



Message from the Chair

Bill Haneberg

Each year as summer draws to a close, I begin looking forward to the GSA Annual Meeting. This year's program has much to offer engineering geologists. The Engineering Geology Division (EGD) is again sponsoring a Pardee Keynote Symposium, this year titled "Medical Geology" and chaired by EGD management board member Syed Hasan. Norm Levine and I are co-chairing a pair of EGD-sponsored sessions, one poster and one oral, titled "GIS, GPS, and Remote Sensing in Geologic Hazard Assessment", that will be capped off by Jeff Keaton presenting his Jahns lecture, "Engineering Geology Mapping in the Information Technology Age." Other sessions being co-sponsored by EGD address the hydrologic impacts of urbanization, linked watershed and groundwater flow models, impacts of water storage and consumption on watershed processes, the value of geologic mapping, geology in our national forests, and geology as a part of integrated math and science education. Beyond that, there are a number of topical sessions that aren't officially sponsored by EGD but do list engineering geology as one of their disciplines of interest. EGD is also sponsoring a short course on aerial photograph interpretation and co-sponsoring another on geoscience ethics. Beyond the many technical sessions of interest to engineering geologists, the GSA Annual Meeting provides an unparalleled opportunity to take a field trip, learn about developments in allied fields, browse the latest books and instruments that exhibitors have to offer, renew friendships, and honor colleagues who will be receiving Society and Division awards.

As always, interested division members are encouraged to attend the EGD management board meeting. We are always interested in meeting members who would like to become active in the division, perhaps editing a *Reviews in Engineering Geology* volume, proposing annual meeting topical sessions or short courses, or serving on a division committee. This year's meeting will be the afternoon of Sunday Nov. 7 in the Silverton Room at the Marriott City Center hotel. The meeting is scheduled to begin at noon but, because of time conflicts, we will begin at about 12:30. Over the years the management board has tried a number of alternative ranging from evening meetings that often ran until midnight, to mid-week lunch meetings in the poster session area, to pre-meeting meetings held a day before most people arrive at the annual meeting. Although it will conflict with some technical sessions, the management board hopes that this year's meeting will be more convenient for division members who would like to drop in without having to arrive in Denver a day early.

Another important annual meeting development, although not tied directly to EGD, is an annual meeting short course about the popular ArcGIS software. GSA has not allowed short courses that emphasized commercial products such as ArcGIS regardless of how useful they might have been to its members. The GSA Professional Development Committee, on which both EGD Chair-Elect Bob Fakundiny and I served last year, sought to change that rule because we realized that commercial software and instruments are important tools for geologists in consulting, government, and academia. Care will be taken to ensure that courses featuring proprietary products do not turn into blatant advertisements, and that attendees know that they are registering for a course about a particular commercial product. The Professional Development Committee also wanted to ensure that this year's slate of short courses would be attractive to geologists working in consulting firms and other applied environments, and therefore approved courses on topics such as hydrogeological field methods, mine waste site characterization, aerial photo interpretation, and ethics. I will be serving as the Professional Development Committee chair this coming year and continuing as a member-at-large into 2006, so please let me know your thoughts on GSA's short course offerings. In particular, I'm interested in hearing about possible course topics or instructors that may be of interest to EGD members. Let us know the kinds of courses that would be most valuable in your practice, research, or teaching.

We have several *Reviews in Engineering Geology* volumes in the pipeline. A volume about humans as geologic agents, which grew out of an annual meeting topical session honoring the late George Kiersch, is almost ready to pass on to GSA for publication. Other *Reviews* topics that have been proposed include environmental issues associated with mine waste, salvage geology, and landslides in the Seattle area. As most of you know, EGD is the only GSA division to have its own publication series and we need a small but steady stream of proposals (and proposers!) to keep publishing new volumes

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every year or two. The journal *Environmental & Engineering Geoscience*, which is published jointly by GSA and the Association of Engineering Geologists, also offers EGD members a first rate outlet for their work in environmental and engineering geology. The latest issue contains papers that describe projects spanning the globe from Italy and Canada to Indiana, Texas, and California. AEG members receive *Environmental & Engineering Geoscience* as part of their membership, and I encourage EGD members who don't subscribe to add it to their list of must-read journals.

