

# WISCONSIN MAPPING BULLETIN

Vol. 15 No. 5 November 1989



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

## LAND INFORMATION BOARD SET TO BEGIN WORK

In late October, Governor Thompson named his eight appointees to the new 13-member Wisconsin Land Information Board (see names on page 2). These eight were all on a list of approximately twenty persons recommended by the Wisconsin Land Information Association (WLIA).

The Board membership represents both decades of combined experience in the broad field of land information, as well as demonstrated commitment to modernizing the collection, management, and use of land information. Almost the entire membership of the Board was involved in the work of the Wisconsin Land Records Committee (1985-1987) that recommended both the creation of both a state Land Information Program, and formation of an organization like WLIA.

The first official meeting of the Board has been scheduled for December 7. The meeting will be held in Room 145B at the Hill Farms State Office Building in Madison beginning at 10:00 am. Most of the members of the Board gathered for a short introductory session on October 26; no business was initiated.

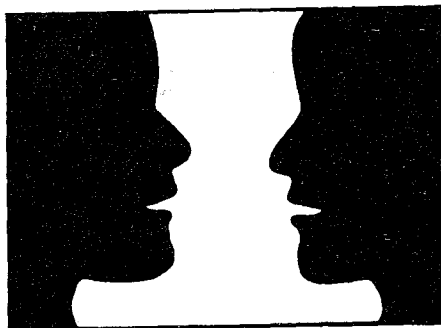
Topics for the December 7 meeting are expected to be internal organization: chair, committees, advisory members; schedule of future meetings; and policy issues demanding immediate attention.

The Wisconsin Land Information Board was created as a statutory entity through language included in the biennial state budget bill (SB 31) that was signed by the Governor in August. The Board is responsible for a new Land Information Program, which was also added to the statutes, but which was not funded in the budget bill. The issue of funding of Board and Program activities, including grants-in-aid to local governments for modernization projects, is certain to be very high on the Board's agenda. Any funding mechanisms

recommended by the Board would have to be approved by the Legislature.

State Representative Robert Welch (R-Redgranite), a member of the Board, has indicated that for any legislation to be considered by the Legislature during 1990, a bill would have to be introduced by the end of January. Missing this window of opportunity would require waiting to introduce legislation until January of 1991, when the next Legislature convenes. This short timetable is because the spring session will be the final session for the current Legislature, with election campaigns to take up the summer and fall. Missing this window of opportunity would mean waiting until January 1991, when the next legislature will convene.

The Department of Administration has hired a full time staffer to support the Board's activities: William Holland, an attorney with a master's degree in agricultural economics (ag policy & real estate). Mr. Holland can be reached at (608) 267-2707. At this point, funding for this temporary position extends only through June 30, 1990. There is no other explicit support for Board or Program functions at this time.



# WISCONSIN LAND INFORMATION BOARD

## Representing County and Municipal Government

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**County Board Supervisor: Anthony B. Kiedrowski**

Tony is President of Kiedrowski Engineering, Inc., Chairman of the Town of Grant, and is a Portage County Supervisor.

**City Council/Village Board Member: Lori J. Scully**

Lori is the Real Property Lister for Juneau County since 1978, and an Alderperson for the City of Mauston. Lori has served as President of the Wisconsin Real Property Listers Association.

**County Officer Active in Land Information Management: Lois M. Ketterhagen**

Lois is the Register of Deeds of Walworth County, and is past-president of both the Wisconsin Register of Deeds Association and the Wisconsin Association of County Officials.

**Position Not Specifically Defined: Les Van Horn**

Les is the Brown County Surveyor and Real Property Lister. He is also past-president of the Wisconsin County Surveyor's Association.

## Representing the Private Sector

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**Public Utility Representative: John W. Laub**

John is Director of Administrative Services and Real Estate for the Wisconsin Power & Light Company in Madison.

**Professional Land Information Organization Representative: Bernard J. Niemann, Jr.**

Ben is presently President of the Wisconsin Land Information Association, and is a Professor of Environmental Studies and Landscape Architecture at UW-Madison. He also has a part-time appointment in UW-Extension.

**Position Not Specially Defined: Arden T. Sandsness**

Arden is a Professional Land Surveyor with Royal Oak Engineering Inc., in Madison.

**Position Not Specially Defined: Robert T. Welch**

Bob is a State Representative from Redgranite representing the 41st Assembly District. Bob is also a licensed Professional Land Surveyor.

## State Agencies/Offices

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**Department of Administration, representing the Secretary: John Bilotti**

John is Administrator of the Division of Energy and Intergovernmental Relations, and was the Mayor of Kenosha.

**Department of Agriculture, Trade and Consumer Protection: (representative not named as of press time)**

**Department of Natural Resources, representing the Secretary: Janet Price**

Janet is Director of the Bureau of Information Management

**Department of Transportation, representing the Secretary: John Haverberg**

John is Chief Technical Services Engineer in the Bureau of Engineering

**State Cartographer: Art Ziegler**

## WLIA RECOMMENDS FUNDING SOURCES FOR STATE PROGRAM

A staged increase in the fee for recording documents has been recommended by the Wisconsin Land Information Association (WLIA) as the primary source of funding for grants-in-aid to assist local governments in their land information modernization activities.

