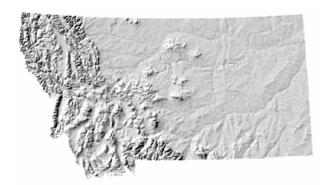
Montana GIS News



Summer Issue 2005

Welcome to 2005 Summer issue and the third edition of the Montana GIS News sponsored by the Montana Association of Geographic Information Professionals.

Our interim website is located at: http://mtgeo.org

Check here to download a copy of the MAGIP membership registration form, applications for higher education scholarships and K-12 curriculum grants and view workshop and training opportunities.

We will be using this location temporarily while our new website is being developed.

Our current mailing list has been prepared from the current MAGIP membership list, registration lists of the 2004 October Technical Session, Intermountain GIS conferences for 2002 - 2004, the ITWG list server, and the MLGGC list server.

To subscribe to the list send an email to: join magip@lists.mt.gov

To unsubscribe from the list send an email to: leave-magip@lists.mt.gov

To post a message to the list send an email to: magip@lists.mt.gov

Rules and standards applying to authorized use of the list server can be view at: http://mtgeo.org

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.

In this Issue...

MAGIP Board of Directors:

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

Montana Association of Geographic Information Professionals

MAGIP Mid-Year Technical Session October 31 - November 2, 2005 Helena, MT

At a planning meeting held Aug 11, members of the MAGIP technical committee finalized the details for the second annual MAGIP October Technical Session. The organizing committee read and listened to comments on last year's session and asked members this summer to vote on the top 3 to 4 workshop suggestions. There is still some time available for special interest group meetings and if you would like to organize one, contact Bob Holliday at rholliday@mt.gov. The committee is looking forward to providing you with a meaningful educational opportunity, so please mark your calendars and plan on attending this event.

The Montana Association of Geographic Information Professionals will hold our second annual Technical Working Session October 31 through November 2 at the Great Northern Best Western Hotel in Helena, Montana. These sessions are designed to provide education and outreach to the GIS community through technical workshops, informational sessions on specific topics, special interest group meetings and interaction between Montana's GIS professionals.

The session will open with a structured roundtable and question/answer session between MAGIP members, prospective members and the MAGIP Board.

The session has tentatively scheduled two all-day workshops, the first on using VBA and ARC Objects and the second on using Model Builder. There will be half-day workshops involving working with geodatabases, ArcGIS tips and tricks, and the Montana Framework data models (transportation, addressing and critical structures). Also proposed are shorter informational sessions on metadata, Geospatial One-Stop and imagery. A no-host bar with appetizers is also scheduled for Monday night (Halloween) so fold your scariest map into a hat and wear it with pride.

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TECHNICAL SESSION COSTS:

Members: \$40.00 Non-members \$80.00

Join MAGIP now and save!

LODGING:

Great Northern Best Western Hotel (406) 457-5500.

A block of rooms has been reserved from Sunday, October 30 through Wednesday night, November 2. These rooms are being held through Sunday, September 25, 2005. Mention the Montana Association of Geographic Information Professionals to receive the conference rate. A limited number of rooms are available at the federal government per diem rate.

Rates

Conference: \$83.00 per night Federal Per Diem: \$70.00 per night

Other Lodging Options

For updated schedule, cost and membership information, visit the MAGIP website at: http://mtgeo.org

MAGIP Members Respond to Survey - Interest in Association Runs High -

By Janet Cornish, MAGIP Administrator

We are happy to report that as of August 7th, we have received 26 responses to the MAGIP Membership Survey, distributed in May of this year. The MAGIP Board of Directors at its May 3rd Strategic Planning Session, emphasized that providing service and value to our members – offering programs and activities that meet both our professional and collegial needs – should be foremost among our guiding principles. With this in mind, we developed a survey to learn:

- What types of services and programs would be beneficial to our members, and
- In what ways would our members like to contribute to and participate in our organization?

Respondents were encouraged to provide comments, in addition to noting their specific areas of interest.

