Association of Engineering Geologists

Southern California Section

### NEWSLETTER- April 1991

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2550 Beverly Blvd. Los Angeles, CA 90057

### Dinner Meeting Tuesday April 9th

- The Quiet Cannon Restaurant 901 North Via San Clemente Montebello
- Cost \$20.00 (Full-Time Students Free)
- Make reservations by Friday April 5th!!!

  Grace (Leighton & Associates) 714-860-7772

  (Leave Your Name & Number of People in Your Party)
- ☐ 5:30 Social Hour
- ☐ 6:45 Dinner

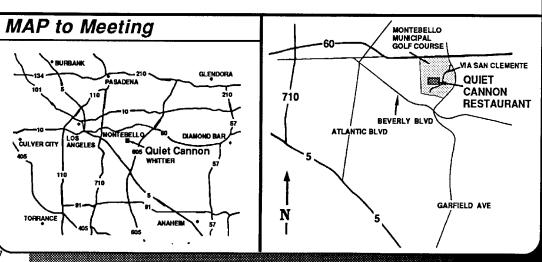
7:30 Announcements

☐ 8:00 Program

### **Program**

TOPIC Assessment of Geologic Hazards by Use of Low-Sun Angle Aerial Photography

SPEAKER D. Burton Slemmons, Ph.D., P.G, P.G.E.



## PROGRAM Topic & Speaker

Assessment of Geologic Hazards by
Use of Low-Sun Angle
Aerial Photography

D. Burton Slemmons, Ph.D., P.G., and P.G.E.

Low-sun angle aerial photography combined with aerial or ground observation have long been used for geologic studies. In 1968, Dr. Slemmons worked on developing a new method that used specific planning for optimal season and time of day to detect, delineate and characterize active faults. The basic concept of the method is to highlight by direct illumination from the front of a scarp, or to shade by illumination from the back of a scarp.

The first application of this method along historic fault scarps in central Nevada led to the detection of many previously unknown faults and liquefaction features. Since then, the method has been used extensively in both the U.S. and many parts of the world. Other applications for assessment of geologic hazards include the detection and definition of landslides, liquefaction areas, details of youthful erosional surfaces and Quaternary deposits.

Some examples that Dr. Slemmons will show at the meeting include sites in the Basin and Range province, an intraplate setting in Oklahoma, Alaska, Argentina, New Zealand and Mexico.

Dr. Burt Slemmons is a consulting geologist and professor emeritus of the Mackay School of Mines at the University of Nevada at Reno. His work has included studies for the U.S. Nuclear Regulatory Commission, and for private industry in the siting and design studies of critical engineering facilities. Some of the projects he has consulted for include nuclear and fossil fuel power generating plants, nuclear waste disposal sites, pipelines, LNG facilities, dams, buildings and mine tailings disposal sites.

#### LAST MONTH'S MEETING

Last month's meeting in Commerce was our annual joint meeting with the Geotechnical Division of the American Society of Civil Engineers (ASCE). The speaker was Mr. L. Thomas Tobin, Executive Director of the California Seismic Safety Commission, who talked about California's Earthquake Hazard Reduction Program.

Specifically, Mr. Tobin talked about the political climate in Sacramento as it relates to seismic safety policies and issues. Mr. Tobin sees real opportunities in the State legislature. Governor Pete Wilson appears to be very interested in seismic safety, and senators and congressmen, with the effects of the Loma Prieta Earthquake still fresh in their minds, are very willing to support and approve legislation aimed at seismic safety. At least four Assembly Bills that address seismically hazardous buildings have been introduced since the Loma Prieta Earthquake. These include:

A) Hazardous High Occupancy Buildings such as nonductile frame buildings. The bill requires that a quick analysis of the building be performed as part of a sale or transfer transaction. B) Residential Strengthening Bill: Also as part of a sale or transfer transaction, buildings have to be inspected for unbolted foundations or other structurally unsafe conditions. C) Code that calls for the strengthening of existing buildings (AB 8204). D) Bill that calls for the strengthening of weak ties in floors, walls and ceilings, especially for tilt-up buildings (AB 8968). In addition to these bills, perhaps the bill of most interest to geologists was approved on September 1990 as a result of liquefaction damage in the Marina District of San Francisco. AB 3897 (W. Brown) requires that the State Mining Geology Board submit by January 1, 1992, guidelines for the preparation of maps for seismic hazard zones in the State. These hazards include, but are not limited to, liquefaction, strong ground motion, and earthquakeinduced landslides. The State Geologist would compile, prepare and distribute maps identifying these seismic hazards.

