



## Association of Environmental and Engineering Geologists

### *You can really see that? - Remote Sensing and Landslide mapping*

#### **Jenn Bauer, AEG President, Appalachian Landslide Consultants**

We will be discussing how remote sensing, through the use of aerial photography and Light Detecting and Ranging (LiDAR) data, has proven to be an invaluable tool when identifying and delineating landslide features.

The North Carolina Geological Survey (NCGS) used several vintages of aerial photographs dating back to 1940 to identify the locations of over 3000 landslides in the mountains of North Carolina. By locating historic landslides on the 1940 aerial photographs and then visiting the sites in the field, the geologists were able to calibrate themselves to the modern-day morphology of landslide initiation zones that are over 70 years old. In addition to the aerial photographs, NCGS used digital elevation models, slope maps, and contour lines derived from the statewide 6-meter resolution LiDAR Digital Elevation Model data to identify ancient landslide deposits. The NCGS developed criteria for delineating these landslide deposits remotely in order to standardize the method used among the team. Through this process, geologists made field time more efficient by targeting features that needed field confirmation to meet the standard for inclusion on the map.

Come see examples and learn how you can use remote sensing in your projects as well.

#### **MEETING DATE**

Thursday  
February 9<sup>th</sup>, 2012

#### **TIME**

5:45 p.m. Social Hour  
6:30 p.m. Dinner  
7:30 p.m. Presentation

#### **LOCATION**

**American  
Mountaineering  
Center**  
710 10th St.  
Golden, CO 80401  
Conference Rooms A-B  
See Map Below

#### **COST**

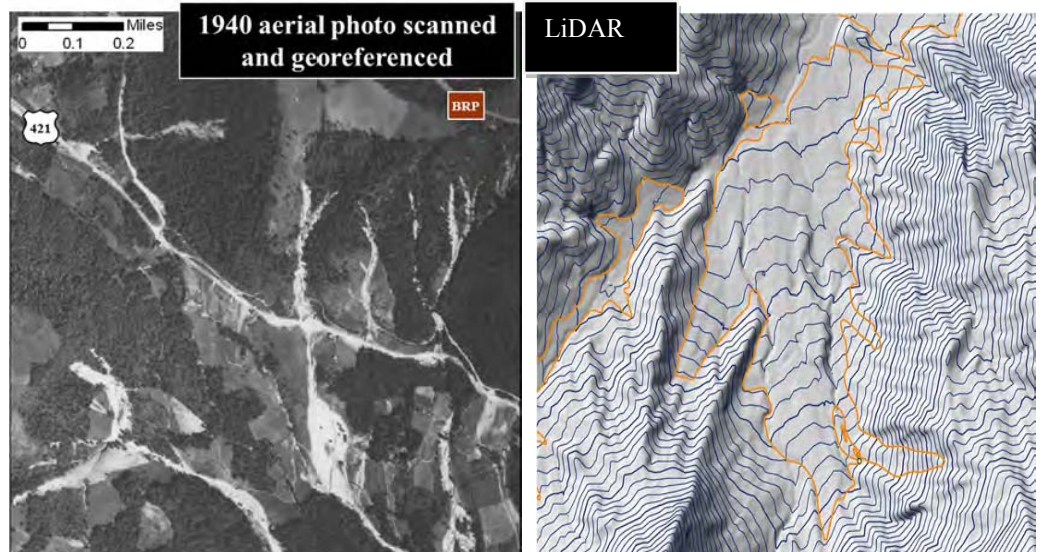
\$25 Members  
\$27 Non-members

#### **RESERVATIONS**

click: [aegrms.org/rsvp](http://aegrms.org/rsvp)  
or

email:  
[meetings@aegrms.org](mailto:meetings@aegrms.org)

**RSVP BY NOON,  
TUESDAY  
February 7<sup>th</sup>**





# Words from the Chair



Greetings Rocky Mountain Section,

I am excited to welcome **Jenn Bauer, 2011-2012 AEG President**, as the speaker for our section meeting this month. Ms. Bauer hails from North Carolina, is a Principal Geologist for Appalachian Landslide Consultants, PLLC and has been involved in landslide mapping since 2005. Please give her a hearty welcome, along with other members of the Executive Council who are in town and will be attending our section meeting.

**Association Awards** - It is worth reminding the section that AEG offers a number of awards to recognize the contributions our members make to the profession and to the Association. For example: the Holdredge Award, Terzaghi Mentor Award, Piteau Outstanding Young Member Award, or the Outstanding Environmental and Engineering Geology Project Award. Outstanding members of our section have been recognized in the past, and we likely have excellent candidates for some of these presently within our group. We've even claimed the Outstanding Section Award twice! It would be a good thing for us to nominate some worthy members this year! You can read up on these awards in the recent publication of the AEG 2011 Annual Report & 2012 Directory or on the AEG website. The submittal deadline for most of these awards is March 15, so keep that in mind and contact any of your section officers with suggestions.

