

THE MAP LEGEND

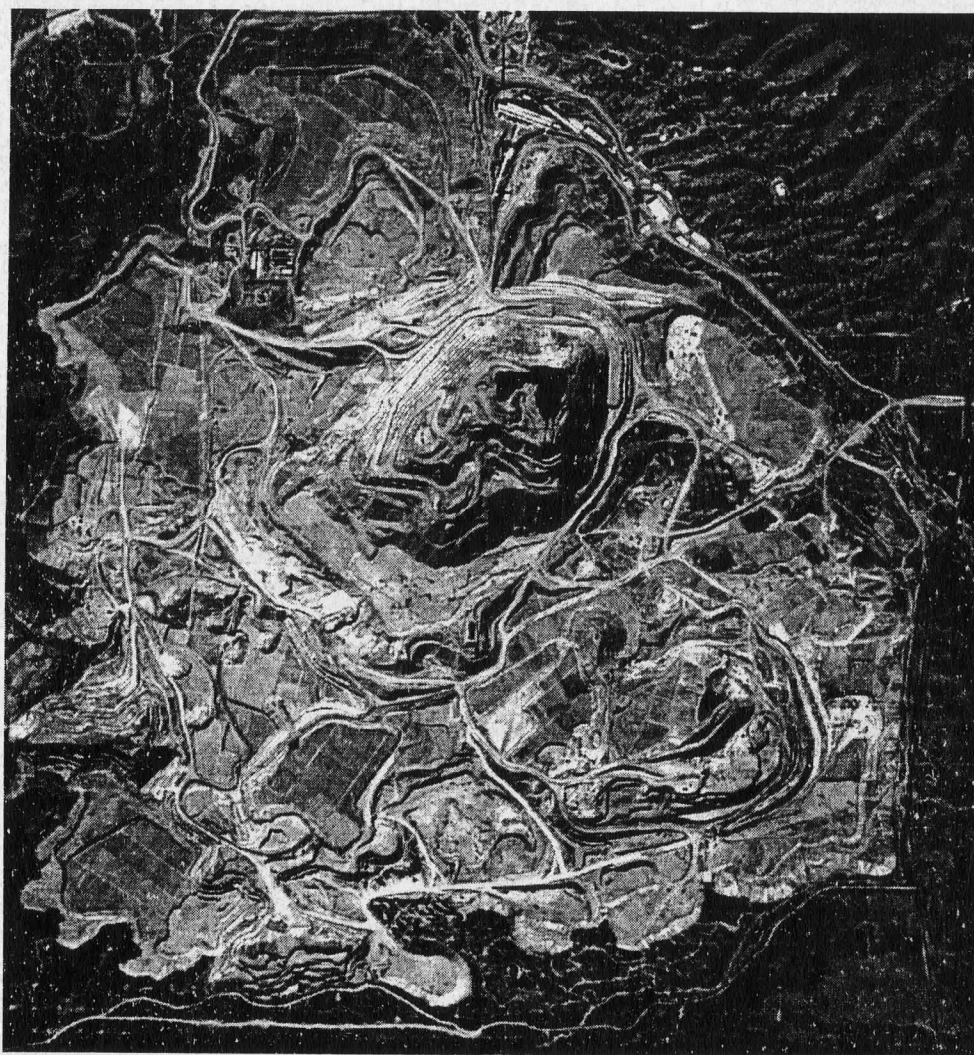
NMGIC, Inc. PO Box 9445 Albuquerque, NM 87119-9445

<http://nmgic.unm.edu>

New Mexico Counties are Receiving IRS-C 5 Meter Satellite Imagery

A statewide data buy for IRS-C and -D 5 meter black and white satellite imagery has been coordinated by EDAC and Pacific Western Technologies (PWT) in Albuquerque. The imagery was acquired by the Indian Remote Sensing satellite and is available through Space Imaging, Inc. PWT is Space Imaging's sales representative for New Mexico. As part of New Mexico's E-911 initiative, the imagery is being purchased by each county with funds provided by the Local Government Division, Department of Finance and Administration. These data are being used to assist counties in planning and assessing GPS data collected for mapping roads in their county. Authorized users of imagery in the data buy are New Mexico county governments, state agencies, universities, and state-funded community colleges. Private companies can use the data only for work being performed under contract for one of the authorized users listed above. The data are ortho-rectified to 7.5 minute quads and are in the State Plane coordinate system using NAD83. They are delivered in 7.5 minute tiles.

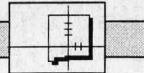
These data are also useful for other county planning and management responsibilities, such as land use; and can be used as a backdrop for GIS vector data.



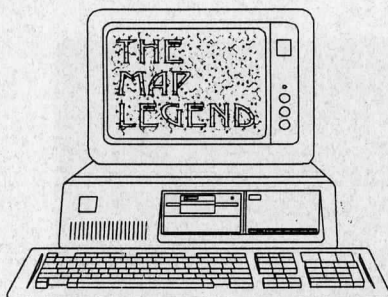
This IRS-C satellite image shows the Tyrone Mine in southwestern New Mexico and is a subset from the 7.5 minute quad area. Note the roads in and around the mine.

Inside This Issue

USGS Will Produce 449 DOQs and 633 10 Meter DEMs for New Mexico.....	4
Federal Base Network Survey Completed.....	6
Resetting the GPS Clock.....	6
Framework Data Update.....	7
News From FGDC.....	10



THE MAP LEGEND



Editor: Amy Budge

The Map Legend is published by the New Mexico Geographic Information Council and is a benefit of membership in NMGIC. The opinions expressed are those of the contributors and do not necessarily represent the views of the New Mexico Geographic Information Council, except where specifically noted. Use of trade names or products does not constitute an endorsement by the NMGIC. Members are invited to send articles and announcements of interest to Amy Budge. Please direct all correspondence to:

Amy Budge
NMGIC, Inc.
PO Box 9445
Albuquerque, NM 87119-9445

Fax: 505 277-3614
Email: abudge@spock.unm.edu

NMGIC Web Site:

<http://nmgic.unm.edu>

NMGIC Board of Directors

Dave McCraw, President
NM Bureau of Mines & Mineral Resources
801 Leroy Place
Socorro, NM 87801
Telephone: 505-835-5487
Fax: 505-835-6333
Email: djmc@nmt.edu

Rick Watson, Vice-president
San Juan College
4601 College Boulevard
Farmington, NM 87401
Phone: 505-599-0373
Fax: 505-599-0385
Email: watson@sjc.cc.nm.us

Dolores Anderson, Secretary
Architectural Research Consultants, Inc.
220 Gold Ave SW
Albuquerque, NM 87102
Phone: 505-842-1254
Fax: 505-766-9269
Email: dolores_anderson@arcrc.com

Denise Bleakly, Treasurer
Sandia National Laboratories
PO Box 5800, MS 1147
Albuquerque, NM 87185-1147
Phone: 505-284-2535
Fax: 505-284-2616
Email: drbleak@sandia.gov

Bob Bewley, Meetings Coordinator
Bureau of Land Management
P. O. Box 27115
Santa Fe, NM 87502
Telephone: 505-438-7481
Fax: 505-438-7524
Email: bbewley@nm.blm.gov

Amy Budge, Public Relations
Earth Data Analysis Center
University of New Mexico
Bandelier West, Room 111
Albuquerque, NM 87131-6031
Telephone: 505-277-3622, ext 231
Fax: 505-277-3614
Email: abudge@spock.unm.edu

Bobby Creel, Workshop Coordinator
NM Water Resources Research Institute
NM State University
Box 30001, MSC 3167
Las Cruces, NM 88003-8001
Telephone: 505-646-4337
Fax: 505-646-6418
Email: bcreel@wrrri.nmsu.edu

Rich Friedman, Elections Coordinator
McKinley County GIS Center
P. O. Box 70
Gallup, NM 87305
Telephone: 505-863-9517
Fax: 505-863-6362
Email: gismc@cia-g.com

