cartography bulletin board

The Cartography Research Laboratory at Georgia State University

by Jeff McMichael
Department of Geography
Georgia State University

The Cartography Research Laboratory (CRL) is an integral part of the Department of Geography at Georgia State University. It was originally established in 1972 to support the professional research of the Geography faculty, instructional, University service, and community service in a descending order of priority. Although university and community service has been the staple of the Lab in the past few years, the priority of the work has remained the same.

The Lab has one full-time cartographer and one part-time graphics technician. Student assistants are employed on an as needed basis to work on funded projects.

As with most cartography labs, in the past all production work was done using manual methods. However, we have now almost completely switched to computer methods and have retired our darkroom and stat camera. Any photo work is sent to local service bureaus.

The Lab currently has three computers–two 486/33Mhz PCs and one 386/25Mhz PC–and two printers–a HP LaserJet 4M 600x600 dpi laser printer and a HP PaintJet 180x180 dpi color inkjet printer. We have access to the Instructional Cartography Lab's HP Deskjet 1200C/PS 300 dpi color printer and the University Facilities Planning Department's HP Designjet 650C 36" wide color plotter.

Other equipment in the Lab includes a CalComp 46" x 60" digitizer with stand, a Kurta 12" x 12" digitizer, and a HP Scanjet. The three computers are currently connected to the laser printer through a smart switch (Print Director Silver, 1 MB RAM). The computers are networked by Intel ethernet cards using thin ethernet cabling (10MB per second transfer rate) running Microsoft Windows for Workgroups 3.11.

The Lab has the following software:
- Micrografx DESIGNER, ver. 3.1 and 4.0a
- Golden Software MAP VIEWER, ver. 2.0, and Surfer 4 and 5
- Zsoft PHOTOFINISH, ver. 1.0
- Microsoft EXCEL, ver. 4.0
- ESRI ARCVIEW, ver. 1.0, with US and World databases
- AutoDesk AUTOCAD for Windows, release 12
- IDRISI, ver. 4
- Strategic Mapping ATLAS*GIS for Windows
- VISTAPRO (terrain modeling)
- MicroCAM, ver. 3

Past Projects:
MARTA (Metropolitan Atlanta Rapid Transportation Authority). The Lab has been making maps for MARTA since the late 1970s. In the past four years, we have revised (and produced by computer) the System Map (showing all bus and rail routes in the two-county service area) and a new Downtown/Midtown Map, based on an existing Department map of the same area.

Kennesaw Mountain Historical Association. A two-map project detailing the Civil War battle of Kennesaw Mountain, Kolb's Farm, and Cheatham Hill.

The Map Co. A private firm that sells social science materials to public schools. The project consisted of three maps: the USA, North America, and the world; Georgia; and South Carolina.

Architectural Institute of America. The Lab produced all maps for the *Guide to Atlanta Architecture*.

The Department of Geography Atlanta Maps Project. A set of maps, printed on one sheet, showing the Atlanta's downtown area and various suburban business nodes.

Current Projects:
The New Georgia Guide. A regional guide to Georgia with 40 black and white 5" x 8" maps.

Atlanta Convention and Visitor's Bureau. Two maps for Atlanta's bi-monthly visitors' guide. Other special-purpose maps as needed.

Future Projects:
GIS laboratory. The department has received a grant for a GIS laboratory. We are soliciting projects from the university that have a GIS component. With the 1996 Summer Olympics occurring in Atlanta, we anticipate more maps aimed at this event.

Most of the computer equipment in the Cartography Research Laboratory was purchased through outside funded projects–that is, without university money. I believe this trend will continue. The department is investigating other sources of funding.

The Cartography Research Laboratory provides mapping services *gratis* to various agencies (i.e. the state Board of Regents' *University Factbook*). With the addition of a GIS Lab, the department is approaching projects with a multi-disciplinary aspect. ❑