Winter 1999 New Mexico Geographic Information Council, Inc. Volume 10 Issue 1

THE MAP LEGEND

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http://nmgic.unm.edu

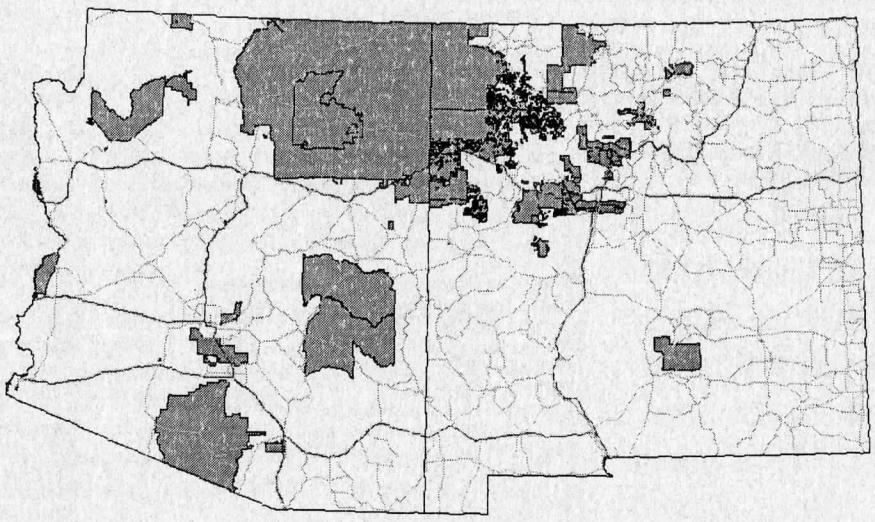
Native Peoples/Native Homelands Initiative: Applying Remote Sensing Technology

NASA's Earth Science Enterprise (ESE) Office is funding the Earth Data Analysis Center at the University of New Mexico and its collaborators to examine applications of remote sensing technology and NASA data sets to resource management practices in Southwestern Native American cultures. This project is part of the National Assessment for climate variability and global change research. Dr. Rick Watson (San Juan College) is leading an assessment team that is intended to identify, develop, and assess the application of NASA geospatial technologies to issues of importance to the Native American community.

Three areas of concern have been selected for investigation during the initial year of the project: water resources and management; health; and land management. For over 10,000 years, native peoples have adapted to the arid and varied environments of the Southwest. Developing technologies and other coping strategies uniquely suited to survival in the often harsh and unforgiving environments of what is now the Southwestern United States, the indigenous peoples developed some of the most complex and sophisticated societies of the western hemisphere. It is the intent of this research to investigate how modern NASA technologies can be integrated into, and support, these strategies to better meet the needs of modern Native Peoples of the Southwest.

The importance of water resources for survival in the Southwestern United States has been recognized by native peoples for centuries. Water harvesting and management technologies played an important role in developing the Puebloan civilizations of the Southwest. Prehistoric native technologies designed to capture runoff for distribution to agricultural fields are found throughout the Southwest from the Papago of southern Arizona to the Anasazi of the San Juan Basin to the Pueblos of the Rio Grande. These technologies took many forms as well: from the canalization and transport of spring flows (Hopi), to the impoundment of surface runoff (San Juan Anasazi, Papago), to the diversion of surface runoff into irrigated fields (Chaco Anasazi), to the use of pebble-mulch fields to conserve rain and snow fall *in situ* for use during the growing season. Each of these technologies leaves a distinctive signature on the landscape and is particularly suited to specific environments. The use of NASA remote sensing technologies to identify these signatures and environments can play an important role in locating areas where these traditional technologies were used in the past, as well as identifying

(Continued on page 3)



Distribution of Tribal Lands in the Southwest. *Map prepared by Laura Gleasner, EDAC.*

Inside This Issue

THE MAP LEGEND

Editor: Amy Budge

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From the President

The year 2000 will have a dramatic affect on all our lives. It goes far beyond the obvious problem of dealing with the Y2K issues surrounding computers and time sensitive electronic devices. There is another event that has a great impact on all our lives, the Census 2000. Reduction in the costs of hardware, software, and training for GIS have caused a dramatic increase in the use of data generated by the 1990 Census. All levels of government and business are relying on the spatial and demographic data generated by the Census to make decisions that affect all of our lives.