Neal Weinberg, Speaker Coordinator
Planning/AGIS
City of Albuquerque
600 2nd Street NW
Albuquerque, NM 87102
Telephone: 505-924-3807
Fax: 505-924-3339
Email: nweinberg@cabq.gov

NMGIC Committees

Framework Data Committee Stan Morain, Chair

Earth Data Analysis Center
University of New Mexico
Bandelier West, Room 111
Albuquerque, NM 87131-6031
Telephone: 505-277-3622, ext 228
Fax: 505-277-3614
Email: smorain@spock.unm.edu

Geographic Names Committee Bob Julyan, Chair

31 Avenida Alondro NE
Albuquerque, NM 87123-9648
Telephone: 505-298-8420
Email: rjulyan@swcp.com

GIS Committee Bill Baillargeon, Chair

State of New Mexico
GSD/ISD
P. O. Drawer 26110
Santa Fe, NM 87502-0110
Telephone: 505-827-2047
Fax: 505-827-2325
Email: bbailargeon@state.nm.us

Global Positioning Systems Committee Bill Stone, Chair

National Geodetic Survey
% Albuquerque Public Works/Survey Section
400 Marquette NW, Room 401
Albuquerque, NM 87102
Telephone: 505-768-3606
Fax: 505-768-3629
Email: stone-ngs@cabq.gov

Local Government Land Records Committee Gar Clarke, Chair

City of Santa Fe
200 Lincoln Ave
Santa Fe, NM 87501
Telephone: 505-984-6603
Fax: 505-995-4628
Email: gclarke@ci.santa-fe.nm.us

State Mapping Advisory Committee Mike Inglis, Chair

Earth Data Analysis Center
University of New Mexico
Bandelier West, Room 111
Albuquerque, NM 87131-6031
Telephone: 505-277-3622, ext 235
Fax: 505-277-3614
Email: minglis@spock.unm.edu

From the President

Phew! Things happen fast sometime! Just a year after being elected by you to the Board of NMGIC and less than five years after my return to New Mexico following a ten year hiatus, I find myself addressing you from the column of the *Map Legend* reserved for the ramblings and rumblings of the President. Well, I can ramble and rumble with the best of them but I'll try to keep it under control. I would only add to my overall surprise and gratitude for the nomination and election to the office that most certainly represents the pinnacle of New Mexican geographic thought, a great big genuine THANK YOU to my predecessor, Rich Friedman, for an outstanding 2nd tenure as President of NMGIC.

Now to answer the question that must be forefront in the minds of most of you (i.e., who *IS* this guy?!). I have a M.A. in Geography from UNM and am employed by the New Mexico Bureau of Mines and Mineral Resources in Socorro. For those of you unaware, NMBMMR is basically the state's geological survey and while it operates as a state agency, it is a division of the New Mexico Institute of Mining and Technology. At the Bureau, I have the rather amorphous title of GIS Cartographer. In actuality I am a lot less GIS and a lot more cartographer, with over 12 years experience in the construction and completion of geologic maps. As I announced to the attendees of the recent Digital Mapping Techniques '99 conference conducted by the USGS and the Association of American State Geologists, in my position I have the best of both worlds. I keep up with happenings in the GIS world and the goings on in and around ESRI, am on the Board of NMGIC, and yet probably only know off of the top of my head some 15 ARC/INFO commands or so! (While a majority of the audience laughed, the ESRI rep definitely did not.) Upon accepting the NMGIC Board's nomination, I warned them of my lack of GIS savvy and yet they seemed to feel that this was not an issue. I hope you do as well.

So let me conclude with the "what I hope to achieve as your esteemed leader" spiel. As I see it, NMGIC is a wonderful, vibrant forum for sharing New Mexican ideas of all matters geographically digital. Our biannual meetings, newsletter, web site, and periodic workshops are both informative and enjoyable. We will strive to continue to make these so. We are currently working on an exciting topic for the fall meeting (to be announced in the next issue of *The Map Legend*) and a probable series of free workshops on setting up and maintaining an internet map server, starting with ESRI most likely in August. We would also like to have a workshop and/or meeting on the intricacies of GPS, both recreational and professional.

In addition, we have a couple of working committees that are very active and provide valuable services to us all, and unfortunately, a few that are not. I would very much like to breathe some life back into those committees that are adrift. In particular, we have been discussing dissolving the currently inactive GIS committee and retooling it into a possible working group along the lines of the former GISAC many of you will recall, promoting interagency idea and data sharing and not limiting it to just state agencies (see the related article on page 11). NMGIC, with no affiliation to any one agency, would be an ideal setting for such a working group. While I am not qualified to spearhead such an effort, I would strongly encourage the GIS professionals of our membership to give this serious consideration. What would you want such a committee to do for you? Please plan on coming to the fall meeting (with ideas and enthusiasm) and stay for a brief exploratory session immediately afterwards. I look forward to seeing you there!

David J. McCraw
President

Mark Your Calendars Today!

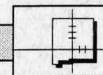
The NMGIC fall meeting is scheduled for Friday, October 15, 1999 in Albuquerque. The program will feature uses of GIS technology in Native American cultures. Presenters from local tribes will be invited to speak.

The Map Legend **1999/2000** **Publication** **Schedule and** **Deadlines**

Fall Issue	Deadline for articles: September 15, 1999 Publication date: October 15, 1999
Winter Issue	Deadline for articles: January 15, 2000 Publication date: February 15, 2000
Spring/Summer	Deadline for articles: May 15, 2000 Publication date: June 15, 2000

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 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*?



USGS Will Produce 449 DOQs and 633 Ten Meter DEMs for NM In FY 2000

New Mexico's share of the Department of Interior's High Priority Digital Data Program for FY 2000 is \$750,000.00. New Mexico tied with two other states (Alaska & Tennessee) for the most funds provided to an individual state.

New Mexico's first priority, as identified by the State Mapping Advisory Committee (SMAC) and Department of Interior Agencies were DOQs for Guadalupe County, De Baca County, and northern Chaves County. NM's second priority was production of 1286 ten meter DEMs, to complete ten meter coverage for the state.

In order to produce as many 10 meter DEMs as possible, the USGS National Mapping Division collaborated with the National Resources Conservation Service (NRCS) to cost share a portion of the DOQs for Guadalupe County. Due to this extra effort, there is enough FY 2000 DOI Program funding for 633 10m DEMs. This is almost half of the remaining 10m DEMs for the State. In addition, BLM and USGS are cost sharing the production of 25 DOQs for Lea County in southeastern NM.

Participants that supported the completion of statewide 10m DEM coverage and DOQ production include: SMAC, NRCS, Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, Fish and Wildlife Service, National Park Service, USGS-Biological Resources Division, and USGS-National Mapping Division.

Special thanks to Gary Kress (NM's USGS liaison) and Debora Moreland (USGS, Reston, VA) for their support.

Submitted by Bob Bewley, BLM

See the Status Graphics on pages 8 and 9 showing available and authorized DOQs and 10 meter DEMs for New Mexico.

From the Past President

It's hard to believe that two years have passed since I was elected President. It's been said that all good things must come to pass, and I felt it was time for me to step aside for new leadership. I really enjoyed my second term as President, and learned a great deal too.

The one event that stands out most prominently in my mind was the FGDC Cooperating Agencies/Steering Committee meeting I attended last February. Of course the meetings were focused on Spatial Data, and the creation and sharing of the data among different agencies. I found the content of the meetings very stimulating (yes, I am a very sick individual, but well beyond help). The only new emphasis within FGDC is to get more involvement from local government.

Actually, better involvement in the National Spatial Data Infrastructure (NSDI) from agencies other than just State and Federal seemed to be a real important issue to the FGDC and the Representative State Councils. I came away from the FGDC meetings with a renewed appreciation for NMGC, its leaders, and its membership. We are truly unique among the State GIS Councils. The other Councils are all state sponsored, state funded, and with the exception of a couple of them, state run. They are all extremely state oriented, and provide little room for input from other GIS users throughout their state. One of the big issues was how could they get other entities involved in the Council, and NSDI.

