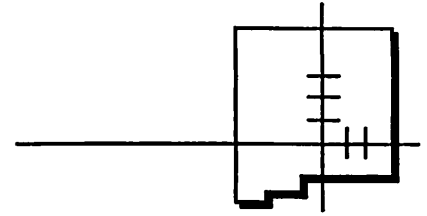


The MAP LEGEND

New Mexico Geographic Information Council



Volume 1

Number 2

Spring 1989

NMGIC Spring Meeting Scheduled for May 12

The spring meeting of the New Mexico Geographic Information Council is scheduled for Friday, May 12, 1989 at the University of New Mexico's Continuing Education Center, 1634 University Blvd NE. The Center is not on the main campus, but north on University Blvd at the corner of Indian School Road (see map). There is plenty of free parking. We have a very informative program planned and hope to see most of you there.

"The program will feature Roger Payne, Manager of the GNIS"

The program will feature Roger Payne, Manager of the Geographic Names Information System (GNIS), U.S. Board on Geographic Names, Washington, D.C. Mr. Payne will speak to us on what the GNIS is, why it is useful, and how it concerns New Mexico. He has personal interest in Native American place names as well as historical place

names. He has authored a book entitled *Place Names of the Outer Banks*. Currently, Mr. Payne serves as president of the American Names Society.

The remainder of the program consists of updates on state, federal, and local agency activities in geographic data over the past two years. This session has always been a popular one and many requests have been received for a repeat performance. Speakers invited to make presentations on their agency's activities are:

Update on GIS and GPS activities of the State Highway Department

Hillary Minich
Geometronics Unit
State Highway Dept.

National/regional GIS activities

Bill Stephens
U.S. Forest Service

Update on AGIS

Kathy Nims
AGIS
City of Albuquerque

BLM LIS activities state-wide

Mike Dwyer
BLM

Role in surface and ground water, and water quality...how GIS is adapted to process these data

Mike Kernodle
WRD
US Geological Survey

Plans for development of a GIS for identifying aquifer vulnerability in New Mexico

Natalie Keller
Ground Water Bureau
EID

The program is rounded out with a report from Lee Aggers on the latest USGS programs concerning New Mexico and a report on the status of the RGIS project and related legislation. There is time allotted in the afternoon for committee

***See page 2 for
program schedule***

Report from the Geographic Names Committee

[submitted by Bob Julyan]

Unless the U.S. Board on Geographic Names (USBGN) decides otherwise, the official name of New Mexico's largest natural arch will be La Ventana and not Alta Arch. That was the unanimous decision of the NMGIC Geographic Names Committee last December after reviewing extensive public input from citizens in Cibola County. None of the persons contacted directly, or who responded to an article in the Grants Daily Beacon, recognized the name Alta Arch. All of the contacts and respondents expressed a preference for the name La Ventana.

Also at the December meeting, the committee recommended that the name of a peak in Grant County be spelled Tulloch, not Tullock, to reflect the correct spelling of the family for whom the peak was named.

Regarding a proposal to change the names of several features in San Miguel County to reflect correct Spanish orthography, the committee deferred a deci-

Spring Meeting Program

meetings.

May 12, 1989

8:30 am	Doors open, coffee and cookies
9:00 am	Welcome, Speaker introductions, committee reports
9:30 am	Roger Payne: Geographic Names Information Systems
10:15am	Break
10:30am	Agency Updates
11:30am	Lee Aggers: Report on USGS activities
11:45am	RGIS Report
12:00 noon	Lunch break
1:30 pm	Committee Meetings

sion until its next meeting because there was uncertainty as to what the correct spelling would have been in the nineteenth century when the features were named.

"...renaming a feature with a longstanding existing name would be totally inconsistent with how O'Keefe viewed her relationship with the New Mexican landscape"

The committee is still working with the New Mexico Office of Historic Preservation to find a feature that might appropriately be named to honor the famous artist, Georgia O'Keefe. About all anyone can agree upon is that renaming a feature with a longstanding existing name

would be totally inconsistent with how O'Keefe viewed her relationship with the New Mexican landscape. Among the proposals now being considered are renaming the recently created wilderness area or the Lower Chama Wild and Scenic River. Any other suggestions would be appreciated.

Also, the committee most likely will be involved in any efforts to rename Washington Pass in the Chuska Mountains. The pass now bears the name of Col. John Washington, who led a U.S. Army expedition there in 1849 and who commanded the troops during an incident at the pass in which the elderly Navajo leader, Narbona, was killed. Historians have since concluded

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Geographic Names Report

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that the incident was a tragic and insensitive blunder by the U.S. Army, as Narbona was a proponent for peace. Because of this, and because Washington Pass lies within the Navajo Reservation, some students at Navajo Community College are vehemently opposed to the name Washington Pass and have proposed renaming the pass to honor Narbona, a proposal that has received statewide support.

