The Map Legend

New Mexico Geographic Information Council, Inc.

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

Volume 4, Number 4 *Summer 1993*

GAP Presents Integrated Approach

Land managers, biologists, and environmentalists have been urging the use of a regional ecosystem based approach to land management decisions for at least the past two decades. The Gap Analysis Project is the first federal project to undertake such an approach, which is now underway nationally. New Mexico's GAP is coordinated by the Cooperative Fish and Wildlife Research Unit at NMSU in Las Cruces with assistance from virtually all land management agencies in the state.

NMGAP is using satellite (Landsat TM) imagery analysis to produce the most current, detailed vegetation map ever made for New Mexico. This map is used in conjunction with several ancillary data layers and derived data layers to predict the distribution of about 700 vertebrate and selected invertebrate species in the state. Modeling will be conducted in GIS with ARC/INFO using algorithms derived from databases and literature on the individual species.

The sum of these data layers will be a predicted distribution of plant communities and animal species in New Mexico which can then be analyzed for species richness in relation to land management for biodiversity. A comparison of areas of high species richness with management status will indicate focus areas for more detailed study.

When complete, New Mexico GAP data will be merged with that of surrounding states for a true regional approach to biodiversity management.

If you would like more information, contact Patrick J. Crist, Assistant Coordinator at 505 646-6303.

Patrick J. Crist, New Mexico Cooperative Fish and Wildlife Research Unit

Election Results

President - Rich Friedman
Vice President - Ted Talmon
Secretary - Tom Henderson
Treasurer - Amy Budge

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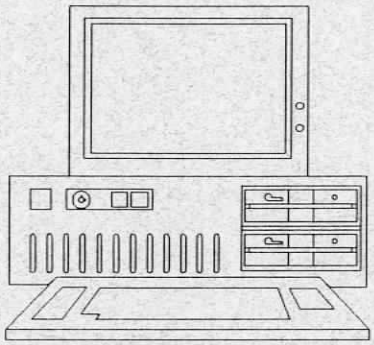
Heather Rex **Jessie Rossbach**
Gar Clarke **Dave Love**
John Peterson

The Map Legend



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From the President
Tom Henderson
July 1993

This is the last time that I will be privileged to write this column as NMGIC President. Tempting as it is to reminisce and look back, I believe it is more important to look forward. We have matured as an organization in the past three years, but there is more we can do. Stability should be a platform from which to make further progress, not a final end. An organization which does not infuse new energy and seek new and better directions has outlived its value and will, in time, collapse or simply fade away. NMGIC can be more aggressive in supporting workshops and other training of use to our members. It can take steps to more seriously exercise its Executive Order mandate to advise the Governor and the Legislature. It can join with other professional organizations to support and encourage younger people to enter geographically-related professions through scholarships. NMGIC can continue to participate in the development of standards. The momentum this organization has achieved should now be used, carefully and prudently, to expand the value of NMGIC to its members and to the state.

We should continue to provide good programs for the Spring and Fall Meetings and offer both vendors and users the opportunity to show their products. We should continue to publish the catalog of geographic resources. We should continue to bring people together with common interest in geographic information for sharing of both ideas and information. These have been our strengths and are what gives us a comfortable feeling about NMGIC. However, let's always be open for opportunities to extend our reach without exceeding our grasp.

I will adhere to the tradition of thanking those who have supported me as President over the past three years. The Board Members whom you have elected deserve a great deal of credit for their actions on your behalf, and for their tolerance of both my missteps and my ideas. Thanks to you all both past and present. Thanks also to the members who have said a kind word to me about the way NMGIC was being run, or made critical suggestions as to how it may be improved. I wish more of you would do that. I hope you all will support our new President to the extent that you have done so for me, and hopefully even more. I am grateful for the time you have given me, but a change is needed to infuse that new energy I referred to.

Adios, amigos.

