

WISCONSIN MAPPING BULLETIN
Volume 6 No. 2 April 1980

INFORMATION ON CARTOGRAPHIC ACTIVITIES,
MAPPING PROGRAMS, GEODETIC CONTROL
AND AERIAL PHOTOGRAPHIC COVERAGE IN THE
STATE OF WISCONSIN; PUBLISHED QUARTERLY.

Wisconsin State Cartographer's Office

Established 1973

155 Science Hall UW Madison, WI 53706

Art Ziegler
State Cartographer

Christine Reinhard
Editor

MEMORIAL

Vernon H. Schultz, 49, Civil Engineer for the Wisconsin Department of Transportation, died on February 3, 1980, at his home in Verona, Wisconsin.

Mr. Schultz spent the last 11 years of his 28 years of state service as Chief of Special (Engineering) Services, specializing in photography, mapping and surveying activities for D.O.T. He was very active and recognized in state government for mapping and cartography affiliations and contributions.

A native of Kenosha, Wisconsin, he graduated from the University of Wisconsin-Madison in 1953 where he was a member of Chi Epsilon and Tau Beta Pi Professional fraternities. He served in the Navy Civil Engineering Corps from 1953 to 1956 at McAlester, Oklahoma and at the Great Lakes Naval Training Center.

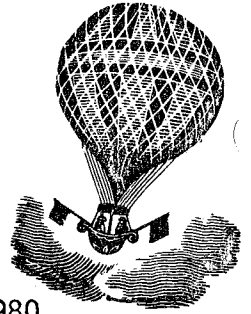
Mr. Schultz was a registered professional engineer with memberships in the Wisconsin and National Societies of Professional Engineers. He was a member of the American Congress on Surveying and Mapping and the American Society of Photogrammetry. He was a Director of the Wisconsin Chapter of A.S.P. in 1977 and 1978. As a member of the Committee on State Cartography, the Topographic Mapping Advisory Committee and the Wisconsin Geographic Names Council, his knowledge and practical experience were valuable resources which will be missed.

He is survived by his wife, Joan, and three sons, David, Douglas, and Robert.



DANE CO. AIR PHOTOS

The 1980 aerial color photography program for Dane County, sponsored by the Dane County Regional Planning Commission (RPC) will be performed by Aero-Metric Engineering, Inc., of Sheboygan, Wis. The photos will be used to assist in a countywide, land-use inventory and to provide a reference of ground conditions at the time of the 1980 census.



More than 2400 color pictures (two per square mile) will be taken of the county. Original negatives will be 9" x 9" square, with a scale of one inch on the photo equivalent to about 800 feet on the ground.

Reprints in color will start at \$2 for contact size. Enlargements can be ordered in color or black-and-white. Contact 9" x 9" transparencies will be available for overhead projection at meetings or for displays.

Copies of any area may be ordered for the cost of photo-reproduction only. All reproductions will be made available at special bulk sale prices.

Requests should be made by May 30th for the first bulk order. A second bulk order will be placed October 31st at which time it is expected that prices will be slightly higher. For further information contact Jon Corson-Rikert, Dane County Regional Planning Comm., 210 Monona Ave., Madison 53709, (608) 266-9108.

KENOSHA COUNTY TOPOGRAPHIC MAPPING AND CONTROL SURVEY PROGRAM

Kenosha County has recently begun a new large-scale topographic mapping program. This program is designed to prepare 1" = 200' scale, 4' - 2' contour interval, topographic maps based on the Southeastern Wis. Regional Planning Commission's recommended monumented control survey network relating the U.S. Public Land Survey system to the state plane coordinate system. The 1980 mapping program by Kenosha County will extend the Commission-recommended large-scale topographic mapping and control survey system and will result in the recovery, monumentation, and placement on the state plane coordinate system of an additional 262 U.S. Public Land Survey section and quarter section corners. The 1980 mapping program will be funded by Kenosha County, with supplemental funding from the National Oceanic and Atmospheric Administration as part of the federal Coastal Management Program. In addition, Kenosha County will seek state mapping aids under the new Wisconsin Floodland and Shoreland Mapping Grant Program (*see page 7*).

