

# THE MAP LEGEND

Est. 1984  
 NMGIC, Inc. PO Box 9445 Albuquerque, NM 87119-9445  
<http://nmgic.unm.edu>

## EDAC Leads Consortium on Remote Sensing in Transportation

The University of New Mexico's *Earth Data Analysis Center*, together with the University of Utah's *Department of Geography*, George Washington University's *Space Policy Institute*, and Oak Ridge National Laboratories' *Center for Transportation Analysis* have combined their remote sensing and geospatial experiences that focus on applications in transportation hazards, safety, and disaster assessment. The key participants in this consortium have over 130 years of combined experience in theoretical and applied spatial analysis employing remote sensing, GIS, and GPS technologies, algorithm development, and model building. The group also has more than 75 years of experience applying these technologies to transportation hazards, safety, and disaster assessment. EDAC is the lead university for this consortium over the next four years, sponsored by the US/DOT/Research and Special Projects Administration.

The consortium's unifying element is its desire to develop spatial analytical tools for applications in transportation needs in the mountainous, and arid western United States, but it also is responsible to US/DOT for nationwide applications in hazards, safety, and disaster assessment. This western region faces unique problems imposed by vast tracts of sparsely populated terrain dotted with major urban places. The transportation network consists of long segments that are remote from health and safety services, and which require special planning for hazards and disaster relief. Throughout the region, a high percentage of road surfaces are spectrally similar to their surrounding landscapes, making them difficult to identify on satellite images. Road, railroad, and pipeline networks are often separately



AP Photo/Ben Margot

maintained by their responsible authorities, but are not publicly available as GIS



Landsat 7 acquired on 5-9-00 showing natural color composite of Cerro Grande fire.

coverages at the municipal, county, or state levels. Tribal, rural, and county road nets often suffer poor trafficability because of erosion, flash flood, snow pack, and other weather events; and these events often coincide with isolated human tragedies that require a variety of emergency planning options. Unlike hurricanes and tornadoes that affect millions of Americans and the attention of the entire nation, weather events, disasters, and emergencies in the western U.S. often only affect a few hundred people, directly. Except for forest fires, these weather events and other episodes are mostly not headline news, but they are no less important for their impacts. The recent Cerro Grande fire that caused the evacuation of Los Alamos and White Rock, NM is a rare exception but one that points out the importance of hazards and disaster assessment for prior planning.

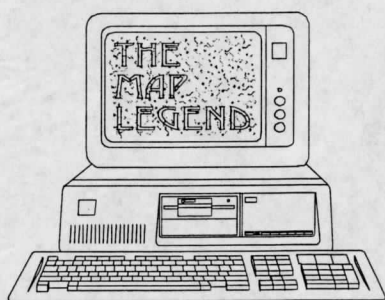
A 12-person Steering Committee comprised of government, academic, and private sector experts will advise the consortium. The immediate goals are to develop extraction algorithms and models for several applications that have vital importance in the western U.S. These focus on trafficability and public safety issues associated with flooding, fires, earthquakes, evacuation routing, and E-911 planning.

For further information, contact: Rick Watson, Senior Research Scientist, Earth Data Analysis Center, The University of New Mexico, Bandelier West, Room 111, Albuquerque, NM 87131-6031. Phone: (505) 277-3622 ext. 232. Email: [rwatson@spock.unm.edu](mailto:rwatson@spock.unm.edu)

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Editor: Amy Budge

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## From the President

As President of the Board of Directors of NMGC, I am of the opinion that in the last couple of years the Board has really outdone itself in presenting to you, the membership, outstanding spring and fall meetings of the highest caliber. I want to thank the Board for their hard work to this end; you've all done a great job and, perhaps unfortunately, have set yourself a very high quality standard to have to live up to in future meetings! Having said this and given us all a collective virtual pat on the back, I now feel that I have to clear my (not so virtual) throat and get on to the bad news regarding the board's shortcomings as of late.

