

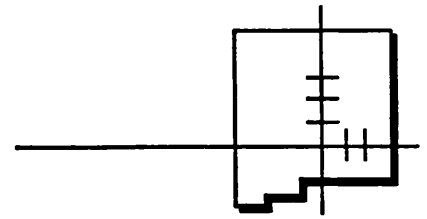
The MAP LEGEND

New Mexico Geographic Information Council

Volume 1

Number 4

Spring 1990



McKinley County is Pilot Site for BLM Project

(submitted by Richard Friedman)

The Bureau of Land Management (BLM), Farmington Resource Area, is the United States pilot site for a land information system project called the Automation Outreach Program. The site is housed at the Rural Addressing System office in Gallup. BLM is digitizing various types of land information dealing with landlines, road networks, stream networks, land ownership, mineral leases, mining sites, oil wells wildlife habitat, and cultural data.

As a participant in the Automation Outreach Program, Rural Addressing can assess from Gallup the BLM's computer in Farmington and can view and store the automated data using just a personal computer equipped with a modem and terminal emulation software. The software also allows the Rural Addressing System to create hard copy maps with a printer or plotter. These maps can then be shared with other McKinley County offices which can use the data.

These departments can be aided in the following ways:

1. Assessor's Office will save time in keeping public land ownership current,
2. Clerk's Office can supplement current land records,
3. Fire Marshal's Office can prepare jurisdiction boundaries for fire districts and can expedite report filing,
4. Road Department can facilitate right-of-way acquisition and plan new road alignments,
5. Rural Addressing can create the digital data base for areas of the county not currently mapped,
6. Sheriff's Department can identify areas of jurisdiction and enhance law enforcement effectiveness.

The program will also assist in the installation of Enhanced 9-1-1 and will help determine the appropriate routing of emergency calls to the agency with jurisdiction for that location.

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Activities at the NMSU Geographic Applications and Research Laboratory (GARL)

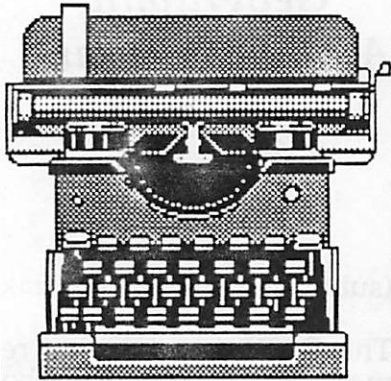
(submitted by Bob Czerniak)

The GARL is a GIS and remote sensing research laboratory at New Mexico State University. It was organized in 1982. The philosophy of the lab has been to place its major efforts in applied research which could assist local governments in the state of New Mexico. Over the past seven years the lab has undertaken several projects for a number of communities and rural counties. For example, the GARL assisted in the development of five computer based county rural addressing systems.

During the past year the College of Arts and Sciences and the Earth Sciences Department have devoted resources and time to restructuring the lab. The lab began a major overhaul in June 1989 by providing new research faculty, as well as by replacing hardware and software.

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The Map Legend



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Heather Rex
 MAGIC/Centennial Library
 University of New Mexico
 Albuquerque, NM 87131

Meeting Announcement

When: Friday, April 27, 1990

**Where: UNM Continuing
 Education Center
 1634 University Blvd. NE
 Albuquerque, NM**

Time: 9:00 am

The spring meeting of the New Mexico Geographic Information Council will begin at 9:00 AM with a short business meeting. The results of the election for Board of Directors will be announced, committee reports will be given and an update on USGS activities concerning New Mexico will be addressed by Lee Aggers of the Denver USGS office.

Tom Henderson of the NM State Highway and Transportation Department in Santa Fe and Chairman of the Global Positioning Systems Committee, will give a presentation on "The Global Positioning System: Status and Prospects."

The remainder of the day will be dedicated to a vendor exhibit session. Vendors of GPS, GIS and remote sensing hardware and software have been invited to demonstrate their products. This session will begin at 10:30 AM and continue as long as there is interest (to end by 4:00 PM). At press time, vendors accepting the invitation to exhibit are:

- Environmental Systems
 Research Institute
 (ESRI)
- Magellan Systems
 Corporation
- Holman's, Inc.
- Tektronix
- ERDAS
- SUN Microsystems
- Digital Equipment
 Corporation

Please remember, that if you have already joined NMGIC, bring your membership card with you. Non-members will be charged \$10.00 at the door to attend the meeting or they can join NMGIC for \$15.00 per year.

I Want YOU!



**At the April 27
 NMGIC Meeting**

ARC/INFO: Currently a Hidden Resource at UNM

(submitted by Larry Spear, Research Analyst
Division of Government Research, UNM)

The ARC/INFO GIS software package developed by Environmental Systems Research Institute (ESRI) has been at UNM since 1984. The software license was purchased by the Division of Government Research (DGR) with funds generated from contract and grant projects. It has been installed on several computing platforms at the Technology Application Center (TAC) since 1984 under a cooperative use arrangement between DGR and TAC.