Our spring meeting will focus on the upcoming Census, and the general use of Census data. For those of us who use GIS on a regular basis, the first thing that comes to mind when the Census is mentioned are the TIGER/Line files. We are all familiar with the fact that the spatial and attribute accuracy of the TIGER/Line files leaves a lot to be desired. Despite the accuracy issues, the TIGER/Line files provide an excellent framework to perform complex spatial analysis of the demographic data compiled by the Census Bureau. For the first time in history, the 1990 census provided spatial data for the entire country in a digital format that could be easily integrated into a variety of GIS solutions. Now spatial analysis of the demographic data can be performed on the desktop, laptop, or even on a palmtop computer platform.

The availability of the Census data has created a new problem for the GIS practitioner. Analysis of the complex demographic data used to be done primarily by personnel who were well versed in the structure and format of the data. Now the GIS practitioner is being asked to perform the same types of analysis in a spatial context, often with little or no knowledge of the data, or how they were compiled.

The NMGIC Spring meeting was designed to help give the membership a brief overview of the uses of Census data. This overview will include appropriate, and inappropriate uses of the data, some of the "value enhanced" Census data available, and what to expect from the Census 2000. The information from this meeting will be valuable to anyone who uses, or may use, Census data in the future. Both managers and technicians will find some very useful and valuable information from our presentations. I hope to see everyone on April 16.

Rich Friedman, President

(Continued from page 1)

new areas potentially suited for their use. The potential for reestablishing these technologies and their contribution to native communities is substantial. The distribution and location of pebble-mulch and other traditional water management systems may play an important role not only in rehabilitating successful technological systems, but also as indisputable evidence of previous indigenous use of both land and water resources.

A second area identified as significant to Southwestern native peoples is the issue of health. Loehman (1998) has shown that there is substantial potential in applying remote sensing technologies to monitoring and predicting environmental conditions related to hantavirus infection. The intent of this task is to expand this approach through the application of multi-temporal, high-resolution imagery and ancillary geospatial data to monitoring and predicting conditions likely to contribute to increased instances of hantavirus outbreaks.

A third area of importance to native peoples is the management of land resources within tribal territories. Traditional land use classifications have focused on land use categories of importance to European settlers. Derived from the Western scientific and philosophical traditions, these categories may be of little use when applied to indigenous traditional uses. It is the intent of this task to develop methods to incorporate traditional native landscape categories into remote sensing procedures. The purpose of this integration is to assist in developing applications and useful products for native land managers for assessing, allocating, and managing native lands.

In addition to assessing remote sensing applications to native culture management practices, the project also has an education and outreach component. For more information about this project, contact Dr. Stan Morain (EDAC) at smorain@spock.unm.edu or Dr. Rick Watson (San Juan College) at watson@sjc.cc.nm.us.

Rick Watson

The Map Legend 1999/2000 Publication Schedule and Deadlines

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

Editors of *The Map Legend* are looking for articles describing ongoing, recently completed, or recently awarded projects. "Newsy" items on your organziations, accomplishments of your personnel, event/meeting announcements.....are all welcome. Your contributions should be sent to Amy Budge either by fax (505-277-3614) or by email to *abudge@spock.unm.edu* by the deadlines.

Do you have information about a project, new techniques, GIS and related issues, announcements, news, etc. that you would like published in the Map Legend?

Federal Base Network Survey Update

As this issue of *The Map Legend* goes to press, final preparations are being made for a high-accuracy geodetic control survey throughout the state of New Mexico. As mentioned in the Fall 1998 issue of this publication, the National Geodetic Survey is in the process of re-surveying, on a state by state basis, the Federal Base Network (FBN) component of the National Spatial Reference System.

NGS has extended an invitation to other organizations, with survey-grade GPS capability, that are interested in participating in this project. Participating organizations will collect GPS data at control stations in which they have particular interest. NGS staff will perform all the necessary data processing, quality control, network adjustment and project management for the FBN stations as well as those stations occupied by the co-observing organizations. By including the measurements from these additional stations in the processing of the FBN station data, a very high level of consistency between all the control points will be achieved. This is a unique opportunity for organizations to contribute to the improvement of our portion of the national control network, and in return to realize additional very high-accuracy control in locations that are of particular interest.

We anticipate that this project will get underway around the beginning of March and will last about five weeks. Anyone interested in participating in this effort, or in learning more about it, contact Bill Stone, National Geodetic Survey in Albuquerque at 505-768-3606 or stone-ngs@cabq.gov.

Bill Stone
GPS Committee Chair

Making Names

Wouldn't it be interesting to observe firsthand the birth of a place name? I don't mean the commemorative names perennially cranked out, like Beanie Babies and Furbys, in response to a popular sentiment, but rather the names that evolve through the natural interaction between people and the land.