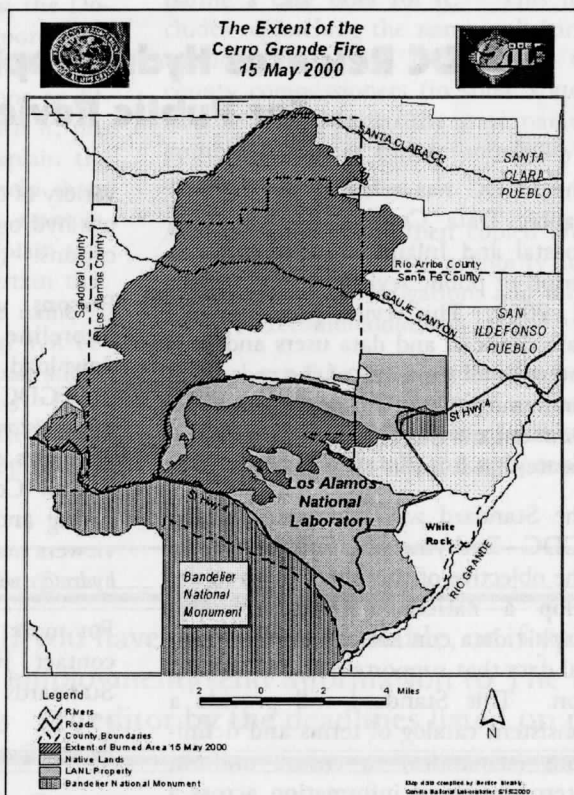
Our biggest problem is that for the past two years we have not lived up to our By-laws regarding the timing of election proceedings of the officers of the Board of Directors, *i.e.*, we've gotten slack and missed the required deadlines for accepting nominations, mailing out and receiving ballots, and electing officers. While many of you might think this matter trivial, I would argue that ensuring each member their right to nominate and vote for their representation to the Board in a timely fashion is vital to the well being of the Council at large. Now I am not blaming anyone, certainly not the Elections Coordinator nor the nominating and elections committee. As Bob Julyan told the Board this past spring, the procedure for filling out the committee and accepting nominations was not unlike pulling teeth! Instead, I think the entire Board, including myself, should shoulder the blame and turn this situation around. We will indeed be addressing this issue at the next Board meeting! Perhaps the present election proceedings are too cumbersome and in these days of electronic correspondence there are better ways to reach out to the membership, thereby generating a better voter response. As always, if any of you would like to comment or make suggestions, I would welcome them.

David J. McCraw  
President

## A BIG Thank You!!

I would like to formally recognize the following people for assisting me in gathering data for the Cerro Grande Fire: Laura Gleasner (EDAC), Bob Bewley and Liz Peck (BLM), and Candace Bogart (USFS). I would not have been as successful in creating maps for the DOE if Laura, Bob, Liz, and Candace weren't so helpful in providing data to me quickly. The data I received from these folks proved invaluable to the DOE in managing their response to the Cerro Grande Fire. To me, this is an example of why NMGC is so important.

Denise Bleakly  
Sandia National Laboratories



## The Map Legend 2000 Publication Schedule and Deadlines

Fall Issue      Deadline for articles:  
September 15, 2000  
Publication date:  
October 15, 2000

Winter Issue      Deadline for articles:  
January 15, 2001  
Publication date:  
February 15, 2001

Spring/Summer Deadline for articles:  
May 15, 2001  
Publication date:  
June 15, 2001

Editors of *The Map Legend* are looking for articles describing ongoing, recently completed, or recently awarded projects. "Newsy" items on your organizations, accomplishments of your personnel, event/meeting announcements.....are all welcome. Your contributions should be sent to Amy Budge either by fax (505-277-3614) or by email to [abudge@spock.unm.edu](mailto:abudge@spock.unm.edu) by the deadlines.

Do you have information about a project, new techniques, GIS and related issues, announcements, news, etc. that you would like published in the Map Legend?





