

Both made unflagging strides to provide their respective armies with maps of Virginia during the war. Bache transformed the Coast Survey into the nation's leading topographic and hydrographic organization in the United States at the time. By the War's second year, Bache's agency was publishing maps at a rate four times prewar levels with the help of innovative lithographic presses. Hotchkiss lacked the benefits of an extensive cartographic institution, but nevertheless produced a prolific stream of maps during the war. Almost exclusively manuscript maps, Hotchkiss' work was fundamental to Confederate operations in the Virginia theater. Without the efforts of these two individuals the armies of both sides would have been nearly immobilized for want of adequate terrain intelligence.

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## Notes

1. The Coast Survey's extensive collection of Civil War maps is housed at the NOAA Central Library in Silver Springs, Maryland and are described in NOAA Map Library (1980). Many of its holdings are available in high resolution scanned images at <http://anchor.ncd.noaa.gov>.

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## Early Soil Maps of California, 1900-1940 A Bibliography with Indexes

by

Richard Soares

Soil survey maps are an obvious source of valuable soil information for farmers, engineers, geologists, botanists, and other scientists. They are also valuable resources to people who want good early base mapping of an area. While the U.S. Geological Survey began large scale topographic mapping in 1884, detailed maps for many areas were not available until a soil survey was produced by one of the agencies responsible for soil mapping. Like the U.S. Geological Survey topographic maps, the soil maps include invaluable cultural and place name information.

The U.S. Department of Agriculture, Division of Soils began producing the soil survey series in 1899 and published it in 1900 as an annual titled *Reports of the Field Operations of the Division of Soils* under the Superintendent of Documents call number (SuDoc) A26.5:. Each report contained two volumes; the first contained the text of the soil survey report. In addition to describing the soils of an area, the reports also

included information on agriculture and climate. The second volume contained soil maps for the areas discussed in each report. The soil survey reports for individual areas were also issued as separates under SuDoc call number A26.5/a:.

In 1901, the Division of Soils became the Bureau of Soils. The Bureau published its first annual *Reports of the Field of Operations* in 1902 under the same SuDoc call numbers, A26.5: and A26.5/a:. In 1927, the Bureau of Soils merged with the Bureau of Chemistry to form the Bureau of Chemistry and Soils. Soil surveys continued to be issued but the SuDoc call number was changed to A47.5: and A47.5/a:. Under the Bureau of Chemistry and Soils, the title *Reports of the Field of Operations* was dropped with their first volume of the series, i.e. the 1923 series. The soil survey series were issued and referenced simply as 1923 series, 1924 series, 1925 series, etc. up to the 1962 series. In 1938, the soils unit transferred to the Bureau of Plant Industry and issued soil surveys under SuDoc call number

A19.32:; separates were given the call number of A19.31:. In 1942, the Bureau was made a part of the Agricultural Research Administration and given the name Bureau of Plant Industry, Soils, and Agricultural Engineering. The call number for soil survey reports was changed to A77.514:. This Bureau was eventually abolished in late 1953, a year after the responsibility for the soil survey program was transferred to the Soil Conservation Service (SCS). The SCS was formed in 1935, abolished in 1942, and reformed in 1945. The Service published its first soil surveys in 1953. Under the SCS, the SuDoc call number was changed to A57.38:. The agency's name was changed yet again, to the Natural Resources Conservation Service, as part of the Department of Agriculture Reorganization Act of 1994. Soil surveys are now issued under SuDoc call number A57.38/[state number];, e.g. A57.38/5: where the "5" is for California.

All soil surveys issued after the 1962 series have been assigned cutter

numbers after the SuDoc stem of A57.38: or currently A57.38/[state no.]:. These numbers are based on the area/county named in the title of the soil survey. For example, Im7 is the cutter number for Imperial County soil surveys. Because of this use of cutters, surveys for particular areas receiving such cutter numbers are not hard to find, if cuttered for a county name as opposed to an area name, as most are.

The uncutted early soil maps, 1899 series to 1962 series, can be hidden and unused in document libraries due to poor indexing and the multiple SuDoc call number changes. Although there are several good indexes to soil maps already in existence, none are indexed as well or contain the same information as found here. Indexing in the government's *Monthly Catalog* is available, but it is very tedious, unpredictable, and, in some cases, absent. This bibliography, along with its indexes, has been produced to facilitate access to these early California soil maps in government depository libraries. The 1941 series to the 1962 series remain unindexed by this work and will be covered in future works by this author.

Though the soil survey series began in 1899, no maps of California were issued with the 1899 series. This bibliography covers the soil maps published from 1901, the Fresno and Santa Anna sheets, to 1956, the Mendota sheet. Each entry of the bibliography contains an item number, author name, date of the map, title of the soil survey map, scale, and SuDoc call number for the separate soil survey or field operations report containing the map. Entries are arranged in chronological order. Two indexes, an author and county/title place name index, are also included at the end of the article. The author and county/

area name indexes in this bibliography are unique. Each sheet was examined and evaluated for county coverage. If a sheet covered 20 or more square miles of any county, an appropriate entry was made in the county index. The county indexing is especially useful, since many sheets were issued under an area name rather than a county name. Area names, as found in the titles, have been combined with the county names to form a single index. The data in the bibliography should provide enough information to locate these maps in any depository library.

The author has compiled the same information for soil surveys from the 1899 to 1940 series of other western states, including Alaska, Arizona, Colorado, Hawaii, Idaho, Nevada, New Mexico, Montana, Oregon, Utah and Washington. It is hoped that these bibliographies will be published in the near future.

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**Author Index**

Anderson, A.C. 089, 090, 091, 092  
 Bartholomew, O.F. 092  
 Burgess, J.L. 013  
 Carpenter, E.J. 047, 055, 060, 066, 068, 069, 070, 071, 073, 074, 075, 076, 078, 079, 080, 081, 082, 084, 085, 086  
 Cole, R.C. 090, 091, 092, 093, 094, 095, 097  
 Cosby, S.W. 055, 056, 057, 058, 060, 062, 063, 065, 067, 068, 070, 079, 080, 082, 084, 085, 087, 088  
 Dean, W.C. 036, 047, 050, 053, 055  
 Dunn, J.E. 039, 044, 048, 049  
 Eckmann, E.C. 028, 030, 031, 035, 037, 038, 040, 042, 043, 045, 050, 051  
 Eggers, F.C. 093, 095  
 Ferguson, J.E. 026  
 Gardner, R.A. 092, 094, 095, 097, 098  
 Glassey, T.W. 067, 069, 071, 096  
 Goff, A.M. 093, 096  
 Guernsey, J.E. 045, 048, 032, 035, 037, 040, 042, 043, 049  
 Hammon, J.B. 051, 052  
 Harper, W.G. 061, 065, 077  
 Harradine, F.F. 095, 096, 097, 098  
 Harrington, G.L. 032, 040  
 Heileman, W.H. 003, 004, 005,  
 Holmes, J.G. 001, 002, 006, 007, 008, 010, 011, 013, 017  
 Holmes, L.C. 019, 020, 021, 022, 023, 027, 028, 030, 031, 032, 034, 035, 040, 041, 042, 043, 045, 048, 049  
 Isaacson, M.R. 077  
 Jensen, C.A. 013, 016  
 Kingsbury, J.W. 097  
 Kissling, R.O. 097  
 Knecht, E.A. 098  
 Kocher, A.E. 047, 051, 055, 057, 059, 061, 066  
 Koeber, J. 037  
 Kochler, L.F. 090, 091, 092, 093, 094,  
 Lapham, M.H. 002, 003, 004, 005, 009, 014, 015, 016, 018, 019, 020  
 Layton, M.H. 086, 089  
 Leighty, W.J. 086, 089, 090

Mackie, W.W. 014, 015, 016, 018, 024, 027

Mann, C.W. 023  
 Marean, H.W. 013, 017  
 McBeth, I.G. 025  
 McLendon, W.E. 013, 017  
 Means, T.H. 001  
 Mesmer, L. 006, 007, 012  
 Neill, N.P. 013, 017  
 Nelson, J.W. 030, 031, 032, 034, 035, 039, 042, 044, 045, 047, 050  
 Nikiforoff, C.C. 089  
 Owen, B.C. 086, 089, 090, 091  
 Pendleton, R.L. 033, 036, 039, 041  
 Retzer, J.L. 090, 091, 092, 094, 096  
 Rooke, L.G. 098  
 Root, A.S. 013, 014, 015, 017  
 Smith, A. 046, 054, 055, 058  
 Storie, R.E. 064, 067, 069, 070, 071, 072, 073, 074, 075, 076, 078, 081, 083, 086, 089, 090  
 Strahom, A.I. 013, 016, 019, 023, 027, 030, 031, 039, 043, 044, 048, 049, 051, 069  
 Sweet, A.T. 013, 017, 019, 021, 022, 025  
 Thompson, L.G. 097  
 Thorp, J. 077  
 Trussell, D.F. 072, 083  
 Van Duyne, C. 027, 029, 030  
 Wank, M.E. 054, 055  
 Warner, J.F. 021, 022, 026  
 Watson, E.B. 032, 033, 035, 036, 039, 044, 046, 047, 051, 052, 054, 056, 058, 062, 063, 064, 065, 067  
 Westover, H.L. 026, 027, 029, 030  
 Youngs, F.O. 059, 066, 077  
 Zinn, C.J. 032, 035, 036, 037, 038, 040, 044

**County and Area Index**

Alameda County 009, 029, 034, 042, 093  
 Alturas Area 081  
 Anaheim Area 043  
 Auburn Area 065  
 Bakersfield Area 016, 092  
 Barstow Area 083  
 Big Valley Area 056

Bishop Area 064  
 Brawley Area 055  
 Butte County 028, 032, 067, 069  
 Cache County 031  
 Calaveras County 096  
 Capistrano Area 076  
 Central Southern Area-Eastern 048  
 Central Southern Area-Western 049  
 Chico Area 067  
 Clear Lake Area 070  
 Coachella Valley 061  
 Colusa Area 019  
 Colusa County 019, 026, 027, 032, 069  
 Contra Costa Area 085  
 Contra Costa County 029, 034, 042, 085, 088  
 Dixon Area 080  
 El Centro Area 051  
 El Cajon Area 078  
 El Dorado County 014, 072  
 Eureka Area 058  
 Fresno Area 001, 031  
 Fresno County 001, 003, 031, 042, 045, 098  
 Gilroy Area 062  
 Glenn County 019, 032, 069  
 Grass Valley Area 052  
 Hanford Area 003  
 Healdsburg Area 036  
 Hollister Area 063  
 Honey Lake Area 037  
 Humboldt County 058  
 Imperial County 008, 010, 013, 051, 055, 059, 077  
 Imperial Area 008, 010  
 Indio Area 011  
 Inyo County 064  
 Kern County 016, 050, 060, 091, 092  
 King City Area 066  
 Kings Area 094  
 Kings County 003, 045, 050, 094  
 Klamath Reclamation Project 025  
 Lake County 070  
 Lancaster Area 060  
 Lassen County 037, 056  
 Livermore Area 029  
 Lodi Area 082  
 Los Angeles Area 012, 044

Los Angeles County 007, 012, 017,  
 038, 040, 044, 047, 049, 060  
 Los Banos Area 097  
 Lower San Joaquin Valley 042  
 Madera Area 030  
 Madera County 030, 042  
 Marin County 034  
 Marysville Area 027  
 Mendota Area 098  
 Mendocino County 033, 053  
 Merced Area 035  
 Merced County 022, 035, 042, 097  
 Middle San Joaquin Valley 045  
 Modesto-Turlock Area 021, 022  
 Modoc County 056, 081  
 Monterey County 004, 005, 024, 066,  
 068  
 Napa Area 084  
 Napa County 034, 084  
 Nevada County 052  
 Newman Area 095  
 Occanside Area 075  
 Orange County 002, 012, 041, 043,  
 049, 076  
 Oroville Area 069  
 Pajaro Valley 024  
 Palo Verde Area 059  
 Pasadena Area 038  
 Paso Robles Area 074  
 Pixley Area 089  
 Placer County 015, 032, 065  
 Placerville Area 072  
 Portersville Area 023  
 Red Bluff Area 028  
 Redding Area 020  
 Riverside Area 039  
 Riverside County 011, 017, 039, 041,  
 048, 049, 059, 061  
 Sacramento Area 014, 015  
 Sacramento County 015, 026, 027,  
 032, 079, 082, 088  
 Sacramento Valley 032  
 Sacramento-San Joaquin Delta 087,  
 088  
 Salinas Area 005, 068  
 San Benito County 063, 097  
 San Bernardino Area 017  
 San Bernardino County 017, 038,  
 039, 048, 049, 057, 083  
 San Diego Area 041  
 San Diego County 041, 075, 076, 078  
 San Francisco Bay Area 034  
 San Francisco County 034  
 San Fernando Valley Area 040  
 San Gabriel Area 007  
 San Joaquin County 018, 022, 032,  
 034, 042, 082, 088, 093, 096  
 San Jose Area 009  
 San Luis Obispo Area 073  
 San Luis Obispo County 046, 050, 073,  
 074  
 San Matco County 009, 034  
 Santa Ana Area 002  
 Santa Barbara County 046, 071  
 Santa Clara County 009, 034, 062  
 Santa Cruz Area 090  
 Santa Cruz County 009, 024, 034, 090  
 Santa Maria Area 046  
 Santa Ynez Area 071  
 Shasta County 020  
 Shasta Valley 054  
 Siskiyou County 025, 054  
 Solano County 026, 032, 034, 079, 080,  
 087  
 Soledad Area 004  
 Sonoma County 034, 036  
 Stanislaus County 021, 042, 095, 096  
 Stockton Area 018, 096  
 Sutter County 015, 026, 027, 032  
 Suisun Area 079  
 Tehama County 019, 028, 032  
 Tracy Area 093  
 Tulare County 023, 045, 050, 086, 089  
 Ukiah Area 033  
 Upper San Joaquin Valley 050  
 Ventura Area 006, 047  
 Ventura County 006, 047  
 Victorville Area 057  
 Visalia Area 086  
 Wasco Area 091  
 Willits Area 053  
 Woodland Area 026  
 Yolo County 026, 032, 080  
 Yuba County 027, 032, 052  
 Yuma Area 013  
 Yuma-Wellton Area 077

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## Atlas and Book Reviews

edited by

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Ambroziak, Brian M. and Ambroziak, Jeffrey R. *Infinite Perspectives: Two Thousand Years of Three-Dimensional Mapping*. New York: Princeton Architectural Press, 1999. 109 p. col. maps, map and 2 viewing glasses in pocket. \$75.00. LC: 99-30923. ISBN 1-56898-195-3.

