



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS
Southern California Section

"Connecting Professionals, Practice, and the Public."

NEWSLETTER – May 2007

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Visit the Southern California Section Website: www.aegsc.org

Newsletter Editor – Steve Varnell, svarnell@lqcggeo.com

Meeting Date: ***Tuesday, May 8th***

Location: Steven's Steak House, 5332 Stevens Place, Commerce, California

Time: 6:00 p.m.-Social Hour; 7:00 p.m.-Dinner; 7:45 p.m.-Presentation

Cost: \$30 per person with reservations, \$35 at the door, \$15 for students with a valid Student ID

Reservations: Please call Peter Thams at (805) 644-7976 or email pthams@wcnenviro.com

Speaker: Lorraine Leon, Department of Earth Sciences, University of Southern California

Topic: Borehole and High-resolution Seismic Reflection Evidence for Holocene Activity on the Compton Blind-thrust Fault, Los Angeles Basin, California

Abstract:**Borehole and high-resolution seismic reflection evidence for Holocene activity on the Compton blind-thrust fault, Los Angeles basin, California**

Lorraine A. Leon¹, James F. Dolan¹, John H. Shaw², and Thomas Pratt³

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³ U.S. Geological Survey, School of Oceanography, University of Washington, Seattle, WA 98195-7490.

Newly collected borehole and high-resolution seismic reflection data from a site ~6 km south of downtown Los Angeles demonstrate that the Compton blind-thrust fault has generated multiple large-magnitude earthquakes during the Holocene. This large blind thrust fault, which was originally identified by Shaw and Suppe (1996) using industry seismic reflection profiles and well data, extends northwest-southeast for 40 km beneath the western edge of the Los Angeles basin. The industry seismic reflection data define a growth fault-bend fold associated with the thrust ramp. The industry data, however, do not image deformation in the uppermost few hundred meters, which is of the most interest for seismic hazard analysis. In order to bridge this gap, we acquired high-resolution seismic reflection profiles at two scales across the back limb active axial surface of the fault-bend fold above the Compton thrust ramp, which reveal an upward-narrowing zone of folding that extends to <100 m of the surface. These data, in turn, allowed us to accurately and efficiently site a fault-perpendicular transect of ten continuously cored boreholes across the axial surface of the fold observed in both industry and high-resolution seismic reflection data. The borehole data reveal folding within a discrete kink band that is <~60 m wide in the shallow subsurface, with most deformation occurring within a zone <30 m wide. Analysis of the deformed, shallow growth strata reveals evidence for stratigraphically discrete uplift events, which we interpret as having occurred during large-magnitude ($M > 7$) earthquakes on the Compton fault. The total uplift across the Holocene/Pleistocene boundary, coupled with the dip of the Compton thrust ramp indicates a minimum slip rate on the blind thrust of ~1.5 mm/yr. These observations clearly indicate that the Compton fault is active and capable of producing damaging, large-magnitude earthquakes directly beneath metropolitan Los Angeles.

Speaker:

Lorraine Leon is currently in the PhD Program at the Department of Earth Sciences, University of Southern California, where she is working in the field of Paleoseismology of blind-thrust faults. Her research emphasis is on the implications for system-wide earthquakes to occur in active fold and thrust belts. Ms. Leon has conducted research in the fields of active tectonics, paleoseismology, structural geology, and seismic hazard analysis and has authored and co-authored several papers regarding active near surface fold structures related to blind thrust faulting in the northern Los Angeles Basin.

Chair Column

Roz Munroe

Greetings Southern California,

I recently returned from the AEG Mid-Year Board of Directors meeting in Indianapolis held April 21 and 22. For those of you who don't know, the Chairs of all of the AEG Sections automatically serve on the Board of Directors (BOD) of the Association. The Executive Council (EC, composed of the President, Vice President, Treasurer, Secretary, and immediate Past President) with the support of Becky Roland, our Chief Staff Executive, run the day-to-day operations of the Association and report to the Board. **However all major decisions must be approved by the Board.** There are two Board meetings each year. One is held during the annual meeting and one mid-year at a location chosen by the President.

Reports were presented to the BOD by the President, Vice President, Secretary, Treasurer, as well as the Immediate Past President (who is responsible for the Technical Committees, among other things). Meeting Manager Julie Keaton, Chief Staff Executive Becky Roland, and the Governance Committee also made presentations.