## So Long, Selective Availability and Other GPS Items

### Selective Availability

By the time you read this newsletter, this will probably no longer be "news," but on May 1, 2000, President Clinton made an important announcement regarding the Global Positioning System (GPS). With the comment that "...to discontinue Selective Availability is the latest measure in an ongoing effort to make GPS more responsive to civil and commercial users worldwide..." the President told the world that the accuracy provided by autonomous GPS positioning would increase about ten-fold as of midnight that night.

Selective Availability (SA) is the purposeful degradation of the GPS signals (both the satellite orbital information and time data) that had been in place most of the time since the early days of GPS. The purpose of SA was to deny our national adversaries (and, unfortunately, the rest of us as well) access to the inherent accuracy of GPS. With SA, the positional accuracy provided by autonomous GPS techniques (a single receiver with no differential corrections) was specified, with 95% confidence, at 100 m horizontally and 156 m vertically. The non-SA accuracy specifications are still being developed and should be available by early summer. Early indications are that horizontal accuracies of 15 m should be easily achievable and that the 5 to 10 m range is likely. Vertical errors are typically on the order of 50% greater than those of the horizontal position. The jury is still out on accuracy assessment, so stay tuned to see how this develops. Take a look at the Interagency GPS Executive Board's (IGEB) website ([www.igeb.gov](http://www.igeb.gov)) for a variety of SA-turnoff related items, including some before and after accuracy plots that describe the improvement with considerably more impact than this brief newsletter item.

The history of the discontinuation of SA goes back to a Presidential Decision Directive that was issued in 1996. This national GPS policy statement called for an annual review, starting this year, by the Department of Defense (DoD) to consider the termination of SA. Having developed the capability to deny our adversaries access to GPS signals on a regional basis, DoD felt that SA could now be turned off without compromising our nation's security.

It is important to note that applications requiring surveying accuracy (few-cm level) or mapping accuracy (sub-m or few-m level) will still need to utilize a relative positioning technique (e.g. static/post-processed, real-

time kinematic, or DGPS) in order to achieve the required accuracies. In addition, the P-code component of the GPS signals is still encrypted to form the Y-code and is therefore inaccessible to non-qualified GPS users. The termination of SA is great news. However, even now more than ever, it is essential to use the proper tools and techniques to support your positioning requirements.

### Nationwide Differential GPS

I have previously written in the *Map Legend* about the development of the Nationwide Differential GPS (NDGPS) network. This network will provide real-time DGPS corrections supporting 1-4 m accuracy positioning and navigation capability throughout the nation. NDGPS plans call for the installation of a broadcast station at Kirtland Air Force Base in Albuquerque. This facility should provide differential correction coverage throughout most of New Mexico. The current implementation schedule is calling for the Kirtland beacon to be installed later this summer. So, perhaps by the time you are reading this, we will have statewide differential coverage available to all - for free.

### Modernization

Although GPS gives the impression of being a state-of-the-art system (and it really is wonderful!), it is, in actuality, based on design and engineering that goes back several decades. The time has come to lay the foundation for the next generation of GPS capability. With that goal in mind, there has been considerable effort expended by a variety of organizations in determining specifications for the types of signals that should be provided by future GPS satellites. The required funding for such a modernization effort has been rather uncertain but recent developments are encouraging. Present plans call for the DoD to fund and coordinate the effort. If all goes well, by 2009 or so, we should begin to realize the additional capabilities (in terms of increased accuracy, signal strength, robustness, and other aspects) of the next generation of GPS. Stay tuned - and keep your fingers crossed!

For additional information, contact Bill Stone, National Geodetic Survey, 505-768-3606 or [stone-ngs@cabq.gov](mailto:stone-ngs@cabq.gov).

## FGDC Releases Hydrography Standard For Public Review

The FGDC has released the Hydrographic Data Content Standard for Coastal and Inland Waterways for a period of public review ending August 31, 2000. This review provides software vendors, and data users and producers in all segments of the geospatial community with an opportunity to comment on this standard in order to ensure that it meets their needs.