The members in attendance at the WLIA meeting in Waukesha on November 14 voted unanimously to recommend that the state Land Information Board consider a set of methods for funding the recently enacted Wisconsin Land Information Program. The recommended outline is as follows:

- Increase the current \$4.00 fee for recording the first page of each document at the county Register of Deeds Offices, to \$8.00 beginning July 1, 1990, and then to \$10.00 beginning July 1, 1992.
- Designate the funds generated by the above increase to be used exclusively under the direction of the Land Information board for grants-in-aid to local governments under the statutory language created in August 1989 through Senate Bill 31. 50% of these funds could be retained by the county for land information projects, providing that the county has established a land information office, and providing that the county prepare a plan for land information modernization within 2 years of the establishment of its land information office.
- Secure \$500,000.00 per annum from General Purpose Revenues at the state level to facilitate general program operations of the Land Information Board under the SB 31 language.
- Encourage local governments to assess such fees as are or may be authorized, to be used exclusively by these governments for operations of land information programs.

The discussion preceding the vote of the membership present was based on a study by the WLIA Ad Hoc Committee on Revenue Sources. This committee consisted of nine persons from a wide range of interested professions. John Laub of Wisconsin Power and Light Company served as Chair; Laub has also recently been appointed to the Wisconsin Land Information Board. The Committee considered a long list of potential funding sources, and determined that an increase in the recording fee was most appropriate. A rough estimate of the revenue that could be raised annually by this

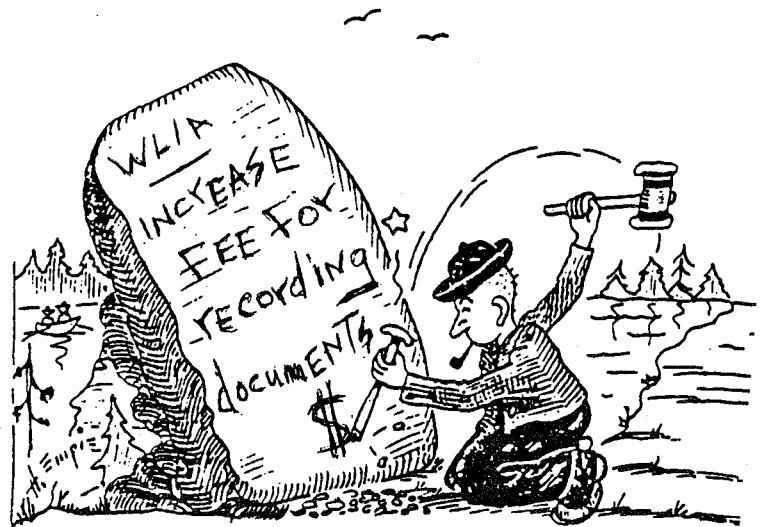
device is 3.5 to 5 million dollars (approximately equivalent to \$1.00 per Wisconsin resident per year).

Other revenue sources that received substantial support from committee members include an increase in the real estate transfer tax (the funding source proposed but not authorized by the Legislature in their creation of the Land Information Program), the forestry tax which is currently collected as a small component of property taxes statewide, and land information user fees which could be collected as part of a variety of transactions. The WLIA recommends that these revenue sources be studied further, but does not advocate their use for land information purposes at this time.

It is expected that the Land Information Board will consider the WLIA's recommendations, since the operation of the Land Information Program is dependent on legislative action to authorize funding.

The WLIA membership also voted to support the use of digital census block and population files (the "TIGER" database) at the local level of government. These files, and customized software to access them, are being developed for the redistricting of state legislative and congressional districts following the 1990 census. At present, there is no funding designated to assist local governments in accessing this specific technology.

WLIA's next membership meeting, its Annual Meeting, will be held in conjunction with the Third Annual WLIA Conference, February 19-20, in Stevens Point.



## STUDY OF STATEWIDE LAND COVER SATELLITE MAPPING

An interagency project is underway to determine the technical, economic, and institutional feasibility of automation of statewide land cover mapping using remote sensing techniques. The project is being carried out under contract with the UW-Madison's Environmental Remote Sensing Center, part of the Institute for Environmental Studies.

Through a memorandum of understanding signed recently, a group of agencies have agreed to jointly investigate the potential for producing and utilizing land cover information over the entire state on an annual basis. The following agencies are involved to date:

- USDA Soil Conservation Service
- USDA Forest Service
- USDA Agricultural Stabilization and Conservation Service
- USDI Geological Survey
- WI Department of Natural Resources
- WI Department of Agriculture, Trade & Consumer Protection
- University of Wisconsin-Madison

This project has a scheduled duration of two years, beginning July, 1989. Quarterly reports are planned; synopses of these reports will appear in the Wisconsin Mapping Bulletin. The goal is to produce recommendations addressing the potential development and maintenance of a program providing data files, hardware, software, and training to make use of satellite land cover information across a variety of agency programs.

Two selected study areas will be utilized for intensive experimental purposes: a site in western Dane County, and a site in Vilas and Oneida County. These sites were chosen because they are already part of ongoing remote sensing projects, but which have somewhat different objectives. In addition, these sites include areas already under study as GIS application development demonstration projects by some of the agencies involved. As a result of the parallel work of these projects, economies of data collection and analysis are expected.

