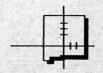
# The Map Legend



New Mexico Geographic Information Council, Inc.

... reporting on geographic information for and about the Land of Enchantment...

Volume 4, Number 2

Winter 1993

## Santa Fe Hosts Southwest ARC/INFO User Group Conference

The annual conference of the Southwest ARC/INFO User Group was held in Santa Fe, September 23-25, 1992. Five states in the Southwest Region-Arizona, Colorado, New Mexico, Utah, and Wyoming-sent representatives, with approximately 130 people attending. The Conference was jointly hosted by the State of New Mexico and the University of New Mexico, Technology Application Center. The Conference was highlighted with one-day workshops on AML (Arc Macro Language) and GRID. Nancy Tosta, Chief, Branch of Geographic Data Coordination, U. S. Geological Survey, was the Conference keynote speaker. Clint Brown of Environmental Systems Research Institute (ESRI) spoke to attendees about ARC/INFO 6.0 enhancements. The conference brought both management and technical people into concurrent sessions to discuss issues related to software applications and GIS management issues. This maximized the time available for interaction with ESRI representatives and other conference participants.

The management session was designed for state and local government managers of GIS programs to discuss specific topics related to implementing and maintaining GIS programs. The technical session gave GIS technicians the opportunity to talk with ESRI staff on topics related to the software and the future direction of ESRI in software development.

User technical demonstrations and poster sessions were the activities of the afternoon on September 24. Users were allowed to "strut-their-stuff" for the conference attendees. Ample time was available to discuss, in detail, the user applications presented. A Vendor Exhibit in the evening allowed vendors to show their wares. The state of Wyoming volunteered to host next year's conference in Jackson Hole. If you are interested in the 1993 conference, contact Nancy McCann, Wyoming Engineer's Office at (307) 777-5958.

Ted Talmon, NMGIC Board of Directors

### NMSU opens geography department

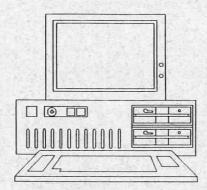
In July 1992, the Board of Regents of New Mexico State University (NMSU) established a Geography Department. Although Geography has been a program at NMSU since 1961, it has always been combined with other disciplines. The new department offers undergraduate degrees in Geography and Urban and Regional Planning as well as a Master's Degree in Applied Geography. There are over 50 students in the undergraduate programs and 23 graduate students. The department has six faculty and two professional staff members. The faculty oversees three research laboratories-Remote Sensing, Geographic Information Systems, and Cartography and Spatial Analysis. Last year the department established a separate computer laboratory for student use. For more information, contact Dr. Robert J. Czerniak, Head, at Breland Hall, Room 107, NMSU, Las Cruces, NM 88003; (505) 646-3509.

Al Peters, NMGIC Board of Directors

## NMGIC election time is approaching

The Board of Directors of NMGIC will have four vacant slots to fill this year and now is the time to think about who should fill them. NMGIC bylaws require that the election be held 30 days before the spring meeting, so the Nominations Committee needs a list of nominees soon. If you are interested in serving on the Board of Directors, from which officers are elected, or if you wish to nominate someone from the membership for the Board, contact Dave Love at (505) 835-5146. Dave can answer questions and provide further information about both the election process and, as a long-term Board member himself, what serving on the NMGIC Board of Directors entails.

