

# 2011 Annual Report of the Society of Exploration Geophysicists

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# Reports of the Officers

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## Klaas Koster, president

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I have been honored to serve on an Executive Committee that advanced several reforms that enable our Society to serve its members more effectively.

Chief among these has been governance reform. Following the narrow defeat of the proposed new Bylaws at last year's Council meeting, President-elect Bob Hardage facilitated the Council Ad Hoc Committee that reached a grand compromise. Passage of the new Bylaws at this year's Council meeting in San Antonio appears probable thanks to a process that drew together all sides of last year's debate. If the Council and active members approve the plan, a Board of Directors, twice the size of the current Executive Committee and with longer terms, would lead the Society, and a meaningful role for the Council would be preserved. This would provide for broader representation of the membership and a more experienced leadership.

Fiscal planning, especially as it relates to new initiatives, also improved markedly. The staff, the Finance Committee, and the Executive Committee developed a balanced budget for the upcoming year that includes more than a dozen new projects. These were positioned by staff, under the guidance of first-year Executive Director Steven Davis, within a strategic framework that optimized selection of projects. Results include renewal of the IQ Earth program that fosters a multidisciplinary approach to interpretation, and more emphasis on programs involving near-surface geophysics, including a dedicated session at each Annual Meeting. The objectives also include new activity in China, the Middle East, and Europe.

To provide more nimbleness in responding to opportunities, the Executive Committee approved an Invested Reserves Above Target (IRAT) policy under which new projects can be put forward, prioritized, funded, and initiated throughout the year, not just during the annual budget-approval process. The Executive Committee also endorsed establishment of a task force focused on sunseting programs and products that have outlived their usefulness. An example is the SEG Yearbook DVD, which few members ordered this year and which will be retired in favor of a free downloadable disk-image.

Furthermore, under Davis, most staff groups underwent facilitated efficiency studies that will help the Society achieve more value from its investment in personnel.

The Society also strengthened itself procedurally. The Professional Development Department began applying standards related to its International Association of Continuing Education and Training (IACET) certification, upgrading the value of our CE courses. Our publications program adopted procedures that formalized processes for review and action on proposals

for new journals after having established comprehensive ethical guidelines last year. The Global Affairs Committee gave itself a fresh perspective on its future role with adoption of a new mission statement, endorsed by the Executive Committee. Most of the SEG Procedures Manual, in particular the entire standing committees and activities sections, underwent a thorough review, reorganization, and rewrite. A whistleblower's hotline was approved and implemented to help the Society maintain the highest levels of integrity and professional standards.

As all of these reforms in approach and process were adopted, the Society continued on a rapid pace of remarkable accomplishment on many fronts. Key achievements included the following:

- The Society's Web site relaunched early this year along with several new and related systems and capabilities, including online collaboration.
- The SEG Advanced Modeling (SEAM) Corporation produced a final report for the Phase I project on marine seismic challenges, extended the SEAM RPSEA project on deepwater Gulf of Mexico, and successfully launched Phase II—a three-year, 20-company industry consortium—on land seismic challenges.
- GEOPHYSICS capped its 75th year with its largest issue ever, 84 papers published in November–December including a special supplement on seismic data sampling and wavefield representation. The journal also drew a record 441 submissions during the fiscal year.
- The upcoming San Antonio Annual Meeting drew more than 1,150 expanded-abstract submissions, the second-highest number in Society history, and the exhibition hall has sold out.
- Articles from *The Leading Edge* were translated into Chinese and posted regularly on the Web site, and plans were established to provide a Chinese version of *TLE*.
- Patrick Connolly's Distinguished Lecture on robust workflows for seismic reservoir characterization was made available online with optional audio and text tracks in Chinese.
- Eight Honorary and Distinguished Lecturers gave 195 presentations, including 95 at universities, and drew approximately 9,000 attendees.
- The Shale Gas Technology Forum in Chengdu, China, far exceeded participation expectations. The SEG China office became more active in holding events and planning new ones, including the D&P Forum in Beijing in August, a gravity and

electromagnetic methods workshop in October also in Beijing, and a conference on geophysical techniques for complex land and marine environments in Shenzhen in November.

- SEG eBooks doubled in size to more than 100 titles, made possible with funds provided by the SEG Foundation to scan legacy titles.
- A reorganization of the SEG books program bore fruit with nine new titles published since this time last year.
- A new cooperative agreement has been established with the Environmental and Engineering Geophysical Society (EEGS), and action is under way in the implementation of a similar agreement reached last year with the American Geophysical Union (AGU).
- SEG strengthened its partnership with the Society of Petroleum Engineers (SPE), adding expanded abstracts to the OnePetro online archive and collaborating on several meetings.
- An SEG network of women geophysicists was established to enhance retention of women in the profession by providing a support collective.
- Plans to open a Middle East office, stalled for a time because of political uncertainty in the region, were revised late in the year, with implementation likely imminent.
- More than 150 technical program presentations from the 2010 Annual Meeting in Denver were recorded and offered for sale on DVD.
- SEG supported a student chapter that staged the highly successful 2nd International Geosciences Student Conference in Kraków, Poland, that included the SEG Europe Honorary Lecturer, the SEG/ExxonMobil Student Education Program, and the SEG Challenge Bowl. Each of those student programs also was implemented at several other events worldwide.
- Geoscientists *Without Borders* continued to develop as one of the SEG Foundation's flagship programs with eight active projects in the field and new awards in Sweden and Brazil.