Vice President Dorian Kuper reported the formation of a new Advocacy Committee that is recruiting members from the general membership. That means you. The committee's goal is to develop and promote AEG outside of the organization with the public and the media.

The AEG Foundation reported increased donations in the past year with the long-term goal to build each scholarship fund to \$100,000 in principal for more and larger scholarship grants, as well as goals for similar increases in other program funds.

The Governance Committee reports to the BOD. Their revised charter to review governance structure, bylaws, and policies, provide options for training, and provide guidance to the BOD and EC was approved by the BOD. In addition, the BOD approved their new proposed Committee members. The EC plans to have recommendations for proposed revisions to the Association Bylaws sent to the Governance Committee for review and then sent to the BOD members for review and solicitation of input from the Section members in time to finalize recommendations to the BOD for action at the Los Angeles annual meeting.

The Finance Committee provided written review of the EC's proposed 2007-2008 annual budget (AEG operates on a July-June financial year). The 2007-2008 budget was discussed in some detail and, with some revisions, approved by the BOD. The proposed draft charter of the Finance Committee to review the annual budget and advise and educate the BOD and AEG members independent of the EC was approved.

The **Los Angeles Metro Red Line** was unanimously approved as the 2007 Outstanding Environmental and Engineering Geology Project of the Year for AEG's 50th anniversary at our annual meeting in Universal City in September. Congratulations and thanks to Buzz Spellman and his committee for sponsoring this tremendous project.

President Terry West led the BOD on a field trip to the Southside Sanitary Landfill and the Martin Marietta underground limestone mine, where we had some memorable moments. I'll report next month.

AEG's 50th Anniversary meeting to be held in Universal City September 24-29 is rapidly approaching. **The Sections have been invited to present their history in a special poster display at the meeting.**

Southern California was instrumental in the establishment of AEG and it is important to present our history. I'm asking, actually begging, for input for the poster board. I've "only" been a member for twenty-odd years, not counting my student membership, so I don't know everything that has transpired. I'm not asking you to join a committee or attend a meeting (unless you want to) but I need you, as members of the **Southern California Section of AEG**, to provide any historical anecdotes, field trip memories, organizational background, photos, member highlights, section lowlights, anything that could enhance or chronicle the history of the Section. I've solicited Woody Higdon to help with the physical poster, but I need your input for the content. We're running out of time so please contact me at rmunro@mactec.com.

JAMES AND NANCY SLOSSON

AEG Honorary Member James E. Slosson passed away April 28 after a long stay in the hospital. His wife Nancy's death preceded his by two days. Jim was formerly California State Geologist. A session giving tribute to Jim will be made at the AEG Annual Meeting in L.A. in September.

Please visit the following website for more information:

http://www3.baylor.edu/~Vince_Cronin/Slosson/index.html

*****AEG Southern California Section Golf Tournament*****

The 2nd Annual AEG Southern California Section Golf Tournament is scheduled for Friday, July 13th at Los Verdes Golf Course in Rancho Palos Verdes. Watch for the registration form coming soon...

Chapter Meetings

Inland Empire:

For the latest information and updates, please visit <http://www.aegsc.org/chapters/inlandempire/>

Central Coast:

Monthly meetings will take place on the last Wednesday of every month at Rusty's Pizza in Goleta. Social hour begins at 6 pm, the meeting begins at 7pm.

For the latest information and updates, please visit <http://www.aegsc.org/chapters/centralcoast/>

For more information or to be added to the CA Central Coast Chapter email list, please contact Robert Urban via email at robert_urban@urscorp.com.

San Diego:

For the latest information and updates, please visit <http://www.aegsc.org/chapters/extremesocal/>

National Business Donation

- **Platinum** - \$1,000
- **Gold** - \$500
- **Silver** - \$250

Company name, address and contact information are presented in AEG News and section receives 10% of donation. A national donation does not yield a line in our local section newsletter.

Company & Employment Advertising Newsletter (includes SoCal website posting)

	<u>Month</u>	<u>Year</u>
▪ Business Card	\$10	\$100
▪ ¼ Page	\$20	\$200
▪ ⅓ Page	\$30	\$300
▪ ½ Page	\$35	\$350
▪ Full Page	\$50	\$500

SoCal website posting only

\$20/month

* The deadline for submitting an advertisement for next month's newsletter is Monday, May 28th.