One of the many pleasures of map librarianship is the opportunity to read books as well produced as this one, which gives every evidence of being a labor of love. The hefty (14.5" x 12.5") work begins with acknowledgements (a major one is to Fred Musto, Map Curator at Yale), an introduction by Ray Bradbury, followed by 4 pages on "Earth's True Measure" (presenting the history of relief mapping as a combination of innovation and artistic skill) and then the heart of the book, a profusely illustrated history of relief mapping. "Mapping the Vertical". Indeed, this chapter is almost all colored maps - all the classics, e.g., Gyger, *Carte de Cassini*, *Atlas de la Suisse*, Johann Lehmann, Imhof, Stieler, Bradford Washburn, etc. - with a minimum of text. Then comes "Digital Mapping", in which the authors give a brief explanation of the Ambroziak Infinite Perspective Projection, which they devised with their father, and which is

used to create the three-dimensional maps in this text. The work closes with a brief, 4-page bibliography.

Readers won't have to know anything about relief maps in order to understand and enjoy this book. Even those of us who do have that background knowledge will have the pleasure of meeting old friends in its leaves, and making some new ones. While the librarian in me was thinking, "Oh, no - those viewer spectacles and the map in the pocket are going to evanesce like summer snow in the stacks," that niggling practical thought was swamped by the sheer pleasure of looking at these beautiful maps.

Recommended for public library and university map collections.

Ordering information:

Princeton Architectural Press, 37 East Seventh Street,  
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Kennedy, Liam, Ell, Paul S. Crawford, E.M. and L.A. Clarkson. *Mapping the Great Irish Famine: A Survey of the Famine Decades*. Dublin: Four Courts Press, 1999. 208 p. \$60. ISBN: 1851823530.

This atlas is a micro-study of the immediate effects of the Great Potato Famine that struck Ireland between 1845—1849, which dropped Ireland's population from 8 million in 1841 to 5 million in 1871, nearly 1/3 of its population gone in three decades. *More than one million died through disease and starvation in the five-year period of the famine.* If compared with California's population today, that would be nearly 5 million of 34 million residents dead from starvation. Another two million immigrated in subsequent years, mostly to North America.

The Great Famine is considered to by many historians to be the great turning point in modern Irish history, akin to the Norman Invasion of Britain in 1066 or the French Revolution of 1789. The four scholars who contributed to the atlas are affiliated with Queens University, Belfast. Their purpose was "to survey the impact of the Great Famine in the short and medium terms, by means of maps



graphs and text... A second purpose is to present a picture of the regional effects of the Famine." But for me as a reviewer, not knowing a great deal about the Famine, reading this atlas was like reading the autopsy report of a crime scene. You know what happened in gruesome detail, yet you wonder how it came to pass. What is the larger picture? Was it an accident or intentional? It is too easy to write off the cause of the Famine as an unfortunate case of too many people in one country relying on a single crop that was struck with a disease.

Unfortunately, the authors, while sympathetic to the sufferings of millions and undoubtedly very knowledgeable on the subject, do not provide much historical or long-term perspective in this regard and it left me frustrated. Notably Great Britain's role in the Famine, its cause, prevention or amelioration is little discussed. This atlas alone does provide enough information. But this work is intended for a more advanced study of the immediate impact of the Famine, to be used as a research tool in its historiography. Indeed the atlas' dust cover provides a long list of additional titles published by Irish scholars for Four Courts Press.

The authors do a good job of pointing out what happened county by county, barony by barony. The atlas is divided into six sections, each with 2-8 sub chapters. Each sub-chapter provides 3-6 pages of text accompanied by figures and graphs. Accompanying each section are several black and white shaded choropleth maps of Ireland using three administrative divisions: Counties, Baronies, and Poor Law Unions. In 1841 there were six counties and 313 baronies and in 1851 there were 151 "Poor Law Unions". The Barony and Poor Law Union

Maps depict Irish Famine patterns in the greatest detail. Themes depict the changing patterns of mortality, disease, food consumption, workhouses, immigration, housing, land tenure, agricultural practices, and livestock production. All of Ireland was affected by the Famine but the worst hit areas were the western and southern regions. The least impact was on the Ulster and Dublin areas.

One of the most controversial issues surrounding the Famine was that, throughout this time, Ireland was exporting food to Britain. Whether those exports could have stopped the Famine is in dispute. It would have been interesting to see the authors map Irish export and import statistics for the period. The chapter: "Taking Stock, Herds, Flocks, Pigs and Poultry" describes realignment of Irish agriculture, from crops to pastoral production, that took place from 1841-1871. During this thirty-year period, when the human population dropped 33%, Irish livestock output increased. Interesting.

The atlas is well-researched and footnoted and contains a detailed index. It is recommended for academic libraries.

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Nevada Department of Transportation.  
*Nevada Map Atlas*. 15<sup>th</sup> edition. Carson City, Nev.: Nevada Dept. of Transportation, 2000. 141 p. \$12. ISBN: N/A

The *Nevada Map Atlas* is a spiral-bound, black-and-white, bi-annual atlas that covers the entire state at a scale of 1:253,440. Each page of this atlas covers a 30-minute by 30-minute section of the state; there is no overlap between maps. Each page

includes a location diagram, and location map. The maps contain latitude and longitude, township and range, and UTM coordinates. Elevation is shown by spot heights and hachures. The maps show the township divisions, National Forest, county, city and wilderness boundaries, cities, major geographic features, mines, airports, mileage markers, railroad tracks, a variety of buildings (churches, schools, etc.) and all roads. Many of the mines, abandoned and active, are shown. Four classes of road are indicated. While some sheets indicate the availability of inset maps, none were found within the atlas. The sheets are individually numbered; an index map is provided on page 2. The atlas also includes an index to the state's towns and cities, a table indicating each county's size and population, a mileage map, a blank page for "notes" and 4 historical maps. The historical maps show the early routes used to cross the state and include illustrations and text. These maps are placed throughout the atlas. They are neither titled nor referenced in the index. The cover is attractive and includes an index map on the back cover. Pages are not numbered, except for their quadrangle number. There are 141 pages. Because the atlas is in black and white, the quadrangles make fine base maps (i.e. easy to annotate).

The glaring problem with this atlas is that only the major roads are named. While shown, none of the smaller (county, Forest Service, etc.) roads are given designations. This renders the atlas almost useless. If the roads were named, the atlas would be a valuable resource for libraries and people traveling in the rural areas of Nevada. While the atlas is supposed to be updated every other year, it clearly lacks some changes to the

geography of Nevada. Great Basin National Park is not indicated. Even the major roads surrounding Las Vegas (including the US-95 extension) are not included. The index is not very intuitive.

As it is, this atlas has limited appeal; only libraries with a comprehensive collection on Nevada should consider spending the \$12. For the general tourist travelling in Nevada, the Official Highway Map is an excellent choice. Those traveling in more remote regions of the state, will find Delorme's *Nevada Atlas & Gazetteer* a better buy at \$16.95, because it labels all roads, shows contours and governmental jurisdiction over land, and includes indexes to campgrounds, parks, and points of interest.

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Bedini, Silvio A. *The Jefferson Stone: Demarcation of the First Meridian of the United States*. Frederick, MD: Professional Surveyors Publishing Company, 1999. 184 p. \$30.00. LC: 99-65885. ISBN: 0-9665120-1-4.

The preface to this volume provides a good, one-page synopsis of the chapters that follow. The book begins by exploring various attempts to establish a national prime meridian in Washington, D.C., including a survey commissioned by President Thomas Jefferson in 1804, which led to the construction of a marker known as the Jefferson Stone and (because of its location at the edge of a tributary of the Potomac), as Jefferson Pier. The stone, which was used as a benchmark in the initial construction of the nearby Washington Monument, and as a reference point for local property surveys, was partially

destroyed and buried during "clean up" of the Capitol in 1872. When its use as a reference point became critical in the famous "Potomac Flats" land case, the buried foundation of the Jefferson Stone was located, and a new marker erected on the spot in 1889. The marker survives, "...a lonely granite memorial on the Mall, its mysterious presence continually baffling residents and tourists alike." (pg. xiv)

The author has used this basic outline as a framework for presenting all sorts of interesting bits of information, but the end result, unfortunately, is an often confusing narrative. The reader will learn in this book about early surveys and surveyors of Washington D.C.; the scarcity of surveying instruments in post-revolutionary America; the United States Coast Survey and the quest for a national observatory; the adoption of a universal measure of time; various Washington landmarks, especially the Washington Monument and the 35 years it took to build it; and land dealings along the Potomac. The reader will also be introduced to a host of public officials.

Bedini, a historian of science who worked at the Smithsonian's National Museum of History and Technology and as the Smithsonian's Keeper of the Rare Books, relies heavily on excerpts from primary sources to tell his story. Although this lends an aura of historical truth, the often long passages are not always well integrated into the rest of the text, and they tend to further obscure the chronology of decisions and events.

The text is augmented with 46 black and white figures including photos of antique surveying equipment, photos and sketches of meridian markers, monuments and Washington landmarks, portraits of people, facsimiles of documents, and small maps of early

Washington. These last show in a general way the layout of the city of Washington and its relationship to the Potomac and its tributaries, but labels and other details are illegible because of their small size.

The book contains two appendices. Appendix A includes three short documents relating to the Jefferson Stone, and a discussion of the transit and equal altitude instruments in use in colonial and post-revolutionary America. Appendix B describes eighteen meridian markers in Washington, D.C. There are extensive reference notes and an index.

If you like historical trivia you will probably like this book, despite its flaws. Having read *The Jefferson Stone*, I am now interested in learning more about early Washington, D.C. This is a book for libraries with specialized collections in cartography, land surveying, or eighteenth and nineteenth-century American history.

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*Hammond World Atlas*. 3<sup>rd</sup> edition. New York: Hammond World Atlas Corporation, 2000. 312 p. \$69.95. LC: 99-28545. ISBN: 0-8437-1352-6.

According to promotional material from the company's website (<http://www.hammondmap.com>), this third edition of the *Hammond World Atlas* "has been completely revised. It features an exciting new map style with dramatic, computer-generated hypsometric tints that indicate ranges in land elevation and bathymetric tints that highlight ranges in ocean depths." The maps themselves are beautiful, utilizing shades of white, gray, tan, green, and blue. They are arranged by continent, beginning

with Europe, with the main maps accompanied by over sixty inset maps of larger metropolitan and other special areas. Physical geographic features such as lava flows, intermittent rivers, and salt pans are identified, as are man-made items such as dams, air bases, and ferry routes. City "dot" designations appear in eight steps, ranging from a population of less than 10,000 to a population greater than 2,000,000. Scales are quite variable, ranging from the two page world map at a scale of 1:70,000,000, to selected metropolitan areas scaled at 1:500,000. The scale of most maps is generally 1:3,000,000 or smaller. Latitude and longitude grids are provided, as are useful page number references to surrounding maps.

The latest edition of the *Hammond World Atlas* bills itself as "Revised for the New Millennium." To test this, two recent geographical changes were sought: the appearance of Nunavut, Canada, and the new official height of Mt. Everest. Nunavut appeared on the maps and the quick reference guide to country information, but, surprisingly, not in the index. The new elevation for Everest (8850 meters) was discovered in May, 1999, and accepted by the National Geographic Society and the US National Imagery and Mapping Agency in November, 1999. The Hammond atlas still reports the old height of 8848 meters. To test for comprehensiveness, five locations were sought in the atlas: Pioche, NV (small city); Annapurna, Nepal (mountain); Bay of Fundy, Canada; Uluru National Park, Australia; and the Mariana Trench, in the Pacific Ocean (containing the deepest spot on earth). All of these sites appeared on the maps; all except the Mariana Trench appeared in the index. Interestingly, in the index, some mountains (such as Everest) are referred to as "mtn", while others are referred to as "peak". The index

provides alternative, native names for several features, such as Everest and Ayers Rock (in this case, Sagarmatha and Uluru, respectively).

