

cloud cover.) A new snapshot of the state is captured every 16 days. Nine Landsat 7 scenes comprise a complete 'snapshot' of Ohio, and each represents ground cover approximately 115 miles wide by 106 miles long.

For reasons unknown to the author, the Map Room was never blessed by owning copies of the Sanborn fire insurance maps for either Columbus or other cities in Ohio. (The Sanborn maps are large-scale maps from the mid-19th century to the 1970s, showing residential, commercial and industrial sections of thousands of cities and towns throughout the country. These detailed maps show the size, shape and construction of buildings, the names and widths of streets, property boundaries, building uses and block and house numbers. Today they are an invaluable historical resource depicting the structure and use of building in American cities over the past 100 years.) Ohio State's library did purchase the Sanborn maps on black & white microfilm several years ago, and these have until recently served as the only format available for our users. Recently, however, OhioLINK's Digital Media Center purchased the digitized version of the Sanborn maps of Ohio cities and made them available on the Web to students and faculty of member institutions. Although the digital versions of these maps were made from the microfilm copies and not from the original color maps, the online format offers our users a powerful, significant and easily accessible historic map resource.

While the Map Room has a relatively small map collection for an academic library the size of Ohio State's, it is rich with cartographic resources. There is a wealth of cartographic and geographic information located in the Map Room, and I am thrilled to be in a position to provide help in uncovering these valuable resources for the students,

faculty and staff of Ohio State.

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Digital Map and Geospatial Information Center Princeton University Library

The Digital Map and Geospatial Information service was formally started at Princeton University in August 1998. It is located in the Geosciences and Map library in Guyot Hall. I was hired to start this new library service. The main goal of launching this new library initiative was to manage, catalog, and make digital geospatial data accessible either online or offline. We also provide a full range of digital mapping and GIS services to our patrons, including reference, research consultation, and instruction to library users about how to search and use digital geospatial data that we have purchased or received free of charge through the Federal Depository Library Program (FDLP).

What digital data do we collect and what is our general policy of collecting digital data?

We are one of the regional Federal Depository Libraries and hence receive all digital data that are distributed to libraries through the FDLP program free of charge. In addition to receiving data through the FDLP, we actively collect local, regional, national and international digital data as

much as possible. The most crucial problem faced by librarians who collect digital geospatial data is how to develop their collection in conjunction with paper maps. At Princeton, I made the decision to collect all the possible "core or base GIS data" that includes government units, transportation networks, hydrography, elevation, and gazetteer data that are available on the market at the regional level, (digital geospatial data that were developed using map scale of 1:1,000,000 or 1:250,000) except satellite images and aerial photos. However, we buy satellite images and aerial photographs if a class is doing a project on a particular area of the world and requests such data. I also made another decision regarding buying digital map products, that is, if a published map is sold as a good scanned map, then I will buy the digital rather than the hard copy map. This is done to solve physical space limitation for storing hard copy maps and the flexibility provided by digital maps. Should a patron need a hard copy of a scanned map, we can print the map using our large format printer. Early on I decided not to buy atlases and digital maps that are bundled with software if that data cannot be viewed or analyzed independently of the bundled software. With the above policy in mind, Princeton University Library's Digital Map and Geospatial Information Center is developing a rich collection of digital map and geospatial data to address the ever-growing demand for geographic data.

At the international level, we have digital data that are digitized from maps with a scale of 1:1,000,000 or 1:250,000 or 1km resolution such as DCW, VMAP0, GTOPO30 and Global GIS Database: Asia, South Pacific, Africa, Central and South America, and Africa Data Sampler, as well as all the VMAP1 data that are available on the market.

At the national level, we have TIGER 2000 boundary layers, Hydrographic Survey Data, all the Q3 FEMA flood data that is available on the market, all the ProQuest Information and Learning Company's Digital Sanborn Map, 1867-1970 databases, and a good collection of DRG and DOQQs. I also downloaded the Environmental Protection Agency's (EPA) GIRAS Landuse/Landcover data for the Conterminous United States at a scale of 1:250,000 and made them accessible online through our server, located in the Digital Map and Geospatial Information Center. I did this because our users were having problems accessing landuse data through the EPA server a few years ago. Since our Center does not have all the states' various geospatial data, I made a web page that has a link to individual states' geospatial data centers (<http://www.princeton.edu/~geolib/gis/uniteds.html>). This provides a virtual access to most of the states' geospatial data. In the future, we plan to scan all USGS 24k topographic maps, if possible, at a better resolution than USGS DRGs to preserve maps and reduce drawer space. We are definitely going to scan all the superseded USGS 24K topographic maps before weeding them out from our paper map collection. This will allow us to keep all the 24K topographic maps that are superseded and weeded out of our paper Map Collection in a digital format. These scanned maps will later be made accessible online to our patrons, if possible, in a georeferenced form.

At our state and local level, we have all digital data created in the 1990s by the New Jersey Department of Environmental Protection's (NJDEP) Geographic Information System (GIS). I have converted New Jersey DEM data from SDTS format into USGS DEM format and made them accessible through our server. I have taken the initiative in archiving old New

Jersey topographic maps and aerial photographs in digital format. Recently Princeton, Rutgers, and the New Jersey Department of Environment Protection started a pilot project to scan and georeference historical New Jersey Geological Survey Atlas Sheets published between 1884 and 1894 and aerial photographs of New Jersey's Mercer County taken in 1951 (Princeton is located in Mercer County). Once this project is done, we plan to ask for funding to do 1930s aerial photographs of all of New Jersey. I am also actively collecting digital map or geospatial data of major cities in the United States and in the world.