Kenosha County officials hope to complete preparation of large-scale topographic maps for the remaining unmapped areas of the County over the next five years. The large-scale topographic maps will be extremely helpful in many aspects of county and local planning and zoning, county and local public works engineering, as well as in the private land development process. They represent an important capital investment on the part of Kenosha County.

Source: SEWRPC NOTES

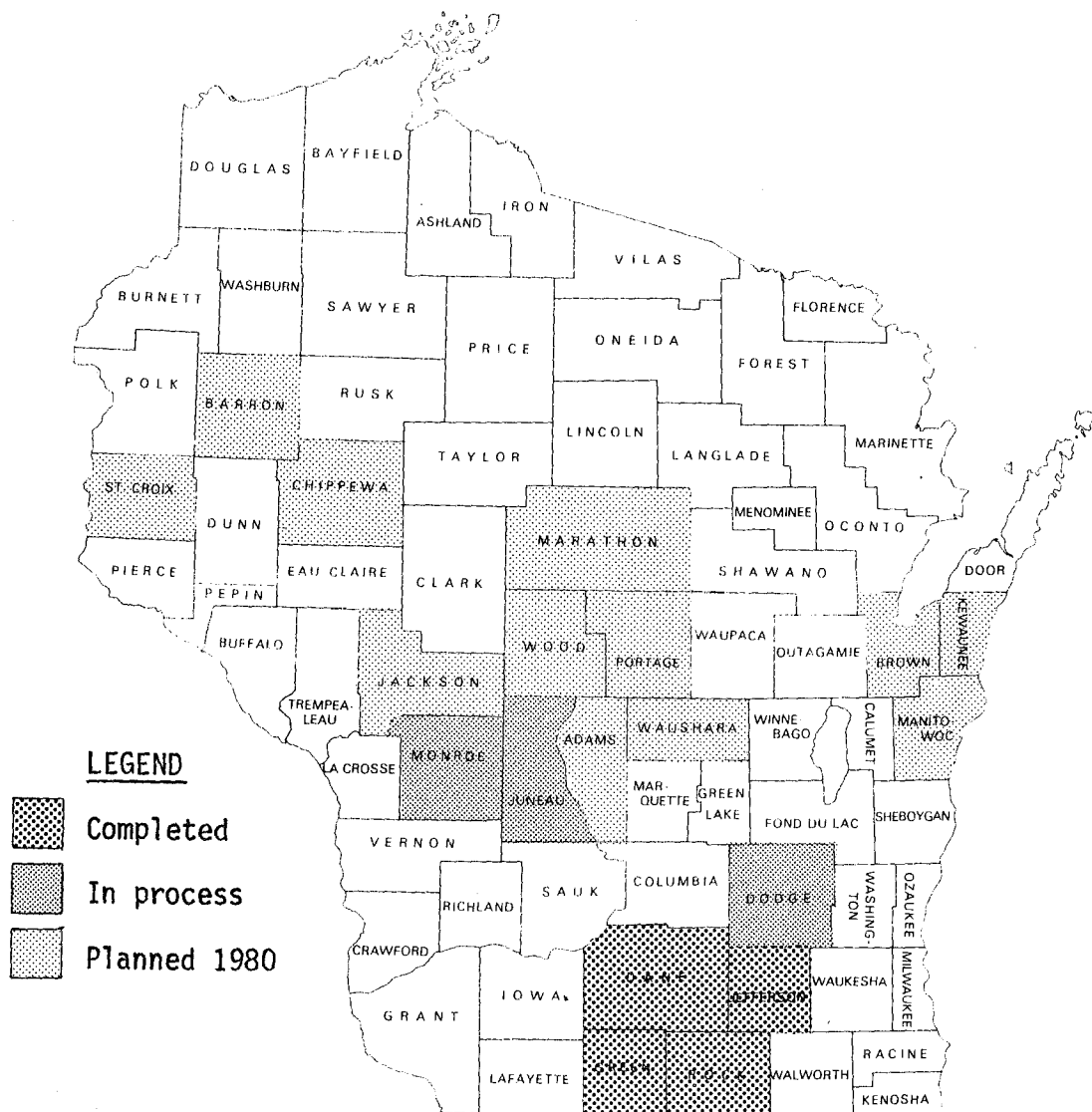


WETLANDS MAPS

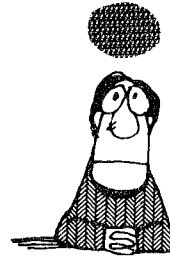
The Department of Natural Resources Wisconsin Wetlands Inventory has finished interim base maps for DANE, ROCK, JEFFERSON and GREEN counties. Dodge, Monroe, and Juneau counties are in the process of being completed. A set of maps for each county will be distributed to the county zoning administrator when the county is completed. Wetland maps for the completed counties are available by contacting Steve Fix, D.N.R., 101 S. Webster St., Madison, WI 53702, (608) 266-8852.

Completed townships are transferred onto township D.O.T. photo base maps. However, orthophotoquads will be used as base maps when they are available.

In 1980 the Wetlands Inventory will be interpreting and mapping the following counties in order: Brown, Kewaunee, Manitowoc, Barron, Chippewa, St. Croix, Waushara, Adams, Portage, Marathon, Wood, and Jackson.



OF INTEREST TO SURVEYORS



SURVEYING MUSEUM PLANNED

An ad hoc committee of the Wisconsin Society of Land Surveyors is planning its first meeting on April 19 to discuss the selection of a site to house antique surveying equipment and artifacts. William C. Rohde, committee chairman, has already laid the groundwork for the use of a portion of a museum building in Wisconsin Rapids. The building at one time served as the city library and is located at 540 Third Street South on the east bank of the Wisconsin River.

Among the committee members is Karl McConnell, Superior, who has perhaps the finest collection of surveying memorabilia in the state. It is anticipated that surveying literature, old documents, maps and other publications will be part of the exhibit.

ADJUSTMENT COMPUTATIONS (PRACTICAL LEAST SQUARES FOR SURVEYORS)