Finally, it has been an honor serving as EGD chair for the past year. We've put together an exciting annual meeting program that reflects the cutting edge of engineering geologic practice and research, continued our efforts to increase the visibility and viability of EGD by sponsoring another Pardee Keynote Symposium (thanks to the hard work of Syed Hasan), and pursued some possibilities to increase student involvement. But, there is always more that can be done. I'd like to see division membership grow, attract more young professional and student members, increase the number of EGD sponsored topical sessions at annual meetings, and increase EGD involvement in GSA sectional meetings. I'd also like to see EGD membership and activities come to reflect the wide range of innovative work being done by environmental geologists, geomorphologists, hydrologists, geophysicists, physical geographers, and others who may not call themselves engineering geologists but who work in the applied and environmental geosciences. That's far more than the four volunteers on any management board can take on by themselves, but it is possible. So, stop by during the GSA Annual Meeting and ask how you can help.

Now is the Time to Think about EGD Division Awards

It may seem premature to consider nominating someone for the 2005 Meritorious Service or Distinguished Practice awards with the 2004 awards still to be presented at the EGD Luncheon during the upcoming GSA Annual Meeting. But it really isn't too early. The deadline for nominations is March 1, 2005.

EGD Distinguished Practice and Meritorious Service Awards These represent an excellent opportunity to honor peers or mentors who have contributed to engineering geology either in terms of their professional practice or their service to EGD. The EGD website <http://rock.geosociety.org/egd/index.html> has detailed information on the requirements and application procedures for each award, as well as a list of past awardees.

2004 Roy J. Shlemon Scholars

Two PhD students and one Masters student were selected as Roy J. Shlemon scholars for 2004. Tina L. Gammill is the 1st place PhD honoree. A Baylor University student, Tina is undertaking a comprehensive structural terrain analysis using multiple methods in the central Santa Monica Mountains to locate potential active faults. Tina is expanding on previous research she participated in that suggested that terrain shape anomalies may show previously unmapped faults in this area. An improved understanding of faulting adjacent to the urban areas of Los Angeles and Ventura counties has obvious benefits to seismic hazard issues.

Carl J. Pierce, Texas A&M University, was selected as the 2nd place PhD honoree. His study is related to the growing involvement of engineering geology with understanding and preserving historic features and structures. Carl will be applying multiple engineering-scale geophysical studies to the Pointe du Hoc Battlefield, Normandy, France. He will be participating in a multi-disciplinary effort to reveal and hidden structures or artifacts that produce a more accurate interpretation of the events that took place during the engagement.

Soren K. Clark, Portland State University, received the Master's level scholarship. Soren is characterizing the June 14, 2002 Muddy Fork debris avalanche (Mount Hood, Oregon) and determining initiation factors. He intends to improve being able to distinguish among deposits representing different mechanisms involved in such flows. It is expected that this will lead to a better predictive model for this type of hazard in the Cascade Range.

Roy J. Shlemon Scholarship Awards are given to graduate students with the best research proposals within the broad field of engineering geology. Applicants must be EGD members. For more information including application forms, see the EGD web page at <http://rock.geosociety.org/egd/index.html> or contact Robert A. Larson ralarson@rampageusa.com.

Please note that March 1, 2005 is the deadline for next year's scholarship applications.

Feedback from a Shlemon Scholar

2004 Shlemon scholarship awardee Carl J. Pierce recently sent an email giving feedback on his research supported through a Roy J. Shlemon scholarship (see above). He notes:

"The author gratefully acknowledges the financial support provided by the Engineering Geology Division of the Geological Society of America. The EGD always promotes student participation in GSA sponsored events and provides monetary support for special events such as division luncheons, field trips, and or short courses. The generosity of the Engineering Geology Division (EGD) has always supported the activities of the student members and gives me great pride in being part of that legacy for the future. I cannot say thank you enough."

