# WISCONSIN MAPPING BULLETIN



Vol. 16 No. 5 September 1990

REPORTING ON LAND INFORMATION AND MAPPING SCIENCES IN THE STATE OF WISCONSIN

# Recommendations and Requirements for County-wide Plans Set for Review at Hearings

The Wisconsin Land Information Board (WLIB) has selected five sites across the state for public hearings on its adopted draft "Recommendations and Requirements for County-wide Plans for Land Records Modernization". The draft document, which was completed and adopted at the WLIB's meeting on September 24, is to be mailed well in advance of the hearings to all designated county land information offices. Groups such as the wisconsin Land Information Association are expected to send copies to their members, also. The board is also encouraging written comments on the draft.

The following dates and locations for the hearings had been finalized as of our deadline (all meetings will begin at 1:00 pm):

- November 12 Chippewa Falls
   Chippewa Falls Public Middle School, Auditorium
- November 13 Appleton
   Outagamie County Courthouse, Board of Supervisors Room
- November 14 Milwaukee area (site not determined)
- November 29 Wausau area
   Marathon County Courthouse, Board of Supervisors Room
- November 30 Madison area (site not determined)

The draft document begins with background on the Wisconsin Land Information Program (statutes, legislative history, and definitions) and then lists a set of principles that the WLIB has adopted to guide its development of the Program. It then describes the format and content of county-wide plan. The content is subdivided into Foundational Elements, Data Standards, and Administrative Standards. Finally, a list

of Recommended Activities is provided, referenced back to the appropriate Foundational Elements.

At its meeting on September 24, the WLIB also set the policy that prior to its final adoption of recommendations and requirements for county-wide plans, counties could submit in writing to the WLIB a detailed and specific request to expend funds collected under the new state program for items covered by the Foundational Elements listed in the draft document. Under this policy, the board voted to allow Milwaukee County to allocate the local share of recording fee increases being collected by the county toward a cooperative project with the City of Milwaukee and three public utilities. The planning for this project was begun several years ago and had already produced a detailed document which provided the basis for the cooperative agreement. The WLIB did not approve this document as Milwaukee County's county-wide plan for land records modernization, which will still need to be submitted and approved.

The WLIB has scheduled meetings for October 29 and December 10, both in Madison. Upcoming topics include the development of policy on the allocation of board funds for grants-in-aid.

For more information on the WLIB, contact Bill Holland at 608/267-2707.



## **ACTIVITIES ACROSS THE STATE**

# Three-County Cooperative Project Uses GPS to Densify Control

Chippewa, Dunn, and Eau Claire Counties have used Global Positioning System (GPS) technology to densify their horizontal geodetic control networks. Their cooperative pilot project is being coordinated by the River Country Resource Conservation and Development Council, headquartered in Eau Claire. River Country RC&D is providing contracting services including selection of and coordination with a vendor to make the GPS observations.

A total of 68 control stations are part of the network, which is tied to 6 stations of the Wisconsin High Precision Geodetic Network. Spacing between control points varies in this pilot project. Accuracies better than 1 part in 100,000 are expected.

The rationale for investing in accuracies of this level is the need to combine spatially registered information in computer mapping and geographic information systems which are being planned by all three counties. Resolution of discrepancies in existing horizontal control is also expected to benefit many activities requiring land surveys.

By joining forces on the project, the counties were able to reduce the cost per control point to \$500. Based on the success of the pilot project, a proposal has been prepared to extend the network across a 12-county area with a spacing of about 3 miles between selected corners of the Public Land Survey System.

River Country RC&D is an independent non-profit corporation operated by local people in a nine county region of west-central Wisconsin for the purpose of accelerating rural development. The RC&D potentially could coordinate similar GPS surveys outside of its home region. Ed Weber, the RC&D Coordinator, can be reached at 715/834-9672.

# Software Chosen for Wausau/Marathon County GIS Pilot Project

ARC/INFO software has been selected for a GIS pilot project in Marathon County. The City of Wausau and Marathon County are the cooperators, through their jointly funded City-County Data Center Commission. The initial installation will include 2 of IBM's new RS/6000 graphics workstations, which can link with data residing on an IBM AS/400 minicomputer.

The pilot project, covering 11 square miles, will be based partly on information to be stereo-digitized from aerial photography obtained this last spring, and on maps maintained by the city. The pilot project is planned to run for six months or more. For more information, contact Duane Zeichert at 715/842-3359.

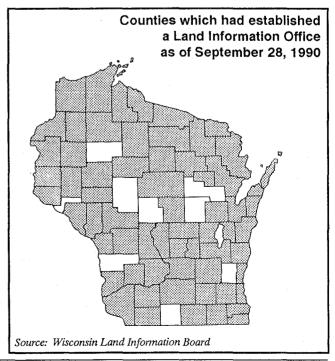
## **GPS Observations Completed For WHPGN**

The Wisconsin Department of Transportation (WisDOT) reports that the Wisconsin High Precision Geodetic Network (WHPGN) installation is progressing, with horizontal coordinates expected to be delivered by about the end of the year. Western Geophysical (previous name was Aero Service), under contract to WisDOT, completed observations using Global Positioning System (GPS) devices late in August, and is presently reducing the raw data in preparation for adjustment.

Vertical control information will also become available for the network of 98 stations, although this may come later than the horizontal information. These elevations will be derived by combining GPS heights with the results of traditional spirit levelling which was done by WisDOT for 27 of the stations this summer. The levelling lines were controlled by tying to existing vertical control stations of 2nd Order or better. The geoid height information from these 27 sites across the state will then be used to develop a mathematical model of the geoidal surface for Wisconsin. With such a model, it may then be possible to indirectly determine elevation at any site to sub-foot accuracy by use of GPS.

#### More Counties Land Information Offices

Since our last issue, eleven more counties have formally established land information offices. This brings the total number of counties participating in the new Wisconsin Land Information Program up to 63.



