The Map Legend

http://nmgic.unm.edu NMGIC, Inc. PO Box 9445 Albuquerque, NM 87119-9445 Est. 1984

Census 2000 Numbers Are Now Available

In December 2000, the U.S. Census Bureau released the first Census 2000 data, total resident and apportionment (residents plus overseas federal citizens) population counts by state. This very basic data set is used to apportion delegates among the states for the U.S. House of Representatives, fulfilling the Constitutional mandate for the American census. After the application of apportionment counts by the Census Bureau, New Mexico's delegation to the U.S. House remained unchanged at three representatives, despite a 20.1% increase in the state's population between 1990 and 2000 (12th highest among the states). As of April 1, 2000 New Mexico's population stood at 1,819,046.

Although this first release of information consisted of only a few numbers for our state, more was soon on the way. By the end of March 2001, New Mexico's *Redistricting Summary File* had been released. This database is mandated by Federal statute (PL 94-171) to ensure the availability of necessary information for legislative redistricting. In New Mexico, the State Legislature expects to meet in September to determine the boundaries for the three Federal congressional districts and new State House and Senate districts, along with State Board of Education, and Public Regulation Commission districts. The data are also used to redraw various local political boundaries (e.g., city council districts).

Additionally, the PL 94-171 data are useful for assorted analytical purposes, particularly concerning issues of population growth, density and racial composition. Essentially, the file contains counts of population by race and Hispanic ethnicity, with cross tabulations of the non-Hispanic population by race. The race/Hispanic ethnic distributions are presented for the total population, along with the population 18 years and over. The database also gives users a first look at numerous small, substate areas, including blocks, block groups, precincts, tracts, and census county divisions. In addition, the data are available for larger areas—places (incorporated and unincorporated communities), counties, metropolitan areas, American Indian areas (reservations and trust lands), and the state as a whole.

K13202.xls

	A	B	C	D	E	F	G	H	I	J	K	L
1	K13202											
2	WHITE POPULATION											
3	ALONE; IN COMBINATION WITH OTHER RACES ONLY; AND ALONE OR IN COMBINATION											
4	BY DONA ANA COUNTY CENSUS TRACT											
5	CENSUS 2000											
6	TOTPOP=TOTAL CENSUS 2000 POPULATION											
7	WHMIN=NUMBER OF RESPONDENTS INDICATING THEY WERE ONLY WHITE (THE MINIMUM WHITE POPULATION). THERE WERE SIX RACES											
8	THAT COULD HAVE BEEN CHOSEN: 1) WHITE; 2) BLACK OR AFRICAN AMERICAN; 3) AMERICAN INDIAN AND ALASKA NATIVE; 4) ASIAN;											
9	5) NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER; 6) SOME OTHER RACE.											
10	WHMIN%=THE WHITE MINIMUM POPULATION AS A PERCENT OF TOTAL TRACT POPULATION.											
11	WHCOMONLY=ONLY THOSE RESPONDENTS INDICATING THEY WERE WHITE & ONE OR MORE OF THE OTHER FIVE RACES LISTED.											
12	WHCOMONLY%=THE POPULATION THAT WAS ONLY WHITE IN COMBINATION WITH ONE OR MORE OF THE OTHER FIVE RACES AS A											
13	PERCENT OF TOTAL TRACT POPULATION.											
14	WHMAX=ALL RESPONDENTS INDICATING THEY WERE WHITE (THE MAXIMUM WHITE POPULATION), BOTH THOSE INDICATING											
15	ONLY WHITE AND THOSE INDICATING WHITE IN COMBINATION WITH ONE OR MORE OF THE OTHER FIVE RACES LISTED.											
16	WHMAX%=THE WHITE MAXIMUM POPULATION AS A PERCENT OF TOTAL TRACT POPULATION.											
17	NOTE: POPULATION COUNTS ARE FOR APRIL 1.											
18	GEOCODE	TOTPOP	WHMIN	WHMIN%	WHCOMONLY	WHCOMONLY%	WHMAX	WHMAX%				
19	DONA ANA	174,682	116,478	67.8	5,561	3.2	124,039	71.0				
20	35013000101	7,902	5,799	73.4	208	2.6	6,007	76.0				
21	35013000102	3,839	2,792	72.7	138	3.6	2,930	76.3				
22	35013000200	8,755	6,037	69.0	343	3.9	6,380	72.9				
23	35013000300	3,441	2,524	73.4	111	3.2	2,635	76.6				
24	35013000401	3,007	1,794	59.7	116	3.9	1,910	63.5				
25	35013000402	5,647	3,579	63.4	152	2.7	3,731	66.1				
26	35013000500	2,902	1,886	65.0	129	4.4	2,015	69.4				
27	35013000600	2,776	1,470	53.0	148	5.3	1,618	58.3				
28	35013000700	6,064	3,569	58.9	279	4.6	3,848	63.5				
29	35013000800	3,556	2,368	66.6	178	5.0	2,546	71.6				

K13202

Although the file consists of just four data tables, these tabulations are relatively complex because of the multi-race response option that was presented in the Census 2000 questionnaire. The respondent was allowed to choose up to six broad racial categories when completing the question on racial identification. These broad categories included White, Black or African American, American

(Continued on page 7)

Inside This Issue

The Map Legend

Editor: Amy Budge
Public Relations

The Map Legend is published by the New Mexico Geographic Information Council and is a benefit of membership in NMGIC. The opinions expressed are those of the contributors and do not necessarily represent the views of the New Mexico Geographic Information Council, except where specifically noted. Use of trade names or products does not constitute an endorsement by the NMGIC. Members are invited to send articles and announcements of interest to Amy Budge. Please direct all correspondence to:

Amy Budge
NMGIC, Inc.
PO Box 9445
Albuquerque, NM 87119-9445

Fax: 505 277-3614
Email: *abudge@spock.unm.edu*

NMGIC Web Site:

http://nmgic.unm.edu

NMGIC Board of Directors

NMGIC Standing Committees

Geographic Names Committee
Bob Julyan, Chair

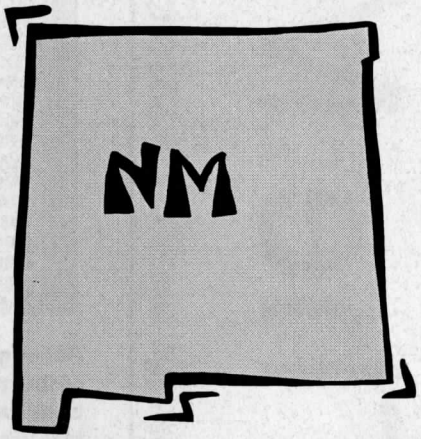
31 Avenida Almendro NE
Albuquerque, NM 87123-9648
Telephone: 505-298-8420
Email: rjulyan@swcp.com

Global Positioning Systems Committee
Bill Stone, Chair

National Geodetic Survey
% Albuquerque Public Works/Survey Section
PO Box 1293
Albuquerque, NM 87103
Telephone: 505-768-3606
Fax: 505-768-3629
Email: stone-ngs@cabq.gov

State Mapping Advisory Committee
Mike Inglis, Chair

Earth Data Analysis Center
University of New Mexico
Bandelier West, Room 111
Albuquerque, NM 87131-6031
Telephone: 505-277-3622, ext 235
Fax: 505-277-3614
Email: minglis@spock.unm.edu



From the President

Well, we're definitely in the midst of the lethargic "dog days," and if it weren't for this temporary monsoonal cool cloudiness today, I doubt I would've ever dragged myself into pulling up this keyboard and keying this communiqué! Nevertheless, assuming the fingers keep moving, there are news items afoot.