I feel inclined to share a few personal thoughts about section meetings and membership with AEG. I have been an active member of AEG since 2005, when I started attending Southern California meetings regularly. I started attending Rocky Mountain Section meetings when I moved to Colorado in 2006, and immediately got involved as section secretary. I know more than a few of you share this notion with me - section meetings leave me feeling excited about my profession and connected to others in my field. Meetings give me a monthly boost where I feel invigorated by the presentation and the conversations I share with fellow members. There is such a rich supply of geologic knowledge and experience amongst our members, which can virtually be just a conversation away. Resources abound and mentor-relationships and networking possibilities are at our fingertips. I want to encourage all members to truly mingle at meetings, meet new people, and make visitors and new members feel welcome. We should all be working to encourage others in our profession to explore AEG, to nurture this vital professional and social network, even if it's just consistently forwarding our monthly newsletter to co-workers and nagging them to attend!

I want to thank those members who have brought constructive suggestions to me and other section officers recently. We welcome feedback and suggestions on how to make the section work better for its local members and the Association. Please do not hesitate to approach or contact any of the officers if you have a suggestion or idea.

Julia Frazier  
Section Chair

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# Awards

AEG offers many awards to recognize members and students for their achievements. In recent years many awards have received very few nominations. Even though this can make the selection process simple it takes away from the overall quality of recognition of our professions. For your increased awareness, many of the awards presented by AEG and what they represent are summarized below. More information can be found at [aegweb.org](http://aegweb.org).

[Student Professional Paper Award](#) acknowledges the professional written work of student members through the Student Professional Paper Award, which is given to an undergraduate and graduate student for the best professional paper. The winning papers are published in the Environmental and Engineering Geoscience journal and each student receives a cash award at the Annual Banquet.

[AEG Publication Award](#) recognizes the most outstanding paper published in the Environmental and Engineering Geoscience journal during the previous fiscal year.

[Douglas R. Piteau Outstanding Young Member Award](#) is presented to an outstanding member of the Association who is below the age of 35 who has excelled singly or in combination in technical accomplishments, service to the Association and/or service to the engineering geology profession.

[Claire P. Holdredge Award](#) is presented to a member(s) for a publication in the past 5-years that has been judged to be an outstanding contribution to the advancement of the profession of engineering geology.

[Floyd T. Johnston Service Award](#) is given to a member of the Association who has provided active and faithful service to AEG for a period of at least 9-years. Current members of the Board of Directors and Executive Council are not eligible for nomination for this award.

[Richard H. Jahns Distinguished Lecturer in Engineering Geology](#) is given jointly with the Engineering Geology Division of the Geological Society of America to a distinguished engineering geologist to present a series of guest lectures on a subject in engineering geology at educational institutions throughout the United States. This lectureship honors Richard H. Jahns and is intended to increase awareness about careers in engineering geology and to encourage students to enter the profession.

[The Outstanding Environmental and Engineering Geology Project Award](#) is presented to an engineering project in recognition of the contributions made by the project. Projects selected for this award must display national significance, demonstrate applications of environmental and engineering geology, show recognition and respect for the environment, history and culture of the project area and provide an opportunity for public education.

[The Schuster Medal](#) The Schuster Medal is a joint award from the Association of Environmental & Engineering Geologists and the Canadian Geotechnical Society that recognizes excellence in geohazards research in North America.

[Karl and Ruth Terzaghi Mentor Award](#) This award, established in 2008, recognizes outstanding individuals for their achievements as Mentors throughout their career. The recipient should be an

individual who has made lifelong efforts in providing professional, ethical, and technical mentoring for environmental and engineering geologists.

[Honorary Members](#) The Association confers an honor of such high esteem that the distinction is recognized as a membership class: Honorary Member. This recognition is given to those persons whose careers have exemplified the ideals of our organization.

**Outstanding Section Award** This award was established by the Board of Directors in 2001 to honor a Section of the Association judged to excel in a number of areas including Professional Activities, Communications, and Membership.

[Outstanding Student Chapter Award](#) The AEG Board of Directors established the Outstanding Student Chapter award in 2001 to honor the AEG Student Chapter judged to have excelled over all others in a given year. The award is AEG's way of recognizing a Student Chapter for its outstanding performance.

In addition the President may present special awards to members who have contributed to the profession or mission of AEG. Sections also present awards in recognition of professional or service achievements of members to the Section.