# 15 YEARS OF CARTOGRAPHY IN WISCONSIN, PART V

Editor's Note: As announced previously, the current State Cartographer, Art Ziegler, will be retiring at the end of this year. The article below is the fifth and last commentary by Art, offering his retrospective and prospective views of mapping in Wisconsin.

# WHAT CAN YOU DO TO SUPPORT CARTOGRAPHY IN WISCONSIN?

In the last article I went on for some length on the short term needs. In this final article I will attempt to be brief, and paraphrase part of my presentation to the Real Property Listers Association in Waupaca.

You can have a great impact. How?

- "keep the pressure on" --on who? you County Board, City officials, elected representatives in Madison, the WLIA, the WLIB, and the education elements, university, voc tech, and let the commercial vendors know what you need and want. In other words, "keep the ball rolling--do not let inertia set in".
- despite all the advances of automation, satellites, scanners, digitization, etc. there is still a lot of hard work that needs to be done "by people" -- there is no miracle computer chip that will transfer a written

- deed into a plotted parcel-- and there is no new NAVSTAR satellite that will look up PLSS records and find the section corner for you. And I don't think that day will ever come. Do not overlook the basic human interface.
- 3. And finally, your support of organizations and your own self improvement (education). ONLY you can do this. A tremendous start has been made. The WLIA is the envy of most other states. "JOIN IT" -- make President John Laub's goal of 500 members by Green Bay '91 come true. This is a unique organization which brings together the widest range of professionals, from Abstractors to Zoning administrators.

Express your opinion to the WLIB. They (I'm included for a little while) are an appointed state government entity and must listen to the comments of the citizens. Plan to attend the upcoming WLIB statewide meetings on the Proposed Guidelines for County Plans.

And finally only you can take care of your self improvement in your skill area. There are many educational opportunities including the ETN and an Extension TV satellite down-link coming this winter to your county.

But most of all "maintain a long range outlook".

#### STATE GEOLOGIST RETIRES

The Wisconsin Geological & Natural History Survey's (WGNHS) Director and State Geologist, Meredith E. (Buzz) Ostrom, has recently retired following 31 years of service at the Survey.

He joined the WGNHS in 1959 as Assistant State Geologist with responsibilities for mineral and water resource investigations. In 1964 he was appointed Associate State Geologist; in 1972, State Geologist and Director. He has also been a member of the Committee on State Cartography since its formation.

Within the geology profession, Ostrom is well known for his pioneering work on the stratigraphic relationships of Wisconsin's Paleozoic rocks; he is widely respected as a national leader in the area of natural resources policy.

Under Ostrom's direction, the Survey grew from only four scientists and three support staff in 1972 to 17 scientists and 18 support staff in 1990. Ostrom guided this rapid expansion of Survey programs and responsibilities. He also was instrumental in the effort to accomplish 1:24,000-scale topographic mapping across the state.

Happy retirement, "Buzz", from the SCO.

# HUXOLD BECOMES PROFESSOR AT UW-MILWAUKEE

Bill Huxold, well known in Wisconsin mapping circles, has accepted a position as Associate Professor in the School of Architecture and Urban Planning at UW-Milwaukee. He will continue and expand coursework in geographic information systems (GIS), with dual emphasis on basic concepts and real-world applications with a focus on urban uses.

Prior to joining the UW, Huxold was Director of the City of Milwaukee's nationally-recognized GIS program. He also served as a member of the Wisconsin Land Records Committee and served as President of URISA several years ago.

For more information on UW-Milwaukee's program, contact:

Dr. G. William Page
Acting Dean, School of Architecture and Urban Planning
University of Wisconsin-Milwaukee
P.O. Box 413
Milwaukee, WI 53211
(414) 229-4014

# PUBLICATIONS OF THE STATE CARTOGRAPHER'S OFFICE

The Office of the State Cartographer exists to serve as a center for all cartographic inquiry, to provide guidance to county and municipal governments and state agencies involved in mapping projects, and to gather information concerning all previous and on-going cartographic efforts in Wisconsin. As part of this role, the Office supplies information on aerial photography, geodetic control, and map resources to government agencies, industries, and private citizens.

## **County Cartographic Catalogs**

The Office has established a county cartographic catalog system to efficiently collect, maintain and facilitate the exchange of map and map-related information for the state. Production of this catalog series began in 1978. The catalogs provide index maps and references on topographic and hydrographic maps, as well as aerial photography, satellite imagery, geodetic control, and digital data. The actual content of a catalog varies from county to county depending on the availability of information. Catalogs range from 77 to 161 pages in length.

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Please indicate which publicate return to:	ations you are interested	in, clearly print yo	our name and addres	s in the space provi	ded below, and
Wisconsin State Cartograp Room 155 Science Hall University of Wisconsin-Madison, WI 53706-1404					

September 1990

Wisconsin Mapping Bulletin

# STATE ADDRESSES

Public Lands Office 701 Tenney Building 110 E. Main Street Madison, WI 53703 (608) 266-1370

Department of Agriculture, Trade and Consumer Protection Farmland Preservation 801 W. Badger Road Madison, WI 53713 (608) 266-9819

Department of Natural Resources 101 S. Webster Street Madison, WI 53702 (608) 266-1877 Wildlife Management (608) 266-2137 Engineering Section

Department of Transportation Document and Map Sales P.O. Box 7713 3617 Pierstorff Street Madison, WI 53704 (608) 246-3265

Department of Transportation Technical Services P.O. Box 7916 Room 5B, 4802 Sheboygan Avenue Madison, WI 53707 (608) 266-0074 (608) 266-0309 Aerial Photography (608) 266-0112 Geodetic USDA, Agricultural Stabilization and Conservation Service (ASCS) 6515 Watts Road Room 100 Madison, WI 53719 (608) 264-5323

USDA, Soil Conservation Service (SCS) 6515 Watts Road Room 200 Madison, WI 53719 (608) 264-5341

US Forest Service, Eastern Region 310 W. Wisconsin Avenue Suite 500 Milwaukee, WI 53203 (414) 297-3693

USGS, Water Resources Division 6417 Normandy Lane Madison, WI 53719 (608) 274-3535

Wisconsin Geological & Natural History Survey 3817 Mineral Point Road Madison, WI 53705 (608) 262-1705 (608) 263-7389 Map Sales

## **PUBLICATIONS**

# SCO County Cartographic Catalog Developments

The following is a brief update on County Cartographic Catalog production at the SCO:

GREEN: Distribution of complimentary copies completed in July; copies available for sale from Map Sales, Wis. Geological & Natural History Survey (see address above); the cost is \$7.00 at the counter or \$8.00 by mail.