The list of accomplishments is much longer, and I invite you to explore the details in the SEG Annual Report available online.

I leave office encouraged that the Society is relevant, healthy, and better organized than ever.

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## Bob Hardage, president-elect

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Much of my contribution to the Society this past year was the effort expended to develop a consensus among the Council on the subject of a new SEG governance structure. At the time of this writing (June 2011), it is premature to say what the Council vote will be in San Antonio, but indications are that consensus has been reached. If so, a new Constitution and Bylaws will be approved and then presented for acceptance or rejection by our Active membership. If Council approval is not achieved, work done this year has brought us much closer to consensus than ever before, and convergence should be reached in the next iteration of debate and discussion.

I had the pleasure of chairing the most effective SEG committee that I have ever been associated with, this being the Council Ad Hoc Committee. Although this committee is discussed elsewhere in this Annual Report, I want to say here that this group of ten people is the reason that significant progress was made during the past several months to bring consensus among diverging governance philosophies within the Council. As I passed the thinking of this ad hoc committee to Joe Reilly and his Constitution and Bylaws Committee, I became convinced that Joe and his committee colleagues are unsung heroes of our Society. Few members realize the difficulty and importance of what this committee was assigned to do in transforming diverse governance opinions and passions into a logical and concise document.

I accepted the challenge of assisting with the implementation of a new SEG program called IQ Earth, an acronym for Integrated Quantitative Earth. IQ Earth is a program envisioned and proposed by Statoil and initially funded by Statoil. If we can create an effective program, other companies may concur with the vision Statoil has and become financial supporters. Briefly, the objective of IQ Earth is to cause more attention to be focused on technologies and strategies that will cause geophysicists, geologists, engineers, and petrophysicists to “integrate” and “quantify” their sciences and their activities in ways that will cause data and information to flow efficiently among all disciplines. A major part of IQ Earth will be attempts to cause universities to adopt programs that will lead to efficient integration and data sharing among disciplines. If this academic portion of IQ Earth is successful, graduates from participating universities will contribute to our profession more effectively and much earlier in their careers.

It has been a pleasure to work with this year's Executive Committee. They have set a high standard for me and the next Executive Committee to match.

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## Mike Graul, first vice president

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One of the pleasures of serving as an officer of the Society is liaising with some of its most dedicated members, the committees that make our goals realities. This past year I was appointed as liaison officer to the following committees: University and Student Programs (CUSP), Youth Education (YEC), Distinguished Lecture/Honorary Lecture/DISC (DL), Continuing Education (CE), Online (OLC), Online Technical Content Board (OLTCB), Historical Preservation (HPC), and Technical Standards (TS). Each of these groups has a detailed report of its activities in the pages that follow, so I won't rob them of the surprise element in revealing their many accomplishments, but I will encourage you to read their reports—as well as those of the other committees, organizations, and representatives. I think you'll be surprised at how much unheralded work goes on behind the green curtain, by unpaid volunteers who serve selflessly to bring about the objectives of our SEG, namely, “... to promote the science of geophysics, especially as it relates to exploration and

*research, to foster the common scientific interests of geophysicists, and to maintain a high professional standing among its members.”*

– The SEG Constitution

Each committee also is assigned a staff liaison who often acts as the engine of implementation of the committee directives, once approved by the benevolent but ever vigilant Executive Committee (a rare group of elders and youngers who bring the virtues of wisdom, compassion, and vision to their frequent meetings). Two of the staff members who work closely and diligently with the list, given above, are Tom Agnew and Dan DeMellier. There are many others, of course, but I happen to be more familiar with the work of these guys, whose talent and dedication never fail to amaze me. Tom is *actively* involved in everything educational (CE, YEC, DL, CUSP, HPC ...) and is admired and respected by their chairs and members alike. Dan, among other onerous assignments, works with the Online Committee to bring us to the forefront of Web site functionality. He and his staff produced a wonder of modern IT science in their rollout of the new SEG Web site. It was, of course, immediately criticized for perceived flaws in the Member Search section. The OLC responded to the demands of the Houston Terror Group, asking Dan and his team to immediately construct a remedy forthwith and heretofore. Without so much as an audible grumble, Dan and his Digital Demons delivered. Everyone is now content—even the little fat guy who serves on the Executive Committee and is rumored to be a member of the HTG. If you have ever tried to do a major revision of a Web site, you'll understand the magnitude of Dan's and OLC Chair Stephan Gelinsky's accomplishment. If you haven't looked, go immediately, and enjoy perusing the many pleasant features of the SEG Web site, <http://www.seg.org/seg>.

On another front, significant advances were made in the resolution of the three-year struggle for modern governance of the SEG. While final resolution requires the approval of the SEG Council, and this is being written well in advance of its meeting in San Antonio, I am confident that the work done by President-elect Bob Hardage, Joe Reilly, and their respective committees, in producing a set of workable, sensible bylaws, will be recognized by the Council, and adoption of the new Bylaws should be an easy decision. After the membership adds its stamp of approval, we should be seeing, next summer, the election of a true Board of Directors for the SEG, and a new and better way of doing business.

