

mab notes

By William P. Gregg, Jr.
*NPS Coordinator of the
Man and the Biosphere Program*

The Conservation Data Base (CDB) is a computerized geographic information system (GIS) planned by MAB and being implemented cooperatively by the National Park Service, the Geological Survey, and Florida State University. When operational, the system will be capable of generating a wide variety of relatively small-scale resource maps and related statistical analysis "on demand" for a wide range of conservation purposes.

Incentive for the project came from MAB's Project Directorate on Biosphere Reserves. The Directorate is responsible for convening interdisciplinary panels to recommend sites for nomination as biosphere reserves, in particular biogeographic regions. Each panel must delineate the boundaries of a biogeographic region; as well as locate, describe, compare and evaluate a large number of candidate sites within that region. The work requires maps, map overlays, and tabular displays of data on site characteristics derived from maps.

Because manual preparation of such material is time consuming and costly, the Directorate, in its FY1984-85 plan called for development of an automated GIS to provide maps and tabular information tailored to the needs of particular panels. The system would be based on digitization of small-scale maps showing natural resource classifications, climatological and other environmental variables, natural and cultural features, protected areas and special designations (like natural landmarks, biosphere reserves, and research natural areas), and other information needed by the selection panels.

As planning got underway, it became obvious that CDB's capability to generate maps and analyses for user-specified regions of the U.S. would have applications far surpassing the immediate needs of MAB . . . in policy analysis, regional planning, design of protected area systems, impact assessment, forecasting, and providing information to special interests and the public. The considerable potential engendered enthusiasm among the participants.

The Geological Survey is providing 1:2,000,000 regional base maps digitized for the National Atlas. These maps allow for display, singly or in combination, of political boundaries to the county level, roads, railroads, major streams and water bodies, and urban areas. USGS is also providing mylar copies for use in digitizing selected National Atlas and other small-scale maps, and plans to assist in the actual digitizing where possible.

The Florida Resources and Environmental Analysis Center at FSU, with limited funding from NPS, has begun digitizing national resource classifications in accordance with NPS priorities, for use on Intergraph, a state-of-the-art software package for computer mapping. The university is integrating the regional map files into a national base map for the CDB, and is working on expanding the analytical capabilities of Intergraph by integrating it with SAGIS, the powerful geographic information system software package used by our NPS cartography unit in Denver (see Winter '82, Winter '83, and Spring '84 issues of *Park*

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Science). The merger would enable the Denver unit to access CDB directly for in-house applications.

Finally, the MAB Secretariat at the State Department is funding a comprehensive inventory of U.S. reserves 5000 acres or larger. The two-year project, which will begin with a pilot study in the Eastern Deciduous Forest region this summer, involves classification of protected areas according to management objectives and existing vegetation, an analysis of gaps in the U.S. protected area system, and the formatting of the survey information for entry into the CDB.

Together, these cooperative MAB activities should give us an important new tool for mapping resource information at the state, regional, or national level. As the data base becomes operational, we will publish information on its capabilities in *Park Science*.