This book by Paul R. Wolf, Ph.D. University of Wisconsin-Madison, describes the practical approach to the subject of Least Squares adjustment. The book minimizes mathematical derivations and stresses the "How-To-Do-It" approach. There are approximately 300 pages giving extensive examples of level net, traverse, triangulation and trilateration adjustments, plus methods for performing the computations for coordinate transformations and curve fitting. Documented computer programs are also included for all basic survey adjustments and example problems showing their use are given. Order from P.B.L. Publishers, 4915 Monona Drive, Suite 208, Madison, WI 53716, \$14.95.

CENTRAL WISCONSIN GEODETIC PROGRAM

The National Geodetic Survey (N.G.S.) and Wisconsin Department of Transportation (D.O.T.) will jointly establish horizontal geodetic control in 1980 and 1981 in an eleven county area in central Wisconsin. After a one year delay, N.G.S. plans to begin operations in May of this year by establishing new first-order stations. At the same time D.O.T. will add second-order, class 1 stations through a cooperative agreement with N.G.S. and approved funding with participation by the Federal Highway Administration, D.O.T. and the counties in the project area. D.O.T. has been preparing for the N.G.S. arrival by performing necessary reconnaissance and installing second-order stations.

This program and future programs of this type will contribute to the densification and strengthening of the national network in Wisconsin. There will be a long term benefit from such a program for D.O.T., other state agencies, counties and the private sector. Jon Neidhold of Wisconsin Rapids and Robert Holdridge of Madison are responsible for the coordination of establishing the second-order control for D.O.T. Future Bulletins will report more details and the progress of the program.

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** CADOTT 15' TOPO
 NE¼ Boyd '79
 NW¼ Cadott '79
 SW¼ Lake Eau Claire West '79
 SE¼ Lake Eau Claire East '79

- 2** STANLEY 15' TOPO
 NE¼ Thorp '79
 NW¼ Stanley '79
 SW¼ Simes Creek '79
 SE¼ Mead Lake West '79

- 3** FAIRCHILD 15' TOPO
 NE¼ Rock Dam Lake '79
 NW¼ Horse Creek '79
 SW¼ Fairchild '79
 SE¼ Wildcat Mound '79

