

WISCONSIN MAPPING BULLETIN
Volume 7 No. 2 April 1981

A QUARTERLY NEWSLETTER FOCUSED ON
CARTOGRAPHIC ACTIVITIES IN WISCONSIN

Wisconsin State Cartographer's Office

Established 1973

144 Science Hall, UW Madison, WI 53706
(608) 262-3065

Art Ziegler
State Cartographer

Christine Reinhard
Editor

PROTOTYPE MAPPING, STURGEON BAY, DOOR COUNTY

Prototype 7½ minute quad mapping with bathymetric contours and additional nearshore contours was discussed in the July 1980 Bulletin (v. 6, no. 3, p. 1). A recent report on the cooperative effort of this office with the Mid-Continent Mapping Center, U.S. Geological Survey (Rolla, MO) indicates the four quads are on schedule. They are expected to be released for printing in September. Final lithographic copies should be available by the end of the year. These unique quads will be the first topographic quads with offshore features and increased nearshore contour intervals in the Great Lakes area.

UNIFIED AERIAL PHOTOGRAPHIC ACQUISITION PROGRAM

During the past two years the Bulletin has issued periodic updates on the status of the unified aerial photographic acquisition program. The bulk of the 1:20,000-scale, black-and-white infrared photography was taken in 1978 and 1979. Since then the Special Services Unit of the Department of Transportation has quality checked the contractors' material and made the 1" = 400' enlargements. The Special Services Unit reports that as of March 1, 1981 the program is complete. All rejections have been reflown by the contractors, received, and accepted. That means contact photographic paper prints at 1" = 1,667' (1:20,000 scale) and diazo prints at 1" = 400' are available for the ENTIRE STATE.

The demand for the photography has been good. In addition to the state agency users who were the original participants in the program, D.O.T. has processed 40,000 diazo prints at 1" = 400', 21,000 contact prints at 1:20,000 scale and 1,500 film enlargements at 1" = 400' (these films allow purchasers to reproduce their own diazo prints). After deducting the costs of handling orders, D.O.T. returned \$40,000 to the state's General Program Revenue (GPR) fund in 1980. So far for 1981 a total of \$26,000 is available to be returned. The State Cartographer's Office considers this a highly successful program. In addition to supplying economical aerial coverage to local governments and the public, it is returning the original legislative investment to the GPR fund.

