

Association of Environmental and Engineering Geologists  
Southern California Section, Inland Empire Chapter

## Inland Empire Chapter News

*"Connecting Professionals, Practice and the Public"*

Nov 1, 2007

Note, 2<sup>nd</sup> Wednesday, not 3<sup>rd</sup> Wednesday

Vol. 3, No. 11

# “Latest Pleistocene slip rate of the San Bernardino strand of the San Andreas fault”

**2<sup>nd</sup> Wednesday 14-November-2007**

5:00 - 6:00 Geologist Orientation Geology Lab (Biol Bldg. Rm. 112)  
6:15 - 7:15 Dinner Geology Lab  
7:30 - 8:30 Meeting Geology Lab

**California State University, San Bernardino\***

(Meeting Cost \$20 – Student discount if RSVP)  
(Fund-raising donation suggested is \$5.00, or more)  
(*RSVP/Directions below*)

**\*\*\* Joint Meeting of AEG with Geology Club, Geology Department \*\*\***

Meeting Details (see inside)

**RSVP Due by COB 7-Nov-07**

Send Name, Company/Affiliation to  
[rick.gundry@verizon.net](mailto:rick.gundry@verizon.net) or call me.

### Chapter Officers

Chair  
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### *This Month's Speaker :*

*Dr. Sally McGill, Professor of Geology, Geology Department,  
California State University, San Bernardino, California*

### **Abstract**

Among the active faults of California, the San Bernardino section of the San Andreas fault has had one of the most profound discrepancies between slip rates at geodetic versus geologic time scales. The 5-mm/yr slip rate inferred from elastic block modeling of geodetic data (Meade and Hager, 2005) is dramatically less than the Holocene slip rate of 24.5 +/- 3.5 mm/yr measured by Weldon and Sieh (1985) at Cajon Creek (at the northwestern end of the San Bernardino stretch of the fault). I will present the results of three new slip-rate measurements for the San Bernardino strand of the San Andreas fault, each spanning the past 30,000 years or so. These new results show that the slip-rate decreases southeastward from Cajon

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Rick Gundry (see above)

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Frank Jordan 2005  
Gary Wallace 2006  
Rick Sundry 2007

The AEG Inland Empire Chapter *Newsletter* a monthly publication of Inland Empire Chapter of the Southern California Section, Association of Environmental and Engineering Geologists. For more information visit websites shown in Newshead page 1

Submittals: Deadline 28<sup>th</sup> of the month. Employment notices, job position vacancy announcements no cost. (See notice inside this *Newsletter*)

Address changes: Send e-Mail to Rick Gundry.

Advertisements: *Newsletter* circulation about 170 in greater inland areas of so. California, and elsewhere. Advertisements welcome also, no cost to post; however, some form donation, recognized list of donors.



Creek to a value in the low teens (mm/yr) at both Badger Canyon (near Cal State San Bernardino) and Plunge Creek (in Highland). Between Cajon Creek and Badger Canyon, an intermediate rate in upper teens (mm/yr) is measured at Pitman Canyon (in Devore), suggesting gradual transfer of right-lateral slip from the San Andreas fault to the San Jacinto fault as one moves southeastward from Cajon Creek toward Badger Canyon. Within this proposed region of slip transfer, the two fault zones parallel each other and are only 2.5 km apart for a distance of 15 km along strike.

This work was conducted in collaboration with Ray Weldon, Katherine Kendrick and Lewis Owen.

### **Biographical Sketch**

Sally McGill is a professor of geology at California State University, San Bernardino, where she has taught since 1991. Her research focuses on slip rates and earthquake history of active faults in southern California. Her Ph.D. dissertation on the Garlock fault was conducted under the supervision of Kerry Sieh at Caltech (1992), and her bachelor's degree in geology is from Harvard and Radcliffe Colleges (1985).

### **Comments from the Chair**

#### **Hello to All !**

I am looking forward to an interesting year as your elected Chairman of the Inland Empire Chapter. There are several informative talks already planned for our meetings over the coming months. Please be sure to check the Inland Empire Chapter web site regularly for news and updates (<http://www.aegsc.org/chapters/inlandempire>).

Other events on the books include continuing education courses jointly sponsored with IGS to be held at University California Riverside and tentative ½ day field trips to some of the interesting geologic features present within the Riverside and San Bernardino Counties.