Project plans call for use of both Landsat and SPOT satellite data, along with other raster digitized imagery such as from aerial photography. Through tandem use of GIS and image processing software, these sources will be integrated with information from agency programs. It is expected that these techniques will yield powerful methods for producing useful information tailored to specific program needs. The hardware platform is planned to be a relatively fast and large capacity microcomputer with high resolution graphics capability.

The University is being considered as a potential manager of any statewide program that might be recommended by the project. Issues of long term funding, and data and training support would have to be agreed upon by the agencies involved. These economic and institutional issues will be developed by the project along with the technical issues attendant to use of digital remote sensing data. Recommendations ultimately will be presented to the agency heads, and could be forwarded to a statewide forum such as the Land Information Board.

The project is directed by the direction of Prof. Thomas Lillesand. A number of graduate students will be involved in various aspects of the project. Jerry Griswold of the SCS State Office is the Project Coordinator.

A Technical Advisory Committee is being formed to guide the project, and to provide a conduit for agency responses to proposed tasks and recommendations. This Committee includes representatives from local agencies and other interested parties.

For more info. call Jerry Griswold at (608) 264-5570.

## LANDSAT FUNDING PROVIDED

Funding for the Landsat program, has finally been provided by the Congress for the fiscal year that began October 1, although at lower levels than requested by EOSAT, the private consortium that holds the contract for operating the program.

Included is \$9.5 million (M) for operation of Landsats 4 and 5, but only for the first half of the fiscal year (thru March 31, 1990), and \$34.9 M for continued Landsat 6 development. EOSAT had requested \$20 M for operations for the full fiscal year, and \$38.9 M for Landsat 6.

The continuing difficulties in funding the Landsat program are due to several factors: the process of commercialization probably was hasty; the desire of federal agencies (some of the heaviest users of Landsat data) to exercise certain control over the program in exchange for contributing subsidies, has complicated the federal budget process; the program has suffered from inadequate long term planning; NOAA may not have been the most appropriate agency to be given responsibility for the program after its initial development by NASA.

The National Space Council has been working on a resolution to these problems, but its report expected by the end of summer has been delayed.

Sources: Landsat World Update, and Science, Vol. 246

## NEWS FROM THE SCO

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### State Cartographer Sets Retirement Date

*Dear Readers:*

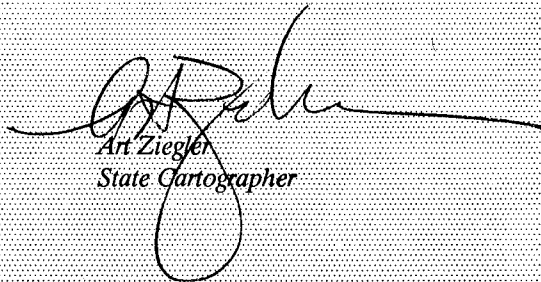
*After fifteen years as the Wisconsin State Cartographer, I have notified the Committee on State Cartography and the Dean of the College of Letters and Sciences in the University of Wisconsin-Madison of my intention to retire, effective December 31, 1990.*

*This lengthy advance notice will allow the Committee and the College sufficient time to carry out a deliberate search and screen process to recruit a replacement. I will also have ample opportunity to complete several important projects in the office.*

*During the next year, I will utilize issues of this Bulletin to express my thoughts on the major cartographic occurrences of the past 15 years, and the direction I believe the state should be heading for the future.*

*Once the University determines the procedure and calendar for the search and screen activity, it will be announced in this Bulletin.*

*Cordially,*



Art Ziegler  
State Cartographer

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### COUNTY CARTOGRAPHIC CATALOG DEVELOPMENTS

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

DANE: Published in June; distribution of complimentary copies completed in August; copies available for sale from Map Sales, Wisconsin Geological and Natural History Survey. (see July '89 Bulletin, page 3)

CHIPPEWA: Scheduled for printing in December.

GREEN: in process, scheduled for printing early 1990.

CLARK: in process, scheduled for printing early 1990.

WINNEBAGO (2nd edition): in process, scheduled for printing mid 1990.

MARATHON: in initial phases.

WOOD: in planning stage.

PORTAGE (2nd edition): in planning stage.

## ARC/INFO CONFERENCE DRAWS 300 TO MADISON

People interested in geographic information systems (GIS) crowded the Inn on the Park in Madison for three days in October. The event was the third annual Midwest/Great Lakes ARC/INFO User Conference. ARC/INFO is one of the most widely used GIS software packages. There was a mix of presentations---some general to GIS, and others specific to ARC/INFO.

The first two such annual meetings drew 75 (Champaign, IL in 1987) and 150 (St. Paul, MN in 1988). This year there were 180 attendees from Wisconsin alone. Next year's meeting will be hosted by a user group in the Kansas City area.

To date, the major Wisconsin ARC/INFO activity has been in state agencies (particularly DOT and DNR) and in university research and teaching applications. However, the more recent availability of this software on a wide variety of computer hardware platforms, particularly the pc microcomputer, has resulted in a surge of users. Even so, the majority of Wisconsin attendees at the October meeting were not current users, but attended to gain general information.