It would be a rare occurrence. For better or worse, the New Mexican namescape already has been settled. Native Americans have been naming here at least 11,500 years, Spanish-speakers for 400, and English-speakers arrived 150 years ago, creating yet another overlay. The chances of finding unnamed features are slim. In my long involvement with place names (dating from the Pleistocene), I've observed the possible creation of a non-commemorative name just a few times. I found it very revealing.

One instance involved some canyons in the South Sandias. These canyons are not named on maps and are unlikely to have even unrecorded local names. No trails exist in them, access is extremely poor, the terrain is dry, very steep, and rocky—yet I love hiking in these canyons and have even browbeat my family into joining me. On one expedition, we came across a clutch of baby squirrels, apparently abandoned by their mother. Against our better judgment, we took them home (from whence ensued other adventures). Because of that incident, we began referring to the canyon as Squirrel Canyon. That name is not likely to stick, because my family's learned to refuse me and, because I never take anyone else there. But it's not hard to imagine a scenario in which my family and I did take other people to Squirrel Canyon. Then they would take their friends, who also would call it Squirrel Canyon. The name would be passed on, passed down. Until one day someone asked a local person about the names in the south Sandias, and the local said, "That's Squirrel Canyon." "How'd the canyon get its name?" "Well, everyone knows it's because there's a lot of squirrels there." (George R. Stewart, dean of American names scholars, once postulated that the majority of animal names for features owed their origin not so much to a prevalence of the species as a specific incident involving the animal. This, he said, was especially true of larger species, such as bears.)

The researcher would write the information down, perhaps enter it in GNIS, and then Squirrel Canyon would begin appearing on maps. Dr. Joseph Sanchez, director of the Spanish Colonial Research Center—National Park Service based at UNM, tells of a place name he created on a hike with his family. One day they climbed to a ridge, then tired and ready to go back, they turned around. Sanchez called the ridge Cuesta Gallina, which would be translated as "turkey ridge." But Sanchez translates it "chicken ridge—because that's where we chickened out."

Cuesta Gallina, like Squirrel Canyon, is unlikely to survive beyond the immediate family. But who knows? And who knows how many names in New Mexico were created just like these? Certainly the following have similar stories behind them: Coffee Pot Canyon, Jerky Mountains, Gut Ache Mesa, and Moonshine Canyon.

That's one thing that makes studying names fun—and humbling. Many of our assumptions are false, and there's usually much more to a name than meets the eye.

U.S. Board on Geographic Names (USBGN) referrals, pending the Geographic Names Committee, has four name proposals that are awaiting input from the Grant and Mora county commissions. The USBGN has a policy not to take action without a written response from the relevant county commission. This has caused problems, because sometimes the county commissions decide not to decide and simply don't respond, thus bringing the process to a halt. The Arizona board sends a letter to the county commission stating that if no response is received by a certain date, then the board will assume no objections to the proposal. The USBGN is considering adopting that option.

Bob Julyan, Chair
NMGIC Geographic Names Committee

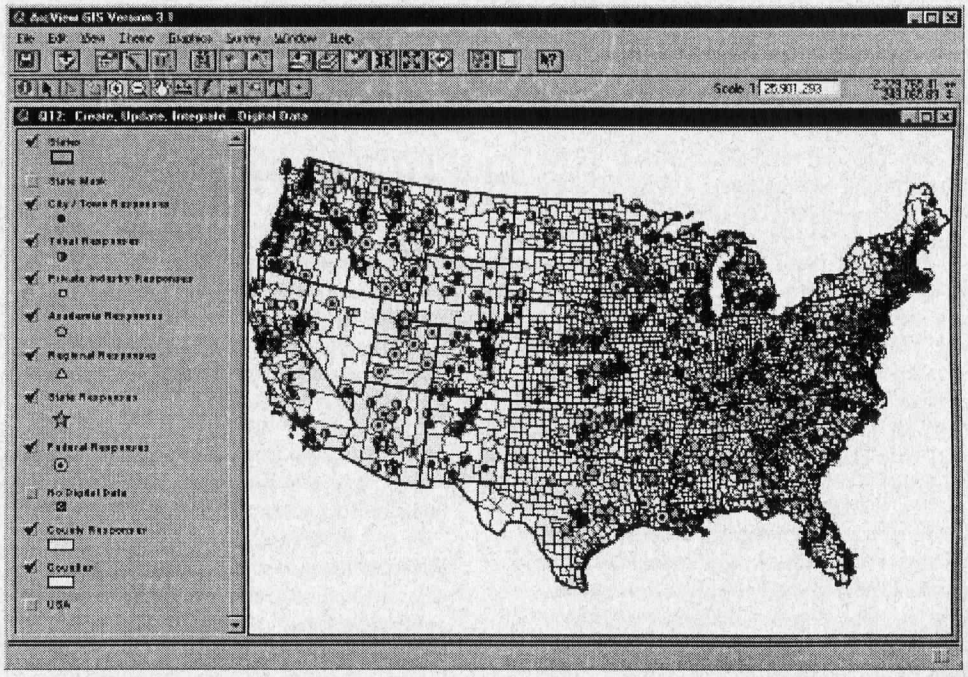
Preliminary Framework Data Survey Results Are Available on the Internet