The Standard was developed by the FGDC Bathymetric Subcommittee. The objective of this standard is to develop a nationally focused hydrographic data content standard for spatial data that supports safety of navigation. This Standard will provide a consistent catalog of terms and definitions (semantics) to ensure uniform interpretation of information across a

variety of organizations that develop and use hydrographic feature data and applications.

Persons interested in reviewing the Shoreline Metadata Standard may download the public review draft from the FGDC Standards page at [http://www.fgdc.gov/standards/status/sub5\\_5.html](http://www.fgdc.gov/standards/status/sub5_5.html). All reviewers are strongly urged to use the Review Comment Template when preparing and submitting comments. Reviewers may send their comments to [gdc-hydro@www.fgdc.gov](mailto:gdc-hydro@www.fgdc.gov).

For more information on this standard contact Julie Binder Maitra, FGDC Standards Coordinator, by phone at (703) 648-4627 or email at [jmaitra@usgs.gov](mailto:jmaitra@usgs.gov).

*From FGDC Newsletter, Spring 2000*

## Geographic Names Proposals: A Synopsis of the Process

The U.S. Board on Geographic Names (USBGN) case docket of names issues for New Mexico is sparse right now, so perhaps this is a good time to review just how names issues get put on the USBGN docket and what happens to them then.

First, someone—often a government agency but just as likely a private individual—feels an apparently unnamed feature deserves a name—and just happens to have one handy—or that an existing name is incorrect.

Federal agencies such as the Forest Service are well aware of the USBGN and usually go directly to them, but individuals, at least in New Mexico, are more likely to have heard of someone involved with the NMGIC Geographic Names Committee (GNC), probably through media coverage of a names issue here.

At that point, the individual contacts me as chair of the GNC, and I then explain that they need to fill out the Domestic Geographic Names Report form (DGNR) and send it to the USBGN. Though the form really isn't long or difficult, I offer to help them with it, primarily because I then can explain the procedures and criteria and help them avoid obvious problems. For example, with new name proposals I explain that the proponent first must ascertain that the feature truly doesn't have a name. I also emphasize that the feature not being named on the USGS quadrangles isn't sufficient evidence of this. Especially not in New Mexico, with its Native American and Hispanic populations

whose non-English names often are poorly represented on maps.

I also point out that USBGN's primary criterion for accepting new names is local usage and preference. Determining that is the GNC's job, but the proponent can help.

And finally, I point out such pitfalls as the USBGN taking a dim view of commemorative names honoring someone with little connection with the feature, and that the person being commemorated must be deceased for at least five years before the proposal. (A person with the NM Museum of Natural History last year proposed naming a draw in Sandoval County Harmon Draw to commemorate a local person, but nothing could happen with the proposal until this June, the fifth anniversary of the man's death.)

Then the completed form is sent to the USBGN, where staff members assign the case to the docket and begin preparing a case brief for it. This includes researching the name, soliciting opinions from the local board of county commissioners (in some states such as New Mexico the state names authority assumes this responsibility), and so forth.

All the paperwork is then copied and sent to the state names authority for further review, investigation, and ultimately, a recommendation.

When I get the case, I attempt to see the feature (that's not always as easy as it sounds, as in the case of remote mountains). I also talk to local people

("Say, you see that mountain over there? What do folks in these parts call it?")

And where appropriate, I write letters to local newspapers soliciting information and opinions.

When all this has been completed, the GNC meets, reviews the case, and votes on a recommendation. The USBGN isn't obliged to follow this recommendation, but they usually do.

Of course, reality doesn't always conform to the above outline. Sometimes local opinion is divided, as with San Acacia/San Acacio. Sometimes the proposed name would displace an earlier name, as with Spring Mountain/Mount Barker and Cerro Pederal/O'Keeffe Mountain.