"... some students at Navajo Community College are vehemently opposed to the name Washington Pass"

Bob Julyan, committee chairman, is continuing to revise *New Mexico Place Names* and always welcomes any information about any name anywhere in the state. Contact Bob at RR5, 31 Avenida Almendro, Albuquerque, 87123. His phone number is 298-8420.



Activities of the Local Government Land Records Subcommittee

[submitted by Gretchen Coles]

The Local Government Land Records (LGLR) Subcommittee had its first full meeting following the NMGIC semi-annual meeting on December 9, 1988 in the Taos Room of the Albuquerque Convention Center. A dozen participants from local, state, and federal governments attended, represent-



ing a variety of geographic data users, producers, and managers. It was decided during the meeting that a study group would be set up to review and summarize land records legislation from several states in the U.S. and from at least one colonial government. The review and summary would be used to make standards and procedures recommendations for land records legislation in New Mexico. Such activity is also being initiated by the NM Association of Surveyors and Mappers (NMASM) and it is planned that these two groups will be working together.

Three presentations were made in January by members of this subcommittee. The first presentation, made by Gretchen Coles, addressed the parcel as a vital

land record in New Mexico today. She related the importance of the parcel to many geographic information users, producers, managers, and county assessors. She also pointed

out that a local government could have a GIS without computerization and that some small local governments do.

Dennis Mouland, Cadastral Surveyor with the U.S. Forest Service made the second presentation in which he reinforced the need for legislation as a means of preserving parcels as land records for users in government as well as in the private sector. Kathy Nims and Neal Weinberg from the Albuquerque Geographic Information System (AGIS) of the City of Albuquerque made the third presentation to the County Assessors Affiliate during their NM Association of Counties meeting in Santa Fe at the beginning of the 39th legislative session. They introduced AGIS and showed slides which pointed out the many different and practical applications that a GIS has for both government and private sector users. Pres-

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Land Records Subcommittee

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entations like this one are planned for professional organizations such as the County Clerks Affiliate and the County Rural Addressors Affiliate of the NM Association of Counties to build support for plat recordation legislation.

"...assignments focus on research of other state land records, which will eventually contribute to recommendations for land record legislation in New Mexico"

Study group assignments were distributed in mid-February to all LGLR participants. These assignments focus on research of other state land records, which will eventually contribute to recommendations for land record legislation in New Mexico. Participants who received assignments are encouraged to "trade assignments" with another member of the LGLR Subcommittee or to reassign a state for their own research. Sources for other state legislation include the University of New Mexico's Law Library (277-5131) in

Albuquerque, the Secretary of State's office in the respective state or simply, a related business (land surveyor, local government, etc.) in the respective state.

The most recent meeting of the LGLR Subcommittee was on March 31, 1989 in Albuquerque. During this informal meeting, criteria were established for a summary of land record legislation from the state assignments, as well as the amount of time spent in this exercise, since it is not intended that an indefinite amount of time be expended on this activity. After the meeting, the group joined the GIS Committee in a visit and tour of the Bohannan-Huston Inc facilities. Bohannan-Huston Inc. is a photogrammetric and engineering firm in Albuquerque.

Finally, the LGLR Subcommittee has published several columns on their activities in the NMAASM "Newsletter" since December 1988. If other association newsletters or periodicals would serve as sources for getting our news around New Mexico, please send your suggestions to LGLR Subcommittee, 1182 Morning Drive, Santa Fe, NM 87501.

The LGLR has quarterly

meetings coordinated with the Geographic Information Systems Committee and four main goals: (1) develop a network of local government contacts in New Mexico that are interested in land records modernization; (2) provide educational materials and services on land records modernization; (3) support and assist in the drafting of legislation for land records modernization; and (4) work with a pilot LIS/GIS project in NM. Everyone is welcome to participate in our activities at any level.

House Bill 218

A Geographic Information System Clearinghouse for New Mexico

[submitted by Mike Inglis]

Known as House Bill 218, this bill calls for funds to be allocated to establish a geographic information systems clearinghouse for New Mexico. HB 218 was introduced by Representative Don Silva and stems from research done by the "RGIS Team". This research was conducted by four UNM departments under contract with the State of New Mexico to determine the feasibility of a GIS for New Mexico and

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From Papua New Guinea

[From Laurie Boyer, Department of Surveying and Land Studies, Papua New Guinea University of Technology.]



