The March Meetings First (March 2nd) Guest Speaker is William Haneberg —Topic: Making the Most of Airborne LiDAR for Engineering Geologic Applications

This presentation covers techniques, tools, and tips to leverage the value of airborne LiDAR data. Topics include the pros and cons of publicly available data, contracting your own LiDAR work, LiDAR QA/QC and what it really means, working with point clouds, why in the world you’d want to generate continuously differentiable surfaces, mapping planar structures in bedrock, creating geomorphic derivative maps to accentuate topographic features and aid in geologic interpretation, and using visualization to communicate with colleagues and clients. Several mini-case histories are integrated into the presentation.

The March Meetings Second (March 15th) Guest Speaker is Rob Witter —Topic: Impacts of the Mw 8.8, February 27, 2010 Chile Earthquake and Implications for Oregon

Every few decades Chile’s greatest earthquakes (M >8) rupture the interface between the Nazca and South American plates of the Andean subduction zone. The Mw 8.8 February 27, 2010 Chile earthquake and tsunami perpetuated this sequence and caused over 500 casualties and $30 billion in economic losses. In March 2010, members of the Geo-Engineering Extreme Events Reconnaissance (GEER) Association sponsored by the National Science Foundation visited central Chile to collect perishable data on the geotechnical impacts of the 2010 Chile earthquake and its tsunami. With the purpose to improve how society prepares for and responds to future earthquakes and tsunamis in Chile and other regions like the western US, survey teams collected observations that have particular relevance for anticipating potential impacts of future Cascadia subduction zone events. This presentation summarizes geological observations of earthquake-related ground deformation, seismic shaking and tsunami impacts witnessed two weeks after the main shock. Concluding remarks will compare similarities and differences between the 2010 Chile earthquake and potential future ruptures of the Cascadia subduction zone. Lessons learned in Chile warn of coastal flooding and shifting shorelines that will likely persist for decades; highlight wide variations in tsunami runup where the first wave was not the highest in a series that lasted for many hours; and could help Oregonians prepare for future earthquakes and tsunamis closer to home.
Bio: William C. Haneberg, PhD

I’m an independent consulting geologist whose clients have included engineering firms, state and federal environmental and natural resources agencies, mining and logging companies, law firms, and private landowners.

Most of my work involves earth movements of one kind or another—landslides, rockslides, debris flows, land subsidence, earth fissures, and other geologic hazards—that occur either naturally or as the result of human activities. I also rely on modern tools such as GIS, airborne laser scanning (LiDAR), computer simulations, image processing, and digital photogrammetry to solve practical geologic problems.

My field experience includes projects throughout the United States, Papua New Guinea, Nepal, and the Indian Himalaya. If you’d like to see some of the places I’ve worked and traveled, you’re welcome to visit my photography web pages at www.billhaneberg.com.

I began my consulting practice in the Seattle area but in mid-2009 moved to Cincinnati, which is one of the most landslide prone cities the United States. I am also an Adjunct Professor of Geology at the University of Cincinnati and a member of the Board of Trustees for The Hillside Trust.

Before leaving to establish my consulting practice in 1999, I was Assistant Director and Senior Engineering Geologist with the New Mexico Bureau of Mines & Mineral Resources. I’ve also worked as a petroleum geologist, and taught as an adjunct professor at New Mexico Tech and Portland State University.

Bio: Rob Witter, PhD

Rob grew up in the Seattle / Tacoma area and attended Whitman College in Walla Walla, WA, where he received his Bachelor’s degree in Biology. Rob completed his PhD in Geological Sciences at the University of Oregon in Eugene. The topic of his dissertation focused on a 6700 year record of Cascadia earthquakes and tsunamis in southern Oregon near Bandon.

After graduating from the University of Oregon, Rob worked as a Earth science and geologic hazards consultant in the San Francisco Bay area for 7 years. He is a registered Professional Geologist in the State of California. Rob has worked for the Oregon Department of Geology for the last 5 years as the State’s Regional Coastal Geologist. He works on projects related to earthquake and coastal geologic hazards out of DOGAMI's Newport Coastal Field Office. Rob's specialty is "paleoseismology," which means the study of ancient earthquakes. Currently Rob is leading a project aimed at mapping tsunami inundation along the entire 365-mile long Oregon coastline.
Message from the Chair

What an exciting talk at the last meeting from the TCLEE (Technical Council on Lifeline Earthquake Engineering) about the February 2010 Chile earthquake and the potential implications to the Pacific Northwest. I wouldn't be surprised if a few members stopped by the store on their way home from that meeting to stock up on some bottled water and canned goods. Special thanks to Yumei Wang, Leon Kempner, and Allison Pyrch for putting together such a great and informative presentation.