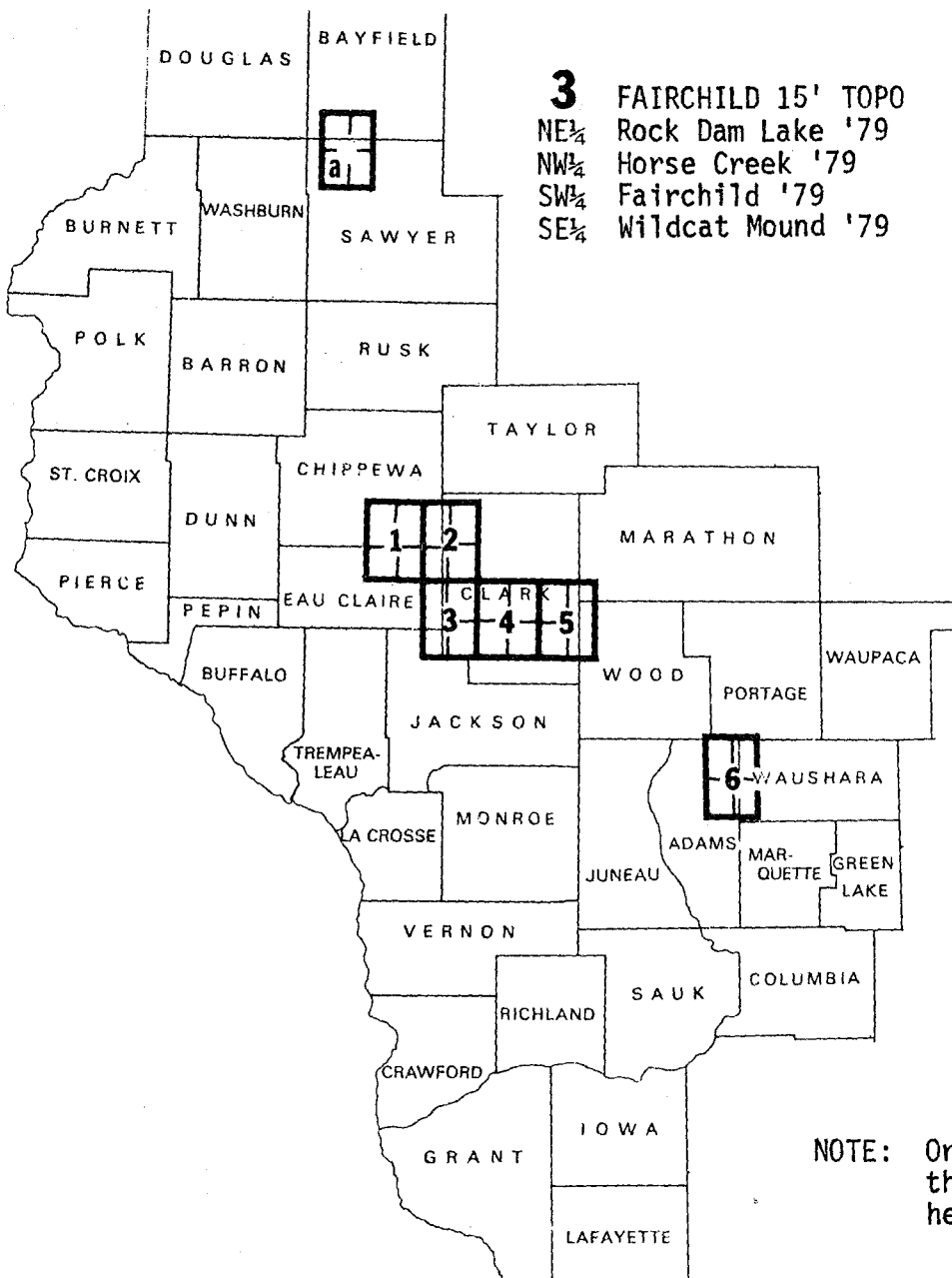
- 4** NEILLSVILLE 15' TOPO
 NE¼ Loyal West '79
 NW¼ Willard '79
 SW¼ Columbia '79
 SE¼ None

- 5** GRANTON 15' TOPO
 NE¼ Spencer South '79
 NW¼ Loyal East '79
 SW¼ Granton '79
 SE¼ Lidsey '79

