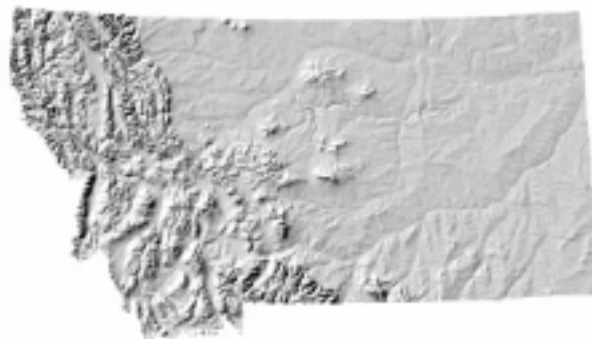


# Montana GIS News



Fall Issue 2004

Welcome to the first edition of the *Montana GIS News* sponsored by the Montana Association of Geographic Information Professionals. At the Intermountain GIS conference in April 2004, MAGIP was officially formed by merging the Montana GIS Users' Group with the Interagency Technical Working Group (ITWG) and the Montana Local Government GIS Coalition (MLGGC). In the months since April the interim Board has been working on preparing a budget, securing a location for the 2006 conference, coordinating a membership structure, consolidating former websites and preparing for the new website development and hosting.

Our interim website is located at: <http://www.mtgeo.org/> where you can download a copy of the new MAGIP membership registration form. We will be using this location temporarily while our new website is being developed.

Our current mailing list has been prepared from registration lists of the Intermountain GIS conferences for 2002—2004, the ITWG list server, and the MLGGC list server.

To post a message to the list send an email to: [magip@lists.state.mt.us](mailto:magip@lists.state.mt.us)

To unsubscribe from the list send an email to: [leave-magip@lists.state.mt.us](mailto:leave-magip@lists.state.mt.us)

To subscribe to the list send an email to: [joinmagip@lists.state.mt.us](mailto:joinmagip@lists.state.mt.us)

*MAGIP is a volunteer organization and relies on its members to accomplish the goals of communication, education and outreach, and technical coordination in the Montana GIS community.*

*Your participation is essential, so contact a committee chairperson and volunteer to share your expertise, ideas and energy.*

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### **MAGIP Board of Directors:**

**Annette Cabrera, Gerry Daumiller, Bob Holliday, Margie Lubinski, Duane Lund, Catherine Maynard, Tom Potter, Tom Reynolds, Steve Shannon, Robin Trenbeath, Tom Tully**

*Montana Association of  
Geographic Information Professionals*

# MAGIP Hosts October Technical Session

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The Montana Association of Geographic Information Professionals is hosting a two and one half day Technical Working Session, October 25, 26, 27 at the Great Northern Hotel in Helena Montana. The session will consist of concurrent technical workshops on the afternoon of the 25<sup>th</sup>, plenary and concurrent technical presentations on the 26<sup>th</sup>, and discussions on the direction of the MAGIP technical arm on the 27<sup>th</sup>. The only charge for the entire session will be \$20 per individual for each of the workshops. A block of 30 rooms is being held until September 30<sup>th</sup>, at \$65 per night (single) and \$75 per night (double). Other accommodations are available in downtown Helena.

The workshops offered on the 25<sup>th</sup> include:

- “Editing the ARCGIS Geodatabase” presented by Keith Blount and Eric Eidswick, MT Department of Administration/ITSD.
- “Basic Geodatabase Design” presented by Jack Horton, ESRI Olympia Office.
- “Basic Cartography” presented by Ed Madej, Tetra Tech EM Inc., Helena Office.

There are many interesting technical presentations covering a variety of topics scheduled for the 26<sup>th</sup>. A few highlights are:

- “GIS Meets the Fireline” presented by Dr. Lloyd Queen, University of Montana
- A presentation by Visual Learning Systems demonstrating building footprint extraction from the high resolution imagery over Montana cities acquired by the Homeland Security

- Taskforce GIS Subcommittee.
- A demonstration of IFSAR technology by Intermap, a Colorado based company.

One of the main goals of this session is to bring Geographic Information Technology Professionals, both new users and old hands, together to discuss how MAGIP can help provide the technical resources necessary for you to do a better job. Remember, MAGIP is your organization and we need your input to build and grow the organization.

