



The Official

# Newsletter

of the Oregon Section Association of Engineering Geologists

Serving Professionals in Engineering, Environmental, and Groundwater Geology

## OCTOBER 2005 SECTION MEETING

GUEST: STEVE SCHILLING,  
 CASCADES VOLCANO OBSERVATORY,  
 PRESENTATION: MT. ST. HELENS

In late September 2004, a new period of dome growth began that has changed the form of the 1980-1986 crater dramatically. By July 2005, nearly 60,000,000 m<sup>3</sup> of gas-poor, crystal rich dacite lava had extruded on the crater floor south of the 1980-1986 lava dome. The growing dome has deformed and eventually cut the new glacier that has formed over the past decade, resulting in spectacular crevassing and glacier deformation. This presentation will show the techniques and tools used to document, monitor and study the 2004-2005 eruption at Mount St. Helens.

Steve graduated from the University of Colorado, Boulder and was hired by the U.S. Geological Survey. His first field assignment was five weeks in Glacier National Park followed by two summers of field work in Grand Teton National Park. He was hooked, and working 32 hours a week supplemented by fighting forest fires. Steve also worked in the field in Arizona, New Mexico, and Nevada.

After about 10 years with the USGS, Steve became part of the team working at Yucca Mountain, Nevada, as part of the photogrammetry team that developed the capability to map the drift walls using oblique, hand-held stereo photographs. He also

learned GIS software tracking the multitude of on-going mapping projects. During this time he obtained a Master's degree from the Colorado School of Mines.

Steve has now been at the Cascades Volcano Observatory for about 10 years, much of the time developing new tools to assess volcanic hazards. He wrote software to model lahars, which has



now been used in many countries. He was part of the Hurricane Mitch Project team to produce volcano  
*(Continued on page 2)*

**This Month's Meeting is on Tuesday October 18**

<p style="text-align: center;"><b>Old Market Pub</b>  <b>6959 SW Multnomah Blvd</b>  <b>Portland (Garden Home), OR</b></p> <p style="text-align: center;">6:00 pm Social                  7:00 pm Dinner                  8:00 pm Presentation</p>	<p style="text-align: center;">Pizza and salad                  \$13.00 dinner (\$6.50 for students)</p> <p>E-mail &lt;glenda.christman@amec.com&gt; with "AEG Reservations" in the subject line, or call 503-639-3400, by 4 pm Thurs. Oct. 13. There is a \$2.00 surcharge for those who do not reserve by the deadline.</p>
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## MESSAGE FROM THE CHAIR

The mornings are darker and the air is cooler. It is fall. It is the time for football, rain, and our first Oregon Section AEG meeting. Greetings to you all and welcome to another season of AEG.

I just returned from the AEG 2005 Annual Meeting (and the annual board of directors meeting) in Las Vegas. By all accounts the annual meeting was very successful. They are still sorting out the details; however, early indications are that the Las Vegas meeting is flirting with the all time high financial and attendance records. The Oregon Section had 17 members attend giving, seven presentations.

The other great news from the annual meeting is that the Portland State Student Section received the **2005 Outstanding Student Chapter Award**. This is the second year in a row that the PSU Student Section has been bestowed this

honor. Accepting the award on behalf of the PSU Student Section was this year's President Hiram Henry. In addition, Hiram received another honor by being granted the **Marliave Scholar Award**. This award, named for a founding member of AEG, is a grant to a student member who has demonstrated exceptional ability, scholarship, and potential in the field of environmental and engineering geology. Congratulations to Hiram, and all the members of the PSU Student Section.

Other big news to come out of the annual meeting is that the proposed name change was approved. Our organization is now officially known as the **Association of Environmental & Engineering Geologist**. The acronym will still remain AEG, the E standing for both environmental and engineering; however, there are plans for a

new logo.

On the local front, our program chairs Lisa Glonek and Bill Burns have put together an exciting slate of presenters this year. I would like to welcome Jason Hinkle as our section's new Treasurer and to thank all of our Section Officers and Committee Chairs for all of their hard work and I look forward to working with them this coming year.

Lastly, I would like to especially thank our Past Chair Rowland French for all of his time and effort. It sometimes takes a broader perspective, like I just experienced at the annual meeting, to fully appreciate how active and successful our section truly is. I'm looking forward to seeing you all again on October 18 and serving as your section Chair this coming year.

*Brent Black*

*AEG Oregon Section Chair*

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## NEWS ITEMS

**EARTH SCIENCE WEEK: October 9-15, 2005:** Earth Science Week this year is Oct. 9-15. Let your favorite classroom teacher know and offer to help out. Information kits are available through the AGI at <http://www.earthsciweek.org/>

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hazards assessments for Nicaragua, El Salvador, and Guatemala. As part of this effort he taught courses for our colleagues in those countries to help them build the facility to use GIS for volcano hazards mitigation. Steve has done similar work in cooperation with the Volcano Disaster Assistance Program (VDAP) at Ecuador, the Commonwealth of the Northern Marianas,

and Indonesia.