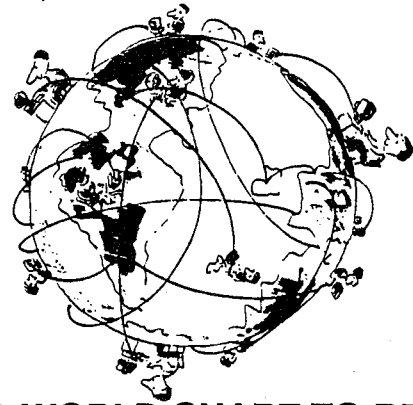
The highlight of the conference was the luncheon keynote address by Jack Dangermond, President and founder of Environmental Systems Research Institute (ESRI), the company that produces ARC/INFO. Jack painted a picture of the future, where linkages between data formats would be managed by the GIS software "switchyard" function, and where attributes of spatial entities would include video, CAD files, and scanned documents in addition to the current relational database entries. He also believes that the capability to share data maintained by individual offices will contribute to cooperation.

Jack noted additional trends in the GIS arena which will broaden the use of the technology: integration of vector graphics with image display and interpretation; high quality graphics such as font libraries and electrostatic plotting; increased capabilities in utility data management; support for transactional land records management; and networked workstations with vastly increased power compared to even the fastest current microcomputers.

Several specific announcements regarding ESRI products were of particular interest: pcARC will soon be available directly linked into Dbase, and the resulting database response will be significantly faster than with pcINFO; the future of pcARC will likely be essentially the same as the versions running on larger

computers, which will require extended DOS capabilities; ESRI is involved in producing a 500 page textbook on GIS authored by Professor David Rhind, an English authority on GIS who has an international reputation; ARC has been rewritten so that relational databases other than INFO (such as ORACLE or INGRES) can be easily used.

This conference was organized by ARC/INFO users in Wisconsin. Primary responsibility for management of the myriad of factors supporting a smoothly run meeting was assumed by the Wisconsin Geological and Natural History Survey. Major assistance came from DOT and DNR, and several UW-Madison entities.



## DIGITAL WORLD CHART TO BE PRODUCED ON CD-ROM

The Defense Mapping Agency (DMA) has contracted with ESRI (the company that produces ARC/INFO) to produce a digital world map using the DMA's Operational Navigational Charts as a source. The charts are a set comprised of 270 sheets.

"This will be one of the most significant Geographic Information System projects ever done," said Jack Dangermond, ESRI President. "It will form the basis not only for automated cartography, but for geographic information modelling on a global scale."

The final product of the project, which is scheduled to be completed by December of 1991, will be encoded on CD-ROM (compact disk, read-only memory). Under the current technology, one CD-ROM disk can hold over 500 megabytes of data. CD-ROM reading devices are already available for use with personal computers, and may become widely used within the 2-year time frame of this project.

In the initial prototype phase of the project, ESRI will search and develop data structure tools. This activity will be essential in allowing rapid access to specific items from a large mass of data.

*Source: ESRI*

## Third Annual Conference

### "Implementing the Wisconsin Land Information Program"

**February 19-20, Holiday Inn Holidome, Stevens Point**

- Join in providing guidance and support for implementing the new Wisconsin Land Information Program, which WLIA sponsored
- Learn more about land information - both basics as well as advance topics
- Discuss current and future land information issues
- Hear from and meet with legislators who support land information initiatives
- View displays of state-of-the-art products available from the vendor community
- See the results of diverse land information activities in offices from across the state
- Share ideas and experiences with other land information professionals
- Early registration fee is \$50.00
- After January 31, 1990 the fee will be \$ 60.00
- Registration includes annual membership in WLIA, both lunches, and all sessions
- Wisconsin subscribers to the Wisconsin Mapping Bulletin will receive registration materials in December
- For further information, contact the State Cartographer's Office: (608) 262-3065
- Sponsored by the over 300 individual, association, institutional, and corporate members of WLIA

## Preliminary Program

**Monday, February 19**

**Opening Plenary Session: 10:00 am - Noon**

- Remarks on the past, present, and future by local hosts, WLIA officers, legislative supporters, and the Wisconsin Land Information Board

**Afternoon Concurrent Sessions: 1:15 - 4:30 pm**

- Three time slots, each with five choices of workshops on a variety of topics

**Evening: 5:00 - 8:00 pm**

- Vendor Displays, Participant Poster Displays, with complimentary hors d'oeuvres and cash bar

**Tuesday, February 20**

**Morning Plenary Session: 8:00 am - Noon**

- A sequence of panel discussions, raising important issues such as the official state horizontal datum; role of the public utilities; statewide mapping needs; organization of the local land records "office"; meeting the educational challenge

**Afternoon Session (immediately following luncheon): 1:15 - 2:00 pm**

- WLIA Annual Business Meeting

**Plan to register early, as space is limited.**

**Attendance is expected to exceed 400**

## ACSM & ASPRS HOLD FINAL FALL CONVENTION

The 1989 joint fall convention of the American Congress on Surveying and Mapping (ACSM), and the American Society for Photogrammetry and Remote Sensing (ASPRS) was held September 17-22 in Cleveland, Ohio.