***Old News*:** GIS certification has been on my mind a lot this year. Perhaps you will recall in the last *Map Legend*, we published "the view from New Mexico" on the certification of both GIS practitioners and their datasets. This was assembled, purviewed, and enunciated upon by the NMGIC/GISAC Joint Subcommittee on GIS Certification. Since I sat on this subcommittee, I decided that the subject would make for both a timely and easy oral presentation at the annual USGS/American Association of State Geologists' "Digital Mapping Techniques" (DMT) conference held in mid-May. All kidding aside, I discovered that while professional surveyors had forced the certification issue in a couple of states in the last few years (e.g., California, North Carolina) via language in the National Council of Examiners for Engineers and Surveyors "Model Law," the major impetus for bringing about certification of GIS professionals is happening both on the international front through the International Organization of Standards (ISO) and in the U.S. by GIS academicians and their professional organizations (URISA, UCGIS). ISO has charged its Technical Committee 211 (Geographic Information/Geomatics) to develop professional qualifications and a certification program by September 2001. I hope I have impressed upon both the DMT and the June GISAC audiences that this issue is really moving forward, and certification of GIS professionals in some form is imminent in the next few years. I hope to keep you informed on this issue as developments occur. If you want more information, please don't hesitate to email me.

As those of you who attended the spring remote sensing workshop and spring meeting know, NMGIC's spring events were a great success! All workshop attendees should have received the CD of presentations and RS images/data by now to round out their packets. I hope it is all being put to good use! Thanks for attending and participating!

***Current News*:** There are two national items of interest that I have responded to recently on behalf of the NMGIC that I'd like to tell you about. The first was a call for comments on the proposed "National Grid," which would bring about a new national coordinate system that would be implanted into all our GPSs (and brains), if the proposing grid body had their way. While the national grid has some merit, it is based upon a cumbersome Military Grid Reference System, and the NMGIC Board agreed with our GPS committee chair, Bill Stone, that a system based upon the Universal Transverse Mercator (UTM) grid would be easier to use and makes more sense. The other item was a call for comments on the "National Map," an all digital, current, seamless topographic map of the U.S., complete with orthophotography, land use, and other datasets. The USGS proposes that this plan be implemented by 2010. It relies upon local cooperation and input to ultimately achieve a dataset that will always be current. This will be a phenomenal undertaking! You can read more on these issues in my comments letters that are included in this *Map Legend* issue.

The call for presentations for our fall meeting is on the NMGIC website. You will also soon see an official ballot for our upcoming Board member elections. Our fall meetings are focused on what our membership has been up to – if you have a project, study, report, poster, etc. that you would like to share, we certainly encourage you to do so! We also encourage you to vote! This will be a history-making online ballot (you'll still receive one in the mail in case you lack or have email problems). We at NMGIC scoff at dimpled chads! Why it will be so easy for you to participate in NMGIC's election via a few simple clicks that there will be no excuse for you not to vote early. Please participate in both the fall meeting and the upcoming elections. The winners will be announced at the fall meeting. See you in October!

David J. McCraw
President

The Map Legend 2001-02 Publication Schedule and Deadlines

Fall Issue	Deadline for articles: September 15, 2001 Publication date: October 15, 2001
Winter Issue	Deadline for articles: January 15, 2002 Publication date: February 15, 2002
Spring/ Summer	Deadline for articles: May 15, 2002 Publication date: June 15, 2002

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?

Squaw - Horror or Heritage?

Of all the issues in North American toponymy, perhaps none provokes more molten opinions than that of the word *squaw* in place names.

For generations, *squaw*, widely regarded as meaning "Indian woman", was accepted as part of the general English lexicon of quasi-Indian words: powwow, tipi, moccasin, wigwam, and others. Few people cared about their origins or archetypal meanings.

But even during this period of acceptance, the term carried a malodorous connotation, somehow dehumanizing, viewing women as chattel. Few women anywhere would choose to refer to themselves as a *squaw*—no one referred to Princess Diana as Prince Charles' *squaw*—so it's no surprise that Native Americans disliked having the term applied to their women. Especially when a few years ago some scholars claimed the word originated as a pejorative term meaning "female genitalia"—but in a much cruder form.

Thus, it was hardly surprising that Native American groups began pressing for the term being eliminated from place names, of which approximately 1,000 exist in the US. I was present when a representative of the American Indian Movement spoke to state and federal names authorities about the pain caused by *squaw* when heard by Native Americans. He introduced his wife and young daughters: "They are *not* squaws!" he said. Few of those present, including me, cared to argue the point.

Besides, precedent exists for purging offensive terms from place names. The terms *nigger* and *Jap* were expunged from the nation's toponymy in 1963 and 1971. (Note: They are the *only* terms to have been removed nationwide; Gringo Peak and Pendejo Wash still grace the New Mexico namescape.) Surely such a patently offensive term as *squaw* should also go. But how? Should this be done at the national level? Or should it be done by individual states?

The states responded first. In 1995, Minnesota became the first state to require that all *squaw* names in the state be replaced with less offensive names. It was a huge task; Minnesota had numerous features with *squaw* in their names. But Minnesota went to it with a will, and the Minnesota Department of Natural Resources consulted with Indian groups and local non-Indian populations to come up with alternatives.

In 1999 Montana passed similar legislation. Then came Maine in 2000, this year South Dakota, and most recently Oregon. Other states, such as Washington and Oklahoma, have also considered such a ban. In Canada, long a leader in sensitivity to Native issues, Saskatchewan, Alberta, Prince Edward Island, British Columbia, and the Yukon have banned *squaw* names.

Yet just when it seemed other states would fall like dominoes, the issue got much more complicated. Specialists in Indian languages had argued all along that the "female genitalia" meaning was unsubstantiated, or just plain wrong. Opponents of the term countered by saying that even if this were so, the term still would be hurtful.

Then a woman scholar of Abenaki background, Marge Wlioni, said the term, uncontestably derived from the Algonquian language group, was not pejorative, and that to remove it would be an indignity to her culture. "I write you as an *alnobaskwa*, an Abenaki woman, questioning the motion to gut our original language in the name of political correctness. *Squaw* is not an English word. It is a phonetic rendering of an Algonquian word that does not translate to a 'woman's private parts.' The word 'squaw'—as 'esqua,' 'skwa,' 'skwe' and other variants—traditionally means the totality of being female, not just the female anatomy."

She gave examples. "Traditional Algonquian speakers, in both Indian and English, still say words like *nidbaskwa*, 'a female friend'; *manigebeskwa*, 'woman of the woods'; or *squaw sachem*, 'female chief.' When Abenaki people sing the birth song, they address *nuncksquassis*, 'little woman baby.'"

Yet it also is true that language is dynamic, and most of our most offensive words today once had innocuous meanings far removed from their current connotations. Consider the evolution of the word *gay*.