Mr. Tobin is championing the idea that these maps be computer generated, compatible with a GIS System, and compatible with PC's so that local governments and other interested parties can have access to the latest data at any time. He is also suggesting that these maps be re-issued every 3 years, modeled after the UBC, whether any changes have been made or not.



Mary C. Stordal Laboratory Supervisor Analytical Chemistry Services

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### REPORT FROM THE REGISTRATION COMMITTEE

Mr. Robert Hollingsworth attended a meeting of the State Board of Registration for Geologists and Geophysicists held in Inglewood this past February 20, 1991. The following is a summary of Mr. Hollingsworth's report regarding the topics discussed in this meeting.

- 1) Mr. Frank Dellechaie is the new executive officer of the Board. Mr. John Wolfe, past executive officer, will function as consultant to Mr. Dellechaie for a short time.
- 2) The number of geology and engineering geology exams given annually has increased from 200 in 1983 to 1100 in 1990. As a result, the amount of time it takes to grade the examinations has increased considerably. The Board's executive officer also has to spend more time administering the exam. For now, the exam will continue to be offered only once a year. The next examination will be offered locally in Long Beach, on November 1 and 2, 1991.
- 3) As of January 1991, 50 percent of the current registered geologists, and 47 percent of the current engineering geologists grandfathered.
- The Board of registration for Geologists and Geophysicists is the only board in the department of Consumer Affairs that does not have a position specifically aimed at enforcing. The large number of exams administered has reduced the amount of time the executive officer allots to enforcement. As a result, the board has proposed to hire one geologist and one clerical person to investigate complaints. Funding for these positions will be provided by the fees paid by registrants and applicants; the board estimates that they can hire these people at the current level of funding through 1993 or 1994. Although the board presently has a reserve fund of \$500,000, they cannot touch this money without consent. Funding for the fiscal year beginning June 1991 was requested through the Department of Consumer Affairs, but the request was denied. AEG members may be asked to write letters in support of this funding request in the near future.
- 5) The question of whether or not a registered civil engineer can prepare and sign geologic or engineering geologic reports was discussed at the meeting. Mr. Chang, the Board's legal advisor, and Mr. Dellechaie are planning to meet with Ms. Darlene Stroup, the judge who wrote a letter to an engineer in Orange County stating that "a civil engineer, competent to practice geotechnical engineering, is sufficient to investigate, prepare and/or review in-situ geotechnical reports involving soils and engineering geology". It appears that Ms. Stroup incorrectly applied an opinion prepared by Mr. Chang concerning the ability of a registered civil engineer to prepare and/or review geotechnical reports.

#### 1991 ANNUAL GSA MEETING

The Geological Society of America will hold its Annual meeting this year in the San Diego Convention Center, October 21-24. The meeting will emphasize Environmental Geology. Volunteered abstracts are due by July 3rd (contact GSA abstract coordinator @ 303-447-8850). A spectacular array of field trips have been planned (contact Mike Walawender, field trip chairman @ 619-594-6543). A few Exhibitor Booths are still available (Act now!, call Kathy Lynch @ GSA 800-472-1988). If you are not a current member contact your local representative Diane Murbach @ 619-966-8672

#### CALL FOR PAPERS

Inland Geological Society: Tentative Topic: Quaternary Faulting and Related Hazards in the Inland Areas of Southern California.

Deadline for Abstracts: December 1, 1991.

For more Information contact:

Gary Rasmussen, IGS Publications Committee Chair c/o Gary S. Rasmussen & Associates, Inc., 1811 Commerce Center West, San Bernardino, California 92408 (714-888-2422).