## Student Night

**Student night will be held at Colorado School of Mines on Thursday evening, March 22.**

This year's Student Night format will be presentations. **Student abstracts are due Thursday, February 23, 2012.** If you would like to present, please email your abstract (approximately 200-300 words) to AEG-RMS Chair Julia Frazier, [chair@aeqrms.org](mailto:chair@aeqrms.org).

We need **Student Night sponsors!** Sponsorships are available at many levels, ranging from just \$25 to \$500, and help pay for student dinners and presenter awards at Student Night, lodging for the SDSMT folks who travel from Rapid City to attend, free and discounted student dinners at RMS section meetings, outreach, and visiting speaker expenses. The sponsorship form is attached, and is also available [here](#).

There will be a **silent auction to benefit the CSM Student Chapter.** Please email CSM Student Chair Elliot Matthews, [student-chair@aeqrms.org](mailto:student-chair@aeqrms.org), to arrange a donation of item(s) to the silent auction.



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING  
GEOLOGISTS

## AEG Student Night

Thursday, March 22, 2012

5:30-9:00 PM

Room 243, Berthoud Hall

Colorado School of Mines, Golden, CO

The Association of Environmental & Engineering Geologists (AEG) represents professionals in the field of environmental and engineering geology in the greater Denver area and throughout the Rocky Mountain region. AEG is hosting our Annual Student Night Banquet, where environmental and engineering geology students from across the Rocky Mountain region will present their research as part of this well-attended networking event.

We would like to invite you to participate as a sponsor for the event. This is an exciting opportunity for you to gain recognition for your firm and support student participation in the Rocky Mountain Section of AEG. This event also serves as an excellent recruiting opportunity, as the region's best and brightest students will be in attendance. You are invited to participate at the following sponsorship levels:

<b>SPONSORSHIP OPPORTUNITIES</b>	
<b>Kimberlite Level</b>	<b>\$500</b>
<b>Rhodochrosite Level</b>	<b>\$250</b>
<b>Molybdenum Level</b>	<b>\$100</b>
<b>Galena Level</b>	<b>\$50</b>
<b>Quartz Level</b>	<b>\$25</b>

All sponsors will be listed in the Student Night Program, on a poster at the meeting, in the section newsletter, and on the section website ([www.aegrms.org](http://www.aegrms.org)). All students who attend this meeting receive complimentary admission so this event would not be possible without the support of our sponsors. We thank you in advance for your generous support!

### RESERVATIONS

Individual or  Corporate sponsorship

- Kimberlite Level (\$500)      Name of Sponsor      \_\_\_\_\_
- Rhodochrosite Level (\$250)      Name of Contact      \_\_\_\_\_
- Molybdenum Level (\$100)      Address      \_\_\_\_\_
- Galena Level (\$50)      \_\_\_\_\_
- Quartz Level (\$25)      E-mail      \_\_\_\_\_

Please RSVP your sponsorship by email, mail or fax no later than **March 1, 2012**.  
Email [StudentNight@aegrms.org](mailto:StudentNight@aegrms.org), fax this form to 303.866.4445, Attn: Jill Carlson, or mail, along with your check (or you may pay for your sponsorship at the meeting) to:

AEG-RMS  
P.O. Box 280663  
Lakewood, CO 80228-0663

# Board of Directors

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## Upcoming Meetings

March 22 - AEG RMS Student Night, CSM

April 12 - Jamey Turner and Mark Zellman,  
Fugro Consultants  
Empirical Lithology and Shear-Wave  
Velocity Relationships  
American Mountaineering Center, Golden

May 10 - Section Meeting and Family Night,  
Speaker TBD: volunteers and suggestions  
welcome

August (Date TBD) - Hanging Lake Field Trip  
Darin Duran, Ed Church and Jon White

## Grouting Fundamentals & Current Practice



**JUNE 18-22, 2012 • COLORADO SCHOOL OF MINES**

This course covers injection grouting as a method to improve soil settlement and strength characteristics, and to decrease permeability of soil and rock masses. Major topics covered include properties of cementitious and chemical grouts, procedures for cement and chemical grouting, field monitoring and verification, grouting rock under dams, grouting of rock anchors and micropiles, deep mixing, jet grouting, diaphragm walls, compaction grouting, slab jacking, structural grouting, and grouting for underground structures. Included in the curriculum is a field demonstration of compaction and permeation grouting, flow of ultrafine cement, grout mixing, use of cellular concrete in annular grouting, overburden drilling, grouting of rock anchors, and use of packers.

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[www.csm-space.com](http://www.csm-space.com)