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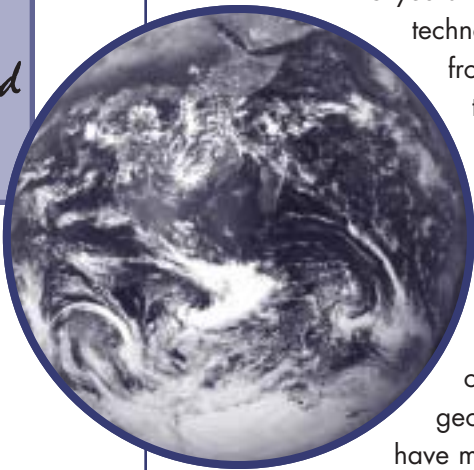
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Is it time for the United States to create a National Office of Geospatial Data Management?

By Scott Oppmann, Chief of Land Management Technologies, Oakland County, Michigan

Those who have been involved in geospatial technologies over the last 10 to 15 years have seen the technology and data evolve from back-office systems that were only used by one or two individuals in an organization; to enterprise systems that are vital parts of many large organizations. As geospatial technologies have matured, government agencies collectively (local, state, and federal) have invested billions of dollars in their development.

Unfortunately, in many cases these investments have been made in an uncoordinated fashion and with little effort made to ensure that one government's geospatial investments could be used by another.

As one looks across the federal geospatial landscape, the following programs or initiatives should be considered and reviewed within the context of one's state or local government GIS implementation.

GEOSPATIAL ONE STOP – LEAD AGENCY: OFFICE OF MANAGEMENT AND BUDGET

The goal of the Geospatial One Stop is to spatially enable eGovernment making it faster, easier, and less expensive to access geospatial data. The Geospatial One Stop web address is: www.geo-one-stop.gov.

TIGER ACCURACY IMPROVEMENT PROJECT – LEAD AGENCY: CENSUS BUREAU

The goal of the TIGER Accuracy Improvement Project is to provide improved geospatial data in support of the 2010 Census and other Census Bureau activities. The TIGER Accuracy Improvement Project web address is: www.census.gov/geo/www/tiger/index.html.

THE NATIONAL MAP – LEAD AGENCY: UNITED STATES GEOLOGICAL SURVEY (USGS)

The goal of the National Map is to provide seamless, continuously maintained geographic base data to serve as a foundation for integrating, sharing, and using other data easily and consistently. The National Map web address is: <http://nationalmap.usgs.gov>.

Who's Doing What in GIS and Spatial Technology?

By Robert Englebrecht



ANTRIM COUNTY

GIS Program Summary: Antrim County is located in northwestern lower Michigan. The 2003 State Equalized Value is \$2,102,857,925. 36,910 property descriptions are on the assessment roll. Included in its boundaries is the Antrim Chain of Lakes, which lies at the center of a 500 square mile (1295 km²) watershed that drains into Grand Traverse Bay through the Elk River. The chain includes 14 lakes, interconnecting rivers and some 247 tributaries.

Population: 23,110 (2000 Census)

Geography: 469.50 square miles (1216 km²).

Number of Staff: 1-Equalization Director, 1-GIS Technician

Annual Budget: Included in Equalization's \$142,221 budget

STATUS OF THE PROGRAM

The County is mandated to collect and store specific types of information. In some cases, the methods used to gather, store, and retrieve information were developed many years ago, long before computers became affordable and available enough for use on almost every desk. Computer technology offers new opportunities to coordinate and distribute information to a variety of users in a variety of

ways, including the ability to link and display information on a map. The ability to view information in geographic context allows for the better analysis of information.

Early in 1995 Antrim County's GIS program began with the hiring of Ron Hosenev, the current GIS Technician. Dan Bolle, the former Equalization Director, had the vision to start a GIS department in order to better utilize property ownership/tax maps. The old tax maps were hand drawn on paper and were very cumbersome and not very accurate. For the better part of the first year, Ron attended many schooling and training seminars.

In January 1996, the digitizing was started in-house on a DOS-based version of C-Map (a GIS developed by Michigan State University) using Michigan Resource Information System (MIRIS) data as the base. During the next three years, C-map was used to convert property ownership/tax maps from the old paper maps into digital data.