GIS and digital mapping facilities at our Center:

Seven workstations with CD rewriter and 21 inch monitors equipped with full range of GIS, remote sensing, and graphic software packages. Large format color printer (HP DesignJet 1055CM printer). Large format color scanner (40" IDEAL/Contex Chroma TX plus). Small color printer (HP DeskJet 990cse) Small color scanner (HP) Digitizing table Light Table Campus-wide license of ESRI software Leica Geosystems's ERDAS IMAGINE MapInfo software in our Center Graphic software packages such as Photoshop, Illustrator, CorelDRAW etc.

Services:

Princeton University Library expects each and every librarian to provide personal service to our patrons. I make sure that each patron who comes to our Center is satisfied with our service. To ensure this, we provide a full range of

digital map and GIS services such as GIS reference, consultation and analysis, workshops, and cartographic design help. I might spend a few minutes or a few hours to help an individual patron. Since we provide a wide range of digital map and GIS services, our Center is widely used. Patrons come to our Center to get help with searching data, understanding data, merging data, analyzing data, converting data, creating maps from analyzed data, etc. In addition, I provide help through emails and phone calls. Our Center is used by various disciplines, because I have made sure from the very beginning that I advertise our services to all departments that deal with location-based information. Besides providing the above services, we also offer regular GIS workshops to educate our patrons about our GIS data collections, services and facilities, and provide specific GIS demonstrations to individual classes. We provide the service of printing academic related material on our large format printer with a nominal fee. We charge a flat rate of \$2.00 for printing a poster or map on plain paper of 11x17 inches to 17x22 inches, and \$5.00 for 22x34 inches to 34x44 inches. If a person prints larger than 34x44 inches, we add \$2.00 provided the paper is not double the size of 22x34 inches. If the paper size is double the 22x34 inches, then we charge \$10.00. The fees are based on research I did to recover paper and ink cost. Data were collected from the HP web page.

How our collection is cataloged:

Our data are cataloged in two ways. Digital data that we received through the FDLP and purchased by us are cataloged using MARC and made searchable through our library main catalog. However, data that are generated within our Center or came with software or are acquired by me from fed-

eral, state, and local agencies are cataloged according to the FGDC metadata standard and stored in our Center's server. Since we are one of the nodes in the Federal Geographic Data Committee Clearinghouse, a patron can search that part of the data through the FGDC Clearinghouse.

Our Center is open Monday through Friday from 8:45am to 5:00pm. We are closed on Saturday and Sunday. For information visit our web site <http://www.princeton.edu/~geolib/gis/>

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Map and Geographic Information Center
Centennial Science and Engineering Library
University of New Mexico

The Map and Geographic Information Center, more fondly known as The Map Room, is the largest map repository in the state of New Mexico. It serves the needs of the students, faculty and staff of the University of New Mexico, as well as the citizens of Albuquerque and beyond.

We are part of the regional depository program, receiving maps from the usual cartographic sources: USGS, BLM, CIA, Forest Service, NOAA and NIMA, and the Army Corps of Engineers. We have a small budget to purchase privately published maps and atlases, often supplemented by allocated funds from the general library budget for special projects. Most recently such funding was used to augment our holdings of

topographic maps of various Central and South American countries.

Our collection is worldwide in scope, with an emphasis on New Mexico, the Southwestern United States, Mexico, and the aforementioned Central and South America. We currently have about 200,000 sheet maps, and more than 1,000 atlases and other cartographic related books. We actively collect aerial photography of Albuquerque and have a less extensive collection of air photos for other places in New Mexico. Because of these limitations in aerial photography outside of the city, we work in close collaboration with the Earth Data Analysis Center, a service organization of the University of New Mexico that provides geospatial technologies.

Areas of special interest include: the Sanborn Fire Insurance Maps in three formats (the original maps, microfiche, and online); numerous historical maps of New Mexico, the Southwest and beyond; and a popular collection of NM road maps, ranging from 1908 (still territorial days for us) to the present. Globes attract a lot of attention, especially our moon globe, celestial globes, Braille globe, a 30" high Dymaxion globe, and our most recent addition for kids of all ages, a talking, interactive game globe.

Most of our collection is uncataloged, although we are slowly making headway in getting records for maps into our OPAC. We have for some years now been able to attach item records to GPO Marcive records, and to records cataloged by our sister institution, the New Mexico Institute of Mining and Technology in Socorro, New Mexico. Now, finally, within the last six months, maps are being cataloged here at UNM, some by map room staff (the less labor-intensive DLC items) and the rest by one of the cataloging staff.

Like most map libraries we are trying to juggle the traditional cartographic formats with the

newer electronic formats. Digital topographic maps, both USGS DRGs and commercial products, are in demand as well as climate data and city street level data with route mapping and other custom mapping features.

Most of our electronic data can be used in a GIS. Programs in geography, earth and planetary sciences, and biology, to name a few, rely on a GIS-based approach to correlate data in ways that were difficult until recently. We have a growing collection of city- and state-level data available in-house, as well as access to a veritable explosion of data available on-line.

Many of our paper maps circulate for a one-week period and can be renewed for one additional week. However, copying maps is a more popular option for our customers. We provide a range of options for them to choose from:

8½" x 11" black and white copies
 36" wide black and white copies
 12" by 17" scanner
 up to 13" by 19" color printouts

Costs for these printouts range from \$.75/ft² to \$3.00/copy. Most of our scanner clientele bring in their own zip disks or compact disks and we save scans free of charge.

The Map Room is staffed by one full time librarian, one part-time GIS specialist, and three wonderful, indispensable work study/student assistant staff. We are housed in Centennial Science & Engineering Library, a branch of the UNM General Library system.

Our hours are usually 10a.m.-6p.m. Monday through Thursday, 10a.m.-5p.m. Friday, and 11a.m.-5p.m. Saturday during regular semester sessions. Shorter hours are necessary during intersessions and the summer and occasionally we are closed when illness or other