WOOD: Published in September; distribution of complimentarys copies to be completed in October.

WINNEBAGO (2nd edition): in process, scheduled for printing and distribution in November 1990.

MARATHON & MARQUETTE: in production.

PORTAGE (2nd edition): in production.

# **EOSAT Publishes TM Band Combination Poster**

A new poster created by EOSAT describes in words and images the technical capabilities and practical applications of Landsat Thematic Mapper data. On one side, the TM poster features color images of Charleston, SC., to illustrate the differences in applications of various TM band combinations. The reverse side uses graphs and charts to describe some fundamental aspects of multispectral remote sensing and how the Thematic Mapping sensor acquires imagery. Those unfamiliar with image processing as well as remote sensing experts will find the poster interesting and informative. EOSAT is distrubting the TM Band Combination Poster at no charge. Contact your regional sales representative or call EOSAT Customer Services at 301/552-0537 or 800/344-9933.

(source: Landsat World Update, August, 1990)

#### **New Software Available from EOSAT**

EOSAT has introduced a new software product, the Landsat Scene Finder, which allows EOSAT customers to check on the availability of Landsat Thematic Mapper data using IBM or compatible personal computers. The Landsat Scene Finder includes database information and microfiche displays for all TM scenes acquired since Jan. 1, 1989. The package is offered on a yearly subscription basis with updates provided every two weeks. For more information, contact EOSAT Customer Services at (301) 552-0537 or (800) 344-9933.

(source: Landsat World Update, July, 1990)

# Enhanced Digital Line Graph Design Available

The U.S. Geological Survey has designed a new version of the Digital Line Graph, termed Digital Line Graph-Enhanced (DLG-E). Building upon the technological data structure of the current Digital Line Graph product, the DLG-E data model adds layers of feature objects which represent real world geographic and cartographic entities. Examples of these entities include buildings, bridges, roads, streams, grasslands, and counties. The attributes of these entities, such as the name of a stream, the number of lanes of a road, or the operational status of a building, are assigned to these feature objects. Relationships may be established between these feature objects. This data model will permit a more complete description of geographic and cartographic entities.

In addition to the data model, a new domain of features represented on Geological Survey map products was established. To establish these features, an approach using a set of classes, or views, of spatial entities was adopted. These views include those of entities portrayed on Geological Survey map products; cover, division, ecosystem, geoposition, and morphology. Using the five views, over 200 features were identified and defined. This system is expandable to include additional views of spatial features.

The data model, domain of features, and related background information are described in U.S. Geological Survey Circular 1048, "An Enhanced Digital Line Graph Design." The publication is free on written request from: USGS Books and Open File Reports Sales, Box 25425, Denver, CO 80225.

(source: Stephen Guptill, USGS)



**County Plat Books** 

The following Wisconsin County Land Atlas and Plat Books are now available for 1990: Buffalo, Door, Dunn, Fond du Lac, Iowa, Rock, Sauk, Sheboygan, Trempealeau, Vernon, Vilas, Walworth, Waukesha, and Waushara Counties. These Plat Books sell for \$25.00 plus tax and shipping. For ordering details contact: Rockford Map Publishers, Inc., P.O. Box 6126, Rockford, IL 61125, phone (orders only) 800/447-2222 or for customer service information call 815/399-4614.