From March 1998 to November 1998, a GIS Strategic Plan was developed by the Antrim County GIS Advisory Committee with the assistance of the Northwest Michigan Council of Governments (NWMCOG). The Antrim County Board of Commissioners applied to NWMCOG and was selected to participate in a grant along with three additional counties. The GIS Advisory Committee, comprised of a broad cross-section of County staff, GIS Implementation Committee members, and other interested individuals relating to mapping and data management, convened monthly during the entire GIS planning process. The purpose was to evaluate the use of information within the County, explore opportunities to improve the technologies currently being used, assess the need for a GIS, and provide the structure for developing a productive, efficient, and cost-effective GIS. NWMCOG developed a written survey that was mailed to County departments and County affiliated agencies. Personal interviews were scheduled, and then policies and procedures were produced. Although the County Board of Commissioners did not 'officially' adopt this plan it did give some insight on how the different governmental agencies viewed GIS.

WHO'S DOING WHAT continued on page 5

NATIONAL OFFICE OF GEOSPATIAL DATA MANAGEMENT *continued from page 1*

HOMELAND SECURITY INFRASTRUCTURE PROGRAM (HSIP) – LEAD AGENCY: NATIONAL IMAGERY AND MAPPING AGENCY (NIMA)

The goal of HSIP is to provide foundational geospatial data that supports other federal agencies in their homeland security initiatives.

DFIRM MAP MODERNIZATION PLAN – LEAD AGENCY: FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

The goal of the Digital Flood Insurance Rate Map (DFIRM) Map Modernization Plan is to upgrade the 100,000 panel flood map inventory. The DFIRM Map Modernization Plan web address is: www.fema.gov/fhm/mm_main.shtm.

INTERAGENCY GEOSPATIAL PREPAREDNESS TEAM (IGPT) – LEAD AGENCY: USGS/NIMA

The goal of the IGPT is to improve national preparedness for all hazard emergencies by working with the geospatial and emergency management/response communities at all levels of government to identify geospatial capabilities needed.

DEPARTMENT OF AGRICULTURE FARMLAND MAPPING – LEAD AGENCY: USDA

As part of its effort to map the nation's farms and fields, the United States Department of Agriculture (USDA) has set out to establish the Common Land Unit (CLU) as a standardized GIS data layer that will allow mapping to be integrated easily on a nationwide basis. Along with its partner agencies, Rural Development and the Natural Resource Conservation Service (NRCS), the USDA's Farm Service Agency (FSA) is in the process of implementing desktop GIS at more than 2,500 field service center locations across the Country.

For these initiatives to be successful, three critical requirements must be met. First, they must encourage a tremendous amount of interagency coordination and communication. Second, they must involve state and local governments so spatial accuracy and currency is maintained. Finally, they must be appropriately funded so integration of existing geospatial data can occur, or as a last resort, develop the appropriate data when other sources do not exist.

For local government GIS professionals, it is often difficult to coordinate geospatial data development, application, and

use within one's own organization. It becomes increasingly more difficult when the organization is being approached by state and federal agencies to embark on additional or redundant geospatial activities. But recent government budget constraints and post September 11, 2001 analysis has demonstrated that it is imperative for government agencies at all levels work together to ensure the effective expenditure of public tax dollars and secure this vast country. Local units of government can not hide from or ignore these federal and state initiatives any longer. Coordination must begin to occur across all levels of government.

Many of these programs have become aligned with the Nation's homeland security strategy as the public safety community grows to understand the value of geospatial data in public safety activities. At a recent Information Sharing for Homeland Security Conference, Representative Curt Weldon (R-PA), Vice Chairman of the House Armed Services Committee, a member of the House Select Committee on Homeland Security, and former fire chief stated he "is convinced that the two things that will help us most [in the war on terror] are intelligence and information sharing". But the two items depend on the government doing away with stove-piped systems, he said. "It's extremely difficult for me to explain to people that agencies don't cooperate," Weldon said. "Our big challenge has been to take down the barriers." (GCN: www.gcn.com/vol1_no1/daily-updates/22591-1.html)

As we look for possible solutions to the geospatial community's uncoordinated and in some cases duplicative efforts, I would offer there is a fundamental step the Nation must take to resolve this matter. That step is the creation of a National Office of Geospatial Data Management. This new office would be an independent agency that provides coordinating services to other federal, state, and local agencies using geospatial technologies in their daily business functions. In doing so, it would be responsible for the:

- Coordination of geospatial data and technology developments in the federal agencies.
- Communication, outreach and information sharing.
- Collective funding of geospatial investments made by federal agencies.