Yet removing *squaw* names becomes much more difficult when the features are large and well-known. Squaw Valley near Lake Tahoe comes to mind. In Phoenix, Squaw Peak is a well-known landmark. Legislation to remove *squaw* failed in Arizona and Idaho.

In New Mexico, the issue has not yet arisen. Perhaps it's because the state and its Indian groups are far removed from the issue's epicenter, in the Northeast and Upper Midwest. And clearly the term *squaw* has no linguistic connection with any Native languages here.

Or maybe it's that New Mexico has only 16 *squaw* names, none on prominent features, and none in or near tribal lands. Some of New Mexico's *squaw* names are:

- Squaw Canyon (Chaves)
- Squaw Creek (Catron, Sierra)
- Squaw Creek (Chaves)
- Squaw Creek (Grant)
- Squaw Creek Ridge Tank (Grant)
- Squaw Mountain (Dona Ana)
- Squaw Peak (Sandoval)
- Squaw Peak (Socorro)
- Squaw Spring (San Juan)
- Squaw Tank (Otero)
- Squaw Tit [summit] (Sierra)
- Squaw Tit Canyon (Sierra)

If the issue should arise here, what likely would happen? If the change is mandated by the legislature, the NMGIC Geographic Names Committee has no role but to make recommendations regarding proposed alternatives. In doing that, we would make an exhaustive effort to solicit public opinion

So that's where it stands now. I'd like to hear from NMGIC members with observations or opinions regarding this issue.

GNIS MAINTENANCE: I have been issued a password that allows me to make New Mexico additions and corrections to the GNIS database. If you are aware of errors in this database or know of feature names to be added, please contact me.

Bob Julyan, Chair
Geographic Names Committee

Nationwide Differential GPS Network Update

I have previously written in the *Map Legend* about the development of the Nationwide Differential GPS (NDGPS) network. This network, which is an expansion of the US Coast Guard's (USCG) array of coastal-area GPS broadcast facilities, will provide real-time DGPS corrections supporting few-meter accuracy positioning and navigation capability throughout the nation. Contractors working for the USCG spent several days at Kirtland Air Force Base in Albuquerque in May installing New Mexico's only NDGPS station. The facility consists of GPS receivers, integrity monitors, computer and power infrastructure, and a 300 foot transmission tower.

Although the Kirtland facility has been installed, the USCG reports that there are problems with the "behind the scenes" communications component of the system. These problems, which the local communications companies are attempting to address, prohibit the remote monitor and control functions of the system from operating as required. The station is broadcasting its correction signal in its nominal configuration, but it is impossible for system managers to keep tabs on the station's operation and to log GPS data. Hence, the Kirtland station is considered to be in a non-operational, testing status. Users can still access the real-time signal, but are cautioned against relying on it for demanding applications.

The USCG DGPS website posts the following message: "The Coast Guard announces the transmission of test signals from the newly established differential site at Kirtland, NM. These transmissions are for system test and verification purposes and users are cautioned to not rely on these signals for navigation/safety of life applications at this time."

Real-time DGPS signals are also currently being broadcast from nearby stations located in Flagstaff, AZ; Summerfield, TX; and Whitney, NE. Flagstaff provides coverage for most of the western portion of New Mexico, Summerfield (located southwest of Amarillo) serves most of the eastern part of the state, and users can sometimes receive the Whitney signal in northern New Mexico. Properly-configured GPS-DGPS receivers should now be able to perform DGPS observations throughout the state.

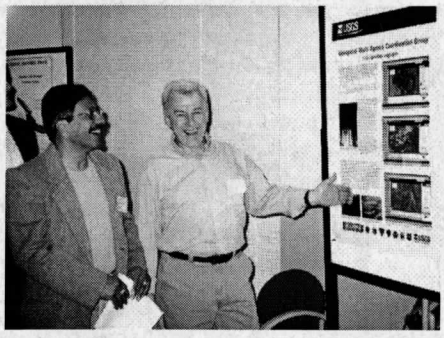
All NDGPS stations also contribute to the National Geodetic Survey's (NGS) nationwide network of Continuously Operating Reference Stations (CORS) that supports centimeter-level, post-processed positioning applications. These data can be accessed through the NGS Web site (*www.ngs.noaa.gov*). Kirtland CORS data will only be available once the present communications problem is remedied. Keep your fingers crossed...

For additional information, contact Bill Stone, National Geodetic Survey, 505-768-3606 or *stone-ngs@cabq.gov*.

Bill Stone
Chair, GPS Committee

NMGIC Fall Workshop and Meeting.... October 18-19, 2001

NMGIC is sponsoring a half-day workshop on Thursday October 18th entitled *LIDAR Technology and GIS Applications*. The instructor is Mike Renslow from Spencer B. Gross, Inc. in Portland, OR. Mike is *the* expert on LIDAR technology. Please check the NMGIC website for details and registration information.



The fall meeting will be held October 19th and is our annual *USER SHOW* where NMGIC members showcase their geospatial projects and applications. The program includes technical presentations, posters, and demonstrations....and as always, a complimentary lunch! Watch the NMGIC website for details (*http://nmgic.unm.edu*).

UNM Science & Technology Park ✶ 801 University Blvd SE ✶ Albuquerque, NM

Moving Toward Digital Mapping for NM Parcels

A basic function of government is the tax assessment process. The goal of this process is to carry out an equitable and complete assessment of all taxable properties within each taxing entity. In New Mexico, tax assessment is accomplished through the cooperative effort of state and local governments. The Taxation and Revenue Department's Property Tax Division oversees each New Mexico Assessor's operations. For a number of reasons (increased rate of land development, the inability to retain trained staff and ever changing technology) many New Mexico counties have found it difficult to maintain current and accurate tax assessment records and maps. Some counties do not maintain property maps at all; rather they use a manual property record card system. Additionally these counties are also faced with an unfunded mandate requiring that all their tax assessment maps be in digital format by June 2002. Only seven of the state's 33 counties have a fully functional parcel based mapping system. Of these seven only three counties are digital with a working Geographic Information System (GIS).

To begin addressing this issue the Property Tax Division (PTD) entered into a contract with New Mexico State University's Geography Department to initiate a pilot project. The goal of the pilot project was to determine a price-per-parcel so that PTD and the county assessor may pursue funding for this unfunded mandate. Torrance County was chosen for its variety of parcel types and also the assortment of map qualities. The variations that exist within this county represent the diversities in the 33 counties.

For the pilot study, 29,672 parcels were mapped (not including land grant parcels). The final cost of the project was estimated at $30,000. Direct mapping costs for counties in New Mexico under similar circumstances to Torrance County will range from $0.65 to $3.20 per parcel. Final costs will depend on whether the county has parcel maps or not, the quality of the maps, the current status of the mapping (back-log of deeds), the availability of Uniform Property Codes (UPC) and the accuracy required by the county assessor and county clerk. To acquire further information regarding the pilot project and any other projects please contact Dr. Robert Czerniak at (505) 646-2815 or *rczerniak@nmsu.edu*.

To further pursue GIS efforts amongst the Assessors, PTD has established a GIS users group for their mapping staff. During the group's meetings we address possible regulation and specification changes, training needs, and assist each others efforts.

