is a stormy hour about which Tibbetts has remarked, "A lot of emotional upheaval and travelling created that record." Exploded View is remarkable for Claudia Schmidt's soaring soprano, but specially for Tibbetts' searing electric guitars that rage down through roiling clouds like Shiva, come to lay the world to waste.

So what is the big map idea? According to Anderson, titles are always an afterthought for the duo, and "Big Map Idea" was "a title of Steve's that in the end we both rejected." An ECM executive selected it from a list of prospective titles.

Meanwhile, Tibbetts and Anderson are embarked on a new exploration. Asked where his forthcoming music is headed, Tibbetts said, "I don't know. I don't want to know." Tibbetts' art springs from sensitivity to his instruments and surroundings, not from premeditation. "The sound of the guitar, just the noises get me excited about making music. The way a guitar feels when I play it ... " A plan or map can be a hindrance to the visceral appreciation of some landscapes. Yet Tibbetts does admit a fondness for cartography: "My favorite Christmas gift last year was a Times Atlas of the World."



Reprinted in Harper's Magazine, August 1990, from the Utne Reader

cartographic artifacts

NTIS BIBLIOGRAPHIES
Computer Aided Mapping
January 1987-April 1990, a bibliography from the NTIS Database.
National Technical Information
Service, 5285 Port Royal Road,
Springfield, Va. 22161. April 1990,
71p, supersedes PB89-861652.
PB90-8654486/WNR; price code
PC N01/MF N01.

This bibliography contains citations concerning theoretical aspects and applications of computer techniques in cartography. Topics include automatic mapping, discussions of databases, and computerized photomapping. Satellite image analysis and processing techniques, and descriptions of specific mapping projects are discussed. (This updated bibliography contains 137 citations, 34 of which are new entries to the previous edition.)

Geographic Information Systems (GIS) April 1971-March 1990, a bibliography from the NTIS Database. National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. March 1990, 90p, supersedes PB89-854608. PB90-864182/WNR; price code: PC N01/MF N01.

This bibliography contains citations concerning theoretical aspects and applications of geographic information systems (GIS). Data Collection and organization methods, the use of artificial intelligence in photointerpretation, and program overviews are among the topics discussed. Considerable attention is given to descriptions of selected GIS projects. Citations pertaining specifically to computer aided mapping are excluded. (This updated bibliography contains 164 citations, 37 of which are new entries to the previous edition.)

1990 GIS SOURCEBOOK ANNOUNCED

GIS WORLD magazine will soon publish its second annual GIS Sourcebook. The sourcebook will contain extensive technical and price data on most GIS software. "Our first software survey, in 1988, compared thirty-five systems. The 1989 edition contained sixty-two systems, and the new survey to be published in this year's GIS Sourcebook will reach one hundred," said H. Dennison Parker, publisher.

In addition to GIS technical data, the GIS Sourcebook will have articles on GIS applications, consultant listings, data sources and firms and GIS educational opportunities. Its price is being held to a minimum. "Our primary objective is to provide useful information about GIS technology," said Parker, "and our advertisers are helping us do that by making a book like this available to virtually anyone." The book will sell for \$59.95 to GIS WORLD subscribers. \$119.95 to others. A 30 percent pre-publication discount off both prices is available until July 16. The book will be published and distributed worldwide in August. Contact: GIS World, Inc., P.O. Box 8090, Ft. Collins, CO, USA 80526 (303) 223-4848.

GUIDE TO CARTOGRAPHIC LITERATURE

Informational Sources in Cartography, edited by C.R. Perkins and R.B. Parry, June 1990, 540p., \$75. Designed for practitioners, academics, and map librarians, this new contribution to Saur's highly regarded Guide to Information Sources series covers information sources for cartography and related material. With contributions from thirty-four different authors, Information Sources in Cartography highlights the "best

and most appropriate" source material. It covers a range of subjects in the field from general source material, to the history of cartography, to map production and librarianship.

In addition to traditional primary and secondary sources, the guide features coverage of applications of remote sensing, computerized cartography, geographic information systems, and automated search and retrieval systems.