The opportunity to serve as an SEG officer has been rewarding and illuminating. I have enjoyed working with the other six members of the Executive Committee (an alarmingly talented and dedicated group), as well as the SEG staff and SEG Foundation personnel. If the opportunity ever presents itself for you to serve your Society in such a capacity (and the new Bylaws increase the chances considerably), take it. You will not be disappointed.

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## Susan Webb, second vice president

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As an academic living in Africa, I was rather surprised, but truly honored, to be elected as SEG second vice president. It has been a privilege to serve SEG in this capacity and I appreciate the opportunity to learn the inner workings of the business side of SEG. I plan to bring this knowledge back to Africa to strengthen ties between SEG and African geophysical societies.

The biggest challenge facing our Executive Committee was governance reform. With the narrow defeat of proposed changes in 2010, President Klaas Koster set a tight time schedule for Bob Hardage and Joe Reilly to tackle the objections raised at the AGM. Klaas, Bob, Joe, and SEG staff were able to create an open and inclusive electronic forum and brought much of the discussion and changes to the Executive Committee for approval. This consultative forum has led to a robust proposal that we are convinced will strengthen SEG.

Klaas clearly recognized the lack of women in SEG and the industry and moved quickly to form a task force addressing this issue. It has been a delight for me to serve as the liaison, first for the task force and then for the SEG “Women's Network Committee” which the Executive Committee approved. Chair Eve Sprunt is capitalizing on questionnaire work already completed by the SPE and other organizations on dual-career couples, giving SEG the benefit of years of research. Gone are the days when partners earned unequal salaries and it was a clear economic decision about whose career had precedence. There are exciting debates developing as the challenges facing equal-income, dual-career couples are addressed in the context of SEG. Eve's committee has already organized a breakfast workshop for the 2011 Annual Meeting that will feature a keynote talk by Alexandra Herger, the director of international exploration and new ventures at Marathon Oil. There is also a Facebook site and Web page (<http://www.seg.org/web/seg-womens-network>).

The Near Surface Task Force, led by John Bradford, has focused SEG's efforts to support near-surface geophysics by submitting a number of proposals that will strengthen this section of SEG. These efforts include a proposal for an Honorary Lecturer dedicated to Near Surface Geophysics, which was approved. This lecture will enable SEG to consistently target regions without strong oil interests that have flourishing exploration geophysics programs. The Executive Committee also approved a standing special session at the annual meeting for hydrogeophysics which will work closely with Geoscientists *Without Borders*. Creating a perpetual special session clearly recognizes the importance of near-surface geophysics and closely related programs such as the highly successful Geoscientists *Without Borders* program. In order to accomplish these tasks, a staff position for near-surface business was approved by the Executive Committee. This focused effort on many fronts has also led to preliminary discussions with the EEGS about a possible merger, talks which were approved by the Executive Committee. John has also reached out to AGU and is planning several joint workshops and sessions both in the United States and overseas, focusing initially on China.

The Gravity and Magnetics committee has planned oral and poster sessions, a luncheon, and a workshop entitled “Basin Modeling” for the 2011 Annual Meeting. Michal Ruder continues to present her gravity and magnetic methods and interpretation short course, all over the world and online. I managed to catch up with her in Cape Town after her short course at Tullow Oil. The committee is working on its proposal to become a technical section of SEG, and the list server continues to be an effective form of communication with members.

2011 is an “off” year for the Mining and Geothermal Committee. In spite of this, the committee will host a full oral technical session at the 2011 Annual Meeting. Plans for 2012 are already in progress and include oral and poster sessions, a luncheon with a speaker, and a committee meeting. The mining and geothermal community also uses an e-mail list server for communicating with members.

There were a number of meetings brought forward for approval at various levels of sponsorship by SEG for approval by the Executive Committee. One that sounds especially interesting is the GEM Beijing 2011 (October 10–13) meeting in China. It is exciting to see how many international societies are keen to cooperate with SEG by co-hosting meetings.

SEG is a member of the American Geological Institute and is participating in the environmental geoscience advisory committee to determine the role of geoscience in key environmental topics. The AGI also publishes EarthNotes, short overviews of topical earth science issues aimed at educating the public. A number of these related to the oil industry have been published this year.

This was a busy year for me as I was finishing my Honorary Lecturer tour while starting my duties as second vice president. This turned out to be an advantage because I was able to discuss issues and represent SEG at my talks. We all took turns writing the President’s Page in *TLE*, and I chose to discuss SEG’s many global efforts, especially the Geoscientists *Without Borders* program which is bringing volunteers and geophysics all over the world!

I have been impressed with all committees and their use of electronic communication, and with the effectiveness of this means of communication for holding meetings. Thank you for an exciting and busy year. Thank you to the members of SEG for electing me and giving me the opportunity to learn so much while serving the Society.

Editor’s note: Geoscientists *Without Borders* is a registered trademark of the SEG Foundation.

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## Alfred Liaw, vice president

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It has been my honor to have the opportunity to serve on the Executive Committee. During the past year, the Executive Committee has been working on both short-term and long-term goals for SEG to better serve its global constituents, to promote the science of applied geophysics, to inspire tomorrow’s geoscientists, and to run the organization like a business.

Two significant short-term goals were (1) to continue carrying out the Constitution and Bylaws revisions, and (2) to better collaborate the meeting/workshop planning process. An Ad Hoc

Committee of selected members of the SEG Council, Global Affairs Committee, and associated societies has made valuable input to the Constitution and Bylaws Committee. To improve the long-range planning process, the Executive Committee has worked with SEG senior staff members to prioritize all proposed projects, based on their goals and initiatives. The priority ranking of all proposed projects has resulted in a smooth budgeting process, which will impact future SEG operations.