The National States Geographic Information Council (NSGIC) and the Federal Geographic Data Committee (FGDC) are pleased to announce that the national Framework Data Survey was completed in October 1998. Since that time, a writing and analysis team has been working in conjunction with the state GIS coordinators, to clean up the data. The quality assurance process will continue, but most data are not expected to change. The survey provides a snapshot of data being produced and used in state, regional, and local governments that could contribute to building a framework of locally produced, locally maintained data themes. The framework data themes are geodetic control, orthoimagery, elevation, transportation, hydrography, governmental units, and cadastral information.

The preliminary results are now available for review and can be accessed on the Internet at:

http://www.fgdc.gov/framework/survey_results/readme.html

The database of the results, complete documentation, spatial data, and a project file that can be used with ArcView, version 3.1 GIS software can be downloaded from this site. The map on this page is a screen from the ArcView project that shows distribution of responses by sector. It is just one of many queries that can be performed using the database and the ArcView tool.



Approximately 5300 responses were received nationally, representing all sectors. New Mexico contributed 74 responses.

Amy Budge
(with excerpts from FGDC)

Thanks to all of you who participated in the survey.

Corporate Profile:

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Thomas R. Mann & Associates, Inc. is a professional photogrammetric engineering company incorporated within the State of New Mexico and has operated throughout the southwest and neighboring countries since June 20, 1977. Our staff consists of *20 highly experienced* professionals and technicians in the fields of **aerial photography**, **field surveys**, **stereo compilation of digital data (DTM, String Contours, Planimetric, DEM)**, **computer aided editing and mapping**, **digital orthophoto rectifications**, **photographic reproductions**, and **scribe and ink drafting**.

Thomas R. Mann, President and CEO of the company, is a Registered Professional Engineer within the states of New Mexico, Arizona, Texas, Colorado, Utah, and Wyoming.

It should be noted that Thomas R. Mann & Associates, Inc. enjoys one of the *strongest reputations* in the southwest for producing not only **accurate** and **complete** field surveys, aerial photography, and photogrammetric data, but also for delivering these data either *on* or *ahead* of a stipulated time frame. We definitely welcome and encourage our potential clients to check our references thoroughly.

Basic inhouse capabilities include: aerial photography/GPS navigation; field surveys (including GPS dual frequency receivers with RTK capability); aerotriangulation (Albany software); stereo compilation (DTM, contours, planimetric, DEM); CAD digital editing and mapping; digital orthophoto rectification; photo reproductions (including mosaicking, ratio-rectifications, color proofing); and final drafting by negative scribe and inking procedures.

Vice President Gore Calls for Expanded NSDI in Speech on Smart Growth

On September 2, 1998 Vice President Gore called for stronger efforts nationwide to enhance the livability and economic competitiveness of American communities. In a major address at the Brookings Institution in Washington, DC, the Vice President highlighted smart sustainable growth in cities, suburbs, and rural areas, saying, "In the future, livable communities will be the basis for our competitiveness and economic strength."

Geographic information technologies will help communities help themselves by putting "more control, more information, more decision-making power into the hands of families, communities, and regions...to give them all the freedom and flexibility they need to reclaim their own unique place in the world."

The federal government will expand its support for communities with tools, information, and new computer software to enable them to make easy-to-understand maps that show the different aspects of their regions... from farmlands to parks to buildings....and even predict future growth. These geographic information technologies will make it dramatically easier for communities to come together to envision and adopt land growth that suits them.

The Vice President announced several administration initiatives targeted for the use of geographic information technologies in communities:

- **Community Federal Information Partnerships:** The President's FY2000 budget will significantly expand grants for communities to gain access to the NSDI clearinghouse (a public-private resource that the Vice President conceived as part of his reinventing government initiative in 1993) and its implementing body, the FGDC.