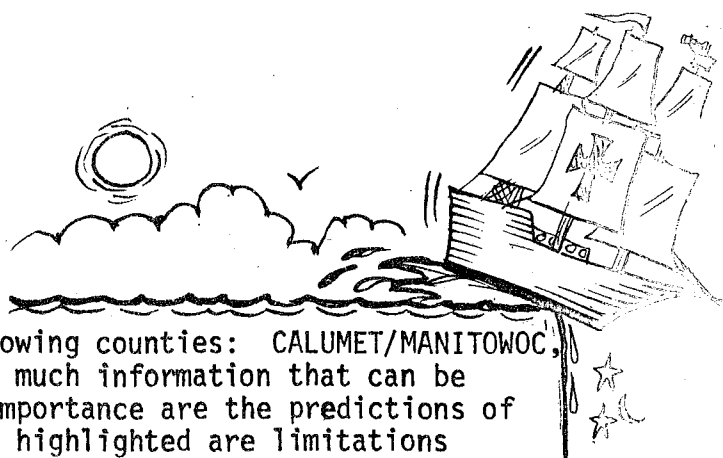
- 6** OXFORD 15' TOPO
 NE¼ Westfield West '79
 NW¼ Grand Marsh '79
 SW¼ Brooks '79
 SE¼ Oxford '79

PHOTOREVISED 7½' TOPO QUAD
a Hayward PR '76

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



NEW MAPS



SOIL SURVEYS

Soil surveys are now available for the following counties: CALUMET/MANITOWOC, DODGE and SAUK. These soil surveys contain much information that can be used in land planning programs. Of prime importance are the predictions of soil behavior for selected land uses. Also highlighted are limitations or hazards to land uses that are inherent in the soil, improvements needed to overcome these limitations, and the impact that selected land uses will have on the environment.

All three soil surveys were published in 1980 by the U.S.D.A., Soil Conservation Service in cooperation with the Research Division of the U.W. College of Agricultural and Life Sciences. Each contains a color general soil map and an index to the map sheets. An average of 129 soil map sheets are in each soil survey publication. Contact the appropriate County Soil Conservation Office or the State Soil Conservation Office to obtain individual copies.

SIMPLE BOUGUER GRAVITY ANOMALY MAP AND INTERPRETATION, IRON RIVER

An over-size sheet at 1:250,000 by J. S. Klasner and W. J. Jones with a 22-page text. U.S. Geological Survey Open-file report 79-1564. Microfiche \$4, paper copy \$6.25.*

MINERAL MAPS

Preliminary map of fluorine provinces in the conterminous United States, by R. E. Van Alstine and E. W. Tooker. 1 over-size sheet. U.S. Geological Survey Open-file report 79-576-G. Microfiche 50¢; paper copy \$4.75.*

Preliminary map of iron provinces in the conterminous United States, by Harry Klemic and E. W. Tooker. 1 over-size sheet. U.S. Geological Survey Open-file report 79-576-H. Microfiche 50¢; paper copy \$4.75.*

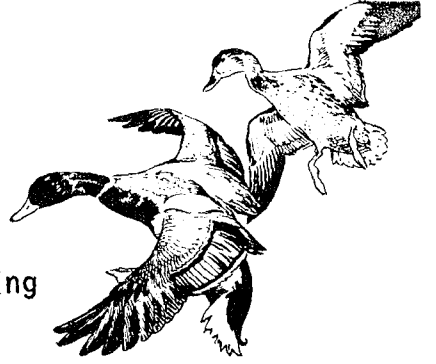
Vanadium provinces in the conterminous United States, by Harry Klemic and E. W. Tooker. 1 over-size sheet. U.S. Geological Survey Open-file report 79-576-I. Microfiche 50¢; paper copy \$3.50.*

**Copies may be obtained from the Open-File Services Section (OFSS), Branch of Distribution, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225 (telephone: 303-234-5888). When ordering, please use the open-file number and full title.*

ST. PAUL, MN/WIS

The 1:250,000 (1" = approx. 4 miles) St. Paul topographic map has been revised and is now available. It has a woodland overprint and a contour interval of 50 feet. Contact Map Sales, Wisconsin Geological Survey, 1815 University Ave., Madison, WI 53706, (608) 263-7389 to order. \$2.00.