The *Hammond World Atlas* includes about 25 pages of general encyclopedic information on climate, vegetation, population, etc. at the front. In many instances, this is accompanied by useful graphs. This section includes a quick reference guide to the world's countries, containing population, capital, and area information. A set of statistical tables (such as principal mountains, longest rivers, etc.) precedes the index in the back of the atlas. The index, with 110,000 entries on 86 pages, contains names in black; the page numbers and map locations appear in red, which may be hard to read for some people.

Overall, the beautiful maps in this atlas, combined with comprehensive and relatively up-to-date information, should make this a solid choice for many libraries. Nevertheless, when spending money for a serious atlas, it would be prudent to investigate competitors, particularly the *National Geographic Atlas of the World* (National Geographic Society, 7<sup>th</sup> ed.), which was last revised in 1998. Specifically, it offers a larger format (12" by 18" compared to 11" by 14.5"), a larger index (155,000 entries), and a solid reputation. Scales are generally the same as those found with the *Hammond*. The world political map is scaled at 1:67,800,000. Various other scales are used throughout, with most maps utilizing a 1:3,000,000 or smaller scale. At a price of \$125, the *National Geographic Atlas of the World* nearly doubles the price of the *Hammond*.

Jason Vaughan  
Librarian  
University of Nevada-Las Vegas

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Kraak, Menno-Jan. and Brown, Allan, eds., 2001. *Web Cartography: Developments and Prospects*. London: Taylor & Francis. ISBN 0-7484-0869-x. Paper \$40.99.

Lintz, Joe and Linda Newman. *The Truckee River Corridor and Donner Pass, Nevada and California*. Western Association of Map Libraries & Geoscience Information Society Joint Field Trip, November 11, 2000.

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## New Mapping of Western North America

compiled by

**Ken Rockwell**

University of Utah Library Catalog Department

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Desert Charts, 1999. *Boating and sportsmans guide to Apache Lake recreation area, Tonto National Forest, Arizona*. Scale 1:24,000. Phoenix, AZ: Desert Charts. OCLC: 46855628.

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CD 2000-004. *Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Central Coastal Region*. Contains Adobe Acrobat (PDF) files of 182 7.5' quadrangles of Official Earthquake Fault Zone Maps in Alameda, Contra Costa, Fresno, Kern, Lake, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Stanislaus, and Yolo counties. These are digital image files, not GIS data files. \$30.00.

CD 2000-005. *Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Northern and Eastern Region*. Contains Adobe Acrobat (PDF) files of 192 7.5' quadrangles of Official Earthquake Fault Zone Maps in Alpine, Butte, Humboldt, Inyo, Lassen, Mendocino, Modoc, Mono, Shasta, and Siskiyou counties. These are digital image files, not GIS data files. \$30.00.

CD 2000-006. *Digital Database of Faults from the Fault Activity Map of California and Adjacent Areas*. Contains the digital database of faults shown on the Fault Activity Map of California and Adjacent Areas by Charles W. Jennings (1994; DMG Geologic Data Map No. 6). The database consists of line vectors annotated with age of movement and line type (solid, dashed, etc.) shown on the original paper map. It is intended to be used in conjunction with Geologic Data Map No. 6 and Bulletin 201. The data is in Arc/Info export (.e00) and MapInfo formats. CD 2000-003.

Map Sheet 49. *Epicenters of and Areas Damaged by M>5 California Earthquakes, 1800-1999*. Shows epicenter locations of 800 California earthquakes with Holocene and historic faults, plotted on a shaded relief base. An inset map depicts the number of times that damaging shaking has occurred in various parts of the state. A table lists the date and locations of M5.5 and greater earthquakes. Released 12/14/2000.

## COLORADO

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Gable, Dolores J., 2000. *Geologic map of the Proterozoic rocks of the central Front Range, Colorado*. Scale 1:100,000. USGS Geologic Investigations Series I-2605. OCLC: 46949850.

Robson, Stanley G., et al., 2000. *Geohydrology of the shallow aquifers in the Fort Collins-Loveland area, Colorado*. 5 maps, scale 1:50,000. USGS Hydrologic Investigations Atlas HA-746-B. OCLC: 46613272.

Robson, Stanley G., et al., 2000. *Geohydrology of the shallow aquifers in the Greeley-Nunn area, Colorado*. 5 maps, scale 1:50,000. USGS Hydrologic Investigations Atlas HA-746-A. OCLC: 46596117.

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Schulte, Kent, 2001. *Sangre de Cristo Wilderness, Great Sand Dunes National Park trails*. 2 maps. Scale 1:60,000. Boulder, CO: Sky Terrain. OCLC: 46390962.

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## News of Note

*compiled by*

**Larry Laliberte and Linda Zellmer**

### Benchmarks

#### Richard Soares Relocating

Richard Soares, Geology, Geography & Maps Librarian at Brigham Young University since September 1987, will be leaving BYU in July. Rich is a long time WAML member, and also serves as our Business Manager. He recently served as host for our Spring meeting in Provo, Utah. Rich will be moving to California, where he will assume the position of Natural Science Librarian at California State University, Chico. He starts his new position August 1, 2001. We wish him all the best as he moves on to his new endeavors.

#### California Map Society Elections

Congratulations to WAML member Julie Sweetkind, who has been elected as the California Map Society's Vice President, Northern California. Her term in office runs from 2001-2002. Julie is GIS and Map Librarian at Stanford University's Branner Earth Sciences and Map Library. Other officers are Glen McLaughlin, President, David Kalifon, Vice President, Southern California; Pam Kreil, Secretary; Priscilla R. Hexler,

Treasurer. William J. Warren serves as Past President and newsletter editor, while David Cross and Albert R. Vogeler are assistant secretaries, north and south respectively. The Society's web site is at <http://www.raremaps.com/cms/>. Contributed by Philip Hoehn, [philhoehn@juno.com](mailto:philhoehn@juno.com).

#### New Assistant Chief NYPL Map Division

Matthew Knutzen has been appointed Assistant Chief of the Map Division, New York Public Library. Matt comes to NYPL with experience as a professional cartographer, and an M.F.A. He will be working to develop and expand the Division's computer mapping capabilities, and expand the collection of CD maps and software. He will also be participating in NYPL's various digitizing projects, [currently pre-1850 maps of the Middle Atlantic colonies and states] and enhancing the Map Division website. In other words, Matt will be the new technology guy around the Division. Matt may be reached at [mknutzen@nypl.org](mailto:mknutzen@nypl.org). Contributed by Alice C. Hudson, [ahudson@nypl.org](mailto:ahudson@nypl.org).

### Canadian News

#### Alberta Geospatial Data Agreement

On April 25th, a milestone was reached in the scope and volume of Alberta spatial data available to student and faculty researchers involved in GIS and desktop cartography at the University of Calgary. A number of other Provincial post-secondary institutions will benefit equally from the Agreement finalized.

The License Agreement was signed by James D. Chorel, General Manager of AltaLIS, and Dr. Frits Pannekoek, Director of Information Resources at the University of Calgary. AltaLIS is the Provincial institution responsible for the maintenance and distribution of the majority of Alberta's digital mapping. The Agreement makes a wealth of Provincial geospatial data available to University scholars for teaching and research purposes. The data will include digital base mapping and digital elevation models for select areas of Alberta at a variety of scales.

The Agreement also permits the archiving and distribution of this data collection through the University of

Calgary's GEODE system. Developed in Information Resources, GEODE permits the networking of spatial data to the University's partners in the GEODE initiative: the Universities of Alberta, Lethbridge and the Southern Alberta Institute of Technology. GEODE is the first archive and network of its kind to be developed for the support of academic geospatial research and teaching in Canada.

The Agreement between AltaLIS and Information Resources, University of Calgary is an important achievement in the development of our spatial data collection and the GEODE system that will deliver it. Contributed by Sharon Neary *neary@ucalgary.ca*.

### Geographical Names Of Manitoba

*Geographical Names of Manitoba*, a historical reference book containing origins and details of 12,000 place names for natural features, settlements and trails in the Province, was recently released. The 330-page book is based on over 100 years of correspondence from the Geographical Names Board of Canada with railway officials, surveyors, settlers, postal officials and local historians. It is supplemented by further research in some of the more remote areas of the province.

The book includes map references, indicating the date and author of the first map on which a name appears, information on how it has changed over time and when it was last used. The volume includes several thousand names in native languages, many of which were recently recorded, as well as the more than 4,200 places named after Manitoba's war casualties.

*The Geographical Names of Manitoba* was produced with support from partners, sponsors and volunteers including Manitoba Culture, Heritage and Tourism and the Millennium Bureau of Canada. For more information on the publication contact the Manitoba Geographical Names Program at 204-945-1798. To order the publication, visit <http://www.canadamapsales.com> or contact: Manitoba Conservation, 1007 Century St., Winnipeg MB R3H 0W4, 204-945-6666, Toll Free, 1-877-627-7226.

### CARTA Archives

CARTA, a discussion forum for Canadian map librarians and archivists, now has an archive site. The list and archives are hosted by the University of Saskatchewan Library. The site is at: <http://library.usask.ca/lists/cartal/>. At present, only the very latest messages are archived.

### Statistics Canada Geography Working Papers

Statistics Canada is making a number of publications in their Geography Working Paper Series available online. The series is intended to "stimulate discussion on a variety of topics covering conceptual, methodological or technical work supporting development and dissemination of the Division's data, products and services." The most recent publication is titled *Geographic Structures as Census Variables: Using Geography to Analyze Social and Economic processes* (92F0138MIE). The Geography Working Papers are available on Statistics Canada's web site at <http://www.statcan.ca/cgi-bin/downpub/listpub.cgi?catno=92F0138MIE>. The papers, can be downloaded for free (.pdf) or ordered from Statistics Canada.

## Cataloging News

### New Edition of G-Schedule

A new edition of the G Schedule, the first revision in 25 years, is available from the Library of Congress. The citation and ordering information is:

Library of Congress, 2001. *Library of Congress classification. G. Geography, maps, anthropology, recreation*. Washington, D.C.: LC Cataloging Distribution Service. 661 pages. ISBN: 0-8444-1040-3.

It can be ordered from the Cataloging Distribution Service, Customer Services Section, Washington, DC 20541-4912, E-mail address: [cdsinfo@loc.gov](mailto:cdsinfo@loc.gov) for \$45 (inside US) and \$50 (non-US). Call toll-free in US: 1-800-255-3666 (CDS Products and Services Only).

### Geography & Map Division Cataloging Initiatives

The Library of Congress' Geography & Map Division cataloged 15,508 maps and 1,168 atlases during the past year. The Cataloging Team participated in a thorough review of the LC Classification Schedule, Class G, which covers cartographic materials. It was last published in 1976.

The Division and the National Imagery and Mapping Agency (NIMA) are meeting about cooperative map cataloging, sharing of bibliographic data, the development of geospatial searching capabilities, and the development of a shared graphics interface for geospatial searching. Test records for two map series have been imported from NIMA; the Division is in the process of analyzing the potential benefit.

Substantial time has been spent changing name authority and bibliographic records to reflect the conversion from Wade-Giles to pinyin romanization.

### Searching Maps in Web Voyager at Oklahoma State Library

The Oklahoma State Library is testing Endeavor's geographic search capabilities and seeking feedback on it's usefulness. To test the system, go to the Oklahoma State Library Catalog at: <http://catalog.odl.state.ok.us/webvoy.htm>, select **Local Catalog** and then **Map Searching**.

Searching for maps in Web Voyager is limited to searching the 034 field of the OCLC cataloging record. The 034 field contains information on latitude, longitude, and map scale. Because Oklahoma Geological Survey records do not contain an 034 field, their records are not searchable. Maps from the US Geological Survey, Forest Service, and CIA maps can be located using this option.

There are 5 different approaches to entering a search; users can search bounding coordinates of rectangles, polygons, a radius around a point, along a route or a range between two lines. See the Help screen for more information. One problem is that search results include all maps that contain the longitude and latitude parameters used, so even using a rectangle number from a 034 field with a Shoe of MBR or Minimum Bounding Rectangle produces a list of hundreds of maps. In order to reduce the number of hits, limits must be added to the search before it is performed. Please send comments to [kfite@oltn.odl.state.ok.us](mailto:kfite@oltn.odl.state.ok.us). Contributed by Karen Fite.

## Conferences

**Western Association of Map Libraries.** Fall, 2001 Meeting. Portland, Oregon. October 3-6, 2001. Host: Elizabeth Winroth.

**Western Association of Map Libraries.** Spring 2002 Meeting. UC Santa Barbara. March 20 - 23, 2002. Hosts: Mary Larsgaard and Larry Carver.