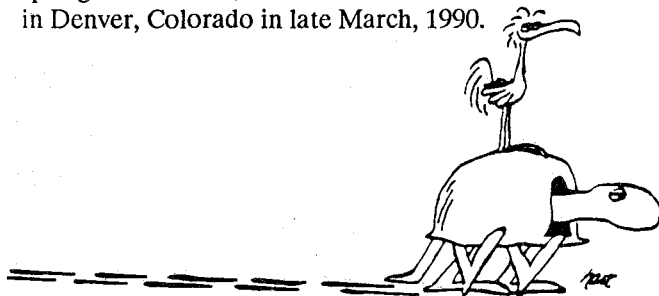
The theme of this year's conference was "From Compass to Computer: On-Line in '89". The keynote address was given by Daniel A. Burrus, a well-known science futurist. He discussed ways to make the future work for us in a very stimulating and thought-provoking talk.

More than 16,000 square feet of exhibit space housed surveying and photogrammetric instruments, microcomputers, workstations and photographic equipment. Hardware and software demonstrations were popular as usual.

There were 33 sessions for presentations of papers, dominated by GIS-related topics. There was a manufacturer's forum and a women's open forum on "Real and Perceived Barriers to Professional Advancement". Also, the Cleveland Chapter of the Professional Land Surveyors of Ohio held a symposium during which was discussed the ALTA-ACSM Land Title Survey Specifications adopted in 1986 and revised in 1988 and how these specifications impact on title insurance, necessary surveys and legal ramifications of the real property transfer.

In addition to these sessions there was a full schedule of administrative and planning meetings for member organizations.

On an historical note, the Cleveland meeting will be the last separate fall meeting of ASPRS/ACSM. Future fall meetings will be held in conjunction with the fall GIS/LIS conference co-sponsored by AAG (Association of American Geographers), ACSM, ASPRS, AM/FM International, and URISA (Urban and Regional Information Systems Association). ACSM and ASPRS will continue to hold their joint spring conventions; the next one of these events will be in Denver, Colorado in late March, 1990.



## NACIS HOLDS ANNUAL MEETING

The North American Cartographic Information Society (NACIS) is a nine-year-old cartographic organization whose main objective is to promote communication, coordination and cooperation among the producers, researchers, disseminators, curators and users of cartographic information.

Among the activities of NACIS is an annual conference. This year's conference was held October 11-15 in Ann Arbor, Michigan. The conference was attended by over 100 people from 22 states and the District of Columbia, as well as from 4 foreign countries (Canada, Brazil, Finland and Poland).

The theme of this year's conference was "New Perspectives". The keynote address was delivered by Judy Olson, Chairperson, Department of Geography, Michigan State University. She talked about designing maps for the color-blind. Paper sessions were held on a wide range of topics including cartographic design, map library management, microcomputer-based cartographic production, GIS, and cartographic education. There was a roundtable discussion on ethics in cartography and a poster session on products and resources of university cartographic labs.

Next year's conference will be held in Orlando, Florida.

NACIS publishes a quarterly bulletin called Cartographic Perspectives. It contains sections titled Cartographic Perspectives on the News, Featured Article, Cartographic Techniques, Fugitive Cartographic Literature (contains abstracts of articles dealing with cartographic information that appear in journals other than those devoted to cartography, geography and map librarianship), Cartographic Artifacts, Cartographic Events and NACIS News.

Anyone interested in joining NACIS and receiving Cartographic Perspectives should contact:

Gregory Chu  
Department of Geography  
University of Minnesota  
414 Social Science Building  
Minneapolis, MN 55455

(612) 625-0892

Fees are \$8.00 for students, \$28.00 for regular members, and \$58.00 for institutional members.



# CONFERENCES AND TECHNICAL MEETINGS

December 4-8, 1989, **AGU Fall Meeting**, San Francisco, CA. Contact: Karol B. Snyder, Exhibits Coord., American Geophysical Union, 2000 Florida Ave., NW, Washington, D.C. 20009. Call: 800 424-2488 or 202/462-6900.

December 6-8, **The Government Communications Conference**, Government Computer News and Corporation for Open Systems with U.S. Professional Development Institute (USPDI) and Computing Unlimited, Inc. (CUI), Washington, DC. Contact: Kenneth Lini, Computing Unlimited, Inc., 2301 Research Blvd., #203, Fort Collins, CO 80526, 303/498-0901.

December 11-15, **NAVSTAR GPS for Engineers**, A Comprehensive Introduction to GPS Technology to be held at the Radisson Inn Maingate, Orlando, FL. Call: 703/931-0500 for more information.

## 1990

January 8-12, **Modernizing Local Land Records Using pcARC/INFO** to be held at the Friedrich Center, 1950 Willow Dr, UW-Madison, Madison, WI 53706. Contact: Bob Fey, Program Director at 608/262-8592 or Jane Sauer, Program Assistant at 608/263-3162.

January 15-19, **Modernizing Local Land Records Using pcARC/INFO**, see January 8-12 listing for details.

January 22-26, **Modernizing Local Land Records Using pcARC/INFO**, see January 8-12 listing for details.

January 24-26, **Wisconsin Society of Land Surveyors' 41st Annual Technical Institute**, Stevens Point, WI. See article below.