*Stuart Kirkpatrick, State GIS Coordinator*

A draft agenda is available at <http://mtgeo.org>

For workshop information contact

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Skirkpatrick@state.mt.us

For registration information contact

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## National GIS Coordination Benefits Montana

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The National States Geographic Information Council (NSGIC) recently completed their annual conference September 13 - 16 in Austin Texas. NSGIC is an organization made up of dedicated people that support the production, maintenance and distribution of geographic information for all 50 states. Notable at this year's conference was the excellent work that Stuart Kirkpatrick, the State GIS Coordinator has been doing on behalf of this organization and Montana. Stu has been a long time member of NSGIC and is the Montana representative to NSGIC. Elected to the current NSGIC Board, it is clear the energy and professionalism he puts forth is noteworthy. Through Stu's excellent representation of the work we have all done here at home, Montana is looked upon as one of the examples of how things should work in regards to GIS coordination and framework data building

# 2004 Intermountain GIS Users' Conference A Success

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Nearly three hundred GIS professionals gathered at the 2004 Intermountain GIS conference held in downtown Billings, Montana April 23-29th. The theme of the conference was GIS: Tools of Discovery, linking the Bicentennial of the Lewis and Clark Expedition to modern day geospatial technologies.

The conference featured a fascinating keynote address on the mapping methods and instruments used by Lewis and Clark presented by Ralph Ehrenberg, past director of the Library of Congress Map Division. Former Wyoming Governor, Jim Geringer, nationally acclaimed advocate of GIS technology, provided great insight on achieving cooperation in and among various levels of government.

Pre and post conference workshops covered a wide variety of topics from standards such as 'Introduction to GIS Concepts' and 'Introduction to GPS – Hands On' to new technology including the 'Montana Transportation Data Model' and 'Demystifying Geospatial Web Services'. Paper presentations were also diverse in nature, allowing for attendees to have a good selection of sessions to attend. We encourage everyone to consider presenting a workshop, paper or poster at future conferences. It's a great way for all of us to see what others are doing with GIS technology and learn from each other.

We would like to thank the workshop instructors, paper and poster presenters, the conference committee, and students who volunteered their time to make the conference such a success. We appreciate your dedication to the GIS community. We would also like to thank the vendors who participated and supported the conference.

*Annette Cabrera, 2004 Conference Chair*

# 2005 Intermountain Conference Update

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The 2005 Intermountain GIS Users' Conference will be held April 18<sup>th</sup>- 22<sup>nd</sup> in Pocatello, Idaho. The theme of this year's conference is "Advancing the Profession". The keynote speaker, Jennifer Colosimo from the Franklin-Covey company, will discuss the 7 Habits of Highly Effective People and share proven ideas to improve your personal time management skills. This keynote will be followed up on Friday with a full-day workshop focusing on "Managing Multiple Projects, Objectives, and Deadlines". In addition, there will be a host of interesting speaker tracks including "Natural Resources", "Mobil GIS", "Public Works", and others. You can check their website at <http://www.intermountaingis.org>.

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## 2006 Conference Planning

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The MAGIP 2006 Conference Committee has secured the Great Northern Hotel in downtown Helena, MT for the site of the 2006 Intermountain GIS Conference that will be held April 3–7th, 2006. To volunteer for the conference committee contact Catherine Love, the committee chair at: [clove@state.mt.us](mailto:clove@state.mt.us)

A combined MAGIP board and conference committee meeting will be held on Wednesday, October 27th at 5:30 pm following the Technical Session at the Great Northern Hotel in Helena.

# Eight Partners Recognized at "*The National Map*" Forum in Bozeman

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The Nation's top mapping official visited Bozeman on July 23rd to recognize *The National Map* partners in Montana and to help launch the Bozeman and Gallatin County services of *The National Map*. Barbara J. Ryan, Associate Director for Geography at the U.S. Geological Survey (USGS), joined officials and GIS managers from around the state to kick off the new interactive web-based map service in Bozeman.

With the click of a mouse, *The National Map* will provide Montana residents the ability to view customized maps with information on roads, land features, lakes and streams, hiking trails, population centers, and structures such as public buildings, schools and houses. One of the most popular additions is likely to be the Gallatin Local Water Quality District's Color Infrared imagery of the Gallatin Valley.

Partners recognized for their efforts and cooperation in *The National Map* included The Montana Department of Administration, Montana State Library, Missoula County, Gallatin County, Stillwater County, Montana Forest and Conservation Experiment Station of the University of Montana, the City of Bozeman and GCS Research.

The City of Bozeman and Gallatin County are the second major Montana community to join *The National Map*. Missoula County became a partner last December and the State of Montana started working with the USGS more than a year ago. *The National Map* already includes statewide data layers

being served from the Montana State Library and regional layers from cities and place based areas of interest.