The USBGN meets once a month to decide cases that have been docketed. If important information, such as a recommendation from an agency or a county commission, is missing, the case will be deferred.

When a decision finally is made, the USBGN informs all the parties. In the meantime, the GNC waits until new cases arrive from the USBGN. Can the GNC initiate a case on its own? Sure, especially when a name in the Geographic Names Information System (GNIS) database is perceived to be in conflict with local usage or in some other way be incorrect.

If you have any questions about the process, or about specific names, please contact me.

*Bob Julyan, Chair  
NMGIC Geographic Names Committee*

If you have a position available, or if you are seeking employment, send information to The Map Legend editor by the deadlines listed on page 2.

## Be a Manuscript Reviewer

The editorial staff of PE&RS is seeking qualified reviewers for articles submitted for peer review. *Photogrammetric Engineering and Remote Sensing* is the official monthly journal of ASPRS: The Imaging and Geospatial Information Society. With over 8500 members worldwide, it attracts an international authorship and readership from government, academia, and the private sector in topics addressing:

- Technology developments in aerial and satellite digital imagery, GIS, and GPS
- Applications development in aerial photography and videography for GIS
- New applications of satellite and aerial sensor data for GIS and resource management
- State-of-the-art techniques for Ortho-imagery, DOQs, DOQQs, DEMs and Geodetic Control
- Data accuracy, standards, calibration and validation

Advantages of being a reviewer are:

- You get technical information about new techniques and latest developments months before articles are published
- You become part of a broader community of professionals, worldwide
- Your experience can be used for Certification as a *Mapping Scientist* in ASPRS
- Your experience can be used to apply for INS Green Card

Guidelines for reviewers are available. If you are interested in becoming a reviewer, please contact Stan Morain, Editor-in-Chief, or Robyn Gleasner, Manuscript Coordinator at:

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Remember: "Peer review includes evaluation by government, academic, and private sector experts. It's not just for academics anymore. Be a player!"



## Calendar



ESRI Digital America (States Edition) Seminar, August 2, 2000. Pyramid Hotel, Albuquerque, NM. Contact: Mark Taetz, ESRI-Denver, 4875 Pearl East Circle, Suite 200, Boulder, CO 80301-6103. Phone 303-449-7779; Fax 303-449-8830. Email: mtaetz@esri.com. Web: <http://www.esri.com>.

AGIC 2000 GIS Conference, August 14-16, 2000. Prescott Resort Conference Center and Casino, Prescott, AZ. Contact: Sharon Gulden, Arizona State Land Department, 1616 W. Adams St., Phoenix, AZ 85007. Phone 602-542-4060; Fax 602-542-2600. Web: <http://map.azfms.com/agic2000>.

URISA 2000, August 19-23, 2000. Omni Rosen Hotel, Orlando, FL. Contact: URISA, Dept 77-6100, Chicago, IL 60678-6100. Phone 847-824-6300; Fax 847-824-6363. Email: [info@urisa.org](mailto:info@urisa.org). Web: <http://www.urisa.org>.

GIS in the Rockies 2000 Conference and Workshop, September 25-27, 2000. Plaza at the Mart, Denver, CO. Contact: GIS in the Rockies, 3100 S. Sheridan Blvd, Suite 1C-345, Denver, CO 80227. Email: [chair@gisintherockies.org](mailto:chair@gisintherockies.org). Web: [www.gisintherockies.org](http://www.gisintherockies.org).

ESRI Southwest User Group (SWUG) 2000 Conference, November 6-9, 2000. Moab, UT. Contact: Kevin Sato, City of Murray, MIS Dept., 4646 S 500 W, Murray, UT 84123. Phone 801-270-2460; Fax 801-270-2450. Email: [ksato@ci.murray.ut.us](mailto:ksato@ci.murray.ut.us).