**Western Association of Map Libraries.** Fall, 2002 Meeting. Honolulu, Hawaii. Hosts: Ross Togashi and Mabel Suzuki.

**Western Association of Map Libraries.** Spring 2003 Meeting. Palo Alto, California.

**Western Association of Map Libraries.** Fall, 2003 Meeting. Santa Cruz, California.

**E.G.R. Taylor Lecture.** Royal Geographical Society on Tuesday, November 13, 2001. 6:30 P.M. The speaker will be Dr. Anita McConnell who will talk on Luigi Ferdinando Marsigli (1658-1730): from professional soldier to Father of Oceanography. Free and open to all.

**International Cartographic Association.** Beijing, China. Aug. 6-10, 2001. For information see: <http://www2.sbsm.gov.cn/icc2001/>.

**International Federation of Library Associations and Institutions.** Annual Meeting. Boston, Massachusetts. August 16-25, 2001.

Saturday, August 18, 2001. 2.30 - 5.20 PM - Geography and Map Libraries Standing Committee Business Meeting.

Monday, August 20, 2001 8:30- 11:00 AM - Geography and Map Libraries - Digitizing Cartographic Materials

1. Digitization of Cartographic Materials: National Archives of Canada. Betty Kidd (Acting Director General, Canadian Archives Branch, National Archives of Canada, Ottawa, Canada).
2. Digitization projects at the Library of Congress Geography & Map Division. John Hebert. (Chief, Geography and Map Division, Library of Congress, Washington, D.C.)
3. Digitization projects at the Bibliothèque nationale de France. Pierre-Yves Duchemin (Bibliothèque nationale de France, Paris, France)

Wednesday, August 22, 2001. 12:30-15:00 - Geography and Map Libraries- Describing and Accessing Digital Objects: The Map Library Experience.

1. Geospatial Data Access: can we manage to shift? Jan Smits (Map Curator, Koninklijke Bibliotheek, The Hague, Netherlands)
2. Sharing metadata: a solution for expanding access to geographic information. Scott Mceathron (Homer Babbidge Library, University of Connecticut, Storrs, USA)
3. Map librarianship and digital earth: moonshots, big pictures and reality James Boxall (Curator, Head Map and Geospatial Information Collection, Killan Library, Dalhousie University, Halifax, Canada)
4. You can look but don't touch: limits to access. David Cobb (Curator, Harvard Map Collection, Harvard College Library, Cambridge, USA).

Friday August 24, 2001. 8:00 - 10:00 AM. Standing Committee Geography and Map Libraries Meeting.

**Association of Pacific Coast Geographers.** September 12-15, 2001. Santa Barbara, CA. For details see: <http://www.geog.ucsb.edu/~apcg2001/>

**International Map Trade Association.** Conference & Trade Show. Melbourne, Australia. Sept. 13-15, 2001.

**North American Cartographic Information Society.** Annual Meeting. Portland, OR. October 3-6, 2001.

**International Map Collector's Society Symposium.** Chicago, Illinois and Milwaukee, WI. October 11-15, 2001. Host: Susan Gole. E-mail: [sgole@compuserve.com](mailto:sgole@compuserve.com).

**SWUG, ArcGIS Southwest User Group Conference.** Tucson, AZ. October 22 - 26, 2001. For more information see <http://www.dot.co.pima.az.us/swug/>.

**Geoscience Information Society.** Boston, Mass. November 5-8, 2001.

**Maps and Society Programme, 2000-2001.** University of London, Warburg Institute, Woburn Square, London WC1H OAB at 5.00 pm on a Thursday. For a full schedule see the History of Cartography web site (<http://www.ihrinfo.ac.uk/maps/warburgprog.html>) or contact Tony Campbell ([tony.campbell@bl.uk](mailto:tony.campbell@bl.uk)). Map Librarian at the British Library.

**American Libraries Association.** Midwinter Meeting, New Orleans, LA. Jan. 18-23, 2002.

**Association of American Geographers,** 98th Annual Meeting, March 19 - 23, 2002. Los Angeles, CA.

**International Federation of Surveyors/American Congress on Surveying and Mapping/American Society for Photogrammetry & Remote Sensing Conference.** Washington, DC. April 19 - 26, 2002

**Special Libraries Association.** Annual Conference. Los Angeles, California. June 8-13, 2002.

**American Libraries Association.** Annual Conference, Atlanta, GA. June 13-19, 2002.

**30th Annual Conference of the Australian Map Circle.** 2002 Conference. James Cook University, Cairns, Queensland. July 14-17, 2002. See <http://australianmapcircle.org.au/> for further details.

**ESRI User Conference.** San Diego, California. July 8-12, 2002. For more information see: <http://www.esri.com/events/index.html>.

**International Federation of Library Associations and Institutions.** General Conference. Glasgow, Scotland. August 18th - 24th 2002.

**International Map Trade Association (IMTA) Americas Region.** Conference & Trade Show. Minneapolis, Minnesota. 9-11 September, 2002.

**Association of College and Research Libraries.** 11th National Conference. Charlotte, North Carolina. April 10-13, 2003.

**International Conference on the History of Cartography.** Portland, Maine and Cambridge Mass., June 15-20, 2003.

## Digital Data

### VMAP0 and VMAP1

The National Imagery and Mapping Agency (NIMA) has published the 5<sup>th</sup> edition of the Vector Smart Map Level 0 (VMap0). It is now available for sale to the public through USGS Information Services. VMap0 is designed to provide vector-based geospatial data at a low resolution. The source of the data is the 1:1,000,000 Operational Navigation Chart (ONC) co-produced by military mapping authorities in Canada, Australia, the United Kingdom, and the United States. Numerous corrections have been made to the data in this edition. VMap0, 4 CD-ROM Set, Stock number 01-VMAP, is available for \$100 per set plus \$5 handling charge per order.

In addition to VMap 0, NIMA is now making VMap Level 1 (VMap1) data available to the public on CD-ROM through the USGS. VMap1 data is derived from the 1:250,000 Joint Operations Graphic (JOG) charts and is produced in Vector Profile Format (VPF). Data for both VMap products are separated into nine thematic layers: boundaries, elevation, hydrography, industry, physiography, population, transportation, utilities, and vegetation. VMap1 data is available on individual CD-ROM's by regional area; some areas of the World are not yet available. Contact Don Showalter at [dshowalter@usgs.gov](mailto:dshowalter@usgs.gov) to check on availability.

VMap1, Stock number VMAP1 plus the 3 digit area number. Example: VMAP1009. Price: \$55 per CD plus \$5 handling charge per order. United States copyright laws granted to NIMA cover VMap products. US companies may include VMap data in

products developed and sold for use within the US. Foreign companies that wish to incorporate VMap data into their products must purchase a set for each software package they sell.

### USGS GeoData on DVD

The EROS Data Center (EDC) is now able to distribute USGS GeoData on Digital Versatile Disc-Recordable (DVD-R) medium. The price for custom geospatial data distributed on DVD-R will include a base charge of \$60, the price per file of the selected data, and a \$5 handling charge per order. Multiple media orders will incur a single base charge for the higher priced medium.

The first dataset to be made available on DVD-R will be Digital Orthophoto Quadrangles (DOQ). DOQ's for areas within the conterminous United States are black and white, natural color, or color-infrared images that cover an area measuring 3.75' longitude by 3.75' latitude at 1:12,000-scale. Alaska DOQ's are black and white images covering an area 7.5' longitude by 7.5' latitude at 1:24,000-scale. Price information for each DOQ type is available on the USGS Pricing Information Web site [http://mapping.usgs.gov/esic/prices/digital\\_data.html](http://mapping.usgs.gov/esic/prices/digital_data.html).

DOQ's are available in either native or GeoTIFF format. Single DVDs hold up to 84 black and white 3.75' DOQ's, 28 color 3.75' DOQ's, or 28 black and white 7.5' DOQ's. When color and black and white DOQ's are requested in the same order, they will be distributed on separate DVD-R's. USGS GeoData can be ordered through the Earth Explorer Website: <http://earthexplorer.usgs.gov>. DVD-R will be used for other data sets in the near future.

### Historical United States County (HUSCO) Boundary Files

The Historical United States County Boundary Files (HUSCO) CD contains ArcView shapefile format county boundary files for the contiguous United States for each decade from 1790 through 1990 (also 1999). Files include county and state names as well as FIPS identification numbers and county area estimates. Territories enumerated by the U.S. Census are also included.

Requirements: PC or compatible, with Windows 95, NT 4.0, or above, CD-ROM drive, ArcView or ArcInfo\* GIS software (or a GIS program capable of importing shapefiles). Available for \$99 plus \$5 shipping and handling from Geoscience Publications, P.O. Box 16010, Baton Rouge, LA 70893-6010, Phone: (225) 578-6245, Fax: (225) 578-4420, E-mail: [ccavel2@lsu.edu](mailto:ccavel2@lsu.edu).

### New USGS Digital Data Series

The US Geological Survey has recently released four new publications in their *Digital Data Series*. DDS-0063, by D. K. Higley, contains reports on oil and gas resources in the Putumayo-Oriente-Maranon Province of Colombia, Ecuador, and Peru; Mesozoic-Cenozoic and Paleozoic petroleum systems.

DDS-0067, titled *Geologic studies of deep natural gas resources*, edited by T. S. Dyman, and V. A. Kuuskraa, summarizes ongoing work related to natural gas resources in onshore regions of the United States. It contains 8 reports in .pdf format, which discuss gas exploration and distribution of deep basins in the US and former Soviet Union, geochemistry of source-rocks and natural gas generation. Two chapters in the report describe methods used to estimate natural gas resources.

DDS-0058 contains information on geologic and geophysical studies of Yucca Mountain, Nevada. Edited by J. W. Whitney and W. R. Keefer, it contains 13 reports on the tectonic environment of Yucca Mountain, a potential site for long term radioactive waste storage. They describe the potential effects of future seismic and fault activity in the area on design, long-term performance, and safe operation of the site's surface and subsurface repository facilities. DDS-58 is also available on the web at <http://greenwood.cr.usgs.gov/pub/dds/dds-058/>.

DDS-0068, *Coastal vulnerability to sea-level rise; a preliminary database for the U.S. Atlantic, Pacific, and Gulf of Mexico coasts*, by Erika Hammar-Klose and E. R. Thieler quantifies the relative vulnerability of the US coastline to the effects of sea-level rise. The information in this report can be applied to many of the decisions our society will be making regarding coastal development in both the short- and long-term.

ESRI and the USGS Mineral Resources Program (MRP) jointly developed DDS-65, the *Montana Geoenvironmental Explorer*, by Greg K. Lee. The Explorer is a first step toward an integrated decision support system that can be used by Federal land managers and USGS scientists. It is a prototype data management and display system that provides users with analytical applications and modules, as well as data available on the CD or the Internet. The Explorer incorporates data from the Montana geoenvironmental map, which depicts the potential for acidic, metal-rich drainage in Montana. It can be used to evaluate alternative strategies related to acid mine drainage.

DDS-65 contains statewide digital spatial data developed for the project, data models, statistics, photographs, and other information on the CD-ROM or the Internet. It will enable land managers and others to display, download, and query data and perform analyses to resolve environmental questions on abandoned mine lands and watershed health.

The citations for these *Digital Data Series* CD-ROMs are:

- DDS-0063. Higley, D.K., 2001. *The Putumayo-Oriente-Maranon Province of Colombia, Ecuador, and Peru; Mesozoic-Cenozoic and Paleozoic petroleum systems.*
- DDS-0067. Dymman, T.S. and Kuuskraa, V.A., 2001. *Geologic studies of deep natural gas resources.*
- DDS-0065. Lee, Greg K., 2001. *Montana Geoenvironmental Explorer.* Stock Number 01-DDS-0065. ISBN: 0-607-96718-8.
- DDS-0058. Whitney, J.W. and Keefer, W.R., 2000. *Geologic and geophysical characterization studies of Yucca Mountain, Nevada.* DDS-0068. Hammar-Klose, Erika and Thieler, E.R., 2001. *Coastal vulnerability to sea-level rise; a preliminary database for the U.S. Atlantic, Pacific, and Gulf of Mexico coasts.*

They can be ordered from Map and Book Sales, USGS Information Services, Box 25286, Denver, CO 80225, 1-888-ASK-USGS, FAX: 303-202-4693. The price for these publications is \$32.00 + \$5.00 shipping & handling.

### National Land Cover Project Update

The National Land Cover Characterization project was created in 1995 to support the original Multi-Resolution Land Characterization (MRLC)

initiative. It fulfills the requirement to develop a nationally consistent land cover data set from MRLC data. Called National Land Cover Data 1992 (NLCD 92), it culminated in the September 2000 completion of land cover mapping for many areas of the United States. In addition to satellite data, scientists used a variety of supporting information including topography, census, agricultural statistics, soil characteristics, other land cover maps, and wetlands data to determine and label the land cover type at 30 meter resolution. Twenty-one classes of land cover were mapped, using consistent procedures for the entire U.S. A subsequent accuracy assessment was performed. The resulting land cover data set is being used for a wide variety of national and regional applications, including watershed management, environmental inventories, transportation modeling, fire risk assessment, and land management.