- **Demonstration Projects:** Six demonstration projects are being launched in communities across the country to provide technical support for locally-driven efforts to address issues such as land use and crime prevention. The six communities are Dane County, Wisconsin; Gallatin County, Montana; Tillamook County, Oregon; Tijuana River Watershed, California; the Upper Susquehanna/Lackawanna River area; and the City of Baltimore, Maryland.

- **New Regional Efforts to Combat Crime:** A new regional pilot program will be started, in conjunction with the Justice Department, to apply regional mapping software to fighting crime in the Baltimore-Washington area. Communities in the region will be able to easily share crime data and engage in a cooperative regional crime reduction plan.

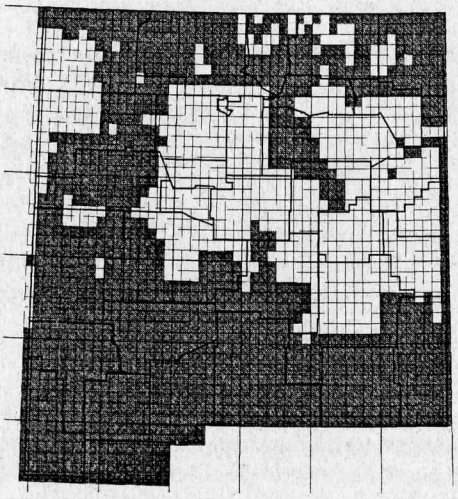
The Vice President's announcement of increased support for the NSDI and the use of geographic information technologies highlights the importance of making information available to citizens in their communities. The NSDI is a coordinated approach to help improve the way communities and the nation acquire, disseminate, and use geographic information. John Moeller, FGDC staff director, commented that "the continued development of the NSDI to support community-driven solutions is a tribute to the willingness and ability of all levels of government, the private sector, and academia to work together and cut across traditional organizational and administrative boundaries."

More DOQQs for New Mexico

Federal, state, and local government agencies have once again coordinated their interests and needs for High Priority Digital Data in New Mexico. This cooperative effort resulted in a request to the U.S. Geological Survey for DOQQs and DEMs on the eastern side of the state. If the request is accepted, the data will be acquired in 2000, and made available to users soon thereafter. Bob Bewley coordinated the effort and submitted the request to USGS. Gary Kress, New Mexico's USGS liaison for digital and photographic data was copied in the request. The timing could not have been better. Idaho's 1999 funding allocation was not spent, and thanks to Gary, those funds have been redirected to New Mexico's data request. This means that $338,000 previously ear marked for Idaho will be applied to acquiring digital data for New Mexico. Federal funding for data acquisition is usually tenuous. This windfall guarantees acquisition of a large portion of the data request a year ahead of schedule.

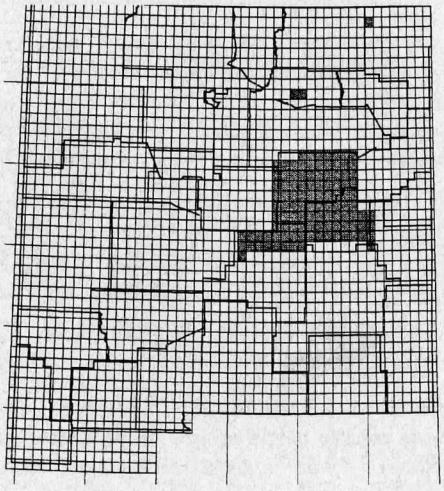
High Priority Digital Request - 2000

DEM



High Priority Digital Request - 2000

DOQQ



Thanks to Bob for coordinating the effort, and thanks to Gary for stepping in at the right time for New Mexico.

Mike Inglis
Chair, State Mapping Advisory Committee
Graphics provided by Bob Bewley, BLM

News from FGDC

(Excerpts from the Winter 1998 FGDC Newsletter)

FGDC Cadastral Subcommittee Develops Online Education

The FGDC Cadastral Subcommittee has developed an online course for learning the Cadastral Data Content Standard. The course is meant to help students understand the uses and benefits of the standard and assist those who will be using the standard to develop a physical data design. It is designed primarily for subject area specialists in cadastral data, data analysts designing and developing systems for cadastral applications, and users working with cadastral transactions. The course objectives are to provide information about the standard and examples of its uses. The course consists of eight modules covering the purpose and benefits of the standard, the development of the standard, other standards and related activities, data modeling, practical uses of the standard, standard compliance, maintenance, and support. For more information, see the course web site at *http://www.fairview-industries.com/intro.htm.*