One of my immediate challenges is to have the coming year's slate of speakers for 12 months filled. We currently have great topics tentatively schedule through April, thanks the diligent effort of Rick Gundry, Thanks Rick. I would appreciate comments, requests and/or names of speakers/topics from our members that you would like to see in the coming months. Please forward the names and contact references of potential speakers to me at [mcook@kleinfelder.com](mailto:mcook@kleinfelder.com) or Rick Gundry at [rick.gundry@verizon.net](mailto:rick.gundry@verizon.net).

For those of you who could not attend the September Annual Meeting, held at the Universal Sheraton in LA it was really a great turn out. This was the 50<sup>th</sup> anniversary of the founding of our Association and it appeared to come off with out a hitch, at least none that I saw.

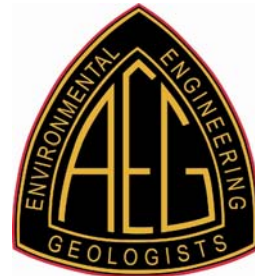
Our October meeting was held at Pat ‘N Oscars Restaurant in Temecula with a great presentation by Dr. Jeff Marshall from Cal Poly Pomona entitled "**Riding the waves of San Andreas: Geologic and Engineering aspects of the 17 October 1989 Loma Prieta earthquake, Santa Cruz, California**". There was a great showing of members and attendance by a group of Dr. Marshall’s students from Cal Poly.

As part of our goals during our formation as a Chapter, there was numerous discussions about student out reach and developing more interaction/contact with the local Universities with geology programs. That initial goal setting resulted in awarding several scholarships and Brunton compasses to students and Earth Sciences Departments. Another recent development is the possibility of forming a Student Chapter of the AEG at Cal Poly

I will keep you posted on the developments and strongly encourage those of you in the profession to consider giving a presentation to these future geologist.

And remember a geologist is someone who will hike six miles to look at a broken fence that was “offset by a recent earthquake”.

- Mike Cook  
Chairman, Inland Empire Chapter  
AEG Southern California Section



### Thanks

Thanks to the 14 professionals and 7 Earth Sciences upper division undergraduate majors (mostly Seniors) attending the October Meeting in Temecula, as follows:

**Dr. Jeffrey Marshall** (Guest Speaker), Cal Poly Pomona, Pomona; **Dr. Kerry Cato**, Cato Geosciences, Temecula; **Mike Cook**, Kleinfelder, Incorporated, Redlands; **Mitch Bornyasz**, Leighton Group, Temecula; **Dave Gaddie**, Riverside County Planning Dept, Riverside; **Lisa Battiato**, Klienfelder, Incorporated, Temecula; **Rick Gundry**, Inland Geologic, Inc, Moreno Valley; **Robert Ellis**, Cal Poly Pomona; **Kayla Kroll**, Cal Poly Pomona; **Daniel Heaton**, Cal Poly Pomona; **Kim Paste**, Cal Poly Pomona; **Laruen Carey**; Cal Poly Pomona; **Julie Brown**; Cal Poly Pomona; **Jessy Brun**, Cal Poly Pomona; **Dale Hemchle**, Kleinfelder, Incorporated, Temecula; **Terry Davis**, CHJ Incorporated, Colton; **Bob Riha**, Leighton Group, Temecula; **Avi Schwartz**, Leighton Group, Temecula; **Kriston Stout**, leighton Group, Temecula; **Chad Welke**, Earth-Strata, Inc, Temecula; **Dave Perry**, MACTEC, Los Angeles; **Richard Orr**, Leighton Group, Rancho Cucamonga.

(Apparently some attenders found traffic conditions *en route* impossible and could not attend.)

A Photograph of the Speaker and Cal Poly Geology students and Past President and Current Chairman is either attached to this message or as an attachment with the message sending this Newsletter. Or see web-site. The Photo caption is shown at end of the Newsletter, and/or with attached file. See Chapter Web-Pages and Section Web-site for details and other information, as well).

## **Fault-Rupture Hazard Investigation and Report Standards**

The County of San Bernardino Building Official, Barbara Johnston, recently issued a Standard Procedure No. A-146 (Revision, 9/28/07), revised by Wes Reeder, County Geologist. This was previously sent out by this Chapter, and is available at San Bernardino County, and likely will be posted at this Chapter's Web-Pages under the heading of "Announcements"). Please refer to that page for other and newer announcements potentially of interest to you..

### **PHOTO Gallery, a New AEG Chapter Web-Page**

Please refer to the Calendar Section, and now the new "PHOTO Gallery" web-page for photographs of particular happenings or events involving the Inland Empire Chapter. Currently are photos of the entire set of Officers and Chairpersons involved with the Chapter since Spring 2005 to the end of the AEG 2007 Year last month. As well is a photograph of the numerous students and faculty representative (also the Guest Speaker) of Cal Poly Pomona University Geological Sciences Department along with current Chair Michael Cook, and Past President Rick Gundry.