WOW!!! We are light years ahead of the other states when it comes to getting everyone involved. Not only do we have a membership that represents numerous agencies, organizations, and businesses throughout New Mexico, but we have leadership that is truly representative of our membership. Issues and problems that the other state councils are facing now, are not, nor have they ever been issues with NMGC. I guess, rather than going on and on about how great NMGC is (which I could easily do), I'll just say that as a result of the FGDC meetings last February, I never felt so proud to be a part of an organization as I am to be a part of NMGC. We are truly unique.

As I step down from the position of President of NMGC, I still feel the pride that I felt in Washington DC. The President does have a great deal of influence in the direction, and structure of NMGC. But it is the MEMBERSHIP that makes it so strong and unique. I am looking forward to following the direction of our new President, David McCraw. I feel he will bring new ideas and direction to NMGC that will help us to continue to grow, and become a stronger, more effective organization.

I would like to thank everyone for your support and assistance over the past two years, with special thanks to Amy Budge, who has done more for NMGC than could ever be put down on paper. I also want to thank each and every member for being involved and making NMGC such a great organization. Without you, the membership, NMGC would not exist, and that would be a terrible loss to the State.

*Rich Friedman
Past President*

Free Workshop on Internet Map Server

August 17, 1999

9:00 am – 4:00 pm

801 University Blvd SE • Albuquerque, NM

NMGC is offering a workshop on ESRI's Internet Map Server (IMS) that focuses on Map Objects IMS. ESRI staff will present the workshop, describing IMS, how it works, and what is required. The workshop is free to NMGC members.

If you would like to attend the workshop, please register by sending your name and address via email or by fax to Bobby Creel, Workshop Coordinator. He can be reached at bcreel@wri.nmsu.edu or at 505-646-6418 (fax). **Please respond by Friday, August 6th so that materials can be prepared!**

Names *on* the Landscape?

The Catron and Mora County Commissions have written to say they have no objections to the name proposals in their counties, and as written responses from county commissions are required by the US Board on Geographic Names, the last obstacle to action by the NMGIC Geographic Names Committee has been removed.

In the meantime, the Committee has received a new-name proposal from the NM Museum of Natural History. It seeks to have a draw, believed unnamed, formally named Harmon Draw. The draw runs into Arroyo Uña de Gato near the abandoned coal-mining community of Hagan. The proposed name honors Harmon Black (1908-1995), who lived at Hagan where he was a principal surveyor for the original railroad grade into the community, and also a coal miner before World War II.

The Names Committee will seek an opinion from the Sandoval County Commission, as well as from other appropriate groups, including the public. We will also try to determine whether or not the draw has a local name.

Names on the Land

Probably the most widely read, and deservedly so, book about geographic names is *Names on the Land* by the California names scholar George R. Stewart. While it was written more than 50 years ago in 1945, and later revised, it remains a classic of this aspect of human geography. If you've had any curiosity about why the American namescape appears as it does, this is the book to read.

But that title, *Names on the Land*.... When I give my standard talk about place names, I always tell people that names are artifacts of language and culture, not of geology. They exist in our minds, not on the land. If you're in an airplane, you can't look down and see names.

For the most part, that's a valid and important

observation about geographic names. And yet, there's a small subset of geographic names that are on the land. Just southwest of Las Cruces is a small mountain locally called A Mountain because it has the letter A on it in painted stones. The A has been created by generations of students at the agricultural college, now NMSU. From the air, the name would be clearly visible.

Similarly, one of the warty little volcanoes on Albuquerque's West Mesa has the name J Mountain, because students from the St. Joseph's Academy created a J, using white rocks on a canvas of dark lava. The academy is no more, the J is fading, but the name is surviving.

In Hinsdale County Colorado, is a peak named 71 Mountain, because snow-filled arroyos form the numerals 71. Its name, too, would be visible from the air.

Note: These examples are subtly different from situations whereby features are named for things they resemble, i.e., Elephant Butte and Camel Rock. Colorado's Mount of the Holy Cross, one of the state's 14,000-foot summits, was named because on one face of the mountain transverse ravines intersect at a long vertical ravine to form, when filled with snow, the conspicuous shape of a cross. This bears only the image that inspired the name, not the name itself. So with the rock profile, Old Man of the Mountain, in New Hampshire.

But on some features that name itself appears. And with these, the names are indeed on the land.

If you can think of other examples of such names on the land, I'd appreciate hearing from you.

Bob Julyan, Chair
Geographic Names Committee



This 1959 aerial photo illustrates a name that is literally *on* the landscape. This is the famous "J" that appears on one of the volcanoes on the mesa west of Albuquerque.

ESRI Passes First Open GIS Conformance Test

Wayland, MA, USA, May 10, 1999: The OpenGIS Consortium, Inc. (OGC) announced today that ESRI is the first GIS company to pass conformance tests for OGC's OpenGIS Simple Features Specification.

The tests prove whether or not a geospatial information system software product conforms to the OpenGIS Implementation Specifications that OGC has created through its industry consensus process. (See <http://www.opengis.org/testing> for details of the conformance tests.)

ESRI tested its SDE product, which provides a spatial database server capability with Oracle, Informix, and IBM DB2. SDE is able to serve "simple features," or basic vector data, to any client with an interface that conforms to the OpenGIS Simple Features for SQL Specification. The availability of OpenGIS Specification conformant server products that provide access to data via client queries on attributes and geometry sets the stage for achieving full geospatial interoperability across the industry.

As client tools with OpenGIS Specification conformant interfaces become available from other vendors, geospatial interoperability between servers and clients and across applications will be possible. Kurt Buehler, OGC's Chief Operations Officer and Chair of the OGC Technical Committee, said, "This conformance test is an important milestone for the industry, and ESRI is to be congratulated for its hard work and commitment to the OpenGIS consensus process. As other software vendors implement OpenGIS Specification conformant interfaces in their products, users will begin to reap the benefits of open systems geoprocessing. Users can help by reminding vendors that OpenGIS interoperability interfaces are a high priority."

Dr. David Maguire, ESRI Director of Products, said, "OGC's recognition of ESRI's long term commitment to making open software that really works for users is gratifying and another step on the interoperability road for our users. ESRI demonstrated that multiple different clients can now interoperate with multiple different databases, exploiting the best capabilities of each."

From a Press Release issued by
Lance McKee
Vice-President, Corporate Communications
The Open GIS Consortium, Inc.



Federal Base Network Survey Completed

During the months of March and April, many New Mexico GPS surveyors participated in the National Geodetic Survey's (NGS) project of re-surveying the Federal Base Network (FBN) component of the National Spatial Reference System (NSRS). This project included about 90 monumented geodetic control points distributed throughout New Mexico. The GPS data collected during this project are now undergoing processing and analysis at NGS headquarters. When the final project results are available (hopefully by the end of the year), we expect to have horizontal positions and ellipsoidal heights for each station that are accurate to about two centimeters relative to the national reference frame. These stations will comprise the highest accuracy network ever created for the state. This network is designed to support the wide range of spatial-related technologies and applications that are now in use.

Local participants in this project included representatives of a variety of federal, state and local government agencies as well as academia and the private sector. Several of these people are members of the GPS Committee. During the GPS observation field phase of the project, NGS GPS observers occupied the FBN stations while the local folks made simultaneous observations at nearby Cooperative Base Network (CBN) stations. Most of the CBN stations were elected for inclusion in this project by the local organizations. This

project provided a unique opportunity for the surveying community to have some say in the selection of control point locations. It also made it possible for participants to gain experience in a very specialized type of GPS survey. I think that everyone enjoyed being involved.

In order to attain the level of accuracy required by this project, very strict procedural and equipment requirements were established. Only recent-generation geodetic/survey-grade GPS receivers were allowed to be utilized. Each station was occupied for a minimum of three 5.5-hour observing sessions. At a subset of stations, observations were made for at least 72 continuous hours, thereby providing an extremely high-accuracy framework for the project. In addition, surface meteorological observations were made at most stations and may be used to improve the atmospheric modeling that is used during data processing. All stations included in this project will become part of the NSRS and their associated descriptive and coordinate data will be available from NGS via CD-ROM or the NGS website.