FGDC Conducts Registered Review of ISO Metadata Standard

From July 13 through September 1, 1998, the FGDC conducted a registered review of the International Organization for Standardization (ISO) Metadata Standard Committee Draft 14046-012. More than 210 individuals registered to review the draft. The reviewers represented a diverse group, composed of 70 representatives from the federal government, 39 from the commercial sector, 34 from educational institutions, 23 from state government, 13 from local government, 5 from the defense sector, and the remainder representing independent interests. More than 500 comments were received and adjudicated by a group representing a cross section of the national geospatial community. The adjudicated comments were sent to the American National Standards Institute and consolidated with other national comments. The entire set of comments was forwarded to the ISO in late October.

FGDC thanks everyone who participated in the review. The effort helped FGDC better understand and communicate concerns and issues regarding the ISO Metadata Standard.

NSDI Community Demonstration Projects

Vice President Gore's National Partnership for Reinventing Government is sponsoring six NSDI Community Demonstration Projects to support use of geographic data for decision-making in local areas. Each project addresses different issues, such as crime prevention, watershed and water quality management, disaster preparedness and recovery, and urban growth and land use planning. The demonstration period is from July 1998 through May 2000.

The Community Demonstration Projects will provide NSDI training and result in a clearinghouse of spatial data for each community linked to the National Spatial Data Clearinghouse. The project leader for the National Partnership for Reinventing Government is Mark DeMulder. He can be reached at 202-694-0081. Communities selected for the demonstration are:

Dane County, Wisconsin – This project will create a citizen-based, online, smart growth planning process to protect farmland and open space, and address environmental concerns while sustaining continued growth. Contact Ben Niemann, University of Wisconsin-Madison, 608-263-5534, *beniemann@faccstaff.wisc.edu.*

Gallatin County, Montana – This county, just north of Yellowstone National Park, contains extensive areas of public lands, and is experiencing rapid population growth. This community's project will develop tools for the county government to access integrated federal, state, and local information, consider population impacts, and understand alternatives for growth, and the effects of their decisions on the community. Contact Dale Beland, Gallatin County, 406-582-3130.

Tillamook County, Oregon – This project will support a public/private partnership by creating online web-based tools for reporting and accountability. Citizens and local, state, and federal government agencies will be able to monitor and report progress toward common goals for water quality, flood mitigation, and fish habitat restoration. Contact Tom Ascher, Tillamook Planning District, 503-842-3408, *tascher@co.tillamook.or.us.*

Susquehanna-Lackawanna River Partnership – This partnership in central and northeastern Pennsylvania will provide an integrated regional GIS to help local communities support an environmental master plan, flood mitigation, and performance monitoring for one of the American Heritage Rivers. Contact Greg Karmazin, Kings College Map Center, 703-486-8254, *gkarm@aol.com.*

The Tijuana River Watershed – This watershed is one of the most populous and environmentally stressed areas along the U.S./Mexico border. With new tools and integrated data, this local, state, federal, and international partnership will demonstrate an online decision-support capability to improve water quality and availability and to promote better health. Contact Richard Wright, San Diego State University, 619-594-5466, *wright16@mail.sdsu.edu.*

The Baltimore Maryland City Police Department – This project will apply GIS tools and integrated data to support the development of CrimeStac, a comprehensive digital mapping center to track crime and related trends (e.g., housing, public health), creating a world-class model for crime reduction information. Contact Mary McClinton, Baltimore Police Department, 410-396-2093.

See the FGDC web site for more information.

News and Announcements From Our Corporate Sponsors

CompassCom Delivers Base Maps for Water and Sewer GIS

CompassCom, Inc., a provider of GPS products and digital mapping services in Englewood, CO, has delivered GIS base maps with 1.5 foot and 6 inch accuracy to the Arapahoe Water and Wastewater Authority. The 52 square mile mapping project was completed in less than five weeks using a combination of off-the-shelf aerial photographic products and GPS field survey techniques.

"The only other way we could have obtained aerial photos with this accuracy would have been to contract an aerial survey firm ourselves, which would have been much more expensive and taken months to complete, " said Newell Wright, Manager at Arapahoe Water and Wastewater, a county utility.

The Authority awarded the base map contract to CompassCom because of its ability to perform GPS ground control survey which could be used to rectify off-the-shelf aerial photographic products. CompassCom collected the ground control points using Trimble GPS receivers and acquired highly accurate digital air photos from Image Scans Inc.'s Earthquick line of imagery products. As part of the contract, CompassCom also supplied the Authority with ESRI ArcView GIS software, trained Wastewater personnel in its use, and assisted with integrating the software into an existing computer system.