HIGH-ALTITUDE AERIAL PHOTOGRAPHY PROGRAM

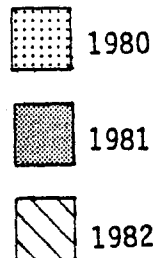
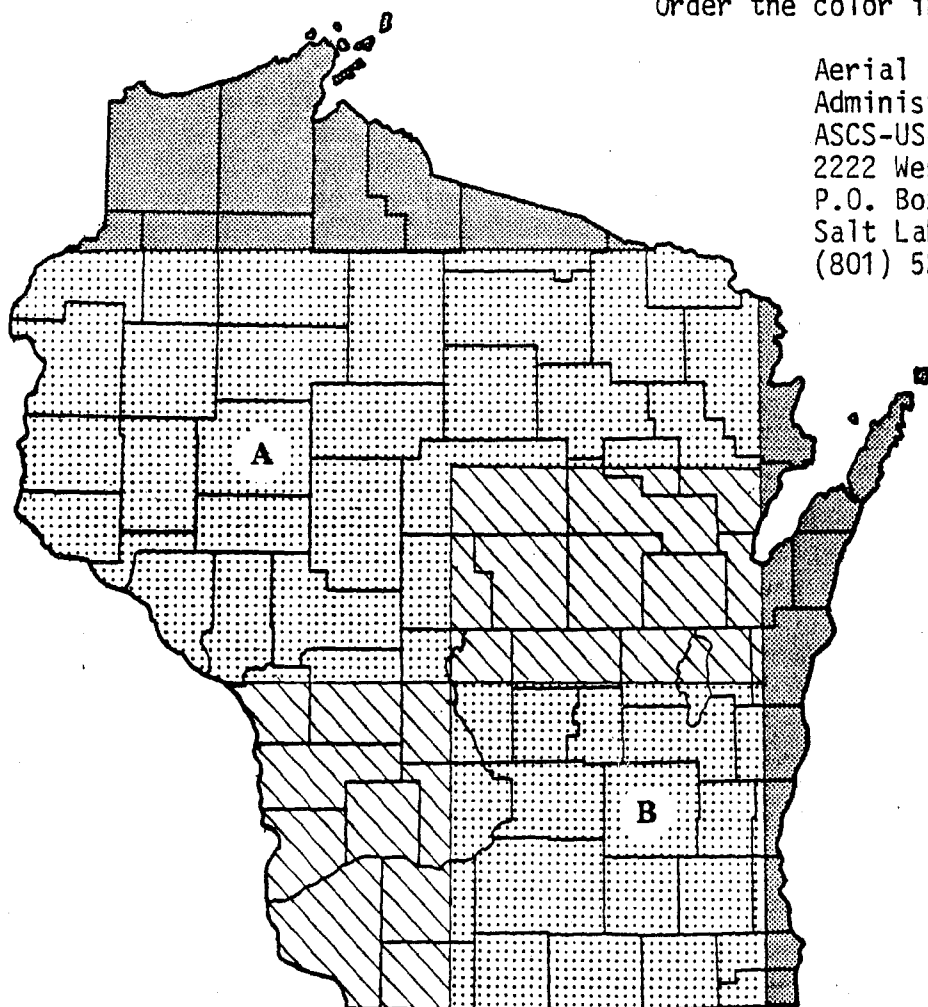
(5 FEDERAL AGENCY PROGRAM)

The five federal agency program for acquiring black-and-white, panchromatic photography at 1:80,000 scale and color infrared photography at 1:56,000 scale is underway (October, v. 6, no. 4, p. 6). The accompanying state graphic indicates acquired and planned coverage for 1980, 1981 and 1982. While this is a 5-year program for the entire United States, Wisconsin is fortunate to have its coverage completed in the first 3 years. The area marked "A" is 95% complete through the acceptance phase and is available for purchase. The area marked "B" is 55% complete and available for purchase. The remaining areas of "A" and "B" are first priority for the 1981 flying season.

To purchase the photography you must use the U.S. Geological Survey 7½ minute topographic quad name for the area. If no 7½ minute quad exists, use the quadrant identification NE, NW, SW, or SE and the 15 minute quad name.

Order the color infrared at 1:56,000 from:

Aerial Photographic Field Office
Administrative Services Division
ASCS-USDA
2222 West 2300 South Street
P.O. Box 30010
Salt Lake City, UT 84125
(801) 524-5856



Order the 1:80,000-
scale, black-and-white
from:

EROS Data Center
U.S. Geological Survey
Sioux Falls, SD 57198
ATTN: User Service Unit
(605) 594-6151

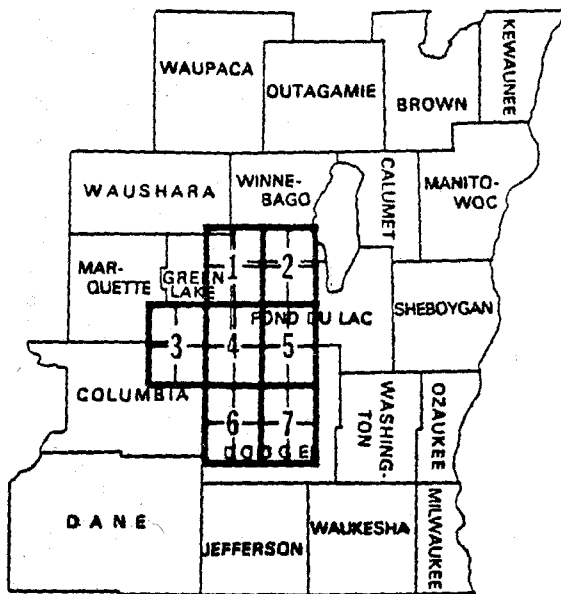
NEW PRODUCTION FROM U.S. GEOLOGICAL SURVEY

These newly published 7½' topographic quadrangle maps (1:24,000) are listed by their location on the superseded 15' topographic map of the area. They are available from the Wisconsin Geological Survey, 1815 University Ave., Madison, WI 53706 (608) 263-7389. Topographic quadrangles are \$1.50 each.