During the project PTD has joined into a cooperative partnership with the Western Governor's Association (WGA) and Bureau of Land Management (BLM) to receive federal funding for the enhancement of cadastral data in 18 western states. There are two funding proposals being considered by Congress:

1. U.S. Congressman Skeen is being asked to sponsor a BLM request for $4,700,000 in FY03 of which 90% is targeted as a pass back to each of the 18 Western Governor's States.

2. U.S. Congressman Wamp is being asked to sponsor a similar initiative being proposed by a private firm that would request $15,000,000 in FY03 of which $1,500,000 would be slated for each of five Western Pilot States (including New Mexico) and five Eastern Pilot States. This request is also expected to be a 90% pass back to local authorities while BLM would retain 10% for administrative coordination.

Please contact Congressmen Joe Skeen and Zach Wamp encouraging them to support these initiatives to secure funds for automating parcel mapping in our local governments. To acquire further information and/or offer suggestions and/or services please contact:

Elizabeth Ayarbe
1220 S. Saint Francis Drive
Santa Fe, NM
Voice: (505) 827-0892
Email: *Layarbe@state.nm.us*
Web: *http://state.nm.us/PTD*

Attention Students in GIT Classes.....

NMGIC offers a scholarship worth up to $1000 to students majoring in geographic information technologies (GIT).

See the NMGIC web site at *http://nmgic.unm.edu* for details and application form.

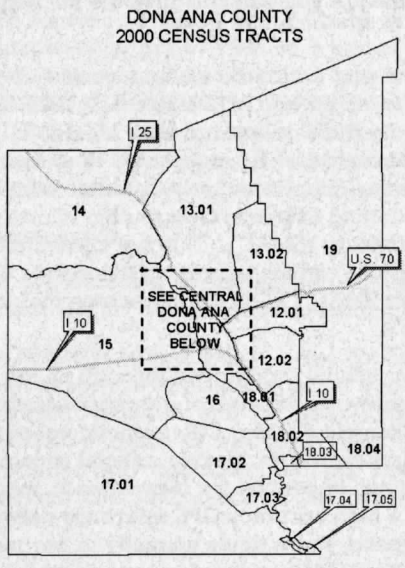
(Continued from page 1)

Indian or Alaskan Native, Asian, Native Hawaiian or Other Pacific Islander, and Some Other Race. Because respondents could have chosen two or more races, tabulations show a total of 63 possible permutations. (The number rises to 126 if the race responses are cross tabulated by Hispanic origin.) However, the number of responses to most individual multi-race permutations is small and for most analytical purposes further regrouping of these categories is necessary.

Consequently, the RGIS Clearinghouse databases (*http://rgis.unm.edu*) present grouped data according to minimum and maximum populations for each broad racial category. The minimum population is the number of single-race respondents for a given racial category. The maximum population for a given racial group is the number of single-race respondents for that group plus the number of respondents who chose that group in combination with other racial categories. For example, the percentage of American Indians or Alaskan Natives in New Mexico is 9.5% (minimum population) or 10.5% (maximum population). Currently, Clearinghouse data include minimum and maximum population counts and percent distributions by county for each of the six broad racial groups and the non-Hispanic White (Anglo) cross tabulation. Total Hispanic population distributions by county are also in the Clearinghouse. Since Hispanic ethnicity was determined on a separate basis from race, persons of Hispanic origin can be of any race. Moreover, a multiple response option was not allowed in the Hispanic question (i.e., an individual indicated either that they were Hispanic or non-Hispanic) and the concept of minimums and maximums does not apply to the total Hispanic population. The county database also contains comparisons to 1990 census counts. Since the multiple race response option was not allowed before Census 2000, comparisons to 1990 data are problematical. Hence, users are given the option of comparisons to both minimum and maximum Census 2000 populations.

These Census 2000 minimum and maximum populations are also available by census tract. The tract data are being added to the Clearinghouse site on a county-by-county basis as the data are processed.

In May 2001, the Census Bureau released the next installment of data, the *Profiles of General Demographic Characteristics*. This data set provides a preview of more detailed tabulations that will soon be available. The *Demographic Profiles* present 100% or short-form data from Census 2000, addressing the basic demographic characteristics. Tabulations include the following: gender; a condensed age distribution (17 age groups); household population by type (head of household, spouse, child, etc.); group quarters population (e.g., institutionalized persons); households by type (married-couple families; female-headed families, with no spouse present; etc.); households by presence of children; average household and family size; total housing unit counts and numbers of owner- and renter-occupied units; racial distributions that include the numbers of Asians



and Pacific Islanders by type (Chinese, Filipino, etc.); and Hispanics by type (Mexican, Puerto Rican, etc.). This database does not contain cross tabulations by race, such as American Indians by age groups, and data are not available for areas smaller than places.

Though the *Demographic Profiles* are somewhat limited, the database allows for the tabulation of county and city summaries, along with comparisons to 1990 data. County-level tabulations, including 1990 comparisons, are being processed for the RGIS Clearinghouse.

On July 3 the Census Bureau will release *Summary File 1 (SF 1)* for New Mexico. This is a large database that significantly expands upon the extracts seen in the *Demographic Profiles*, but is still confined to 100% or general population characteristics. *SF 1* will cover geography down to the block level and there will be cross tabulations of many demographic characteristics by the major racial categories. In the fall of this year, these general characteristics will be iterated for many detailed racial categories, with the release of *Summary File 2 (SF 2)*. The *SF 2* data will be available for areas as small as census tracts.

Socioeconomic or sample (long-form) data will not be available until spring 2002. At that time summary tables will be released, again as *Demographic Profiles* for limited geography. In summer 2002 *Summary File 3 (SF 3)* will be released, expanding upon the socioeconomic *Demographic Profiles*, with more detailed tabulations and cross tabulations by major racial group. *SF 3* will cover geography down to the block group level. *Summary File 4 (SF 4)*, which will be released in the Oct. 2002-Feb. 2003 period, will provide socioeconomic data for iterations of detailed racial groups, covering census tracts and larger areas.

As Census 2000 products become available, they will be added to the RGIS Clearinghouse web site. As usual, the tabulations contained in these databases will be formatted for use in GIS software, and will contain appropriate geocodes.

The basic Census 2000 data and selected supplemental tabulations can also be accessed through the Census Bureau's American FactFinder (AFF) web site, available as a menu option on the Bureau's home page, *http://www.census.gov*. Other links to Census 2000 data can also be accessed on the Bureau's home page and may provide more convenient paths than allowed through AFF. The following Census Bureau web site shows a complete schedule Census 2000 product releases:

http://www.census.gov/population/www/censusdata/c2kproducts.html.