I have been fairly involved in the planning and the execution of SEG Global offices, with the main goal to re-energize the SEG China office and the proposed launch of the Middle East office. Since July 2010, the SEG China office has been scheduling monthly membership events, such as dinner meetings with featured speakers, plus SEG DISC, DL, and HL appearances. The bi-monthly eNewsletter has been circulated to its constituents in China. It organized the timely and successful SEG Shale Gas Technology Forum in Chengdu, Sichuan. The forum took place from March 29 to April 1 and attracted 312 participants with 42 speakers presenting at the Forum. Fourteen student members from the SEG Student Chapter of the local SW Petroleum University instigated a volunteer program to work with the SEG China staff in providing logistic support to the successful Forum. They also enjoyed the learning and networking opportunities at the Forum. In addition to the Shale Forum, SEG also organized or cosponsored the Geophysical Imaging workshop in Sanya, the D&P Forum on unconventional resources in Beijing, the GEM Forum in Beijing, and the SPG/SEG Geophysical Conference in Shenzhen. SEG has committed to a major role in the 2012 Beijing IPTC. In addition to China, the Executive Committee has approved 17 future meetings/workshops in Azerbaijan, Hungary, India, Japan, Saudi Arabia, Scotland, and the United States. Due to security issues, the Executive Committee has postponed its plan to open the Middle East office.

Due to popular demand, we voiced-over the 2010 Spring Distinguished Lecture video on “*The robust workflows for seismic reservoir characterization*” by Patrick Connolly with Mandarin Chinese. The Chinese lecture has been made available on the SEG Web site. More voice-overs with different languages have been planned for future implementation. The Executive Committee has approved the publication of *TLE* in Chinese to be printed in China. The initial plan is to translate selected popular articles from English to Chinese. It can be expanded to publish Chinese articles which can then be translated into English.

I have to admit that the one-year term of serving on the SEG Executive Committee has broadened my vision of how SEG has reached out to its global memberships by organizing meetings, providing education opportunities, and energizing young geoscientists. I appreciate the opportunity to serve and the support by the management of Anadarko Petroleum Corporation.

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## John Eastwood, secretary-treasurer

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On behalf of the Finance Committee, we are pleased to report that SEG’s financial health for the fiscal year ending June 2011 is very robust. SEG staff and the 2011 Executive Committee continued their efforts to ensure that processes are in

place to maintain a strong financial stewardship of the Society as it continues to grow and become more global.

The cumulative net income was positive and exceeded our original budget of \$(501,239). Items that contributed significantly to the better-than-budgeted results were: a positive variance for events revenue and greater return on investments (unrealized gain) of \$1,094,020, SEG investments are currently at \$7,666,829—up from \$6,371,016 at the end of June 2010.

While SEG benefitted from a strong return on our investments for the current fiscal year, the Society maintained focus on cost controls and providing services to the membership with the goal to at least break even or realize a modest profit. The Executive Committee, through the Finance Committee, continued to ensure that each SEG department review its product lines, represent its fully burdened costs, and then identify potential ways to simplify processes, reduce costs, and increase revenues. For the current fiscal year, the Executive Committee continued with the approach that each product and service strive toward a modest cost-plus pricing model.

The Executive Committee and SEG management worked together to prioritize all SEG initiatives, which the Finance Committee then leveraged to present a balanced budget for approval. The 2012 budget anticipates net revenues of \$16.7 M dollars and expenses in the same amount. This year-over-year growth is representative of added services (primarily in electronic education and publications as well as expansion in meetings and student programs) and increased staffing to execute the 2012 plan.

The Finance and Executive committees approved a revised Invested Reserves Above Target policy, which is better aligned with guidelines for nonprofit organizations. The IRAT policy is designed to allow the Society to react to opportunities that arise outside of the annual budget cycle in a more structured decision-making mode. If SEG has excess reserves (above the 50% of operating expenses target) the Executive Committee can use the IRAT policy to determine whether to invest those excess reserves in a new program/product. The Finance Committee also approved an investment policy with the main component involving a recommendation for an investment firm to manage SEG investments. The Finance Committee will present the investment firm recommendation to the Executive Committee in coming months for approval.

I have enjoyed immensely the opportunity to serve as SEG's secretary-treasurer this year. Working with my fellow Executive Committee members has been rewarding for me; I appreciated their passion, wisdom, and professional decorum. I would like to thank SEG staff for their cooperation and diligent effort in working with the Executive Committee in this year's continual improvement in our financial stewardship. I would also like to acknowledge the support from this year's Finance Committee, Anna Shaughnessy (chair), Brad Birkelo, Ray Vogler, and Jeff Springmeyer (liason from the SEG Foundation Finance Committee). In addition, special thanks go to SEG Director of Finance and Operations Nancy Carter, whose leadership and diligence regarding all things financial contributed immensely to our very successful year.

Editor's note: Financial figures for 2011 will be available soon.