1 RIPON 15' TOPO
 NE¼ Rush Lake '80
 NW¼ Berlin '80
 SW¼ Green Lake '80
 SE¼ Ripon '80

2 ROSENDALE 15' TOPO
 NE¼ Van Dyne '80
 NW¼ Pickett '80
 SW¼ Rosendale '80
 SE¼ Eldorado '80

3 RANDOLPH 15' TOPO
 NE¼ none
 NW¼ Marquette '80
 SW¼ Sand Spring Creek '80
 SE¼ Randolph '80



NOTE: Order 7½' quads by name,
 NOT by the index number
 used here for location.

4 FOX LAKE 15' TOPO
 NE¼ Brandon '80
 NW¼ Markesan '80
 SW¼ none
 SE¼ Buckhorn Corner '80

5 WAUPON 15' TOPO
 NE¼ Oakfield '80
 NW¼ Waupon North '80
 SW¼ none
 SE¼ none

6 BEAVER DAM 15' TOPO
 NE¼ Beaver Dam '80
 NW¼ Lost Lake '80
 SW¼ Astico '80
 SE¼ none

7 HORICON 15' TOPO
 NE¼ Mayville South '80
 NW¼ none
 SW¼ Clyman '80
 SE¼ Hustisford '80

IOWA AND MINNESOTA

New state topographic index maps are available for the adjacent states of Iowa and Minnesota. Both are dated May 1980. They are available free from the Eastern Distribution Branch, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

NEW MAPS



1:250,000-SCALE MAPS

The following maps have been revised. They are available from the Wisconsin Geological Survey, Map Sales, 1815 University Ave., Madison, WI 53706; Price \$2.00.

IRON MOUNTAIN, MICHIGAN; scale 1:250,000 (1" = about 4 miles); 1954-78; contour interval 25 and 50 feet; with woodland overprint.

RICE LAKE, WISCONSIN; scale 1:250,000 (1" = about 4 miles); 1953-80; contour interval 25 and 50 feet; with woodland overprint.

ROCKFORD, ILLINOIS: scale 1:250,000 (1" = about 4 miles); 1953-80; contour interval 50 feet; with woodland overprint.

STATUS OF U.S. TOPOGRAPHIC MAPPING

September 1980; free from the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202.

LAND USE AND LAND COVER

The U.S. Geological Survey is now publishing its land use and land cover maps in a new two-color series. L-series maps have land use and land cover information printed in black over planimetric base map information such as transportation features, streams and lakes, locational grids, and place names in another color. (Ashland, Stillwater only)

These maps have been available previously through the Survey's open-file (OF) procedure. Along with their associated maps (political units, census county subdivision, hydrologic units, and Federal land ownership), reproducible copies of the land use and land cover maps will continue to be available in black-line format, on a variety of materials, from the open file. (Green Bay and Rockford are open-file only.)

L-172. Land use and land cover, 1976, ASHLAND, Wisconsin, Michigan, Minnesota. Printed 1980. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 32 inches. \$1.25.

L-0192. Land use and land cover, 1971-75, MADISON, Wisconsin. Printed 1981. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 32 inches. \$1.25.

L-198. Land use and land cover, 1976, STILLWATER, Minnesota, Wisconsin. Printed 1980. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 31 inches. \$1.25.

(L-series maps are available from the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202.)