GEOSPATIAL DATA MANAGEMENT continued on page 5

Member News

Midwestern Consulting - an engineering, planning, and surveying firm with offices in Ann Arbor and Clarkston - has been selected by the Michigan Department of Transportation (MDOT) to identify the precise location where traffic crashes occurred in 2001 and 2002. The project is part of the state's ongoing effort to improve traffic safety.

The **Center for Remote Sensing and GIS** at Michigan State University has been restructured and renamed Remote Sensing and GIS Research and Outreach Services (RS&GIS). The basic missions of the group remain the same; multi-disciplinary service and outreach in geospatial technologies applied to human-environmental issues for the MSU campus, the State of Michigan, and other public and private agencies.

Contact information for the Center is:

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Research and Outreach Services
Michigan State University
1405 S. Harrison Road
Room 308 Manly Miles
East Lansing MI 48823

Phone: (517) 353-7195
Fax: (517) 353-1821
Web: www.rsgis.msu.edu

Upcoming Events

OCTOBER 8

One-day conference on Mobile Technology at the Kellogg Center, Michigan State University Campus. Sponsored by IMAGIN and GITA Great Lakes Regional Chapter. For more information, call GITA at (303) 337-0513.

OCTOBER 11-15

URISA's 41st Annual Conference, Marriott Marquis Hotel Atlanta Georgia. For more information, see www.urisa.org/annual.htm

OCTOBER 15-18

Michigan Society of Planning's Annual Conference; Grand Traverse Resort, Acme, Michigan. For more information, contact Amy Miller Jordan at amiller@planningmi.org or (248) 553-7526.

NOVEMBER 19

GIS Day: GIS Day is a grassroots event that formalizes the practice of Geographic Information Systems (GIS) users and vendors of opening their doors to schools, businesses, and the general public to showcase real-world applications of this important technology. The event is principally sponsored by the National Geographic Society, the Association of American Geographers, University Consortium for Geographic Information Science, the United States Geological Survey, The Library of Congress, Sun Microsystems, Hewlett-Packard, and ESRI. For more information, see www.gisday.com/

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WHO'S DOING WHAT *continued from page 2*

The department then incorporated ArcView with the help of ESRI grants. ArcView 3.2 is still being used today as a program for analysis and building information. Uses include, but are not limited to, land value maps for the Equalization Department, political boundary maps for the County Clerk, campground and park boundary maps for the Parks and Recreation Department, closing argument visuals for the County Prosecutor, and a master plan base for the Planning Department.

MichCon and the Grand Traverse Band of Ottawa and Chippewa Indians helped fund the digital orthophotography that was done in 1999. These photos are used within ArcView in order to construct the 'bird's eye' view for analysis.

NEW PROGRAMS AND ACTIVITIES

The County is applying for a Coastal Zone Program Grant through the National Oceanic and Atmospheric Administration (NOAA) and Michigan Department of Environmental Quality (DEQ). With this grant and the help of the Land Information Access Association (LIAA), the County will be able to incorporate maps onto the County's web site.

Antrim County 911 dispatch is applying for a grant in order to GPS the road centerlines, which will be of great value for both 911 addressing and to have an accurate base layer. Because of the recent growth in the area, hopefully the County will update the digital orthophotography in the next year.

LESSONS LEARNED/RECOMMENDATIONS

In the ever changing field of technology, GIS is now the standard used to make better decisions. As a visual tool, GIS provides the accuracy necessary to both refine and create new data. GIS must be shared with every available governmental agency, private company, or individual. If the information is not shared, then it is a waste of departmental time and taxpayer money.

For more information, please contact Antrim County Equalization Director Robert Englebrecht at antrimdir@torchlake.com or (231) 533-6320.

NATIONAL OFFICE*continued from page 3*

- Funding allocation to state and local governments for geospatial investments.
- Resolution of data access issues across all levels of governments.
- Endorsement of geospatial standards and promotion of data sharing activities focused on essential attributes, publication standards and "just in time" data sharing.
- Promotion of distributed geospatial production systems in state and local governments.
- Development of skilled geospatial professionals.
- Research and development needed to support the use of geospatial technologies in government agencies.

