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Montana State Library receives a Special Achievement in GIS

Bryant Ralston (ESRI), Gerry Daumiller (MSL), Jack Dangermond (ESRI), & Jennie Stapp (MSL) at the 2009 ESRI User Conference in San Diego, CA

The Montana State Library received a Special Achievement in GIS (SAG) Award July 15th at the 2009 ESRI International User Conference (ESRI UC) in San Diego, California. The organization received this honor for its vision, leadership, and innovative use of ESRI's technology. The library was selected from more than 300,000 organizations worldwide and recognized during the SAG awards ceremony for making extraordinary contributions to our global society.

The library's Natural Resource Information System (NRIS) is a comprehensive program for the acquisition, storage, and retrieval of existing data relating to the natural resources of Montana and intended to facilitate the management of data collected by state agencies in the normal course of their operations. Using NRIS, the library developed the Montana Geographic Information Clearinghouse, the most comprehensive collection of geospatial data for Montana. In addition, NRIS assists users in locating GIS data and developing GIS maps and applications. NRIS also serves as the steward of two Montana Spatial Data Infrastructure (MSDI) Framework Layers and is involved with the stewardship of several other MSDI Framework Layers.

NRIS has a statutory mandate to acquire, store, and retrieve natural resource data. Given the heavy

MSDI Framework News

- NHD Working Group met in Helena

- Montana Governmental Units Updated

Next MAGIP Meeting

- November 19, 2009

Next MLIAC Meeting

- December 8, 2009

MAGIP Technical Session in October
Kalispell, MT   October 21-22, 2009

Kicking things off for the Technical Committee's revitalization effort will be the 2009 Fall MAGIP Technical Session on October 21st and 22nd at the Hilton Garden Inn in Kalispell. Things will get started on Wednesday morning with a round-table discussion of the Technical Committee's work plan and the goings on of MAGIP as a whole. Everybody is encouraged to attend and participate—committee member or not—as the committee's success hinges on the ideas and support of the organization's membership. Following the Technical Committee's round-table discussion, workshops will then be offered on a variety of topics, including *Creating Effective Web Maps*, *Field GIS*, *Adjusting Data to the GCDB* and *Python Basics*, to name just a few. Keeping with the Session's technical flavor, many of the

workshops will cater to a hands-on approach using on-site computer labs and equipment. Plans are also in the works to staff a "Doctor's Office" during the event to answer technical questions and promote networking among MAGIP members. All in all, the 2009 MAGIP Fall Technical Session is shaping up to be a great event and a unique learning experience for all who attend, so mark your calendars now!

The Technical Session is a great opportunity to learn about the hot technical topics for Montana and the GIS world in general; network with your GIS peers; take advantage affordable hands-on workshops; make good contacts for future GIS projects;

Technical Session *Continued from Page 1*

and support your Montana Association of Geographic Information Professionals.

A block of rooms have been reserved for October 20, 2009 - October 23, 2009 at discounted rate of $84 a night. The special room rate will be available until October 6th or until the group block is sold-out, whichever comes first.

To register and make reservations please visit the Fall Technical Session page found at MAGIP.org

Please see the MAGIP 2009 Technical Session Agenda for a complete listing of workshops. The cost of the Technical Session is $50 for MAGIP members and $70 for nonmembers. To renew your membership please visit please visit the Membership Opportunities page of MAGIP.org

We will see you there!

2009 Technical Session Planning Committee Members:

Mindy Cochran, Nate Holm, Michael Fashoway, & Erin Geraghty

MAGIP 2009 TECHNICAL SESSION AGENDA

Wednesday, October 21, 2009

	Room A	Room B - LAB	Room C - LAB	Room D
8:00 - 8:15	coffee & registration			
8:15 - 10:00	MAGIP Technical Session Opening: standards, best practices, & other hot topics			*The Free Zone*
10:00 - 10:15	Break			
10:15 - 12:00	(10:15-11:15) Creating and Editing GeoPDF Maps With ArcGIS, TerraGO, & Adobe Acrobat (11:15-12:00) Demystifying the ArcGIS Server Image Extension - Mike Sweet, Univ. of MT	Cadastral Framework Technical Meeting: Formal Standards for geocoding parcels - Stu Kirkpatrick BMSC, Local Gov'ts, & DOR	Publishing Data to the Montana Portal - Jennie Stapp MSL	*The Free Zone*
12:00 - 1:15	Lunch Break			
1:15 - 3:00	Creating Effective Web Maps - TJ Abbenhaus ESRI	NHD Concepts and Applications	Python Basics, Bob Holliday BMSC	*The Free Zone*
3:00- 3:15	Break			
3:15 - 5:00	Creating Effective Web Maps - TJ Abbenhaus ESRI (cont'd)	NHD Concepts and Applications (cont'd)	Python Basics, Bob Holliday BMSC (cont'd)	*The Free Zone*