County	Type of Office	Contact Person	Address	Phone Number
Adams	County Board Planning and Zoning Committee	Gregory Rhinehart County Surveyor	P.O. Box 187 Friendship, WI 53934	(608)339-3808
Ashland	Register of Deeds	Wendell R. Friske, Register of Deeds	201 W. 2nd St. Ashland, WI 54806	(715)682-7008
Barron	Land Information Office (Register of Deeds)	Donna M. Miller Register of Deeds	Courthouse Rm 238 330 E. LaSaile Ave.	(715) 537-6212
	<ul> <li>On the body of the control of the cont</li></ul>	$(x_1,\dots,x_{n-1},x_n)$	Barron, WI 54812	
Bayfield	Land Information Office (Register of Deeds)	Otto Korpela Register of Deeds	P.O. Box 813 Courthouse Washburn, WI 54891	(715) 373-6119
Buffalo	Land Information Committee	Patricia Wodele County Treasurer	Buffalo County Courthouse Alma, WI 54601	(608) 685-4850
Brown	Committee	Mr. B.F. Paruleski Executive Director Brown County Planning Commission	100 N. Jefferson St. Green Bay, WI 54301	(414) 436-3633
Burnett	Committee	Kathy Swingle Surveyor/Land Records Supervisor	Burnett County Government Center 7410 County Road K. #120 Siren, WI 54872	(715) 349-2173
Calumet	County Board Land Information Study Committee	Patricia Wettstein Real Property Lister	206 Court St. Chilton, WI 53014	(414) 849-2361 x204
Chippewa	Committee	Dennis G. Mickesh, Land Information Coordinator		
Columbia	Land Information Study Committee	Penny Judd (Register of Deeds)	P.O. Box 177 Portage, WI 53901	
Crawford	Land Conservation Committee	Delores Bonney	220 N. Beaumont Road Prairie du Chien, WI 53821	(608) 326-0221
Dane	Committee			
Dodge	Committee	Garland G. Lichtenberg	Dodge County Board of Supervisors	(414) 386-4411
			Court House Juneau, WI 53039	
Door	Committee	Joseph LeClair Data Processing Manager	Door County Courthouse Box 67 Sturgeon Bay, WI 54235	(414) 743-5511
Donaine	Land Information Office County Clark	Paymond H. Sommerville		4 14 5 2 3
Douglas	Land Information Office County Clerk	Raymond H. Sommerville County Clerk	County Clerk, Douglas County, Superior, WI	er er
Dunn	Land Records Committee	and the second s		
Eau Claire	Land Information Office (Dept. Planning & Dev.)	Richard A. DeVriend (Supervisor)	Eau Claire County Courthouse, Room A180 731 Oxford Ave Eau Claire, WI 54703	(715) 839-4743
Plorence	Committee	Register of Deeds		."
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County	Type of Office	Contact Person	Address	Phone Number
Fond du Lac	Committee	Mary A. Brickle (Register of Deeds)	P.O. Box 509 160 S. Macy St. Fond du Lac, WI 54936-0509	(414) 929-3023
Forest	Register of Deeds	to the second	Tolka da East, WT 54750-0507	S
Grant	Committee			
Green Lake	Committee	Shirley A. Williams, Register of	492 Hill St.	e de la companya de
Oleen Lake		Deeds Villiams, Register of	Green Lake, WI 54941	
Iowa	Land Records Committee	Lynn T. Martin (Register of Deeds)	Iowa County Courthouse 222 N. Iowa Street Dodgeville, WI 53533	(608) 935-5628
Iron	Register of Deeds			
Jackson	County Clerk			
Jefferson	Zoning and Planning Committee			
Kenosha	Land Information Office County Planning & Development	Mr. George Melcher, Director Kenosha County Planning & Development	912-56th Street Kenosha, WI 53140	(414) 656-6550
Kewaunee	Register of Deeds	Marilyn G. Mueller, Register of Deeds	613 Dodge St. Kewaunee County Courthouse Kewaunee, WI 54216	(414)388-4410 x126
LaCrosse	Land Information Office (Land Title & Mapping)	Jeffrey H. Bluske	400 North 4th Street Room 105, County Courthouse LaCrosse, WI 54601	(608) 758-9637
Lafayette	Committee	Joe Boll, Register of Deeds	P.O. Box 170 Darlington, WI 53530	(608)776-4838
Langlade	Land Records and Regulations Dept.	Rebecca J Frisch, Zoning Administrator	Courthouse Antigo, WI 54409	and the state
Lincoln	Committee (of County Board)	Michael Dailey	Lincoln County Computer Services 1110 E. Main Street Merrill, WI 54452	(715) 536-0301
Manitowoc	Committee	Preston F. Jones (Register of Deeds)	P.O. Box 421 Manitowoc, WI 54221-0421	(414) 683-4011
Marathon	Committee			
Marinette	Committee	Florence Magnuson	County of Marinette Courthouse	(715) 735-3371 Ext. 273
		(Register of Deeds)	Courthouse 1926 Hall Ave. Marinette, WI 54143	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Marquette	Committee	Bernice M. Wegner (Register of Deeds)	Marquette County P.O. Box 236 Montello, WI 53949	(608) 297-9132
Menominee	Land Information Office Office of County Coordinator	Richard A. Schultz Office of County Coordinator	P.O. Box 428 Keshena, WI 54135	(715) 799-3024

County	Type of Office	Contact Person	Address	Phone Number
Milwaukee	Register of Deeds	Walter R. Barczak, Register of Deeds	Register of Deeds Office Courthouse Rm. 103 901 N. 9th St. Milwaukee, WI 53233	(414)278-4021
Monroe	Committee		Real Property Lister's Office and Register	
Oconto	Land Information Office		of Deeds	
Oneida	Department	Michael J. Romport!	Courthouse Bldg. P.O. Box 400 Rhinelander, WI 54501	(715) 369-6179
Outagamie	Committee			
Pierce	Department of Land Management and Records	Jim Hulbert, Administrator	P.O. Box 647 Ellsworth, WI 54011	(715)273-3531 x333
Polk	Land Information Office	Marlene Jacker Tax Lister	Polk County Treasurer's Office Courthouse Balsam Lake, WI 53810	(715) 485-3161
Portage	Committee	,		
Price	Committee	Register of Deeds		
Racine	Land Information Office	Helen M. Schutten (Register of Deeds)	730 Wisconsin Ave. Racine, WI 53403	(414) 636-3709 (414) 636-3851 (Fax)
Richland	Committee	Paul Klawiter Real Property Lister	Richland County Courthouse P.O. Box 348 Richland Center, WI 53581	(608) 647-3658
Rock	Committee	Mark Mader (Assistant to the County Admin.)	Rock County Courthouse 51 S. Main Street Janesville, WI 53545	(608) 755-2016
Sauk	Exec. & Legis. Committee of County Board	Executive & Legislative Committee, Sauk County Board		
Sawyer	Land Information Office (Register of Deeds)	Louis Lindholm (Register of Deeds)	Sawyer County Courthouse 406 Main P.O. Box 686 Hayward, WI 54843	(715) 634-4867
Sheboygan	Land Information Office	Register of Deeds	•	
St. Croix	Land Information Office	David Fodroczi (Planning Dept.)	St. Croix County Planning Dept. 911 Fourth Street Hudson, WI 54016	(715) 386-4674
Taylor	Committee	Sally Strassburger (Register of Deeds)	Taylor County Courthouse 224 S. 2nd Street Medford, WI 54451	738-3141 Ext. 126
Trempeleau	Committee	Janet Peterson (Register of Deeds)	Register of Deeds for Trempeleau County Whitehall, Wi 54773-9430	(715) 538-2311

County	Type of Office	Contact Person	Address	Phone Number
Vilas	Committee	Coureen Rodgers (Mapping Coordinator)		: 
Walworth	Committee	Lois Ketterhagen	P.O. Box 995 Elkhorn, WI 53121	(414) 741-4214
Washburn	Land Information Office (Land Records Office)	Ronald Bennis	Lands Record Office Washburn County Courthouse P.O. Box 337 Shell Lake, WI 54871	(715) 468-2232
Waushara	Committee	Orville W. Lehr, Register of Deeds	Courthouse P.O. Box 338 Wautoma, WI 54982	(414)787-4631 x252
Winnebago	Land Information Office Planning & Zoning Dept.	David Schmidt Dir. Planning & Zoning	415 Jackson Street P.O. Box 2808 Oshkosh, WI 54903	(414) 236-4837

The preceding list is current as of October 10, 1990. It is expected that some minor changes may occur. If you have any questions concerning this list, contact William Holland at 608/267-2707.