YEAR 2007 CONTRIBUTORS NEEDED

Contributions from corporations and individual members are greatly appreciated. Contributors will be listed in our newsletter throughout the year and can post their logo or business card in the newsletter if so desired. Please mail contributions made out to **AEG** to our section treasurer, Peter Thams.

2007 MEMBERSHIP RENEWAL

For those of you who have not yet renewed (**the deadline was November 1**), are unsure about your membership status, or did not receive your membership dues statement, please contact AEG Headquarters at www.aegweb.org. You can renew your membership online. Please update your membership if you wish to continue to receive future issues of the newsletter.

*****NOTICE: Proposed New AEG Publication*****

WHO'S WHO in SO CALIFORNIA ENGINEERING GEOLOGY
The Evolution of Engineering Geology in Southern California

Have you ever wondered "Whatever happened to___?" or "I've heard of ____, who is he?"

The undersigned have decided to try to prepare an internet publication with the above title, which will include biographies of engineering geologists in southern California. We would like you to share your biography (autobiography) with other EGs. If you have worked on an interesting project, others would like to know about it.

If we limit each autobiography to 3 pages of text, plus photos, this publication would be more than 1,000 pages long. Therefore, we plan to utilize a proposed new AEG Foundation internet website, where there is no limit to total pages, and we can use color photos. Also, this new website will be available for no-charge access, worldwide, thus spreading the word on the history and evolution of engineering geology, and southern California's immense contribution.

We suggest (not require) three criteria for inclusion: 1. That you are a CA licensed CEG; 2. That you are now or once were a member of AEG; 3. That you have enough years of professional experience to relate one or more significant projects you have worked on. We believe there are more than 250 such EGs in southern California. This will be an evolving internet site where new autobiographies can be added.

We will also include Memorial biographies of past notable geologists in southern California. So far, we have identified 30, including John Buwalda, Ian Campbell, Tom Dibblee, Rollin Eckis, Perry Ehlig, Richard Jahns, John Mann, F.L. Ransome, Charles Richter, Dottie & Marty Stout, Gene Waggoner. We will give a presentation on many of these notable geologists at AEG's 50th Anniversary Annual Meeting in September in Los Angeles.

Here is a CHECKLIST FOR YOUR AUTOBIOGRAPHY:

Complete NAME, address, phone, email; BIRTH DATE and place; UNIVERSITY(s) attended, major(s), degree(s), year(s); MILITARY service; FIRMS/AGENCIES you worked for; up to 3 significant PROJECTS you worked on; possibly relate a serious or humorous INCIDENT; a MENTOR you may wish to acknowledge; professional SOCIETIES, HONORS, AWARDS; HOBBIES; up to 5 PUBLICATIONS; PHOTOS of yourself and of projects (scanned images preferred).

So, if you wish to be included in this new internet publication, prepare your autobiography and email it with photos to: allen@hatheway.net and in the Subject box, type: So. Cal. Geologist. Or mail it to Allen Hatheway, 10256 Stoltz Dr., Rolla, MO 65401. Please, no more than 3 pages of text, single-spaced, Times New Roman, 12 pt.

Please pass this notice on to those you may know who no longer get this Newsletter.

In the spirit of camaraderie, we thank you,

Richard Proctor
 Allen Hatheway
 David Rogers
 Larry Cann
 Bob Lynn

EMPLOYMENT OPPORTUNITIES & ADVERTISING



— engineering and constructing a better tomorrow

MACTEC Engineering and Consulting, Inc., a leading national geotechnical and environmental firm, is seeking Staff and Project Engineering Geologists for the Los Angeles office Geotechnical Division.

STAFF GEOLOGIST: The position requires a BS, MS preferred. 1 to 2 years experience is desirable. (Job ID 1251)

PROJECT GEOLOGIST: The position requires a BS, MS preferred, and minimum 3 to 5 years of experience. (Job ID 2058)

MACTEC offers excellent benefits and salary commensurate with experience. Please email, fax, or mail your resume to:

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200 Citadel Drive
Los Angeles, CA 90040
fax (323) 889-5398
dtliu@mactec.com

Job descriptions and requirements at: <http://www.mactec.com/careers/>



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Lawson & Associates Geotechnical Consulting, Inc.

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Website: www.lqcgeo.com

LGC is looking for dynamic individuals to join our team and work on some of Orange, Los Angeles, Ventura, San Bernardino, Santa Barbara and Kern Counties' most interesting and technically challenging projects. If you are an experienced geotechnical professional, or just starting your career, please do not hesitate to contact us. All inquiries will be considered in the utmost confidence. We look forward to hearing from you.



