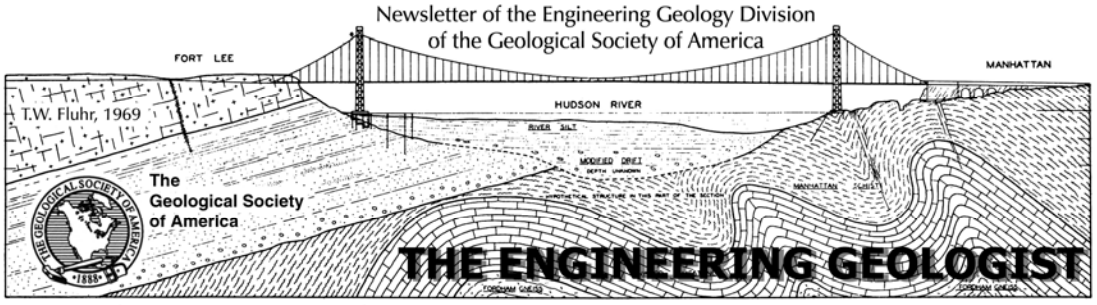
Newsletter of the Engineering Geology Division
of the Geological Society of America



THE ENGINEERING GEOLOGIST

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Message from the Chair
By Syed E. Hasan

Future of Engineering Geology: As an engineering geologist representing academia, I often get concerned with the enrollment trend in engineering geology programs and courses that leads me to wonder: What is the future of engineering geology? This question has been on many people's minds and will be discussed at the symposium, "The future of environmental and engineering geology–a global perspective" at the 50th annual meeting of the AEG, Los Angeles, in September 2007.

While it is true that the heyday of construction of large dams and reservoirs is past – at least in the U.S. – there is a pressing need for improvement and replacement of our nation's crumbling infrastructures. In addition, the irreversible trend of urbanization and the prediction that sometime in 2008 about 3.2 billion human beings (more than 50%) will be living in cities, calls for all kinds of construction, including mass transit systems, power plants, water supply systems, waste disposal facilities, and similar projects that sustain a city. It is likely that many of these critical structures will have to be built on marginal land that would require engineering geology expertise to evaluate project sites, slopes, hydrogeology, subsidence, flooding, and other hazardous conditions, besides providing the critical geological input into the design, construction and maintenance of these structures.

On the whole, I am optimistic about the engineering geology profession. However, to assure a sound future for our profession, we have to augment our traditional curriculum through extensive use of existing and emerging

technologies, such as GIS, 3-D visualization, realistic computer modeling, and the like. The task for meeting the challenge rests with the academic community who will have to ensure that the future workforce will be adequately trained and properly equipped to serve society.

***GSA Division Chairs Meeting*:** Please allow me to also share my thoughts about the annual spring meeting of GSA division chairs. As chair, I was privileged to represent at the Division Chairs meeting held at GSA HQ in Boulder, March 3 and 4, 2007. Many important matters dealing with the Society and its 17 divisions, including our outreach efforts and collaboration with other professional organizations, both nationally and internationally, were discussed – all with the underlying goal of enhancing our profession. In addition to the HQ staff, the GSA president and president-elect were also present. The amount of work that is accomplished in the short time is amazing and is a testimony to the expertise, planning, and dedication of the HQ staff. This is not an easy task because the officers and staff have to make sure that a parallel meeting of representatives from the affiliated and allied societies also runs at the same facility at the same time. I was deeply impressed with the flawless manner in which the meeting was conducted and the cordial atmosphere that prevailed. In addition to being among the first ones to learn about what is happening at GSA, what new initiatives are underway, and what challenges we face, the sheer joy of meeting and interacting with a dedicated group of wonderful people is priceless. I thoroughly enjoyed my visit, learned a lot, and would advise future chairs not to miss it.

***Your Assistance is Needed with the Division Chairs' Biography*:** Many of you are aware that I had taken the task of preparing a biographical volume of EG Division chairs. Little did I realize that the task would not be as easy as it seemed. Trying to go back to 1947, when the division was created, with Dr. Charles Berkey as the first chair, I had to find biographical information for 61 persons. However, with the help of some long-term Division members and my graduate student, I have been able to compile a biosketch for most of them, but I have been unsuccessful in obtaining information (or have limited info) for: John R. Schultz, Harza Engineering Co, Chicago (1957 chair); Stafford H. Happ, US Atomic Energy Commission, Grand Junction, CO (1960); Robert H. Nesbitt, US Army Corps of Engineers, Washington, DC (1962);Thomas F. Thompson, Consultant, Burlingame, CA (1963); John H. Melvin, Ohio State Geological Survey, Columbus, OH (1964); George E. Ekblaw, Illinois State Geological Survey, Champaign, IL (1965); Laurence B. James, California Dept. of Water Resources, Sacramento, CA (!966); Elmer C. Marliave (until his death 9/24/67), Consultant, Sacramento, CA (1967); Robert W. Karpinski, University of Illinois, Chicago (1967); and Donald H. McDonald, H.H. Acres Consultants, Niagara Falls, NY (1968). Please contact me at: hasans@umkc.edu or 816-235-2976, if you can help me obtain biographical info for these chairs.