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## Vladimir Grechka, editor

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This report summarizes the main developments in GEOPHYSICS during 2010–2011, my second and final year as SEG editor. Tamas Nemeth of Chevron will be the editor in 2011–2013. Based on his exceptional performance as assistant editor for GEOPHYSICS' special sections and supplements, I am confident that he will do an excellent job as Editor-in-Chief. He will be assisted by more than 100 excellent individuals. They include assistant, associate, special, SWAT, and department editors, a rotating group of guest editors, and the staff of SEG's Publications Department. At the time of writing this report, Tamas is assembling his editorial team.

**Geophysics Dissertation Abstracts.** Following recommendations of GEOPHYSICS' editors expressed at the 2009 SEG Meeting, we formed the Geophysics Dissertation Abstracts department and began publishing abstracts of Ph.D. dissertations in the March-April 2010 issue. Peeter Akerberg has become the first editor of the Dissertation Abstracts department. At the 2010 meeting, editors decided to add master's theses titles and URLs to this department. Abstracts of 10 recently defended Ph.D. dissertations and titles of five master's theses appeared in three issues of GEOPHYSICS published this year.

**Supplements and Special Sections.** In the past several years, GEOPHYSICS produced a number of supplements and special sections dedicated to various geophysics subdisciplines. A supplement differs from a special section mainly in the format and the number of papers. According to the adopted definition, a supplement is a separately bound collection of more than 20 papers subdivided into different sections, whereas a special section, which typically contains about 20 or fewer papers, appears in a regular issue of GEOPHYSICS.

Former SEG editors Yonghe Sun and Kees Wapenaar saw a great value in publishing supplements and special sections because they provide a comprehensive overview of the state-of-the-art of a specific geophysics subject area and tend to stimulate integration and cross-fertilization between different geophysics disciplines. GEOPHYSICS' supplements and special sections are edited by a small group of guest editors who are usually world-renowned experts in their subjects. The guest editors issue a call for papers, invite authors, and oversee the review process. Also, they write an introduction to the supplement or special section, which links the published papers together, identifies the place of the entire collection within the broader context of applied geophysics, and points to possible directions of future research and development.

The following is an overview of recently published and planned supplements and special sections.

Continuing the tradition of Silver and Golden Anniversary issues of GEOPHYSICS published in 1960 and 1985, respectively, the September-October 2010 issue featured the special section titled **GEOPHYSICS' 75<sup>th</sup> Anniversary**. Edited by guest editors Enders Robinson, Sven Treitel, Kees Wapenaar, and Vladimir

Grechka, the Anniversary special section contains 17 overview- and tutorial-style papers written by experts in the main subject areas of applied geophysics. These papers, supplemented with several important manuscripts that appeared in *GEOPHYSICS* earlier, were subsequently published as a book.

The **Seismic Data Sampling and Wavefield Representation** supplement, which had 24 contributions, was published together with the November-December 2010 issue of *GEOPHYSICS*. The supplement was edited by Sergey Fomel, Tamas Nemeth, and Mauricio Sacchi. Its main goal was to survey the concepts, methods, and applications related to acquisition and reconstruction of seismic data, with the intention of producing a comprehensive modern overview of the longstanding effort to determine the optimal data for a given geologic task.

The **Seismic Anisotropy** special section, published in the May-June 2011 issue of *GEOPHYSICS*, had 17 papers, most of which were presented at the 14th International Workshop on Seismic Anisotropy. The Anisotropy special section was edited by Greg Ball, Andrej Bóna, Boris Gurevich, and Marina Perukhina. As the title of this special section implies, it was devoted to improving our understanding of the influence of elastic anisotropy on imaging and inversion of seismic data, as well as to characterizing the properties of rocks and fluids based on observations of seismic anisotropy.

The **Subsalt Exploration and Development** special section is another example of converting presentations of a successful SEG workshop into full-scale *GEOPHYSICS* papers. Edited by Dimitri Bevc, Ian Jones, Jacques Leveille, and Bin Wang, 19 papers of the Subsalt special section will be published in the September-October 2011 issue of *GEOPHYSICS*. These papers cover various subsalt geophysical challenges including illumination, imaging, velocity analysis, and estimation of seismic anisotropy.

The special section on **Microseismic Monitoring** is scheduled to appear in the November-December 2011 issue of *GEOPHYSICS*. Its guest editors Leo Eisner, Gillian Foulger, Michael Kendall, Zachary Lawrence, and Shawn Maxwell are currently working on 22 submitted manuscripts, which will be published if accepted by the special section deadline of 31 July 2011.

*GEOPHYSICS* will continue publishing special sections and supplements next year. Three special sections already are planned for 2012. Those are the sections on **Borehole Geophysics** (the guest editors are Carlos Torres-Verdín, Tapan Mukerji, Michael Oristaglio, and Andre Revil; the submission deadline is 31 July 2011; planned publication issue is May-June 2012), **Advances**

**in Near-Surface Electromagnetic Induction Geophysics** (the guest editors are Mark Everett and Colin Farquharson; the submission deadline is 30 September 2011; planned publication issue is July-August 2012), and **Seismic Methods in Mineral Exploration and Mine Planning** (the guest editors are Alireza Malehmir, Christopher Juhlin, Bernd Milkereit, Milovan Urosevic, and Gilles Bellefleur; the submission deadline is 30 November 2011; the publication issue is September-October 2012).

Up-to-date information about *GEOPHYSICS*' supplements and special sections can be found on <http://seg.org/geophysics/specialsections>.