To facilitate access, the volume is organized into six major parts. The first covers general aspects of information retrieval, primary sources such as books, journals, reference sources, bibliographies, indexing, and abstract services, on-line services, and reviewing media. The next two sections cover the History of Cartography and Map Production which examines the different stages of cartographic work from data capture through design to production. The following sections, Map Librarianship, a guide to specialist literature, and Types of Mapping, covers major thematic groups of contemporary mapping such as topographic, geoscientific, navigational, and socio-economic. The final section, Map Use and Promotion, is a practical assessment of literature available for different needs and levels. Also provided are listings of map publishers, cartographic journals, and societies. Contact: Clare Williams, (212) 463-6860.

STATE GEOGRAPHIC INFORMATION ACTIVITIES COMPENDIUM

The Council of State Governments (CSG) is a nationwide service organization for executive, legislative and judicial branches of state governments and is well-known for its publication of state resource documents, such as the *Book of the States* and the *Resource Guide to*

State Environmental Management.

In January, CSG announced work on a State Geographic Information Activities Compendium, a project initiated in response to growing requests for improved resources and information about state geographic information activities. For more than a year, state representatives have been meeting at GIS related conferences to learn about each others' activities. The consensus of this growing network is that resources and activities for all fifty states are increasingly needed.

No comparable resource currently exists. The Compendium will contain an annotated database of state contacts; a review and examples of executive and legislative directives; lists and excerpts of existing plans, reports, policies and standards; focus, membership, roles, responsibilities and description of interagency and intergovernmental GIS coordination groups; and a general status of GIS development in each state, including financial and personnel information.

The compendium is expected to be available in early fall of this year. Contact: John Johnson at CSG, (606) 231-1923.

GIS World, 3:3, June/July 1990.

NATIONAL ATLAS OF CANADA

Since 1906, the Canadian federal government has provided authoritative geographic information about the country through five editions of the National Atlas of Canada. Now, the conventional atlas program is evolving into a more responsive National Atlas Information Service (NAIS). Having been converted from a bound atlas format to a loose-leaf series, the sixty maps published in the 5th Edition were updated as required and then reprinted. A common scale of 1:7.5M, along with consistent base components

and designs, makes comparison of individual map themes possible.

In addition to the Atlas, the Service publishes maps in the International Map of the World (IMW) 1:1M scale series (seventyfour sheets), at 1:2M (being updated currently in seven provincial or regional sheets), and at scales as small as 1:30M. NAIS manages the National Toponymic Data Base, containing some 485,000 Canadian place and feature names. For other federal departments without cartographic or geographic resources, NAIS also provides consultation, mapping and contract mapping services.

NAIS has digitized some of the maps in the 1:7M series and is currently digitizing the 1:2M series. The data is clean and topologically consistent, but does not yet carry any attribute information. Elements are separated into individual files and registered together.

Both cartographic and toponymic digital data are available. Prices, which are currently under review, will be quoted at the time of ordering. Inquiries and requests should be directed to: National Atlas Information Service, Canada Centre for Mapping, EMR, 615 Booth Street, Room 650, Ottawa, Ont, K1A 0E9, (613) 992-7680. Federal Geomatics Bulletin, 2:1,

EXPERIMENTAL USGS IMAGE MAPS PUBLISHED

Winter 1990.

The U.S. Geological Survey has published satellite image maps of Monterey, San Francisco and San Jose at 1:250,000 from 1985 Landsat data. The two-sided maps have a silver ink overprint of feature names on the image map. A topographic map appears on the reverse side. Price \$6 each.

NEW LANDSAT PRODUCTS

The Earth Observation Satellite Co. (EOSAT) has introduced two new Landsat products — a 1:50,000 scale Thematic Mapper color print and the Landsat Scene Finder software package.

The 1:50,000 scale color print covers one-sixteenth of a Landsat Thematic Mapper (TM) scene, or one-quarter of a TM quadrant. The area included in the 1:50,000 scale print is about 2,000 square kilometers. The product is available as a single quarter-quad print for \$2,400 or as a four-print quad set for \$4,700.