In closing, I would like to express my sincere appreciation to the selfless service that some of our members provide. By design, EGD officers have a short tenure,

they come and go, but people who stay on for much longer periods to manage our website, newsletter and many other duties not handled by the management board provide the continuity and are my unsung heroes, and I wish to thank one and all of them for their valuable support.

Clague Named 2008 Jahns Distinguished Lecturer

John Clague has been named the 2008 Jahns Distinguished Lecturer. The Association of Engineering Geologists and the Engineering Geology Division of the Geological Society of America (GSA) jointly established the Richard H. Jahns Distinguished Lectureship in 1988 to commemorate Jahns and to promote student awareness of engineering geology through a series of lectures offered at various locations around the country throughout the year. Richard H. Jahns (1915-1983) was an engineering geologist who had a diverse and distinguished career in academia, consulting, and government.

Clague and his graduate students conduct research on earthquakes, tsunamis, landslides, floods, and other hazardous Earth processes, both in Canada and abroad. They also have been studying impacts of climate change on glaciers, vegetation, and geomorphic processes in the high mountains of British Columbia, Yukon Territory, and Alaska. Clague is author or co-author of over 250 journal papers in 40 different journals, and a textbook on natural hazards published in 2006. Clague's other main professional interest is earth science education. He is a past president of the Canadian Geoscience Education Network and regularly gives public lectures, field trips, and media interviews on geoscience issues. He has written two successful books on societally relevant geoscience issues in the Pacific Northwest.

The four 2008 Jahns lectures are:

"Tsunamis – Stealth Killers"
"Earthquake Hazards and Risk in the Pacific Northwest"
"The Formation and Failure of Natural Dams"
"The Last Great Ice Sheet in Western Canada"

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Clague will deliver whichever lecture is requested. **Requests for scheduling lectures should be directed to John Clague at** jclague@sfu.ca.

Clague received an A.B. degree from Occidental College (1967), an M.A. degree in geology from the University of California at Berkeley (1969), and his Ph.D. in geology from the University of British Columbia (1973). He was a research scientist for the Geological Survey of Canada from 1974 until 1998 when he accepted an academic appointment at Simon Fraser University (SFU) in Burnaby, British Columbia. Clague is currently Professor and Canada Research Chair in Natural Hazard Research at SFU and Director of SFU's Centre for Natural Hazard Research. He is a Fellow of the Royal Society of Canada, Past-President of the International Union for Quaternary Research (INQUA), and a former President of the Geological Association of Canada. Clague has received several professional awards, including the Logan and E.R.W. Neale medals of the Geological Association of Canada, the Bancroft Award of the Royal Society of Canada, and the Burwell Award of GSA's Engineering Geology Division. He has been a member of the Geological Society of America since 1970.

Read a Great Paper or Book? Nominate it for the E.B. Burwell, Jr. Award.

The Edward Burwell, Jr., Award, established by the Division in 1968, honors the memory of one of the founding members of the Division and the first chief geologist of the U.S. Army Corps of Engineers. It consists of an embossed award certificate. This award is made to the author or authors of a published paper of distinction that advances knowledge concerning principles or practice of engineering geology, or of related fields of applied soil or rock mechanics where the role of geology is emphasized. The paper that receives the award must (1) deal with engineering geology or a closely related field, and (2) have been published no more than 5 years prior to its selection. There are no restrictions as to the publisher or publishing agency of the paper. The author or authors of the selected paper need not be a member(s) of the Engineering Geology Division or of the Geological Society of America and need not be a resident(s) or citizen(s) of the United States.

Send nominations by February 1 for the E.B. Burwell, Jr. Award to Bill Schulz at wschulz@usgs.com.

The current membership of the Burwell Award Committee can be found on the EGD website at http://rock.geosociety.org/egd/index.html.

Roy J. Shlemon Scholarships Awarded for 2007

One PhD student and two Masters Students were selected as the Roy J. Shlemon scholars for 2007. They each received cash awards of $2000 (PhD) and $1500 (MS) to support their research. **Kara R. Dotter** (Queen's University – Belfast) is pursuing her PhD that combines her professional skill as a geologist with a life-long fascination with historic architecture. She hopes that her research on "effects of weathering processes on conservation mortars and surrounding stone substrates, and the implications for historic conservation" will improve how historic buildings are conserved. It may also improve how future applications of conservation mortars are used for repair and preservation of our built heritage. Kara's studies on this topic began in Texas where she combined an MS in Historic Preservation (2004) with an MS in Geological Studies (2006) from the University of Texas-Austin.