When completed, data will be distributed on a state by state basis. Final land cover products (those with a completed accuracy assessment) may be ordered through the NLCD availability web site (<http://edc.usgs.gov/programs/tccp/mrlcreg.html>). Preliminary land cover products for states without a completed accuracy assessment may be downloaded from this site. The downloadable NLCD image database contains reduced resolution state and regional NLCD images in .gif and .jpg formats.

Because of a continuing need for land cover and other geospatial data within the federal government, the MRLC Consortium was reformed in 2000 (MRLC 2000). A second generation national land cover data set will be developed from Landsat 7 ETM+ data. The Landsat 7 scenes being used for MRLC 2000 can be purchased on CD-ROM for \$45 per CD. The CDs will be distributed with the associated digital

elevation models used for terrain correction. A buffer zone of path/rows along the Canadian and Mexican border will not have DEM files attached due to distribution restrictions associated with the DTED data covering foreign areas. MRLC 2000 Landsat 7 data is available to any user and is under no data distribution restriction. The data is to be used or disseminated only for scientific, i.e. non-commercial, purposes. For data availability and ordering reference the MRLC 2000 Web page, MRLC 2000 status map and data list at <http://edcw2ks15.cr.usgs.gov/tccp/mrlc2k/mrlc2k.asp>.

### Rand McNally Launches Map & Travel Product for Palm® Devices

Rand McNally recently announced the availability of a Palm OS®-based map and travel information application, StreetFinder® Express. The new application features interactive travel information and customized maps with thousands of points of interest for key metropolitan areas throughout the United States. The maps can be quickly downloaded from the Internet to Palm OS devices, including Handspring, Palm and Sony handhelds. Downloadable StreetFinder® Express maps contain complete street and address details and can be customized, allowing users to add personal points of interest and select unique icons. The maps also include detailed points of interest such as shopping, entertainment and Mobil Travel Guide® hotels and restaurants. The easy-to-use interface features a tool bar with easy-access functions and help-system features to assist first-time users.

## General News

### Maps-L Archive

Past Maps-L messages are now available via the Web in an archive at: <http://www.listserv.uga.edu/archives/maps-l.html>. At this site, a web interface can be used to send a message to Maps-L, join or leave the list, or change subscription settings. For example, users could set their subscription so that they receive messages in a digest form, get messages with a different type of header, get a copies of their own postings, or temporarily disable message delivery.

A new version of the software that runs Maps-L may allow several minor changes in the near future. Johnnie Sutherland, the list moderator, will experiment with several different settings for Maps-L over the next few months to try to make the list a little more responsive to subscriber's needs. People who have problems with the current list mechanics, should notify Johnnie Sutherland. Contributed by Johnnie Sutherland, Moderator, Maps-L, [jsuthert@arches.uga.edu](mailto:jsuthert@arches.uga.edu).

### GIS in Libraries

Scott L. Schaffer, Government Documents Coordinator at the Bailey/Howe Library, University of Vermont recently requested input on developing and staffing GIS services in a library setting. People on the GIS for Libraries list ([gis4lib@u.washington.edu](mailto:gis4lib@u.washington.edu)) responded with information, which he summarized to the list. A number of issues were consistently mentioned as critical in starting GIS service. They include:

1. Training, training, & more training. This was clearly the most important

issue. Most of the respondents reported taking the ESRI training and/or an additional course in GIS.

2. The individual(s) who will be primarily responsible for GIS must work with it on a regular basis. Even if business is slow, time needs to be set aside to keep sharp. The individual(s) responsible for GIS should not have too many other responsibilities. GIS can not be a minor part of the job.

3. Decide what type of services you will provide. Do you want to help patrons with sophisticated projects? Provide access to expert users? Produce maps for patrons? You need to decide and communicate that decision to your community of users.

4. Funding. For several of the respondents, this was an important issue. You need to make sure that those on the top of the totem pole understand the value and importance of GIS. Grants may be a good possibility for many institutions.

5. Student assistants. Many students have excellent GIS skills.

6. Other issues to consider: Management of patron files (Keep on server? Encourage the use of CD-RW? FTP?), Work with others in your institution (Geography Dept., etc.), Equipment needed (plotter, number of terminal).

Last, be patient. It takes time to build quality GIS service in a library. Contributed by Scott Schaffer, [sschaffe@zoo.uvm.edu](mailto:sschaffe@zoo.uvm.edu).

### ArcIMS 3.1 Now Shipping

ESRI recently announced the availability of ArcIMS 3.1, the newest version of its Internet GIS and mapping software.

This is the first major update of the software since its initial release last year. One of the highlights of ArcIMS

3.1 is its integration with the ArcGIS software family. The ArcGIS Desktop products (ArcView, ArcEditor, and ArcInfo) can now connect directly to map and feature services provided by ArcIMS 3.1 and use ArcIMS as a data source in conjunction with other data types.

With the release of ArcIMS 3.1, ESRI has internationalized the software: messages and menus have been placed into resource bundles for easy localization; the software supports code pages for all languages for shapefiles and database files. It offers significant security enhancements including support for Secure Socket Layers (SSL) and Secure Hypertext Transfer Protocol (HTTPS). Other enhancements include new Java connectors, allowing integration with JavaBeans, Java Server Pages (JSP), Java applets, and desktop components (four new Java and JSP samples and nine new ColdFusion samples are included); support for the latest Open GIS Consortium (OGC) Web Map Server (WMS) implementation specifications; and direct connect to Oracle Spatial and SQL Server databases. In addition, ArcSDE 8.1 layers can be added to ArcIMS and used in an ArcIMS configuration file. ArcIMS is fully supported on Windows 2000, Solaris, and AIX.

ArcIMS 3 customers who are current on their maintenance will automatically receive ArcIMS 3.1 at no additional cost. For more information, visit <http://www.esri.com/arcims> or call ESRI at 1-800-447-9778. Outside the United States, please contact your local ESRI distributor; see <http://www.esri.com/international> for a current distributor list.

## Rand McNally Names New President/CEO

From a Rand McNally Press Release: On June 25, 2001, The Board of Directors of Rand McNally, the World's premier provider of mapping, routing and travel solutions, announced that Michael Hehir has been named President and Chief Executive Officer, succeeding Norman E. Wells Jr., who was appointed Chairman of the Board. Wells follows John D. Macomber, who will continue to serve on the company's board, as will Hehir as a newly appointed director.

Mr. Hehir is a 26-year veteran of the print and electronic publishing industry. He has held various senior executive positions with McGraw-Hill, a leader in the global information and media industry. Most recently, Mr. Hehir served as President of McGraw-Hill Ventures, coordinating investments in media and publishing technologies. Previously, he restructured the McGraw-Hill Informational Services Group, which represents 20% of the company's revenues. In that role, he is credited with transforming *Business Week* into a global leader and successfully reorganizing the company's vertical magazine publishing group. Mr. Hehir also served as Managing Director of the company's European division, where he led preparations for the introduction of the European single currency, the euro, resulting in expanded business operations and accelerated growth.

## ArcGIS 8.1 Released

ESRI is now shipping ArcGIS 8.1, the first complete, scaleable system for geographic data creation, management, integration, and analysis. GIS users can now use ArcGIS to maxi-

mize the potential benefits of geographic information. ArcGIS is a scalable family of software products comprising a complete GIS built on industry standards that is rich in functionality and works out of the box. The 8.1 release contains updated versions of ArcView and ArcInfo desktop software products and ArcSDE spatial database server. All include new or enhanced functionality and are built on a single common architecture. ArcGIS 8.1 also introduces new software products including ArcEditor and extensions consisting of ArcGIS Spatial Analyst, ArcGIS 3D Analyst, ArcGIS Geostatistical Analyst, ArcGIS StreetMap USA, ArcPress for ArcGIS, and MrSID Encoder for ArcGIS.

ArcView 8.1, ArcEditor 8.1, and ArcInfo 8.1 share a common user interface. This shared interface, along with shared architecture, make ArcGIS and geographic information accessible to a host of new users with various GIS needs. The common architecture also allows users to share scripts, custom tools, applications, and extensions. The release of ArcGIS 8.1 makes GIS and its tools accessible to virtually everyone within an organization.

One of the key features of the ArcGIS 8.1 release is the ability to integrate data from Internet map services with local data sets. ArcGIS users can use the Geography Network (<http://www.geographynetwork.com>), an open environment for searching, viewing, and accessing public and commercial map services. ArcGIS can use Geography Network map services as if they were layers of local information.

This release builds support for the geodatabase data model that was introduced in ArcInfo 8. The geodatabase provides centralized storage of geographic information in a database management system. The release also includes a number of features such as

on-the-fly projection, exceptional map production, improved feature construction and editing tools, metadata creation and reporting, an intuitive Windows user interface, and a number of other user-requested enhancements.

For more information call 1-800-447-9778 or visit ESRI's ArcGIS Web site at <http://www.esri.com/arcgis>.

## Ancient World Mapping Center Established

In September 2000, the American Philological Association's Classical Atlas Project achieved its goal with the publication of the Barrington Atlas of the Greek and Roman World. It is an extraordinary advance in research tools, providing a comprehensive and up-to-date treatment of the spatial spread of Greco-Roman civilization and influence. However, even before it was published, we became aware that the cartography and historical geography of the Ancient World pose a set of research and instructional challenges requiring *con-stant attention and revision*. New evidence, methods and technology open new vistas and constantly create fresh research opportunities.

For this reason, the College of Arts and Sciences at the University of North Carolina, Chapel Hill, has established a permanent research facility devoted to promoting the role of cartography and GIS within the field of ancient studies: the Ancient World Mapping Center. The Center has the support of the APA, and holds the research materials assembled by its Classical Atlas Project. The AWMC, under the direction of Tom Elliott, is already engaged in a variety of research and educational projects outlined on its website at: <http://www.unc.edu/depts/awmc>.



The Center's mission is revision and updating of the Barrington Atlas and its Map-by-Map Directory. Ongoing research and publication will require adjustment of maps and their supporting data. Equally, anyone with relevant expertise may wish to point out slips, or to suggest that note be taken of one or other alternative to interpretations presented in the atlas. In fact for this purpose the Center has already received valuable communications from experts worldwide. In order to facilitate the process, the AWMC has created a form and a set of instructions. They are available in several formats from the web site at <http://www.unc.edu/depts/awmc/updates>. The form can be filled out online, or downloaded and printed for completion and mailing.

As Atlas editor and a member of the AWMC's Advisory Board, I am eager to join Director Tom Elliott in inviting you to assist the Center in its efforts to improve our understanding of the spatial aspects of the ancient past. While you will retain full rights over whatever research findings you share, you will be asked to grant the Center permission to disseminate mention of them in the context of its work, with due authorial credit clearly given. Contributed by Tom Elliott,

## Internet Resources

### Luso-Hispanic World Bibliography

*The Luso-Hispanic World in Maps: a Selective Guide to Manuscript Maps to 1900 in the Collections of the Library of Congress*, by John R. Hébert and Anthony P. Mullan is now available on the Library of Congress Geography and Map Division web site. The bibliography contains citations to cartographic materials showing lands once controlled by Spain and Portugal produced by Spanish, Portuguese, French, British and Dutch cartographers. It contains sections on maps of the World, the Eastern and Western Hemispheres, individual countries, cities and US States. It also includes references to views and scenes. The maps and views depict differing national and political interests and perspectives at various time periods. Most were hand drawn in pen, ink, and watercolor on various media, including vellum, linen, and tracing linen. The URL for the cartobibliography is: <http://www.loc.gov/rr/geogmap/luso/lusohome.html>. Scanned maps are linked to some entries; more will be added in the future.

### California Energy Commission Maps

California Energy Commission maps can be viewed online or ordered from from the Commission. The Online Maps site (<http://www.energy.ca.gov/maps/index.html>) contains maps on power plants and energy facilities, energy infrastructure (pipelines & power lines) and Energy & Utilities Service Territories. Maps can also be ordered from the Commission online: [http://www.energy.ca.gov/maps/maps\\_for\\_sale.html](http://www.energy.ca.gov/maps/maps_for_sale.html). Contributed by Cynthia Jahns, [cjahns@cats.ucsc.edu](mailto:cjahns@cats.ucsc.edu).

### Sharlot Hall Museum Archives Online Graphical Database

The Sharlot Hall Museum Archives in Prescott, Arizona has created a unique interface for their historic map collection. It is a graphical database: researchers who visit the web site can click the location of interest on an index map. That brings up a list of historic maps in the collection that cover that particular point.

The Sharlot Hall Museum Archives is hoping that archivists, map librarians, and historians will try the site: <http://www.sharlot.org/archives>. Click on Graphical Database to try the system. The museum is interested in obtaining any user feedback and would like to know of other graphical search systems for historical maps. The Sharlot Hall Museum Archives has over 4000 maps; only 200 maps have MARC records. All maps with MARC records can be accessed through the graphical database. About 30 of these have images linked to them. Contributed by Michael Wurtz, Archivist [wurtz@sharlot.org](mailto:wurtz@sharlot.org).