The 1:50,000 scale print complements the EOSAT Film Product (EFP) line, which includes full and quadrant scene prints available in several scales ranging from 1:100,000 to 1:1,000,000. A full TM scene covers approximately 31,500 square kilometers (185 x 170 km) at a cost of only thirteen cents per square kilometer. All color TM prints are available in the customer's choice of three-band combinations.

The Landsat Scene Finder (LSF) software package enables EOSAT customers to check on the availability of Landsat Thematic Mapper data using their IBM or compatible personal computers. The LSF includes database information and microfiche displays for all TM scenes acquired by Landsat since January 1, 1989. The package is offered on a subscription basis for \$950 per year, with bi-weekly updates. EOSAT customers already subscribing to the TM microfiche service pay only \$700 for LSF.

An EOSAT customer initiates an LSF search on a personal computer by entering coordinates of an area of interest. LSF graphically identifies the scene or scenes containing the coordinates. The scenes are identified by path/row designation according to the Landsat Worldwide Reference System. The LSF database pro-

vides the acquisition date and cloud cover information for that scene as it appears in TM Band 3 (visible red).

The customer can then determine if cloud location and other scene characteristics fit his or her requirements and order the appropriate Landsat data product directly from EOSAT Customer Services.

LSF software and database are provided on 5.25", 360Kb floppy disks and can be used on any IBM compatible MS-DOS or PC-DOS operating system with at least 512K memory and 10 Mb hard disk. A microfiche reader is also necessary. Contact: Customer Services, (301) 552-0537 or (800) 344-9933.

EHRENBERG NAMED CHAIR OF US BOARD ON GEOGRAPHIC NAMES

Ralph E. Ehrenberg, Acting Chief, Geography and Map Division, Library of Congress, has been appointed Chair of the United States Board on Geographic Names for the 1989-91 term by Manuel Lujan, Jr., Secretary of the Interior.

The United States Board on Geographic Names is an interdepartmental agency that has legal responsibility for standardizing place names used on Federal maps and in other official government publications. Established in 1890, the Board is composed of representatives from nine Federal agencies who review all new names, name changes, or name conflicts submitted by public or private persons or organizations. Research and administrative support is provided to the US Geological Survey and US Defense Mapping Agency.

Ehrenberg has served as the Library's principal member to the Board since 1983. Ronald Grim, Head of the Reference and Bibliography Section at the Geography and Map Division, was appointed by the Library of Congress as a deputy member to the Board for the 1989-91 term.

AAG Newsletter, 25:6, June/July 1990.

NCGIA CORE CURRICULUM PROJECT

In July, the National Center for Geographic Information and Analysis will release the tested and revised version of the GIS Core Curriculum. The three volumes provide materials for a series of seventy-five one-hour lectures, grouped into three courses, with supporting handouts, overheads and slides. The lecture text is also supplied on diskette. The lectures were compiled with the assistance of over thirty-five experts from the world-wide GIS community, and tested in the 1989/90 academic year at over one hundred institutions. The materials are designed to be adapted into existing programs, or taught as entire courses, and are suitable for use in a variety of disciplines at the upper undergraduate or beginning graduate levels. For further information contact NCGIA, University of California, Santa Barbara, CA 93106, phone (805) 961-8224, FAX (805) 961-8016; email: ncgia@voodoo.bitnet or ncgia@topdog.ucsb.edu.

A NEW LOOK FOR NOAA CHART NO. 1

The 9th edition of NOAA Chart No. 1, which covers chart symbols, abbreviations, and terms, has been printed and released for distribution. This edition has been totally redesigned. The major change is the incorporation of symbols of the International Hydrographic Organization's Chart INT No. 1. This new and more logical arrangement shows the explanatory text in a center column, flanked by U.S. symbols on the left and the international equivalent on

the right. Also shown in a separate column are the symbols used on foreign charts reproduced by the Defense Mapping Agency.