It comes as no surprise that **Joshua Theule** and **Rachel Pirot** are pursuing landslide topics for their Masters research. They are both students at Portland State University and, undoubtedly, influenced by having Scott Burns as their thesis supervisor. That said, they are each studying very different landslide issues.

Joshua Theule is trying to find an effective method for determining landslide hazards along linear features with a particular focus on pipelines. He will look into both quantitative and qualitative uses of mapped data to assess differing levels of landslide hazard using the 300 kilometers of Northwest Natural Gas Companies' pipeline in northwest Oregon. With an ever expanding need for water, oil, gas and electric transmission systems, the results of his research could have wide application.

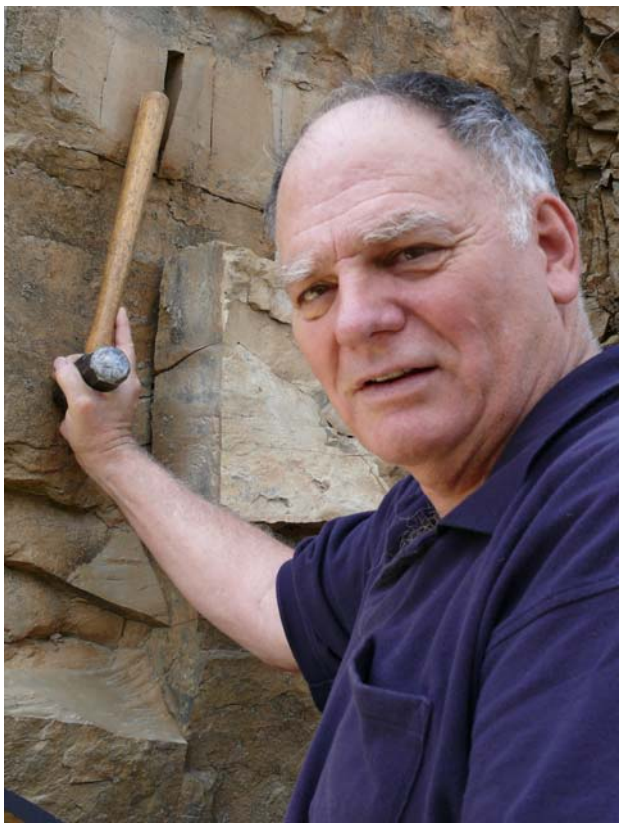
Rachel Pirot is concentrating her research on debris flows as a natural process on volcanoes. Her field area will be Mt. Hood where a number of large and destructive debris flows have occurred with the most recent being in November 2006. She will try to use this natural laboratory to develop a better understanding of the controlling factors for debris flows in this geologic environment. A primary outcome will be a comprehensive hazard map for Mt. Hood which is increasingly needed with its rising popularity as a recreation destination.

The primary role of this awards program is to provide partial support of master's and doctoral thesis research in engineering geology. The program is competitive, and there is no guarantee of funding. The Scholarship Awards Committee strongly encourages women, minorities, and persons with disabilities to participate fully in this program. Eligibility is restricted to student members of the Engineering Geology Division. Roy J. Shlemon scholarships are given to graduate students with the best research proposals within the broad field of engineering geology. Graduate students or professors with engineering geology graduate students can obtain more information on this program and an application for from the Engineering Geology Division website http://rock.geosociety.org/egd/index.html.

Dr. Allen W. Hatheway To Receive Meritorious Service Award

By Syed E. Hasan

Dr. Allen W. Hatheway, Fellow of the Geological Society of America, stands out prominently among the handful of engineering geologists who have contributed immensely to the profession. Few would come close to his outstanding record that spans career in the army, industry, academia, and consulting. With the beginning of his professional life in 1961, Allen has for nearly 45 years consistently served the profession in all imaginable areas where an engineering geologist would engage. Combining the unique combination of expertise that he acquired after working for 20 years in the industry, and an equal number in the academia, and seven years as a private consultant, Allen is perhaps the only individual in our profession who may not have any match.



Allen received his bachelor's degree in geology in 1961 from UCLA and MS and PhD in geological engineering from the University of Arizona in 1966 and 1971 respectively. He is a registered geological engineer in Arizona, registered civil engineer in California and Massachusetts, registered engineering geologist in California, and registered geologist in California, Maine, and Missouri. He was the VP and Chief Geologist for Haley & Aldrich, Inc. Cambridge, MA from 1976 to 1981 and accepted the position of full professor of geological engineering at the University of Missouri-Rolla where, from 1981-2000, he was heavily engaged in teaching and research, producing many MS and PhD graduates. He was actively involved in extending employment contacts for his students who were always fully employed professionally upon graduation at the BS, MS or PhD levels. He co-authored a college textbook with Robert Legget titled *Geology and Engineering* that was published by McGraw-Hill in 1988. Prof. Hatheway took early retirement toward the end of 1999 and has since been actively engaged in litigation forensics and geo-environmental troubleshooting and is the world's leading engineering geologic consultant in the field of former manufactured gas plants and other coal-tar sites. Earlier, in 1991 he had retired as a Colonel after 19 years of distinguished service to the US Army for which he received the Meritorious Service Medal.