February 5-9, **Geographic Information Systems: An Introduction** will be held at the Center for Advanced Land Management Information Technologies (CALMIT), Univ. of Nebraska-Lincoln. Contact: CALMIT, Conservation and Survey Div., Institute of Agric. & Natural Resources, 113 Nebraska Hall, Lincoln, NE. Call: 402/472-2567.

February 5-10, **Focus on the 90's, 25th Annual Alaska Surveying and Mapping Conference**, ACSM (Alaska Section), ASPRS (Alaska Region), Alaska Society of Professional Land Surveyors, and URISA (Alaska Chapter), Anchorage, AK. Contact: Thomas W. Knox, P.O. Box 103294, Anchorage, AK. Call: 907/786-8116.

February 19-20, **Third Annual Conference of the Wisconsin Land Information Association**, Stevens Point, WI. Contact: State Cartographer's Office, 155 Science Hall, University of Wisconsin-Madison, Madison, WI 53706-1404, 608/262-3065.

March 13-16, **GIS '90**, Vancouver, British Columbia, Canada. Contact: Symposium Office, 134 Abbott Street, Suite 303, Vancouver, B.C., Canada V6B 2K4, 604/688-0188.

March 19-24, **ACSM/ASPRS Annual Convention**, Denver, CO. Contact: Ronald Wolbach, 10420 Glennon Dr., Lakewood, CO 80226, 303/236-5812.

April 9-13, **Geographic Information Systems: An Introduction**, see February 5-9 listing for details.

April 16-20, **Advanced GIS: ARC/INFO**, see February 5-9 listing for details.

April 19-22, **Association of American Geographers' Annual Meeting** will be held at the Sheridan Centre in Toronto. Contact: AAG, 1710 16th St. NW, Washington, DC 20009-3198, 202/234-1450.

April 23-26, **AM/FM International Conference**, will be held at Stouffer Harborplace Hotel, Baltimore, MD, 303/779-8320.

April 30-May 3, **Mid-America GIS Symposium**, sponsored by the Six State GIS Consortium will be held at the Merriott Hotel in Overland Park (Greater Kansas City), Kansas. Contact: Vicky Varner, Symposium Publicity Committee, Kansas Applied Remote Sensing, Kansas University, 2291 Irving Hill Road, Lawrence, KS. Call: 913/864-7721.

August, **URISA's 28th Annual Conference**, Edmonton, Alberta, Canada. Contact: URISA, 900 Second St. NE, Washington, DC 20002. Call: 202/289-1685.

September 17-21, **ISPRS Commission VII, Global and Environmental Monitoring**, at the Victoria Conference Centre, Victoria, B.C. Contact: Frank Hegyi, President, Commission VII, 1450 Govt. St., Victoria, B.C., Canada V8W 3E7. Call: 604/387-6722.

## LEARN ABOUT DATUM ISSUES

Spheriods, datums, coordinates, adjustments.....are the exclusive area of geodetic and land surveyors, correct? Wrong!!! Anyone involved in base mapping, or who is or expects to be involved in digital land information management needs a basic understanding of these topics. While this subject has technical aspects, and is based on complex mathematics, the choice of a standard datum on which to base data collection and GIS activities is very important to all users.

A group of Wisconsin Land Information Association (WLIA) members will be discussing datum issues on four consecutive evenings: Madison (12/11), Milwaukee (12/12), Green Bay (12/13), and Eau Claire (12/14). (A flyer with details is being mailed to all subscribers of this Bulletin). This is an opportunity to learn more about the background and the critical issues surrounding consideration of Wisconsin officially adopting a new datum replacing NAD 27. At each site, there will be an educational presentation on datum basics preceding the discussion of issues which need resolution. The committee plans to report in February to the WLIA membership, which then may vote to take an official position.

## 41st Surveyor's Institute Planned

The Wisconsin Society of Land Surveyors has scheduled its Annual Technical Institute for January 24-26 in Stevens Point. The sessions begin at 9:30 am on Wednesday and conclude at noon on Friday. There will be a vendor display.

Topics include: full-day hands-on computer workshop; panel on 4-year education requirement for registration; survey measurements and least squares adjustment; writing property descriptions; survey monuments/soil conditions/longevity of monuments.

Registration ranges from \$125-\$185, depending on membership status and timeliness. For more information, contact Les Van Horn at (414) 436-365.

## URISA Meeting Highlights

Wisconsin was well represented at the 1989 URISA Annual Meeting in Boston in August. URISA is the Urban and Regional Information Systems Association. Members from Madison, Milwaukee, Wausau, and Waukesha heard about activities in other states, cities, counties, and even other countries. The exhibit hall was full of vendors showing their latest equipment, software, and services. The number of GIS software products offered by vendors continues to increase.

D. David Moyer of Madison completed his one-year term as President of URISA; he will not have much chance to catch his breath, however, since he and Ben Niemann (also of Madison) are busy editing the first issue of the new URISA Journal. Randy Gschwind of Milwaukee coordinated the ever-growing offerings of pre-conference workshops. Other Wisconsin attendees gave papers and participated in panels.