## **Inland Students Seek AEG Student Chapter**

Cal Poly Pomona University earth science undergraduates have discussed forming a new AEG Student Chapter in the Inland areas of southern California. Student Geology Club Chair Robert Ellis mentioned this possibility with other Geology Club Members to Rick Gundry, Past Chapter President of the AEG Inland Empire Chapter at the recent October AEG Inland Empire Chapter meeting in Temecula, CA, Wednesday, October 17, 2007 (anniversary of the Loma Prieta Mw 6.9 Major Earthquake of 1989).

Dr. Jeffrey Marshall, providing scientific and personal accounts of that Major Earthquake, and many following studies, speaking on "Riding the Waves of the San Andreas Loma Prieta Earthquake of 1989", announced during the formal meeting, that the Cal Poly Geology Club was interested in starting an AEG Student Chapter.

Dr. Marshall is Professor of Geomorphology, Department of Geological Sciences, Cal Poly Pomona University, and is Faculty Advisor to the Student Geology Club. Jeff indicated the students there want the formation of a student AEG Chapter (that in my words ahead - ed.)

perhaps would be one that would precipitate crystallization of an inland area student Chapter to include (umbrella) other Geology Clubs and Geology/Geophysics undergraduate and graduate Students at nearby Universities and Colleges.

## **Information about AEG Student Chapters.**

An AEG Student Chapter can be joined from a host of undergraduate majors, in other fields of earthsciences, such as Geotechnical Engineering, or Soil Sciences, or those in majors interested in the work and studies related to engineering geology. Student Membership Fee is \$25.00 per year. A Student Chapter may be formed by Three Student AEG Members filing petitions with the AEG National Association. AEG Student Chapters can be sponsored by local AEG Sections or Chapters. No fee. Student Chapters tied to Official recognition of University, but operate independently of AEG, but officially recognized by AEG, thus providing discounts, publications, and connections to student assistance. See [www.aegweb.org](http://www.aegweb.org) home page (Student Section))

(At present, there are two Student AEG Chapters in California. Apparently the historic and long-lived Student Chapter at Cal State Los Angeles is presently dormant). Currently a Student Chapter exists with the San Francisco Section, and the Sacramento Section. A new Student AEG in southern California would be in the AEG Southern California Section, sponsored by the Inland Empire Chapter, and thus under the Southern California Section because the Chapter is part of Section.) Section..)

(The AEG Southern California Section is the oldest, first-ever, and largest AEG Section in the World. Many of present Chapter Members/Attendees were a part of the former AEG Southern California Student Chapter at Cal State L.A., even I)

## **CSUSB Geology Club Seeks Speakers**

### **Speakers sought from Professionals**

Here is your or your Companies' opportunity to speak to undergraduate Geology Majors in the inland area. The Geology Club, Geology Department, California State University, San Bernardino is seeking guest speakers for their schedule of meetings for the academic year, especially for Fall Quarter 2007. The Geology student club would like to invite speakers for their monthly meetings. Anyone interested in speaking should contact co-President, Venessa Fava, at [favav@csusb.edu](mailto:favav@csusb.edu). For fall quarter, meetings are at 2:30 pm on the first Monday of each month, with the

next two meetings being Nov. 5 and Dec. 3. The schedule for Winter quarter meetings has not yet been set.

News from the Geology Department: Four CSUSB undergraduate geology students received AGI (American Geological Institute) scholarships for 2007-2008. Congratulations to Stephanie Montgomery, Christina Velazquez, Amanda Lopez and Joseph Salazar. KEEP UP THE GREAT WORK !

## University of California , Riverside

News of the Department. Dr .Michael A. Murphy ("MAM") is back officially at the Department of Earth Sciences, according to Dr. Mary Droser, Chair, Department of Earth Sciences. Dr. Murphy will be honored as the Emeritus Faculty Member of the Year on October 31, 2007. Dr. Murphy was the first professor in Geology hired back in 1954, after a Department Chair was appointed, when the University began, and it did, with a Geology Department. Congratulations UCR and to Mike. Mike obviously will add at least 300 years or more of experience to the Department, knowing his discourses, knowledges and abilities, at least.

News of the Hewett Earth Sciences Club. The Hewett Club is a student-run organization. Its main function is sponsoring the UCR Earth Sciences Department's weekly seminar series, which is held on Tuesdays at 4:00 p.m, in the Geology Building at UCR, room 1408.