NEW MAPS, CONTINUED

OF 80-0497. Land use and land cover and associated maps for GREEN BAY, Wisconsin. This open-file data set consists of one map keyed to the USGS topographic map Green Bay at 1:250,000 (1 inch = about 4 miles). The map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Green Bay at 1:250,000.

OF 80-0636. Land use and land cover and associated maps for ROCKFORD, Illinois, Wisconsin. This open-file data set consists of one map keyed to the USGS topographic map Rockford at 1:250,000 (1 inch = about 4 miles). The map is coded for statistical data development. The map is (1) land use and land cover. Also included is one positive of the cultural base for Rockford at 1:250,000.

[Open-file (OF) maps are available from USGS, Mid-Continent Mapping Center (NCIC-M), 1400 Independence Road, Rolla, MO 65401, 314-341-0851.]

WATER RESOURCES INVESTIGATIONS

The following open-file (OF) reports are available from the Open-file Services Section, Distribution Branch, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225 (303-234-5888).

OF 80-696. Low-flow characteristics of streams in the ST. CROIX River basin, Wisconsin by B.K. Holmstrom, 66 p., 2 over-size sheets, microfiche \$4.50, paper copy \$10.75.

OF 80-749 Low-flow characteristics of streams in the UPPER WISCONSIN River PESHTIGO River basin, Wisconsin by B.H. Holmstrom, 86 p., 2 over-size sheets, scale 1:500,000 (1 inch = about 8 miles), microfiche \$4.50, paper copy \$11.50.

OF 80-691. Low-flow characteristics of streams in the UPPER WISCONSIN River basin, Wisconsin by W.A. Gebert, 60 p., page-size maps, microfiche \$4.50, paper copy \$8.75.

FREDONIA, OZAUKEE COUNTY

An official map of the Village of Fredonia was completed by the Southeastern Wisconsin Regional Planning Commission in August 1980. The planimetric map was prepared at a scale of 1" = 400'. Copies are available from SEWRPC; a price has not been established. The map also appears at a reduced scale of 1" = 800' in SEWRPC's Community Assistance Planning Report No. 38, A Land Use and Traffic Circulation Plan for the Village of Fredonia: 2000, Village of Fredonia, Ozaukee County, Wisconsin, which is available for \$2.50 to SEWRPC region residents and \$5.00 to those outside the region. Order from SEWRPC, 916 North East Ave., Waukesha, WI 53186 (414-547-6721).

ROAD CONSTRUCTION MAPS

During the spring and summer construction season, the State Department of Transportation will publish a weekly series of detour and construction maps pinpointing construction areas and marked detours throughout the state. Subscription price is \$18 from Document Sales, Dept. of Transportation, 3617 Pierstorff St., Madison, WI 53704, 608-266-8921.



PUBLICATIONS OF INTEREST



GROUND-WATER RESOURCES AND GEOLOGY OF WASHINGTON AND OZAUKEE COUNTIES, WISCONSIN

This 37-page report is a cooperative product of the Wisconsin Geological Survey's Water Resources Program and the U.S. Geological Survey, Water Resources Division. It's written by H.Y. Young and W.G. Batten. There are 18 page-size and smaller maps and 2 maps as separate plates. These maps are both about 1" = 2 miles, Plate 1: Geohydrologic sections through Washington and Ozaukee Counties, Plate 2: Water-table map of Washington and Ozaukee Counties. Available from Map Sales, Wisconsin Geological Survey, 1815 University Ave., Madison, WI 53706. Information Circular 38 is \$3.00.