Representatives from a number of states described the types of LIS/GIS coordinating activities they are involved in. Bob Gurda of the Wisconsin SCO discussed activities in our state, including organizational devices that local governments have developed to help address modernization of their land records. Across the country there is a great variety in history, approaches, funding level and sources, and the institutional location of coordinating activity. The strongest similarity is that everyone is expecting LIS/GIS activity to increase. Unlike Wisconsin, many states now have operational state-level GIS functions; but Wisconsin is clearly in front in terms of attempts to structure connections amongst levels of government, and in terms of organization of an active cross-disciplinary constituency (i.e., the Wisconsin Land Information Association).



## 7.5-minute Orthophotoquads

The graphic on the facing page illustrates the current availability of 7.5-minute black-and-white orthophotoquads produced by the U.S. Geological Survey for the area of Wisconsin. Approximately 40% of the state has this coverage. The vintage ranges from 1971 to the present. This series was under active development in the mid-1970's, and has seen revival over certain areas in the last several years. The program is driven by specific natural resource needs, particularly of federal agencies, such as soil mapping.

Orthophotos are produced from aerial photographs, by removing the distortions inherent in the photos. Through this relatively complicated and expensive process, a product looking very much like an aerial photomap is generated that has uniform scale and thus can be used like an accurate map---to measure angles, distances, or areas. An orthophotoquad in this series covers the same area on the earth, and at the same 1:24,000 scale, as the standard 7.5-minute quadrangle maps. Most are derived from panchromatic film (sensitive to all visible wavelengths), but some are from infrared film (sensitive to green, red, and near infrared, but insensitive to blue).

Neither the type of product available over a given area, nor the source or price is standard for this series. This somewhat confusing situation is due to the history of the series. Some of the earlier quads were published; that is, lithographic plates were produced from which ink-on-paper prints were made (\$2.50). For the remainder of the quads, litho plates have not been made, but copies can be ordered from reproducible materials; some of the earlier of the screened positive reproducibles were acquired by the Wisconsin Geological and Natural History Survey (WGNHS).

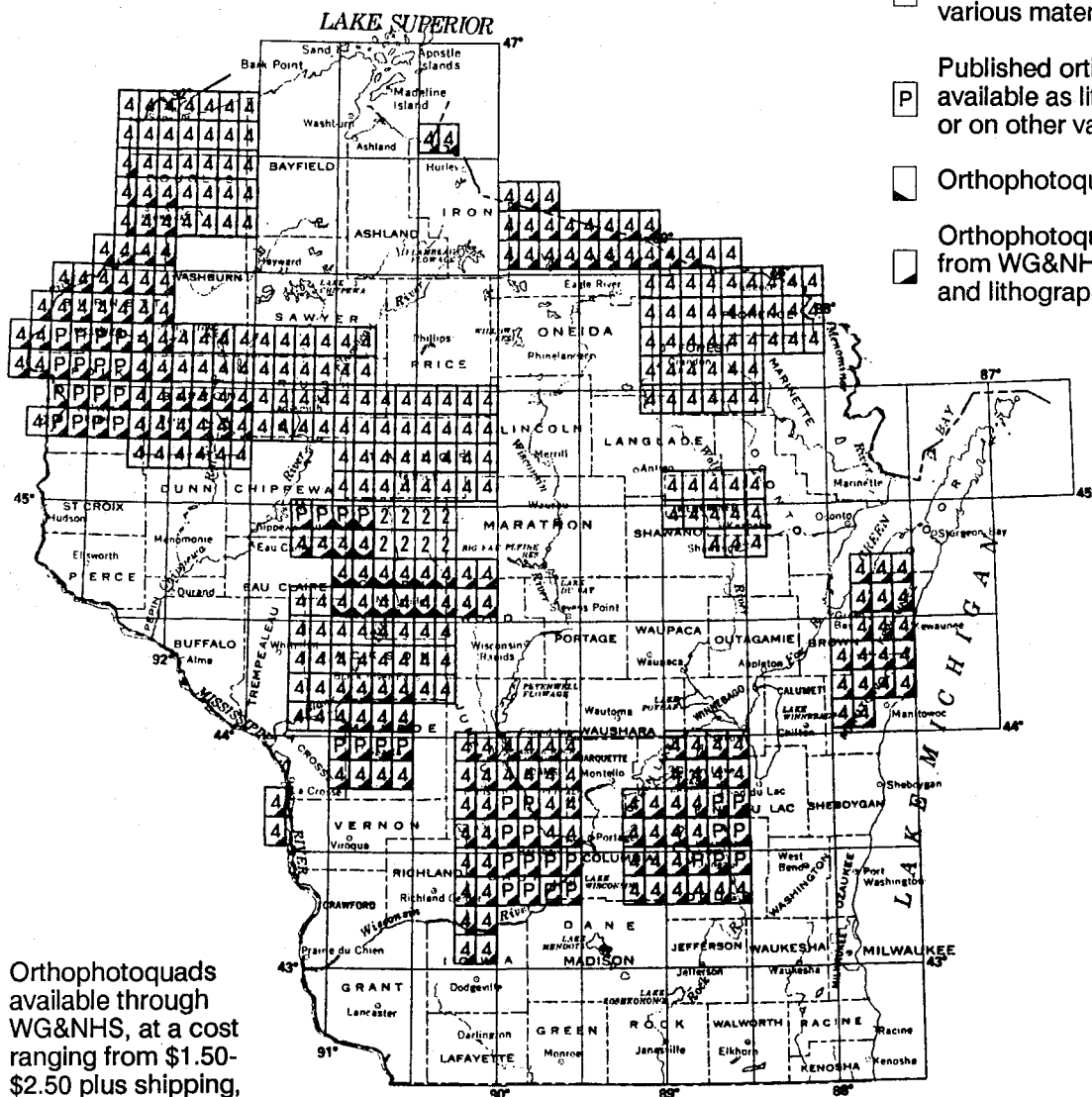
Copies from the reproducibles can be ordered in several forms from USGS: half-tone screened diazo prints (\$2.50), half-tone screened on standard photographic paper (\$20), half-tone screened on cronopaque---a white stable base film (\$36), or contact continuous-tone positive on transparent film (\$36). Add postage of \$1.00 for an order of under \$10.00. Make checks payable to Department of Interior--USGS. Allow several weeks for delivery of non-litho products.