Fall Meeting Presentation: Cosmographic Expressions of the Ancient Chaco Culture of New Mexico: Buildings, Roads, and Astronomy

Anna Sofaer, president of the Solstice Project, will speak at the NMGIC Fall Meeting. She will discuss recent archeological investigations by the Solstice Project into the remains of the ancient Chacoan civilization of northwestern New Mexico. This work is yielding a wealth of evidence that these ancient people extensively commemorated the cycles of the sun and the moon in their construction work. Her talk is entitled, "Cosmographic Expressions of the Ancient Chaco Culture of New Mexico: Buildings, Roads, and Astronomy."

The Solstice Project, a non-profit group based in Washington, DC, was organized in 1978 to study, document, and preserve the remarkable celestial calendar now known as the Sun Dagger, located on Fajada Butte in Chaco Canyon, New Mexico. While recording rock art in Chaco Canyon, Anna Sofaer discovered the Sun Dagger in 1977. The site marks, with precise light and shadow patterns, the summer and winter solstices, the spring and fall equinoxes, and the nineteen year cycle of the moon.

The Solstice Project's research efforts on the Sun Dagger site have been presented in several scientific publications. In addition, the Project produced an hour long documentary film, narrated by Robert Redford, about the site. It was broadcast nationwide on PBS and received numerous awards, including the American Film Festival Blue Ribbon Award.

In recent years, the Solstice Project has conducted extensive research on the major Chaco culture constructions throughout the San Juan Basin. The Project demonstrated that the ancient network of roads throughout the region were likely symbolic expressions of the culture's cosmology.

Between 1984 and 1989, the Project performed an accurate survey of the culture's major pueblos and ceremonial structures. This study revealed that the large ancient buildings of the area were organized in a complex regional pattern. Most of the buildings are oriented in ways that are significant relative to astronomic occurrences such as the rising or setting sun on the equinoxes or solstices or the rising or setting of the moon at its extrema during its nineteen year cycle. In addition to the orientation of individual buildings,

Continued on page 7

A SPECIAL THANKS . . . TO THE 1993 CORPORATE MEMBERS

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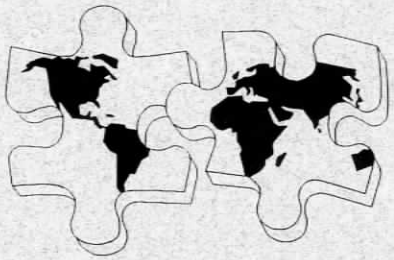
Job Opportunities

The Map Legend will feature a "Job Board" in each issue in which job opportunities can be announced. Please submit information to Heather Rex.

Can You Name That Place? A Quiz for New Mexicans



Teenagers in Truth or Consequences go to Hot Springs High School. Are they being bussed out of town? No, it's just that when the town became TorC in 1952, the high school retained the settlement's original name. If you think that's confusing, imagine what it would be like if throughout New Mexico there was no consensus as to what name a feature should have.

The main purpose of the NMGIC Geographic Names Committee and the U.S. Board on Geographic Names is standardization of geographic names, using criteria such as local usage and historical significance to determine which name among possibly many names a feature should bear. This is not to enforce standardization for its own sake—and no one suggests variant names should be killed and forgotten—but rather to avoid the confusion that inevitably results when a feature is labeled with different names on maps and in publications.

And New Mexico with its long history and many cultures—nine languages still are spoken in the state—has an especially rich array of name variants. Here's a sample list of variant names for New Mexico places or features. All appear on the state highway map—indeed, six are county seats. How many can you identify by their current name? (Answers can be found on page 7)

Submitted by Bob Julyan

1. Badgerville _____
2. Brownhorn _____
3. Birchville _____
4. Cebolleta Mountain _____
5. Eddy _____
6. Florence _____
7. Fort Fauntleroy _____
8. La Junta _____
9. Las Placitas _____
10. Mount Solitario _____
11. New Chicago _____
12. Old Baldy _____
13. Perico _____
14. Porter _____
15. Real de San Francisco _____
16. Rio del Norte _____
17. Rileys Switch _____
18. San Vicente _____
19. Santa Clara _____
20. Sierra Madre _____
21. Signal Peak _____
22. Six-shooter siding _____
23. Therma _____
24. Upper Frisco Plaza _____
25. Willow Springs _____

