

# Wisconsin State Cartographer's Office

Your resource for mapping & geographic information  
in the state of Wisconsin

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Annual Report: July 1, 2006 - June 30, 2007



Established in 1974, the mission of the State Cartographers Office (SCO) is to promote, support, educate on, and coordinate the creation, use and sharing of geospatial information in Wisconsin. The SCO is an advocate and leader for the mapping and GIS user community in Wisconsin, and embodies the spirit of the "Wisconsin Idea" as an outreach office of the University of Wisconsin-Madison.

Fiscal year 2007 (July 1, 2006 – June 30, 2007) was our first full year under the guidance of a formal three-year strategic plan developed in the spring of 2006. Based on this plan, our activities for the year emphasized one or more of the following concepts: relationships, responsive leadership, proactive outreach, and information dissemination & education. Improved internal management is a fifth, internally-focused area in which we constantly seek additional efficiencies.

Among our many ongoing activities and services, the following rise to the top as significant accomplishments during FY07:

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— ■ A new web application called "PLSSFinder" was unveiled. This web-accessible tool helps surveying professionals locate Public Land Survey System monuments in Wisconsin, thus enhancing their efficiency and productivity.

— ■ The *Wisconsin Mapping Bulletin*, our primary periodical for over 30 years, was significantly enhanced to keep the state's professional geospatial community in-touch with news and events in a timely manner.

— ■ The "Ramona" GIS inventory is a national system that we modified to double as the state's GIS and land information system inventory. This was done with the collaboration of the WI Land Information Association, the WI Land Information Officers Network, and the WI Department of Administration. Ramona provides an important ongoing inventory of standards, policies, and geographic data developed and used in Wisconsin.



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As the custodian and central point of contact for coordinate system-related information in the state of Wisconsin, we began a major overhaul of our 1995 Wisconsin Coordinate Systems handbook. This is a significant reference publication used by map and GIS users throughout the state.

Through the UW Spatial Information and Analysis Consortium (SIAC) we continue to promote geospatial research and teaching on the UW Madison campus. In FY07 we hosted a series of invited presentations for the SIAC community, managed a student paper competition, and cooperatively developed a career seminar with the UW GIS Certificate program to help students understand the job skills they will need upon graduation.

Continued leadership and advocacy at a national level for the “Imagery for the Nation” proposal originally developed in 2004 by Ted Koch, State Cartographer. IFTN is now the number one priority on the advocacy agenda of the National States Geographic Information Council (NSGIC). With the potential to significantly benefit local governments in Wisconsin, we actively support and promote this important initiative.

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## II.

## Summary of Impacts

- Improved statewide coordination through leadership in the Wisconsin Geographic Information Coordination Council (WIGICC) initiative and the 2007 "Wisconsin Location Matters" strategic plan
- Facilitated a better understanding of statewide information policies and geospatial data holdings by customizing the Ramona GIS survey
- Offered Public Land Survey System and geodetic data access to land surveying professionals and others through ControlFinder and PLSSFinder
- Delivered more timely information to our constituents through new enhancements made to the *Wisconsin Mapping Bulletin*
- Lead a task force that developed a simplified county coordinate system to make the mapping process easier
- Provided national leadership of the proposed Imagery for the Nation program which will potentially benefit local governments in Wisconsin through cost savings and increased efficiencies
- Facilitated better communication between geospatial faculty, staff, and students on the UW-Madison campus through leadership in the Spatial Information and Analysis Consortium
- Worked with the WI Land Information Association to update their bylaws and procedures
- Provided employment experience for UW-Madison undergraduate and graduate students



## About the State Cartographer's Office

The Wisconsin State Cartographer's Office (SCO) is a unit within the Department of Geography, College of Letters & Science (L&S), at the University of Wisconsin-Madison. The duties of the State Cartographer are broadly defined in the state statute. The SCO receives most of its annual funding through an annual base budget appropriation administered by L&S. The Committee on State Cartography, an advisory committee, oversees the operation of the SCO. In this role, the CSC meets two times annually (spring and fall) with staff to review recent SCO activities and assess future strategic directions. The CSC is composed of representatives from the UW campus and state and local government, and are appointed by the Dean of the UW-Madison College of Letters & Science (L&S) to three-year renewable terms.

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### Fiscal Year 2007 Funding

#### Income:

Base funding (salaries)	-	\$309,711
Base funding (supplies & services)	-	\$ 29,919
Grants (federal & private)	-	\$ 32,812
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Total:		\$ 372,442

#### Expenditures:

Salaries (Permanent, LTE, Student)	-	\$328,768
Supplies & Services	-	\$ 30,511
UW Grant Overhead	-	\$ 10,011
Carryover to FY '08	-	\$ 3,152
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Total:		\$ 372,442

## About the State Cartographer's Office (Continued)

The SCO staff is composed of a small core of permanent positions augmented with part-time student assistance. During 2007 the availability of grant funding permitted the employment of additional students, and several limited-term appointments.