MIDWEST MAP CATALOGUE INDEX

Following the successful completion of the Newberry's eleven-volume Midwest Map Catalogue, Newberry Map Curator Robert W. Karrow, Jr. will direct work on a subject, author, and title index to the catalogue. The Index will provide access to the descriptions of 26,000 maps and atlases of the Midwest (Great Lakes and Northern Plains States) printed before 1901, and will enable users to locate cartographic materials by some 7,200 cartographers, engravers, and publishers on any of 200 subjects. Work on the Index is funded by the National Endowment for the Humanities. (The Newberry Library, Chicago, IL)

U.S. GEOLOGICAL SURVEY BOOKS

Map data catalog. 1980 (1981). 48 p. \$6. Issued by the U.S. Geological Survey, this spiral-bound catalog tells how to order a wide variety of mapping byproducts from the cartographic holdings of Federal, State, and private agencies. For each product, the Catalog describes and illustrates the product offered, explains the scope of geographic coverage available, lists typical uses of the product, and provides ordering instruction. A poster, measuring 17 x 22.5 inches and entitled MiniCatalog of Map Data, is folded and included in a back pocket of this book.

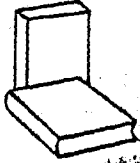
United States Geological Survey yearbook, fiscal year 1980. 137 p. \$6. This report presents a review of issues and events that affected Survey programs; highlights of those program; several short papers on major resource issues and advances in earth science; the Survey's fiscal year 1980 budget, programs, and accomplishments; and statistical tables.

Minerals, lands, and geology for the common defence and general welfare, Volume 2, 1879-1904, by M.C. Rabbitt. 1980. \$9.50. A history of geology in relation to the development of public-land, Federal-science, and mapping policies and the development of mineral resources in the United States during the first 25 years of the U.S. Geological Survey. This volume is the second of four. The book is well illustrated with many maps, drawings, and photographs that show the changing art of scientific illustration. (Copies of Volume 1 are also available at \$6 per copy.)

(Order from the Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.)

MAP READING

Map Reading is an Army Field Manual providing detailed information on the use of maps, aerial photographs, photomosaics, photomaps, and pictomaps. Originally printed in 1969, reprinted in 1980. 152 pages with illustrations, \$5.50. Order #008-020-00156-2 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.



PUBLICATIONS, CONTINUED

NATIONAL GAZETTEER

The first National Gazetteer of the United States, containing over 1.5 million place and feature names, is being prepared by the U.S. Geological Survey, in cooperation with the U.S. Board on Geographic Names. The Gazetteer is expected to be completed by 1982 with individual state chapters finished earlier. New Jersey, Indiana, Colorado, and Kansas are targeted for completion in the next several months.

AUDIOVISUAL MATERIALS

Cadastral Survey Training Media. This surveying media was developed by the Bureau of Land Management. The series encompasses eight sound slide sets designed for use in a two-projector system, print materials from workbooks to topographic maps-plus Public Lands Surveying-A Casebook. Individual topics in the slide series include "Corner Point Identification," "Obstacle Problems in Public Land Surveying," "Conventional Surveying Around Obstacles," "Cadastral Plat Preparation," "Restoration of Lost Corners By Proportionate Measurement," "Cadastral Survey Monumentation," and "Water Boundaries." For further information please contact Anne MacKenzie-Haslam, National AudioVisual Center, General Services Administration, Washington, D.C. 20409, (301) 763-1850.

Storage and Care of Maps. This slide/tape program was prepared by the School of Information and Library Studies, State University of New York at Buffalo. Persons interested in renting the program should contact the AudioVisual Center, University of Iowa, C-215 East Hall, Iowa City, Iowa 52242, (319) 353-3724. Persons interested in purchasing this program should write to the National Audiovisual Center, Washington, D.C. 20409.

GOVERNMENT PRINTING OFFICE BOOKSTORE

It is possible to buy GPO books over-the-counter at the GPO Bookstore, Room 190, Federal Building, 517 E. Wisconsin Avenue, Milwaukee, WI 53202, (414) 291-1304. They do not handle mail orders. However they will special order any books they do not have in stock. Both Visa and Mastercard are accepted.