Realizing this lofty vision, requires a fundamental shift in the way Congress funds geospatial activities at the federal level. To that end, funding should no longer be tied to specific data collection efforts within federal agencies; rather it should be appropriated to this new coordinating agency and allocated to the appropriate geospatial data custodians at the local, state or federal level. Budgetary incentives should no longer be tied to personnel head-counts that frequently result in the reconstitution of duplicative geospatial initiatives. Instead, geospatial funding should be tied to a series of performance metrics so Congress and the general public are assured state and local agencies are "holding up their end of the partnership".

The implementation of this vision is a monumental task and a great deal of dialog will need to occur to ensure geospatial data and technology is coordinated among all levels of government. The events of September 11, 2001 have heightened the importance of interagency coordination, and the geospatial community now has a chance to change organizational behaviors. In addition, decreases in federal, state, and local budgets in conjunction with the increasing need to secure the Nation, will demand leveraging the collective geospatial investments of local, state, and federal agencies.

For more information, Scott Oppmann can be reached at oppmanns@co.oakland.mi.us or (248) 452-9198.

IMAGIN's 2003 Award Winners: Excellence in GIS

IMAGIN instituted an awards program in 2001 to highlight excellence among GIS professionals. This year, IMAGIN was proud to present three awards: The GIS for Everyone Award, the Education and Outreach Award, and the Jim Living Lifetime Achievement Award.

The GIS for Everyone Award is presented to an organization that seeks to make GIS data accessible to other organizations and to the public. The 2003 GIS for Everyone Award was presented to the Washtenaw County GIS program, led by Kimberly Wraight. Please see the Mar/Apr 2003 issue of IMAGINews for details of their program and the program's benefits to Washtenaw County citizens.

The Education and Outreach Award is presented to a group that promotes GIS in the community through formal or informal educational activities. At this year's conference, the award was presented to the Land Information Access Association (LIAA) for their work on a project titled "The Dowagiac River Watershed Project: Building a Better Understanding of the Resource". The project promotes cooperative land use decisions and policies to protect and improve the water quality of the Dowagiac River. One product is a booklet with maps and information on the watershed and its resources distributed with an interactive mapping CD-ROM. This work allows users to work with GIS data and showcases for the public the potential of GIS in decision-making.

The Jim Living Lifetime Achievement Award was presented to Don Belanger. Don has been involved in mapping for nearly fifty years, starting as a draftsman in the Army Corps of Engineers. He also served as the mapping and graphics coordinator for the Detroit Metropolitan Area Regional Planning Commission and the Detroit Regional Transportation and Land Use Study before joining the Southeast Michigan Council of Governments (SEMCOG) in 1970.

Throughout the next 29 years, Don was instrumental in developing GIS, not only within SEMCOG, but throughout

Michigan by his example. In the early 1980s, he applied his progressive vision to land cover mapping in Southeast Michigan. This dataset, and subsequent updates on a five-year cycle, provides one of the best records of regional land cover change available anywhere. In the late 1990s, Don piloted the early development of what would become the Michigan Geographic Framework transportation layer. Since retiring from SEMCOG in 1999, Don has worked as a consultant for the Wayne County GIS project, working with municipalities to promote GIS, data sharing, and cooperation.

Throughout his career, Don has dedicated himself to promoting data sharing and cooperation as a board member and officer of the Michigan Association of Government Computer Users, a co-founder, board member, and officer of MLINX (Michigan Land Information Exchange), and as a board member of IMAGIN. IMAGIN is proud to recognize Don's leadership and service throughout his career through the Jim Living Lifetime Achievement Award.

If you know of a project or an individual that advances GIS in Michigan and embodies IMAGIN's ideals, please consider submitting a nomination for the 2004 awards. IMAGIN is dedicated to recognizing and highlighting the high quality and value of its members' work.

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May 3-5 at the Lansing Holiday
Inn-South Convention Center**



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IMAGIN is a non-profit 501(c)3 organization comprised of individuals and organizations interested in the use and application of geographic information system (GIS) technology in Michigan. Our members are committed to improving the quality and availability of digital data necessary to make good use of GIS. We believe that cooperation and open communication are necessary to achieve these objectives.

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