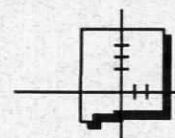


The Map Legend

New Mexico Geographic Information Council, Inc.



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

Volume 6, Number 1

Fall 1994

Maps on CD-ROM

Maps for AutoCad, for all 7½' quads in New Mexico, are available on CD-ROM. These maps are derived from the U. S. Census Bureau's TIGER/Line data, USGS 3 Arc Second Digital Elevation Models (DEMs), and USGS Geographic Names Information System (GNIS) data. These data have been converted to AutoCad DWG file format for use in AutoCad or ArcCad software. Road names have been added and conversion to the state plane coordinate system has been performed. Each map on the CD-ROM corresponds to the USGS 7½' map naming convention. Features on these maps include transportation layers, hydrographic layers, major pipelines and transmission lines, contour lines, geographic names, state plane coordinate system, and the state map from USGS's 1:2 million scale DLG series. CD-ROMs of other states are also available. Cost per CD-ROM is \$750. Contact Sylvan Ascent Software (Santa Fe) at 1-800-362-8971 for more information.

the map name. A README file provides detailed information about the data sets.

The following procedures are used to access USGS data:

- ▶ FTP to edcftp.cr.usgs.gov
- ▶ Enter "anonymous" at the Name prompt
- ▶ Enter your complete Internet address at Password prompt
- ▶ Change to desired data set directory (i.e., `cd pub/data/DEM/250`)
- ▶ Set file transfer mode to binary by typing "binary"
- ▶ Transfer selected file(s) to your computer
- ▶ Logoff edcftp.cr.usgs.gov by typing "quit"

1:24,000 scale DEMs and DLGs are also available via Internet, however, orders for these files must be placed with USGS before files

(continued on page 2)

Geodata News

U. S. Geological Survey

The U. S. Geological Survey (USGS) is in the process of transferring the majority of digital data distribution functions from USGS Headquarters (Reston, Virginia) to the EROS Data Center (Sioux Falls, South Dakota). EROS Data Center will offer USGS digital data customers two significant customer service enhancements: additional data media formats and Internet file transfer protocol (FTP) access to a variety of USGS data sets.

Traditionally the majority of USGS digital data have only been available on 9-track magnetic tape media. Customers operating smaller computer platforms must convert USGS data from the 9-track tape to compatible media for their systems. The EROS Data Center will be offering digital data customers additional data media options such as 8mm cartridge, floppy disk, and CD-ROM.

EROS Data Center is also offering Internet connected digital data users the option of accessing and downloading a variety of USGS digital data sets. Currently the following data sets for the entire United States are available:

- ▶ 1:2,000,000-scale Digital Line Graphs (DLG)
- ▶ 1:100,000-scale Digital Line Graphs (DLG)
Hydrography and Transportation Data Layers
- ▶ 1:250,000-scale Digital Elevation Model (DEM)
- ▶ 1:250,000-scale Land Use/Land Cover (LULC)

Customers can download files by connecting to the EROS Data Center server edcftp.cr.usgs.gov and transfer data using anonymous file transfer protocol (FTP). Data sets are located in separate directories with files located in subdirectories A-Z based on the first character of

From the President Richard Friedman

October 1994

Recent advances in technology have dramatically improved our ability to collect and use geographic data. It used to take weeks, months, or even years to create maps that can now be created in hours using the technology that is available today. Geographic data are now being relied upon not only for long range planning, but also for emergency/disaster management. The presentations at our fall meeting will highlight how geographic data are being used to manage the world we live in.

In response to the rapid advancements in geographic data collection and utilization, the Federal Geographic Data Committee (FGDC) has been assigned a leadership role to coordinate geospatial data activities among federal agencies, as well as other sectors on a national scale. The Committee's priorities include the establishment of: a National Geospatial Data Clearinghouse, metadata standards, thematic data standards, data collection standards, and partnerships with nonfederal sectors. The USGS will be giving a workshop at our afternoon session on the FGDC.

We will also have our annual users exhibits at the fall meeting. The users exhibits are an excellent forum for exchanging ideas and knowledge about GIS technology and its applications. The focus for the users exhibits is "new and innovative uses of GIS and geographic data."

I am looking forward to a very informative meeting, and I hope to see you on October 21.

Geodata News (continued)

U. S. Geological Survey

are made available over the Internet. There is a fee for these files. The first file is \$40. Each additional file is \$20 (up to 5 files). If 6+ files are ordered, the cost per file is \$7 plus a base charge of \$90.

U. S. Fish and Wildlife Service

The U. S. Fish and Wildlife Service (FWS) is offering customers a new informational service providing current availability status for the National Wetlands Inventory (NWI) map products. NWI graphic and digital map products describe wetlands by soils, hydrology, and vegetation categories. Wetlands maps exist for about 55 percent of the conterminous United States, 16 percent of Alaska, and all of Hawaii.