### **Permanent Staff**

- Ted Koch, State Cartographer
- Jim Lacy, Associate State Cartographer
- AJ Wortley, Senior Outreach Specialist
- Brenda Hemstead, IS Resource Support Technician
- Conni Fialkowski, Financial Specialist (50%)

### **Limited-Term Staff**

- Jared Chapewski (3 months)
- Jerry Sullivan (2 months)
- Diann Danielsen (3 months)

### **Student Staff (part-time)**

- Catrine Lehrer-Brey (12 months)
- Aubin Maynard (12 months)
- Kimie Lee (12 months)
- Leo Moreno (9 months)
- Shelly VonGlahn (6 months)
- Kurt Wagner (6 months)
- Jamon Van Den Hoek (3 months)
- Danny Tenenbaum (1 month)

## About the State Cartographer's Office (Continued)

The position of State Cartographer was created by the Wisconsin Legislature (Assembly Bill 300) in 1973. With agreement between the Legislature and the University of Wisconsin System, the State Cartographer was administratively attached to the UW-Madison campus. Chancellor Irving Shain further directed that activities of the State Cartographer shall be budgeted through the College of Letters and Science.

Arthur Ziegler was the first State Cartographer, hired in the summer of 1974. Ted Koch took over as State Cartographer (1991 to present) following Ziegler's retirement in 1990.

### Statutory duties of the State Cartographer

36.25 (12m) State Cartographer. The state cartographer shall:

- (a) Establish and maintain a union catalog of current and historical reference and thematic maps of all scales available in municipal, county, state and federal agencies relating to this state.
- (b) Promote liaison among the municipal, county, state, and federal mapping agencies and surveyors to facilitate coordination and to exchange information on mapping and cartographic activities.
- (c) Keep abreast of the progress made by mapping agencies and their mapping developments.
- (d) Collect, maintain and disseminate information regarding innovation in cartographic techniques and mapping procedures, map and air photo indexes and control data, map accuracy standards, legal aspects of map publication and such other matters as will facilitate an effective cartographic program for the state.
- (e) Publish and distribute such special maps and map information as will promote the mapping of the state and preparation and use of maps by individuals, only to the extent, however, that such publication and distribution is not appropriately within the activities of any other state or commercial agency.
- (f) Assist the department of natural resources in its work as the state representative of the U.S. geographic board and its other functions. Under s. 23.25.

## IV.

### Progress on 2007-2009 Strategic Priorities

#### **Relationships**

As an office whose primary function is outreach, developing and maintaining relationships with others within the university community, within the state, and even outside the state is critical to our success. Over the past year we have continued to strengthen and expand relationships with positive results.

#### **Mission**

**Our purpose is to promote, support, educate on, and coordinate the creation, use and sharing of geospatial information in WI.**

- **State Agencies** – Beginning in 2006, our office became directly involved in agency GIS strategic and operational planning through participation in the Wisconsin Enterprise GIS (WEGIS) team. This reflects a significant milestone. Our involvement promotes improved mutual understanding and cooperation between UW-Madison and state agencies. We have continued to work closely with the WI Dept. of Transportation, maintaining on our website DOT information and data related to the national Height Modernization Program.

#### **Vision**

**We are the definitive source of timely information on geospatial technology trends, policies, and data sharing in the state of WI. We are a strong leader and advocate for Wisconsin's geospatial information community.**



## Progress on 2007-2009 Strategic Priorities (Continued)

- **Federal Agencies** – In September 2006, the US Geological Survey awarded the SCO approximately \$14,000 to inventory a variety of geo-spatial data, and to facilitate the collection geographic information using the GIS inventory tool called Ramona. The scope of this project was developed in collaboration with Dick Vraga, the USGS state Liaison. Also, we have worked with the Natural Resources Conservation Service as a member of its Soils Mapping Advisory Committee. Finally, we maintain regular contact with the National Geodetic Survey's Wisconsin advisor, and this advisor serves on the SCO's advisory committee.
- **Regional Agencies** – We participate on a project collaboration team with the UW Sea Grant and the Great Lakes Commission to develop GIS-related decision making tools for floodplain management and groundwater quality. We also made site visits to several Wisconsin Regional Planning Commissions during the year with the goal of better understanding their ongoing activities.
- **UW Department of Geography** – The Department is our home unit and as such we collaborate on departmental initiatives whenever possible. The SCO took the lead in organizing a "Science Hall Open House" on October 11, 2006. This event attracted over 300 visitors from the campus, the city and beyond. Also, we have collaborated on several projects with the Robinson Map Library.
- **UW Students** – We continue to provide significant, applied work experience for UW undergraduate and graduate students interested in geospatial technologies. We are widely recognized among students as the place to go for practical lessons not taught in the classroom setting. As such, we help students make the transition to full-time careers after graduation.