DGR and TAC have always tried to make ARC/INFO more accessible to the wider university community for educational and research uses. However, these efforts have been severely constrained by funding, computer capacity, and network connection limitations.

Recently, Larry Spear submitted a software evaluation request to the Computing Information and Resource Technology (CIRT) department. This software request may result in the transfer of this ARC/INFO software license at UNM from DGR to CIRT. If approved, the current ARC/INFO software would be transferred to CIRT computing facilities and two additional workstation versions (VMS and ULTRIX) would be pur-

chased from ESRI for use separately by DGR and TAC.

This plan makes sense for many reasons. Primarily, it provides a mechanism for ARC/INFO to become gen-



erally available for educational and research uses at UNM with the support of CIRT. Many other universities have already provided GIS software and computing tools for the use of

the general university community. If UNM is to remain a major research university it should begin providing such resources.

Also, the existing ARC/INFO license operating on a VAXSTATION at TAC is saturated but under-utilized. ESRI prices ARC/INFO by CPU capacity. ARC/INFO was originally purchased by DGR for a larger CPU than it is currently operating on at TAC. This license should be transferred to where UNM can best get its moneys worth and where there is a large enough computer - that place is CIRT.

DGR has proposed to transfer this larger CPU license to CIRT in exchange for two smaller workstation licenses. This will probably result in a savings for CIRT and the university. It would, of course also benefit both DGR and TAC by allowing them to

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NMGIC



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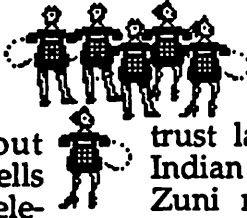
Dan Sutcliffe
New Mexico Game and Fish
Santa Fe
827-7885

Enhanced 911 Users Group Formed

(submitted by Sue Adams)

By 1992, Enhanced 9-1-1, a telephone emergency system, will be installed throughout New Mexico. E9-1-1 tells a dispatcher the telephone number and the location of the caller. This information is valuable in an emergency situation because help can be dispatched even if the caller is unable to speak or complete the call. If the caller is a young child who does not know his address, emergency services can respond.

Another feature of Enhanced 9-1-1 tells the dispatcher which public safety agency should be sent to the caller. This saves valuable time in rural counties such as McKinley, which can have many agency jurisdictions. There are nine different types of land status (and jurisdictions) in McKinley county: private land, national forest land, state of New Mexico,



Bureau of Land Management land, U.S. Government trust lands, military lands, Indian allotted lands, the Zuni reservation, and the Navajo Reservation, each with its own agency.

On September 28, 1989, the Rural Addressers Affiliate of the New Mexico Association of Counties sponsored an Enhanced 9-1-1 Users Group and Organizational Training. Co-sponsors were U.S. West Communications and U.S. West Enterprises. The meeting was attended by 60 people representing county and municipal government, fire departments, police departments, emergency medical services, and telephone companies from around New Mexico. For more information, call Sue Adams, Publicist for McKinley County Rural Addressing System at the McKinley County Rural Addressing Office, 863-9517.

ARC/INFO at UNM

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still maintain ARC/INFO software licenses on smaller computers that they could afford.

If you are associated with UNM and would like to see ARC/INFO available for general university uses (at little cost to you) your help is

needed. Please contact Linda Miller at CIRT to indicate your support for the ARC/INFO software evaluation. You may also contact Larry Spear (277-3305) L S P E A R @ U N M B DG53@UNMMUSIC) if you need further information and also if you would like to know the results of this request.

NMGIC Membership ...An Update

(submitted by Amy Budge)

The membership drive for NMGIC has been quite successful. As of February 16th there are 101 individual members and 2 corporate members. The membership consists of representatives from Federal, state, county, and municipal governments, as well as private consultants, university personnel, and utility co-operatives. There are also members from the Navajo Nation and private individuals. Besides the wide range in member affiliation, the geographic distribution of membership is statewide. It is evident that interest in NMGIC is continuing to grow!

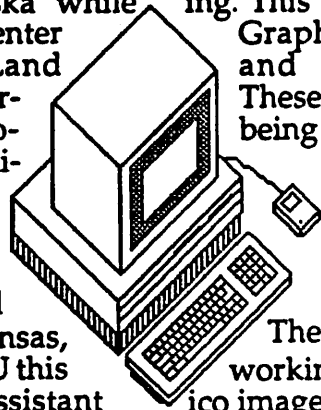
As a reminder to members, please bring your membership card with you when you come to the April 27th meeting in Albuquerque. It will gain you entrance to the meeting without hassle. If you know of anyone who might be interested in joining NMGIC, pass the word. We are continuing to accept applications for 1990 membership, which costs \$15.00. Checks should be made payable to NMGIC and sent to Amy Budge, Treasurer, Technology Application Center, University of New Mexico, Albuquerque, NM 87131.