MAPPING GRANTS ARE AVAILABLE



The Wisconsin Dept. of Natural Resources is now administering a new grant program to help communities defray the cost of preparing flood plain and shoreland topographic maps. The 1980-82 Wisconsin budget created this program to provide \$180,000 annually. Grants will be available to cover 50% of eligible costs.

The goal of the Wisconsin flood plain management program is to reduce the cost and risk of flood damage to private and public property. The purpose of the state's shoreland management is to protect the environment, human health and aquatic life.

Local governments are required by statute to adopt floodplain and shoreland ordinances. Most communities, however, lack the detailed topographic maps necessary to effectively enforce these laws. The D.N.R. will provide grants to counties, villages and cities to pay half the cost of ground control surveys, aerial photography, contour plotting, floodplain and floodway limits delineation and map printing.

Before receiving the final grant payment, counties must adopt approved floodplain and shoreland ordinances, and cities and villages must pass floodplain ordinances. The D.N.R. will establish a priority system for distributing funds. Several factors will be considered when ranking applications.

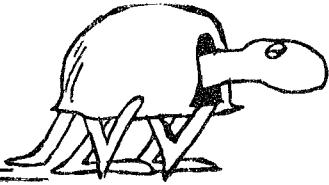
For further information about this grant program, contact Mark Riebau, Water Regulation and Zoning, (608) 266-2709 or Duane Hinderman, Water Grants, (608) 266-5894.

MORE NEW MAPS

1970 CENSUS TRACT STREET INDEXES AVAILABLE

In conjunction with its cooperative efforts with the U.S. Census Bureau in preparing for the 1980 federal census, the Southeastern Wis. Regional Planning Commission prepared a number of census tract street indexes for the census tract configuration used in the 1970 federal census. These indexes were prepared from an interim version of the Milwaukee area GBF/DIME file prior to its conversion for use in the 1980 census. The indexes allow a user to determine the 1970 census tract, the civil division, and the U.S. Postal Service five-digit zip code area in which a particular street address is located. The file represents the street network as it existed in 1975.

The indexes may be useful to banks, savings and loan associations, and other organizations or public agencies that utilize data acquired by street address or that need to locate street addresses by census tract or zip code area. The geographic area covered by the file includes all of MILWAUKEE County, the communities of Mequon and Thiensville in OZAUKEE County, and the communities of Brookfield, Elm Grove, New Berlin, and Waukesha in WAUKESHA County. A limited number of copies are still available and may be obtained at a cost of \$50.00 per index by contacting the Southeastern Wisconsin Regional Planning Commission, 916 North East Ave., Waukesha, WI 53186.



COMING EVENTS

WISCONSIN MAP SOCIETY ANNUAL MEETING

The 1980 W.M.S. Annual Meeting will be held on June 28th, Saturday, at Science Hall, 550 N. Park Street, on the UW-Madison campus.

9:30-10:00	Registration/coffee, Map Library, 384 Science Hall	1:45-2:15	George Washington at Yorktown; a cartogenalogical commentary, by John Rettig
10:00-10:30	Tour of Map Library		
10:30-11:30	Business meeting		
11:30-1:00	Lunch on your own	2:15-2:45	Break
1:00-1:45	Relief map restoration project and walking tour, Science Hall	2:45-3:15	Tour of Map Room, State Historical Society of Wisconsin
		3:30-4:30	Board meeting

For more information contact John Rettig c/o Virginia Schwartz, Milwaukee Public Library, 814 W. Wisconsin Ave., Milwaukee, WI 53233.

PRINCIPLES OF PHOTOGRAMMETRY

The University of Wisconsin-Extension will offer a one-week short course, PRINCIPLES OF PHOTOGRAMMETRY, on the Madison Campus; on July 7-11, 1980. The fee is \$475.

Professors Paul Wolf and James Scherz of UW-Madison will be the course instructors. The course provides intensive study of the basics of photogrammetry through lecture and laboratory sessions.

Inquiries should be directed to Bob Madding, University of Wisconsin-Extension, Department of Engineering and Applied Science, 432 North Lake Street, Madison, WI 53706, (608) 263-7920.

6TH NEBENZAHL LECTURES

The Sixth Kenneth Nebenzahl, Jr., Lectures in the History of Cartography will be held Oct. 30 - Nov. 1, 1980, at the Newberry Library. The theme of the lectures is "Art and Cartography."