## ***Responsive Leadership***

- **Statewide GIS Strategic Plan** - Ted was invited to be a part of a core team to develop a statewide GIS strategic plan entitled, "Wisconsin Location Matters: A State-wide Geographic Information Strategy." The 23-page plan promotes an understanding of GIS, why it is important, and maps a path to the future. Finished in January of 2007 and published on the WLIA web site, the initiative was funded through a FGDC Cooperative Agreements Program grant.
- **Wisconsin Geographic Information Coordination Council** – Ted is serving as co-Chair of an ad hoc working group developing strategies toward the implementation of a Coordination Council. AJ, with assistance from several SCO students, leads the web presence of the WIGICC working group.
- **National Digital Ortho Photo (NDOP) Steering Committee** – Ted served as Chair of the NDOP committee, a consortium of federal agencies concerned with efficient implementation national aerial imagery programs, during calendar year 2007.
- **Wisconsin Land Information Association** – At the March Annual Conference AJ was elected to a second two-year term on the Board of Directors. Staff continue to serve on WLIA committees and task forces, and give presentations at the annual conference and regional meetings.
- **National States Geographic Information Council (NSGIC)** – The NSGIC annual conference, anticipating nearly 350 attendees, will be held in Madison during September 2007. This meeting will bring nearly all state GIS coordinators to our city, plus a variety of federal agencies and private companies.

## Progress on 2007-2009 Strategic Priorities (Continued)



### Outreach

**Public service continues to be an important part of our mission. We fill a niche not offered by any other organization in Wisconsin—a central place to go for help with mapping and GIS-related questions. In doing so, we embody the spirit of the “Wisconsin Idea” by serving the public and sharing the benefits of the University of Wisconsin-Madison with the broader public.**

- **Geospatial news and information** – The Wisconsin Mapping Bulletin, our primary periodical for over 30 years, was significantly enhanced in order to keep the geospatial community in-touch with news and events. News and feature stories are updated as they happen, allowing us to get information out to our readers quickly.

The jobs section of our Web site continues to be very popular. On average, we have 15-20 job postings at any given time. We archive past job postings to track employment trends in the Wisconsin geospatial market.

Finally, in FY07 we continued to revise our technical “infosheets” on a regular basis. Future potential infosheets include wetlands mapping, elevation data, and the National Grid.





## Progress on 2007-2009 Strategic Priorities (Continued)

### • **Conferences and major meetings attended**

ESRI International Users Conference (August 2006, San Diego)

Wisconsin Counties Association (September 2006)

NSGIC Annual Conference (September 2006, Little Rock)

Wisconsin Society of Land Surveyors meeting & WISCRS Workshop (October 2006)

Wisconsin Towns Association (October 2006)

North American Cartographic Information Society (October 2006)

National Digital Orthophoto Steering Committee (October 2006, Phoenix)

WLIA Regional Meeting (November 2006)

ESRI Wisconsin User Group (November 2006)

Wisconsin Society of Land Surveyors Annual Conference (January 2007)

Imagery for the Nation Governance Planning Meeting (February 2007, Washington D.C.)

Wisconsin Land Information Association Annual Conference (March 2007)

WDOT Regional Surveyor's Meeting (March 2007)

NSGIC Mid-Year Meeting (March 2007, Annapolis)

Governor's Conference on Homeland Security (March 2007)

Wisconsin County Surveyors Association (May 2007)

WIGICC Listening Sessions (May 2007)

National Digital Orthophoto Steering Committee (May 2005, Tallahassee)

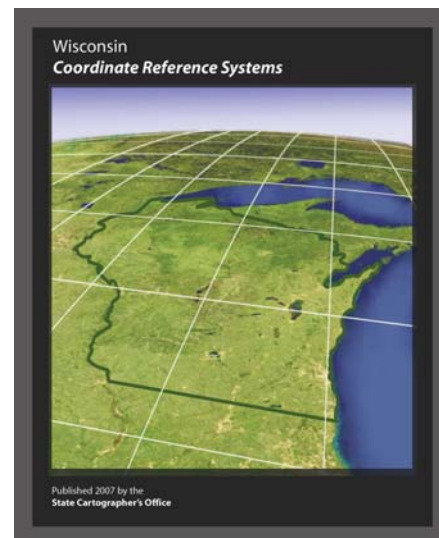
WLIA Regional Meeting (June 2007)

**Information Dissemination:**

• **Geodata integration** - As a service to the land surveyors, developers, and consultants, we continued past work on our "ControlFinder" geodetic control web application, and introduced this year a new, closely-related application called "PLSSFinder." These two projects are significant, and unique, in that they bring together disparate data from multiple county sources into a single, statewide view. These applications help users enhance their efficiency and productivity by providing a "single stop" for their survey control needs.