# Map Legend



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Heather Rex Library NM State Highway and Transportation Department P. O. Box 1149 Santa Fe, NM 87504-1149

### NMGIC Board of Directors



Tom Henderson (President)

NM State Highway Department 1120 Cerrillos Road P. O. Box 1149, Room B-31C Santa Fe, NM 87504-1149 Telephone: 827-5185

Fax: 827-3214

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Technology Application Center University of New Mexico Albuquerque, NM 87131-6031 Telephone: 277-3622

Fax: 277-3614

Stan Grochowski

GSD/ISD P. O. Draw

P. O. Drawer 26110 Santa Fe, NM 87502-0110 Telephone: 827-2106 Fax: 827-2325

Dave Love

New Mexico Bureau of Mines Campus Station Socorro, NM 87801 Telephone: 835-5146

Fax: 835-6333

John Peterson

NMERI Campus Box 25, UNM Albuquerque, NM 87131 Telephone: 272-7295

Fax: 272-7203

Al Peters

New Mexico State University Campus Box 3AB Las Cruces, NM 88003 Telephone: 646-1892

Fax: 646-6096

Ted Talmon

General Services Department/ISD P. O. Drawer 26110 Santa Fe, NM 87502-0110

Telephone: 827-2047

Fax: 827-2325

### **NMGIC**



Committees

#### **Public Awareness Committee**

Heather Rex New Mexico State Highway Department Library P. O. Box 1149 Santa Fe, NM 87504-1149 Telephone: 827-5534

Fax: 989-4983

State Mapping Advisory Committee

Dave Love New Mexico Bureau of Mines Campus Station Socorro, NM 87801 Telephone: 835-5146 Fax: 835-6333

Global Positioning Systems

Bill Stone National Geodetic Survey % Albuquerque Public Works 400 Marquette NW, Room 304 Albuquerque, NM 87102 Telephone: 768-3606 Fax: 768-3629

Geographic Information Systems Committee

Mike Zeiler Envision Utility Software 2521 Camino Entrada Santa Fe, NM 87505 Telephone: 471-2170 Fax: 471-0453

Geographic Names Committee

Bob Julyan Technology Application Center University of New Mexico Albuquerque, NM 87131-6031 Telephone: 277-3622 Fax: 277-3614

Local Government Land Records Committee

Tom Henderson NM State Highway Department P. O. Box 1149, Room B-31C Santa Fe, NM 87504-1149 Telephone: 827-5185

Fax: 827-3214

# From the President Tom Henderson

December 1992

Geography is more than a cultural concept; it is at the very center of how we perceive and deal with the reality of the world around us because that world is built on geographic relationships. The effect of the accidental and deliberate association of the physical form of our planet with out individual human niches on the earth is fundamental and formidable. Where we are and where our ancestors and evolutionary predecessors were, shapes our physical appearances, cultures, philosophies, and relationships with the other inhabitants of earth, both human and non-human.

The concept of homeland is a cultural adaptation of the basic territorial instinct prevalent among many species. The evolution from hunting groups to tribes to nations has taken thousands of years, but the consistent driving force has been to bring people together in a geographic area for a common good. While governments reinforce this drive with themes of patriotism and cultural identity, the direct ties between people and the land they occupy is really at the heart. Geography plays a major role in religion. Witness the strong emotions associated with Jerusalem and Mecca. The intertwining of religions and cultures that have joined peoples together in what we commonly refer to as the Eastern and Western worlds is, as the names imply, based on geographic distribution of the respective followers of those religions.

The distribution of natural resources is obviously geographic. The need of one group of people for the natural resources of another has created the form of human interaction called trade. Trade is the foundation of modern world economies and is the reason that so much emphasis is placed on the balance of imports and exports in determining the health of national economies. Nations, of necessity, are forced to establish relations with other nations so that essential goods such as food, fuel, and industrial raw materials can be moved from where they are available to where they are needed. The historical alternative to trade has been direct confiscation through military force manifested in wars and abdication through threats. Even in these cases, geography is key to the success or failure of military strategies.

Geography, then, is a common denominator that all people relate to regardless of race, nationality, language, profession, or religion. The expression of geography in maps is so universal that even cultures without written language understand and use some form of maps. It underlies human activity in a strong and pervasive way.

In the next President's column, I will expand on this premise in a first effort at defining a philosophical creed for NMGIC through which all members can relate their particular interests in geographic information.