Of those commenting, many noted the need for good access to information and guidance:

"For those that are relatively new to the GIS/GPS field, it can be extremely difficult to research, learn, review, and implement specific processes, in particular analytical processes within a GIS. It is even more difficult to do this in a web based system. There are many other forums out there to go for help, but it would be very helpful if there was a web site that posted "all" the information necessary to accomplish a particular task, i.e. an accumulation of training modules."

"...one stop shopping where GIS professionals can find out what has happened at the Montana Land Information Advisory Council (MLIAC) or what has happened on various subcommittees of MAGIP".

Communication was another topic receiving several comments:

"We need to develop a culture of communication that is available to all MAGIP members.... so that any individual can participate to their fullest and not limited to the resources of their employer or their personal situation."

Comments related to communication were aimed at both the internal workings of MAGIP as well as to Member Outreach and to the GIS community as a whole. One suggestion was that perhaps a communications committee be established to address these issues.

The survey results clearly demonstrate that the pool of those interested in taking an active role in MAGIP is growing. Nearly all of those responding indicated an interest in serving on one or more of MAGIP's committees, on the Board of Directors, or to assist with ongoing efforts such as the newsletter. The request for volunteers to help plan and support our biennial conference drew the largest number of responses - 18. Others offered to present papers at upcoming conferences or to assist in planning our fall technical session.

For those of you who have not yet had a chance to send in your survey, please do so. We are eager to learn as much as we can about our members and their interests. If you did not receive a copy of the survey, please send an e-mail to Janet Cornish, MAGIP Administrator at JanAllyce@aol.com to request one.

2006 Conference Planning Activities

Realizing Our Collective Potential 2006 Intermountain GIS Conference

Planning is actively under way for the 2006 Intermountain GIS Conference to be held in Helena, MT on April 3 - 7, 2006. The conference theme "Realizing Our Collective Potential" reflects our desire to grow and expand MAGIP through strengthening the skills and knowledge base of our individual members. Conference tracks will include a variety of Technical Sessions, Tools for Analysis, Education and Professional Development, Data Development and Management, and Vendor Demonstrations. We have selected Mark Monmonier, Syracuse University professor and author of How to Lie With Maps, to be our keynote speaker.

One of our goals for the 2006 Conference is to showcase projects that demonstrate how cooperation, coordination, planning and execution can provide mutually beneficial results for a wide variety of site specific, statewide, and regional projects and their information needs. We are relying on your help to share the results of your work and show us how you have used these methods to create the data we all need to move forward with land use planning, natural resource conservation, addressing social problems such as health and human services, and the countless other applications of geographic information is being used to solve common problems at the local, state and regional level.

To volunteer for the conference committee or to receive additional information, contact Catherine Love, Conference Committee Co-Chair at: calove@mt.gov To assist with specific conference activities, contact the following Activity Chairs:

Workshops - Stuart Challender,
stuartc@bridgergeoplan.com and Bob Holliday,
rholliday@mt.gov

Vendors - Fred Gifford, fgifford@maximusa.com and
Dave Highness, dhighness@maximusa.com

Public Night - Patrick Dougherty, pdougherty@mt.gov
or Carrie Harapat, gis@parkcounty.org

Raffles/Auction - Kris Larson, klarson@mt.gov

Posters - Jane Horton, jhorton@mt.gov

Audio-Visual - Michael Fashoway, mfashoway@mt.gov

Publicity Chair - Janet Cornish, JanAllyce@aol.com

Student Scholarship Program - Duane Lund,
dlund@mt.gov



View from the Skytop in Billings, MT Site of the 2004 Intermountain GIS Conference

Conference Planning Committee Notes:

A 2006 conference planning committee meeting took place June 1, 2005 at the Windbag in Helena. In attendance were: Janet Cornish, Gerry Daumiller, Michael Fashoway, Fred Gifford, Dave Highness, Bob Holliday, Catherine Love, Margie Lubinski and Catherine Maynard.