*The National Map* provides a geographic information tool to enhance public health, safety, the environment and the economy for the citizens of Montana. It is also a focal point for the GIS community in Montana to build consistent, seamless framework data and to determine future needs of GIS in the state. The USGS is currently seeking additions to the Montana *National Map* program. With a variety of partnership avenues available the USGS plans to involve all 56 counties and other interested agencies.

Visit *The National Map* at <http://nationalmap.gov>.

**Lance Clampitt, U.S. Geological Survey, Bozeman, MT.**





# MAGIP Education Committee Information and Activities Update

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The purpose of the Education Committee is to provide a forum for outreach and education efforts of the Montana Association of Geographic Information Professionals (MAGIP). Membership in the Association and its Education Committee is open to anyone with an interest in geospatial technologies and a willingness to share their knowledge. The Education Committee of the Association sponsors the following activities:

**Geospatial Trunks:** The Education Committee is responsible for the maintenance of the Geospatial Education Trunks, which contain lesson plans and equipment for a K-5 and 6-12 classroom. The trunks are designed to provide GIS project-oriented curriculum for teachers to incorporate into their existing curriculum. Items in the trunks include GIS workbooks, tutorial CDs, games, mapping materials, GIS data, Global Positioning Systems (GPS) units, and much, much more! The Geospatial Education Trunks are distributed to schools through the Montana Natural History Center (MNHC) in Missoula. To reserve either of the Geospatial Trunks, contact the Center at 406-327-0405 or email at [mnhc@montana.com](mailto:mnhc@montana.com). For more information, their website is [www.thenaturecenter.org](http://www.thenaturecenter.org).

**University Endowments Graduate GIS Scholarship:** The MT GIS Users' Group has established an Endowment through the Montana Community Foundation for students enrolled in GIS-related programs at Montana Universities. Students are awarded a one-time \$1,000.00 scholarship and are encouraged to present their work at the annual GIS conference. The scholarships are awarded each March for the following summer, fall and/or spring semester. To be eligible, the recipient must be an undergraduate in their senior year or first year graduate student, come from any discipline and be working on a project that uses GIS as part of their thesis research.

Current grant application information can be found at: <http://mtgeo.org/>

**K-12 Competitive Grant Program:** Each year the Education Committee awards competitive grants to develop K-12 Geospatial curriculum to help bring GIS, GPS, Remote Sensing and mapping technologies into the classroom. This curriculum is then made available in the Geospatial Trunks. Over the past several years, we have a and a curriculum guide for monitoring weeds in the Blackfoot watershed. Current grant information can also be found at: <http://mtgeo.org/>

**Education Awards:** The committee has provided on-time awards up to \$1000.00 to educators who have already developed Geospatial curriculums. A recent award went to the Townsend School District, Bug and Weed Project.

**Intermountain Conference Public Night:** The Committee helps to organize Public Night, held at the Intermountain GIS Conference in Montana. This is an opportunity to demonstrate geospatial tools and activities to the public. The community can participate in hands on activities relating to GIS, GPS, Remote Sensing and mapping. Students from the area can showcase projects that they have been working on during the school year and the MAGIP Geospatial Trunks are on display.

**SIGN UP TODAY!** If you are interested in furthering Geospatial education in your area and would like to be a part of this committee, please email Margie Lubinski, [mlubinski@fs.fed.us](mailto:mlubinski@fs.fed.us) and volunteer to get involved in your community and help benefit education throughout Montana!

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## PLANNING FOR 2004 GIS DAY

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Planning is underway for the 2004 GIS Day scheduled this year for November 17th. The target audience for this year's event consists of people who are not familiar with GIS or its possibilities. The goal of working with this audience is to share information about GIS, what it is used for at various state agencies, and why it is important. The overall goal would be to pique interest in GIS. Contact Jim Hill at: [jhill@state.mt.us](mailto:jhill@state.mt.us) for details and more information about the next planning session.

# Census Data Update

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## **Census and Economic Information Center (CEIC) has new staff members and a new look for its web site**

Launched this past spring, the Census and Economic Information Center's revamped web site has a new look with a more user-friendly layout to help our clients continue to access a wide variety of Montana census and economic data. The new web site includes links to the most popular data such as Census 2000 Demographic Profiles, current population estimates and a wide variety of data maps created by CEIC's GIS Coordinator, Kris Larson. As in the past, CEIC staff will continue to publicize new Census data as they become available from the U.S. Census Bureau through email announcements. CEIC's web site will continue to feature customized tables and thematic maps stemming from research projects from government and private sector organizations across our state.