Since 1986, clients have turned to Ninyo & Moore for innovative solutions to complex geotechnical and environmental challenges. As a leading geotechnical and environmental sciences engineering and consulting firm, Ninyo & Moore provides specialized services to clients in both the public and private sectors. With offices in Colorado, California, Nevada and Arizona, the firm is fully committed to being responsive, cost-efficient, and thorough in meeting its clients' project needs and objectives.

Ninyo & Moore Geotechnical & Environmental Sciences Consultants has immediate employment opportunities in our Denver, Irvine, Las Vegas, Oakland, Phoenix, and San Diego offices. Positions include Engineers and Geologists of all levels, including **Chief Geotechnical Engineer, Staff Engineers and Geologists, Project Engineers and Geologists, Senior Environmental Engineer, Staff and Project Environmental Scientists, and Construction Field and Laboratory Technicians.**

The successful candidates should have a BS or MS degree for staff-level positions and five years or more of experience for project to senior-level positions. The candidates should be detailed oriented and have excellent verbal and written communication skills. Professional Engineer (PE) and/or Professional Geologist (PG) registrations preferred.

Ninyo & Moore offers a competitive salary, excellent benefits and an opportunity for professional growth. Please visit our website for complete and detailed job descriptions and to submit your resume in confidence at www.ninyoandmoore.com/careers or mail to our corporate office at 5710 Ruffin Road, San Diego, CA 92123, Attention: Human Resources. EOE



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Chances are, we'll touch your life today. We may have made the water you drink cleaner, or the highway you travel safer. You may play in the environment we protected, or use advanced communications technology we made better or more convenient.

CH2M HILL is a global, employee-owned firm with more than 18,000 employees from various engineering, scientific, and technical disciplines. At any given time, we have thousands of active projects underway worldwide.

CH2M HILL has openings for talented Hydrogeologists in our Santa Ana office. These entry- to mid-level consultants will support projects that include site characterization and groundwater/soil remediation of hazardous and solid waste sites, assessment and remediation of regional groundwater contamination, groundwater protection, evaluation and development of groundwater resources/water supply.

Requirements include: BA/BS in Hydrogeology, Hydrology, Geology, or Environmental Engineering. Proper work authorization required (non-academic visa for any employer in the U.S.)

If you are interested please apply directly online to Requisition #16034BR (entry level) or #16198BR (mid level) at <http://www.ch2m.jobs>. When submitting your resume, please reference source code PFAEGSC.

CH2M HILL is an Equal Opportunity Employer M/F/D/V. We conduct background investigations on all new employees hired at the time a conditional offer is extended.



IMMEDIATE EMPLOYMENT OPPORTUNITIES FOR ALL LEVELS OF ENGINEERING GEOLOGISTS

If you are looking for a new opportunity to work with a creative and diverse geotechnical firm seeking to expand operations, *Albus-Keefe & Associates, Inc.* is a place where you can make a difference. We are looking for qualified individuals to work on interesting and technically challenging projects in Orange, LA, Ventura, San Bernardino, and Riverside Counties.

Albus-Keefe & Associates, Inc. is an EQUAL OPPORTUNITY EMPLOYER. All qualified candidates are encouraged to apply. For immediate consideration, email your resume and salary history to: RNash@Albus-Keefe.net -OR- fax to 714-630-1916.

STAFF & PROJECT LEVEL GEOLOGISTS:

Candidates should possess a BS or higher degree and have experience in public works, commercial and/or residential projects. Duties include performing geologic investigations, field observation and data collection during site construction operations, office analysis, proposal and technical report preparation, and project management.

SENIOR ENGINEERING GEOLOGIST:

Candidates must possess CEG registration and have experience in public works, commercial and residential projects. Duties include managing geologic investigations and construction operations, office analysis, proposal and technical report preparation, supervising/mentoring staff, and business development.

Geosoils Consultants, Inc.

Staff Level Geologist: Geosoils Consultants, Inc. is looking for a staff level engineering geologist for work on a variety of engineering projects in Los Angeles/Ventura Counties. Geosoils Consultants, Inc. is located in Van Nuys, California. Contact George Larson, Rudy Ruberti or Dave Sherman for further information. 818-785-2158.

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