Serving as prime contractor on the project, CompassCom subcontracted to Image Scans to customize the digital photo maps to meet specifications of the Wastewater Authority. Image Scans used the vector survey data provided by CompassCom to register and mosaic the air photos and rectify them to the GIS coordinate system used by the Authority. Final digital base map products were delivered to the Authority in ArcView format.

"The aerial base map is so sharp that Arapahoe Wastewater can zoom in on an intersection or city block and see water valves and manhole covers, or extract precise building footprints in their GIS," said CompassCom President Brant Howard.

Arapahoe Water and Wastewater Authority is using the GIS and base map to manage its water and sewer infrastructure.

From CompassCom News Release

Scientific Technologies Corp. Provides Solutions for GIS and GPS Integration

Scientific Technologies Corporation, located in Tucson, AZ, offers specialized training and application services in GIS and GPS technologies. These include:

- Introduction to ArcView
- Customizing ArcView with Avenue
- Working with ArcView Spatial Analyst
- GIS/GPS Integration Class
- Customized GIS Training for any ESRI Products

STC is also a distributor of *Autodesk MapGuide*, an easy to use and easy to implement software that works with multiple mapping and GIS vector and raster file formats. The software provides a fast way to create and maintain powerful and dynamic vector/raster based, map-driven applications on the web.

Other services offered by STC are:

- Computer Network Design and Implementation
- Systems Integration Database Development
- Training and Custom Software

STC is an IBM Business Partner

ESRI Announcements

ESRI GIS Training Classes

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

April 26 to 28	Advanced ArcView GIS. [3 days]
April 29 to 30	Introduction to Avenue. [2 days]
May 17 to 21	Advanced ARC/INFO. [5 days]
June 14 to 18	Customizing ARC/INFO with AML. [5 days]

ArcShop Series

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

Winter 1999	ArcShop in Las Cruces.
Spring 1999	ArcShop in Farmington.
Summer 1999	ArcShop in Santa Fe.
Fall 1999	ArcShop in Albuquerque (in conjunction with the GIS EXPO in NM).

Digital City Seminar

ESRI is conducting a nationwide Digital City Seminar Series. The Digital City Seminar Series visits Santa Fe NM on Tuesday, April 6, 1999. For more information, please contact ESRI at phone 909-793-2853 x1-1070, contact Mark Taetz at ESRI-Denver (phone 303-449-7779), or visit ESRI's web site (www.esri.com).

National Association of Counties (NACo) Grants ESRI Premier Membership Status

The National Association of Counties (NACo) recently announced that ESRI, a world leader in geographic information system (GIS) technology, has been accepted as a Premier Corporate Member in the area of GIS technology. It is envisioned that this relationship will assist NACo in providing a number of technology, data, and educational opportunities for its members. Under this program, ESRI and NACo envision the development of several new GIS software applications focused on county government needs. This relationship will also create many opportunities for NACo members to learn about GIS and how to implement it in their organizations.

The NACo Information Technology Premier Member program is designed to utilize the expertise of information technology companies to educate and train county officials about opportunities that improve the management operations of county government. ESRI is only the sixth technology company to become a premier member. The program is designed for leaders in the information technology industry; a few of the other premier members include AT&T, IBM, and EDS.

NACo sees GIS technology as strategic for its members. Today, over 1,000 NACo members are already using ESRI GIS technology to help manage their counties for applications such as land records, environmental management, law enforcement, planning, water resources, and economic development. ESRI and NACo have agreed to provide all NACo members with the following:

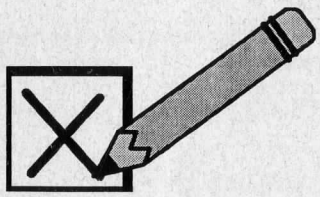
- A new definitive book on land records data management and GIS for county governments (under development).
- GIS software for internal NACo operations (such as the NACo web site and database systems) to spatially enable the NACo organization to better serve NACo and NACo members.
- Special Internet links to ESRI's ArcData Online and year 2000 web pages. ArcData Online is a premier web-based site for Internet mapping services and provides a valuable resource for literally gigabytes of geospatial data.
- Online Internet-based training from the ESRI Virtual Campus.
- Free copies of ArcExplorer, ESRI's desktop GIS data display and query software.
- ESRI will expand its existing successful Local Government GIS Grant program to better serve NACo members. This includes special software and hardware grants for selected NACo members.
- ESRI will set up mentoring programs to connect NACo members with the thousands of existing ESRI users located in universities, as well as through local, regional, and national user groups.
- ESRI and NACo will work together to deliver a series of seminars on GIS for county governments.
- Special educational opportunities will be available through universities that have GIS labs.
- ESRI will work with NACo to help NACo members better understand and respond to the various GIS and spatial standards bodies and agencies.