NMGIC Board Election

Eight candidates were nominated for the four open positions on the NMGIC Board. Ballots were mailed by April 5 and votes were due by April 27. The election committee tallied the votes during the week prior to the spring meeting. Results were announced at the spring meeting. The new Board members are Gar Clarke and Heather Rex; Rich Friedman was re-elected; and a tie occurred between Denise Bleakly and Jessie Rossbach for the fourth position. A runoff election was held for the open position and Jessie Rossbach was selected. Board members that chose not to run were Mike Inglis and Al Peters — Stan Grochowski took a job out-of-state. The election committee members are Pat Oliver and Margaret Baca. Thank you Pat and Margaret for a great job!

New NMGIC Officers

The NMGIC Board met on June 25 and elected new officers for the 1993 term. Rich Friedman was elected President and Ted Talmon was elected Vice President. The president appointed Tom Henderson as Secretary and Amy Budge as Treasurer. The remaining Board members have been assigned the following duties: Heather Rex—Grants and Education Coordinator; Jessie Rossbach—General Meetings Coordinator; Gar Clarke—Elections Coordinator; Dave Love—Speaker Coordinator; and John Peterson—Workshop Coordinator.

Public Awareness Committee Changes Its Name

Since the beginning of NMGIC, the committee responsible for public relations and outreach has been known as the Public Awareness Committee (PAC). Its primary functions have been to compile, edit, and distribute *The Map Legend* and the *Sourcebook for New Mexico Geographic Information*, send out announcements for meetings and workshops, and other general information functions. The Committee felt it could offer more to NMGIC and its members by expanding its role to include geographic education and to assist in meeting planning. To add an education component to the Committee's mission, they will more actively seek the involvement of students, their posters and papers, in NMGIC meetings. The Committee will also assist the Vice President with the planning and coordination of meetings and workshops. To reflect these new responsibilities, the Committee has proposed to change their name to the **Public Awareness and Education Committee.**

Availability of Digital Geographic Data Catalog

The **Resource Geographic Information System Program** has published a catalog containing file descriptions of digital geographic data in New Mexico. File descriptions for Resource Data, Decennial Census Data, and Socioeconomic Data are bound in a three-ring binder for easy additions and updates. The ***Catalog of Digital Geographic Data*** is available through the RGIS Clearinghouse and can be obtained by contacting Amy Budge, RGIS Clearinghouse, Technology Application Center, University of New Mexico, Albuquerque, NM 87131-6031. Telephone: 505 277-3622. Fax: 505 277-3614. The catalog sells for $40.

DEMs and DLGs in New Mexico

The New Mexico Office of the Earth Science Information Center (ESIC) has up-to-date files on available DEMs and DLGs in New Mexico. The information is quad-based and can be easily and quickly searched in dBase IV. Users need to provide the correct USGS quad name when requesting the availability of DEMs and DLGs. Contact Amy Budge, Manager, Geographic Data Services at TAC for information. Telephone: 505 277-3622. Fax: 505 277-3614.

NMGIC Has Hired an Accountant

The NMGIC Board has opted to hire an accountant to assist the Treasurer in keeping NMGIC's books. Being an incorporated non-profit organization and having a tax exempt status requires that certain forms and filing fees be kept up-to-date. Since no one on the Board is confident that we know all of these requirements and deadlines, the Board has decided to retain the services of Yvonne Beckman of Computers and Accounting in Albuquerque. By agreement of the Board she will be retained on a six month trial basis.

Fall meeting presentation (continued from page 3)

the positions of many buildings relative to other buildings also maintain the same astronomical alignments. Anna Sofaer will discuss the methodology of the Solstice Project's survey work as well as the results.

