

SEMINAR ON URBAN INFORMATION SYSTEMS

This seminar was held in two parts. The first session, held Tuesday afternoon, was chaired by DUANE MARBLE of the State University of New York at Buffalo. The second session was held on Wednesday and was chaired by BARRY WELLAR of the Ministry of State for Urban Affairs, Ottawa, Canada. At the first session representatives of State and local governments discussed local mapping efforts based on local information systems. The second session focused on current research and experience in the field of urban information systems.

DELMAR ANDERSON of the Central Intelligence Agency described the use of analytical maps for showing the results of a model for school locational planning in Topeka, Kansas. Urban information systems can provide valuable inputs to the decision-making process. Toward this end a model, based on linear programming techniques, for the locational planning of schools was presented. The major problems addressed were residential area growth, fulfillment of desegregation requirements, and school attendance boundaries. A favorable response from school officials resulted from the analysis and interpretation of maps produced from the findings of this model.

RONALD DOMSCH and KENNETH MAI are with the planning departments of Wyandotte County and Kansas City, Kansas, respectively. Their presentation, "Computer Mapping and Its Impact on Kansas City, Kansas, and Wyandotte County," focused on various forms (choropleth, dot and street) of mapping in Kansas City through use of the GBF/DIME-File. Rather than suggesting the use of a massive, all-purpose program, emphasis was directed on small modular programs linked with different operational files. Some of the uses of urban mapping included a street sign inventory for highway safety, various population distributions, and street maps for repair bids.

DUANE MARBLE, session chairman, addressed the keynote problem of exchange in his paper entitled, "Technology Transfer and Urban Information Systems: Some Common Problems." The author stressed the high occurrence of redundancy in computerized efforts, especially in the field of computer graphics and mapping. As a partial solution to this dilemma, it was suggested that greater use be made of the Geography Program Exchange, the Continuing Software Inventory, and Case Studies of Geographic Information Systems.

VICTOR DAVIS of the City of Atlanta described the "Georgia Computer Mapping Program," a joint effort of four governmental agencies and three private utilities. The presentation was introduced by a short film depicting the dangers in a lack of knowledge and a lack of common efforts for computer mapping, particularly in the context of public utilities. A plea was made for accuracy, cooperation and uniformity in urban mapping. The mapping advantages possible from an address-coded file keyed to building centroids were stressed.

At the second session, chairman BARRY WELLAR commented on the roles of computer-assisted information systems and computer-assisted cartography in the field of urban governance. His paper was titled "Computer-Assisted Information Systems and Computer-Assisted Cartography: Tools or Tinker Toys of Urban Governance?." He examined this relationship in terms of the purposes, ways, and extent of use. Of particular importance was the matter of how the technologies have evolved vis-a-vis changes over time on the part of persons and activities associated with urban governance.

NICHOLAS VAN DRIEL of the U.S. Geological Survey described a new method by which USGS is able to communicate geologic information to planners for land use planning. Composite factor mapping is featured and is useful for identifying various land use areas. The cost of such a method is minimal and the system easy to operate. The computer mapping system used cell-formulated storage, analysis and output to combine geologic, hydrologic and other physical information for environmental analyses in Montgomery County, Maryland. The paper is entitled "Geologic Information in a Computer Mapping System for Land Use Planning."

GEORGE FARNSWORTH of the University of Southern California discussed the ZIPSTAN Standardization System, a computer methodology for standardizing street addresses to facilitate retrieval of geographic coordinates from geographic base files for mapping purposes. One reason computer-assisted cartography is not extensively employed in urban information systems is the problem of data preparation. One approach to the problem is the ZIPSTAN program which converts many variations in street

addresses to a standard format. The system is available from the Bureau of the Census at a nominal cost.

CHARLES E. BARB, JR. of the University of Oklahoma described principal concepts and determinants in the evolution of DIME technology and compared current technology with observed interests and needs of municipal operating agencies. This technology, as originally developed by the Census Bureau, is of marginal quality and much time, effort and expense is necessary to operationalize the GBF/DIME-Files for particular needs. He concluded that there is only limited congruence between DIME technology and local agency interests and needs.