Land managers in Papua New Guinea are concerned with legal aspects of land tenure, planning, and policy...they provide the actual physical records. Until very recently there were very few records, and even now there are mainly records for urban areas...government-owned lands. Records are in cadastral map and survey field book form. At Papua New Guinea University of Technology there has only been one experiment done to record land ownership, in a tenement area nearby. Generally, land records are not well kept

"How does a surveyor enter a plot to identify and map the boundaries when faced with a violent axe-yielding mob?"

because ownership is so sketchy. Land boundaries are not well documented; often the land records are simply one person's "oral record" passed down through the generations of a clan. Slash and burn

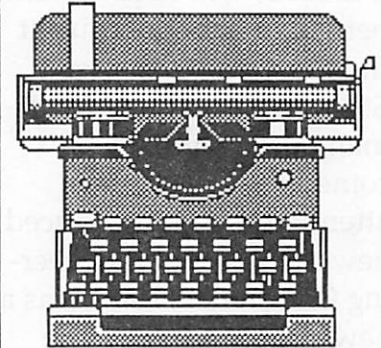
agriculture is practiced, thus people move from plot to plot. To further complicate the record keeping, if one clan complains of another's land infringement, a "land dispute" takes place...traditionally and still widely practiced, in the form of tribal warfare, complete with spears, axes, and knives (and now some guns). How does a surveyor enter a plot to identify and map the boundaries when faced with a violent axe-yielding mob? Many land managers and surveyors simply stay away, leaving boundary disputes to be settled by tribal, instead of contemporary, law.

House Bill 218

continued from page 4

to recommend an implementation plan for such a system. After being presented to two House Committees, the bill was included in House Bill 24, which was passed at the close of the legislative session. HB 24 is expected to be signed by the Governor within 20 days. The requested funds of \$750,000 for the first year was approved as follows: \$500,000 appropriated by the legislature contingent upon matching funds of \$250,000 from other sources.

The Map Legend



Editor: **Heather Rex**
 Copying: **Lee Aggers**
 Assembly: **Amy Budge**,
 Mailing: **Dave Lowe**
 Desktop Publishing:
Mike Dwyer

The articles published in THE MAP LEGEND are accepted from members of the NMGIC and the public in general. The articles are screened for general interest and edited for grammar only. The content is solely the expression of the authors opinion and does not represent any position or endorsement by NMGIC except where specifically noted. The mention of trade names in this publication does not constitute an endorsement by NMGIC. All correspondence should be directed to:

Heather Rex
 Editor, THE MAP LEGEND
 MAGIC/ Centennial Library
 University of New Mexico
 Albuquerque, NM 87131

Fall 1988 NMGIC Meeting a Big Success

[submitted by Amy Budge]

The Fall 1988 meeting of the New Mexico Geographic Information Council (NMGIC) was held December 9th in Albuquerque at the Convention Center. Steering Committee Chairman, **Mike Inglis**, welcomed the 70 people in attendance and introduced new members of the Steering Committee, as well as a new subcommittee. The new Steering Committee members are **Mike Dwyer** (BLM, Santa Fe), **Bill Chapel** (NM State Forestry), and **Bob Czerniak** (NM State University). The new subcommittee, Local Government Land Records, is an outgrowth of the Geographic Information Systems Committee and is chaired by **Gretchen Coles**. Mike also introduced the morning's speakers: **John Moeller** and **George Oviatt** of the Bureau of Land Management; **Lee Aggers** of the USGS; **Lester Henriksen** of UNM's New Mexico Engineering Research Institute; and **Tom Henderson** of the New Mexico State Highway and Transportation Department.

Committee reports were presented by the chairper-

son of each committee. As chair of the Steering Committee, **Mike Inglis** reported on the activities of the committee since the spring meeting. Incorporation of NMGIC as a non-profit organization was in progress and expected to be complete by the Spring 1989 meeting. Copies of the Articles of Incorporation were made available to those in attendance for their review and comments.

Heather Rex, chairperson of the Public Awareness Committee pointed out that a new NMGIC brochure was available with current names and phone numbers of key contacts for NMGIC. The first edition of NMGIC's newsletter, *The Map Legend*, was introduced and a request for contributions to the next edition was made. **Heather** also reminded attendees that there are still copies of the *Directory of Sources for New Mexico Mapping and Remote Sensing Data* available from the Bureau of Mines and Mineral Resources in Socorro or from the Technology Application Center, UNM in Albuquerque. These sell for \$3.50 each.

Dave Love, chairperson of the State Mapping Advisory Committee reported on the USGS map presentation to **Governor Garrey Carruthers** which commemorated the completion of the quad mapping series in New Mexico by the USGS. He also encouraged participation in a meeting with **Lee Aggers** of the USGS Mapping Division in Denver to determine areas of priority in New Mexico for map updates and other mapping needs. That meeting took place in the afternoon during the usual committee meeting session.