The work of the Solstice Project, which is ongoing, involves a variety of disciplines and participants. People contributing to the efforts have included archaeologists, physicists, mathematicians, film makers, remote sensing experts, art historians, computer scientists, surveyors, photographers, and a pueblo ethnographer/poet. Various concepts of geography have played crucial roles in the success of this work. This presentation should prove to be especially interesting to people working in geography-related disciplines.

Bill Stone, GPS Committee Chairman

Introduction to ARC/INFO Training Session

The General Services Department Information System Division (ISD) has scheduled an Introduction to ARC/INFO software training session for July 19-23, 1993. The training will be held at the University of New Mexico Earth Data Analysis Center (EDAC), 2500 Yale Boulevard SE, Suite 100, Albuquerque. The training session fee for the five (5) days of training is $995 per individual. Seating is limited to twelve (12) individuals. Purchase orders and checks should be made payable to the General Services Department Information Systems Division GIS Program. Placement will be on a first come, first served basis. If response to the training exceeds our seating capacity, ISD will schedule additional training sessions to accommodate those individuals who did not get assigned to this training session.

If you are interested in attending this training session, please contact Ted Talmon, GSD/ISD, P. O. Drawer 26110, Santa Fe, NM 87502-0110 or telephone 827-2047, fax 827-2325.

CALENDAR

July 21-23, 1993. GIS Workshop on Environmental Mapping, Texas Christian University (TCU), Fort Worth, Texas. Sponsored by EOSAT and TCU. Contact: Ken Morgan, Department of Geology, TCU, Box 30798, Fort Worth, TX 76129. 817 921-7270.

July 25-27, 1993. International Conference of the Society for Environmental Geochemistry and Health (SEGH), New Orleans, Louisiana. Contact: SEGH Conference 1993, P.O. Box 19737, New Orleans, LA 70179-0737.

July 25-29, 1993. URISA '93, Conference and Exhibit, Inforum, Atlanta, Georgia. Contact: Urban and Regional Information Systems Association (URISA), 900 Second Street NE, Suite 304, 289-1685.

August 24-16, 1993. Twelfth William T. Pecora Remote Sensing Symposium, Downtown Holiday Inn, Sioux Falls, South Dakota. Topic: Land information from space-based systems. Contact: Robert Haas, Symposium Chairman, EROS Data Center, Sioux Falls, SD 57198. 605 594-6007.

September 21-24,1993. GIS in the Rockies, conference, Colorado School of Mines, Golden, Colorado. Contact: Steve Ingraham, GIS in the Rockies Planning Committee, P. O. Box 13887, Denver, CO 80201. 303 825-1618.

October 4-7, 1993. Fundamentals of ARC/INFO, course, Center for Advanced Land Management Information Technologies (CALMIT), University of Nebraska-Lincoln. Contact: CALMIT, 113 Nebraska Hall, University of Nebraska, Lincoln, NE 68588-0517. 402 472-8197 or 472-2565.

November 2-4, 1993. GIS/LIS '93, conference and exposition, Minneapolis Convention Center, Minneapolis, Minnesota. Contact: GIS/LIS '93, 5410 Grosvenor Lane, Suite 100, Bethesda, MD 20814-2122. 301 493-0200.

Answers to New Mexico Quiz: (1) Hope, (2) Melrose, (3) Pinos Altos, (4) Mount Taylor, (5) Carlsbad, (6) Loving, (7) Fort Wingate, (8) Watrous, (9) Lincoln, (10) Hermit Peak, (11) Deming, (12) Sierra Blanca, (13) Clayton, (14) Bloomfield, (15) Golden, (16) Rio Grande, (17) Clovis, (18) Silver City, (19) Wagon Mound, (20) Sangre de Cristo Mountains, (21) Cookes Peak, (22) Tucumcari, (23) Eagle Nest, (24) Reserve, (25) Raton.