The committee appointed Janet Cornish to provide conference management and oversight. In addition to our standard call for papers, track chairs (with Janet's assistance) will also directly contact potential speakers and ask for their participation. For preliminary planning purposes the following individuals will be making contacts to discuss speakers for potential tracks.

Education - Margie Lubinski
Business Applications - Fred Gifford and Dave
Highness of Maxim and David Marshall of
DTM

Local Government and Planning - Bob Holliday and RJ Zimmer

Remote Sensing - Catherine Maynard

To receive a schedule of the next conference planning meetings, please contact Janet Cornish at JanAllyce@aol.com. We look forward to your participation.

A "save the date" mailing will be sent out sometime in the early fall, 2005. The call for papers will be sent out in October, 2005 and our conference brochure will go out in January of 2006.

MAGIP Education Committee Update

by Margie Lubinski, Education Committee Chair

Scholarship/Grant Updates

The MAGIP Education Committee has awarded two Higher Education GIS Scholarships for 2005-2006 academic year. The recipients are Shawn Naylor, a graduate student in Geology at the University of Montana, and Diane Papineau, an Earth Sciences graduate student at Montana State University.

Shawn is a first year graduate student at the University of Montana specializing in geomorphology. His research project will address the analysis of Differential Headwall Erosion in the Bitterroot Mountains. Diane's graduate research is directed to the cultural landscape changes at Canyon Junction in Yellowstone National Park from 1872 to the present. She will examine the origins, evolution and spatial expression of two distinct cultural landscapes at the Canyon Junction. Both will present their work at next year's Intermountain GIS Conference in Helena.

MAGIP has a strong commitment to working with university students in the fields of geographic information and geospatial design and management. Higher Education GIS Scholarships of \$1,000 are awarded annually with applications due in mid-March. Updated scholarship information is available on our website at http://mtgeo.org.

No applications were received for the K-12 grant so the application deadline has been extended until further notice. We are still actively recruiting teachers that might be interested in developing curriculum or who might already be involved with teaching GIS.

If you know of teachers that might be interested in applying for the grant, please encourage them to use the application information located on the MAGIP website: http://mtgeo.org

Education Activities Planned for 2006 Intermountain GIS Conference

The Education Committee is excited about its participation in the planning of the upcoming 2006 Intermountain GIS Conference. The Conference will be held April 3 - 7, 2006 (see related article). The Committee is actively seeking papers for the Education Track and is looking for anyone doing interesting work with Education and GIS that might be able to present a paper or would be interested in being on a panel. If you are interested in presenting or know someone who might, please contact Margie at mlubinski@fs.fed.us.

The Committee is working on options to get more active student participation from the local K-12 schools during the conference. Some ideas discussed are short classes and opportunities for students to present during Public Night and free workshops that could be developed for students to attend during the regularly scheduled workshop days at the conference. Ideas for workshops include use of Map and Compass, GPS data collection and downloading to GIS and geocaching. Anyone interested in participating, contact Lindell Baker at: llbaker@usgs.gov.

The next Education Committee meeting will be held in conjunction with the MAGIP fall Technical Workshop and everyone is invited to participate. We are always looking for ways to continue our goals of providing a forum for education and outreach and welcome new and innovative methods and ideas! If you would like to be kept up to date and involved throughout the year, have your name added to the Education Committee email list by contacting Margie at mlubinski@fs.fed.us.

2005 GIS DAY IN MONTANA

2005 GIS Day is scheduled for November 16 and festivities are being scheduled in several cities across the state. The Education Committee is looking for new and exiting ideas ways of promoting GIS in Education during this yearly event. If you have any ideas for a presentation, please contact Margie at mlubinski@fs.fed.us.

MAGIP Education Committee General Information

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. For more information, their website is www.thenaturecenter.org.