### History of Cartography Doctorates

Doctorates relating to the history of cartography, awarded from 1995 onwards, are indexed on the WWW Virtual Library site for the History of Cartography. The site contains an amalgamation of listings appearing in the personal news section of Imago Mundi since 1998. Some of the information was obtained from ProQuest Digital Dissertations, which gives access to UMI's Dissertation Abstracts database (apparently restricted to US and Canada).

Another site which offers the possibility of searching across a number of sites simultaneously is the ETD Digital Library: the Networked Digital Library of Theses and Dissertations (NDLTD). For more information see: <http://ihr.sas.ac.uk/maps/phd.html>. Contributed by Tony Cambell, [tony.campbell@bl.uk](mailto:tony.campbell@bl.uk).

### GIS Web Mapping List

A new list, on GIS Web Mapping, has been established. Because it is new, and may not have a lot of subscribers for a few months, traffic will be light. Anyone with ideas or comments is invited to participate. The list will be used as an educational resource for GIS Web Mapping issues for all software users. Post to the list at [webmapping@listbot.com](mailto:webmapping@listbot.com). Subscribe at <http://webmapping.listbot.com> or at <http://www.gisconferences.com>. Contributed by Brian Boyle, [gisconferences@pobox.com](mailto:gisconferences@pobox.com).

### Map Projections Poster Available Online from USGS

The USGS Map Projections poster is available online at: <http://mac.usgs.gov/mac/isb/pubs/MapProjections/projections.html>. Contributed by Jennifer Stone Muilenburg, [jnstone@u.washington.edu](mailto:jnstone@u.washington.edu).

### Geographic Names Information System (GNIS) Update

The Geographic Names Information System (GNIS) Web service has moved to a new server at: <http://geonames.usgs.gov>. This new site and service will host not only heavy-traffic GNIS Web service, but a consolidated set of pages about the Board on Geographic Names (BGN), toponymy, general information on

geographic names, and related topics as well. Webmasters should update links beginning with either of the following two URLs: <http://mapping.usgs.gov:8888/> ... or <http://www-nmd.usgs.gov:8888/> ...

If your site contains embedded queries, it will not be sufficient just to change the server name from *mapping.usgs.gov:8888* to *geonames.usgs.gov*. The (virtual) path names used in queries have changed, because we have advanced from Oracle's OWS to their IAS application server, as have the names of the query procedures themselves. Please visit the new site and use the query forms if you need to determine the new query paths and procedure names. Contributed by Roger L Payne, [rpayne@usgs.gov](mailto:rpayne@usgs.gov).

### San Diego/Tijuana Atlas

The San Diego/Tijuana Atlas (<http://cart.sandag.cog.ca.us/sdtij/intro.html>) provides demographic and housing statistics from both sides of the border. We invite people to use this data in an interactive manner, and tailor it to meet your specific needs. The Demographic Atlas was compiled by San Diego Dialogue at the University of California, San Diego, with support from the San Diego/Tijuana Planning for Prosperity Fund. The web site was created by the San Diego Association of Governments (SANDAG). Information on using the Interactive Atlas and the program itself may be found in the User Notes. Links to sites with related information can be found below the map.

### Internet Access to Sanborn Fire Insurance Maps for Ohio

OPLIN (Ohio Public Library Information Network) and OhioLINK (Ohio's consortium of college & university

libraries) are now providing Internet access to Sanborn Fire Insurance Maps for over 400 Ohio communities produced between 1868 and the 1960's. OPLIN purchased the digital versions of the Bell & Howell (Chadwyck-Healey) microfilm of Ohio Sanborns in the Library of Congress. This research database is available from terminals within Ohio libraries or by remote access which requires the user to input an Ohio library card number or i.d. from an Ohio college or university. Contributed by Maureen Farrell, [Maureen.Farrell@cpl.org](mailto:Maureen.Farrell@cpl.org).

### Cooperative GIS Project

The Cooperative GIS Project web site is now up at <http://gis.anu.edu.au>. The goal of the project is to establish a user-driven effort to map the world (or at least parts of it). The result will be free, digital thematic maps containing geographic and temporal data on any land features that people decide to map, such as natural landmarks, cities or restaurants in an area. The site contains information on some of the discussions that have taken place, and also a message board for future discussions. Contributed by Brett Matson, [s3070416@student.anu.edu.au](mailto:s3070416@student.anu.edu.au).

### Places that Sound Good Enough to Eat

The Places that Sound Good Enough to Eat site from the Oscar Mayer Company lists places with names related to soup and sandwiches. It is located at: <http://www.oscar-mayer.com/products/soup.n.sandwich/placenamemap.html>. Contributed by Linda Zellmer, [Linda.Zellmer@asu.edu](mailto:Linda.Zellmer@asu.edu).

## UN Launches UNEP.Net on ESRI's Geography Network

The United Nations Environment Programme (UNEP) is using ESRI's Geography Network portal and ArcIMS to launch the Environment Network Web site at: <http://www.unep.net/>. The site provides authoritative environmental information from a broad range of providers committed to making their information freely available to environmental information users.

Geography Network Explorer technology is used as the spatial search engine to find data on the Environment Network web site. In addition to its own data sets, UNEP.Net uses data published through ESRI's Geography Network (<http://www.geographynetwork.com>) and data from the European Environment Agency, World Conservation Union, US Geological Survey, and World Wildlife Fund. Application development was provided by Conservation International, the World Wildlife Fund, and ESRI. The site provides a forum for scientific and technical peer review, as well as insights on environmental issues to the global community. It facilitates the exchange of ideas, information, and data.

According to UNEP, ESRI has been instrumental in starting the UNEP.Net initiative by contributing technical and substantive environmental expertise as well as global data sets. Currently available applications, developed for the proof-of-concept phase, include National and Regional Environmental Profiles, with more than 230 listings, and the international Atlas of Protected Areas.

An extensive array of thematic maps have been created for the Environ-

ment Network, including Kyoto Protocol greenhouse gas emissions, indigenous peoples and ecoregions, nuclear power sites, threats to the Mount Kenya wilderness preserve, and UNEP partners around the world. It also includes African tribes and civil conflicts, global population density (four to five decade time series), global land cover classification, global assessment of soil degradation and the geography of Nepal and Bhutan (with new glacier data). Global coverage is included for basic geography, annual average temperature, annual average precipitation, and freshwater-lakes and rivers. The site expects exponential growth as links to various UN agencies are built over the next two years.

## USGS & NASA Scientists Develop New Extreme-Storm Hazards Map

USGS and NASA scientists have developed a new map showing critical elevations of the south Atlantic coast that indicate the relative vulnerability of the coast to overtopping and inundation by storm surge from hurricanes and extreme storms. A new scale that categorizes expected coastal change (erosion and accretion) during storms has also been developed.

The map and scale, recently unveiled at the National Hurricane Conference in Washington, D.C., are available on the web at: <http://coastal.er.usgs.gov/hurricanes/mappingchange/>. The map color-codes segments of shoreline most vulnerable to overtopping by wave run up for a storm of the same intensity hitting the coast at approximately mean tide level; dark red areas are more likely to be overtopped. The magnitude of coastal change that occurs during a storm is related to how high wave run up reaches on a beach relative to the elevation of the beach and dunes. The

data was acquired with NASA's Airborne Topographic Mapper, or ATM, and have better accuracy and data density than data presently available from traditional topographic maps. Similar maps will be made for the Gulf of Mexico and Northeast US coastlines in the future.

## Interactive Map of Greenhouse Gas Emissions

A new interactive map site has been launched to assist the Kyoto protocol process to reduce greenhouse gas emissions to counter climate change. The Greenhouse Gases and the Kyoto Protocol, <http://maps.grida.no/kyoto/>, presents data and statistics collected by international institutions. The site can be used to evaluate the current state of emissions, and projections for the future. The data is available both as total emissions, and as emissions per citizen in each country that has signed the Kyoto protocol. It is possible to zoom in to examine a specific part of the world, or retrieve a graph of the emissions covering a period of 20 years.

The system provides an easy way to examine the statistics, and also to evaluate the agenda in climate change and greenhouse gas emissions. The website was developed by UNEP/GRID-Arendal in Norway, a United Nations Environment Programme information centre; the web site is part of the UNEP.Net environmental network. For more information, contact Hugo Ahlenius, [ahlenius@grida.no](mailto:ahlenius@grida.no) or Åke Bjørke, [bjoerke@grida.no](mailto:bjoerke@grida.no).

## Landsat 7 Image Viewer

The Landsat 7 Program recently announced the availability of an image viewer, which provides users with the capability to quickly access

and view Landsat 7 browse images over the Internet. This capability uses a visual interface to navigate the global Landsat 7 archive managed by the US Geological Survey. Browse images for scenes acquired during the mission, including scenes acquired through the previous day, can be displayed for the entire Earth surface. The URL for the Landsat 7 Image Viewer is: <http://edclxs2.cr.usgs.gov/L7ImgViewer.shtml>.

### Aerial Photos on MapQuest

MapQuest (<http://www.mapquest.com/>) now has aerial photos that can be viewed online. A search on a street address, offers users the option of viewing a street map or an aerial photo. Users can zoom in or out on both formats. Contributed by Elisabeth Filar, [Elisabeth.Filar@Colorado.edu](mailto:Elisabeth.Filar@Colorado.edu).

### Maporama!

Maporama.com is now available on the Web. It can be used to locate addresses for cities in the US, Canada and Europe. All maps can be printed, sent by e-mail to friends or to clients, downloaded to digital personal assistants or inserted into web sites. URL: <http://www.maporama.com>.

### Webbrain

A new search engine Webbrain, which bills itself as "the smartest way to see the web," is available at: <http://www.webbrain.com>. It offers some interesting ways of organizing and displaying subject areas like cartography, geography, maps and GIS. A search engine is also available.

## Periodical Articles

Jan Smits [Jan.Smits@kb.nl](mailto:Jan.Smits@kb.nl) recently announced that articles from the 12th Conference of the European Mapcurator's Group 2000, have been added to the GdC-website at: <http://www.kb.nl/infolev/liber/intro.htm#art>. The following articles can be viewed at the site:

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Bühler, Jürg, 2000. Map collections and the Internet: some ideas about various online map services, based on the ETH map collection in Zürich.

Campbell, Tony, 2000. Where are map libraries heading? Some route maps for the digital future.

Fleet, Chris, 2000. Distributing images and information over the Web - a case study of the Pont manuscript maps.

Kotelnikova, N. and Kildushevskaja, L., 2000. Electronic maps and atlases in the Russian State Library and the Russian National Library.

Morris, Barbara and David Medyckyj-Scott and Peter Burnhill, 2000. EDINA Digimap: New developments in the Internet mapping and data service for the UK Higher Education community.

Oddens, Roelof, 2000. Four years of Oddens' Bookmarks: The Fascinating World of Maps and Mapping.

Smits, Jan, 2000. Can a map be a geographic information retrieval tool?

Stevenson, Bill, 2000. Servicing Map Users at Aalborg University Library.

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Broad, William J. Spy-Analysis Agency Says It May Have Found Lost Mars Lander. *New York Times*, March 21, 2001. Vol. 150 Issue 51699, p. A14.

Calhoun, John, 2001. The news, naturally: J. Fenhagen's set design for the National Geographic today news program. *Entertainment Design* v. 35, no. 3, March 2001, p. 12-14.

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Dietrich, Bill, Growing pains on the Front Range. *American Forests*, v. 106 no. 4, Winter, p. 34-8

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Gronim, Sara S., 2001. Geography and Persuasion: Maps in British Colonial New York. *William & Mary Quarterly*, April 2001, Vol. 3 Issue 2, p. 373-403.

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Limp, W. Fredrick. 3-D Innovations—Diverse Products Bring Earth Imaging to the Desktop.

Pfister, Betsy, Burgess, Ken and Berry, Joe. What's a Map? Media Mapping Technology Is Redefining the Term.

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- Dobson, Jerry. Beyond Mapping: The "G" in GIS - Global Data Coverage Makes Progress.
- Hecht, Louis, Jr. Open GIS Connection: OGC Drives Changes in Spatial Services.
- Turner, A. Keith. Applied Geoscience Forum: The Future Looks Bright (In Any Spectrum) for GIS Data.

Hanley, Robert, 2001. 4 Black Democrats Testify Against Redistricting Map. *New York Times*, 05/01, 2001, Vol. 150, Issue 51740, p. B5.

Harder, Ben, 2001. Hand-held travel guides put the World in your palm. *US News and World Report*, v. 130, no. 8, February 26, 2001, p. 66.

Harrison, Paul, 2001. Atlas examines link between population and environment: AAAS atlas of population and environment. *Science* v. 291, no. 5504, January 26, 2001, p. 671.

Heesom, David and Mahdjoubi, Lamine, 2001. Effect Of Grid Resolution And Terrain Characteristics On Data From DTM. *Journal of Computing in Civil Engineering*, April 2001, Vol. 15, Issue 2, p. 137.

Homer, Carol. 2001. ZipUSA: Rico, Colorado. *National Geographic*, v. 199, no. 3, March, 2001, p. 124-30.