### USGS opens AMSDO in Albuquerque

The Albuquerque Mapping Support District Office (AMSDO) was established by the National Mapping Division (NMD) of the U. S. Geological Survey in the spring of 1992. The mission of the office is twofold: to provide field support for revision of NMD graphic and digital products and to provide liaison with NMD's regional headquarters in Denver, and state, local, and federal agencies in New Mexico. The AMSDO is one of four pilot offices established by the NMD to test the small revision office concept. In two years the offices will be evaluated and made permanent or discontinued.

AMSDO is working on the Albuquerque project, a revision of 24 7.5-minute quadrangles that include most of Albuquerque, Kirtland Air Force Base, the Sandia Mountains, the towns of Rio Rancho, Edgewood, Tijeras, and Bernalillo, and the Zia, Santa Ana, Sandia, and San Felipe Pueblos. Field work is to be completed during the second quarter of 1993. The quadrangles will then be digitally revised at the Rocky Mountain Mapping Center, and the revised quadrangles and digital line graphs of all data categories will be available later.

Two other revision projects are scheduled for field work at the AMSDO: the Belen and Las Cruces projects. Belen also has 24 quadrangles and joins the south edge of the Albuquerque project. The Las Cruces project contains 16 quadrangles.

The NMD has begun producing digital orthophoto quarter-quadrangles (OQQ) on a pilot basis. The OQQs are produced from National Aerial Photography Program photographs at 1:40,000 scale and are designed to meet accuracy standards at 1:12,000 scale. The OQQs have a pixel size of 25 microns with an effective ground resolution of about one meter. They are 8-bit black-andwhite (256 gray scales). File size is about 55 MB per OQQ. This fall, as part of a project for the National Park Service, the NMD will produce digital orthophotos covering Petroglyph National Monument. Sixteen OQQs will be produced covering 4 7.5-minute quadrangles: Albuquerque West, Los Griegos, La Mesita Negra, and Volcano Ranch. The AMSDO hopes to get copies of the orthophotos and will be asking the New Mexico mapping community for an evaluation of those products.

The AMSDO has a staff of three: Jim Petzold, Chris Baumann, and Sam Bardelson. The office is located at 4775 Indian School Road, Suite 301, Albuquerque. Mailing address: P. O. Box 35583, Albuquerque, NM 87176. Telephone: (505) 265-7796. The office would like to hear from anyone with questions about NMD products, schedules, or production methods. The AMSDO staff plans to become a part of the New Mexico mapping and GIS community.

Sam Bardelson, Chief, AMSDO

### NSGIC meets in Santa Fe

The second annual meeting of the National States Geographic Information Council (NSGIC) was held in Santa Fe on September 20-23, 1992. Representatives from 43 states and seven federal agencies were represented. The meeting was hosted by the State of New Mexico's General Services Department. The meeting was highlighted by formulating the Council's existence with the passage of bylaws and election of officers and a board of directors. Elected to preside over NSGIC as were Richard Taupier, officers President (Massachusetts), Ted L. Talmon, President-Elect (New Mexico), and Phil Thiel, Past President (Georgia). NSGIC Board Members are Allan Cox (Montana), Dennis Goreham (Utah), William Holland (Wisconsin), Karen Siderelis (North Carolina), Lorraine Stryjak (Texas), and Bruce Westcott (Vermont).

In addition to bylaws and elections, the Council clarified their mission: to encourage effective and efficient government through the coordinated development of geographic information and technologies and to insure that information may be integrated at all levels of government. To serve as a unifying voice on geographic information and technology for states, the Council actively promotes information integration and systems development; reviews and promotes positive legislative actions regarding geographic and land information issues; promotes interaction and coordination among state members; assists federal, state, local, and regional governments, professional associations, and public and private sectors plus a variety of other organizations in coordinating issues related to geographic information.