Higher Education GIS Scholarships:

MAGIP has established scholarships for undergraduate seniors or first year graduate students at Montana colleges and universities. To be eligible, the recipient may be from any discipline but must be working on projects that use GIS as part of their research or thesis. Students are awarded a one time \$1000.00 scholarship and are encouraged to present their work at the annual Intermountain GIS conference. The scholarships are awarded each March for the following summer, fall and/or spring semester. 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 that helps bring GIS, GPS, remote sensing and mapping technologies into the classroom. Curriculums developed are then made available in the Geospatial Trunks. Current grant information can be found at: http://mtgeo.org/

Education Awards and Scholarships:

The committee has provided one time awards up to \$1000.00 to educators who have previously developed Geospatial curriculums and are willing to provide them to the Geospatial Trunks. They have also provided teachers with scholarships to attend training, conferences, etc.

Intermountain Conference Public Night:

The Committee helps to organize Public Night which is held at the Intermountain GIS Conference in Montana. This is an opportunity to demonstrate geospatial tools and activities to the public. Communities are invited to participate in hands on activities relating to GIS, GPS, remote sensing and mapping. Students 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 and volunteer to get involved in your community and help benefit GIS education throughout Montana!

Montana Geographic Information Council (MGIC)

MGIC held it's final official meeting June 2, 2005 with Mike Boyer as Committee Chair. Included was a presentation by Lynda Saul, DEQ Wetlands Coordination and a decision by the Council to include wetlands as a MSDI layer.

A presentation was made by Janet Cornish of Community Development Services which summarized a proposed plan of action for the Montana GIS Strategic Planning and draft 'State of the State' report prepared for the Council and sponsored by MGIC strategic planning subcommittee.

The meeting agenda also included an update on the selection process for the new MLIAC council; timeline for rules and procedures for expenditure of the MLIA funds; a report on the status of federal requests; and an update on the NAIP imagery acquisition and discussion of funding for the high resolution color infrared imagery.

Members of the GIS community and the public at large are welcome to attend this and upcoming Council meetings.

Montana Land Information Act

In landmark legislation, the 2005 legislature passed the Montana Land Information Act which is intended to promote further development of the Montana Spatial Data Infrastructure (MSDI). This legislation also codified the formation of the Montana Land Information Advisory Council (MLIAC).

Montana Land Information Advisory Council (MLIAC)

The first official meeting of MLIAC will be September 1, 2005 in Room 152 of the State Capitol in Helena, MT. Members of the new Council include: Dan Bucks, Jeff Hagener, Mary Sexton, Richard Opper, Mike Birtles, Lance Clampitt, Don Patterson, Catherine Maynard, Lisa Kimmet, Art Pembroke, Jon Sesso, Loren Peterson, Rick Lawrence, Ed Madej, Steve Shannon, Ken Wall, and Michael Sweet.

Contact Council Chair, Mike Boyer for additional information.

Missoula GIS Community Continues "GIS Coffee-talks"

Bryant Ralston

Originally inspired by the Helena informal "braindrain" meetings at the Windbag Tavern, Bryant Ralston, Mike Sweet, Doug Burreson, Tod Gass, Dan Jordan and Dave Dewey decided in 2004 to form a similar group for members of the Missoula GIS community seeking both a bit of professional camaraderie and a good cup of coffee. Now in full swing, the Missoula GIS'ers meet monthly in downtown Missoula at local establishments. The number joining the group varies from five to fifty. Since its serendipitous beginning, the group has enjoyed some lively conversation. Here is a sampling:

- A January installment by Ken Wall of GeoData Services, on the use of multi-participant web-based GIS "groupware" by geographically distributed biologists doing field work partnering with the Rocky Mountain Elk Foundation.
- A presentation by Alex Philp of GCS Research, on his tireless work injecting GIS into a variety of exciting and timely Lewis and Clark related projects.
- A presentation by Matt Rollins, fire ecologist for the Fire Sciences lab, on the LANDFIRE project and downstream GIS data deliverables.
- University of Montana GIS student presentations from Daniel Kostelnik, Department of Geography, Kate Dircksen, Department of Forestry, and Marcus Reddish, Department of Forestry at a "Go Griz!" oncampus April edition.
- A presentation by Bob Roth of the Missoula Technology Development Center, on a variety of technologies (including Google Earth) being tested and prototyped for future wildland firefighter programs.