Chart No. 1 may be obtained for \$2.50 from NOAA or authorized chart sales agents of the National Ocean Service (NOS). For inquiries, contact Dennis Carroll at (301) 443-8157. For orders, contact the Distribution Branch at (301) 436-6990.

DIGITIZING THE FUTURE

The second edition of "Digitizing the Future," dated October 1988, is now available. This free publication describes the background, format and content, and typical applications of most existing DMA data bases or products. They include Digital Terrain Elevation Data, Digital Feature Analysis Data, the Digital Aeronautical Flight Information File, and the Navigation Information Network. Prototype products and special subjects are also described, including Prototype Tactical Terrain Data, Military Services Digital Data Technical Points of Contact, and Video Discs of Maps and Charts. The DMA Stock Number is DDIPDIGITALPAC. It replaces stock numbers DMADPBROCHCOVER and DMADPBROCHINSRT. The publication is available from DMA Combat Support Center, ATTN: PMSR, Washington, DC 20315-0020. Hydrographic Products Quarterly Bulletin, June 1990, p. iii

FIRST MOSAIC OF NORTH AMERICA COMPLETED

The first digital mosaic of remotely-sensed images of the North American continent has been completed by ERIM, working in conjunction with the National Geographic Society and with the cooperation of the EROS Data Center, Canada Centre for Remote

Sensing, and NOAA.

AVHRR (Advanced Very High Resolution Radiometer) LAC (Local Area Coverage) data, collected between December 1985 and July 1989, have been geocoded, resampled to one kilometer, and mosaicked to produce a stereographic projection of the entire continent.

The AVHRR mosaic will be reproduced in National Geographic's new world atlas, which is scheduled for publication this fall.

ERIM can provide limited quantities of the full North America mosaic and individual data subsets of states or regions in either digital or photographic form.

For more information and a complete price list of available products, contact Larry Reed at ERIM; (313) 994-1200, ext. 3606 or FAX (313) 665-6559.

ERIM News Release, April 17, 1990

GETAMAP VERSION 3.0

GETAMAP Version 3.0 is now available for requisitioning.
GETAMAP is a software package produced by DMACSC and provided to users in an effort to reduce requisition processing time and eliminate delays encountered in mailing orders to DMACSC.
GETAMAP helps to correctly format the customers orders and will generate several order formats that are accepted by DMACSC.
These include AUTODIN message format, Standard For 344 format, and Electronic Mail (E-Mail).

To operate GETAMAP, users will need an IBM PC compatible microcomputer capable of operating in an MS-DOS or PC-DOS environment. Those interested in E-Mail will also need a Hayes compatible MODEM, communications software that supports ASCII terminal emulator and file transfers, and their Defense Data Network (DDN) host computer.

DOD E-Mail customers must provide DMACSC their DDN host name and DDN network address. Complete instructions are contained in the "How to Use E-Mail" portion of GETAMAP. A copy of GETAMAP may be obtained by sending requests to Director, DMA Combat Support Center, ATTN: PMSR, Washington, DC 20315-0020. The DMA Stock Number is GETAMAP.

Hydrographic Products Quarterly Bulletin, June 1990, p. v

WORLD VECTOR SHORELINE FILE

The World Vector Shoreline (WVS) is a digital data file containing the shorelines, international boundaries, and country names of the world. These geographic features are required for many of the digital data bases being used to support geographic information systems and weapon systems. A detailed description of the WVS can be found in the DMA publication, "Digitizing the Future," (DMA stock number DDIPDIGITALPAC). Users of this product may convert the WVS data to system specific formats. WVS is ASCII coded, written to unlabeled ANSI standard 9-track magnetic tapes, and available in 1600 CPI (DMA stock number WVXX9TRK1600) and 6250 CPI (DMA stock number WVXX9TRK6250). WVS is available to Executive Branch agencies, qualified contractors, and for sale to the public for \$625. Hydrographic Products Quarterly Bulletin, June 1990, p. V.

NEW MAP MAGAZINE

In October, 1990, Global Map Library will publish a new magazine entitled Current Maps & Charts File (CMCF).