Having identified 29 specific geographic information issues in Atlanta, Georgia, at the 1991 meeting, NSGIC action items and recommendations were discussed for the top four issues at the Santa Fe meeting: (1) improving coordination with federal geographic data agencies; (2) models for state, regional, and local coordination; (3) data development, exchange standards, and metadata; and (4) financing state geographic information initiatives. NSGIC plans to work on these and other issues include establishing task forces, creating a forum for examining new and innovative approaches to geographic information issues, providing resources to facilitate research and testing of geographic information concepts and to serve as a source for applications and technology for the states. The Council will also work to promote a better understanding of NSGIC and geographic information in general. The next annual meeting of NSGIC will be held in the autumn of 1993 in Williamsburg, Virginia.

For further information about NSGIC, contact Rick Taupier—(617) 727-9800; Ted Talmon—(505) 827-2047; or Phil Thiel—(404) 656-3879.

Ted Talmon, NMGIC Board of Directors

## GIS for Transportation Symposium to be held in Albuquerque in March

The American Association of State Highway and Transportation Officials (AASHTO), in cooperation with URISA, the Transportation Research Board, the U. S. Department of Transportation, and the Highway Engineering Exchange Program, is sponsoring an International GIS for Transportation Symposium to be held at the Albuquerque Convention Center on March 29-31, 1993. A GIS-T Workshop will be held on March 28. The theme of the symposium is GIS-T: Implementing ISTEA Management Systems for More Effective Programs. The purpose is to provide a forum for transportation officials at all levels, private sector participants, and the academic community to discuss GIS and transportation issues, including the new management systems required by the Intermodal Surface Transportation Efficiency Act. For further information and a preliminary program, contact Tom Henderson at (505) 827-5185.

# Alliance for Geographic Education to be coordinated from UNM

Kim Hulse of the National Geographic Society (NGS), sponsoring agency for the Alliance for Geographic Education, has announced that the Alliance for Geographic Education in New Mexico will be coordinated from the University of New Mexico with Dr. Peggy Blackwell as Program Coordinator. NGS chose Dr. Blackwell, who is Dean of Education at UNM, for the position after accepting her proposal. This welcome news gives reassurance that this extremely important program will be continued in the state of New Mexico for teachers and school children.

# Permanent GPS base station up and running

After a brief problem with the GPS receiver when switching from P-code to codeless modes, the receiver was re-established on November 17 and is now running well. The station is still in its temporary configuration at Sandia National Laboratories until a final home can be found. There has been some communication from FAA in support of the search.

## Washington Pass becomes Narbona Pass

Washington Pass in the Chuska Mountains henceforth will be Narbona Pass.

In the final days of the 500th anniversary of Columbus' arrival in the New World, in an event Native Americans have said signifies a renewed commitment to the preservation of their cultures, the U. S. Board on Geographic Names (USBGN) at their meeting December 10 voted 4-0 to approve a proposal by students of Navajo Community College (NCC) in Shiprock to change the name of Washington Pass to Narbona Pass.

"This is a precedent-setting move," said Roger Payne, USBGN Executive Secretary. "We know of no other instance anywhere in the country of a Native American commemorative name initiated by Native Americans."

The renaming had its roots in the discovery by NCC students that the name Washington Pass honored not George Washington or Washington, DC, as most Navajos had assumed, but rather Col. John Washington, leader of a U. S. military expedition against the Navajos in 1849. In a skirmish reminiscent of so many in that

"We know of no other instance anywhere in the country of a Native American commemorative name initiated by Native Americans."

Roger Payne, USBGN Executive Secretary

turbulent era, Col. Washington's troops, during a failed parley with the Navajos at the pass, killed the Navajo leader Narbona, who lived at the pass and who, with tragic irony, had been a leading Navajo proponent for peace with the whites. Narbona was scalped, and Lt. James Simpson, the expedition's chronicler, named the site Washington Pass for his commander.