GIS Coffee-talks provides a nice networking break from the normal "nose to the grindstone" drudgery of hard-core GIS that sometimes plagues us in this business. We encourage others involved with GIS around the state to form their own "networking" groups. The Missoula edition has been a great success so far, fairly painless and a great way to meet and chat with other GIS folks in town. Feel free to contact me at bralston@esri.com (but only after I've had some coffee, please) if you need additional motivation or ideas on how to start a local GIS interest group. I'll even offer to show up personally to help out at your first installment - how about that for an offer you can't refuse!

MAGIP Strategic Planning

by Janet Cornish, MAGIP Administrator

On May 3rd, 2005, the MAGIP Board of Directors engaged in a strategic planning session to identify the overall direction for the organization as well as some immediate action items. The discussion included the identification of the challenges and opportunities facing MAGIP as well as an assessment of organizational strengths and weaknesses. Focus was placed on the guiding principles for the organization and how our mission is reflected in our programs and activities. The "newness" of MAGIP constitutes both a challenge and an opportunity. As a new organization we have the opportunity to begin "fresh" with energy and enthusiasm. At the same time, while MAGIP was created just one year ago, it can take advantage of the collected expertise represented by its predecessor organizations - the Montana GIS Users' Group, the Montana Local Government GIS Coalition and the Interagency Technical Working Group.

Challenges and Opportunities

MAGIP has a broader constituency to serve but it also can make use of more sophisticated communications technology to serve a growing and diverse member base. The diversity of our membership will bring strength to MAGIP and help us to better address the concerns of the wide variety of users. There will also be a greater pool of resources to draw from to provide organizational stability and growth. Yet, it will take thoughtful programming and outreach to adequately connect with our members.



Janet Cornish, MAGIP Administrator

GIS technology is becoming more mainstream and more broadly recognized as a key component of the information technology infrastructure of business and government. This is evidenced in the recent passage of the Montana Land Information Act and the creation of the Montana Land Information Advisory Council. Our challenge will be to focus our energy on setting reasonable priorities for our organization in light of the exponential growth in the GIS field and its associated applications. Our effectiveness as an organization will be particularly reliant on our ability to function in a political environment that is trying to get its footing with respect to GIS and its potential to affect public policy and economic growth on a variety of levels.

For more summary results of the strategic planning session, go to MAGIP's website at: http://mtgeo.org/

MAGIP BOARD OF DIRECTORS WORK ON REVISIONS TO BY-LAWS

As part of the on-going Board business, the MAGIP Board of Directors has been preparing updates and revisions to the MAGIP by-laws and operating procedures.

When completed, the proposed revisions to the by-laws will be sent to the membership for review and comments. This input will be incorporated and the final revisions will be presented to the membership for vote prior to the 2006 GIS Conference.

Revisions currently underway include the organization and make-up of the Board, representation to and from the Montana Land Information Advisory Council, and membership categories and benefits.

Spotlight on MAGIP Members

With this new feature of the Newsletter we encourage members to share information about themselves and their work

News From the Field

by Melanie Smith

Melanie Smith is the GIS Coordinator for Ecosystem Research Group (ERG) based in Missoula. ERG is a private environmental consulting company specializing in natural resource planning, with a GIS staff that fluctuates from two to five people. She uses GIS to invent new and better ways of analyzing natural resource issues. Understanding many aspects of land management is key to her job, as questions related to forestry, wildlife, soils, hydrography, range management, and more all meet in the GIS department. Creative map design, spatial analysis, cartography, and database management are a regular part of her job, as are writing and editing documents.

Raised in Michigan, Melanie lived in Alaska and Arizona before making her life in Montana three years ago. She earned her Bachelor's Degree in Environmental Studies from Prescott College in 2001 where she learned to apply GIS to natural resource management issues.