Engineering Geophysical Study of Pointe du Hoc Battlefield (Omaha Beach Zone) Normandy, France

Carl J. Pierce, Geology/Geophysics Dept., Texas A&M University, College Station, TX 77843; cpierce@geo.tamu.edu

Multiple engineering-scale geophysical studies consisting of Magnetism, Electromagnetic Induction (EMI) and Ground Penetrating Radar (GPR) were conducted on the Point du Hoc battleground located between the Utah and Omaha Beach landing sites in Normandy, France along the southern coast of the English Channel between the villages of Grand-Camp Maisy and Vierville-sur-Mer. Techniques for engineering geophysical studies on historical battlegrounds are steadily developing as the concern for preservation and documentation intensifies.

Initiated by the American Battlefield Monuments commission, the purpose of the study was to locate and map any structures or artifacts not readily visible on the surface of the World War II Battleground for historical preservation. The site is perched upon 80 to 100 foot chalk cliffs from the middle Jurassic period that overlook the Omaha Beach landing zone, 4 miles to the east, and Utah Beach landing zone approximately 5.5 miles to the west. The strategic importance of the site made it a primary objective on D-Day due to the presence of five 155mm gun emplacements with effective ranges of 25,000 yards or roughly 10 miles.

Preliminary data indicate the presence of several targets such as: covered trenches, hidden bunkers, UXO (unexploded ordnance) and possibly the remnants of a small gauge railroad distribution system. Target selection and data acquisition were guided by landform and surface expression. Three dimensional data sets were taken for each technique by moving the equipment in the X and Y directions at station spacing from 5-20 centimeters (2-8 inches) with equipment probing the Z (sub-surface) direction. Excavation for ground-truth is scheduled for summer 2005. Further analysis of the data after excavation will determine the effectiveness of engineering geophysical studies on historic battle-sites in the future.

Iverson Selected as Richard H. Jahns Distinguished Lecturer

Richard (Dick) Iverson is a graduate of Iowa State University (BS, 1977) and Stanford University (MS, 1980; MS, 1981; PhD, 1984), where he was a student in several of Richard Jahns' classes and subsequently a teaching assistant to Jahns in his graduate course in Engineering Geology. Since 1984, Iverson has worked at the U.S. Geological Survey's Cascades Volcano Observatory in Vancouver, Washington, where his current position is Senior Research Hydrologist.

Iverson is a Fellow of the Geological Society of America and a past recipient of the Society's E.B. Burwell Award (1991) and Kirk Bryan Award (2001). Much of his research has emphasized the mechanics of post-failure landslide and debris-flow motion, modeling and measurement of hydrologic processes that trigger landslides, and statistical forecasting of areas likely to be inundated by future landslides and debris flows. Iverson has additionally worked on diverse topics ranging from erosion of desert soils to deformation of subglacial till layers and volcanic lava domes. He instigated construction of the USGS debris-flow flume in central Oregon in 1991 and thereafter has directed research at the facility. He is an Affiliated Professor at the University of Washington, Seattle, an Adjunct Professor at Portland State University, and was recently a guest scientist at the Isaac Newton Institute for Mathematical Sciences, Cambridge University. The 2003 Jahns lectures are titled "Dynamics of debris flows and rock avalanches" and "Long-term behavior of slow-

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moving landslides: measurements and mechanics." Both lectures will include video footage of relevant experiments conducted at the USGS debris-flow flume as well as descriptions of pertinent field data and mechanical analyses. Iverson will deliver whichever lecture is requested. Requests for scheduling lectures should be directed to Richard Iverson at riverson@usgs.gov.

The Distinguished Lectureship is in honor of Richard H. Jahns (1915-1983), an engineering geologist who has a diverse and distinguished career in academia, consulting, and government. The purpose of the Jahns series is to provide funding annually for a notable engineering geologist to present a lecture at a number of academic institutions to increase awareness of students about careers in engineering geology. Established in 1968, the lectureship is co-sponsored by the Engineering Geology Division of the Geological Society of America and the Association of Engineering Geologists. A joint committee annually selects the lecturer for the following year.