Navajos have deeply resented this name on a feature in the Navajo homeland, so the NCC students set about changing it. Over the years they did an impressive amount of work, collecting signatures on petitions and taking their proposal to chapter houses in the Washington Pass area. The proposal received widespread publicity in New Mexico. The Albuquerque Journal wrote articles about it and issued an editorial in its support. Similar support was expressed in the Gallup Independent.

The NMGIC Geographic Names Committee (GNC) also played an important role. GNC members supported the Navajos' efforts, and GNC Chair Bob Julyan met early on with NCC students to outline the procedures for changing a name. He also spoke in Tohatchi about the proposal, and he arranged for Herbert Benally, the NCC teacher whose students began this effort, to present the issue to the members of the USBGN at the 1990 Western States Geographic Names Conference in Santa Fe.

Indeed, the only obstacle to the renaming was minor confusion as to what new name the pass should have. Most Navajos preferred Narbona Pass, but some in the Tohatchi area preferred a translation of the Navajo name for the pass, Copper Pass. Just prior to the WSGNC meeting in 1990, this difference was resolved, with all parties agreeing to Nabona Pass.

It only remained for approval by the Navajo Nation Council. Unfortunately, this coincided with a time of great turmoil in Navajo tribal government, and approval was slow in coming. Finally, last May, the Council's Resources Committee approved a resolution recommending the name change. Then early last December, a flurry of Federal Express packages, phone calls to GNC members, and fax messages resulted in the issue being placed on the agenda of the USBGN's last meeting of the Columbus Quincentennial.

Washington Pass then became Narbona Pass, and when the news was told to Freda Garnanez, the NCC student who from the beginning spearheaded the effort, she said, "This is WONDERFUL."

Bob Julyan, Chair, Geographic Names Committee

# Global Positioning System Committee update

The New Mexico GPS Reference Network (NMGRN) is now complete. NMGRN is our statewide network of survey monuments positioned to a high level of accuracy with GPS technology. Coordinate and description information pertaining to NMGRN stations is now available from the GPS Committee chairman. Also, an overview brochure about the network is available.

Due to budgetary shortcomings experienced this fiscal year by the National Geodetic Survey, the State Geodetic Advisor Program and other federal geodesy efforts are in jeopardy. People interested in obtaining information about this situation or in expressing support for these efforts should contact the GPS Committee chairman.

For more information, contact: William Stone, National Geodetic Survey, % Albuquerque Public Works/Survey Section, 400 Marquette Avenue NW, Room 304, Albuquerque, NM 87102; (505) 768-3606.

### CALENDAR

January 29-30, 1993. 32nd Annual Surveying Engineering Conference. Centre Plaza Holiday Inn, Fresno, California. Sponsored by California State University (CAU-Fresno) and the Surveying and Photogrammetry Student Association. Contact: Dr. James K. Crossfield, Surveying and Engineering Program, CSU-Fresno, CA 93740-0094. (209) 278-4827.

February 16-18, 1993. ACSM/ASPRS Annual Convention and Exposition, New Orleans, Louisiana. Contact: Denise Cranwell, Registration, ACSM/ASPRS 1993 Convention, 5410 Grosvenor Lane, Bethesda, MD 20814, 301-493-0200.

March 29-31, 1993. International GIS for Transportation Symposium. Albuquerque Convention Center, Albuquerque, New Mexico. GIS-T Workshop on March 28. Sponsored by American Association of State Highway and Transportation Officials (AASHTO) in cooperation with URISA, the Transportation Research Board, the U. S. Department of Transportation, and the Highway Engineering Exchange Program. Contact: Thomas Henderson, NMSHTD, P. O. Box 1149, Santa Fe, NM 87504. (505) 827-3214.