Houston, Alan Fraser. Cadwalader Ringgold, U.S. Navy gold rush surveyor of San Francisco Bay and waters to Sacramento, 1849-1850. *California History*, v. 79, no. 4, Winter 2000, 2001, p. 208-221, 234-235.

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Kaiser, Jocelyn, 2001. Technician Sacked Over Caribou Map. *Science Now*, March 23, 2001, p. 3.

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Lea, Tony, 2001. In Census Data We Trust? Explaining State-level Census Projection Discrepancies. *Business Graphics*, May 2001.

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Parris, Thomas M., 2001. Map your world on the Internet. *Environment*, v. 43, no. 1, Jan.-Feb., 2001, p. 3.

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Sanders, Adrienne, 2001. Mapping a passion on the Internet. Article about the Rumsey Collection. *The San Francisco Examiner*. URL: <http://www.examiner.com/news/default.jsp?story=n.maps.0522w>

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Web Site Explores Link Between African Diaspora, Global Politics. *Black Issues in Higher Education*, April 12, 2001, Vol. 18 Issue 4, p. 47-48.

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Wildstrom, Stephen H. It's Getting Cheaper To Find Your Way. *Business Week*, Mar. 19, 2001, Issue 3724, p. 24.

Young, Cathy, 2001. Many Americas: electoral vote map misrepresents voters. *Reason*, v. 32, no. 10, March, 2001, p. 23-4.

### Book Reviews

Delano-Smith, Catherine, 2001. The hidden meanings of maps. *Nature*, May 10, 2001, Vol. 411 Issue 6834, p. 133. Reviews *The New Nature of Maps: Essays in the History of Cartography*, by J.B. Harley and *Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination*.

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## US Federal, State & Local Government News

### BLM Geographic Coordinate Data Base

The Bureau of Land Management's (BLM) Geographic Coordinate Data Base (GCDB) is a collection of geographic information representing the Public Land Survey System (PLSS) of the United States. The GCDB grid is computed from BLM survey records (official plats and field notes), local survey records, and geodetic control information. BLM collects GCDB data for townships. Survey boundaries are delineated by computing the geographic positions of township, section, aliquot part, government lot, and special survey corners. Next, official land descriptions are assigned to each land unit in the grid. The records are then reformatted so Geographic Information System (GIS) software can be used to view the PLSS information spatially.

BLM began collecting geographic coordinate information in 1989; the data collection effort continues today. GCDB data has been collected for approximately three quarters of the townships in the Western United States. Coverages for Arizona, Arkansas, California, Colorado, Montana, Michigan, Oregon, Nevada, New Mexico, North Dakota, Utah and Wyoming are available. The BLM Eastern States Office has collected GCDB for over 300 townships east of the Mississippi River.

GCDB flat files for many townships are available for download via the GCDB download site (<http://lm0500.blm.gov/>) or through State Office web sites. Links

to the State Office sites are available at <http://www.blm.gov/gcdb/gcdbsites/index.html>. GCDB Coverages in ArcInfo export file format will soon be available. Click on the GCDB Download button to the left and choose your geographic area of interest.

### Census 2000 Data Releases Continue

The US Census Bureau continues to release data from Census 2000. In March, the Redistricting Files, mandated by Public Law 94-171, were released. A web site with links to PL 94-171 press releases and data for US States and Territories is available at <http://www.census.gov/clo/www/redistricting.html>. PL 94-171 data was also released on CD-ROM to State Data Centers.

The first Summary File 1 data, which includes information on sex, age, ethnicity, household relationship, household and family characteristics, have also been released. Data and press releases for Delaware and Vermont, which was released June 13, 2001, can be downloaded from <http://www.census.gov/Press-Release/www/2001/sumfile1.html>. Data for other states will be added to this site as it becomes available. This site also contains tentative release dates for SF 1 data.

Other recent Census Bureau press releases on their web site (<http://www.census.gov/Press-Release/www/date.html>) include information on the Nation's Median Age, a Spanish-language press release on the Hispanic Population, and the recently determined population center of the United States, which is now in Phelps County, Missouri.

### Locate Census Data using Street Address

It is now possible to view maps and retrieve data for a Street Address using the Census Bureau's American FactFinder. Go to American FactFinder (<http://factfinder.census.gov/>) and click on **Enter a street address** to retrieve Census 2000 data and maps for the geographic entities (state, county, county subdivision, census tract, block, block group, voting district, place, congressional district (106), state legislative districts) containing that address. The system does not show the approximate location of the address on the map. Contributed by Barbara Levergood, [leverg@refstaff.lib.unc.edu](mailto:leverg@refstaff.lib.unc.edu).

### Census Product Updates Online

The Census Bureau has launched a biweekly online newsletter, the *Census Product Update*, to inform data users about recently or soon to be released data products. The Census Product Update (item 0138-A-05, SuDocs C 3.163/7-2:) combines the best features of the Monthly Product Announcement and the I-Net Bulletin that were discontinued in December. It also contains up-to-date product information, and hot tips and special pages to bookmark. A particular focus of future issues will be data products from Census 2000. The updates can be viewed at: <http://www.census.gov/mp/www/cpu.html>.

### FGDC Releases Three Standards for Public Review

The Federal Geodetic Data Committee (FGDC) is conducting a public review of three standards which were recently released:

- Address Data Content Standard (comments due June 22, 2001)
- NSDI Framework Transportation Identification Standard (comments due July 20, 2001)
- Standard for a US National Grid (comments due June 22, 2001)

The FGDC invites GIS data producers, users and software vendors to comment on the standards to ensure that they meet the needs of their communities. To learn about the standards and how to submit comments on the standards, visit the FGDC What's New web page at: <http://www.fgdc.gov/whatsnew/whatsnew.html>. Reviewers are strongly encouraged to use the template for sending comments that may be downloaded from: <http://www.fgdc.gov/standards/directives/dir2d.html>.

Public review comments that address specific issues/changes/additions may result in revisions that enhance the usefulness of the standards for their communities. After comments have been evaluated, reviewers will receive notification of how their comments were addressed. After formal endorsement of the standard by the FGDC, the standard and a summary analysis of the changes will be made available to the public via the FGDC Web site. Contributed by Julie Binder Maitra, [jmaitra@usgs.gov](mailto:jmaitra@usgs.gov).

### 2001 Draft Recommended Specifications for Public Access Workstations in Federal Depository Libraries

The Recommended Specifications for Public Access Workstations in Federal Depository Libraries, which were published in the November, 2000 issue of the Information Bulletin (p. 69-71), will become requirements, based on actions taken by the Depository Library

Council at their Spring 2001 meeting in Alexandria, Virginia. The recommended specifications are intended to assist depository librarians who are planning purchases of new computers (PCs) for public use in Federal depository libraries. This document supersedes the Federal Depository Library Program (FDLP) "Recommended Specifications for Public Access Workstations in Federal Depository Libraries" (*Administrative Notes*, v. 21, no. 9, June 15, 2000). In accordance with Depository Library Council action at its spring 2000 meeting, these recommended specifications will become requirements October 1, 2002. A link to the specifications is provided on the WAML Map Librarian's Toolbox (<http://www.waml.org/maptools.html>). The minimum specifications can be viewed at: [http://www.access.gpo.gov/su\\_docs/fdlp/computers/index.html](http://www.access.gpo.gov/su_docs/fdlp/computers/index.html) or in the April 15, 2001 issue of Administrative Notes (GP 3.16/3-2:22/06, Vol. 22, no. 06) at: [http://www.access.gpo.gov/su\\_docs/fdlp/pubs/adnotes/ad041501.html#6](http://www.access.gpo.gov/su_docs/fdlp/pubs/adnotes/ad041501.html#6). For additional information, or to ask questions about these specifications, please contact Cynthia Etkin, Program Analyst, at [cetkin@gpo.gov](mailto:cetkin@gpo.gov) or by telephone at (202) 512-1119.

### National Map Report

The US Geological Survey recently produced a report on the future direction of its mapping program (<http://nationalmap.usgs.gov>). It proposes focusing the mapping mission of the USGS on "The National Map," a database of continually updated basic spatial data for the US and its Territories that would serve as the Nation's topographic map for the 21st century. Proposed improvements in "The National Map," compared with current efforts include:

- Significantly increased attention to keeping the information current
- Seamless national digital data coverage
- Higher resolution and more positional accuracy, especially the orthophoto and elevation data
- Improved data integration
- Increased reliance on partnerships and commercially available data
- Enhanced data delivery via the Internet
- Expanded role of partnerships with government at all levels, the private sector, academia, and others

The Survey requested that the public review and comment on the proposals by June 29, 2001.

### **Landsat 4 and 5 Operations**

The US Geological Survey has begun decommissioning Landsats 4 and 5, two Earth observation satellites, ending a highly successful chapter of an ongoing science story. Landsat 4, launched by NASA in 1982, and Landsat 5, a duplicate satellite launched in 1984, have both performed far beyond their two-year design lifetimes, sending hundreds of thousands of 100-mile x 100-mile land-surface images to US and international ground receiving stations.

Beginning with the launch of Landsat 1 in 1972, the satellites have gradually compiled a graphic global archive of natural and human-induced change, ranging from devastation and recovery after the Mt. St. Helen's volcanic eruption, calving of giant icebergs from the Antarctic ice shelf to the deforestation of large tracts within the Amazon Basin. Scientists and natural-resource managers worldwide rely on Landsat technology.

Although communication hardware for sending images to the ground failed on Landsat 4 several years ago, it has continued to be operated as a test bed for software modifications intended for Landsat 5. Engineers recently began the process of retiring Landsat 4. Landsat 5, using its several back-up subsystems, can still provide high-quality image data to ground antennas. However, the costs of operating the aging satellite now exceed available resources.

In 1985, based on directives from Congress, the U.S. government turned Landsats 4 and 5 operations over to the private sector in an attempt to commercialize the technology and encourage private investment for later missions. The government-subsidized Landsat 6 satellite failed to achieve orbit in 1993. The commercial market for moderate-resolution, Landsat data never approached the size needed to bring in profits large enough to finance future commercial missions; the private sector has since invested heavily in satellites that frame much smaller areas on the ground at higher resolutions. Landsat images can reveal the swath of a highway while a commercial high-resolution images can distinguish cars from trucks.

At the direction of Congress, Landsat 7, built by NASA and launched in 1999, is operated by the USGS under an ongoing partnership with NASA. The Landsat user community has responded strongly to Landsat 7's non-commercial pricing and open-ended data policy. Also, several indicators point to an emerging market being developed by commercial value-added resellers of Landsat 7 data.

Landsat 7 has provided images of all major US cities, as well as timely images of the recent devastating floods in the Midwest, wildfires in the Western US from 2000 and flood damage in North

Carolina from Hurricane Floyd in 1999. The imagery also has been used to monitor volcanic eruptions in Alaska, Mexico, Hawaii, Italy, and Central America, and document change over time, such as receding glaciers in Alaska and the Alps, deforestation in the tropics, and wildfires in the Australian outback and remote areas of Siberia.

The USGS, which is also responsible for Landsat 4 and 5 operations, recently directed Space Imaging, of Thornton, Colorado, the commercial operator, to decommission Landsat 5. NASA and the USGS are actively working together to plan a Landsat Data Continuity Mission (LDCM) to be launched no later than the spring of 2006. Substantial private-sector participation is anticipated for this mission. Longer-range plans could include an international consortium to ensure the continuity of global data collection. For further information, see <http://ldcm.usgs.gov>.

### **Three Sisters Volcano Information**

The USGS' Cascades Volcano Observatory has developed a web site on the Three Sisters Volcano region in Oregon. The site includes an information statement, released May 8, 2001, that describes a recently detected uplift west of South Sister in the Cascade Range of Central Oregon. The site includes links to background and information, maps, graphics, images and links to other web sites of interest. The site is available at: <http://vulcan.wr.usgs.gov/Volcanoes/Sisters/WestUplift/framework.html>.



## Underwater Features of Crater Lake

A new map and report titled *Bathymetry and Selected Perspective Views of Crater Lake, Oregon* by James V. Gardner and others provides unprecedented detail of lava flows, volcanic cones and landslides below the surface of Crater Lake. The geologic features of the lake were revealed in July 2000, when the lake floor was mapped using high-resolution multi-beam echosounding.

Crater Lake, the deepest lake in the US, occupies a caldera in Mount Mazama, a 12,000-foot-tall volcano that erupted and then collapsed about 7,700 years ago. The new survey determined that the lake is 1,949 feet deep at its deepest point. The bathymetric data collected gives researchers a better understanding of the geologic history of Mount Mazama. The maps that make up the report use color-shaded relief to provide a detailed view of a number of submerged volcanic landforms and other features that formed in the caldera in the centuries following the mountain's collapse. One map gives a bird's eye view of the floor of the entire caldera, conveying how it would look if the water of Crater Lake were removed. The other provides a series of perspective views showing different volcanic landforms rising from the floor. These include Merriam Cone, a 500-foot-tall volcano; the extensive base of Wizard Island; and parts of the caldera's rim. Also revealed are various volcanic vents, ancient shorelines, sediment basins and debris flows. Accompanying text summarizes the geologic processes responsible for these features. The report, USGS Water-Resources Investigations Report 01-4046 (Report Number WRIR 01-4046), is available

from USGS Branch of Information Services, Box 25286, Denver, CO 80225-0286, (telephone 1-888-ASK-USGS), for \$4.00 plus \$5.00 shipping and handling.