For additional information, contact Bill Stone, National Geodetic Survey in Albuquerque at 505-768-3606 or stone-ngs@cabq.gov.

*Bill Stone, Chair
GPS Committee*

Resetting the GPS Clock

In order to identify data and events, GPS timing utilizes a system of specifying a week number and the number of seconds into that particular week. This system is utilized by the GPS satellites, receivers and ground control facilities. The week identifier number utilizes a 10-bit number and can therefore run from zero to 1023. Well, that number will be maxing out this summer and will have to be reset. (It's hard to believe that GPS has been with us for that many weeks - almost 20 years!)

So, on midnight of August 21-22, the GPS week number will be reset to zero. The problem with this is that some GPS receivers will probably then think that we're back in 1980, instead of approaching the new millennium. Such an incorrect determination of date would probably cause GPS positional data to be greatly in error as well. Newer receivers should have no problem with this so-called End of Week (EOW) rollover and no user intervention will be required. So, if you have an older GPS receiver, you may want to check with your GPS vendor to see if it is EOW rollover-compliant. For additional information, contact Bill Stone, National Geodetic Survey in Albuquerque at 505-768-3606 or stone-ngs@cabq.gov.

*Bill Stone, Chair
GPS Committee*

Announcing a Free Seminar on Web-Based GIS

When?

**August 18, 1999
9:00-11:00 AM**

Where?

**Manufacturing, Training & Technology Center Auditorium
800 Bradberry SE (in UNM Science & Technology Park)
Albuquerque, NM**

The marriage of Geospatial technologies such as GIS, Remote Sensing, and GPS to Web technology was inevitable since the advent of the Internet, and has advanced rapidly over the last few years. The integration of these two technologies and the powerful result will be the focus of a 2 hour seminar sponsored by NMITS's Geospatial Special Interest Group (SIG).

Live examples of successful Internet mapping solutions implemented by government agencies and private sector companies using vector and raster data with 3-D animations, digital photographs, and hyperlinks to information-rich web sites will be covered. Discover the most rapid way to create and maintain powerful, dynamic, vector/raster-based map-driven environments for your Intranet and the Internet with direct query access to your databases. Implement your applications faster, get excellent performance, and provide more interactivity.

See how easy it is to serve dynamic geospatial data on the Internet.

Rapid deployment allows you, and those who access your site, the ability to make better decisions and generate insightful maps and reports. Achieve a better return on your investment in GIS and Internet technologies by expanding your outreach capabilities *using your existing geospatial data*.

Attend this seminar and discover how to keep at the forefront of GIS and mapping technology as well as information access now and well into the next century. We encourage anyone with an interest in geospatial data, information management or related subjects to participate in this first activity of NMITS and its Geospatial Information SIG.

Registration for this seminar is suggested but not required as seating is limited. For more information about the Geospatial Information SIG and/or to register for the seminar, please e-mail the names of those who will attend to John Peterson by e-mail: jpeterso@flash.net or call 821-4492. For more information NMITS please contact Mr. Randy Burge at 505-843-4283 or by e-mail at: randy.l.burge@lmco.com

Framework Data Update

It has been a busy season! Contributions to the *GIS Data Certification Survey* being conducted by Lynda Wayne at Louisiana State University closed on June 19th. The purpose of the survey is to establish the core organizational and technical issues that must be addressed by alternative implementation strategies. The premise behind the survey is that data creators seek official endorsement or need to know that their work is considered to be "official," a premise that not everyone shares. The results should be available via the FGDC web site this fall and, should be useful in the evolution of New Mexico's Framework infrastructure.

The NSGIC/FGDC Framework Survey results are now available at http://www.fgdc.gov/framework/survey_results/download.html. These results are national in scope and represent input from over five thousand data users. As many NMGIC members are aware, this survey provides a snapshot of data being produced and used in state, regional, and local governments that could contribute to building a framework of locally produced and locally maintained data themes. Results of the survey can be analyzed in a variety of ways, but one of the most popular is through ArcView 3.1. Details are given at http://www.fgdc.gov/framework/survey_results/readme.html. Examples of survey data for New Mexico are presented below.

On a slightly different front we have received a draft copy of the *State Geographic Information and Related Technology (GI/GIT) Pro-*

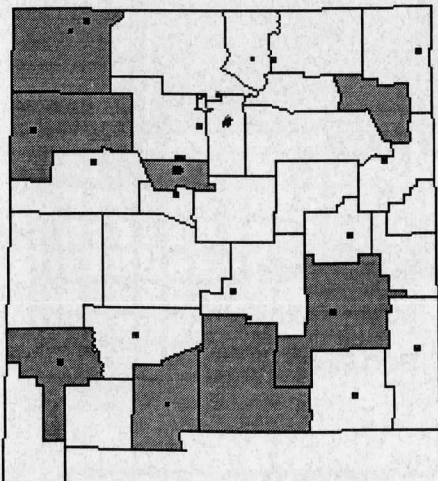
file: New Mexico, prepared by Dr. Lisa Warnecke. These profiles for New Mexico and other western states have been prepared for the Western Governors' Association, National Aeronautics and Space Administration, and the National Council of State Legislatures. Our profile begins with a brief overview of the history of geographic information and related technologies in the state, followed by a comparatively lengthy section on "Legal Direction." The paragraphs addressing 1999 legislation may signal some important changes in the making. The legislature has created an Information Technology Commission (ITC) and an Information Technology Management Office to develop a 5-year strategic plan for information technology. They also passed HB 795 regarding a uniform system for real property description based on comprehensive mapping, or GIS. The Profile then summarizes *Statewide Coordination Groups*, and *Statewide Coordination Offices*. These are particularly useful because coordinates are given for individuals, as well as offices, that are sometimes hard to locate when you need them. *Statewide GIT Issues and Initiatives* are then reviewed, followed by a list of *State Agencies with GIT Activities*. This is another particularly useful section containing names and addresses. Contact Lisa at 315-478-6024 for more information on the Profile.

Finally, in early June FGDC held the 1999 *National Geodata Forum* in Washington, DC. The theme was "Making Livable Com-

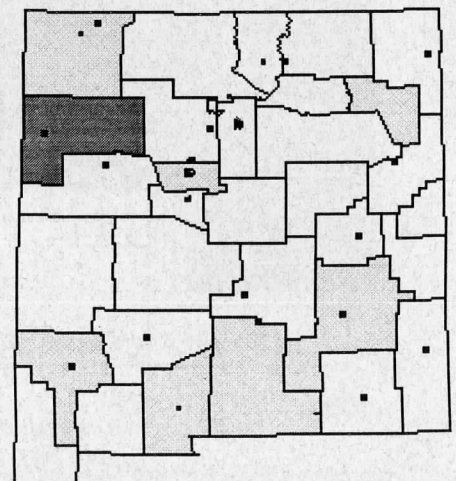
munities a Reality." A highlight feature of the Forum was Dee Hock, a visionary who played a major role in creating the VISA® credit card system. His message was essentially that Americans (and the Global Village) are tired of systems that don't work...economies that don't economize, information systems that don't inform, communication systems that don't communicate, and on and on. While not an expert in GIS, he expressed his view that success would be born out of a bottom-up approach that was capable of self-organization and self-adaptation. This, of course, has been the preferred *modus operandus* of FGDC since its inception, and it seems to fit the mood in New Mexico to a tee. Put that into context of the "legal direction" described above---hmmm.

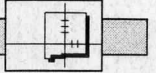
The highlight of the Forum for New Mexico was the announcement of two funding awards. Jim Benenson, New Mexico Environment Department, was awarded a grant for NSDI Metadata Acquisition and Accessibility. Amy Budge, Earth Data Analysis Center, was awarded a grant for metadata training and development in local agencies. Her grant has sixteen collaborators including 11 counties (McKinley, Guadalupe, Rio Arriba, Eddy, San Juan, Santa Fe, Valencia, Curry, Chaves, Bernalillo, and Hidalgo); the Villages of Columbus, Angel Fire, and Ft. Sumner; the cities of Aztec and Farmington; and the town of Red River. Both projects will start in August and finish in September 2000.