Kevin Kargacin
UNM Bureau of Business and Economic Research

NMGIC Response to USGS Regarding the National Map

National Map Committee
USGS
511 National Center
12201 Sunrise Valley Drive
Reston, VA 20192

David J. McCraw, President
New Mexico Geographic Information Council, Inc.
P.O. Box 9445
Albuquerque, NM 87119-9445
djmc@nmt.edu
http://nmgic.unm.edu

29 June 2001

Ladies and Gentlemen of the National Map Committee,

On behalf of the Executive Board of the New Mexico Geographic Information Council, I would like to commend the USGS for the timely and salient vision that is The National Map (TNM). Although this is such a massive undertaking that it quite literally boggles my mind (!), it is probably no less ambitious as was the USGS's goal fifty or so years ago to provide complete topographic map coverage of the U.S. at a scale of 1:24,000, and just as doable! Perhaps the target year of 2010 is overly optimistic, but hey, we got to the moon in 9 years! I mention these lofty accomplishments because I believe TNM can and will have an equal or greater impact on our 21st Century society as did the fulfillment of these goals on our 20th Century. Having said that, let me tell you that you have the full support and a probable future partnership of the NMGIC.

First let me tell you about this organization and a little bit about myself and then I will provide specific comments on TNM document. NMGIC was established as an ad hoc organization in 1984 and guided by a steering committee until recognized by an Executive Order issued by the Governor of New Mexico in 1987. NMGIC was incorporated as a non-profit organization in November 1989. It is managed by an elected nine member Board of Directors. NMGIC is composed of five committees that respond to issues important to geographic information in New Mexico. These committees are: Geographic Names; Geographic Positioning Systems; Geographic Information Systems; Framework; Local Government Land Records; and State Mapping Advisory (SMAC). This last committee works hand-in-hand with the State's Resource Geographic Information Systems (RGIS) which serves as the state's GIS (web-based and otherwise) clearinghouse for GIT data. I would suggest that our SMAC / RGIS could become major players in the serving of TNM New Mexico data, if this were to come about.

Major accomplishments of NMGIC include: official recognition through an Executive Order (87-19); securing non-profit corporation status in 1989; establishing a statewide network of geographic information users; publishing of the *Directory of Sources for New Mexico Mapping and Remote Sensing Data*; official recognition by the U.S. Board on Geographic Names as the primary contact for names issues in New Mexico; official recognition by the U.S. Geological Survey, National Mapping Division as the primary point of contact for New Mexico mapping priorities (currently vis-a-vis Gary Kress, Denver GS-NMD); and establishing a high accuracy GPS reference network for New Mexico. Furthermore, we put out an informative newsletter, *The Map Legend*, three times annually to our membership, and have biannual meetings, offering high quality speakers, exhibits, and programs regarding geographic information and related technologies.

I was active in the establishment of NMGIC in the early 1980s, before I moved out-of-state. After moving back to NM in 1995, I was elected to NMGIC's Executive Board in 1998. I have served as President since 1999. In 1980, I held a summer internship with the USGS in Reston under Roger Payne, of the GNIS/USBGN. I am currently a Sr. Geological Lab Associate, employed by the N.M. Bureau of Geology & Mineral Resources (NM's state geological survey) on the campus of New Mexico Tech in Socorro. My primary duties include coordination of NM's National Cooperative Geologic Mapping Act (NCGMA), STATEMAP Cartographic responsibilities. At this logical point, let me make my first comment on TNM, relative to the statement on p. 14, on investigating a legislative initiative similar to the NCGMA. I personally would highly support seeking out such a legislative initiative. I know firsthand of the IMMENSE benefits that the NCGMA has brought to NM via the highly successful STATEMAP program, and feel that this would provide key foundational support to TNM.

Comments on TNM: Useful Items

Basically, the whole concept of TNM is beyond useful, it's incredible! I absolutely love the components of seamlessness, currency, and consistency. I love the concept of web-based, and I love the kiosk-concept, assuming I can pull into any

(Continued on page 9)

(Continued from page 8)

gas station or visitor center, etc. and print out a map of the area I need, DELINEATED BY DRAGGING A DEFINING BOX AROUND MY AREA OF INTEREST, on the computer screen. I love the ideas of incorporating DOQQs and DEMs into the dataset. There is no better orienteering landmark in the field than a building or similar structure, and to be able to verify your location by comparing the shape of the object seen on the DOQQ-embedded TNM to what you visualize on the ground is paramount. Furthermore, I love the concept of higher resolution in flat areas, e.g., floodplains (I used to map Quaternary channels, backswamps, and alluvial levees, terraces in the Lower Mississippi floodplain of Louisiana where the 10-20 ft C.I. is basically useless). And finally, I love the concept of including land cover data into the dataset. This again should prove invaluable for orientation, not to mention for geographic research. In short, what you propose for TNM, it's all extremely useful!

Comments on TNM: Items that Need Consideration

My comments for Items that Need Consideration all fall on the specifics of the data covered in pp. 8-9, essentially. DEM-data (e.g., high-resolution surface elevation data): I would hope that vis-a-vis TNM, there would become a nationwide mandate to develop 10m DEM data, for the nation for inclusion into TNM. Realistically, there is no comparison between the 28-30m and 10m DEM data. In addition, there is no mention in TNM document into the incorporation of the NASA Space Shuttle elevational dataset for the lower 48. This dataset should not be ignored.

Vector data. My main concern here is that ALL LAND OWNERSHIP be incorporated into the dataset. It is not clear in TNM document that this will be the case. New Mexico land ownership is about as big of mixing bag as any state: federal, state, tribal, Spanish land grant, land trusts, private. In addition to PLSS, all land ownership should definitely be incorporated into TNM.

Variable User Need for TNM data. Your average citizen who pulls up to a gas station in 2012 and needs to find his way to Aunt Ellie's house will care less and probably become confused beyond help with land cover data, land ownership data, etc. I would suggest developing the downloadable output of TNM as a series of clickable radio buttons starting with USER-UNDERSTANDABLE base/road networks (e.g., your basic highway map with only major roads established in the dataset) AND SHOWING THE USER WHAT THIS LOOKS LIKE (WHAT HE/SHE IS DOWNLOADING, AND WHAT "POPS UP" WITH EACH ADDITIONAL RADIO BUTTON CLICK). On the opposite end of the spectrum, users that need road coverage down to "rabbit trails," e.g., tracks out to isolated Navajo hogans, should be able to "dial in" this level of need into the vector data coverage. To summarize, the vector data need to be partionned based upon varying levels of user needs.

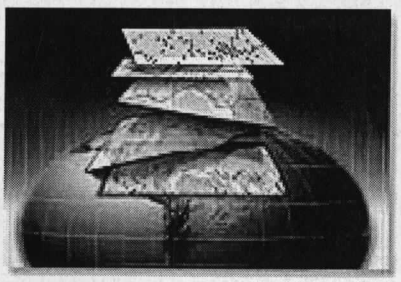
Comments on TNM: Items that Need Improvement

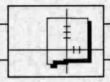
I have no items that need improvement. It is apparent that in establishing the construct of TNM, that it was well thought out, at least to me. It is, once again, as it appears now, an incredible undertaking, one that will take alot of work!

Having said that, once again, let me reiterate NMGIC's willingness to help! We have just received a grant from the FGDC to develop an Open-GIS, web-based, clearinghouse-type internet portal for geographic information. If TNM continues to move forward with congressional support, we (NMGIC, RGIS, and our sister-state govt. organization, the NM Geographic Information Systems Advisory Committee--GISAC-- which is also providing comments to TNM) would like to pursue partnerships with the federal TNM program! I truly and sincerely look forward to hearing of the developments of TNM until the point where it becomes a reality, and THE beacon of 21st Century U.S. geographic information!

