

SMIP92 Seminar Proceedings

PREFACE

The 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 Directed Research 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 500 stations, including 120 buildings, 20 dams and 8 bridges, have been installed. Significant strong-motion records have been obtained from many of these stations. The most important set of strong-motion records is from the 1989 Loma Prieta earthquake during which strong-motion records were obtained from 53 ground-response stations and 41 extensively-instrumented structures. The most recent sets are from the Desert Hot Springs earthquake of April 22, 1992 and the Petrolia earthquake of April 25, 1992. These records have been and will be the subject of SMIP directed research projects.

The SMIP92 Seminar is the fourth in a series of annual events designed to transfer recent research findings on strong-motion data to practicing seismic design professionals and earth scientists. In both oral presentations and poster sessions, ten investigators will provide state-of-the-art data and analysis results from recent research studies of SMIP data during the past year.

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.