1992 Conference on Earthquake Hazards in the Eastern San Francisco Bay Area. This conference is to be held March 25-28, 1992 in Hayward, California. Contributing papers must touch specifically on some aspect of earthquake hazard in the eastern part of the San Francisco Bay region.

Preliminary abstracts (not to exceed 500 words) are due by June 1 to be considered for inclusion in the conference; papers are due no later than September 1, 1991.

Send abstracts to Dr. Sue Ellen Hirschfield, Department of Geological Sciences, California State University, Hayward, CA 94542. (Phone: 415-881-3486).

### CLOSURE OF THE USGS - DOWNTOWN LOS ANGELES OFFICE

Officials at the U.S. Geological Survey are considering closing the USGS's public information office in downtown Los Angeles. If this office is closed permanently, local geologists will lose access to many invaluable and sometimes out-of-print reference materials. Requests to use these materials will then have to be made through the USGS's office in Denver. Letters in support of continuing the LA office of the USGS should be addressed to the attention of Mr. Jack Mottran (U.S. Geological Survey, 300 North Los Angeles St., Room 7638, Los Angeles, California 90012). The USGS reportedly will make a decision on or about March 29, so write to Mr. Mottran today!

# The Sacramento Section of AEG in conjunction with Brown and Caldwell and the State Water Resources Control Board presents

#### California's Water Outlook in the 1990's

California faces important water related issues in the 1990's. Population growth, the continuing drought, and the degradation of water quality must all be addressed in the future. This symposium will present a comprehensive evaluation of these issues. The one-day seminar will include discussions of water rights and water transfers, efficient distribution of water under increasing demand, water supply and population growth, and ground water quality.

Speakers will include representatives of the State Water Resources Control Board, the State of Nevada, private consulting firms, and the Honorable Phil Isenberg. The keynote address will be given by Bob Potter, Deputy Director of the California Department of Water Resources.

Plan to attend this important and timely seminar.

Non-AEG members	\$100.00
AEG, CGA members and Sacramento AEG newsletter subscribers	\$75.00
Non-AEG with newsletter subscription included	\$85.00
AEG student members (limited to first 20 students)	\$25.00

#### Location

The seminar will be held in Room 102 at 714 "P" Street (Twin Towers) in Sacramento. The seminar will begin at 9:00 a.m. and end at 5:30 p.m., on May 9, 1991.

Make checks payable to AEG. Send payment to Jay Lucas at Brown and Caldwell, Inc., 723 "S" Street, Sacramento, CA, 95814-7092. If you have any questions call either Jay Lucas at (916) 444-0123 or Rick Humphreys at (916) 739-4254.

Name:		
Address:	Telephone:	
City:	State ————	Zip

#### LOCAL PROFESSIONAL MEETINGS HELD REGULARLY:

Coast Geological Society: Dinner meetings every third Tuesday of the month, October-June; American Legion Hall, 83 South Palm Street, Ventura.

Inland Geological Society: Dinner Meeting Thursday April 18, San Bernardino Hilton Hotel, corner of Waterman Ave. and Hospitality Lane. Contact: Randy Brandt @ (714) 381-2004.

Los Angeles Basin Geological Society: Lunch meetings third Thursday of every month; now at Luminarias Restaurant, Monterey Park.

San Diego Association of Geologists: Dinner meetings third Wednesday of every month - locations throughout San Diego area. Contact: (619) 292-8030 (Leighton & Assoc., San Diego office).

San Joaquin Geological Society: Dinner meeting second Tuesday of every month except July-September, American Legion Hall, 2020 "H" Street, Bakersfield.

South Coast Geological Society: Dinner meetings first Monday of each month, Revere House, 900 West First Street, Tustin.

4

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#### Positions Available

Ads in this section are welcome at no cost.

#### One Year Full-Time **Temporary Faculty Position**

with possibility of re-appointment, funded at the lecturer level, beginning September 16, 1991. The primary responsibility of the successful applicant will be the teaching of introductory Geology classes, such as, but not limited to Earth Science, Physical Geology and Environmental Geology, and the leading of course-related field trips. Participation in normal committee duties, senior thesis development and student advising is also expected. Opportunity will be given to teach an upper division course(s) iin specialty area.