The Global Positioning Systems Committee chairperson, **Tom Henderson** gave a very informative report on the activities of that committee. He noted that a GPS station had been established at the Albuquerque International Airport and that Texas tied the Lubbock, Austin, Amarillo and El Paso stations to the airport station, giving New Mexico four solid ties with Texas. The position for Geodetic Advisor for New Mexico was advertised and a candidate selected, but the National Geodetic Survey was unable to provide the salary requested by the candidate and the position was not filled. Another attempt will be made next year to fill the

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Fall Meeting Summary

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slot. The GPS Committee is collecting a series of success stories concerning GPS and will compile a listing to be available at the Spring 1989 meeting.

The Geographic Names Committee, chaired by **Bob Julyan**, has been busy addressing name issues in New Mexico. **Bob** was able to attend the Western States Geographic Names Conference in Seattle, WA in which he had an opportunity to attend the monthly meeting of the U.S. Board of Geographic Names. At that particular session the BGN happened to be addressing a name issue in New Mexico. Their vote reflected the recommendations set forth by **Bob** and the NMGIC Geographic Names Committee. **Bob** also reported that USGS maps will be retaining grant names on their maps, an issue that had many people concerned. The committee is also working with the State Historic Preservation Office to name a New Mexico feature in honor of **Georgia O'Keefe**.

Mike Zeiler's Geographic Information Systems Committee has been an active group as well. They

hold four formal meetings during the year, one after each semi-annual NMGIC meeting, and one each during the summer and the winter. This group is rather large with a wide range of GIS interests, which has led to the formation of a subcommittee. **Mike** introduced the new group, the Local Government Land Records Subcommittee, and its chairperson, **Gretchen Coles**. **Gretchen** explained the goals of the subcommittee and expressed a desire for support from interested parties.

Following the committee reports, the program continued with presentations from **John Moeller** (BLM-Washington, DC) and **George Oviatt** (BLM-Santa Fe). They discussed the progress of the BLM in regard to GIS to a very attentive audience. After a short break, **Lee Aggers** briefly discussed the progress and status of the mapping program in New Mexico and invited comments and request to be made at the afternoon session. The next speaker was **Lester Henriksen** of UNM's New Mexico Engineering Research Institute. He discussed the status of the Resource Geographic Information System (RGIS) project, which studied the feasibility of establishing a geographic information

clearinghouse for New Mexico. Surveys of state agencies and bureaus has been completed, an extensive literature review was performed, and visits to other state GISs were made. A report on the findings and recommendations is underway and expected to be completed in the spring of 1989. A bill is also expected to be introduced into the House by Representative **Don Silva**. The final speaker was **Tom Henderson** of the New Mexico State Highway and Transportation Department. He shared information stemming from his attendance at the GIS/LIS '88 meeting that was held in San Antonio, Texas in late November.



REMINDERS...

The Public Awareness Committee would like to remind everyone that the new NMGIC brochures are available. They describe the council, its goals and objectives, and provide information on the committees as well as who to contact. Copies will be available at the May 12, 1989 spring

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More Reminders

meeting. Also a reminder...there are still copies of the *Directory of Sources for New Mexico Mapping and Remote Sensing Data* available from the Technology Application Center, UNM, Albuquerque, NM 87131 or from the Publications Office, Bureau of Mines and Mineral Resources, Socorro, NM 87801. Cost is \$3.50 each.

NCIC Changes to ESIC

[submitted by Amy Budge]



The National Cartographic Information

Center (NCIC) is now known as the Earth Science Information Center (ESIC). The U.S. Geological Survey has opted to combine the services and responsibilities of the NCIC and Public Information Offices (PIO). The PIOs provided the public with all USGS published materials and information on interpretation of geologic data...this was a Bureau mission. NCIC, on the other hand, was responsible for the collection, cataloging and information dissemination of all nationally distributed carto-

graphic data. The new office is the Earth Science Information Center, which brings together USGS materials and centers, including hydrologic and geologic data, to provide the user community with complete information on earth science data. The "old" NCIC state affiliates and regional offices are now referred to as ESIC affiliates and ESIC regional offices. Their new responsibilities will evolve over time as they continue to respond to cartographic requests. New Mexico's ESIC affiliate will remain at the Technology Application Center at UNM.

Rural Addressors form Affiliate of the New Mexico Association of Counties

[submitted by Sue Adams]



The Rural Addressors in New Mexico recently became an Affiliate of the New Mexico Association of Counties. The Affiliate was organized on January 24 and 25, 1989, during the New Mexico Association of Counties Midwinter Conference in Santa Fe.

Rural addressing programs throughout New Mexico are assigning addresses to rural residents, and mapping the locations. Previously, rural residents relied on directions to guide emergency services and visitors to their homes.

Richard Friedman of McKinley County Elected President

Many times directions were confusing, wasting valuable time...time that could mean "the difference between life and death". The new addresses will benefit the resident as well as service groups such as emergency and utility services, providing an accurate and efficient method in locating a residence.

