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Chapter II

Interjurisdictional Law Enforcement Data Sharing Issues: Benefits of the Use of Geo-Spatial Technologies and Barriers to More Widespread Cooperation

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Abstract

This chapter discusses the use of geographic information systems (GIS) to create and disseminate geospatial data among multiple law enforcement agencies in the same metropolitan area, county, region, state and nation. Cooperation between different agencies of government, such as between a municipal police department and a comprehensive-planning, information technology or public works department, with GIS expertise will be discussed. The benefits derived from sharing human and technical resources, from

using a common set of geospatial data and a common crime records database schema, and from the centralization of activities, such as geocoding, will be emphasized. Issues impeding interjurisdictional use of GIS, such as technical issues of interoperability, confidentiality concerns and cost-sharing problems, are presented. Multiple examples drawn from the United States and several other countries illustrate the universality of interjurisdictional issues and the value of using GIS to facilitate data sharing and cooperation among multiple law enforcement and government agencies.

Introduction

The majority of GIS users in the field of law enforcement are municipal police departments in urbanized areas. In the past, for clearly delimited metropolitan areas with a suburban fringe and rural hinterland, the need to share data with other law enforcement jurisdictions or cooperate closely with other governmental agencies had generally been rather limited. However, the growth of urban areas and the greater mobility of citizens, including criminals, are complicating that ideal situation. Simultaneously, GIS and related geospatial technologies, in particular digital aerial photography and global positioning systems, are being implemented in an ever-expanding range of agencies that have responsibilities that include multiple jurisdictions or at least impinge on areas of responsibility of multiple law enforcement agencies (Leipnik & Albert, 2003). Even in the case of a police department with well-defined boundaries, there often arise situations where data must be shared between and among various agencies of government and potentially other law enforcement agencies that may have limited jurisdiction within the municipality. Therefore, the need for sharing geospatial data between various law enforcement jurisdictions and among various government agencies has become more pressing (LaVigne & Wartell, 1998, 2000). There are a number of situations where it is beneficial or even essential for law enforcement agencies to share data, including data with a significant spatial component, either across jurisdictional boundaries or with other branches of government (Burka, Mudd, Nulph & Wilson, 1999). The situations where interjurisdictional data sharing related to law enforcement is most desirable are when there are crimes that span jurisdictional boundaries, when there are multiple cities in close proximity, when a regional law enforcement entity such as a metropolitan police or county sheriff wishes to use GIS most effectively, and when a state or national law enforcement agency wishes to develop a GIS (Wilkinson & Ritchie-Matsumoto, 1997). Intergovernmental sharing of GIS data is desirable or necessary in many situations, such as when a police department lacks the internal