## A SPECIAL THANKS . . . to the 1992 Corporate Members

Analytical Surveys, Inc. 1935 Jamboree Drive Colorado Springs, CO 80920 (719) 593-0093	Bohannan-Huston, Inc. Courtyard I 7500 Jefferson Street NE Albuquerque, NM 87109 (505) 823-1000	ComRim Systems, Inc. 1850 Old Pecos Trail Suite J Santa Fe, NM 87501	Ebert & Associates 3700 Rio Grande Blvd. NW Suite 3 Albuquerque, NM 87107 (505) 344-2345
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# General Services Department offers training

The State of New Mexico, General Services Department's Information Systems Division (ISD) has scheduled ARC/INFO training courses for January 1993. The first course is entitled Introduction to ARC/INFO, and is scheduled for January 18-22, 1993. The second course, Customizing ARC/INFO with AMLs (Arc Macro Language), will be given January 25-29, 1993. training staff come from the Environmental Systems Research Institute (ESRI), developers of ARC/INFO. All course materials and use of workstations will be provided by ISD. The site for these courses is the John Simms, Jr., Building, 715 Alta Vista, Santa Fe, NM. The fee for each course is \$950. The courses are limited to twelve registrants each. If you are interested in registering or would like more information, contact Ted Talmon, State GIS Manager, General Services Department. Information Systems P. O. Drawer 26110, Santa Fe, NM 87502-0110, (505) 827-2047. Additional ARC/INFO training courses will be scheduled for the spring and summer. Watch future Map Legends for announcements.

### REMINDER

Memberships for 1992 expired as of December 31, 1992.

Memberships are on a calendar year basis. 1993 membership dues (\$15) are to be sent to Amy Budge

'% Technology Application Center.

Please use the renewal form enclosed to renew your NMGIC membership. Please make checks payable to NMGIC.

### RENEW TODAY!

## Summary of the NMGIC 1992 fall meeting

Global change research in the U. S. Geological Survey was the topic of Mr. Dennis Krohn's keynote address to NMGIC's Fall meeting. The meeting, held November 20 in Albuquerque, offered a panel discussion on the application of TIGER/Line files and user exhibits as well as the overview of global change research.

The user exposition opened at 8 AM, giving members an hour and a half to visit the 10 user exhibits and with friends. Tom Henderson, President of NMGIC, opened the meeting and reviewed the progress of the Council including the Annual NMGIC Report to the Governor, and the very successful GIS workshop "Introduction to Spatial Analysis" held October 28th. Tom extended a special thanks to the 14 corporate members for their support to NMGIC during 1992.

Reports from each committee were given. A new brochure announcing the New Mexico GPS reference network is now available from the GPS Committee. The network was established by the committee in conjunction with the New Mexico State Highway and Transportation Department and National Geodetic Survey. The Public Awareness Committee has printed an insert for the NMGIC brochure which provides names and addresses of all Board members and Committee chairs. The State Mapping Advisory Committee has been working with the USGS Mapping Division on mapping project priorities in New Mexico. Sam Bardelson of the USGS Field Office in Albuquerque reported that the Albuquerque Project is underway, soon to be followed by

the Belen and Las Cruces projects. The Local Government Land Records Committee is looking for a new committee chair. If you have an interest, or suggestions, contact any of the Board members.

Mr. Dennis Krohn, Program Director of the USGS Global Change Research Program, reviewed a wide array of research areas and process studies which are helping to improve our understanding of Earth systems. GIS plays a role in many of these and serves as a data link between the programs and the development of global change models.

The lunch break gave the members an additional opportunity to visit the user exhibits. The 10 exhibits represented state agency, local government, university, and federal agency GIS activities.

The panel discussion began at 1 pm with short presentations on the applications of Census Bureau TIGER data by Larry Spear, Division of Government Research; Rich Friedman, McKinley County; Hillary Minich, NM State Highway and Transportation Department, Kevin Kargacin, Bureau of Business and Economic Research; and Mike Zeiler, Envision Utilities Software. TIGER data were shown to be some of the most important data sets available to the New Mexico GIS user community.

The Fall meeting was informative and a great success. Don't miss the Spring '93 meeting in April!