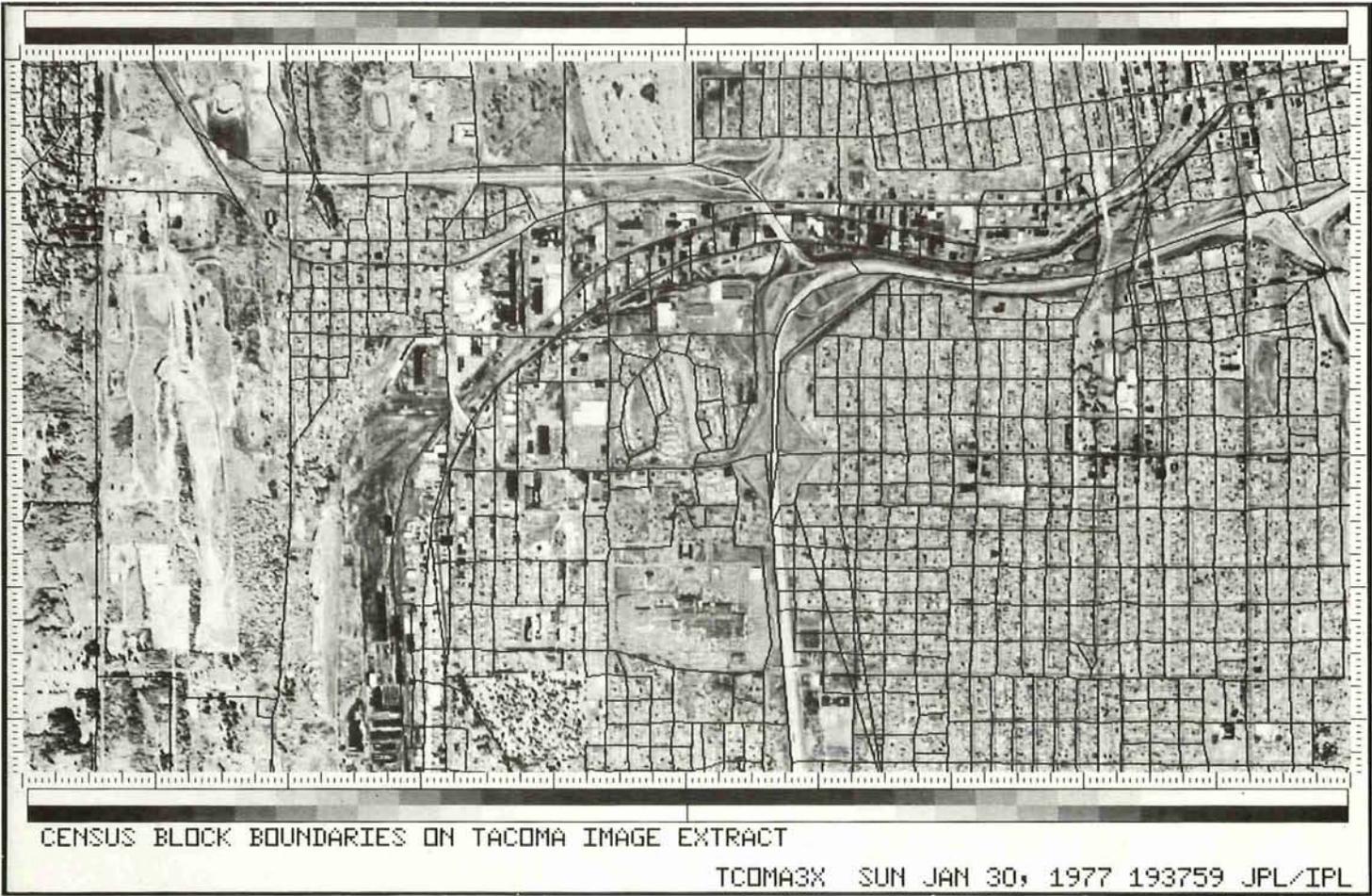


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**Land Use Planning** Computer technology, aerial photography and space imagery are being combined in a NASA community services program designed to help solve land use and natural resource planning problems.

As urban areas grow, so grows the need for comprehensive, up-to-date information on which to base intelligent decisions regarding land use. State and local planners need information such as the nature of urban change, where the changes are occurring, how they affect public safety, transportation, the economy, tax assessment, sewer systems, water quality, flood hazard, noise impact and a great variety of other considerations. Most importantly they need continually updated maps. Preparing timely maps, gathering the essential data and maintaining it in orderly fashion are becoming matters of increasing difficulty.

The NASA project, which has nationwide potential for improving efficiency in the planning process, is a pilot program focused on Tacoma, Washington and surrounding Pierce County. Its key element, developed by Jet Propulsion Laboratory (JPL), is a computerized Land Use Management Information System (LUMIS).

LUMIS went into operation in Tacoma on a limited basis last year; it will be expanded to handle additional city planning functions and it may eventually include all of Pierce County.

The LUMIS computer stores and monitors land use and zoning maps, census, housing and other data records. It gets mapping input from ground surveys, aerial photography (photo) and satellite imagery. The system develops a geographic and analytical profile of the whole urban area, and planners can retrieve any portion of the information, presented on a graphic display. LUMIS is expected to improve data reporting, cut down on duplication of effort and save considerable time in the planning and management processes.

In a companion program, NASA funded JPL to develop a similar Image Based Information System (IBIS) for coverage of broader areas. IBIS will get high altitude mapping input from a NASA U-2 research plane operated by Ames Research Center and from Landsat Earth resources satellites. The system will be used by Tacoma and Pierce County as part of a three-state natural resources inventory in Washington, Oregon and Idaho.

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