This will be a quarterly which will review new maps and charts in books and magazines as well as geography-related products; record and index all new maps and charts published every quarter with annual cumulations; include reproductions of five to six outstanding thematic maps and charts; profile current cartographers as well as cartographic firms, institutions and map dealers.

The magazine will be a tool for map libraries, publishers, teachers, students and travellers. The publisher welcomes news and notes on new maps and charts, as well as publications for review, articles and newsletters.

Contact: George Kurian, Publisher, Box 519, Baldwin Pl., NY 10505; (914) 962-3287

WHAT USE IS A MAP?

'What use is a map' is an exhibition of seventy maps in the British Library from March 1989 to December 1990. The exhibit is grouped into seven categories according to purpose: the world of business, the riches of the earth, knowledge and news, having fun, attack and defense, going places, and running a country.

An illustrated booklet entitled What use is a map? is available at the British Library bookshop, £2.95. Contact: The British Library, Great Russell Street, London WC1B 3DG.

APPOINTMENT

James O. Minton, Assistant Professor and Map Librarian, The University of Tennessee, Knoxville Libraries, 37996-4000.

PUBLISHER SEEKS AUTHORS

Oxford University Press, publishers of the popular *Principles of Geographical Information Systems for Land Resources Assessment* by Peter Burrough, is looking for authors for its new Spatial Information Systems Series. The publisher's editorial board for the series

includes Burrough, Michael Goodchild, co-director of the U.S. National Center for Geographic Information and Analysis, Philip Beckett, editor of an Oxford series on soils and natural resources, and Paul Switzer of Stanford University. The publisher eventually hopes to add software, videos and computer exercises to the series. Contact: Oxford University Press, Walton Street, Oxford OX2 6DP, England.

NEW PRODUCTS FROM THE CCA

'Mapping the planets' by P.J. Stooke and C.P. Keller This is a new collection of forty slides of maps depicting the planets of the solar systems and their satellites, compiled by CCA members Philip Stooke and Peter Keller. The set comes with a twenty page descriptive booklet, complete with historical background to planetary mapping. A great educational aid for cartography, astronomy, and extra-terrestrial enthusiasts. Price: \$50 (including postage). Order from: Roger Wheate (CCA), Geography Department, University of Calgary, Calgary, Alberta T2N 1N4, fax: (403) 282-8606, telephone: (403) 220-4892, email: wheate@uncamult.

Bumper sticker

CARTOGRAPHERS 'RULE' THE WORLD



Bumper sticker in blue lettering, price \$3 each, 2 for \$5, 5 for \$10. Order from: Roger Wheate (CCA), Geography Department, University of Calgary, Calgary, Alberta T2N 1N4, fax: (403) 282-8606, telephone: (403) 220-4892, email: wheate@uncamult.

GIFT IDEAS

How about a topographic relief map of your state, made of chocolate?

The Denver based Topographic Chocolate Company's current product line includes twenty-four locations: maps of seven states, including California, New York and Texas; eleven cities, including Chicago and Seattle; national attractions and fifteen mountains.

Topo spokesman Donald Yakush says he started designing topographic maps for fun but the concept took off when requests starting pouring in for other geographic areas. Suggested retail price of the chocolates is \$9.95.

cartographic events

1990

October 1-4: International Map Collectors' Society 8th Annual International Symposium, Washington, DC, under the aegis of the Washington Map Society. Contact: Eric W. Wolf, 6300 Waterway Drive, Falls Church, VA 22044.

October 23-24: Earth Observations and Global Change Decision Making: A National Partnership, Fall Conference, Washington, DC. Contact: ERIM, Change Conference, Dr. Robert H. Rogers, P.O. Box 8618, Ann Arbor, MI 48107-0944.

October 23-26: Visualization '90, San Francisco, CA. Contact: IEEE Computer Society, 1730 Massachusetts Avenue, NW, Washington, DC 20036-1903.

October 24-27: 10th Annual Meeting of the North American Cartographic Information Society (NACIS X), Orlando, FL. Contact: (continued on p. 32)