Some counties are producing maps using traditional cartographic methods; others are using computer based mapping systems. Otero and Dona Ana Counties plan to use ARC/INFO; McKinley and San Juan Counties have ARC/INFO on their "wish lists".

Richard Friedman of the McKinley County Rural Addressing System, an active member of NMGIC, was elected President of the newly-formed Rural Addressing Coordinator's

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Rural Addressors Organize

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Affiliate. Other elected officers are Bill Scott of Otero County, Vice-President; Donica Sharpe of San Juan County, Secretary-Treasurer; and Gerald Wright of Chaves County, Executive Committee member. Dale Cisneros of Taos County was appointed to the Executive Committee.

The responsibilities of the Rural Addressing Coordinators Affiliate include advising the New Mexico Association of Counties on matters that have an impact on rural addressing; assisting county governments with the establishment or improvement of rural addressing programs; sharing knowledge, information, and experience among rural addressors; and encouragement of professional excellence.

One of the activities of the Rural Addressing Coordinators Affiliate during the recent conference was to meet with the Assessors and Data Processors Affiliate to attend a presentation on Geographic Information Systems. The presentation was given by NMGIC GIS Committee members Gretchen Coles, Dennis Moulard, Kathy Nims, and Neal Weinberg.

The Affiliate organizational meeting was attended by 28 people representing 12 counties, two companies, the media, and the University of New Mexico. Counties represented were Chaves, Curry, Dona Ana, Hidalgo, Lea, Luna, McKinley, Otero, San Juan, Taos, and Valencia. NMGIC members attending the Affiliate meeting were Susie Turner of U.S. West Communications, Larry Bigler of Con-Tel, Bob Anderson of UNM, and Richard Friedman and Sue Adams of McKinley County. Twelve additional counties expressed an interest in the Affiliate, and their participation is expected at future Affiliate meetings.

It is hoped that more rural addressors will be involved in the activities of NMGIC, especially considering the interest in GIS use for rural addressing mapping and database management.

For more information on rural addressing, contact Sue Adams or Richard Friedman at McKinley County Rural Addressing System, Box 70, Gallup, NM 87305. The phone number is 863-9517.



**Thanks
to all those
submitting articles**

News from the New Mexico Association of Surveyors and Mappers

[submitted by Gretchen Coles]



New Mexico Association of Surveyors and Mappers 1989 President Joe Washburn announced most of his committee appointments at their state board meeting in Albuquerque on February 11th. He explained that he used the members' response to his goals questionnaire as a guide in organizing the committees and naming the chairpeople. The goals ranked highest by the membership all require some sort of legislation. For that reason, Washburn created a super Registration and Legislation Committee which shall be responsible for keeping the Association informed on legislation pertaining to the surveying and mapping profession. The committee shall also be responsible for working with representatives from the State Legislature in preparing new bills which the Association may wish to present. Subcommittees were organized to deal with each individual issue. They

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Mapping at New Mexico State University

[submitted by Bob Czerniak]

The New Mexico State University mapping labs, under the direction of Robert Czerniak, are working on a number of projects for New Mexico communities. Digital base maps are being prepared for the towns of Dora and Mountainair. The town of Deming is reviewing a draft map of its airport. In Bernalillo, the lab is preparing a digital base map, as well as assisting the town in providing addresses for all residences.

A digital map series at a scale of 1:4,800 is being developed for the town of Hatch. The map series, including transportation, land use, floodplain, water and sewer systems, zoning, and housing conditions will be used by the town to

create a comprehensive plan which is being done by a consortium of the Rio Grande Council of Governments (El Paso), NMSU, and two Las Cruces firms.

The Las Cruces Extraterritorial Zoning Authority (through Dona Ana County) has asked the Cartography Laboratory to develop a zoning atlas. The atlas will be prepared on 11" x 17" mylar pages so they may be photocopied or blueprinted. Each page will be presented at a scale of 1:12,000 and will include a base map screened to 50 percent and a zoning overlay at 100 percent black. The maps will be used by county planner, Kelly Grier, the ETZ planning commission and the Authority.

MOSS Users to Meet in Santa Fe

The High Mesa Inn in Santa Fe will be the site of the Sixth National MOSS User's Workshop. The Map Overlay and Statistical System or MOSS is a public domain GIS. The MOSS "family" of software includes the Map Analysis and Processing System (MAPS) for cell processing; the Automated Digitizing System (ADS) for data entry, the Cartographic Output System (COS) for plotter output and MOSS itself for vector processing.

The objectives of the workshop are to enhance communication for the use and development of the MOSS family of software; discuss changes made during the past year, continue coordination of applications, maintenance and development; and to present techniques for use, development and management of GIS and MOSS in particular.