## US General Reference Map

A new General Reference map of the United States is now available. Developed to replace the 1973 general reference sheet of the National Atlas, it is the latest product of the National Atlas of the United States to be printed by the US Geological Survey. It shows state boundaries and names in gray, interstate and other principal highways in red, urban areas in yellow, populated places and railroads in black, water features in blue, forest cover in green, and physical features and shaded relief in brown. The new map was designed at a larger scale than the 1973 map to aid readability; it is printed on a larger sheet (29 1/2" by 41 1/2"). The scale for the conterminous 48 States, Hawaii, and Puerto Rico is 1:5,000,000-scale, while Alaska is shown at 1:15,000,000. To order: General Reference Map, Stock number TUS5684, Price \$7.00 each plus \$5.00 handling charge per order. Available from: USGS Information Services, Box 25286, Denver, CO 80225 (FAX: 303-202-4693). Contributed by Rea Mueller [rlmueller@usgs.gov](mailto:rlmueller@usgs.gov).

## USGS Publications

The following items of interest to Map Librarians were recently published by the US Geological Survey:

- A data management life-cycle, by David Ferderer. Fact Sheet 0163-00. 2001. 2 p.

- Digital Orthophoto Quadrangles. Fact Sheet 057-01, May 2001. URL: <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs05701.html>.

- USGS map-on-demand printing, by Kirk Volkel and Michael Cooley. Fact Sheet 0074-99. 1999. URL: <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs07499.html>.

- USGS GeoData Digital Orthophoto Quadrangles. Order Form 67-0039, May 2001. URL: <http://mac.usgs.gov/mac/isb/pubs/forms/doq.html>.

- Center for Integration of Natural Disaster Information. Fact Sheet 003-01, January 2001. <http://mac.usgs.gov/mac/isb/pubs/factsheets/fs00301.html>.

- Measuring land subsidence from space, by D.L. Galloway and others. Fact Sheet 0051-00. 2000. 4 p. URL: <http://ca.water.usgs.gov/rep/fs05100/insar2.pdf>.

- Science, society, solutions; an introduction to the USGS. Fact Sheet 0010-01. 2001. 2 p. URL: <http://www.usgs.gov/aboutusgs.html>.

- Sea level and climate, by R.Z. Poore and others. Fact Sheet 0002-00. 2000. 2 p. URL: <http://pubs.usgs.gov/factsheet/fs2-00/>.

- Significant floods in the United States during the 20th century: USGS measures a century of floods, by C.A. Perry. Fact Sheet 0024-00. 2000. 46 p.

- The USGS National Coal Resources Assessment, by Brenda Pierce. Fact Sheet 0020-01. 2001. 2 p. URL: <http://pubs.usgs.gov/factsheet/fs020-01/>.

- USGS wildland fire research. Fact Sheet 0125-98. 1998. 4 p. URL: <http://www.usgs.gov/themes/Wildfire/fire.html>.

- Arctic National Wildlife Refuge, 1002 area, petroleum assessment,

1998, including economic analysis, by K.J. Bird and D.W. Houseknecht. Fact Sheet 0028-01. 2001. 6 p. (Supersedes FS040-98). URL: <http://greenwood.cr.usgs.gov/pub/factsheets/fs-0028-01/>.

•The National Petroleum Reserve-Alaska (NPRA) data archive, by K. J. Bird. Fact Sheet 0024-01. 2001. 2 p. URL: <http://pubs.usgs.gov/factsheets/fs024-01/>.

•Effects of flooding on plant production downstream from Glen Canyon Dam; Grand Canyon Monitoring and Research Program, by G. R. Marzolf. Prepared in cooperation with the Bureau of Reclamation. Fact Sheet 0060-99. 1999. 2 p. URL: <http://water.usgs.gov/pubs/FS/FS-060-99/>.

•Federally owned coal, federal lands, and coal quality in the Colorado Plateau region, by C.L. Molnia and others. Fact Sheet 0011-01. 2001. 4 p. (Supersedes Fact Sheet 145-99). URL: <http://geology.cr.usgs.gov/pub/factsheets/fs-011-01/>.

•Monitoring the effects of ground-water withdrawals from the N Aquifer in the Black Mesa area, north-eastern Arizona, by G. R. Littin. Prepared in cooperation with the Arizona Department of Water Resources and Bureau of Indian Affairs. Fact Sheet 064-99. 1999. 2 p. URL: <http://water.usgs.gov/pubs/FS/FS-064-99/>.

•The San Francisco volcanic field, Arizona, by S.S. Priest and others. Fact Sheet 0017-01. 2001. 2 p. URL: <http://geopubs.wr.usgs.gov/factsheet/fs017-01/>.

•Inputs of the dormant-spray pesticide, diazinon, to the San Joaquin River, California, February 1993, by Joseph Domagalski and others. Fact

Sheet 0133-95. 1995. URL: [http://ca.water.usgs.gov/wq/pest/sj\\_diaz.html](http://ca.water.usgs.gov/wq/pest/sj_diaz.html).

•Source, movement, and age of ground water in a coastal California aquifer, by J. A. Izbicki. Fact Sheet 0126-96. 1996. URL: <http://ca.water.usgs.gov/fact/b08/>.

•Fact Sheet 0045-98. Availability of ground-water data for California, water year 1997. 1998. URL: [http://ca.water.usgs.gov/fs\\_gw/97/](http://ca.water.usgs.gov/fs_gw/97/).

•Fact Sheet 0009-01. Evaluation of missing gage-height record for streams and lakes in Kansas, by S. E. Studley. 2001. 4 p.

•Fact Sheet 0137-00. Rapid recharge of parts of the High Plains Aquifer indicated by a reconnaissance study in Oklahoma, 1999, by W.J. Andrews, Nowell Osborn, and R.R. Luekey. 2000. 4 p.

•Fact Sheet 0042-00. Municipal storm-water monitoring program, Dallas-Fort Worth area, Texas; summary of sampling, February 1997-February 2000, by S. J. Moore and others. Prepared in cooperation with the North Central Texas Council of Governments. 2000. 4 p.

•Fact Sheet 0161-00. Water quality and macroinvertebrate communities of Emigration and Red Butte creeks, Salt Lake County, Utah, by Elise Giddings. National Water-Quality Assessment Program. 2000. 6 p.

Contributed by Rea Mueller, [rlmueller@usgs.gov](mailto:rlmueller@usgs.gov).

## Employment

The following positions related to Map Librarianship and GIS have been advertised during recent months. For more information see **WAML Electronic News and Notes** at <http://www.waml.org/newsnts.html>.

•Map Catalog Librarian, Catalog Department, Yale University Library. Rank: Librarian I fixed duration until 6/30/2006. New Haven, CT. URL: <http://www.library.yale.edu/lhr/jobs/mp/LDTN8593.html>.

•Digital Cartography Specialist. Harvard College Library Map Collection. Cambridge, MA.

•Geospatial Data Specialist (Summer Position). Harvard University Library. Cambridge, MA.

•Associate Director, Geospatial and Statistical Data Center. University of Virginia. Charlottesville. URL: [http://fisher.lib.virginia.edu/staff\\_serv/vacancy.html](http://fisher.lib.virginia.edu/staff_serv/vacancy.html).

•Information Services Librarian. McPherson Library, University of Victoria. Victoria, BC.

•GIS Services Librarian. Reference Department. University of North Carolina. Chapel Hill.

•Government Documents/GIS Librarian. Ezra Lehman Memorial Library, Shippensburg University, Shippensburg, PA. URL: <http://www.ship.edu/HR/positions/f-Government-1.html>.

•Geology/Physics/Geography/Maps. University Of Cincinnati. Cincinnati, Ohio. URL: [http://www.libraries.uc.edu/libinfo/personnel/geo\\_phys\\_head.html](http://www.libraries.uc.edu/libinfo/personnel/geo_phys_head.html).

**Western Association of Map Libraries  
Paper Publications**

**Occasional Papers**

- 1973 *Catalogue of Sanborn Atlases at California State University, Northridge* by Gary W. Rees and Mary Hoeber. OP1. LC #73-5773 ISBN 0-939112-01-9 \$4.00
- 1977 *Union List of Sanborn Fire Insurance Maps held by Institutions in the United States and Canada, vol. 2, Montana to Wyoming; Canada and Mexico* by William S. Peterson-Hunt and Evelyn L. Woodruff; *with a Supplement and Corrigenda to Volume 1*, by R. Philip Hoehn. OP3. LC #76-2129 Rev. ISBN 0-939112-03-5 \$6.00
- 1978 *Index to Early Twentieth-Century City Plans Appearing in Guidebooks: Baedeker, Muirhead-Blue Guides, Murray, I.J.G.R., etc., Plus Selected Other Works to Provide Worldwide Coverage of over 2,000 Plans to over 1,200 Communities, Found in 74 Guidebooks* by Harold M. Otness. OP4. LC #78-15094 ISBN 0-939112-05-1 \$6.00
- 1978 *The Maps of Fiji: A Selective and Annotated Cartobibliography* by Mason S. Green. OP5. LC #78-24066 ISBN 0-939112-06-X \$4.00
- 1980 *Index to Nineteenth-Century City Plans Appearing in Guidebooks: Baedeker, Murray, Joanne, Black, Appleton, Meyer, Plus Selected Other Works to Provide Coverage of over 1,800 Plans to Nearly 600 Communities, Found in 164 Guidebooks* by Harold M. Otness. OP7. LC #80-24483 ISBN 0-939112-08-6 \$6.00
- 1981 *Microcartography: Applications for Archives and Libraries* edited by Larry Cruse, with the assistance of Sylvia B. Warren. OP6. LC #81-19718 ISBN 0-939112-07-8 \$20.00
- 1981 *Printed Maps of Utah to 1900; An Annotated Cartobibliography* by Riley Moore Moffat. OP8. LC #81459 ISBN 0-939112-09-4 \$10.00
- 1984 *Nevada Directory of Maps and Aerial Photo Resources* by Mary B. Ansari and Linda P. Newman. OP11. LC #83-26068 ISBN 0-939112-13-2 \$15.00
- 1986 *Map Index to Topographic Quadrangles of the United States, 1882-1940* by Riley Moore Moffat. OP10. LC #84-21984 ISBN 0-939112-12-4 \$40.00
- 1990 *Cartobibliography of Separately Published U.S. Geological Survey Special Maps and River Surveys* by Peter L. Stark. OP12 LC #89-14684 ISBN 0-939112-15-9 (hard cover) \$40.00
- 1993 *Topographic Mapping of Africa, Antarctica and Eurasia* by Mary L. Larsgaard. OP 14. LC #92-39327 ISBN 0-939112-29-9 \$45.00

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- 1976 *Union List of Sanborn Fire Insurance Maps Held by Institutions in the United States and Canada, vol. 1, Alabama to Missouri* by R. Philip Hoehn. OP2. LC #76-6129 ISBN 0-939112-16-7 \$4.00
- 1983 *Index to the Information Bulletin (Volumes 1-10, 1969-1979) of the Western Association of Map Libraries* by Frances M. Woodward. OP9. LC #83-4880 ISBN 0-939112-10-8 \$5.00

**Information Bulletin**

Western Association of Map Libraries *Information Bulletin* v. 1-20. 99 fiche. ISBN 0-939112-20-5  
\$40.00

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- Maps and Charts of North America and the Caribbean 1750-1789*. Phase II, Titles 156-271. 380 fiche \$125.00
- [*Poland*] Wojskowy Instytut Geograficzny. 1:100,000. 193-. 53 fiche \$500.00
- Reichsamt für Landesaufnahme. *Karte des Deutschen Reiches*. [Germany]. 1:100,000.  
Berlin, 186?-194? 4,100 fiche \$1,500.00
- Cassini & Carte de France, French Revolutionary Era Surveys*. 214 fiche \$85.00
- U.S. Navy Nautical Charts of Melanesia*. 1917-1975. 251 fiche \$100.00
- Pacific Basin Map Exhibit of the Library of Congress*. 83 fiche \$30.00
- Bernice Bishop Museum Air Photos of Melanesia*. ca. 64,000 photos on 70 reels of 35mm film \$35/roll
- Gazetteer of the World, or Dictionary of Geographical Knowledge*. 7 vols. London: Fullarton, 1859.  
1990 fiche edition. 79 fiche. ISBN 0-939112-19-1 \$30.00
- Gazetteer to AMS 1:25,000 - Maps of West Germany*. 3 vol. 1959, 1990 ed.  
36 fiche. ISBN 0-939112-23-X \$15.00
- USGS GNIS Gazetteers:**
- California* (17 fiche) ISBN 0-939112-21-3 \$10.00
- Nevada* (5 fiche). ISBN 0-939112-22-1 \$5.00
- Ward Maps of United States Cities* (pre-1900). LC 1975. WAML 1990 ed.  
321 fiche. ISBN 0-939112-24-8 \$100.00

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