For more information, see the Fall Quarter series of meetings (see Future Meetings ahead), or contact Graduate Students Harmony Colella, ([hcolella@gmail.com](mailto:hcolella@gmail.com)) and/or Chris Reinhard ([crein003@ucr.edu](mailto:crein003@ucr.edu))

[Editors Note: The UCR Hewett Club was named in Honor of Donnell Foster Hewett, who made significant academic impetus to the Department, and a giant Economic Geology collection of a special suite of rock and mineral specimens housed, curated and stored at UC-Riverside, based on my experience there as student and former Hewett Club Vice-President in the mid-seventies, back in the Nuerozoic times of the Late Tectonocistism.)

## Masters Degree in Geology Program Sought - Professional Advice needed to Department Chairman

Letters of support are requested concerning an advanced degree program at the Masters level in Geological Sciences at California State University, San Bernardino. Please send your support letter to Dr. Alan Smith,

Chairman, Department of Geology,  
[AlSmith@csusb.edu](mailto:AlSmith@csusb.edu)

Apparently, the CSUSB School of Natural Sciences would entertain this need through support from the local area Professional Geologists indicating such interest and need. Other contacts who can assist a delegation of support are Professional Geologists Steve Mains, [watermains@aol.com](mailto:watermains@aol.com) and Jeff Ftzsimmons, [jeff@johnbyerlyinc.com](mailto:jeff@johnbyerlyinc.com)

## Meeting Details and Location

Note: Meeting is 2<sup>nd</sup> Weds, **not** 3<sup>rd</sup> Weds  
(This is a week earlier)

**Advance RSVP is required by Wednesday 7-Nov-07.** Seating is limited to 35. Late RSVP is subject to NO placement at meeting and NO food service..

Location. The meeting will be held at California State University, San Bernardino, east of I-215 in northwest San Bernardino.

Visitor Parking Lot  
California State University, San Bernardino  
5500 University Parkway  
San Bernardino, CA 92407  
(909) 537-5000

### Directions to Meeting

University Parkway Exit is between the I-15 and I-215 interchange and the I-10 and I-215 in northern San Bernardino. (It is north of Hywy 30 (Highland Avenue) and the eastward extension of I-210). From I-215, EXIT North on Univerisity Parkway and follow a few miles to turn straight into the campus parking Visitor Parking lot. Make short walk to Biology Building to Room 112 (Geology Lab Room). (See Map Attachment to transmittal).

### Meal Venue – Backyard Bonanza

The meeting will include a meal served by the Campus Cafeteria Catering Department.

- Grilled Hamburgers and Hot Dogs
- Grilled Veggieburgers and veggie dogs
  - Comes with Deli Salad, Baked Beans, Fresh Fruit, Potato Chips, Sliced American cheese, lettuce, tomatoes, onions, pickles
- Condiments; Mustard, Mayo, Ketchup, Salt, Pepper
- Cookies



## Future Meetings

DEC Wednesday 19-December 2007, Corona  
-- "Accelerating Seismicity Before Large Earthquakes: -- The Life and Death of an Earthquake Prediction Scheme"

Dr. David Bowman, Associate Professor and Chair,  
Department of Geological Sciences, California State University, Fullerton, Fullerton, California.

JAN Wednesday January 16th, 2008, Pomona  
\*\* Cal Poly Geology Club & AEG Joint Meeting \*\*  
2008 GSA/AEG Jahn's Distinguished Lecturer in Engineering Geology  
-- "Earthquake Hazards and Risk in the Pacific Northwest"

Dr. John J. Clague, Shrum Research Professor, CRC Chair in Natural Hazard Research,  
Department of Earth Sciences, Simon Fraser University, Burnaby, British Columbia, Canada

FEB Wednesday February 20<sup>th</sup>, 2008, Moreno Valley  
-- "Tsunamis and Earthquake Dynamics"  
Dr. David Oglesby, Professor of Geophysics, University of California, Riverside, Riverside, CA

MAR Wednesday Mar 20<sup>th</sup> -2008, Redlands  
-- "Engineering Geophysics"  
Anthony Martin, Geophysicist, Geovision Geophysical Consulting, Corona, California

APR Wednesday \_\_ April 2008, Temecula  
-- "Rotating Crust along the San Andreas Plate Boundary"  
Dr. Nate Onderdonk, Associate Professor of Geology,  
Department of Geological Sciences, California State University, Long Beach, Long Beach, California