It is always an honor to have the Jahns Lecturer speak at the Oregon AEG Section and this year is no exception. That is why we are sneaking in an extra meeting in March to accommodate tight schedules. Please welcome Bill Haneberg as he speaks to us about LiDAR, which is an exciting topic in the Portland area. Bill Haneberg will also be presenting at Portland State University, so there are ample opportunities to hear him speak while he tours the Pacific Northwest. As an added bonus for this presentation and to help motivate and remind you to attend this extra AEG meeting, Boart Longyear will be sponsoring the beverages. Thank you Trent Castner of Boart Longyear.

Please remember that a reservation made is a reservation paid, so you are expected to pay for your meal when you reserve a seat regardless if you show up or not for the meeting.

See you at this extra special WEDNESDAY, March 2, 2011 meeting.

Lisa Glonek
AEG Oregon Section Chair

Thanks For Supporting AEG!

Amec Earth and Environmental, Inc.
Columbia Geotechnical
Cornforth Consultants
Delta Environmental
Geocon NW
Kuper Consulting
Oregon Department of Forestry
Oregon Department of Geology and Mineral Industries
Parametrix
Portland State University

GeoPotential
22323 East Will Forte Lane, Boring, Oregon 97009
PH (503) 622-0154 FAX (503) 622-0268
WEB: http://www.geopotential.biz/
E-MAIL: GeoPotential@geopotential.biz

SUBSURFACE MAPPING SURVEYS
GROUND PENETRATING RADAR SURVEYS
MAGNETOMETER & ELECTROMAGNETIC SURVEYS
GRAVITY SURVEYS
RESISTIVITY SURVEYS
PROJECTS: GEOLOGIC ENGINEERING, ENVIRONMENTAL OIL & MINERAL EXPLORATION ARCHAEOLOGICAL
LOCATE: VOIDS, UTILITIES STORAGE & SEPTIC TANKS FOUNDATIONS, DRAIN FIELDS WATER WELLS MONITORING WELLS

MOBILE LABORATORY
“Keen observation is at least as necessary as penetrating analysis”

Karl Terzaghi
Western States Soil Conservation, Inc.

There is no limit to the depths we will go

Geotechnical and Environmental Drilling Services
PO BOX 428 • 3100 Schmidt Lane • Hubbard, Oregon 97032
(503) 982-1777 Office • (503) 982-8220 Fax
westernstates@centurytel.net • www.westernstatessoil.com

MAJOR
Drilling Environmental, LLC

Partners On the Ground
- Mud Rotary & Hard Rock Coring
- Rubber Track Equipment
- Hollow Stem Auger
- Direct Push (Geoprobe)
- Borehole Clearance (Vac-U-Dig)
- Roto-Sonic Drilling

Portland (503) 928-1133
Salt Lake City (801) 974-0645
Little Falls (520) 632-3010
Huntsville (256) 852-7000
www.majordrilling.com

The MAJOR Advantage™: Senior drilling talent and management with all new equipment
“Keen observation is at least as necessary as penetrating analysis”

Karl Terzaghi

Natural Hazard Solutions – Accomplish your priorities for hazard protection.

Systems engineered for maximum protection are not just products, but tested and proven solutions for:
- Debris flow
- Landslide
- Rockfall
- Slope instabilities
- Avalanche

Matching your cost-saving priorities for:
- Strength and durability
- Easy installation
- Simple maintenance

See more www.geobrugg.com

Geobrugg North America, LLC
Tim Shevlin, P.E.
Northwestern USA & Western Canada
Phone: (503) 423-7258 • Fax: (503) 391-6954
tim.shevlin@geobrugg.com
www.geobrugg.com
The Oregon Section Newsletter

OREGON SECTION AEG NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Section or other Sections, and other interested people who have requested and paid a local subscription fee of $10.00. E-mail subscriptions are free. News items are invited and should be sent to: Bill Burns, OR Section AEG Newsletter Editor, Oregon Department of Geology, 800 NE Oregon Street, Portland, OR 97232, e-mail: <bill.burns@dogami.state.or.us>, phone (971) 673-1555. Electronic media is preferred. Deadline for submittal is Friday three weeks before each meeting. Advertising: business card $100/yr; ¼ page $200/yr; ½ page $350/yr. Please notify Bill if you have a change to your email or mailing address.

The Association of Engineering Geologists (AEG) contributes to its members' professional success and the public welfare by providing leadership, advocacy, and applied research in environmental and engineering geology. AEG's values are based on the belief that its members have a responsibility to assume stewardship over their fields of expertise. AEG is the acknowledged international leader in environmental and engineering geology, and is greatly respected for its stewardship of the profession.