WGNHS carries a subset of the available maps: all of the lithos, plus diazo prints of those marked on the facing graphic with both a "4" and a triangle in the lower right corner. These are all maintained in stock for immediate shipment. The prices are \$1.50 for a diazo print, and \$2.50 for a litho print; postage is additional.

# STATUS OF ORTHOPHOTOQUAD MAPPING AS OF OCTOBER 1989

## LEGEND

- 2 New orthophotoquad in progress
- 4 Unpublished orthophotoquads available as advanced prints on various materials from USGS
- P Published orthophotoquads available as lithographic prints, or on other various materials
- Orthophotoquads in revision
- Orthophotoquads available from WG&NHS; includes diazo and lithographic prints



Orthophotoquads available through WG&NHS, at a cost ranging from \$1.50-\$2.50 plus shipping, are indicated on the graphic. These can be ordered from:

Wisconsin Geological and  
Natural History Survey  
3817 Mineral Point Road  
Madison, WI 53705  
608/263-7389 Map Sales

All orthophotoquads can  
be ordered from:

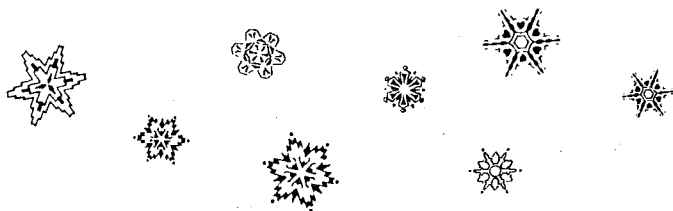
U.S. Geological Survey  
Mapping Division  
1400 Independence Road  
Rolla, Missouri 65401  
314/341-0851

## MARATHON COUNTY/WAUSAU PREPARING TO SELECT VENDOR FOR GIS PILOT PROJECT

By early next year, Marathon County and the City of Wausau will have made their selection of a vendor for GIS software and hardware to operate a pilot project. At this time, the list of vendor proposals received has been trimmed from eight to the final three. Over the upcoming weeks, site visits will be made to collect additional information leading up to the selection.

The pilot project will focus on 5 sections of land, 4 of which will be a contiguous block on the urban/rural edge, plus 1 section which is completely rural. Multipurpose applications will be developed. Funding is planned to come from both the county and the city.

This project has been developed under the auspices of the City-County Data Center Commission. Duane Zeichert, Senior Systems Analyst with the Commission staff, is the project leader.



## BOOKLET EXPLAINS GPS

Trimble Navigation, one of the vendors of Global Positioning System (GPS) receivers, has published a booklet titled GPS: A Guide to the Next Utility. This document provides a good explanation of GPS in layman's terms; it also provides guidance for carrying out measurements using GPS. Single copies are available free upon written or telephone request; multiple copies can be purchased. Write Trimble Navigation Ltd., 645 N. Mary Avenue, Sunnyvale, CA 94088-3642. Telephone number is (408) 730-2900; FAX (408) 730-2997.

## COUNTY PLAT BOOKS

The following Wisconsin County Land Atlas and Plat Books are now available for 1989: Adams, Barron, Burnett, Chippewa, Columbia, \*Dane, Dodge, Florence, \*\*Green Lake-Marquette, Iron, Juneau, Kewaunee, Langlade, \*\*Marquette-Green Lake, Monroe, Oconto, Oneida, Outagamie, Pierce, Polk, \*\*Racine-Kenosha, Winnebago, and Wood. These Plat Books sell for \$25.00 plus tax and shipping, except those marked with a single asterisk sell for \$20.00, and those marked with two asterisks sell for \$30.00. For ordering details contact: Rockford Map Publishers, Inc., P.O. Box 6126, Rockford, IL 61125. Phone (orders only) 800/435-0712 or for customer service call 815/399-4614.

## Wisconsin Mapping Bulletin

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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 January 10, 1990.

Editor: Bob Gurda

Contributors: Art Ziegler, Tom Ruzyski,  
SCO Production Staff

Desktop Publishing: Brenda Hemstead  
Mailing: SCO Production Staff

Send all 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

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