URBAN MAPPING

There was a total of three urban mapping sessions.
John Lay of Fairfax County, Virginia and Ron Domsch of
Wyandotte County, Kansas, co-chaired these three
sessions.

John Lay gave a paper entitled "Mapping Services in
Fairfax County Virginia". In this paper Lay describes
the land parcel based mapping system of Fairfax County.
In this system the individual land parcels can be comb-
ined to form a property identification map. These
latter maps can then be mosaicked to form the base
data for the street location map. Finally, the street
location map becomes the base for the overprinting of
information related to the entire county.

Ron Domsch have a paper entitled "Urban Mapping Appli-
cations: Census Tracts Through Ownership Parcels".
Domsch reviews some of the earlier applications of geo-
graphic base files for Wyandotte County. He also
describes the more recent developments in the area of
parcel level mapping. Domsch foresees a productional
mode level of applications in this area in about 2
years.

James Wray of the U.S.G.S. presented a paper entitled
"Examples of Automated Cartography in Presenting Land
Use and Land Cover Maps and Data". (Paper not included
in proceedings.) Illustrated examples included maps
for the cities of Pittsburg, Atlanta, Wichita, Kansas
City, Washington, Seattle-Tacoma, San Fransisco and
Alaska's National Petroleum Reserve. Since these maps
were not all produced in an identical manner, a
comparison provides some interesting ideas for map
presentation format. In particular, these maps provi-
ded insight into the preparation of thematic Earth
Science data for video display and for publication in
an updated National Atlas.

Leonard J. Simutis and Todd Scott of Virginia Polytech-
nic Institute presented the paper "Interactive Computer
Mapping Applications in Criminal Justice Planning in
Three Virginia Cities". This paper describes research
in criminal detection at the local level in Portsmouth,

140

Norfolk, and Hampton Virginia. Particular emphasis is
placed on the use of interactive mapping as a heuristic
device in problem recognition and discovery. Also
included are examples of the use of exploratory data
analysis techniques.

Thomas K. Peucker of Simon Fraser University and Andrew
Clement of Vancouver City College presented the paper,
"Interactive Computer Mapping". This paper describes a
project for the interactive analysis of spatial data
via the thematic map. The advantage of this system is
the speed with which a query can be answered. The
system also has a very flexible data structure which
the authors feel could be an example for similar
studies.

Richard Lycan of Portland State University presented a
paper entitled "Alternatives to the Population Pyramid
for Mapping Age Sex Characteristics of Metropolitan
Census Tracts." Two types of maps are typically used
to display data on the age and sex of residents for use
in the planning of health care and other social service
programs. Seventeen choropleth maps and twenty-one
multiple population pyramids were superimposed on a
base map. The author describes several alternatives to
these techniques including 1) a typology of pyramids
for use in the legend to facilitate reading an age-sex
pyramid map, 2) a process color map, and 3) a polar
coordinate type symbol. These alternatives are based
in part on a factor analysis that reduces the number
of categories to be mapped.

Eugenia Calle of Oakridge National Laboratory presented
a paper entitled "Computer Mapping of Cancer Mortality
by Census Tract: Columbus, Ohio 1956-1974". This
paper offers a geographic description of cancer mort-
ality at the intracommunity level using the census
tract as the basic unit of allocation and comparison.
A statistical analysis is based on the use of the
Poisson distribution to determine the significance of
age, sex, and race adjusted Standard Mortality Ratios.
The results show that it is possible to detect certain
"high risk" areas using this technique.

Joel Orr presented a paper entitled "Urban Uses of
Geo-Based Data: Getting the Technician out of the Way".
Orr considers one of the major problems of geoprocessing
projects to be the satisfaction of technical considera-

tions at the expense of the user. To solve this prob-
lem he recommends an intensive design procedure,
wherein the user makes his needs known to the technical
team in progressively greater detail, while the tech-
nical team concurrently works with the user to give him
a progressively better understanding of the limitations
and capabilities of the technology with respect to the
user's needs.