CEIC also has a few new faces (and names) among the staff. Christie Wolfe started in March as CEIC's Research and Web Technician charged with overseeing the web site as well as conducting research for clients. Andrew Geiger started in July as our new Research Specialist available to assist with data research questions on a wide variety of public data. In August CEIC added the new position of Economist, recently filled by Susan Ockert. Pam Harris (Bureau Chief), and Kris Larson (GIS Coordinator), welcome these new staff.

## **What's new from the U.S. Census Bureau**

### **American Community Survey (ACS)**

The American Community Survey is a new nationwide survey designed to replace the long form of the traditional decennial census by 2010. The U.S. Census Bureau is in the process of unveiling this new program on a limited basis to ensure it is ready for nation-wide use by the end of the decade. As the Montana State Data Center working in coordination with the U.S. Census Bureau, CEIC sees the American Community Survey as a major paradigm shift in the way data are both collected and disseminated. While local communities will benefit tremendously by having yearly data not previously available in the time period between decennial censuses, the Census Bureau also recognizes the public will need to be fully informed on this major change in the way the Census is conducted as well as each household's role in the new procedures.

Preston Jay Waite, the Associate Director for the Decennial Census, said in a news conference on August 26<sup>th</sup>,

"Currently ACS is in the final year of its testing phase, collecting data from a sample of 800,000 addresses per year in 1,200 counties... starting in 2005, data will be available for all areas with populations or 65,000 or more, and by 2010, data will be available down to the census tract and block group level." Jerry O'Donnell, the Public Information Officer for the U.S. Census Bureau's Denver region, in a recent presentation in Missoula, described the unique challenges and opportunities for Montana in what he called the "rolling release" of ACS data across the country. Mr. O'Donnell said that while the nationwide focus currently remains on geographic areas with larger populations, Flathead and Lake Counties have been included as part of the testing phase. He also explained how ACS sampling will be done in Montana, emphasizing the sample size for Montana's smaller cities and places may be 50% or more, a much larger percentage than in states with higher populations. "This will be an exciting opportunity for Montana's smaller communities as well as the larger urban areas," Mr. O'Donnell said.

### **Population Estimates**

The Estimates division of the U.S. Census Bureau continues to produce the popular and widely used population and housing unit estimates data series. Whether for use on an urban planning project, or simply good old-fashioned civic pride, we continue to hear from local communities who use this annual data to see how growth is affecting their area.

The Population Estimates Program publishes total population estimates each year, including net population estimates and demographic components of change (births, deaths, and migration). The next release from the Estimates Division will be estimates by age, sex, race, and Hispanic origin for Montana and for all counties. The reference date for county estimates is July 1. CEIC will continue to keep a link to these data sets on the home page of our web site.

### **Census Transportation Planning Package (CTPP) and Census 2000 Journey to Work/Place of Work**

The "Journey to Work" data from Census 2000 provides the background material used to form a set of special tabulations for transportation planners known as the Census Transportation Planning Package (CTPP). CTPP represents a cooperative effort between the U.S. Census Bureau and the U.S. Department of Transportation, and is used at both the state and local level throughout Montana.

The Journey to Work/Place of Work data documents the patterns of where people live and where people work, and the (growing) distance in between. While these data have shown clear patterns in densely populated cities and states for many decades, Montana now

has areas where large numbers of people choose to live in one county and work in an urban area of an adjoining county, what some Montana planners refer to as people wanting both a country ranch for their home *and* the advantages of the larger cities. Commuting data are essential for planning highway improvements and developing public transportation services, as well as designing programs to ease traffic problems during peak hours, conserve energy, and reduce pollution. Police and fire departments use data about where people work to plan emergency services in areas of high concentration of employment.

### **GIS Users and Census Data**

Even experienced GIS professionals can experience frustration with mapping Census data. The U.S. Census Bureau uses unique coding that at times seems to have a logic all its own, but that can become usable once you've discovered a few simple rules and tricks of the trade. CEIC staff periodically conduct workshops catered to the GIS community to try to make these important data more readily accessible. For information on upcoming sessions, check out our web site at <http://ceic.commerce.state.mt.us/> or send us an e-mail at [ceic@state.mt.us](mailto:ceic@state.mt.us) if you would like to get on our electronic mailing list.