# **PUBLICATIONS**

# 1:2,000,000-Scale Digital Line Graph Data Available on CD-ROM

On June 22, 1990, the USGS began distributing the 1:2,000,000-scale Digital Line Graph (DLG) data on Compact Disc-Read Only Memory (CD-ROM). The cost is a tiny fraction of the amount charged for the same data on magnetic tape.

The CD-ROM contains data for all 50 States, organized into 21 geographic regions. The CD-ROM also contains the Data Users Guide for the data and software to assist the user in selecting data of interest and to display the data.

The data were collected from the 1:2,000,000-scale sectional maps of The National Atlas of the United States of America, which were updated to late 1979. Up to 8 categories of data are available for each geographic region, including political boundaries, administrative boundaries, streams, water bodies, hypsography, roads and trails, railroads, and cultural features.

The CD-ROM contains data in all 3 formats used by the USGS in distributing the 1:2,000,000-scale data: the DLG-Standard format, the DLG-Optional format, and the Graphic Data format.

The software provides a menu-driven system to assist the user in transferring data from the CD-ROM to a hard disk. The user may select data by geographic region, data category, and data format. The software is designed to run on any class of DOS-based (version 3.1 or later) microcomputer (8088/8086, 80286, or 80386) with 512 kilobytes of free memory and a hard disk. At the minimum, an EGA monitor and display card are required to select the data. The user must have a CD-ROM reader using Microsoft Extensions version 2.0 or later.

The CD-ROM also includes software to display the data. The software displays a preprocessed version of the DLG data. A user may display one of the preselected combinations of data or may customize the display. The software allows the user to display the processed DLG data using up to 16 different colors. It is recommended that this software be run on a system with a VGA monitor.

A user also may use the software to process the DLG data on the CD-ROM to produce customized maps. The software allows the user to display the selected data using different colors and line thicknesses in 5 common map projections.

The CD-ROM is sold at an interim price of \$28. The Government Printing Office is placing the CD-ROM in

800 Federal Depository Map Libraries throughout the United States for convenient previewing by the public.

The data will continue to be available on 9 track computer-compatible magnetic tape. If a user would like to purchase all the data contained on the CD-ROM, but instead coded on magnetic tape, that cost is \$1,413. For distribution on magnetic tape, different combinations of data may be ordered by region, categories, and data format. For example, the cost for the entire data set in one of the distribution formats on magnetic tape is \$531.

To obtain additional information or to order the CD-ROM please contact:

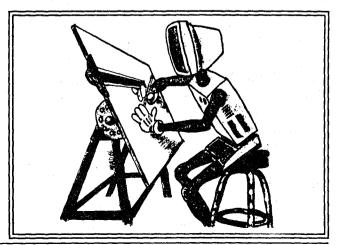
Earth Science Information Center U. S. Geological Survey 507 National Center Reston, Virginia 22092 phone: (703) 648-6045 or 1-800-USA-MAPS

## Federal Standard for Spatial Data Transfer

The National Institute for Standards and Technology (NIST) is preparing to publish for review the Spatial Data Transfer Standard (SDTS). This standard represents the culmination of a number of years of work by several groups at the national level. Professional organizations and industry participated in these groups.

Many persons actively using geographic information system (GIS) software are anxious for a single, multi-featured method for file transer and translation to be adopted by the software vendor community. Such a functional standard would greatly facilitate sharing of GIS databases. SDTS is a candidate to fill this role.

SDTS will be a large and highly technical document. A number of GIS specialists in Wisconsin are already scheduled to receive copies for review. Those interested in reviewing SDTS when it becomes available should contact Bob Gurda at the SCO.



## CONFERENCES AND TECHNICAL MEETINGS

October 7 - December 2, Great Lakes: Great Maps Exhibit will be held at the Waukesha County Museum, 101 W. Main Street, Waukesha, WI. Call: 414/548-7186.

October 15-19, INSMAP 90--International Symposium of Marine Positioning. Miami, FL. Contact: Marine Geodesy Committee/Marine Technology Society, Muneendra Kumar, DMASC, Fairfax, VA 22031. Call: 703/285-9242.

October 18, AM/FM/GIS Project Life Cycle will be held in Chicago, IL at the Ramada O'Hare, 6600 N. Mannheim, Rosemont, IL Call: 708/827-5131.

October 22-24, Applying Infrastructure Management Systems, will be held at the University of Wisconsin-Madison, Madison, WI. For program information contact: Engineering Registration, The Wisconsin Center, 702 Langdon Street, Madison, WI 53706 or call: Pat Eagan at 608/263-7429 or Cindy Adams at 608/262-6782.

October 23-26, Visualization '90 sponsored by Computer Society Technical Committee on Computer Graphics, in cooperation with CM SIGGRAPH; held in San Francisco. Copntact: M. Danchak, the hartford Graduate Center, 275 Windsor Street, Hartford, CT 06120. Call: 203/548-2451.

October 24-27, Tenth Annual Meeting of the North American Cartographic Information Society (NACIS X) will be held in Orlando, FL. Contact: Dr. James F. Fryman, Program Chair, Dept. of Geography, Unv. of Northern Iowa, Cedar Falls, IA 50614-0406. Call: 319/273-6245.