NM Surveyors & Mappers

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include: Plat Recordation Subcommittee which shall develop a plan for legislation requiring all boundary surveys to be filed for public record; Plat Preservation Subcommittee which shall develop a plan for the preservation of land records; and a Deed Descrip-

tions Subcommittee which shall formulate a new statute on deed descriptions requiring the name and number of the registered surveyor who prepared it, or a statement that this is the same description as appears on a previous document, citing the book and page where filed.

Call for Papers

Papers are now being accepted for the conference. Sessions are planned in resource applications, software development, application technique development, systems

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Putting New Mexico on the Map

A Status Report of Mapping in the State

[from USGS report to State Mapping Advisory Committee -
submitted by Dave Love]

7.5 Minute Replacement Provisional Mapping

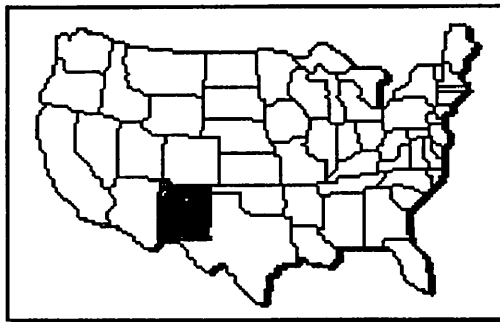
This mapping is now complete and on April 26, 1988 a ceremony to commemorate the availability of initial statewide topographic mapping of New Mexico was held in Santa Fe with participating officials from state agencies and the U.S. Geological Survey. Governor Garrey Carruthers received the U.S. Department of the Interior certificate commemorating the occasion from Lowell E. Starr, Chief of the USGS National Mapping Division.

7.5 Minute Limited Revision with Series Conversion

There are 80 quads (4,687 square miles) in limited revision projects to convert T-maps (maps compiled at 7.5 minute accuracy, but originally published in a 15 minute series). Quadrangles are in various stages of completion with final publication scheduled for 1990. All of these quadrangles are being worked in the provisional map series.

7.5 Minute Complete Revision

Two projects are authorized for 7.5 minute complete revision. The Tyrone project, 16 quadrangles, will replace substandard maps in the Silver City area and will be published as standard maps. Final publica-



tion of these maps is being postponed until all Provisional maps and Series Conversions are completed in the U.S. The Albuquerque project, 24 quadrangles, consists of 16 quadrangles for complete revision and 8 quadrangles for limited revision. This project is a result of the NM State Mapping Advisory Committee's recommendation for priority areas (needing revision in the state) under the USGS's A-16 annual requests for mapping needs from state/federal agencies. Field

work for this project is scheduled for winter 1989.

7.5 Minute Photorevision

The San Luis PR project (14 quadrangles) is scheduled for shipment to printing during the last quarter of fiscal year 1989.

7.5 Minute Orthophotoquads

There are 47 quadrangles authorized in the 1:24,000 scale orthophotoquad program in New Mexico. This work is currently

being done through a workshare with the Bureau of Land Management.

1:50,000 Scale Series

The Geological Survey has a joint program with the Defense Mapping Agency (DMA) to compile maps for selected areas at this scale. DMA selects the areas for mapping (there is no goal to complete nationwide coverage). Within New Mexico, NMD has completed 48 of these maps and has received authorization to start another 28 maps. NMD

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Mapping in NM

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sells printed copies of these maps.

1:100,000 Scale Series

Seventy-five 1:100,000 scale planimetric 1 degree x 30 minute quadrangles are available for New Mexico. Sixty-six of these are also available in topographic edition. The Geological Survey is developing a database of 1:100,000 scale digital cartographic data. Hydrographic and transportation data layers currently exist for the state of New Mexico. The collection of public land survey and boundary data layers for the United States will commence in FY 1988, but no New Mexico quadrangles have been requested for boundary collection. Hypsography collection will also commence in FY 1988.

1:250,000 Scale Series

Two enhanced Landsat image maps have been produced in New Mexico at a scale of 1:250,000 for the Shiprock and Aztec 1:250,000 scale maps.

7.5 Minute Digital Program

The National Digital Cartographic Data Base (NDCDB) of 1:24,000 scale

quadrangles now contains 800 digital elevation models (DEM) quadrangles of 0-7 and 8-15 meter accuracy. The Geological Survey has 5 projects for production of DEMs with the US Forest Service and the Bureau of Land Management, most of these projects are workshare. There are two projects for production of Digital Line Graphs (DLG). One project is a workshare with the Bureau of Land Management for PLSS/Boundaries on 8 quadrangles and the other is under contract for 14 quadrangles in the La Joya area. The last project will produce PLSS/Boundaries, Transportation, and Hydrography for each of the 14 quadrangles.