Yours, very sincerely,

David J. McCraw
President, NMGIC





NMGIC Response to FGDC Regarding US National Grid

To:
Federal Geographic Data Committee
Standards Review - United States National Grid
(e-mail to: gdc-usgrid@www.fgdc.gov)

From: David J. McCraw, President
William A. Stone, GPS Committee Chair
New Mexico Geographic Information Council, Inc.
(http://nmgic.unm.edu)

Dear FGDC,

We are writing on behalf of the New Mexico Geographic Information Council, Inc. (NMGIC) to provide comments on the proposed standard for a United States National Grid (USNG). NMGIC is a non-profit membership organization that focuses on the education and professional involvement of its membership regarding geospatial activities. The USNG issue was briefly discussed at a recent NMGIC Executive Board meeting and members were in agreement regarding concerns about the proposal.

We support the adoption of a standard coordinate system or grid for use in the applications that are identified in the proposal and supporting documentation. Furthermore, we agree that the use of latitude/longitude is probably too cumbersome for many practitioners of these applications. The specification of a planar-X,Y coordinate system is the logical approach to the issue. However, we feel that the Military Grid Reference System (MGRS), as the basis for a national grid, is not the best choice.

Our concerns with the selection of MGRS are as follows:

1. Although MGRS has existed for many years, it is rather obscure and rarely used in the casual geospatial user community. Only a very limited number of experienced users have worked with the system.
2. Very few existing maps are gridded with MGRS values. It would take many years before the necessary maps with MGRS grids could be generated.
3. Some uses of MGRS involve considerable memorization of details - such as the alpha-character designations of the 100 km grid cells. Infrequent users of the system would have a difficult time remembering these specific details.
4. It is impossible to look at the MGRS coordinates of two points and, unless they are in the same 100 km grid cell, easily determine the distance between the points, without knowledge of the relationship between the specific grid cells relative to each other.
5. The use of MGRS is likely to cause considerable confusion amongst the more casual users. In some situations involving safety of life, such as search and rescue applications, the results of coordinate confusion could be disastrous.

No existing coordinate system is perfectly suited for the application/practitioners targeted by the USNG proposal. It might be possible to design a system that is better-suited than all existing systems. However, it is advantageous to make use of a system that is already defined and for which at least some users have a familiarity.

We feel that the Universal Transverse Mercator (UTM) system is preferable to the MGRS for the basis of a USNG. Of course, UTM provides the coordinate framework for MGRS and thus these two systems share many of the same technical attributes.

UTM addresses most of our concerns regarding MGRS that are outlined above as follows:

1. UTM is arguably the most widely-used grid coordinate system in the US today.
2. Many large and medium scale maps are already gridded with UTM coordinate values.
3. UTM does not involve the memorization of alpha-character codes.
4. Even a casual user can look at the UTM coordinates of two points, in the same UTM zone, and easily determine the distance between the points.
5. We understand that UTM is already widely used in applications such as search and rescue, perhaps the use that carries the most demanding requirements.

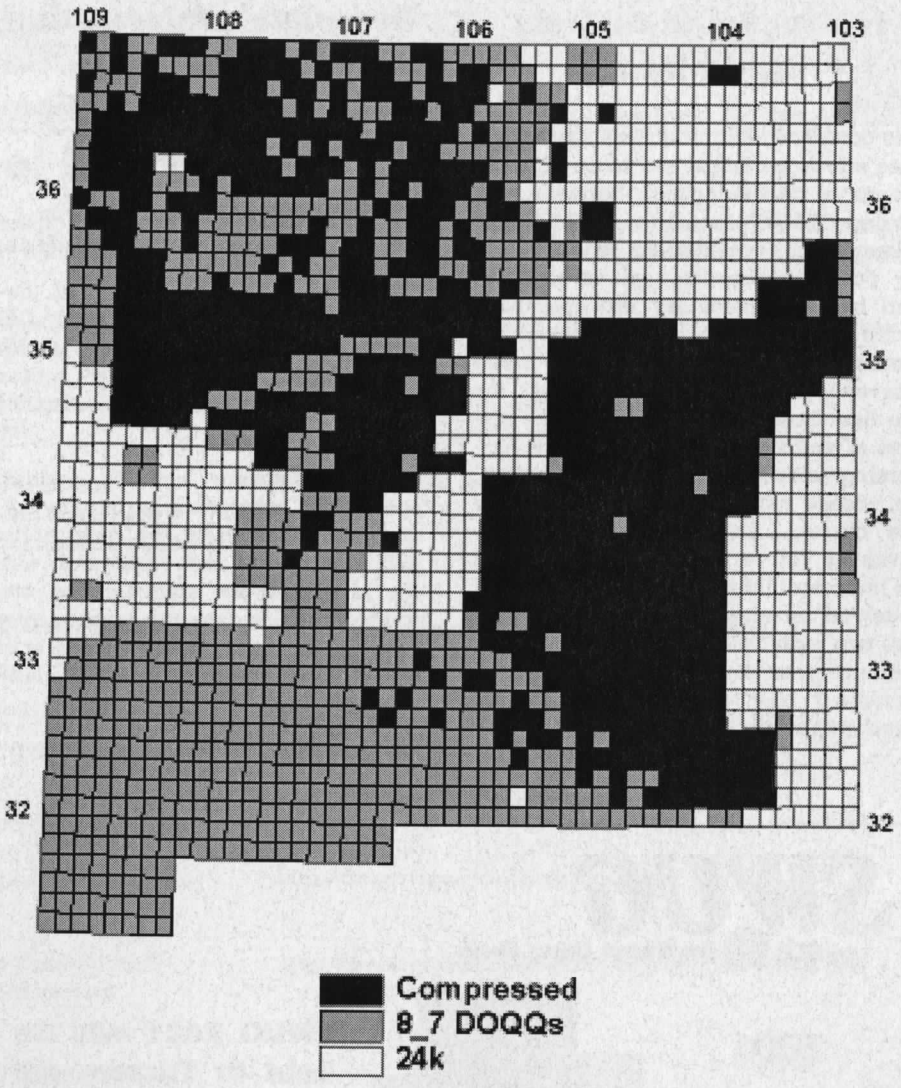
The main drawback of the UTM, as cited in the proposal, is that it does not provide a convention for variations in the level of coordinate precision. This would seem a small compromise to make in order to realize the many advantages that UTM has to offer. If the variability in precision is deemed to be sufficiently desirable, perhaps some convention of UTM coordinate truncation could be developed and adopted as an element of a USNG.

In conclusion, we applaud FGDC's effort to adopt a standard grid system for GPS/mapping applications. However, we urge you to consider adopting UTM instead of MGRS as the standard system. Thank you for the opportunity to comment on this proposal. Feel free to contact us should you wish clarification or further discussion of any of these issues.

RGIS News

Status of DOQQs

The RGIS Clearinghouse is acquiring and compressing digital orthophoto quarter quads (DOQQs) of New Mexico to make them available online through the RGIS website. As of August 2001, 1422 7.5 minute quadrangles (about 5,688 quarter quads) have been acquired, of which 742 (approximately 3,000 quarter quads) have been compressed and are on the website. The files are compressed using Mr. SID and then zipped with the header file. Users can read the files by downloading the Mr. SID viewer, or by using software that can read the .sid files (such as ArcView). The quads that are available, but not yet compressed (and therefore not online), can be obtained by contacting the RGIS Clearinghouse via email or phone. Orthophoto quads in the GeoTIFF format are available from the Clearinghouse at $15 per CD.