Further information is available from David Woodward, Director, Hermon Dunlap Smith Center for the History of Cartography, The Newberry Library, 60 W. Walton St., Chicago, IL 60610

RESOURCE MANAGEMENT WORKSHOP. July 7-11, 1980

Southern Wisconsin natural resource management, including land use, agricultural conservation, Project Learning Tree. Contact: Dr. Dennis Yockers, MacKenzie Environmental Center, Poynette, WI 53955, (608) 635-4498.

LANDUSE SEMINARS. TREES FOR TOMORROW, EAGLE RIVER

Seminar 1. July 20-25, 1980. Introduction to natural resources of northern Wisconsin, including wilderness, forest and wildlife management, mining, lakeshore development.

Seminar 2. July 27-Aug. 1, 1980. Land use decisions, including soils, zoning, lakeshore planning and water quality. Also, mining, recreational use, multiple use of public land.

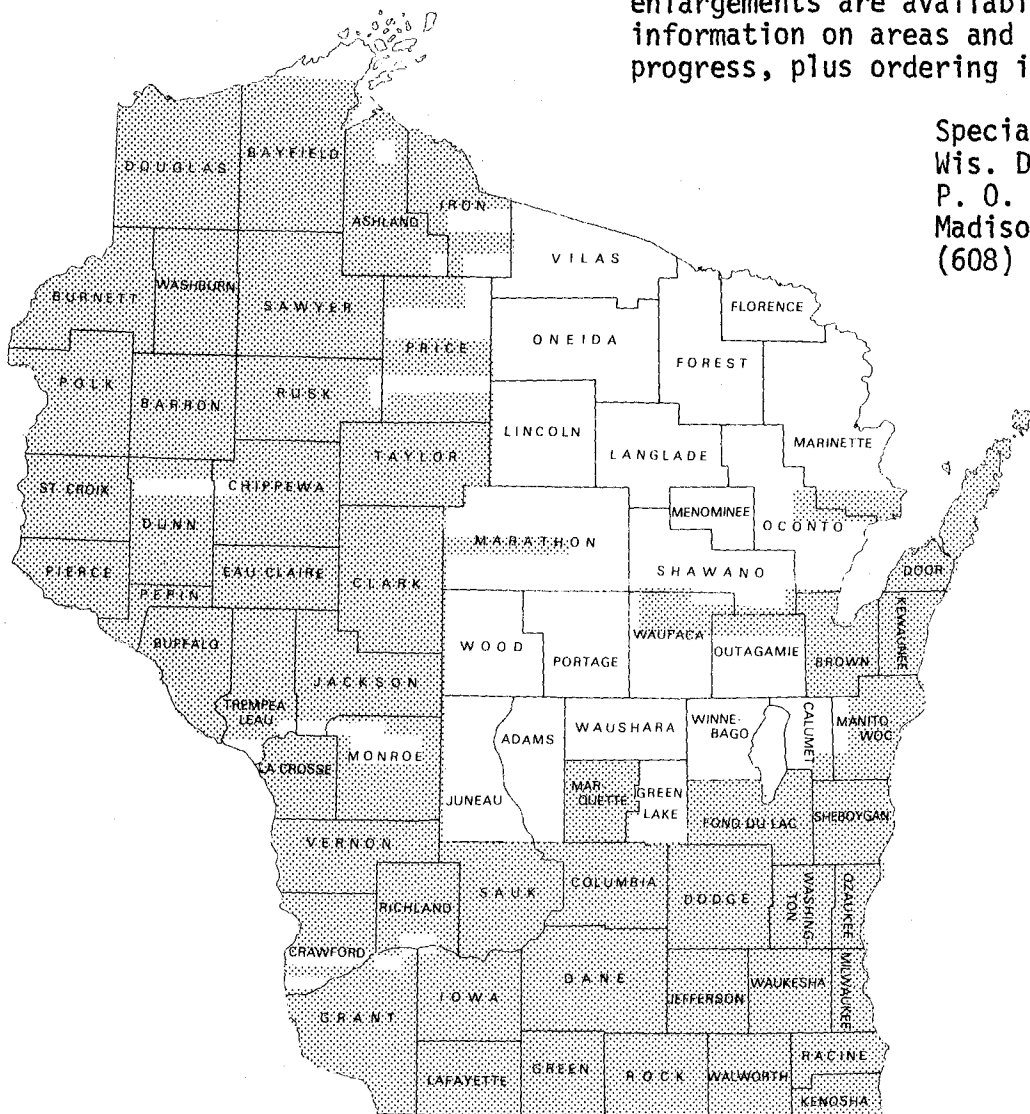
Seminar 3. Aug. 3-8, 1980. Relationship between natural resources and land use decisions. Application of resource information to commercial activities, zoning, land use. Contact: William Lawrence, UW-Extension, Room 403, 432 N. Lake St., Madison, WI 53706, (608) 263-2780.

