

FARM-ESP Fieldtrip/Workshop report

James P. Evans, Dept. of Geology, Utah State University
Judith Chester, Frederick Chester, Department of Geology and Geophysics, Texas A&M University

After the 2005 SCEC meeting, the main activity for the FARM and ESP groups was a fieldtrip and workshop that focused on field visits to some of the classic exhumed fault localities that have been used in a variety of studies to define fault zone structure and processes related to earthquake processes. The primary goals of the fieldtrip were to provide a wide range of geophysicists and geologists an opportunity to see these sites with the researchers who have studied them, and to foster cross-disciplinary discussions regarding future research efforts. The field trip ran from Sept. 14-16, and focused on exhumed portions of the Punchbowl and San Andreas faults in the San Gabriel Mountains. The field trip had 36 participants who ranged from senior-level faculty to graduate students at SCEC universities and the USGS. Jim Evans organized the trip, and the primary field trip leaders were Judith and Fred Chester and Jim Evans. An additional stop was provided by Tom Fumal [USGS] who provided an overview of the Wrightwood trenches across the San Andreas Fault near Wrightwood. The field trip provided detailed visits to the Punchbowl fault where it cuts Proterozoic gneisses and Tertiary sedimentary rocks exhumed from 3-4 km depth, shallow-level portions of the San Andreas Fault where zones of pulverized rock along the trace of the fault can be seen, and a portion of the Punchbowl fault where it cuts the Pelona Schist. Numerous discussions at the sites focused on the field sites and how they have been interpreted. In addition, the group held discussions in the field and a wrap-up session in which we outlined what these field exposures mean for workers who try to model dynamic slip processes, interpret earthquake data for nucleation and propagation processes, and discussed how we might investigate fault zones using shallow borehole-based work.

List of Participants

Name	Affiliation	Name	Affiliation
Oliver Boyd	USGS	Nadia Lapusta	Caltech
Emily Brodsky	UCLA	Kuo-Fong Ma	Nat. Centr. Univ.
Judith Chester	Texas A&M	Scott Marshall	Univ. Mass.
Fred Chester	Texas A&M	Stephen Martel	Univ. Hawaii
Michele Cooke	Univ. Mass.	Sally McGill	CSUSB
Susanna Custodio	UCSB	Sam Howard	Utah State Univ.
Luis Dalguer	SDSU	Janice Murphy	USGS
Robert de Groot	Occidental College	Joel Podgorsky	Univ. British Columbia
James Dieterich	UC Riverside	Tom Rockwell	SDSU
James Dolan	USC	Amir Sagy	UCLA
Ory Dor	USC	David Schaff	LDEO
James Evans	Utah State Univ.	Norm Sleep	Stanford
Yaron Finzi	Univ. British Columbia	Christopher Sorlien	LDEO
Erik Frost	USC	Elizabeth Templeton	Harvard

David Goldsby	Brown Univ.	Terry Tullis	Brown Univ.
Thomas Heaton	Caltech	Rob Wesson	USGS
Heidi Houston	UCLA		