**Statistics.** The total number of papers submitted to *GEOPHYSICS* changed from 427 (1 July 2008–30 June 2009) via 411 (1 July 2009–30 June 2010) to 441 (1 July 2010–30 June 2011). Approximately 69% of the contributions last year came from non-U.S.-based authors. The broadness of the geographical origins of the papers reflects the international character of SEG and *GEOPHYSICS* (Table 1). The involvement of oil and service companies continues to be relatively small at approximately 20% (Table 2).

The manuscript handling improved dramatically in the past few years. The average time required for first review is approximately two months, thanks to the measures taken by my predecessors (Table 3). The average time between acceptance and publication increased by 13 days in comparison with last year but is still significantly shorter than in the years before (Table 4). This increase can be explained, at least in part, by a relatively large percentage of special sections and supplements, which take more time to publish because all manuscripts accepted there are to be published in a specific order and must appear at once whereas each regular-issue paper is published as ready.

Thomson's ISI Web of Knowledge defines the impact factor of a journal in a specific year as the number of cites in that year to articles published in the journal in two preceding years, divided by the total number of articles in those years. According to the Science Edition of Thomson Reuters' Journal Citation Reports released in June 2011, *GEOPHYSICS*' impact factor is 1.404. Although it is lower than it was last year, current impact factor is the third highest in the journal's history. *GEOPHYSICS*' impact factor has increased steadily during the past several years as the journal has sharply reduced its average time from submission to publication from nearly two years to approximately 11 months. The impact factors were 1.228 in 2006, 1.167 in 2007, 1.349 in 2008, and 1.662 in 2009. Table 5 presents the impact factors of *GEOPHYSICS* from 1975 to 2010.

**Table 1. Origin of papers submitted for publication in GEOPHYSICS by country 1 July 2010—30 June 2011**

USA.....	146
China.....	47
Canada.....	29
United Kingdom.....	25
Norway.....	19
Germany.....	18
Australia.....	17
France.....	15
India.....	14
Brazil.....	13
Italy.....	12
Netherlands.....	11
Saudi Arabia.....	10
Switzerland.....	9
Korea, Republic of.....	8
Denmark.....	5
Japan.....	5
Belgium.....	4
Turkey.....	4
Greece.....	3
Russian Federation.....	3
Taiwan, Province of.....	3
Austria.....	2
Iran, Islamic Republic of.....	2
South Africa.....	2
Spain.....	2
Sweden.....	2
Tunisia.....	2
Algeria.....	1
Argentina.....	1
Czech Republic.....	1
Indonesia.....	1
Mexico.....	1
Nigeria.....	1
Portugal.....	1
Serbia.....	1
Venezuela.....	1
<b>Total.....</b>	<b>441</b>

**Table 2. Origin of papers submitted for publication in GEOPHYSICS by employer 1 July 2010 – 30 June 2011**

Universities.....	262
Research Institutes.....	53
Oil Companies.....	48
Service Companies and Manufacturers.....	39
Governments.....	29
Consultants.....	8
Instrument Companies.....	2
<b>Total.....</b>	<b>441</b>

**Table 3. Manuscript-handling statistics**

<u>Year submitted</u> <u>1 July–30 June</u>	<u>Average number of days</u> <u>required for first review</u>
1991–92.....	172
1992–93.....	157
1993–94.....	184
1994–95.....	182
1995–96.....	211
1996–97.....	186
1997–98.....	205
1998–99.....	214
1999–00.....	212
2000–01.....	211
2001–02.....	178
2002–03.....	133
2003–04.....	141
2004–05.....	105
2005–06.....	66
2006–07.....	53
2007–08.....	57
2008–09.....	55
2009–10.....	66
*2010–11.....	57

\* First reviews have not been returned for all papers.

**Table 4. Manuscript-handling statistics**

<u>Year published</u> <u>1 July–30 June</u>	<u>Average number of days between</u> <u>acceptance and publication</u>
1991–92.....	176
1992–93.....	181
1993–94.....	178
1994–95.....	210
1995–96.....	N/A
1996–97.....	N/A
1997–98.....	180
1998–99.....	177
1999–00.....	202
2000–01.....	208
2001–02.....	213
2002–03.....	195
2003–04.....	161
2004–05.....	158
2005–06.....	181
2006–07.....	143
2007–08.....	82
2008–09.....	111
2009–10.....	122
2010–11.....	135

**Table 5. Impact factor**

<u>Year</u>	<u>Impact factor</u>
1975.....	0.629
1976.....	1.095
1977.....	0.773
1978.....	0.591
1979.....	0.918
1980.....	0.895
1981.....	1.087
1982.....	1.100
1983.....	1.461
1984.....	1.193
1985.....	1.206
1986.....	0.968
1987.....	1.084
1988.....	0.931
1989.....	1.017
1990.....	0.905
1991.....	1.166
1992.....	0.697
1993.....	0.919
1994.....	0.824
1995.....	0.877
1996.....	0.867
1997.....	0.824
1998.....	0.687
1999.....	0.818
2000.....	0.861
2001.....	0.649
2002.....	0.834
*2003.....	0.589
2004.....	1.087
2005.....	1.030
2006.....	1.228
2007.....	1.167
2008.....	1.349
2009.....	1.662
2010.....	1.404

\* The impact factor for 2003 is based on a single issue.  
A recalculation based on all issues in 2003 gives 0.862.