NEWS FROM CENSUS



REVISED GEOGRAPHIC FILE RELEASED

The Census Bureau has prepared a new Special Program Tape. This file contains additions and corrections made to the file first released in 1978. It contains computer programs and data files for use in computer mapping; address matching; calculating areas and centroids; and manipulating GBF/DIME, DIMECO, and Urban Atlas files, as listed below:

The EASYMAP line printer mapping system has been expanded to allow the generation of up to 4000 geographic areas. It is a choropleth or shaded-area mapping system which prints different symbols to achieve up to 10 degrees of shading within area boundaries. The degrees of shading represent those statistical class intervals or ranges into which each mapped area falls. EASYMAP, programmed in ANS FORTRAN, is designed to be operated on small- to medium-size computers by nontechnical users. Maps are generated using a standard line printer. No special graphics hardware or other software is necessary.

continued

NEWS FROM CENSUS, CONTINUED

EASYCORD is an easy-to-use system for producing coordinate files for use with computer-mapping software, such as EASYMAP, CHORO, or GRIDS. It also computes the size of areas, area centroids, and area adjacency information which can be input to statistical analysis programs such as SPSS, SAS, and BMD. EASYCORD produces three types of output files: (1) a boundary coordinate file, (2) an area and centroid file, and (3) an adjacency file.

EASYCORD also produces boundary coordinate files and topological edits of any areas contained in GBF/DIME, DIMECO, or Urban Atlas files.

EASYCORD, written in ANS FORTRAN, is compatible with most computers with an ANS FORTRAN compiler and 120K bytes of available memory. The system is designed to be executed in either batch or interactive mode.

USABOUND is an EASYMAP-compatible file of boundary coordinates for the mainland 48 States and D.C. The coordinate representation is latitude/longitude.

MONOPGBF is a small topologically perfect GBF/DIME-File depicting a fictitious area called "Monopoly Heights." This file may be used to test GBF/DIME software.

SMSA5040 is the Urban Atlas file for Midland, Texas. This file may be used to test EASYMAP or other mapping software.

In addition to these features, the Special Programs Tape also includes such programs as ADMATCH, CARPOL, UNIMATCH, and GRIDS.

The Special Programs Tape is available for \$110, plus \$30 for documentation. Orders should be sent to Data User Services Division, Customer Services (Tapes).

For additional information about the tape, contact Data User Services Division, Systems and Programming, Bureau of the Census, Washington, D.C. 20233, telephone 301-449-1634.

POPULATION AND HOUSING UNIT COUNTS

Report #51, Wisconsin presents counts of total population and total housing units for 1980 and 1970. The preliminary 1980 counts were compiled in the census district offices and will be superseded by official figures to be issued in the advance and final reports.

The report shows population and housing unit counts for the following areas or their equivalents: State, counties, county subdivisions, incorporated places, standard metropolitan statistical areas (SMSA's) as designated on January 1, 1980, and congressional districts of the 96th Congress.

Make a check or money order for 85¢ payable to Superintendent of Documents. Mail to Customer Services, Data User Services Div., Bureau of the Census, Washington, D.C. 20233.

Source: Data User News, Bureau of the Census

TOPO-AID

The Topo-aid is a dual scale used to find latitude and longitude on U.S.G.S. 7.5' and 15' topographic maps. It is accurate to 1 second on a 7.5' quad and to 5 seconds on a 15' quad. Order from Stonetree Inc., P.O. Box 335, Waxhaw, NC 28173. Price is \$14.95. For more information call 717-566-3992.

COMING EVENTS



MULTIPURPOSE CADASTRE

The Wisconsin Society of Land Surveyors is planning a cadastre seminar next October 23-24 at the Marriott Inn in Brookfield, WI. It will be limited to 150 participants. For more information contact Harold Charlier, 2935 Coventry Lane, Waukesha, WI 53186.

REMOTE SENSING WORKSHOPS

University of Wisconsin

The Environmental Remote Sensing Center (ERSC) at the University of Wisconsin-Madison received funding from NASA to promote user awareness of remote sensing technology toward resource management activities in Wisconsin. ESRC offered both remote sensing workshops and training sessions in April to full capacity crowds. The sessions scheduled for May are also completely filled. Anyone interested in future activities should contact Bob Merideth, Environmental Remote Sensing Center, 1253 Meteorology and Space Science Bldg., Madison, WI 53706, or call (608) 263-4578.