Thursday, October 22, 2009

	Room A	Room B - LAB	Room C - LAB	Room D
8:00 - 8:15	Coffee			
8:15 - 10:00	Imagery Framework Technical Meeting - MSL & BMSC	Adjusting GIS Data to GCDB - RJ Zimmer DJ&A	Governmental Unit Framework Technical Meeting: Using Governmental Unit Data - Erin Geraghty BMSC	*The Free Zone*
10:00 - 10:15	Break			
10:15 - 12:00	Working with (FME) Feature Manipulation Engine Software - Michael Fashoway & Josh Dorris BMSC	Adjusting GIS Data to GCDB - RJ Zimmer DJ&A (cont'd)	Writing & Publishing Metadata - MSL	(10:15) Land Cover/Land Use Framework Technical Meeting - Linda Vance & Claudine Tobalske (11:15) Wetlands Framework Technical Meeting - Linda Vance & Meghan Burns MT Natural Heritage Program
12:00 - 1:15	Lunch Break			
1:15 - 3:00	ESRI Web Mapping Resources - Bryant Ralsont & TJ Abbenhaus ESRI	Field GIS - Alison Walker Electronic Data Solutions	Involving the public in EIS reviews through web mapping applications - Tom Ring, Craig Jones, & Nat Carter DEQ	NHD Workgroup
3:00- 3:15	Break			
3:15 - 5:00	Using ArcGIS Model Builder - TJ Abbenhaus ESRI	Field GIS - Alison Walker Electronic Data Solutions (cont'd)	Spatial Analysis Workflow and Automation - Nat Carter & Chris Stump, DEQ	*The Free Zone*

*Purple indicates a hand-on session and there is a limit of 28 people
*Green indicates no limit and not hands-on

A Message from the President

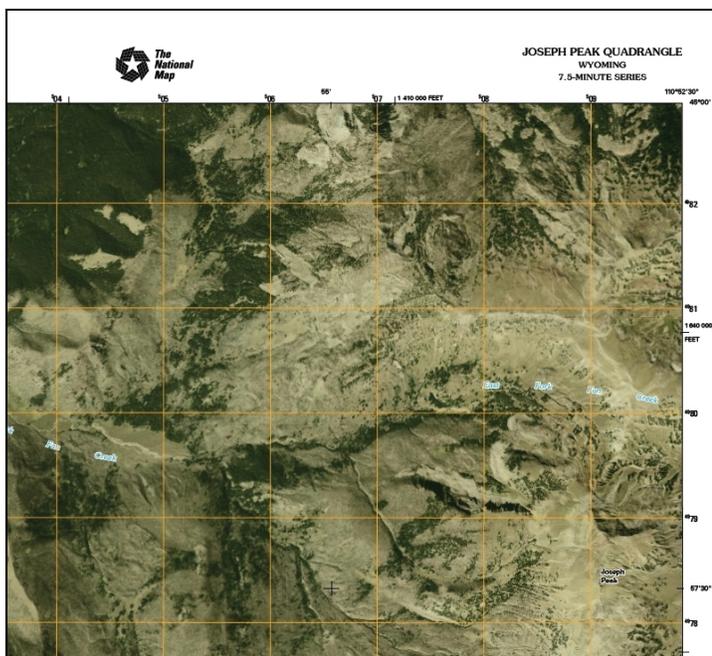Greetings MAGIP Members & the Montana GIS Community!

The MAGIP Board of Directors and committee/subcommittee members are working hard to ensure another great year! Here are just a few examples of projects that our MAGIP volunteers are working on:

- The Conference Planning Committee is working hard planning next year's 2010 Intermountain Conference, to be held in Bozeman. The conference will be a worthwhile event with opportunities for learning, networking, idea sharing, and socializing with your peers! Thank you for your work!

- The MAGIP Board had its first Annual Board Retreat. The retreat was designed to help the Board focus on prioritizing the next year's goals and writing a work plan. The event was successful and I would like to thank Janet Cornish for facilitating and all who were involved!

- The MAGIP Technical Session will be held on October 21-22, 2009 in Kalispell. The MAGIP Technical Session Planning Committee has planned an event that offers a wide variety of technical workshops for all levels of GIS professionals. I would like to thank the Committee members, consisting of Mindy Cochran, Nate Holm, and Michael Fashoway, for all the work they have done for this event!

- MAGIP is getting a face lift! We have entered into contract with Catch & Release Graphics, of Bozeman, Montana, for developing a cohesive MAGIP presence for all web and print based materials.

- A new Committee was formed this past year to address the needs of the MAGIP web presence. The Web Committee has been working on researching new website possibilities and will be working on a needs assessment for the association. Thank you Nat Carter, Lee Macholz, Tony Thatcher, Catherine Love, and Gerry Daumiller for all of your work!!