Stan Morain, Chair
Framework Committee



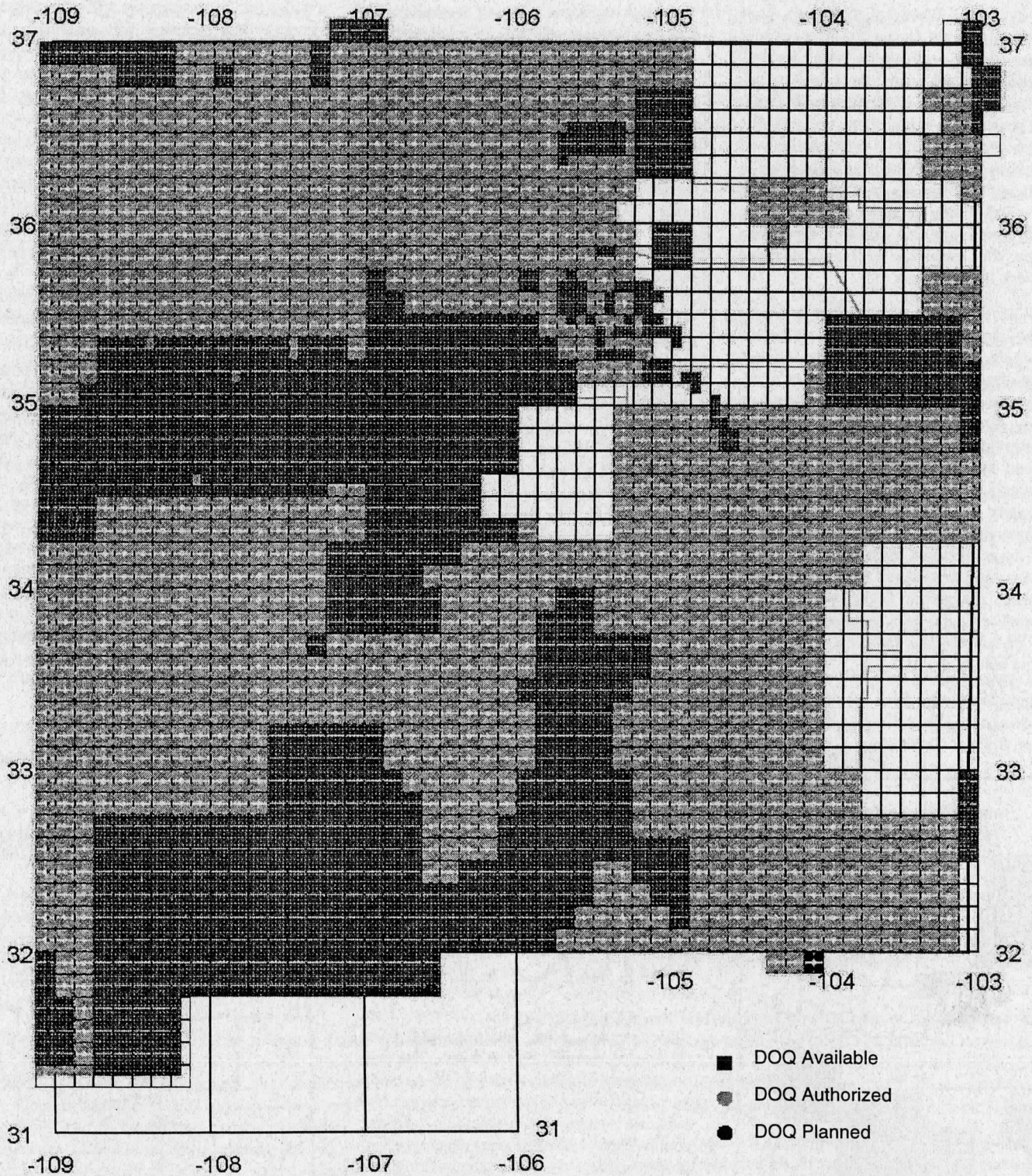
These maps were created using files generated in ArcView that represent New Mexico responses to the Framework Survey. The map on the left illustrates answers given to question 28: *Does your organization create and maintain transportation data?* Counties that answered "yes" to that question are shaded in dark gray. Areas in white represent no response. Though too small to see at this scale, there were also responses from state agencies, cities, and other individual offices (represented by the dots). The map on the right illustrates answers to question 34: *Does your organization create and maintain transportation metadata?* Of the counties that indicated they develop transportation data, only McKinley County is creating and maintaining metadata. Users can query the database for all questions in the survey by accessing the web site described in the article above.





Digital Orthophoto Quad (DOQ) Availability in New Mexico

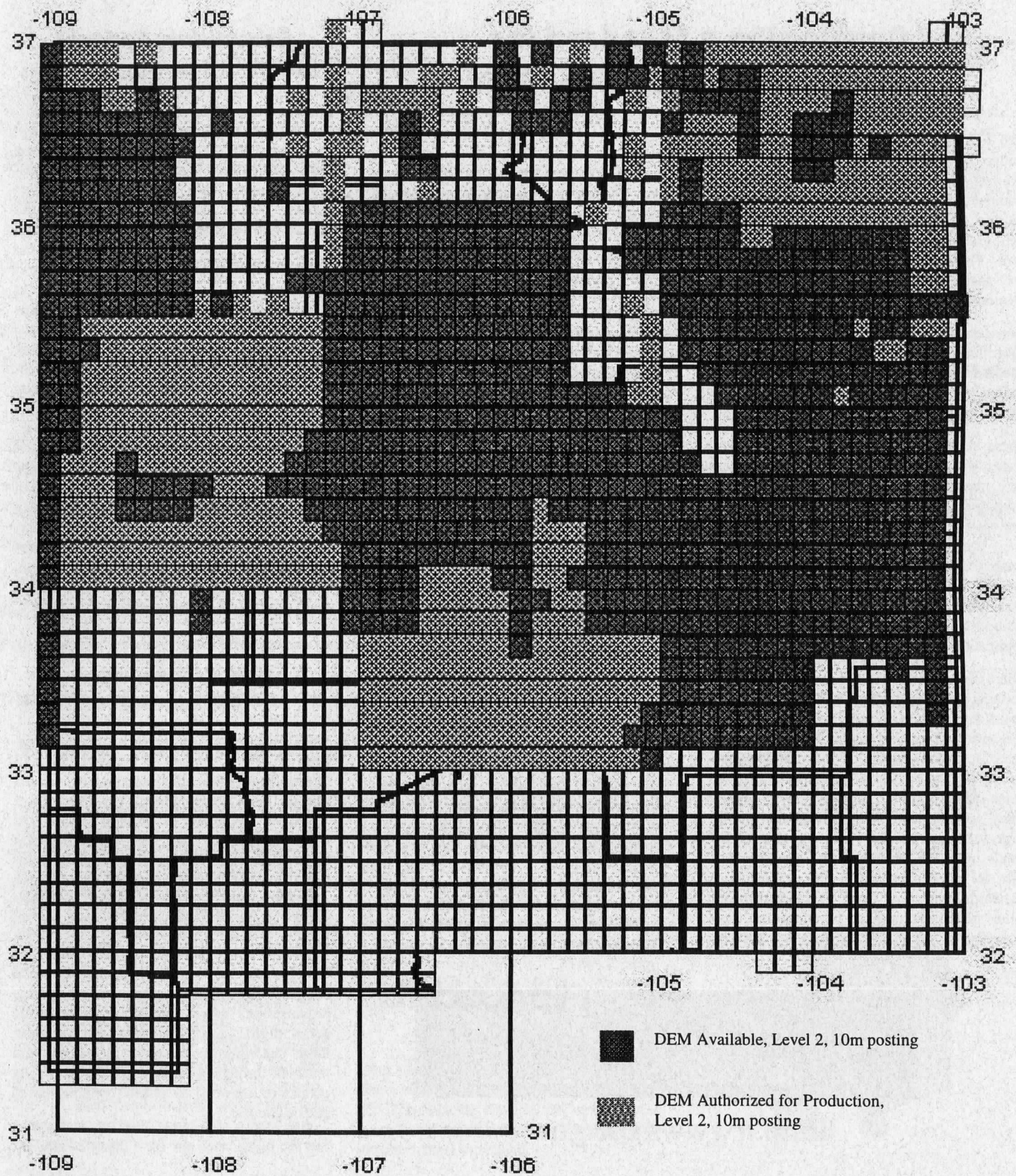
1:12,000 Scale

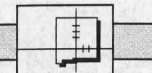


Prepared by USGS, National Mapping Division 06/22/99. Authorized data current as of 06/14/99. Available data current as of 06/14/99.

