

## **FIRELINE(TM): THE URBAN-WILDLAND INTERFACE DATABASE USED BY CALIFORNIA'S HOMEOWNER INSURERS**

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### **ABSTRACT**

In September 1997, ISO Inc. released FireLine™, the first remotely sensed (satellite imagery) GIS hazard database for the property-casualty insurance industry. FireLine contains detailed urban-wildland interface polygons, and their slope and road access characteristics for all of California. The data are delivered via CD-ROM and are created from three spatial data-types. Satellite images are analyzed to determine how much and what type of vegetation (fuel) are present. Digital topological maps display an area's slope, which is used as an indicator of how quickly a fire may spread to a given risk address. Finally, street data (Etak and GDT) were analyzed and incorporated to depict how accessible a property or area is to firefighters. Those three data-types are combined in a simple hazard model promulgated by the National Fire Protection Association, to give instant access to critical underwriting information. FireLine is currently used by insurers who write more than half of all Homeowner policies in California, and is being expanded at this time. The development and current uses of FireLine are summarized as a case study in the practical implementation of complex GIS databases. Following the presentation of FireLine, the author will explore current and potential joint government/private sector initiatives for leveraging spatial data bases in efforts to reduce overall fire management costs to society. Such initiatives would address the lending, real estate, and insurance industries, and include building code development and enforcement, public fire protection planning, and zoning and local ordinance development. The current FireLine working relationship between ISO and the California Department of Forestry and Fire Protection will also be reviewed.