Erin Geraghty, MAGIP President

U.S. Geological Survey's new Digital Map

Joseph Peak Quadrangle from the USGS Digital Map

On December 9, 1884, the U.S. Geological Survey (USGS) was authorized by the U.S. Congress to begin systematic topographic mapping of the United States. During the next 125 years, mapping techniques evolved from field surveys through photogrammetry to the computer-based methods currently used today.
In the late 19th century, surveyors created topographic maps in the field. A series of points were measured in the field using tape and compass traverses with elevations determined with an aneroid barometer, and used in a process known as field sketching to draw a terrain representation using contours. The introduction of the plane table and alidade, which could measure vertical angles, point positions and elevations much more rapidly, greatly increased the accuracy of data shown on topographic maps, but still required the surveyor to field sketch the contours after control points had been identified. The aid of a visual three-dimensional model in the office to construct the surface representation awaited the development of photogrammetry. Read the complete version of the "125 years of USGS topographic mapping" at NationalMap.gov

In December, 2009 the USGS will celebrate 125 years of topographic mapping by announcing a new "Digital Map" product which is a derivative of *The National Map.* The "Digital Map will be the quadrangle map of the future. Although it is not a Geographic Information System (GIS), it is a new kind of georeferenced map that is a synthesis and evolution of USGS's legacy digital map data files, the Digital Raster Graphic (DRG). These maps will be different from other available imagery or maps. They are a first step toward a comprehensive portrayal of the Nation's landscape. The initial version of "Digital Maps – Beta" includes orthoimagery plus roads and geographic names in the traditional 7.5 minute quadrangle format. The "Digital Map - Beta" is easily accessible, has reasonable file sizes and a common format with embedded tools, and theme-based layers.

MAGIP Board Conducts First Annual Board Retreat

On Friday July 31, 2009 the MAGIP Board had its first official Board Retreat at Fairmont Hot Springs. The purpose of the retreat was to have a day away from the normal office environment to focus on planning and prioritizing the year's goals. The retreat was facilitated by Janet Cornish the MAGIP Administrator. The current Board and all recently transitioned Board Members were invited; those in attendance were: Stuart Challender, Lance Clampitt, Mindy Cochran, Janet Cornish, Michael Fashoway, Erin Geraghty, Nate Holm, Lee Macholz, Van Shelhamer, and Tony Thatcher.

In preparation for this event all invitees were asked to review the previous two MAGIP Summit notes and summaries. The MAGIP Summits were conducted at the April 2008 Intermountain Conference (Missoula) and at the March 2009 Spring Meeting (Miles City). MAGIP Summits are a means for members to provide feedback in a facilitated environment. The group used the member feedback and current projects/goals to generate priorities for writing the comprehensive work plan. Each Committee Chair was asked to write their committee work plan and each committee work plan will be merged into the MAGIP 2009-2010 Work Plan.

The MAGIP 2009-2010 Work Plan will be a tool that the Board will use to define goals, objectives, activities, impacts, and an annual evaluation. The work plan is designed to help the Board prioritize goals/objectives, create a practical schedule, appropriate funds accordingly, and stay on task throughout the year. When the MAGIP year has ended, signified with a change in leadership, the work plan can be used as a tool to measure the successes of the year.

Stay tuned for the release of the MAGIP 2009-2010 Work Plan.

- Erin Geraghty, MAGIP President

Professional Development Committee Report

The Professional Development Committee is looking at ways to enhance and expand professional development and continuing education opportunities for members. Thanks to all of you who responded to the Professional Development Survey – we had 94 responses! Results from the survey are proving helpful in developing the Committee work plan and planning for the Intermountain GIS Conference to be held in Bozeman next April. Watch for the survey summary this fall on MAGIP.org.

We are in the process of developing a work plan to guide Committee activities for the next few years. To meet the diverse needs of members we have identified the following subcommittees to focus on specific areas of the work plan:

- Mentoring – this subcommittee will be identifying needs, content and delivery methods for a mentoring program.

- Web delivery – this subcommittee will be working with the MAGIP Web Presence Committee to explore methods of providing continuing education subject matter on the web.

- Conferences – this subcommittee is responsible for planning the Intermountain GIS Conference and Spring Meeting on alternate years.

Planning is well underway for the 2010 Intermountain GIS Conference to be held in Bozeman, MT, April 19-23. The conference theme is "Challenges for a Changing World" and will include the second Montana GIS Summit, expanded workshop offerings, targeted education sessions with focused tracks, special interest group meetings, a banquet, the awards ceremony, and more. Save the date and watch MAGIP.org for more information as the planning progresses.

