

SMIP94 Seminar Proceedings

PREFACE

The California Strong Motion Instrumentation Program (SMIP) in the Division of Mines and Geology of the California Department of Conservation promotes and facilitates the improvement of seismic codes through the Data Interpretation Project. The objective of this project is to increase the understanding of earthquake strong ground shaking and its effects on structures through interpretation and analysis studies of SMIP and other applicable strong-motion data. The ultimate goal is to accelerate the process by which lessons learned from earthquake data are incorporated into seismic code provisions and seismic design practices.

Since the establishment of SMIP in early 1970s, over 550 stations, including 135 buildings, 20 dams and 25 bridges, have been installed. Significant strong-motion records have been obtained from many of these stations. One of the most important sets of strong-motion records is from the 1994 Northridge earthquake during which strong-motion records were obtained from 116 ground-response stations and 77 extensively-instrumented structures. Other important sets include those from the Loma Prieta earthquake of October 17, 1989, the Cape Mendocino (Petrolia) earthquake of April 25, 1992, the Landers and Big Bear earthquakes of June 28, 1992. These records have been and will be the subject of SMIP data interpretation projects.

The SMIP94 Seminar is the sixth in a series of annual events designed to transfer recent interpretation findings on strong-motion data to practicing seismic design professionals and earth scientists. In both oral presentations and poster sessions, six investigators will provide state-of-the-art data and analysis results from recent interpretation studies of SMIP data during the past year. In addition, two papers are presented by SMIP staff on the topics of special interest.

The papers in this Proceedings volume represent interim results obtained by the investigators. Following this seminar the investigators will be preparing final reports with their final conclusions. These reports will be more detailed and will update the results presented here. SMIP will make these reports available after the completion of the studies.