Side-Looking Airborne Radar Program

Since 1980 the Geological Survey has had a program to acquire side-looking airborne radar (SLAR) for the United States. The selection of acquisition sites is based on a review of recommendations received by the Geological Survey from State Geological Surveys, private sector interests, the academic community, and the Federal and local government scientists and managers. The Geological Survey currently receives requests each year for approximately

five times the number of areas for which funds are available for data acquisition. The special attributes of SLAR, especially selective relief enhancement, have resulted in significant contributions to geology, hydrology, geography, and cartography. SLAR is available for the Albuquerque, Santa Fe, and east half of the Tucumcari 1:250,000 scale maps. The Las Cruces 1:250,000 scale map is scheduled to be flown in the summer/fall 1989.

1:25,000 Scale Color Orthophoto Maps

Production of the border image maps between the United States and Mexico began in 1982. At the request of the United States Customs Service (USCS) and in agreement with the International Boundary and Waters Commission (IBWC), the processed images are reproduced in a simulated natural green to make vegetation and other ground features easier to recognize. The chromatic transposition adapted for this purpose provides a simulated natural color version of the original CIR aerial photograph. Each published map provides an approximately 3 miles of coverage on both sides of the border. When the project is completed, 203 of

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Mapping in NM

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the planned color image maps will cover the U.S./ Mexico border beginning west to east from San Diego, California to the Gulf Coast of Texas. Eighty-eight color image maps have been published to date. All of the New Mexico maps have been published. The schedule for completion of the entire project is September 1988. Twenty-two color image maps cover the border between the state of New Mexico and the country of Mexico.

National High Altitude Photography (NHAP) Program

The NHAP program is essentially complete for most of the 48 states. The NHAP program was initiated in 1980 and consisted of two scales (1:80,000 black and white and 1:58,000 color infrared) of aerial photography. A NHAP II was started in 1985 and seven states were flown before the program was cancelled. New Mexico is one of the seven states with NHAP II photography. New Mexico was flown in 1986/87 with some reflights in 1988.

Recognizing the need for higher resolution and larger

scale than provided by NHAP, a new program called the National Aerial Photography Program (NAPP) was initiated in 1987. NAPP is now flying in its second year. Scheduling of state areas to be photographed by NAPP is coordinated by a Federal agency steering committee. Administration and execution of the program is the responsibility of the Geological Survey, National Mapping Division.

NAPP photography is being acquired at an altitude of 20,000 feet with a single 6 inch focal length camera exposing color infrared film processed to a positive at a photo scale of 1:40,000. The resulting photographs are to be centered on a quarter portion of a USGS 7.5 minute quadrangle. Four photos cover one quad, but since 60 percent forward and more than 15 percent side-lap are needed for photogrammetric, stereo plotting operations, approximately 10 photos per quad are required.

The NAPP CIR photography is being used for mapping and a wide variety of earth science and resource management applications. States are being encouraged to participate through cooperative funding under the following guidelines:

Cooperation with a minimum of 50% funding by a state (to be matched by Federal funds) will result in guaranteeing that the state will be flown according to the years in the 5 year plan; As a rule, photography will be acquired over the entire state, depending on size, or significant blocks within larger states such as New Mexico (NM is divided into two parts: North and South); and States contributing to the NAPP are authorized the contributor discount for purchase of NAPP products (discount prices are approximately 50% off). The 5 year plan calls for flying the northern part of New Mexico in 1991 and the southern part in 1992. New Mexico's estimated share of a 50/50 co-op for the northern part is \$60,780. Approximately the same cost would apply to the southern part.

Rolling MOSS Gathering Users

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development, management perspectives and training.

The Workshop will be held October 16-19, 1989.

Abstracts not to exceed 500 words are being accepted through June 9, 1989. For more information, contact Angel Parker, BLM, in Santa Fe at (505) 988- 6332 or FTS 476-6332.

Calendar of Upcoming Events

APRIL 29-MAY 3, 1989: APA's National Planning Conference; Atlanta, GA; American Planning Association. Contact: American Planning Association, 1313 East 60th Street, Chicago, IL 60637, (312) 955-9100.

MAY 18-20, 1989: Surveying Engineering '89; American Society of Civil Engineers, Denver, CO; "Managing New Technologies". Contact: Jerome C. Ives, 2033 S. Xenon Ct, Lakewood, CO 80228, (303) 980-8624.

JUNE 6-8, 1989: Geographic Information System (GIS) Conference; Towson State University, Towson, MD. Contact: John M. Morgan III, Towson State University, College of Liberal Arts, Geography and Environmental Planning, Towson, MD 21204-7097, (301) 321-2964.

JULY 9-19, 1989: 28th International Geological Congress, Washington, DC. Contact: Dr. Bruce Hanshaw, Secretary General, 28th International Geological Congress, PO Box 1001, Herndon, VA 22070-1001, (703) 648-6053.