We have a busy year ahead, and there are lots of ways for you to become involved in YOUR professional organization. If you would like to get involved please contact myself or another MAGIP Board member.

- Stuart Challender, Professional Development Committee Chair

Technical Committee Report

Established in April 2004, the MAGIP Technical Committee has largely been organized over the years as an ad-hoc group responsible for planning the Fall Technical Sessions and advising the Board of Directors and MAGIP membership on technical issues. While these tasks will remain the focus of the Committee's actions throughout the next year, new Technical Committee Chairperson, Nate Holm, is hoping to revitalize interest and participation in the Committee so its work is more visible and accessible to MAGIP members than it has been in years past.

Eager to accomplish these goals, the Committee's work plan for the next year includes:

- Defining a clear mission statement to focus and guide the Committee's actions;

- Planning the MAGIP Fall Technical Session;

- Reaching out to MAGIP members for participation and input on Committee proceedings;

- Formalizing the process for developing best practices;

- Standardizing the documentation of best practices;

- Working with the Professional Development Committee to disseminate and promote the use of best practices as they are created.

- Nate Holm, Technical Committee Chair

Montana NHD Workshop hosted by NRIS

The Montana NHD Workshop was held at the Montana State Library in Helena, Montana on August 25-26, 2009. One of the USGS goals for the National Hydrography Dataset (NHD) is to develop a single hydrographic data model that can be maintained and serve the scientific and organizational business needs of all hydrography data users. This two day meeting will focus specifically on bringing together stakeholders in need of a whole stream identifier for indexing hydrography related events. To this end, we will be determining the general characteristics, similarities and differences between the hydrography model in use by state and regional fish and wildlife management agencies (Montana FWP, StreamNet) and the NHD. We will determine if and

how these two models can be integrated or referenced so that the Montana Fish, Wildlife and Parks can benefit from a single hydrography representation within Montana's stewardship umbrella. We also want to provide input to and receive input from other stakeholders that can assist Montana and can expand opportunities to other states, regional organizations and Federal programs.

Please contact Evan Hammer via phone (406-444-5355) or email (ehammer@mt.gov) for more information on the MT NHD Working Group.

MSL receives SAG Continued from Page 1

emphasis on GIS by natural resource organizations, NRIS would be unable to effectively fulfill this mandate without embracing GIS technology. Through GIS tools developed by NRIS, the Montana State Library is able to provide the general public with more flexible and effective means of accessing a great deal of government information.

The library has been using GIS for approximately 22 years. The organization plans to release a new and customized Montana GIS Portal before the end of the year. Current plans also include better integration of NRIS data collection into the state library collection and better integration of GIS tools with the library catalog system to enable geospatial catalog searches.

- July 15th, 2009 Press Release from the 2009 ESRI UC

Digital Map Continued from Page 3

Ultimately, in addition to a scale-corrected image base, the "Digital Map" will include layers for contours, water, transportation, boundaries, structure features, geographic names, and vegetative surface cover or land cover in USGS's customary 7.5-minute by 7.5-minute quadrangle format. When contours are added, the "Beta" designation will be dropped. Accompanying each "Digital Map" will be scanned files of previous editions of that topographic map. The quality and accuracy of the map depends on *The National Map* data that was used to make it. The file format is a georeferenced GeoPDF. The user can interact with the features on the map using free PC-compatible software and the map iles will be available, at no cost, for digital download from the USGS Store at: http://store.usgs.gov

- E. Lynn Usery, Dalia Varanka, Michael P. Finn, & Lance S. Clampitt
  U.S. Geological Survey

Save the Date!

- **ESRI UC 2009 Highlights Seminar** (Oct. 6, 2009) - ESRI.com

- **NWGIS Users Conference** (Oct 12-16, 2009) - NWGIS.org

- **MAGIP Technical Session** (Oct. 21-22, 2009) - MAGIP.org

- **GIS Day** (Nov. 18th, 2009) - GISDay.com

- **MT Gov. IT Conference** (Dec. 2-4, 2009) - ITconference.mt.gov

- **2010 Intermountain GIS Conference** (April 19-23) - MAGIP.org

Fun Facts!

An equinox occurs twice a year, when the tilt of the Earth's axis is inclined neither away from nor towards the Sun, the Sun being vertically above a point on the Equator. The term equinox can also be used in a broader sense, meaning the date when such a passage happens. The name "equinox" is derived from the Latin aequus (equal) and nox (night), because around the equinox, the night and day are approximately equally long. On a day of the equinox, the centre of the Sun spends a roughly equal amount of time above and below the horizon at every location on the Earth. It may be better understood to mean that latitudes +L and -L north and south of the equator experience nights of equal length. The Autumnal Equinox is September 22nd, 2009.

Have a good Fall and see you again this Winter!

Want to submit an article? Email me at ncarter@mt.gov

Nat Carter - Editor