# Reports of the Standing Committee Chairmen

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## Advisory

### Larry Lines, chairman

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As specified by the SEG Constitution, the Advisory Committee consists of the five most recent SEG presidents, and it meets at the request of the sitting president to deliver advice on specific topics. The 2011 members of the committee were: Larry Lines (chairman), Steve Hill, Fred Aminzadeh, Leon Thomsen, and Terry Young. There was no specific advice requested from the committee by President Klaas Koster in 2011, and therefore the Advisory Committee did not meet.

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## Annual Meeting Exhibitors

### Kendall Thomas, chairman

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The SEG Annual Meeting in Denver 2010 was a huge success. A wide range of exhibiting companies was surveyed after the meeting. The majority stated that they had the best conference they've had in years. They were able to see many of their existing clients but were also able to meet new clients who visited their booths looking for additional information. The final numbers for Denver 2010 were 338 exhibiting companies and a total of 1182 booth spaces.

Preparations for San Antonio 2011 have exceeded all goals originally set. As of the end of July, 1260 booth spaces have been contracted by 310 companies. The exploration business seems to be rebuilding after a few mediocre years.

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## Annual Meeting Steering

### Ken Helm, chairman

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The steering committee was formed by the end of 2010 with the exception of the SEG Forum Chair, which was filled in March. The first meeting was held in February, another in April and the most recent one held 9 June 2011.

Our first item of business was selection of the theme for the 2011 Annual Meeting—Energy Flowing from Innovation—which was easier than anticipated. The theme ties the meeting to San Antonio through reference to the Riverwalk while, at the same time, emphasizes that finding and producing the energy on which our modern society depends results from the appli-

cation of the creative thinking and innovation of the energy professionals attending the Annual Meeting. This is true not only for the oil and gas industry but geothermal and energy minerals as well.

Several changes have been made to the Annual Meeting format for 2011. First, the Honors and Awards Ceremony will follow the President's Reception on Tuesday night. As a result, the meeting will commence with the Icebreaker Sunday evening in the Exhibit Hall. The second change involves the International Showcase and Global Theater. The International Showcase has been eliminated, and the international exhibitors will be located throughout the Exhibit Hall this year. Also, two Global Technical Sessions, organized by the Global Affairs Committee, will be part of the Technical Program and replace the Global Theater.

The Technical Program, chaired by Sergey Fomel, has received the second-highest number of paper submissions, surpassing the 2010 Annual Meeting in Denver. His committee is now organizing the 624 PC-based oral presentations and 240 poster presentations. New to the Technical Program this year are two Global Sessions, North American and Caribbean, organized by Chairman David Pitcher. These sessions will integrate the former Global Theater into the Technical Program. There will be numerous workshops following the technical sessions. Also following the technical sessions, General Vice Chairman, Steve Hale, has organized a general-interest field trip, "Water and Man: Geology and History of San Antonio and Its Missions" on Thursday afternoon. Dr. Thomas Ewing is the creator and leader of the trip, which details the influence of geology on the history and development of San Antonio.

Exhibitor Chair Kendall Thomas reported that we had the largest number of exhibitors with three months remaining until the meeting. As of the end of July, the current booth count is 1260 booths rented to 310 companies. Steve Emery assured us that changes to some of the exhibit amenities could be made to add additional booth space if necessary. There is obviously great demand by companies to exhibit in San Antonio.

Hank Hamilton graciously accepted our invitation to chair the SEG Forum and serve as Moderator. The forum title is "Exploration Frontiers: Geography, Technology, and Business Models," the idea for which originated with Peter Pangman. The Steering Committee liked Peter's idea of focusing on exploration and expanding to a global perspective. The forum topic fits our theme because recent discoveries around the globe have flowed from exploration innovations in new geographic areas, technol-

ogy, and business models. Forum panelists from an international geophysical service company and U.S., European, and national oil companies will offer their perspectives on what lies ahead in exploration. Hank and Michael Forrest developed the list of potential panelists and have received commitments from four: David Lawrence, executive president exploration and commercial, Shell Oil Company; Tim Dodson, executive VP exploration, Statoil; Susan Cunningham, senior VP exploration, Noble Energy, Inc.; and Carl Trowell, president, WesternGeco. They continue to work on finding a representative from an NOC to join the forum panel.

We are excited about Wednesday's Applied Science Education Program, chaired by Alf Hawkins. Drs. Celina Suarez and Marina Suarez will inspire high school students with their presentation of "Walking with Dinosaurs and other Critters through the Cretaceous Greenhouse World and into the Future." These two San Antonio natives detail their journey from digging up limestone in their backyard to having a new species of dinosaur bear their name. There are 75 students already registered.

Sponsors are vital to the success of the many services and events at the Annual Meeting. Roger Espinosa, Sponsorship Chair, and Amy Watson, SEG, are doing a great job raising support for the various meeting events. As of the date of this writing, sponsorship commitments are 91% of the budget goal. However, this does not include verbal commitments from two companies at the Titanium Level, which, when received, will move us above goal. In addition, we have developed a list of small local companies to contact in the coming month as well as pursuing those companies which sponsored in Denver but have yet to commit to San Antonio.