*Andrew Geiger, U.S. Census Bureau*

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## **MGIC Makes Progress on the Montana Land Information Act**

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The Montana Geographic Information Council, MGIC, is the governor's council charged with coordinating policy level issues associated to geographic information systems in the state. At its strategic planning session last September, MGIC agreed upon several priority activities, the most important of which has become the research, development, and introduction of a bill known as the Montana Land Information Act (MLIA).

The MLIA is intended to provide a stable source of funding for the continuing maintenance and enhancements to the Montana Spatial Data Infrastructure, which consists of 12 priority data layers at this point (Aerial Imagery, Land Ownership, Transportation, Surface Waters, Jurisdictional Boundaries; Geodetic Control, Elevation, , Geology, Hydrologic Units, Land Cover, Critical Infrastructure, and Soils).

The MLIA is currently included within the Governor's Executive Budget, to be introduced to the 2005 Legislature, and is currently in a final bill draft process with legislative staff. The MLIA provides notable improvements to our current ability to fund maintenance and enhancements to the statewide priority layers through the implementation of a \$1.00 per page increase in the document filing fees paid when documents are recorded in counties throughout the state. This increase is estimated to generate up to as much as \$1.4 million dollars annually to assist in this effort.

Counties will directly receive 25% of the funds collected to be used for local GIS projects, and to assist state entities in the capture and maintenance of priority geospatial data. 75% of the funds will be administered by the Department of Administration, with direct involvement and review of the Montana Land Information Council (MLIC), which will replace the current MGIC.

The department is charged with building an annual plan of needs for MSDI issues, and must take this plan to the council for their review and consideration.

The department will then release the plan and solicit projects/grants that will fulfill the intent of the plan.

The department will assess the project/grant requests, review them with the MLIC, and award grant funding accordingly.

The Montana Realtors Association, the Washington Development Corp, HKM Engineering, MAGIP, and MGIC have endorsed the proposed legislation, and about 2 dozen other private or public entities or associations are reviewing it for consideration at this time. We are very hopeful that as the legislative session approaches, a significant portion of these entities will weigh in in favor of the MLIA.

MGIC members believe this is the very process needed to ensure that statewide standardized geospatial data is economically collected once and made available to those that need the data. The Montana Realtors Association, the Washington Development Corp, HKM Engineering, MAGIP, and MGIC have endorsed the proposed legislation, and about 2 dozen other private or public entities or associations are reviewing it for consideration at this time. We are very hopeful that as the legislative session approaches, a significant portion of these entities will weigh in in favor of the MLIA.

MGIC has continued to work in many other important areas this year as well such as making requests for more federal participation (read "dollars" here) to develop the MSDI, the development of improved marketing materials that tell the story of GIS better than before, and the support of the creation and development of the Montana Association of Geographic Information Professionals. MGIC is tremendously supportive of the mission of MAGIP and the new structure, and looks forward to working with all GIS professionals to strengthen the proper use of GIS data and tools in Montana's economy.

MGIC recently began the process of developing its work plan for calendar 2005. Along with the MLIA, many other important issues are being reviewed which are sure to make 2005 a very busy year indeed. For further information about MGIC, and its activities visit its website at: <http://www.discoveringmontana.com/itsd/policy/councils/mgic/mgic.asp>

***Tony Herbert, MGIC Chair September 9, 2004***

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## Local Coordination Corner

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### ***Missoula initiates 'Brain Drain'***

For the uninitiated, the 'Brain Drain' is an informal gathering every so often of Geospatial professionals in the Helena area who meet to network. On September 17<sup>th</sup>, a Missoula version of the Helena Brain Drain was held. Folks from all types of work environments attended and Margie Lubinski gave an introduction to MAGIP and some of its recent activities. As the Helena GIS community has found these get-togethers can be a great opportunity to make contacts, share ideas and stay informed. We look forward to reporting on future 'Brain Drains' from other groups around the State!

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## New Developments of Interest

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NRIS has developed a new set of maps showing detailed information on public and private land ownership that can be accessed at: <http://nris.state.mt.us/gis/ownmaps.asp>  
These maps are also now available through a modified version of the NRIS "Montana Maps" library at <http://nris.state.mt.us/gis/gisdatalib/mtmaps.aspx> (choose a 100k quad for listing). These large format maps are a valuable new resource.

Montana Fish Wildlife and Parks GIS division has launched a new interactive 'Hunt Planner' application that incorporates interesting ArcIMS tools. The application can be accessed at: <http://fwp.state.mt.us/hunting/planahunt/>