AUGUST 6-10, 1989: URISA '89 - Urban and Regional Information Systems Association's 27th Annual Conference; The Boston Marriott Copley Place, Boston, MA; "Charting the 90s: New Visions for Urban Technology". Contact: URISA, 319 C Street SE, Washington, DC 20003, (202) 543-7141.

AUGUST 6-10, 1989: FIG, PC-Meeting, Geodetic and Cartographic Society, Budapest, Hungary. Contact: PC '89 Organizing Committee, Dr. J. Joo, Geodetic and Cartographic Society, PO Box 433, H-1371 Budapest, Hungary, 36- 158-641.


AUGUST 17-24, 1989: XIV International Cartographic Conference; Budapest Hungary. Contact: A. Jon Kimberling, US Program Committee (ICA), Department of Geography, Oregon State University, Corvallis, OR 97331, (503) 754-3141.

SEPTEMBER 17-22, 1989: ACSM/ASPRS Fall Convention; Cleveland, OH. Contact: John E. Dailey, Suite 100, The Honeywell Bldg, 925 Keynote Circle, Cleveland, OH 44131, (206) 741-3215.

OCTOBER 2-6, 1989: Seventh Thematic Conference on Remote Sensing for Exploration Geology; Calgary, Alberta, Canada. Contact: Robert Rogers or Nancy Wallman, ERIM, PO Box 8618, Ann Arbor, MI 48107-8618, (313) 99401200.

OCTOBER 16-19 1989: Sixth National MOSS User's Workshop, Santa Fe, New Mexico Contact: Angel Parker, BLM-NMSO (942-C), P.O. Box 1449, Santa Fe, New Mexico, 87504-1449, (505) 988-6332.

OCTOBER 31-NOVEMBER 2, 1989: NCGA Mapping and Geographic Information Systems '89, Westin Bonaventure Hotel, Los Angeles, CA; National Computer Graphics Association. Contact: NCGA, 2722 Merrilee Drive, Suite 200,

January 4		Appts. 	
8:00	_____	1:00	_____
9:00	_____	2:00	_____
10:00	_____	3:00	_____
11:00	_____	4:00	_____
12:00	_____	5:00	_____

WHO TO CONTACT

MAP LEGEND Spring 1989

NMGIC Steering Committee:

Mike Inglis, Chairperson
Technology Application Center
University of New Mexico
Albuquerque, NM 87131
(505) 277-3622

Amy Budge
Technology Application Center
University of New Mexico
Albuquerque, NM 87131
(505) 277-3622

Mike Dwyer
Bureau of Land Management
PO Box 1449
Santa Fe, NM 87504-1449
(505) 988-6190

Bob Czerniak
Department of Earth Sciences
Box 3AB
New Mexico State University
Las Cruces, NM 88003-0028
(505) 646-2708

Scott Bradshaw
BIA-Albuquerque Area Office
Branch of Forestry
PO Box 26567
Albuquerque, NM 87125-6567
(505) 766-3334

Tom Henderson
NM State Department of
Highways and Transportation
1120 Cerrillos Road
PO Box 1149, Room B-31C
Santa Fe, NM 87504-1149
(505) 827-5185

Dave Love
New Mexico Bureau of Mines
and Mineral Resources
Campus Station
Socorro, NM 878091
(505) 835-5146

Blain Maw
U.S. Forest Service
517 Gold Ave SW
Albuquerque, NM 87102

Bill Chapel
Energy, Minerals & Natural Resources
Department Forestry Division
PO Box 2167 - Villagra Bldg
Santa Fe, NM 87504
(505) 827-5832

Dan Sutcliffe
NM Department of Game and Fish
Villagra Bldg, State Capitol
Santa Fe, NM 87503
(505) 827-7885

Public Awareness Committee:

Heather Rex, Chairperson
MAGIC, Centennial Library
University of New Mexico
Albuquerque, NM 87131
(505) 277-5513

State Mapping Advisory Committee:

Dave Love, Chairperson
NM Bureau of Mines and Mineral Resources
Campus Station
Socorro, NM 87801
(505) 835-5146

Global Positioning Systems Committee:

Tom Henderson, Chairperson
see Steering Committee Address

Geographic Names Committee:

Bob Julyan, Chairperson
RR5
31 Avenida Almendro
Albuquerque, NM 87123
(505) 298-8420

Geographic Information Systems Committee:

Mike Zeiler, Chairperson
Envision Utilities Software Corporation
2521 Camino Entrada
Santa Fe, NM 87505
(505) 471-21709

Local Government Land Records Subcommittee

Gretchen Coles, Chairperson
1182 Morning Drive
Santa Fe, NM 87501
(505) 471-544