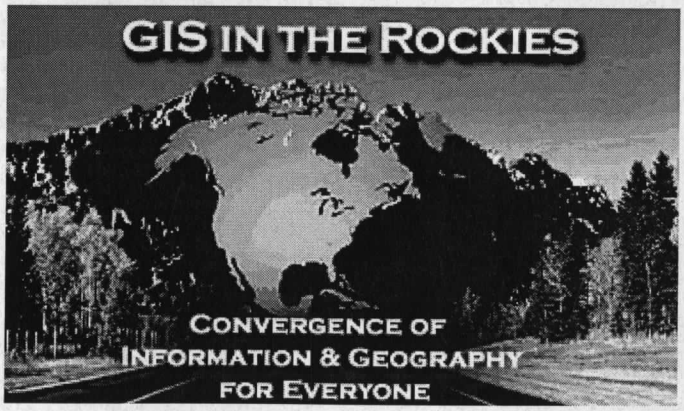


10 Meter DEMs

Approximately 1000 10-meter digital elevation models (DEMs) have been donated to the Clearinghouse by several sources. These are not online, but can be obtained by contacting the Clearinghouse.

Contact **Laura Gleasner** at *laura@spock.unm.edu* or 505-277-3622, ext 230 or **Amy Budge** at *abudge@spock.unm.edu* or 505-277-3622 ext 231.

Mark your calendars for.....



September 18th, 19th, and 20th 2001

Denver Merchandise Mart Denver, Colorado

See the website for details at *http://www.GISintheRockies.org*

Tidbits and Other Items of Interest

Is Your Email Address Up-to-Date?

The current state of electronic technologies allows for faster and more efficient means of communication between and among NMGIC members. NMGIC is taking advantage of these technologies by posting information on its website and by communicating with members using email. Several announcements on workshops and meetings have been conveyed using these tools. In fact, for the first time, NMGIC will offer the option of voting electronically in the upcoming election for Board members. So, please make sure that NMGIC has the current....and correct....email address for you so that you don't miss out on important information! If you haven't received an email from NMGIC in the last two months, please make sure that we have your correct email address by sending it to Amy Budge at *abudge@spock.unm.edu*. Thanks.

Geographic Information Services (GIS) Technology Foundation Grant Series

San Miguel County, NM is among the list of grant awardees.

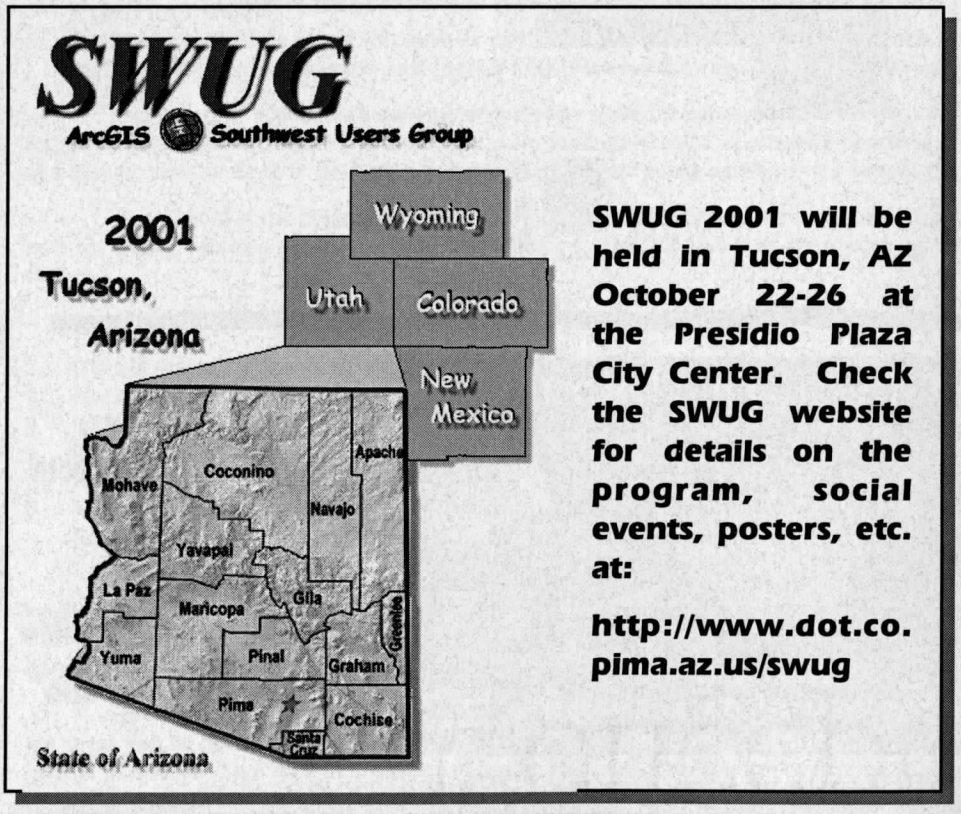
NACo, in partnership with ESRI, developed the highly successful GIS Starter Kit Program. The Starter Kit program gives NACo members access to GIS software, data and training for free!

The GIS Software includes desktop software to help you integrate, query, analyze, and present the geographic and descriptive data provided with the kit. Using the software you can transform those data into road maintenance information, or create a host of other applications to support daily county tasks.

Congratulations to San Miguel County!

Revitalizing the ASPRS Rocky Mountain Region, Rio Grande Chapter

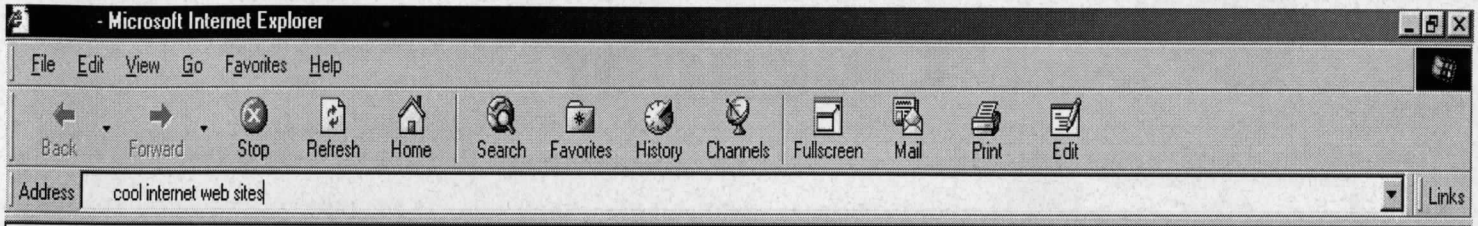
The Rio Grande Chapter of the ASPRS Rocky Mountain Region has been dormant for the past 10 or so years. This status is about to change with renewed interest in the Chapter by local members and Region representatives. To help kick off the Chapter, the NMGIC Board has agreed to include a Chapter meeting in conjunction with the Fall NMGIC meeting on October 19th. ASPRS....The Geospatial Information Society....is a professional organization that addresses issues and interests in photogrammetry, remote sensing **AND GIS**. All NMGIC members are encouraged to attend the Chapter meeting on October 19th immediately following the NMGIC program. For more information on the Rio Grande Chapter, contact Layton Hobbs at 505-798-7907 or by email at *lhobbs@bhinc.com*.