University of Michigan

The School of Natural Resources, Remote Sensing Laboratory of the University of Michigan is offering its fourth Annual Vegetation Remote Sensing Workshop, June 14-19, 1981. For more information write to the Remote Sensing Laboratory, 1032 Dana Building, The University of Michigan, Ann Arbor, MI 48109.

Purdue University

The 1981 Conference on Remote Sensing Education will be held at Purdue University, West Lafayette, Indiana on May 18-22, 1981. This national conference is sponsored by NASA and NOAA. For more information contact the Continuing Education Office, Room 110, Stewart Center, Purdue University, West Lafayette, IN 47907.

PECORA VII

The 7th Annual Pecora Symposium has been scheduled for October 18-21, 1981, in Sioux Falls, South Dakota. The meeting is to be sponsored by the Association of American Geographers, the National Council for Geographic Education, the American Society of Photogrammetry, and the U.S. Geological Survey. The theme of the symposium will center around national and international resource inventories utilizing remote sensing technology. For additional information contact the User Service Unit, EROS Data Center, U.S. Geological Survey, Sioux Falls, SD 57198, or call (605) 594-6151.

ADJUSTMENT COMPUTATIONS

Practical Least Squares for Surveyors is an up-to-date course in survey adjustment computations. It is sponsored by the University of Wisconsin-Extension Dept. of Engineering. It will be held in Madison on June 24-26, 1981. Contact Robert Madding, UW-Ext. Engineering, 432 North Lake Street, Madison, WI 53706, or call (608) 263-7920.



WAUKESHA COUNTY SURVEYOR

The Waukesha County Board recently approved spending \$50,000 in 1981 to start work on a remonumentation project. The Board also decided to re-establish the office of county surveyor which was abolished 10 years ago. It is expected that the surveyor will be appointed by the County Board based on recommendations of a special selection committee. Waukesha County has been the fastest growing county in Wisconsin. Source: *Wisconsin Society of Land Surveyors Newsletter*.

DEVELOPMENT MAPPING HANDBOOK

As reported in the January *Bulletin* (v. 7, no. 1, p. 1), the office has completed the handbook Production of Prototype County Maps at 1:100,000 Scale. The handbook has been received from the printer and copies with sample maps and a questionnaire are in the mail to all county and regional planning offices. Later this year we will announce the availability of this handbook to other cartographic users/producers in the state. Distribution of the handbook will be very restricted because of the small quantity printed. In the meantime, if you are interested in this type of production, contact your county planning/zoning office or your regional planning commission.

READER SURVEY RETURNS

The editor wants to sincerely thank all the *Bulletin* readers who took the time to answer the January questionnaire. Out of the 1190 sent, 398 were returned. This 33% response rate is terrific since people were asked to add their own postage.



We are in the process of tabulating the returns. The July *Bulletin* will include a summary of the results. Almost all the comments have been complimentary; that has certainly pleased the staff. If you still have the January mailer with the questionnaire printed on the inside, please send it in. We would like to get as much feedback as possible.

Please help us keep our readership informed of current events and items of interest. This issue's mailer has what will be a standard form for your convenience in reporting changes of address, news items, etc.



THE WISCONSIN MAPPING BULLETIN IS DISTRIBUTED FREE OF CHARGE ON REQUEST. NEWS ON COMPLETED OR ONGOING PROJECTS, PUBLISHED MAPS OR REPORTS, AND CONFERENCES/WORKSHOPS IS WELCOMED BY THE EDITOR. LOCAL AND REGIONAL INFORMATION IS ESPECIALLY REQUESTED. PLEASE SEND ALL COMMENTS, CORRECTIONS AND NEWS ITEMS TO CHRISTINE REINHARD, STATE CARTOGRAPHER'S OFFICE, 144 SCIENCE HALL, MADISON, WI 53706, (608) 262-3065.