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The EG Division's meritorious service award requires the nominee to have rendered outstanding service to the Division. Allen not only meets but exceeds the criteria. I would highlight just some of his services:

- Former Editor, Division's newsletter, *The Engineering Geologist*
- Member Executive Council
- Co-editor Reviews in Engineering Geology Volume IV, 1979, *Geology in the Siting of Nuclear Power Plants*
- Instituted EG Division's Distinguished Practice award
- Served as the EGD chair in 1980
- Replicated a supply of the original 1950 Berkey Gavel
- Chaired EGD Publishing Committee, 1983
- Chaired the Division's Award Committee in 1986 and 1988
- Co-authored two chapters of *Heritage of Engineering Geology* (1991)
- Served as the Jahns Memorial lecturer for 2000, delivering a record 76 presentations
- Has organized and/or monitored numerous EGD sessions at GSA's Annual and Sectional Meetings
- Since 1988 has authored or co-authored seven GSA *Memorials* to commemorate the life and work of departed members of the Division.

Allen Hatheway is passionate about the profession and continues to be one of the most active members of the EG Division. It is, therefore, most befitting to bestow the Meritorious Service Award to Dr. Allen W. Hatheway.

Reminder to EGD Members Attending the 2007 GSA Annual Meeting

When registering for the meeting to be held on October 28-31 in Denver, EGD members are encouraged to purchase tickets to the annual luncheon and awards ceremony. It is a good time to see old friends and make new ones. If you have a tight schedule, remember the awards ceremony is open to everyone. You don't have to buy a ticket to honor your fellow engineering geologists and have a laugh or two. The Distinguished Practice, E.B. Burwell Jr and Meritorious Service awards will all be given at that time.

Many of the technical sessions that may be of interest were noted in the June 2007 Annual Meeting Special Edition of the Engineering Geologist (EGD Newsletter). You can download that newsletter from the EGD website at http://rock.geosociety.org/egd/index.html to remind yourself of what to be looking for in the final technical program. Of special note are a number of technical sessions honoring the late James E. Slosson. The Engineering Geology Division owes past EGD Chair, Vince Cronin, a special thanks for initiating these sessions and to those session advocates who ensured that enough papers would be submitted to make them a reality.

2007 Distinguished Practice Award Goes to William "Pat" Rogers

by Susan Cannon and David Noe

William "Pat" Rogers has played many roles in the practice of Engineering Geology, both as a front man and as an influential background organizer. Pat was one of the authors of Colorado's innovative land-use laws that were launched in the early 1970s following a demonstration of the use of sound geologic reasoning to address development issues in hazardous areas. These, and subsequent, laws defined the need for geologic suitability investigations and disclosure of hazards in Colorado. Pat also wrote the guidelines that are currently being used by counties to enact local regulations under these laws.

Pat was also the mastermind of the Colorado Geological Survey's statewide land-use review program, which now conducts around 500 technical reviews of land-use proposals per year for local governments. These reviews address the geologic suitability of proposed development sites and plans, and result in increased hazard mitigation and reduced losses from geologic hazards, providing an important benefit to the public.

Pat has also developed an energetic corps of young engineering geologists who are presently tackling many of geologic problems within Colorado and beyond. Many of these engineering geologists attribute their success in the arena of hazard awareness and mitigation to Pat's advice and encouragement. Pat's enthusiasm and passion for the field are well known, as is his willingness to share this passion.

EGD Assistance in Section Meeting Programs

Past management boards for the Engineering Geology Division have pondered for many years on how to best serve the interests of environmental and engineering geologists. There are a number of notable successes such as the ongoing publications series, *Reviews in Engineering Geology*, and a significant presence in the development of the technical program for the annual meetings. Less successful are efforts to help with the technical programs being offered at Section meetings. Dr. J. David Rogers, the current Member-at-Large on the EGD Management Board, is also Sectional Meeting Coordinator for the EGD. The idea is for him to identify and assist EGD members who wish to organize short courses, fieldtrips or technical sessions at upcoming Section meetings. If you have a Section meeting coming to a locality near you in the next year or two, contact Dave and let him know you are interested in helping. He can connect

you to the key people planning the meeting. They will likely be pleased to have you join them in making their future Section meeting a great success. Dave can be contacted at rogersda@umr.edu.