## Hewett Club Seminars Fall 2007 (UC-Riverside)

October 16: Andrey Bekker (University of Manitoba)  
"Fractionation between inorganic and organic carbon during the Lomagundi (>2.22-2.1 Ga) carbon isotope excursion"  
October 17: Kirk Johnson (Please note; Extra meeting)  
Wednesday from 4-5pm in STAT B650  
October 23: ?  
October 30: NO Hewett Club Seminar  
November 6: Alex Sessions (Caltech)  
November 13: Rowan Lockwood (William & Mary)  
November 20: Shuhai Xiao (Virginia Tech)

November 27: Alex Web (UCLA)  
December 4: Jared Morrow (San Diego State University)

More information can be found at:  
<http://www.earthsciences.ucr.edu/index.php?content=seminars/> hc\_sched.html

## Continuing Education Ongoing Short Course

"An Introduction to Landslides or Mass Wasting"  
An Online course  
AIPG Accredited (3.5 CEU's)  
rgfont@geosciencedm.com,  
[slbishop@geosciencedm.com](mailto:slbishop@geosciencedm.com)  
[www.geodm.com](http://www.geodm.com) Robert Font, Ph.D.

## Position Open - Cal State San Bernardino

The CSUSB Geology Department will be hiring a full-time, non-tenure-track lecturer. Duties will include teaching and coordinating introductory geology lectures (in the general education and teacher training programs), coordinating with other instructors, mentoring part-time faculty who may also be teaching introductory lectures and laboratories, possibly teaching other courses within the general education program (natural disasters, energy, history of life), or upper division courses within the candidates field of expertise, as well as other duties as assigned. A Master's degree in geological sciences is required; a Ph.D. is preferred. Must be able to relate well to a diverse, multi-ethnic student body. The complete job announcement and application instructions may be found at <http://geology.csusb.edu/index.htm> (look for the small link in lower right corner). Application deadline is December 1, 2007.

## FIELD TRIPS

Planning is underway for casual part-day field trips ahead. AEG is seeking sites of interest, and those willing to not only participate but also to be a Field Trip Leader.

## SHORT COURSES

**Continuing Education Ongoing Short Course**  
"An Introduction to Landslides or Mass Wasting"  
An Online course  
AIPG Accredited (3.5 CEU's)  
rgfont@geosciencedm.com,  
[slbishop@geosciencedm.com](mailto:slbishop@geosciencedm.com)  
[www.geodm.com](http://www.geodm.com) Robert Font, Ph.D.

## Inland Empire Chapter Officers and Section/National Contact Information

AEG Inland Empire Chapter, P. O. Box 8944, Moreno Valley, CA 92552-8944  
<http://www.aegsc.org/chapters/inlandempire>

AEG Southern California Section Web-site  
<http://www.aegsc.org/>

Association of Environmental and Engineering Geologists (Headquarters)  
<http://www.aegweb.org>

Connecting . . .

Professionals

Practice,

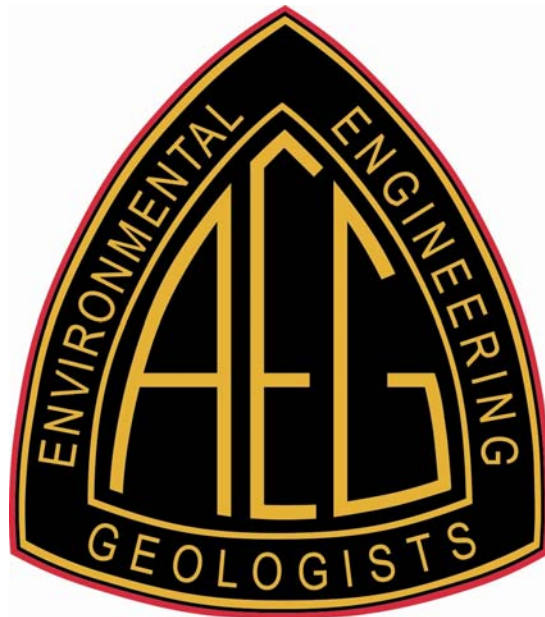
And the Public

### Photo Caption - Cal Poly Pomona University

Geology Club, Students and Guest Speaker

Speaker and Geology Students participating at Chapter Meeting, 17-Oct-2007, Temecula, with two Officers.

Jessy Bruns, Julie Brown, Rick Gundry, Jeff Marshall, Robert Ellis, Mike Cook, Daniel Heaton, Kayla Kroll, Lauren Carey, Kim Poste.



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