ESRI GIS EXPO in New Mexico, November 14, 2000. Pyramid Hotel, Albuquerque, NM. Contact: Mark Taetz, ESRI-Denver, 4875 Pearl East Circle, Suite 200, Boulder, CO 80301-6103. Phone 303-449-7779; Fax 303-449-8830. Email: [mtaetz@esri.com](mailto:mtaetz@esri.com). Web: <http://www.esri.com>.



## News and Announcements From Our Corporate Sponsors

### From ESRI....

#### Special Achievement in GIS Award

The Public Service Company of New Mexico (PNM) has been recognized by ESRI as a Special Achievement in GIS (SAG) award winner this year. This prestigious award acknowledges the innovative Transmission Asset Management Information System (TAMIS) application implemented at PNM. In 1998, ESRI began awarding Special Achievement in GIS (SAG) awards. SAG award winners represent organizations from around the world that are recognized for their specific outstanding work in GIS. Previous SAG award winners in New Mexico are the City of Albuquerque in 1998 and the City of Santa Fe in 1999.

#### GIS Seminars and Events

ESRI - Denver conducted the "From the World to the Web" (ArcInfo 8 / ArcIMS) seminar in Las Cruces on May 1 and Santa Fe on May 16. These seminars focused on the new ArcInfo 8 and ArcIMS products. Other upcoming important GIS seminars and events are listed below.

- August 2 ESRI Digital America (States Edition) Seminar in Albuquerque NM at the Pyramid Hotel
- Nov. 6 - 9 ESRI Southwest User Group (SWUG) 2000 Conference in Moab UT
- Nov. 14 ESRI GIS EXPO in New Mexico, Albuquerque, NM at the Pyramid Hotel
- Nov. 15 GIS Day 2000 worldwide

For more information on seminar and event topics, dates, and locations, please contact Mark Taetz at ESRI-Denver (phone# 303-449-7779) or visit the ESRI web site ([www.esri.com/events](http://www.esri.com/events)).

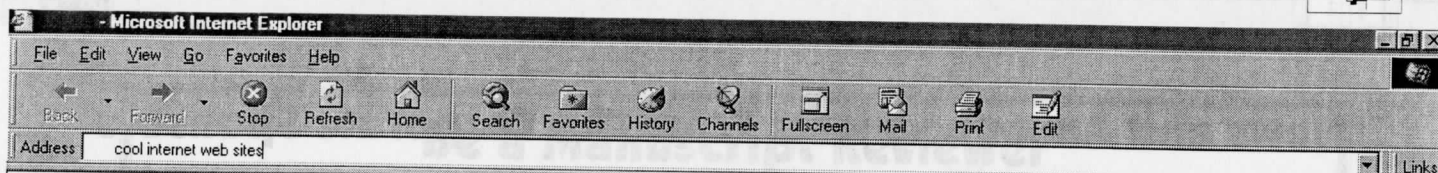
#### ESRI GIS Training Courses

**Instructor-led** ESRI GIS Training Courses are available in Albuquerque, New Mexico. Courses scheduled for this year are listed below. For more information, please visit ESRI's web site ([www.esri.com/training](http://www.esri.com/training)) or contact Paige Hayes at ESRI-Denver (phone# 303-449-7779). Please register ASAP; training course size is limited.

- July 17 - 19 Advanced ArcView GIS.
- July 20 - 21 Introduction to Avenue.
- August 1 - 4 What's New in ArcInfo 8
- October 4 - 6 Advanced ArcView GIS.
- October 17 - 19 Working with the Geodatabase.
- October 23 - 27 Introduction to ArcInfo using ArcMap, ArcCatalog, and ArcToolbox.
- November 6 - 8 Working with the ArcView Spatial Analyst.
- November 9 - 10 Introduction to Avenue.



**Web-based** ESRI GIS Training Courses are also available through the ESRI Virtual Campus. The courses offered via the Virtual Campus are very popular - check it out! For more information, visit the ESRI Virtual Campus ([campus.esri.com](http://campus.esri.com)).