News From SIPI

The Southwestern Indian Polytechnic Institute (SIPI) is currently putting together its Fall 2001 Short Course calendar. SIPI will be offering classes on the topics of GIS and GPS, to name just a couple. All classes are open to Tribal personnel. For more information contact Denise Chavez (*dchavez@sipi.bia.edu*) or Monte Monteith (*montieth@sipi.bia.edu*). SIPI is also working with eleven other Tribal Colleges and Universities, New Mexico State University, and ESRI to develop a coalition whose goal is to develop and implement a geospatial curriculum for use in the Tribal Colleges and Universities. In November, SIPI will host the Annual Meeting of the National Consortium for Rural Geospatial Innovations.

Denise Chavez

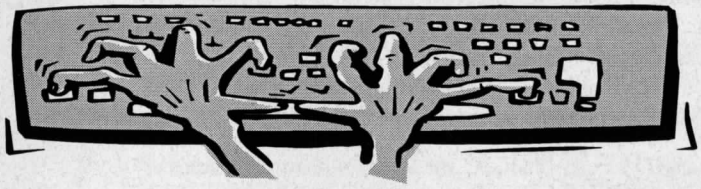


Cool Internet Web Sites

For this edition of Cool Web sites, I've chosen to focus on some new and newly redesigned websites with interactive mapping for environmental information. I am continually amazed at how many data about our environment are being placed on the web.

These sites are culled from a variety of trade journals, newsletters and electronic newsletters. This may not be an exhaustive list and as always, if you have any additions, please feel free to contact me at *drbleak@sandia.gov*.

U.S. Fish and Wildlife Service National Wetlands Inventory Center, Wetlands Interactive Mapper Tool.	http://wetlands.fws.gov/mapper_tool.htm
U.S. Department of Agriculture, Natural Resources Conservation Service, National Science and Technology Consortium website - sources for linking to many databases about plants, soils, water, and climate.	http:/www.nrcs.usda.gov/TechRes.html
USDA - NRCS Soil Conservation Division, National STATSGO Database - state soils data.	http://www.ftw.nrcs.usda.gov/stat_data.html
U.S. EPA Surf Your Watershed - interactive tool for understanding local watersheds.	http://www.epa.gov/surf3/locate/index.html
New Mexico Rare Plant Technical Council - selected maps of the location of rare plants in New Mexico.	http://nmrareplants.unm.edu/
U.S. EPA EnviroMapper - aids in locating hazardous waste sites.	http://maps.epa.gov/enviromapper/
Global Forest Watch - dedicated mapping and publicly documenting forest development activities around the world.	http://www.globalforestwatch.org/english/index.htm
National Atlas - a wondrous source for all types of information at a national level.	http://www.nationalatlas.gov/
U.S. Census Bureau Fact Finder - ok, not exactly Ecological, but lots of facts about the U.S. population!	http://factfinder.census.gov/servlet/BasicFactsServlet



Calendar

Fifth International Airborne Remote Sensing Conference and Exhibition, September 17-20, 2001. San Francisco Marriott Hotel, San Francisco. Contact: Veridian Systems/Airborne Conferences, P.O. Box 134008, Ann Arbor, MI 48113-4008. Phone 734-994-1200 ext 3234. Fax 734-994-5123. Email: wallman@erim-int.com. Web: http://www.erim-int.com/CONF/IARSC.html.

GIS in the Rockies: Convergence of Information & Geography for Everyone, September 18-20, 2001. Denver Merchandise Mart, Denver, CO. Contact: GIS in the Rockies, PO Box 724, Central City, CO 80427. Email: chair@gisintherockies.org. Web: http://www.gisintherockies.org.

Utah Geographic Information Council State GIS Conference, September 26-28, 2001. Prospector Square Conference Center, Park City, UT. Contact: Nick Kryger, Salt Lake City Public Utilities, 1530 S. West Temple, Salt Lake City, UT 84115. Phone 801-483-6834. Fax 801-483-6847. Email: nick.kryger@ci.slc.ut.us. Web: http://www.co.wasatch.ut.us/ugic.

NMGIC Workshop: LIDAR Technology and GIS Applications, October 18, 2001. UNM Science & Technology Park, 801 University Blvd SE, Albuquerque, NM. Contact: Bobby Creel, NMGIC Workshop Coordinator. Phone 505-646-4337. Fax 505-646-6418. Email: bcreel@wrri.nmsu.edu. Web: http://nmgic.unm.edu.

NMGIC Fall Meeting, October 19, 2001. UNM Science & Technology Park, 801 University Blvd SE, Albuquerque, NM. Contact: Bob Bewley, NMGIC Meetings Coordinator. Phone 505-438-7481. Fax 505-438-7524. Email: bbewley@nm.blm.gov. Web: http://nmgic.unm.edu.

SWUG 2001, ArcGIS Southwest User Group, October 22-26, 2001. Presidio Plaza City Center, Tucson, AZ. Contact: SWUG 2001, c/o Steve Whitney, Pima County DOT, 201 N. Stone Ave. 9th Floor, Tucson, AZ 85701. Fax: 520-903-0987. Web: http://www.dot.co.pima.az.us/swug.

New Mexico Environmental Health Conference 2001, October 29-31, 2001. Albuquerque Convention Center (East Complex), Albuquerque. Contact: Tom Duker, Conference Chair, NMEHC-2001, PO Box 27176, Albuquerque, NM 87125-7176. Phone 505-924-3667. Fax 505-924-3684. Email: tduker@mercury.bernco.gov. Web: http://www.nmehc.org.

National GeoData Forum 2001, November 1-3, 2001. The Westin at Tabor Center, Denver, CO. Contact: The GeoData Alliance, 11654 Plaza America Drive, No. 127, Reston, VA 20190. Web: http://www.geoall.net/2001Forum.

New Mexico Watershed Management: Restoration, Utilization, and Protection, 46th Annual New Mexico Water Conference, November 5-7, 2001. La Fonda Hotel, Santa Fe. Contact: NM Water Resources Research Institute, NMSU-MSC 3167, Box 30001, Las Cruces, NM 88003. Phone: 505-646-4337. Fax 505-646-6418. Email: wrri@wrri.nmsu.edu. Web: http://wrri.nmsu.edu.

GIS Day, November 14, 2001. Web: http://www.gisday.com.

NMGIC Election Will Be Held in September for Four Board Positions

An election to fill four positions on the NMGIC Board will be held in September. The Board consists of nine members, four whose terms are expiring this year and five whose terms will expire next year. Per the NMGIC Bylaws, these positions are filled with individuals who are elected by the NMGIC membership. The floor is open for nominations through September 19th. Nominations should be sent to Bobby Creel, Chair of the Nominating & Elections Committee, at *bcreel@wrri.nmsu.edu*.

Ballots will be distributed September 19th to NMGIC members whose dues are current for 2001. This year, members will have the option to vote electronically.

2001 Corporate Sponsors

Thank you for your support!