Customers with access to the Internet computer network may connect to NWI's server via anonymous file transfer protocol (FTP) and download the NWI availability index. NWI digital data sets in a variety of data formats for 14 sample 7.5 minute quadrangles throughout the United States are also available for downloading.

The NWI index is updated monthly by FWS to provide customers with the most current availability status for NWI map products.

Accessing National Wetlands Index

Enter the following commands shown in **bold type** on your system to initiate NWI server connection:

```
your_prompt%ftp 192.189.43.33          (connect to NWI server)
name:anonymous                        (login as anonymous)
password:                                (enter your Internet address)
ftp > cd maps                          (change to maps directory)
ftp > get readme                        (transfer informational file)
ftp > binary                            (transfer index in binary mode)
ftp > get nwi.exe                       (transfer index version for DOS)
ftp > get nwi_usa.Z                    (transfer compressed UNIX index)
ftp > cd..                              (change to ftp directory)
ftp > cd samples                       (change to samples directory)
ftp > get readme                        (transfer informational file)
```

If you cannot currently access the Internet network, the NWI index is also available on floppy disk media. Send your request to the following USGS Earth Science Information Center: USGS Earth Science Information Center, Box 25046, MS 504, Denver Federal Center, Denver, CO 80225-0046, 303 236-5829, Fax: 303 236-8654

News Briefs

USGS Cooperation with the Peoples Republic of China

The National Mapping Division and its counterpart, the National Bureau of Surveying and Mapping (NBSM), Peoples Republic of China (PRC), conducted the VII Joint Working Group meeting (JWG) at USGS offices on August 13-25, 1994. Both parties reviewed the previous year's accomplishments for all three cooperative projects regarding Geographic Information Systems, Remote Sensing Applications, and Management and Technology Exchanges. Additionally, the JWG developed work plans for the coming year's activities and signed an agreement for the implementation of a fourth project on Geodesy and Geophysics which will be coordinated with the Defense Mapping Agency. (Alan R. Stevens, Branch of International Activities, Reston, Virginia, 703 648-5110)

Re-engineering the USGS Digitizing Services Contract

USGS is contracting for an increasing amount of its collection of base cartographic digital data via the Digitizing Services Contract (DSC). Much of the funding is provided by other Department of the Interior Bureaus, together with state and local governments. The DSC is managed by the USGS, but other Interior Bureaus use the contract.

A "re-engineered" DSC is being written for implementation in the spring of 1995. The new DSC will incorporate major changes in contract implementation and emphasizes new and more cooperative roles and "partnership" relationships between the USGS and the contractor. The new contract will guarantee each contractor a minimum workload. Work assignments above the minimum amount will be awarded to those contractors ranked highest, based on best price and quality of past performance. Monetary incentives will be used to reward the contractor for exceeding performance; penalties will be used for performance deficiencies. A primary objective of the new contract will be to put quality control at the beginning of the process by having the contractor assume a higher level of responsibility for data quality. The new contract will better enable USGS to procure on-time high quality digital data, reduce the USGS quality control effort, while building and maintaining a well-qualified digitizing contractor community. (Lesley Ogrosky, Office of Production Operations, Reston, Virginia, 703 648-5588)

Innovative Mapping Partnership with Non-Fed Community

The purpose of the Innovative Partnership Program is to encourage non-Federal map data producers to capture digital map data consistent with USGS standards and to leverage government funds in acquiring data for the National Digital Cartographic Data Base (NDCDB) through cooperative agreements. Applicants submit proposals documenting existing or planned data and the standards and procedures used to capture that data. The applicant proposals and sample data are evaluated for the degree of compliance with standards as well as their benefit to the National Mapping Program.

Three applicant proposals were accepted under Announcement 7885. These proposals produced over 2,200 digital data files that are presently being processed and will be entered into the NDCDB. Eight applicant proposals received under Announcement 8039 have been evaluated and sample data has been requested to determine the degree of compliance with digital standards. A new innovative partnership program is planned for fiscal year 1995. (Dave Painter, Office of Production Operations, Reston, Virginia, 703 648-5513)

New GIS Manager at ISD

Bill Baillargeon has joined the State of New Mexico's Information Systems Division as manager of geographic information systems (GIS). Prior to joining the State, he worked as a consultant to the U. S. Environmental Protection Agency in Research Triangle Park, NC. His principal role there was GIS and research support to the development of the Environmental Monitoring and Assessment Program and support to atmospheric deposition and air quality monitoring research.

Bill's educational background lies in the area of freshwater ecology and includes a B.S. in biology from Michigan Technology University and an M.S. in biology from Central Michigan University. He also studied the Ph.D. Ecology Program at the University of North Carolina.