## Cool Internet Web Sites

For this edition of Cool Websites, I've chosen to focus on how to find free or low cost spatial data. There are more GeoSpatial sources than ever, and it is very difficult to keep up with all the new web-sites that are showing up on the internet. I've gleaned this information from several trade journals that have focused on this issue over the last several months, and some email list servers that I belong to. As always, if you have any additions to this list, please feel free to contact me at [drbleak@sandia.gov](mailto:drbleak@sandia.gov). If this is a useful set of links we may add them to the NMGIC web site at a future date.

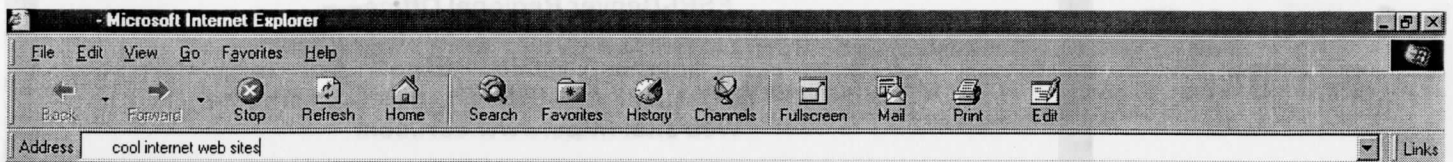
### Direct Sources of Federal GeoSpatial Data

- Federal Geographic Data Committee has a data link on its home page, which connects you to the National Spatial data Infrastructure (NSDI) clearinghouse portal. <http://www.fgdc.gov>
- Guide to Mostly Free Geospatial Data: from the Center for Advanced Spatial Technologies <http://www.cast.uark.edu/local/hunt/>
- Census Data <http://www.census.gov>
- International Data Base: Census Bureau depository of international statistics <http://www.census.gov/ipc/www/idbnew.html>
- National Imagery and Mapping Agency (NIMA) maintains links to map data as well as to Digital Terrain Elevation Data (DTED) and to declassified satellite images <http://164.214.2.59/>
- USGS Earth Resources Observation Systems (EROS) Data Center houses a variety of USGS digital cartographic data products and it also holds the world's largest collection of civilian remotely sensed data. <http://edc.usgs.gov/>

### Other interesting Federal Government Sites:

- Bureau of Indian Affairs (BLA): Indian land areas established since 1978 [http://www.wes.army.mil/el/ccspt/natamap/usa\\_pg.html](http://www.wes.army.mil/el/ccspt/natamap/usa_pg.html)
- Bureau of Transportation Statistics: national transportation statistics and transportation related GIS topics. <http://www.bts.gov/gis/>
- Centers for Disease Control and Prevention: health data and statistics <http://www.cdc.gov>
- Crime Mapping Research Center: Crime incidence statistics <http://www.ojp.usdoj.gov/cmrc>
- Federal Bureau of Investigation: Uniform Crime reports <http://www.fbi.gov/ucr.htm>
- Department of Energy: Collections of Energy Data <http://www.eia.doe.gov>
- Federal Communications Commission: telecommunications maps and data <http://www.fcc.gov/oet/info/maps/>
- Federal Emergency Management Agency (FEMA): Hazard and disaster maps and data <http://www.fema.gov>





## Cool Internet Web Sites, continued

- FedStats: a single source for federal statistics <http://www.fedstats.gov>
  - National Oceanic and Atmospheric Administration: Weather, nautical and aeronautical charts and data <http://www.noaa.gov>
  - National Climatic Data Center: World's largest archive of weather data <http://www.ncdc.noaa.gov>
  - NOAA's Operational Significant Event Imagery: The Operational Significant Event Imagery team produces high-resolution, detailed imagery of significant environmental events which are visible in remotely-sensed data available at the NOAA Science Center in Suitland, Maryland. They provided many of the satellite imagery of the Cerro Grande Fire <http://www.osei.noaa.gov/>
  - National Geophysical Data Center: Bathymetry, solar-terrestrial physics, geophysics and more <http://www.ngdc.noaa.gov>
  - National Resources Conservation Service: 1997 Natural Resources Inventory <http://www.nrcs.usda.gov>
  - US Fish and Wildlife Service: National Wetlands Inventory <http://www.nwi.fws.gov>
  - Pennsylvania State University: Digital Chart of the World <http://ortelius.maproom.psu.edu/dcw/>
  - US Postal Service: Zip code search engine <http://www.usps.gov>
- Data for a price:**
- A list of more than 60 data vendors can be found at: <http://www.geoplace.com>