Dr. Richard Iverson, the 2005 Richard H. Jahns Distinguished Lecturer

TO ALL VOTING MEMBERS OF GSA'S ENGINEERING GEOLOGY DIVISION:

Following are the biographies and the ballot for the election of 2004-05 officers for the GSA Engineering Geology Division. Please vote immediately and **mail your ballot to arrive at GSA no later than November 3, 2004, or fax it to (303) 357-1074, Attn: Division Ballot no later than November 3, 2004.** If you prefer, vote online at <<http://rock.geosociety.org/balloting/egd.asp>> by **November 3, 2004**; online, you can access the ballot using either your GSA member number or your e-mail address (if it is in your GSA records). If you need assistance with your GSA member number, please contact GSA Services at gsaservice@geosociety.org or (303) 357-1000 (option 3) or tollfree in the U.S. at (888) 443-4472. Biographical data for this year's candidates follow:

CHAIR: Robert H. Fakundiny is the State Geologist of New York and Chief of the New York State Geological Survey and has held that position for more than 25 years. He received his BA in Geology at the Univ. of California at Riverside. He worked in the U.S. Peace Corps in Ghana, West Africa on a minerals evaluation program that evolved into an MA at The University of Texas at Austin. He received his PhD and was the Will C. Hogg Fellow at The University of Texas, studying the structural geology and stratigraphy of central Honduras. He is a GSA Fellow and has belonged to the Engineering Geology Division since the early 1970's. He is a Fellow of the Geol. Assoc. of Canada, Geol. Society (London), New York Acad. of Sciences, and the American Assoc. for the Advancement of Science and is a member of 20 other geologic societies. He is President of the American Inst. of Professional Geologists, Past-President of the Assoc. of American State Geologists, and Past-Chair of the North American Commission on Stratigraphic Nomenclature, where he has been a Commissioner for 19 years. He was the Chair of the first GSA Section Committee on Geology and Public Policy and worked with the national Committee to develop the program for all sections. He has served EGD as Chair-Elect (03-04), Secretary (02-03), Member-at-Large (01-02), mgmt board mbr (87), and on the Awards Committee (93-94) and Burwell Committee (91-94, former). He chaired the AGI-AASG Ian Campbell Award Committee (95-96) and was an invited participant in the GSA-AAPG-AIPG-NSF-USGS Presidents' Conference on Ethics in the Geosciences (97). He has been elected to Sigma Gamma Epsilon, Sigma Xi, and is a Chartered Geologist (Geological Society, London). He has received the John T. Galey, Sr. Memorial Service Award and President's Certificate of Merit from AIPG, and the George V. Cohee Public Service Award and Certificate of Merit from the Eastern Section of AAPG. He has authored numerous scientific papers, articles, and abstracts on the geology and seismic hazards of siting nuclear power plants and radioactive waste storage facilities, structure and tectonics of New York State, geology of the Adirondack Mountains, landslides, mineral resources, earthquake activity, and geology land-use planning, and geology and public policy. He has been a member of more than 80 advisory boards and task forces for State, regional, and Federal agencies.

CHAIR-ELECT: Susan H. Cannon is a research geologist with the Landslide Hazards Program of the U.S. Geological Survey. She received her BA in Geology from Humboldt State University, and MS degrees in Geology and Civil Engineering and her PhD from the University of Colorado, Boulder. Susan has worked in the field of engineering geology for the Colorado Geological Survey and the USGS since 1981. She has served EGD as Secretary (03-04) and management board Member-at-Large (02-03); she also has served as a member of the E.B. Burwell Jr. Award committee (00) and as chair of the panel (01). In keeping with her research interests, Susan convened a session at the 2002 GSA Annual Meeting on the Geomorphic Impacts of Wildfire.