Bill views his GIS manager role as that of a facilitator, promoting the effective use of GIS technology throughout state government and encouraging inter-agency communication and joint applications development. He can be reached at 505 827-2047.

NSGIC News

The National States Geographic Information Council (NSGIC) annual meeting is in Jackson Hole, Wyoming October 15-19, 1994. The State of New Mexico General Services Department's Information Systems Division represents New Mexico at this gathering. In addition to providing an opportunity to learn about GIS initiatives occurring in other states, the NSGIC meeting, via keynote speakers and workshops, addresses many topics which are pertinent to current statewide efforts.

The "Connecting the Local, State and National Spatial Data Infrastructure: The Role of Open GIS" workshop covers such topics as: defining data problems, the National Spatial Data Infrastructure (NDSI), Open GIS, the OGIS project, and interchange standards. The workshop on Digital Orthophotography workshop identifies problems in the misunderstanding and misuse of this GIS tool.

Development of GIS standards entailing a universal approach to the data dictionary and structure irrespective of software is the topic of the workshop entitled "DOD CADD/GIS Data Standardization Efforts"; key points are map topics, subtopic codes, domain tables, relational joins, and graphic information.

The last of the workshops, "A National Parcel Data Base and Coordinate Adjustments; BLM's Public Land Survey System/Geographic Coordinate Data Base (PLSS/GCDB)", provides an explanation of: PLSS and GCDB and the source(s) of the coordinates; State and local government roles in the creation, maintenance, and use of GCDB; interim availability of PLSS coordinates; and PLSS/GCDB as part of BLM's Automated Land and Mineral Records System.

Stay tuned to future editions for brief write-ups of workshop coverages.

GIS Activities in New Mexico

Introduction

Geographic information systems technology has seen steadily increasing use in New Mexico over the last several years and 1994 has been no exception. This expansion has occurred in areas such as the environment and transportation that traditionally have been receptive to GIS technology as well as in areas that are only beginning to see the advantages of exploiting GIS to meet their mandates and better assist their clients.

The coordination and planned implementation of GIS technology among state agencies is the responsibility of the Information System Division (ISD), New Mexico General Services Department (GSD), with oversight by the Geographic Information Systems Advisory Council (GISAC), a body composed of representatives from each state agency. GISAC is chaired by the ISD GIS manager.

Resource Geographic Information System Program

A centerpiece of GIS activity in New Mexico is the Resource Geographic Information System (RGIS) Program. The RGIS Program is administered by the New Mexico General Services Department and the University of New Mexico (UNM). Representatives from ISD and three UNM Public Service and Research Units (New Mexico Engineering Research Institute (NMERI), Earth Data Analysis Center (EDAC), and Bureau of Business and Economic Research (BBER)) comprise the RGIS team and manage the program. The RGIS Program was

established to provide access to the GIS resources and assistance required for policy analysis and decision-making at all levels of government as well as by public service organizations.

The RGIS Program operates the RGIS Clearinghouse, a point of contact for those seeking information or the products and services of the Program. The Clearinghouse maintains a resource library of coverages and attribute data developed by the Program as well as data contributed by other agencies. The *Catalog of Digital Geographic Data* contains descriptions of the coverages and data maintained by the Clearinghouse.

The RGIS Program, along with the New Mexico Department of Taxation and Revenue, is working with New Mexico counties to develop a program for automating the land parcel data maintained by each county, with the ultimate goal of creating a parcel data base for the entire state. New Mexico land records present a particularly thorny problem with regard to developing accurate digital records because of the existence of Spanish land grants and Indian reservations.

State Agencies

Children, Youth, and Family Department

The Children, Youth, and Family Department, in conjunction with the ISD GIS Group, is exploring the feasibility of using GIS in the analysis of child abuse and neglect cases and juvenile offender statistics.

Environment Department

The New Mexico Environment Department operates in an ARC/INFO environment and is establishing a state-wide dedicated network linking X-Windows terminals in all district and field offices to a GIS server (a Data General Avion 9500) in the Santa Fe office. A DG 7000 is acting as an Oracle server. In addition, three Avion workstations in the Santa Fe office are linked to the 9500 server. The Department has made a firm commitment to establishing a general GIS data processing environment. All data collected by the Department are now geo-referenced and a GPS pilot has been completed.

Game and Fish Department

The Department of Game and Fish has been involved in the Gap Analysis project. In addition, they have been developing a GIS for managing large game habitat and for managing large game hunting on private lands.

General Services Department

The Information Systems Division (ISD), General Services Department (GSD), in addition to coordinating GIS activities among state agencies and participating in RGIS, also works with state agencies in developing GIS applications. ISD has focused on assisting those agencies not traditionally involved in GIS, emphasizing in particular the health and human services potential of GIS. In addition, the ISD GIS Group produced a GIS of state properties for the Building and Property Services Division of GSD.