She is now pursuing a Master's Degree in Geography from the University of Montana focused on GIS and modeling. Her proposed thesis project entails creating a dynamic model to characterize northern goshawk nesting habitat in the Black Hills National Forest of South Dakota and Wyoming, using the Spatially Explicit Landscape Event Simulator (SELES) language.

At ERG Melanie works on a wide array of natural resource-related GIS projects. For a grazing study in the Dakotas, Melanie designed and managed the production of field maps for two million acres of rangeland. She also trained staff in use of GIS and GPS. One of Melanie's specialties is mapping noxious weed infestations using aerial photos, Garmin GPS, Trimble GPS, and/or ArcPad software. She and other ERG staff conducted a training seminar for Lolo National Forest employees teaching them how to map weeds using Garmin GPS and ArcView software.

Melanie and ERG's GIS staff are using creative GIS and modeling for an elk/cattle vegetation use study in the Elkhorn Mountains of Montana. One task of this three-year project is to map areas where elk and cattle grazing significantly overlap.

With datasets that include elk radio-collar relocation points, US Forest Service timber stand information, grazing allotment data, forage utilization measurements, and local stakeholder comments drawn on paper maps, Melanie conducted a rigorous spatial analysis to document areas most impacted by dual use of wildlife and livestock. Additionally, ERG uses SIMPPLLE, a spatially-explicit landscape model that predicts changes in vegetation based on natural processes and proposed management activities. The GIS department is modeling the Elkhorn Mountains to get a better picture of the historic range of variability of the landscape in order to quantify historic forage production and current timber encroachment.

Melanie finds that one of the biggest challenges of GIS is organization. She needs to manage data efficiently in order to meet the demands of ERG's fast-paced environment. Melanie designed well-organized GIS data storage protocols that make data easily navigable by ERG staff. With an additional ERG office in Butte, Montana and a summer office in Hot Springs, South Dakota, Melanie helped implement a server-based remote access GIS system that is available to any ERG employee with high-speed internet. Melanie's expertise, along with a team of excellent environmental scientists makes ERG's GIS work cutting edge for natural resource analyses.

For more information on Melanie's graduate work or to contact ERG, you may call (406) 721-9420 or email msmith@ecosystemrg.com.



Melanie Smith, Missoula

Professional Development Opportunities

An important issue raised at the January Education Committee meeting was the need for MAGIP to provide leadership in developing avenues to promote the professional development of its members.

This will be a focus item for MAGIP that will require serious attention and the participation of all members to develop an action plan and provide recommendations to the MAGIP Board. You are invited to make suggestions on how we as an organization can best promote professional training opportunities for GIS professionals around the State.

If you would like to be involved in proposing and developing solutions, please contact Bob Holliday at: rholliday@mt.gov

GIS Certification

The Education Committee has been exploring the different avenues of GIS certification and has found two organizations that offer a program.

- GIS Certification Institute (GISCI) (http://www.gisci.org)
- American Society for Photogrammetry and Remote Sensing (ASPRS) (http://www.asprs.org/membership/ certification/certification guidelines.html)

Both offer a GIS Professional Certification with various requirements.

Other types of certification are available depending on needs. EOS offers three online classes and provides certification once they have been completed and the UM School of Forestry is looking into a GIS certification program as well. Links to the GISCI and ASPRS certifications will be provided on the MAGIP website for members to investigate.

MONTANA GIS NEWS **CALL FOR ARTICLES**

We are always looking for new articles for the MAGIP newsletter. If you have interesting information to share as an update or in-depth article of geographic information activities around the state, send your newsletter submission to: JanAllyce@aol.com

The title of your article, the authors' name, and the date it is received will be recorded in our database and, once reviewed by the Communications Committee, will be added to the on-line newsletter on a first-come basis using the database entry for the submission date of your article.

Thank you for your support to MAGIP and good luck in all your geographic information development and applications activities.

We would also like to start collecting a library of photos that can be used to enhance newsletter articles and web pages. Pictures of GIS professionals at work or at play in our beautiful Montana scenery will be welcomed.