Graphic contributed by Gary Kress, USGS-NMD.

Digital Elevation Model (DEM) Availability in New Mexico





News from FGDC

(Excerpts from the Spring 1999 FGDC Newsletter)

Developing a Standard for Sharing Transportation Data

The FGDC Ground Transportation Subcommittee is sponsoring the development of a Framework Transportation Identification Standard for describing road segments as unique geographic features, independent of cartographic and analytic network representation. These road segments will form the basis for sharing and transactional updating of framework road databases.

Creation of the framework will depend on the contribution of transportation databases developed for specific geographic areas and applications by many federal, state, and local transportation agencies.

These databases are developed at different scales, with different levels of positional accuracy, detail, currency, and completeness of coverage. They must be "stitched together" to provide the network connectivity required for many transportation applications. When new databases are added to the framework or when specific attributes are updated, users of framework data must be able to cost-effectively incorporate this new information into their applications.

Bruce Spear, of the U.S. Department of Transportation, Bureau of Transportation Statistics, chairs the FGDC Ground Transportation Subcommittee. Spear commented on the pressing need for a new standard: "Successful integration of the 'best available' transportation databases into a national framework will support many applications – commercial and public, large-scale and small. However, success depends upon the production of transportation data for each geographic area according to standards that allow users to share data and allow spatial databases to be connected topologically to transportation data for adjacent

areas."

Spear also pointed out that this FGDC standards development effort is intended to allow the greatest possible opportunity for public discussion of the goals and methods proposed. First, the subcommittee has assembled a technical review team to apply a range of knowledgeable viewpoints in the early stages of development. The team includes representatives of other federal agencies (US Department of Transportation, Federal Highways; US Department of Commerce, Census Bureau; and the Department of Interior, USGS National Mapping Division), the Intelligent Transportation systems community, and NSDI partner organizations (the National States Geographic Information Council and the National Association of Counties).

Second, BTS has created a web site (http://www.bts.gov/gis/fgdc/web_intr.html) on behalf of the sub-committee. This web site encourages open discussion of the Framework Transportation Identification Standard among potential stakeholders in both the transportation and the spatial data communities. The site is host to the Road Data Forum, a combined newsgroup and email listserver for discussing the Framework Transportation Identification Standard. The site provides the most current version of the draft standard and links to technical reference documents relating to linear referencing systems and other topics. Readers are encouraged to visit the web site, join the forum, participate in the discussions, and make suggestions for improving the proposed standard. For further information, see the web site or contact Bruce Spear at 202-366-8870.

Community-Federal Information Partnership

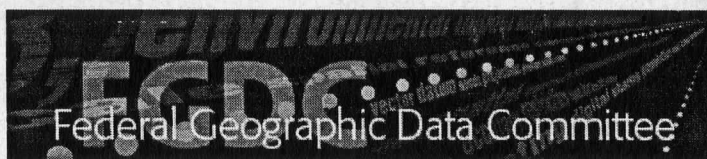
In a January press conference, Vice-president Gore made several announcements concerning the administration's initiatives related to improving community livability and urban sprawl. One of the featured initiatives is the Community-Federal Information Partnership, a competitive grant program developed by the FGDC. These grants and cooperative agreements will support communities' efforts to advance their capabilities to use geographic information systems in their planning efforts. To fund this initiative, the FY2000 budget proposes to distribute \$39.5M among six federal agencies (the Environmental Protection Agency, Department of Agriculture, Department of the Interior, Department of Transportation, Department of Commerce, and Department of Housing and Urban Development). The bulk of the funding will be directed to grants to communities, and the remaining funds will be used to help federal agencies organize information and make it available to communities. For more information, contact Norman Gunderson at 703-648-4648 or by email at ngunderson@usgs.gov.

1999 CAP Awards Announced

The 1999 NSDI Cooperative Agreements Program (CAP) is devoted to projects that will further framework data documentation and clearinghouse development. The *Don't Duck Metadata Program* is making awards to scores of federal, state, and local organizations nationwide. Up to \$1,400,000 is available for the grant program this year. Awardees were announced at the 1999 National GeoData Forum in Washington, DC in June.

The purpose of the *Don't Duck Metadata Program* is to provide grant funding to help organizations create descriptive information about digital geospatial data and to make these descriptions available for search and retrieval through a distributed, electronically connected network of public, Internet-based clearinghouses.

See the FGDC web site for a list of awardees.



<http://www.fgdc.gov>

News and Announcements From Our Corporate Sponsors

ESRI GIS Training Classes

ESRI GIS Training Classes are available at the Santa Fe Community College (SFCC) in Santa Fe. For more information, please contact Paige Hayes at ESRI-Denver (phone 303-449-7779) or visit ESRI's web site (www.esri.com). Please register ASAP; class size is limited.

- Aug 10-12 Advanced ArcView GIS. [3 days]
- Aug 23-27 Introduction to Workstation ARC/INFO using ArcTools. [5 days]
- Sep 27-29 Programming MapObjects with Visual Basic. [3 days]
- Sep 30-Oct 1 Working with MapObjects Internet Map Server. [2 days]
- Nov 8-10 Advanced ArcView GIS. [3 days]
- Nov 11-12 Introduction to Avenue. [2 days]
- Dec 14-17 What's New in ArcInfo Version 8.0. [4 days]

ArcShop Series

ESRI is conducting the ArcShop technical workshop series in New Mexico in 1999. An ArcShop workshop is similar to the ESRI Doctors's Office held at ESRI's User Conference and will be scheduled several times a year at different locations around New Mexico. An ArcShop workshop was already conducted in Las Cruces this year. Each ArcShop will also include a specific focus (e.g., Local Government Applications of GIS, Internet Mapping/GIS, etc.). Please contact Mark Taetz at ESRI-Denver (phone 303-449-7779) for more information.

- Summer 1999 ArcShop in Farmington
- Fall 1999 ArcShop in Santa Fe
- Fall 1999 ArcShop in Albuquerque (in conjunction with the GIS EXPO)

Internet Map Server (IMS) Workshop

ESRI will conduct an Internet Map Server (IMS) Workshop in Albuquerque on August 17, 1999. This IMS Workshop will be a one-day, no cost workshop. For more information, please contact Mark Taetz at ESRI-Denver (phone 303-449-7779).

August 17 IMS Workshop.

GIS Day 1999

The first annual worldwide GIS Day will be held on November 19, 1999. ESRI will extensively support and participate in this new, unique, worldwide event. For more information, please visit the official GIS Day web page (www.gisday.com) or send email to gisday@esri.com.

November 19 GIS Day 1999.

What is the Future of NMGIC's GIS Committee?

At the NMGIC Board meeting on June 18th, discussion turned to whether or not the GIS Committee should be dissolved. This discussion came about primarily due to the committee's inactivity, and the apparent apathy of committee members to keep it alive. The committee has not met for over two years, and no one has shown enough interest to even inquire about it.