AIR PHOTO ENLARGEMENTS

(Reference Vol. 5, No. 1, page 8)

The Special Services section of the Wisconsin Department of Transportation is continuing to make progress in processing the 1" = 400' enlargements of the state's unified aerial photographic acquisition. The film positive enlargements are necessary to produce the diazo paper prints listed in the following price list. Of the 14,300 enlargements required for monoscopic (non-overlapping) coverage of the state, the D.O.T. in April reported over 72% were completed (approximately 10,300 enlargements). The accompanying generalized status map depicts where photo enlargements are available. For specific information on areas and current work in progress, plus ordering information contact:

Special Services
Wis. Dept. of Transportation
P. O. Box 7916
Madison, WI 53707
(608) 266-0309



PRICE LIST--JAN. 1980

Contact Print 9" by 9"
(1" = 1,667' scale)
photographic paper...\$2.60

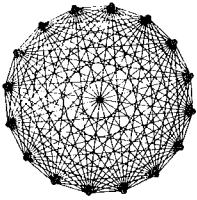
Enlargement-screened
film positive, 30" by 30"
(1" = 400' scale)...\$18.00

Diazo paper print,
30" by 30"; 4 land
sections,
(1" = 400' scale)...\$1.25

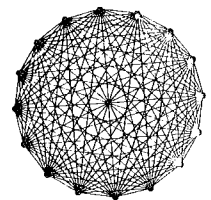
Add 4% sales tax plus a
\$1.50 handling charge and
\$1.00 mailing charge
per order.

U. S. D. A. PHOTO ACQUISITION

Reference Vol. 5, No. 1, page 7 of the January Wisconsin Mapping Bulletin. The U.S.D.A. report from the lab in Salt Lake City, dated April 7, 1980 indicates NO CHANGE in status from that reported in January.



EARTH DAY IS 10 YEARS OLD



For the second environmental decade we encourage your support of the following organizations:

The Nature Conservancy is a national conservation organization whose resources are entirely devoted to the preservation of land. For information contact either:

The Nature Conservancy
1800 N. Kent St.
Arlington, VA 22009

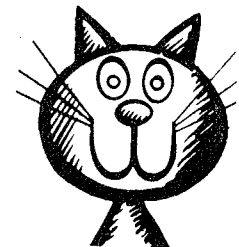
The Nature Conservancy, Wisconsin
Field Office
1922 University Ave.
Madison, WI 53705
(608) 233-9721

The Wisconsin Wetlands Association is a statewide organization devoted to protection of Wisconsin's wetland resources.

Wisconsin Wetlands Association
2 S. Fairchild St.
Madison, WI 53703
(608) 256-0565

Friends of the Earth is a national organization with sister organizations throughout the world. They are concerned with the whole range of environmental/conservation issues.

Friends of the Earth
124 Spear St.
San Francisco, CA 94105



MAILING LIST CLEAN UP

The response to the January Bulletin mailing list update request has been very good. Thank you to all who took the time to respond.

Again with this issue, approximately 1/4 of our readers will receive their copy by first-class mail rather than the usual bulk-mail rate. If this copy is the first you've received in a long time, it means we do not have an accurate address for you. Please take a moment and notify us of your new address or ask to have your name removed from our mailing list.

We're trying to save energy by trimming and updating our long list of names... our secretary's energy, that is!



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, 155 SCIENCE HALL, MADISON, WI 53706.