## Workshop Information.....

### Call for Workshop Ideas

If you have a topic you would like to see offered as a workshop, please contact the NMGIC Workshop Coordinator, Bobby Creel using the online form on the NMGIC web site. The form can be accessed at <http://nmgic.unm.edu>.

NMGIC wants to respond to the needs of its members, so please share your desires concerning these workshops.

### Metadata Workshops

RGIS and NMGIC will be sponsoring one day hands-on workshops on the ArcView Metadata Collector Tool. The classes are limited to 10 people. A nominal fee (\$30) will be charged per person to cover costs of workbooks. No specific dates have been selected yet, but the target time frame is fall of 2000.

If you would like to attend a metadata training class, please indicate your interest by contacting the NMGIC Workshop Coordinator, Bobby Creel using the online form on the NMGIC web site. The form can be accessed at <http://nmgic.unm.edu>.

## Corporate Profile:

ESRI-Denver Regional Office  
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Web site: <http://www.esri.com>

ESRI is the world leader in Geographic Information System (GIS) software. In 1999, ESRI was ranked the 49<sup>th</sup> largest software company in the world. Today, ESRI has the largest and most diverse GIS user base in New Mexico and worldwide.

ESRI develops and continually enhances an advanced family of GIS software products including ArcInfo, ArcSDE, ArcIMS, ArcView, MapObjects, and ArcExplorer. ESRI also provides comprehensive GIS implementation services including training, consulting, and on-going support services. The ESRI Denver Regional Office (in Boulder, CO) provides GIS sales and implementation services in New Mexico, Colorado, Arizona, Utah, and Wyoming. Mark Taetz is the current ESRI marketing representative for New Mexico.

The growing GIS user community in New Mexico represents an interesting, diverse, and impressive collection of quality people and organizations. A sample of GIS users and applications in New Mexico include: Federal government organizations (e.g., natural resources, environmental, facilities management); State government organizations (e.g., archeological, transportation, land records); Local government organizations (e.g., planning, taxation, public safety); Universities (e.g., education, research, special projects); and Commercial organizations (e.g., marketing, legal, customer care). ESRI is honored and pleased with the opportunity to help serve and support the various needs of these GIS users. ESRI is committed to GIS in New Mexico as outlined below.

- Educational events such as seminars, workshops, and expositions.
- Onsite customer visits, meetings, and software demonstrations.
- Official ESRI training courses at a training facility in Albuquerque.
- Corporate Sponsorship in the New Mexico Geographic Information Council (NMGIC).
- Sustaining Membership in the New Mexico Association of Counties (NMAC).
- Grant awards to organizations, when available.
- Authorized ESRI Business Partners in New Mexico to further serve/support local needs.
- Discount pricing through NM State pricing agreements [SPD #00-000-00-00032 for GIS Software, SPD #92-000-00-00022 for GIS Support/Consulting Services].

To discuss how your organization may benefit from GIS or for more information on ESRI's GIS software products, services, and solutions, please contact Mark Taetz (phone# 303-449-7779 or email mtaetz@esri.com) and visit the dynamic ESRI web site at [www.esri.com](http://www.esri.com).

## Election Results

The votes are in and the following individuals have been elected to the NMGIC Board of Directors:

Bob Bewley  
Denise Bleakly  
Amy Budge  
Denise Chavez  
Dave McCraw

*Congratulations to all!*



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