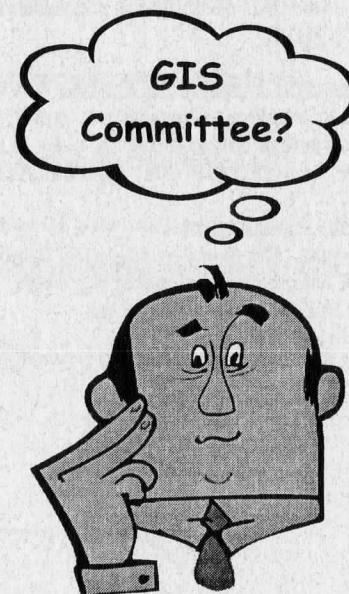
One school of thought is to dissolve the committee as it currently stands. Another is to let it go dormant for an indefinite period of time, with the assumption that when the time is right, someone will bring it back to life. A third position is to restructure the committee and start again with a new charter and mission.

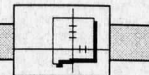
The Board decided to put the question of the GIS Committee's future before all NMGIC members for comments or suggestions.

If you feel the committee is important to NMGIC and its members, or if you think it is time to let it go, or if you have ideas for breathing new life into it.....please forward your comments to Dave McCraw, President. He can be reached by email at:

djmc@nmt.edu

Your ideas and thoughts are most welcome. There will also be a short meeting on October 15th after the NMGIC fall meeting program to discuss the committee's future with anyone who is interested.





Corporate Profile:



Autodesk, Inc.
642 Harrison Street
San Francisco, CA 94107
415-507-6248 (v); 925-829-4788 (f); dan.berman@autodesk.com

About GIS at Autodesk:

Autodesk is a leading provider of engineering design and mapping software with an installed base exceeding 300,000 AM/FM GIS users worldwide. Autodesk provides the most popular tool for data creation, AutoCAD Map software; the most powerful Microsoft Windows-based AM/FM GIS data integration and analysis tool, Autodesk World software; and the fastest-growing web-based data distribution and viewing tool, Autodesk MapGuide software, with more than 500 enterprise-level implementations worldwide. With its recent acquisition of VISION* Solutions, Autodesk will offer enterprise solutions that are scalable up to thousands of concurrent users, and that enable organizations to create, store, maintain and use information about their physical assets and infrastructure enterprise-wide. For more information, visit <http://www.autodesk.com/gis>.

About Autodesk:

Autodesk is the world's leading supplier of PC design software and digital content creation. The company's 2D and 3D products are used in many industries for architectural and mechanical design, mapping, civil engineering, surveying, film and video production, video game development and web content development. Discreet, a new division of Autodesk formed by combining the Kinetix operations with the Discreet Logic acquisition, develops and delivers systems and software for visual effects, 3D animation, editing, broadcast graphics and feature films. The fourth largest PC software company in the world, Autodesk has four million customers in over 150 countries. Autodesk products are sold through Autodesk Systems Centers, Dealers, Distributors, and VIP Premier Product Providers worldwide.

Autodesk Product Solutions:

- **Building Design and Drafting**-Autodesk provides the powerful, 3D, object-oriented technologies and internet collaboration tools for building design and drafting professionals. There is an entire solution of products that can be used alone or in combination that include:

AutoCAD, AutoCAD LT, AutoCAD Architectural Desktop, Autodesk Symbols, Actrix Technical, Volo View, Auto-Sketch, Autodesk CAD Overlay, S8 Building Design & Engineering

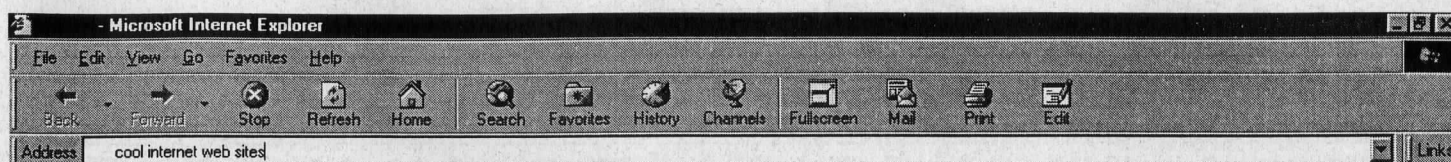
- **Land Development**-With companion products Autodesk Civil Design and Autodesk Survey, AutoCAD Land Development Desktop sets the standard for design teams sharing large sets of data needed for land design, and makes the multiple tasks of site design faster, and less expensive.
- **Mechanical Design**-For mechanical customers with a focus on reducing cycle times, Autodesk has a family of products designed to meet the demands of the mechanical market. Products include:

AutoCAD Mechanical, Mechanical Desktop, Genius CAD, all of the MAI partner products, Actrix Technical and AutoCAD LT

- **Geographic Information Systems**-Autodesk's goal is to extend GIS data beyond the specialized niche of GIS professionals to deliver spatial data to everyone who needs it. AutoCAD Map is an automated mapping tool for professionals who create their own maps. Autodesk MapGuide brings GIS to the net to publish and access live maps through the Internet or corporate Intranets. Autodesk World provides tools to integrate, analyze and display spatial data in the Windows environment.
- **Design Visualization**-Discreet's 3D software also is widely used to create 3D visualizations of architectural, industrial, and mechanical designs concepts. The award-winning 3D Studio VIZ R2 software interoperates seamlessly with the new AutoCAD 2000, and has enabled architects, civil engineers, mechanical engineers, and project planners to create realistic 3D representations of major urban designs, including the new San Francisco Giants Stadium.

For more information contact Dan Berman or visit our Internet site at: <http://www.autodesk.com/gis>.





Cool Internet Web Sites

For this issue of *The Map Legend*, the "Cool Internet Web Sites" focuses on a Native American theme. The inspiration for this topic comes from plans for a Native American focus for the Fall 1999 meeting. As always, if you find a site you think is useful to the membership, please contact Denise Bleakly at 505-284-2535 or email drbleak@sandia.gov to add it to our list. Denise will be compiling a list of NMGIC corporate sponsors for a future issue of *The Map Legend*.....please contact her.

- Native GIS: the mission of this web site is to provide for the display, communication, and exchange of information on the use of GIS within the Native/Aboriginal community in Canada, the United States, and the world. <http://www3.sympatico.ca/pneto/natvgis.htm>
- First Nations and Native American Issues: this web site contains links to papers presented on GIS and First Nations. <http://www.innovativegis.com/papers/native>.
- Indian Maiden Monument Web site: Native American Links (maps, GIS, and other Native American Resources). <http://zoysia.uml.edu/~maiden/links.html>
- MAPS: GIS Windows on Native Lands, Current Places and History: A web site that has maps, graphics and web links of all types. <http://indy4.fdl.cc.mn.us/~isk/maps/mapmenu.html>
- Native American Links from the Auraria Library: <http://132.194.10.4/public/library/reference/nam.html>
- Aboriginal Mapping Network: The Aboriginal Mapping Network web site is a collection of resource pages to help share information throughout the aboriginal mapping community. It has a British Columbia focus, but is not limited to this geographic region. It is intended to be used by any group who is active in aboriginal mapping, from the introductory level, to the advanced. It is a source for both basic information on cartography, to technical information on GIS mapping. And more importantly, it is a place to share ideas with others regarding mapping from an aboriginal perspective. This is a dynamic site, so drop by frequently! <http://www.nativemaps.org>
- Vermont Law School, Environmental Law Program: Indigenous Peoples Links: <http://www.vje.org/2x/research/subject/indig.htm>
- Mapping Native Lands: Spatial Data Technology Finds A Home In Indian Country. A short article on Spatial Data Technology in Indian Country. <http://www3.sympatico.ca/pneto/gis/mapping.htm>
- ESRI Conservation Program Resources: Native American, First Nation & Indigenous. An ESRI topic page. <http://www.businessmap.com/conservation/links/native.html>
- Pueblo of Jemez, Department of Resource Protection GIS: Our Mission - The mission of the Pueblo of Jemez Department of Resource Protection is to support Tribal Leaders in the management, monitoring and protection of lands and resources that are of significance and concern to the People of the Pueblo of Jemez, and; to do so in a manner that complements, respects and defends Traditional Jemez Culture. <http://www.nmia.com/~quasho/>



Calendar



URISA '99 Annual Conference for Managers, Executives, Elected Officials, Navy Pier, Chicago, IL, August 21-25, 1999. Contact: URISA, 1460 Renaissance Drive, Suite 305, Park Ridge, IL 60068. Phone 847-724-6300. Fax: 847-824-6363. Email: info@urisa.org Website: <http://www.urisa.org>

Internet Map Server (MS) Workshop, UNM Science & Technology Park, 801 University Blvd SE, Albuquerque, NM, August 17, 1999. Contact: Bobby Creel, NMGIC Workshop Coordinator. Phone: 505-646-4337. Fax: 505-646-6418. Email: bcreel@wrri.nmsu.edu.