"We are pleased to enter this relationship with NACo," said Jack Dangermond, ESRI president. "More counties use ESRI technology than any other GIS software, so we see a natural fit for ESRI to work with NACo to help counties use GIS or enhance their existing GIS programs. We feel we have developed a robust program that will leverage the expertise of ESRI's substantial GIS user community, as well as ESRI resources like ArcData Online and the Virtual Campus. We believe that this program will help NACo members embrace and leverage GIS as they move into the next century."

"We at NACo enthusiastically welcome ESRI as a Premier Information Technology Member and look forward to a number of exciting new programs for counties that we anticipate will be produced by this partnership," said Betty Lou Ward, commissioner, Wake County, North Carolina, and president, National Association of Counties (NACo).

Submitted by Mark Taetz
ESRI Denver

1999 NMGIC Board Elections



Four NMGIC Board positions expire this year. Ballots will be mailed the week of March 15th for either re-electing incumbents, or electing new Board members. If your 1999 dues are paid by March 16th, you will be receiving a ballot. Please exercise your right to vote! Ballots will be due by April 9th. Election results will be announced at the Spring meeting on April 16th.

Cool Internet Web Sites

For this issue of *The Map Legend*, the "Cool Internet Web Sites" focuses on the 2000 Census and demographic data. The inspiration for this topic comes from the Spring meeting theme on Demographics and GIS. As always, if you find a site you think is useful to the membership, please contact Denise Bleakly at 505-284-2535 or email to *drbleak@sandia.gov* to add it to our list. Denise will be compiling a list of NMGIC corporate sponsors for a future issue of *The Map Legend*.....please contact her.

- http://www.census.gov — The Bureau of Census home page
- http://www.tngenweb.org/cntylinks/census/ — A Beginner's Guide to the U.S. Federal Census that explains the who, what, where, and why of the Census.
- http://augustus.csscr.washington.edu/index.html — Center for Social Science Computation and Research home page. The Center provides a jump-off point to several large census data archives.
- http://augustus.csscr.washington.edu/ss1.html — The jump-off point for census data from the Center.
- http://tiger.census.gov/links.html — The Census Bureau TIGER Mapping Service...the original source for TIGER/Line files, plus a whole lot more!
- http://www.easidemographics.com — *Right Site*, a site analysis software.
- http://www.demographics.com — *American Demographics Magazine* is a trade magazine that uses demographics for consumer trends. This is an interesting magazine and a useful web site. It also includes a bookstore of demographics and marketing related materials and books.

The following URLs provide commercial sources for demographic data. These vendors offer a multitude of demographic-based resources that would be useful in a GIS. This is not an exhaustive list, but a list of some of the larger vendors with the greatest range of products.

- http://www.claritas.com — Claritas
- http://www.maconusa.com — Macon USA
- http://www.wessex.com — Wessex
- http://www.infoUSA.com — American Business Information/InfoUSA

Asa Ramsay, one of our NMGIC members, provided a URL for a web site that offers online access to topographic maps and digital raster graphics (DRGs).

- http://sar.lanl.gov/

Calendar

NMGIC Spring Meeting, UNM Science and Technology Park, 801 University Blvd SE, Albuquerque, NM, April 16, 1999. Contact: Rick Watson, Meetings Coordinator, NMGIC, PO Box 9445, Albuquerque, NM 87119-9445.

GITA Conference XXII, Charlotte, NC, April 25-28, 1999. Contact: Geospatial Information & Technology Association, 14456 East Evans Ave, Aurora, CO 80014. Website: http://www.gita.org

ASPRS Annual Conference, Oregon Convention Center, Portland, OR, May 17-21, 1999. Contact: ASPRS Headquarters, 5410 Grosvenor Lane, Suite 210, Bethesda, MD 20814-2160. Phone: 301-493-0290. Fax: 301-493-0208. Website: http://www.asprs.org

ESRI Annual User Conference, San Diego Convention Center, San Diego, CA, July 26-30, 1999. Contact: Website: http://www.esri.com/events/uc

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

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