October 24-27, 13th Annual Applied Geography Conference, Charlotte, NC. Contact: J. Dennis Lord, Dept. of Geography & Earth Sciences, Univ. of N. Carolina, Charlotte, NC 28223. Call: 704/547-4258.

October 25-27, 41st Annual Meeting, West Lakes Division, Association of American Geographers will be held in DeKalb, IL. Contact: Program Chair, West Lakes AAG, Dept. of Geography, Wm. Morris Davis Hall, Rm. 118, Northern Illinois Univ., DeKalb, IL 60115-2854. Call: 815/753-6836.

October 26, Statewide Conference on Planning Issues of the 1990s, will be held at The American Club in Kohler, WI. Contact: Larry Timm, c/o City of Fond du Lac, 160 S. Macy Street, Fond du Lac, WI 54935. Call: 414/929-3311.

October 29-30, GIS in the Rockies, 2nd Annual Conference. For further information contact: Nancy Tubbs or Dave Hester at 301/236-5838.

November 2, The Land Records Modernization Workshop: An Agenda for the Future will be held at the Stevens Point Holiday Inn, Wisconsin. \$10 before October 19th; \$15 after. Contact: Tim Prescott, Golden Sands RC&D, Nelson Hall, UW-Stevens Point, WI 54481. Call: 715/346-3161.

November 5-10, GIS/LIS '90 Annual Conference and Exposition, Anaheim, California, in conjunction with the 1990 ACSM/ASPRS Fall Convention. Contact: GIS/LIS '90, 5410 Grosvenor Lane, Suite 100, Bethesda, MD 20814-2122. Call: 301/493-0200.

November 8, Wisconsin Chapter of AM/FM will meet at 3pm at the Holiday Inn in Appleton. Topic: the Wisconsin Land Information Program. Contact: Jerry Laatsch at 414/291-6927 for details including cost for dinner to follow the meeting.

November 12-14, Conference on Application of GIS, Simulation Models, and Knowledge-based Systems for Landuse Management. Blacksburg, VA. Contact: Phil Mason, Conference Coordinator, 212 Seitz Hall, VPI, Blacksburg, VA 24061.

November 16-18, Advanced GPS Project Management, University of Arkansas at Little Rock. Contact: ACSM, 5410 Grosvenor Lane, Bethesda, MD 20814-2122. Call: 301/493-0200.

November 19-20, Advances in Surveying and Mapping: Integrating GPS with GIS, Ohio State University Center for Mapping and Dept. of Geodetic Science and Surveying, Columbus, OH. Contact: Conferences and Institutes, 1075 Carmack Road, Columbus, OH 43210.

November 25 - December 1, Geographic Information Management for Municipalities and Regional Planning. Contact: Sandra Harris, Program Coordinator, The Banff Centre for Management, Box 1020, Banff, Alberta T0L 0C0. Call: 403/762-6133.

December 2, 52nd Midwest Fish & Wildlife Conference will be sponsoring an all-day workshop on Geographic Information Systems Applications by and for fish and wildlife managers. Contact: Chair, Glenn Radde, Office of Planning, Minnesota DNR. Call: 612/296-4798.

December 4, Wisconsin Land Information Association membership meeting will be held at the Lake Lawn Lodge in Delevan, Wisconsin from 10:00 am to 1:30 pm. Contact Bob Gurda, WLIA Secretary, at 608/262-3065.

December 7, Wisconsin Local Redistricting in 1991 will be held in Madison in the State Capitol Assembly Chambers. For pre-registration information, contact Nancy Hurley, Applied Population Laborary, UW-Madison, 1450 Linden Drive, Madison, WI 53706. Call 608/262-0141.

#### 1991

January 22, Wisconsin Society of Land Surveyors Workshop on "Principles of Coordinate and Mapping Systems" will be held at the Stevens Point Holiday Inn, Wisconsin. Contact: Barbara Inch at 715/346-3717.

January 23-25, Wisconsin Society of Land Surveyors "Annual Institute Meeting" will be held at the Stevens Point Holiday Inn, Wisconsin. Contact: Barbara Inch at 715/346-3717.

February 13-15, Wisconsin Land Information Association Annual Conference will be held in Green Bay. Contact Bob Gurda, WLIA Secretary, at 608/262-3065.

March 4-7, GRASS Users Conference, "Evolving GRASS in the 90s Innovation and Education will be held at the University of California at Berkeley. Contact: Registrar, GRASS 1990 User Conference, Center for Environmental Design Research, 390 Wurster Hall, UC-Berkeley, Berkeley, CA 94720. Call: 415/642-9205.

March 23-29, ACSM/ASPRS Annual Convention including AUTO-CARTO, Baltimore, MD. Contact: ACSM 5410 Grosvenor Lane, Bethesda, MD 20814. Call: 301/493-0200.

March 24-27, AM/FM International Annual Conference, San Diego, CA. Contact AM/FM International, 14456 E. Evans Ave., Aurora, CO 80014. Call 303/337-0513.

April 13-17. Association of American Geographers 87th Annual Meeting, Miami, FL. Contact AAG, 1710 16th St.N.W., Washington, DC 20009-3198.

April 29 - May 2, Eighth Thematic Conference will be held in Denver, CO. Contact: Dr. Robert H. Rogers or Nancy J. Wallman, ERIM/Thematic Conferences, Box 8618, Ann Arbor, MI 48107-8618. Call: 313/994-1200 ext. 3234.

# **MEETINGS & REPORTS**

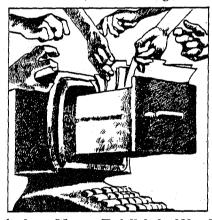
# Local Redistricting to be Topic of Free Workshop at State Capitol on Dec. 7

The Wisconsin State Legislature in cooperation with the UW-Madison and UW-Extension are sponsoring a free one-day workshop on local redistricting. It will be held in the Assembly Chambers of the State Capitol in Madison on December 7.