Although no particular Geologic specialty is sought, preference will be given to applicant with expertise in geohydrology or engineering geology. The applicants should possess a doctorate in Geology or be nearing completion of their doctorate. Others are urged to apply.

Send a letter of inquiry and resume, including names of three current references, to:

Dr. John A. Klasik, Chair Geological Sciences Department California State Polytechnic University, Pomona 3801 West Temple Avenue Pomona, California 91768

To be considered, application should be postmarked no later than May 17, 1991. nree letters of reference and official confirmation of highest degree will be required

#### Position Available for Staff Geologist

Requires degree in Geology with Engineering Geology emphasis helpful. One to three years Southern California experience preferable. For further information CONTACT:

> Scott Hogrefe Tierra Tech Testing Lab., Inc. (805) 484-3657.

#### Career Opportunity for Hydrogeologist

The United Water Conservation District is seeking an entry- or staff-level hydrogeologists to join its groundwater department. The successful applicant will work under the supervision of the department manager. Responsibilities include collection and management of hydrologic data, and report preparation.
Requires a BS in geology/hydrogeology or related field. MS preferred. Strong communication skills a must. Personal computer experience desirable. For further information call (805) 525-4431. Fax (805) 525-2661 or send your resume to:

> Jim Gross, Groundwater Resources Manager **United Water Conservation District** 725 E. Main Street, Suite 301 Santa Paula, CA 93060

> > Career Opportunity for **Environmental Geologist**

Minimum two (2) years experience in site assessment investigations. Send your resume and salary history to:

> Personnel Department Clayton Environmental Consultants, Inc. 5785 Corporate Avenue Cypress, CA 90630

#### Seminars/Meetings/Field Trips

#### **MARCH 1991**

25-27 "Cordilleran Section of GSA Meeting", San Francisco. CONTACT: Ivan Wong, Woodward-Clyde Consultants, 500-12th St., Suite 100, Oakland, CA 94607, (415) 874-3014.

25-28 "Analysis and Design of Aquifer Tests - Newly Revised to Include Fracture Flow Theory and Problems", Dublin, Ohio (also in September 10-13, 1991). CONTACT: National Water Well Association, 6375 Riverside Dr., Dublin, OH 43017, (614) 761-1711.

#### **APRIL 1991**

10-12 "Engineering Geology and Geotechnical Engineering", Logan, UT. Utah State University and Idaho and Nevada Universities. CONTACT: Utah State U. (801)750-1220 Dept. of Geology, Utah State University, Logan, Utah 84322-4505.

15-19 "MODFLOW (USGS Modular Flow Model) for Simulation of Ground Water Flow and Advective Transport", Reston, Virginia (also in Dallas, Texas on November 18-22, 1991). CONTACT: National Water Well Association, 6375 Riverside Dr., Dublin, OH 43017, (614) 761-1711.

21-25 "Introduction to Ground Water Modeling Featuring the United Nations Software", Columbus, Ohio. CONTACT: National Water Well Association, 6375 Riverside Dr., Dublin, Ohio 43017, (614) 761-1711.

**22-24** "Rocky Mountain-South-Central Section of GSA Meeting", Albuquerque, New Mexico. CONTACT: Michael Campana or Lee Woodward, Dept. of Geology, University of New Mexico, Albuquerque, NM 87131 (505) 277-4204. Abstract deadline: December 20, 1990.

#### **MAY 1991**

9 "California's Water Outlook in the 1990's", Sacrameño, California. Seminar hosted by the Sacramento Section of AEG in conjunction with Brown & Caldwell and the State Water Resources Control Board. CONTACT: Jay Lucas (916) 444-0123 or Rick Humphreys (916) 739-4254.

31-June 2 "Pacific Cell Friends of the Pleistocene Field Trip to Fish Lake Valley, California-Nevada". CONTACT: Marith Reheis, U.S. Geological Survey, MS-913, Federal Center, Box 25046, Lakewood, Colorado 80225.

Tania Gonzalez AEG Secretary/Newsletter Editor c/o Leighton & Assoc. 1470 S. Valley Vista Dr., #150 Diamond Bar, CA 91765







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