SECRETARY: Syed E. Hasan is a Professor in the Department of Geosciences at the Univ. of Missouri – Kansas City, where his research is focused on waste management and medical geology. Syed earned his BS in Geology from Patna University, his MS in Applied Geology from Roorkee University, and his PhD in Geology from Purdue University. He worked at the Geol. Survey of India as a Geologist (1965-68) and Senior Engineering Geologist (68-73) before serving as Visiting Asst. Prof. in the Dept. of Geology at Michigan Technological Univ. (78) and as Asst. Prof. in the College of Mining and Geological Engineering at the Univ. of Arizona (78-79). He has been with the Dept. of Geosciences at the Univ. of Missouri – Kansas City since 1979, serving as Asst. Prof. (79-85), Assoc. Prof. (85-97), and Professor (98-present). He holds concurrent positions with the Univ. of Missouri – Kansas City as Director of the Center for Applied Env't'l Research (96-present) and as Adjunct Prof. with the Dept. of Civil Engineering (98-present). Syed is a GSA Fellow and has been a member since 1987. He is also affiliated with AGU, AEG, IAEG, and Phi Kappa Phi, and is a Life Fellow of the Geol Soc of India. He is a licensed geologist in Missouri. Syed has served GSA as a Campus Rep. (88-present) and on the GSA North-Central Section management board (02-04). He has served EGD as management board Member-at-Large (03-04) and on the Burwell Award Committee (00-03). He served as theme advocate for the Environmental Justice session at the GSA Annl Mtg (95) and as Technical Program Chair and Co-Chair of the 2003 GSA North-Central Section meeting. In addition, he served the Kansas City-Omaha Section of the Association of Engineering Geologists as Chair (89-91) and as a member of the Advisory Board (02-03). Syed is the recipient of the US EPA Region VII Educator's Environmental Excellence Award (2000) and the Assoc. of Engineering Geologists Claire P. Holdredge Award (98) for his textbook *Geology and Hazardous Waste Management* (Prentice Hall, 1996).

MEMBER-AT-LARGE: Paul Santi has Bachelor's degrees in geology and physics from Duke University, a Master's degree in geology from Texas A&M University, and a PhD in geological engineering from the Colorado School of Mines. He has six years experience as a consulting geologist in California and Colorado, followed by six years as an assistant professor at the Univ. of Missouri-Rolla and three as an associate professor at the Colorado School of Mines. While in academia, he has continued to consult on projects related to ground-water contamination, construction, and natural hazards. Paul has received several teaching and faculty excellence awards, as well as a Sloan New Faculty Fellow Award from the American Society for Engineering Education. From the Association of Engineering Geologists, he has received awards as Marliave Scholar and Douglas R. Piteau Outstanding Young Member. A software program he developed, funded by the National Science Foundation, titled BEST SiteSim, was a 2002 finalist for the Premier Educational Software Award, sponsored by John Wiley & Sons. He has coordinated technical sessions and led field trips for GSA, and in 2003 coordinated the first Pardee symposium sponsored by the Engineering Geology Division, entitled, "The Science of Lewis and Clark: Historical Observations and Modern Interpretations."

Ballot for the Election of 2004-2005 Officers for the GSA Engineering Geology Division

Vote for no more than **one** candidate for each office by checking the appropriate box or by filling in the write-in space to vote for an individual not listed on this ballot. **Your ballot must be returned to GSA by November 3, 2004, must be signed in the space provided, and must include your GSA member number in order to be valid.** Please return your ballot to the address below or fax it to (303) 357-1074 by Nov. 3, 2004. If you prefer, you may vote online at <http://rock.geosociety.org/balloting/egd.asp> by November 3, 2004. Election results will be announced at the EGD Management Board meeting at the GSA Annual Meeting in Denver and will be posted on the Division website at <http://rock.geosociety.org/egd/index.html>. Thank you for participating in your Engineering Geology Division election.

Chair:☐**Robert H. Fakundiny**☐

Write-In _____

Chair-Elect:☐**Susan H. Cannon**☐

Write-In _____

Secretary:☐**Syed E. Hasan**☐

Write-In _____

Member-at-Large:☐**Paul M. Santi**☐

Write-In _____

Your Name (printed) _____

Your Signature (required) _____

Your GSA Member Number* (required) _____

Please place your ballot in an envelope, affix first-class postage, and return it to:

Engineering Geology Division Ballot
Geological Society of America
PO Box 9140
Boulder, CO 80301-9140

Your ballot must be **returned to GSA by November 3, 2004**. If you prefer, you may **fax your ballot to (303) 357-1074** or vote online at <http://rock.geosociety.org/balloting/egd.asp> by November 3, 2004.

*If you need assistance with your GSA member number, please contact GSA Services at gsaservice@geosociety.org or (303) 357-1000 (option 3) or tollfree in the U.S. at (888) 443-4472.

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