Recently, Steve has been working as part of a team studying and assessing the hazard from the growing glacier in the crater at Mount St. Helens, mapping the geology of the crater walls, and studying the erosion within the crater. A first paper describing the glacier was published in the journal *Quaternary Research* last Spring. Field season in the crater was the

last week of August this past summer, and there were no indications of the major changes that were soon to take place. Returning from a deformation field study in Yellowstone in late September, they had learned that there had been several small earthquakes at Mount St. Helens. His life has been a blur since.

# AEG OREGON CALENDAR

**Oct 3 & 4 (Portland), Oct 5 & 6 (Eugene):** Earthquake Preparedness Workshops, sponsored by FEMA, DOGAMI, OEM, OSSPAC, PSU Facilities Dept and ONHW  
**Nov 15:** Yumei Wang, DOGAMI,

Asia Quake and Tsunami  
**Dec 13:** Jack Spadaro, AMEC, Bioremediation ICN  
**Jan 17:** Joint meeting ASCE host  
**Feb 21:** Ian Madin, DOGAMI, Digital Map Portland and Oregon

**Mar 21:** Steve Mumma, Geobruigg, Debris Flow Barrier Study at Oregon Test Site and San Bernadino  
**Apr 18:** Student Night  
**May 16:** Dr. Darrel Schmitz, topic to be announced

## THANKS FOR SUPPORTING OREGON AEG!

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Answers to last month's "What is it?" (a) mud crack casts. (b) bacteria deposits in a Yellowstone hot spring. (c) "Molar-tooth" dolomite, Glacier National Park. (d) tuffa rims in a Yellowstone hot spring. (e) stromatolites, also from Glacier.

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News items are invited and should be sent to: Charlie Hammond, OR Section AEG Newsletter Editor, Cornforth Consultants, 10250 SW Greenburg Road, Portland, OR 97223, e-mail: <or.aeg.news@cornforthconsultants.com>, phone (503) 452-1100. Electronic media is preferred. Deadline for submittal is Friday three weeks before each meeting.

Advertising: business card \$10/mo, \$100/yr; ¼ page \$30/mo, \$200/yr; ½ page \$35/mo, \$350/yr.

Please notify Charlie if you have a change to your email or mailing address.

# OREGON SECTION OFFICERS & COMMITTEE CHAIRS



**Chair: Brent Black**, Cornforth Consultants, Inc., (503)452-1100, [bblack@cornforthconsultants.com](mailto:bblack@cornforthconsultants.com)



**Chair-Elect: Michael Zimmerman**, GRI, Inc., (503)641-3478, [mzimmerman@gri.com](mailto:mzimmerman@gri.com)



**Secretary: Matt Brunengo**, (503)534-0414, [mbrunengo@aol.com](mailto:mbrunengo@aol.com)

**Treasurer: Jason Hinkle**, (503)945-7406, [jhinkle@odf.state.or.us](mailto:jhinkle@odf.state.or.us)



**Past-Chair: Rowland French**, Northwest Geophysical Associates, Inc., (541)757-7231, [rowland@nga.com](mailto:rowland@nga.com)

**Program Co-Chair: Lisa Glonek**, AMEC, [lisa.glonek@amec.com](mailto:lisa.glonek@amec.com)

**Program Co-Chair: Bill Burns**, DOGAMI, [bburns@dogami.state.or.us](mailto:bburns@dogami.state.or.us)

**PSU Student Chapter President: Hiram Henry**, [hiramhenry@hotmail.com](mailto:hiramhenry@hotmail.com)

**Membership Chair: Ruth Wilmoth**, Columbia Geotechnical, Inc., (360)513-2692, [ruthwilmoth@comcast.net](mailto:ruthwilmoth@comcast.net)

**Field Trip Chair: Dave Scofield**, Portland District COE, (503) 808-4867, [scofield@onemain.com](mailto:scofield@onemain.com)

**History Chair: George Freitag**, GRI, Inc., (503) 641-3478, [gfreitag@gri.com](mailto:gfreitag@gri.com)



**Newsletter Editor: Charlie Hammond**, Cornforth Consultants, Inc., (503) 452-1100, or [aeg.news@cornforthconsultants.com](mailto:aeg.news@cornforthconsultants.com)



**Assistant Newsletter Editor: Darren Beckstrand**, Cornforth Consultants, Inc., (503) 452-1100, [dbeckstrand@cornforthconsultants.com](mailto:dbeckstrand@cornforthconsultants.com)

**Legislature Chair: Dorian Kuper**, Kuper Consulting, Inc., (503)638-9722, [dkuper@cybcon.com](mailto:dkuper@cybcon.com)



**Continuing Ed. Liaison: Andrew Harvey**, PBS Environmental, [andrew\\_harvey@pbsenv.com](mailto:andrew_harvey@pbsenv.com)