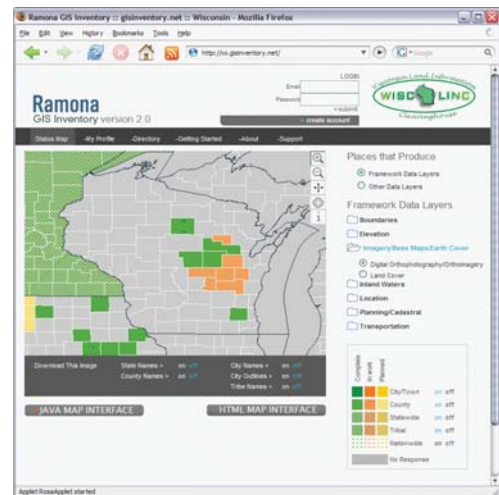
• **Coordinate systems education** - As the custodian and central point of contact for coordinate system-related information in the state of Wisconsin, we began a major overhaul of our 1995 Wisconsin Coordinate Systems handbook. The revised handbook is expanded to include more background material on coordinate system and projection concepts, and includes updated parameters for the new Wisconsin Coordinate Reference Systems (WISCRS). Our handbook continues to be the definitive reference for coordinate systems in Wisconsin.



**Information Dissemination: (continued)**

- **Geodata access** – One of our core statutory responsibilities includes facilitating access to maps and geospatial data through the development of online web catalogs, inventories, and search tools. To that end, we continue to offer the only state-wide, web accessible geospatial cataloging services in the state, most notably the WisCLINC metadata clearinghouse, our catalog of aerial photography, and the new “Ramona” GIS inventory system.

Ramona was a particularly significant area of emphasis for us during FY07. The WLIA Board of Directors and Land Information Officers Network both asked our office to investigate Ramona as a replacement for the former Wisconsin Land Information Program (WLIP) survey, which has been defunct since 2004. In addition to a technical evaluation of the system, we also assembled a series of teams with broad representation to evaluate future potential questions to include in a customized version of Ramona to meet the needs of the WLIP annual survey.



- **Standards** – Current standards work revolves around our membership in the Open Geospatial Consortium – providing localized outreach and consulting on trends, promise and benefits of standards utilization in GIS publishing. A column written by AJ and published in GIM International magazine in May 2007 further details activity in this area.

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**Internal Management:**

- **Finances** – We began to feel the impact of UW budget cuts this year. We are now charged \$8000 per academic year for tuition remission for our base-funded Project Assistant position. This amounts to a cut of approximately 45% from our \$17,700 student hourly budget. We will re-evaluate continued funding for our Project Assistant position beyond calendar year 2007.
- **Staffing** – AJ Wortley was promoted to Senior Outreach Specialist effective May 1, 2007. We employed three limited-term employees in FY07. Diann Danielsen, former Dane County Land Information Officer, worked during the spring of 2007 on our coordinate systems publication, Jerry Sullivan assisted with our early Ramona Survey research and development work, and Jared Chapewski provided programming support.

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**Staff awards, honors, achievements**

- AJ was re-elected to the Wisconsin Land Information Association Board of Directors.
- Ted was appointed 2007 Chair of the National Digital Orthophoto Steering Committee.
- Jim received a NSGIC travel scholarship in October to attend the NSGIC annual conference in Little Rock, Arkansas.

## V.

### Looking ahead: New or Major initiatives in Fiscal Year 2008

Wisconsin Geographic Information Coordination Council planning, implementation and administrative support

Ramona implementation and support

2007 NSGIC Annual Conference in Madison (September 2007)

Further enhancements to PLSSFinder and ControlFinder web applications

Publish second edition of Wisconsin Coordinate Reference Systems Handbook

WLIA support - continued participation in numerous task forces, committees, and Board of Directors

Continued leadership for the Imagery for the Nation initiative

Significantly revise the main SCO Web site

Enhance the Catalog of Aerial Photography

Continue advocacy and support for the Wisconsin geospatial community