Web-Based GIS Seminar, Manufacturing, Training & Technology Center Auditorium, 800 Bradberry SE (UNM Science & Technology Park), Albuquerque, NM, August 18, 1999. Contact: John Peterson. Phone 505-821-4492. Email: jpeterso@flash.net.

Street Smart and Address Savvy, St. Anthony Hotel, San Antonio, TX, October 6-8, 1999. Contact: URISA, 1460 Renaissance Drive, Suite 305, Park Ridge, IL 60068. Phone 847-724-6300. Fax: 847-824-6363. Email: info@urisa.org Website: <http://www.urisa.org>.

NMGIC Fall Meeting, UNM Science & Technology Park, 801 University Blvd SE, Albuquerque, NM, October 15, 1999. Contact: Bob Bewley, NMGIC Meetings Coordinator. Phone: 505-438-7481. Fax: 505-438-7524. Email: bbewley@nm.blm.gov. Website: <http://nmgic.unm.edu>

Driven by Data: An Advanced Symposium on the Use and Potential of Geospatial Data, Regal Biltmore Hotel, Los Angeles, CA, November 10-12, 1999. Contact: Consortium for Geographic Information, 1460 Renaissance Drive, Suite 305, Park Ridge, IL 60068. Phone 847-724-6300. Fax: 847-824-6363. Email: info@urisa.org Website: <http://www.drivenbydata.org>.

Pecora 14/Land Satellite Information III: Demonstrating the Value of Satellite Imagery, Doubletree Hotel Denver, Denver, CO, December 6-10, 1999. Contact: ASPRS: The Imaging & Geospatial Information Society, 5410 Grosvenor Lane, Suite 210, Bethesda, MD 20814-2160. Email: asprs@asprs.org. Website: <http://www.asprs.org>.

ELECTION DAY WINNERS

The 1999 election of Board Members had five names on the ballot for four positions. The following individuals were elected to the Board:

- Rich Friedman (re-elected)
- Bobby Creel (re-elected)
- Neal Weinberg (re-elected)
- Dolores Anderson

New Board Assignments

Dave McCraw, President
 Rick Watson, Vice-president
 Dolores Anderson, Secretary
 Denise Bleakly, Treasurer
 Bob Bewley, Meetings Coordinator
 Amy Budge, Public Relations
 Bobby Creel, Workshop Coordinator
 Rich Friedman, Elections Coordinator
 Neal Weinberg, Speaker Coordinator

Congratulations to all!

1999 Corporate Sponsors

arc
ARCHITECTURAL RESEARCH CONSULTANTS, INC.
PLANNING • FACILITIES PROGRAMMING/EVALUATION/RESEARCH

DOLORES ANDERSON
COMPUTER PROGRAMMER

E-Mail: Dolores_Anderson@arccrc.com
Web: <http://www.arccrc.com/~jparc/>

220 Gold S.W.
Albuquerque, NM 87102
Ph. (505) 842-1254

P.O. Box 1158
Albuquerque, NM 87103
Fax (505) 766-9269

Autodesk.

Daniel C. Berman
Application Engineer - GIS
U.S. Sales - Western Region
Americas

Direct 415 507 6248
Main 415 253 4708
Fax 925 829 4788

Autodesk, Inc.
642 Harrison Street
San Francisco, California 94107

Email dan.berman@autodesk.com

Bohannon-Huston, Inc.
Courtyard I
7500 Jefferson St. NE
Albuquerque, NM 87109
505-823-1000 (v)
505-798-7960 (f)
lhuston@bhinc.com

Brooks, Lomax & Fletcher, Inc.
6753 Academy Rd. NE, Suite C
Albuquerque, NM 87109
505-821-0090 (v)
505-821-0999 (f)
blfalbq@ix.netcom.com

W. Brant Howard

CompassCom

CompassCom, Inc.
6770 S. Dawson Circle #1A
Englewood, CO 80112
303-680-3221 (v)
303-766-2488 (f)
solutions@compasscom.com
<http://www.compasscom.com>

Cooperative Services, Inc.
2521 Camino Entrada
Santa Fe, NM 87505
505-474-4755 (v)
505-474-5255 (f)
csi_malcolmh@coopserv.com

EARTH TOUCH SOLUTIONS, LLC

Tim O'Brien

GIS Software Sales & Program Development
Internet Mapping & E-911 Database Consultant

8401 Monitor Drive N.E.
Albuquerque, New Mexico
87109-5058

Phone: 505-450-5533
Fax: 505-821-9190
<http://home.earthlink.net/~earthtouch/>
email: earthtouch@earthlink.net

BOB KLETZLI
GENERAL MANAGER, NM

EnerQuest
Systems I. L. C.

7500 JEFFERSON STREET NE
COURTYARD II, SUITE 101
ALBUQUERQUE, NM 87109

PHONE: (505) 828-2700
FAX: (505) 828-9200
E-MAIL: bkletzli@enerquest.com

ESRI

Environmental
Systems
Research
Institute
Inc.

Mark P. Taetz
mstaetz@esri.com

4875 Pearl East Circle, Suite 200
Boulder, CO • 80301-6103 • USA
TEL 303-440-7779 • FAX 303-440-8830
www.esri.com

**global
systems modeling
limited**

CURTIS WHITE
PRESIDENT
(520) 575-8636
FAX (520) 575-1771

7315 N. ORACLE RD., SUITE 207
POST OFFICE BOX 36221
TUCSON, AZ 85740
EMAIL: cwhite@primerenet.com

INTERGRAPH

Intergraph Corporation
2350 Campbell Creek Blvd., Suite 100
Richardson, TX 75082-4422
972-497-0829 (v)
972-437-0950 (f)
malbrecht@ingr.com
<http://www.intergraph.com>

Marron and Associates, Inc.
7809 Fourth Street NW
Albuquerque, NM 87107-6526
505-898-8848 (v)
505-897-7847 (f)
marroninc@aol.com

New Century Energies
1123 West 3rd Avenue
Denver, CO 80223
303-571-6254 (v)
303-571-6254 (f)
dborchers@psco.com

Pacific Western Technologies
8338 A Comanche NE
Albuquerque, NM 87110
505-294-5051 (v)
505-296-2672 (f)
mjay@kpengr.com

Michael F. Abernathy
Rapid-Imaging Software, Inc.

Telephone: (505) 265 7020
FAX: (505) 265 7054
Email: mike@landform.com
Homepage: www.landform.com

1318 Ridgcrest Pl. SE
Albuquerque, NM 87108

Makers of LandForm™ 3-D Geographic Viewer Technology

Scientific Technologies Corp.
4400 E. Broadway, #705
Tucson, AZ 85711
520-202-3333 (v)
520-202-3340 (f)
stc@rtd.com

Spatial Data Research
7500 Jefferson St. NE
Albuquerque, NM 87109
505-823-1500 (v)
505-828-9200 (f)
wayahead@sdrmaps.com

TRM
THOMAS R. MANN, P.E.
President

Aerial Mapping Services - Photogrammetric Consultant

THOMAS R. MANN & ASSOCIATES, INC.
5115 COPPER N.E.
ALBUQUERQUE, NEW MEXICO 87108

Phone 505 266-7757
Fax 505 256-3328

Scott W. Walker
GIS Director

TRC

TRC Mariah Associates Inc.
4221-B Balloon Park Road NE
Albuquerque, New Mexico 87109
Main: 505-761-0099
Fax: 505-761-0208
e-mail: swalker@trcmariah.com

Customer-Focused Solutions

Thank you for your support!