(continued on page 4)

GIS Activities in New Mexico (continued)

State Agencies (continued)

Health Department

The Department of Health is new to the use of GIS in their programs. They are working with the ISD GIS group to develop GIS capabilities on a number of fronts including spatial analysis of vital statistics and spatial characteristics and patterns of health care delivery.

Highway and Transportation Department

The Highway and Transportation Department, in conjunction with Sandia National Laboratory and the University of New Mexico, has been developing a GIS of 1:500,000 and 1:100,000 scale coverages of New Mexico highways.

Human Services Department

The ISD GIS Group is working with the Human Services Department, another agency new to GIS, to study the feasibility of using GIS in the analysis of demographic data.

Office of Cultural Affairs

The Office of Cultural Affairs does not yet have a GIS actually running, but they are developing a database system linking Oracle and ARC/INFO. They will use Oracle as their primary RDBMS. Oracle will send queries to ARC which will respond with coordinate information without graphics. They have worked with ESRI on this, and it seems feasible. The purpose of this approach is to allow dial-up access to archaeological data. This will allow users to obtain geographical and tabular data even though they don't have a GIS. They are also working on building a library of archaeological coverages and expect to have ARC up and running in the near future. The ISD GIS Group is working with the Office of Cultural Affairs in several areas, including establishing a general information GIS for the State Library that patrons can access directly, developing GIS data bases for the Arts Division of arts expenditures and of areas in which the primary language is one other than English.

Office of the Secretary of State

The Office of the Secretary of State in conjunction with the Geographic Applications Research Laboratory of New Mexico State University has a set of coverages and associated data pertaining to State House and Senate Legislative District boundaries. These data are used to develop GIS applications allowing personnel in the Secretary of State's Office to effectively monitor and manage redistricting activities within the state.

State Engineers Office

The State Engineers Office is employing GIS principally in the area of water rights adjudication and groundwater modeling. They have decided on a client/server RDBMS environment using Informix. At present they are working on migrating water rights data from the mainframe to Informix, with links to the GIS, and building an internal GIS digital data inventory.

Tourism Department

The Department of Tourism has completed a study of the utility of GIS as planning and analysis tool for tourism and economic development along the Route 66 corridor.

Other Organizations, Inter-agency Activities, and Consortia

New Mexico Geographic Information Council

The New Mexico Geographic Information Council (NMGIC) was established in 1984 by individuals from federal, state, and local government, universities, and private industry throughout the state concerned with the development and availability of geographic data and information in the State of New Mexico. In 1987 the governor of New Mexico issued Executive Order 87-19 granting official recognition to NMGIC. The Council is governed by an Executive Board elected by the membership.

NMGIC holds two general meetings per year open to anyone interested in geographic information. In addition, NMGIC is the point of contact between the State of New Mexico and the U.S. Geological Survey, and is recognized by the U.S. Board on Geographic Names.

Contacts

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NMGIC

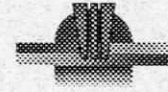
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NMGIC FALL MEETING

FRIDAY, OCTOBER 21

CONTINUING EDUCATION CONFERENCE CENTER
1634 UNIVERSITY NE
ALBUQUERQUE, NEW MEXICO

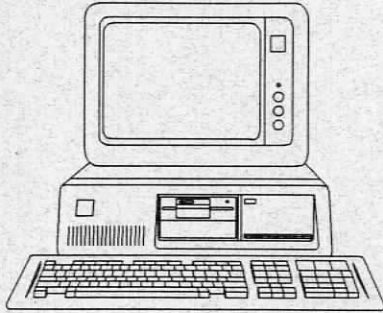
Southwest ARC/INFO Users Conference

The 1994 Southwest ARC/INFO User Conference will be held November 2-4 in Durango, Colorado. The purpose of the conference is to provide a forum where both the experienced and inexperienced ARC/INFO users can learn more about the software, ESRI's future plans for software development, and to exchange ideas with technical users and managers of ARC/INFO installations. The conference is sponsored by Fort Lewis College, Center of Southwest Studies and the City of Durango, with support contributed by La Plata County, Colorado, the U. S. Bureau of Reclamation, and GeoWest.

For more information contact: SWA'94 1994, Ms. Catherine Conrad, Center SW Studies, Fort Lewis College, 1000 Rim Drive, Durango, CO 81301-3999 or call 303 247-7456

November 2-4, 1994

The Map Legend



Editor: Jeanette Albany
Assembly: Amy Budge

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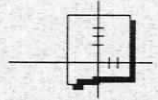
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Local Government Land Records Committee

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