

## PREFACE

The California Strong Motion Instrumentation Program (CSMIP) in the California Geological Survey of the California Department of Conservation established a Data Interpretation Project in 1989. Each year CSMIP Program funds several data interpretation contracts for the analysis and utilization of strong-motion data. The primary objectives of the Data Interpretation Project are to further the understanding of strong ground shaking and the response of structures, and to increase the utilization of strong-motion data in improving post-earthquake response, seismic code provisions and design practices.

The M6.0 Parkfield earthquake of September 28, 2004 yielded the most extensive and dense set of strong-motion data in the near source region in California. This set of data was highlighted and presented in the SMIP05 Seminar that was held on May 10, 2005. In June 2005 CSMIP funded six projects to focus primarily on the analysis and interpretation of the extensive data set generated by the Parkfield earthquake.

As part of the Data Interpretation Project, CSMIP holds annual seminars to transfer recent research findings on strong-motion data to practicing seismic design professionals, earth scientists and post-earthquake response personnel. The purpose of the annual seminar is to provide information that will be useful immediately in seismic design practice and post-earthquake response, and in the longer term, useful in the improvement of seismic design codes and practices. The SMIP06 Seminar, held on the second anniversary of the 2004 Parkfield earthquake, is the seventeenth in this series of annual seminars.

The SMIP06 Seminar is divided into four sessions. Session I includes studies of fault rupture processes using the strong-motion data from the Parkfield earthquake. Session II will include engineering implications of the near-fault ground motions and improved ShakeMaps. Session III will include presentation on studies of the responses of two wood-frame buildings and one highway bridge using the data recorded from these structures during the Parkfield earthquake. In Session IV, the Turkey Flat Blind Prediction Experiment will be presented, including an overview of the experiment and of recorded data from the Parkfield earthquake and a review of the blind predictions.

The seminar includes presentations by investigators of six CMIP-funded projects. These six projects are scheduled to be completed by the end of 2006 and the final results will be published in their final reports.

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Data Interpretation Project Manager

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