Governor Thompson is scheduled to give the opening Welcome at 10:00 am, followed legislative and university staff speaking on a series of subjects through the middle of the day. Three specialized discussion/demonstration sessions from 3:15-5:00 pm will complete the workshop.

The workshop is designed for public officials who will be involved in local redistricting at the city, town, village, or county level. Presenters will discuss Wisconsin laws governing local redistricting, explain procedures and timelines for carrying out local redistricting, demonstrate tools available to help in the redistricting process, and identify sources of information and assistance. Amongst the tools to demonstrated will be the State Legislative Redistricting Project's GIS using TIGER files, population, and elections data.

For more information, see the listing on the facing page.



## Great Lakes Maps Exhibit in Waukesha

"Great Lakes: Great Maps" not only traces the art of mapmaking from the copper-engraved maps of the 1660's to the computerized satellite images of today but also illustrates centuries of development of the Great Lakes region. This exhibit is open from October 7 through December 2 at the Waukesha County Museum, which is located at 101 W. Main Street.

There will be several additional related exhibits on display for all or part of the period noted above, and there are several special events scheduled also.

For further information, contact the Museum at 414/548-7186.

### **Real Property Listers Meeting**

John E. Miller, Waupaca County and Lori J. Scully, Juneau County co-hosted a very successful, three-day meeting of the Wisconsin Real Property Listers Association at the Grand Seasons Hotel and Conference Center, September 19-21, in Waupaca.

In addition to Association business, electing new officers, holding training sessions and similar activities, the association heard presentations by surveyors, attorneys, representatives of the Department of Revenue and the State Historical Society. William Holland, Director of the Wisconsin Land Information Board updated the Association on current activities of the Board.

The State Cartographer also made a presentation, this being the fourth time in sixteen years he has addressed the group, a record for state organizations.

And from experience, It can be reported that the conference was highly successful, both during convened hours and after.

# **EPD Offers AM/FM Course and Free Public Forum**

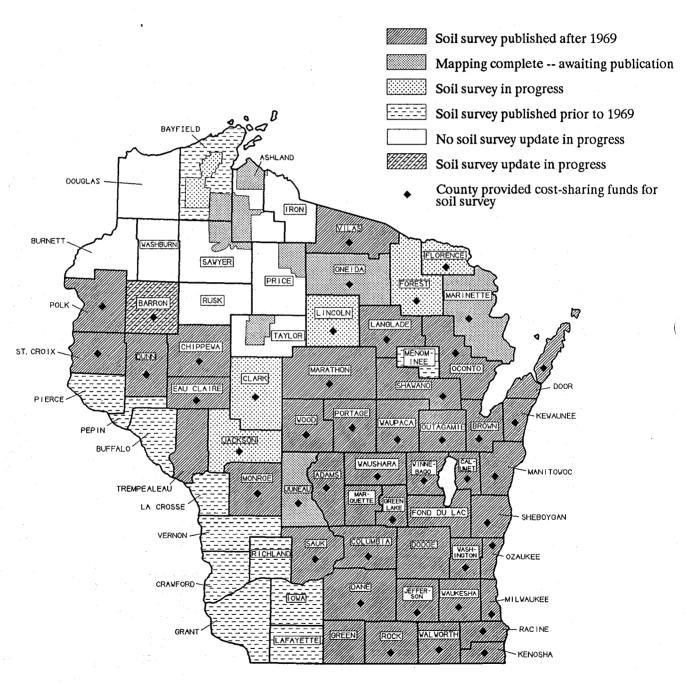
October 22-24 are the dates for the next class in GIS technology offered by UW-Madison Engineering Professional Development. The course is titled "Applying Infrastructure Information Management Systems". See the listing on the facing page for details.

As part of the class, a free public forum is being held at 3:00 p.m. on Oct. 23rd at the Wisconsin Center at UW-Madison. The speaker is Dr. John Bossler, Director of the Center for Mapping at Ohio State University. Dr. Bossler, who previously was in charge of nautical charting, aero-nautical charting, and geodetic services at the National Ocean Service, will address the use of GPS, digital imagery, and GIS in transportation planning. The research project he will describe has broad significance to spatial information systems in general.

#### WLIA To Meet Dec. 4 in Delevan

The Wisconsin Land Information Association will hold a general membership meeting on December 4 at the Lake Lawn Lodge in Delevan (Walworth County). The meeting will begin at 10:00 am and conclude early in the afternoon. There will be an advance registration fee which will include lunch. Non-members are welcome. For more information, contact Bob Gurda at 608/262-6850. (Note: this meeting was originally scheduled for November 15.)

# STATUS OF SOIL SURVEYS FOR WISCONSIN AS OF SEPTEMBER 1990



Source: Soil Conservation Service

## **Update on Wisconsin Soil Survey Activity**

On the facing page is a current status map for soil surveys in Wisconsin. The major changes since our last report (April, 1989) are that Marathon, Chippewa, and Waushara county surveys have been published, and that field reviews (leading to final publication) are being scheduled for the summer of 1991 for Jackson, Lincoln, and Barron counties. Florence and Forest county surveys are expected to be complete in 1992. Clark County would be reviewed in 1993.

The irregular pattern of activity in the far north-central part of the state corresponds to lands comprising the Chequamegon National Forest and the Bad River Indian Reservation. The USDA's Soil Conservation Service (SCS), which coordinates soil survey activity, is working on a 10-year initiative to complete once-over soil surveys across Wisconsin. This would mean working toward total coverage of the 10 counties in the northwestern part of the state.

Another initiative, this one in the planning stage, would coordinate remapping of soils in the "driftless area" which was not directly affected by glaciation. This area in southwestern and west central Wisconsin, that extends into adjacent areas of Illinois, Minnesota, and Iowa, would be mapped under a consistent soil interpretation scheme, and would use a 1:12000-scale orthophoto base.