Geographic Analysis and Research Lab

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The GARL added the expertise of Dr. Al Peters (University of Nebraska, 1989) in September 1989. Peters, a climatologist, has extensive experience with image processing and GIS. He has worked with AVHRR (Advanced Very High Resolution Radiometer) data as well as SPOT multispectral imagery. Last fall he completed a drought monitoring project in Nebraska while working at the Center for Advanced Land Management Information Technologies (CALMIT) University of Nebraska.



Dr. Bradley Reed (University of Kansas, 1989) joined NMSU this January as a Assistant Professor in Geography. Reed has experience with both ERDAS and ARC/INFO systems. His primary area of interest is in biogeography. In his dissertation, Reed employed both computer packages and his biogeography background to model land use at the state scale.

The restructuring of the lab

has also included the adoption of PC-ARC/INFO as its base GIS software. This replaces the old "RAMS" software which is no longer in use. In addition, the lab is equipped with ERDAS image processing software. There are two 386 computers for GIS and two machines for image processing. A separate lab has been established for classes in GIS, computer mapping and remote sensing. This lab also uses Atlas Graphics, Geographix, and Idrisi software. These three packages are being used by students in geography, geology, surveying, range science, and planning.

The lab is currently working on a New Mexico image of the distribution of drought. It is also continuing its work on rural addressing and planning projects. Graduate students are working on remote sensing research projects on the Jornada Experimental Range. Two projects which are in the planning stages include a snake weed study of the state and a development project for pavement management from satellite imagery.

McKinley County & BLM

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McKinley County has been visited by interested staff from various federal, state, and district offices. BLM representatives include Jim May Office of Congressional Affairs, Washington, D.C.; Aaron G. Horton, Automated Land and Minerals Records System (ALMRS), New Mexico state office, Santa Fe; Leslie Coan, Automation Outreach, Washington, D.C.; Charles E. Hunt, Presidential Intern, Washington, D.C.; and James E. Straka, ALMRS Project, Albuquerque District. They were accompanied by Ron Fellows, Area Manager and Chris Hopkins, Data Base Administrator from the Farmington Resource Area, Farmington. The visitors came to see the project in action and to visit the offices that might benefit from it.

For more information, call Richard Friedman, Coordinator of the McKinley County Rural Addressing System and the President of the New Mexico Association of Counties at 505/863-9517. His address is Rural Addressing System, McKinley County, Box 70, Gallup, New Mexico 87305.

Corporate Members

ESRI

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Institute

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Colorado 80302
(303) 449-7779

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Calendar

April 9-13

Geographic Information Systems: An Introduction. Center for Advanced Land Management Information Technologies (CALMIT). Univ. of Nebraska-Lincoln. Contact CALMIT, 113 Nebraska Hall, Lincoln, NE. Call 402/472-2567

April 10-12

Managing the Risks and Recovering the Costs of Geographic and Facilities Management Systems. Wisconsin Center. University of Wisconsin. \$600. Earns 2.2 CEU's. For information call 1-800-462-0876.

April 16-20

Advanced GIS:ARC/INFO. Center for Advanced Land Management Information Technologies (CALMIT). Contact CALMIT, 113 Nebraska Hall, Lincoln, NE. Call 402/472-2567.

April 19-22

Association of American Geographers Annual Meeting. Sheridan Centre, Toronto, Ont. Contact AAG, 1710 16th St., Washington D. C. 20009-3198. Call 202/234-1450.

May 16-18

The Status of Remote Sensing Research and Applications for Use in Agriculture. NASA. Greenbelt, MD. Contact Mrs. M. Blackwell, BARC XV Symposium, Building 1, BARC-West, Beltsville, MD 20702.

May 20-25

The 43rd Annual Conference of the Society for Imaging Science and Technology (SPSE). Rochester, NY. Contact Rochester Institute of Technology, Center for Imaging Science. One Lomb Memorial Drive, Rochester, NY 14623-0887

June 21-22

International Symposium on Mapping and Geographic Information Systems. San Francisco, CA. Sponsored by ASTM. Contact Ivan Johnson, 7474 Upham Court, Arvada, CO 80003. Call 303/4225-5610.

NMGIC Committees



Public Awareness Committee

Heather Rex, Chairperson
University of New Mexico
Albuquerque 277-5513

State Mapping Advisory Committee

Dave Love, Chairperson New
Mexico Bureau of Mines
Socorro 835-5146

Geographic Information Systems Committee

Michael Zeiler, Chairperson
Envision Utility Software Corp.
Santa Fe 471-2170

Local Government Land Records

(Subcommittee of GIS
Committee)
Gretchen L. Coles, Chairperson
City of Santa Fe
Albuquerque 768-3920

Global Positioning Systems Committee

Tom Henderson, Chairperson
New Mexico State Highway
Department
Santa Fe 827-5185

Geographic Names Committee

Bob Julyan, Chairperson
Writer
Albuquerque 298-8420

"The modern age has a false sense of superiority because of the great mass of data at it's disposal, but the valid criterion of distinction is rather the extent to which man knows how to form and master the material at his command."

Johann Wolfgang von Goethe, 1810