At a recent semi-annual meeting of the Wisconsin Interagency Soil Survey Group, a range of topics were discussed. Long-term budgetary and institutional support were concerns that came up frequently. The short-term effect, much less the long-term affect of federal budget problems cannot be predicted at this time.

Yet, with the growing use of GIS at local, regional, state, and federal levels, there has never been greater potential to use technology to derive value from available soil surveys. To accomplish complete access, soil surveys must be completed and updated across the state, and they must be available in digital form. Those who would be the beneficiaries of this information will need to help support attempts to accomplish these goals.



Clarification

The "Groundwater Maps" graphic on page 6 of the July 1990 Bulletin indicated the existence of a geology and groundwater resources map for Dane County. The publication in question, called "Geology and Ground Water Resources of Dane County, Wisconsin," contains maps of unknown content and scale, and is available from WGNHS, 608/2643-7389 on microfilm only.

# Update on Study of Statewide Satellite Land Cover Mapping Potential

Last November we previewed a cooperative research project which is investigating the feasibility of using imagery collected by satellite to support statewide land cover mapping. The project team, lead by UW-Madison Professor Tom Lillesand, recently presented a progress report including examples of some of their work.

The team has been building on previous research which demonstrated the feasibility of combining digital imagery from different sources. For this project, SPOT and Thematic Mapper satellite imagery have been coregistered for enhancement analyses and production of hard copy. Digital orthophoto imagery from Dane County has also been combined with the satellite imagery and with other information layers such as field boundaries maintained by the county land conservation office. The initial products, mostly printed on a large format color electrostatic plotter, are very promising.

The digital processing work is being done successfully on high-powered but moderately priced microcomputer equipment, using a combination of commercially available and custom-written software. The fact that this kind of work can be done for moderate cost today means that it will become even less expensive as computing power and economy continue to improve.

Another side of the project is showing less promising results. At this time, statewide acquisition of the satellite data is relatively expensive. By sharing the cost and use of the data, a group of users could make it affordable. But both the SPOT and Landsat data are available only with very restrictive licenses, which generally preclude multiple users. An institutional solution to this situation must be found before widespread use of satellite imagery can become a reality.

## WLIA Committee on Statewide Mapping

The Wisconsin Land Information Association (WLIA) has formed a Committee on Statewide Mapping. The committee will assemble facts and recommend positions to the WLIA regarding the broad range of statewide mapping issues. Bob Gurda of the State Cartographer's Office has been appointed to chair this committee.

Initially, the committee will focus on state participation in cooperative federal aerial photography programs. Such programs could provide not only statewide coverage, but also the raw materials for derivative products (also cost-shared with federal agencies) such as analog (traditional) orthophoto maps, digital orthophoto maps, and digital elevation models.

Later, the committee is expected to consider how WLIA can help advance various other types of mapping.

### **ABOUT THE SCO....**

The State Cartographer's Office (SCO), established in 1974, is a unit of the University of Wisconsin-Madison. The SCO is located on the 1st Floor of Science Hall.

Our staff presently consists of two full-time academic staff including the State Cartographer, one full-time classified staff, several part-time graduate students, plus several part-time undergraduate hourly employees.

The State Cartographer's position and mission is described in Wis. Statute 36.25 (12m). In addressing this role, the SCO functions in a number of ways:

- publishes a series of catalogs which document and guide users of mapping resources.
- inventories of mapping practices, methods, accomplishments, experience, and expertise.
- develops experimental and prototype products.
- publishes the <u>Wisconsin Mapping Bulletin</u> and other documents to inform the mapping community.
- participates on committees, task forces, boards, etc.
- serves as the state's affiliate for cartographic information in the U.S. Geological Survey's Earth Science Information Center (ESIC) network.
- provides information and advice in support of sound mapping practices and map use.

The Office answers a wide variety of inquiries ranging from simple to complex, in the following general categories:

- Geodetic Control--Requests for surveying information which has been established by some office or agency, and upon which the requestor wishes to base a survey or map.
- Aerial Photographic Coverage--These are requests for information about existing or planned aerial photographic coverage which can be utilized for a variety of projects. These requests, in many instances, are motivated by the desire to avoid the exceedingly more costly route of acquiring specifically flown photography.
- General Map Coverage--The requestor is seeking map coverage to fulfill a specific need, from utilization as a base map upon which other information can be compiled, to determination of location or extent of a resource such as wetlands
- Specific Unique Data--These types of requests change as various programs are implemented. Examples include Magnetic Declination (for land surveying), and Latitude/Longitude (federal requirement for placement of sending satellite dishes or radio towers).
- General Requests--Such as size of an area, height of a particular feature, location of a named feature, explaining contours, digital methods, software, hardware etc.
- Activities Of Others--This provides access to publications, news, anecdotal information, and referrals to appropriate agencies, programs, organizations, or individuals who may be able to provide the information being sought.

In each issue of the <u>Bulletin</u>, we will discuss an area of SCO activity in more detail. By this means we will help you better understand and more effectively utilize the SCO's services. If you have any questions concerning these topics, please contact the Office at 608/262-3065 for a detailed explanation.

# Wisconsin Mapping Bulletin

Published bimonthly by the State Cartographer's Office. A University of Wisconsin-Madison outreach publication distributed free upon request.

News is welcome on completed or ongoing projects, published maps or reports, conferences/workshops. Local and regional information is especially welcomed. The Editor makes all decisions on content. Deadline for the next issue is Nov. 12, 1990.

Editor: Bob Gurda Contributors: Art Ziegler, Brenda Hemstead, Brian Goudreau, and Tom Ruzycki Desktop Publishing: Brenda Hemstead Mailing: SCO Production Staff

Please send all comments, corrections, and new items to: State Cartographer's Office 155 Science Hall Madison, WI 53706-1404 phone 608/262-3065. State Cartographer's Office Univ. of Wisconsin-Madison 550 N. Park Street Rm. 155 Science Hall Madison, WI 53706-1404 Nonprofit Organization
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