Volunteers are also vital to the meeting, especially to the Technical Program and Applied Science Education Program. Volunteer Chair Rick Moran will organize 125 volunteers to be technical and poster-session monitors and to help during the Applied Science Education Program. The volunteer Web site is active, and four people have signed up for session monitors. Rick and I also are publicizing the meeting and our need for volunteers by attending meetings of local professional societies in San Antonio and Corpus Christi. In addition, we will begin sending e-mail solicitations via the San Antonio Geophysical Society and South Texas Geological Society e-mail lists.

The Annual Meeting Golf Tournament, under the direction of Patrick Talamas, will be held at La Cantera's Palmer Course. Tee-off is Saturday morning before the official convention opening. Transportation, breakfast, lunch, contests, and door prizes will make for an enjoyable day at this beautiful and challenging hill country golf course. Hole sponsorships have already exceeded the budget goal of \$7000, and we anticipate the tournament will be a great success.

The Wednesday Night Gala at Sunset Station, "Viva! Old Mexico Meets Texas," with Steve Hale in charge, will be a whole lot of fun with themed food, music, and entertainment. We have rented the entire Sunset Station for this event with music stages, line dancing instruction, and more. It has all the ingredients of a great event.

The Spouse Program is under the capable direction of Donna Weidemann. She has organized three seminars ranging from crafts to yoga, which are included in the spouse registration. In addition, four tours will provide spouses an opportunity to learn about San Antonio art, architecture, natural features, and shopping. The tours have an associated charge. The Spouse Luncheon will be on Tuesday and will feature entertainment by a wandering female mariachi band.

I cannot fully express the Steering Committee's gratitude and appreciation of the SEG Meeting staff and their wonderful hard work. They have made each member's respective task a pleasurable experience. Based on the levels of booth sales, technical paper submissions, and high-quality sponsorship commitments and event planning, the Steering Committee looks forward to a fantastic meeting as the geophysical community flows to San Antonio in September.

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## Audit

### John Sumner, chairman

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The SEG Audit Committee was formed in 2009 to separate the audit function from the Finance Committee, as well as provide an independent body able to hear and investigate complaints and grievances of a serious nature that may arise within the Society.

We anticipate reviewing and approving IRS Form 990, the Society's tax return for fiscal year 2010 (July 2009 through June 2010).

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## Committee on University and Student Programs

### Kyle Spikes, cochair (faculty representative)

### Aaron Girard and

### Tiffany Piercey, cochair (industry representative)

### Uzonna Anyiam, cochair (student representative)

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In 2010, the Committee on University and Student Programs (CUSP) continued its efforts growing our scope and actions to serve our three main constituents: students, faculty, and industry. The current committee profile maintains 19 students, 10 faculty, and 23 industry members. A "recruiter" subcommittee is being cultivated to address the needs of our industry recruiters, such as how SEG can better connect recruiters, students, and universities for new-hire development.

The Executive Committee charged CUSP to develop a business model that reduces the current cost of student membership to the Society and constrains future cost growth. After exploring multiple scenarios, CUSP recommended the elimination of the distribution of *TLE* paper copies to all student members, effective January 2010. This action led to a savings of nearly \$175,000 annually, mostly in the cost of mailing. This change does not restrict future SEG Student Membership. SEG does

understand the value of *TLE* in print, particularly for student members with lack of Internet access. Accordingly, SEG increased the number of copies of *TLE* shipped to our Student Chapters based on the number of chapter members.

In addition to this approval, the Executive Committee asked the CUSP committee to engage the Membership and Global Affairs committees to work on ways to strengthen student membership and to seek input on ways we might jointly support Student Chapters to “more broadly benefit the aims of SEG.” Two main tasks were identified:

- Increasing the number of qualified applicants in membership and SEG Student Programs
- Engaging university departments and faculty in SEG Student Activities

The CUSP continues to support ongoing programs such as the SEG/Chevron Student Leadership Symposium (SLS), AAPG/SEG Student Expos (with AAPG), SEG Challenge Bowls, and the SEG/ExxonMobil Student Education Program (SEP). This year we also provided 224 Student Chapters with copies of four new SEG book publications through the Fred and Kathi Hilterman/SEG Foundation Student Chapter Book Program sponsored by Geokinetics Inc. The book program has been a valuable and rewarding benefit for the chapter libraries in addition to the Annual Meeting abstracts and a copy of the digital DISC on DVD they also receive annually.

During the past year, the CUSP has worked to maintain and grow our active Student Chapters. We have grown our active chapters from 232 to 250, representing 59 countries worldwide. A top priority for fiscal year 2011 has been to develop a “Student Chapter Excellence” program to expand and strengthen the current chapter program. Student Chapter leaders provided early input at the 2010 SLS. Initial program planning has taken place, and we are currently working to establish the detailed implementation process of the program in the SEG Business Office. This program is intended to increase SEG’s expectations of Student Chapters while also providing resources and incentives to the Chapters to encourage activities that strengthen their students, their university departments, and their community through communication/collaboration efforts. Our planning includes a hierarchy of chapter recognition (Base, Ridge, and Summit levels) and a “Best Chapter” award. We intend to recommend the establishment of this new program to the Executive Committee by December 2011 and go live during 2012.

The second Annual Faculty Advisor Workshop took place during the Denver Annual Meeting. Fourteen faculty advisors from around the globe shared best practices, networked, and discussed how SEG could best serve the academic community. The faculty advisors took advantage of the new Faculty Advisor Support program that affords complimentary Annual Meeting registration to active SEG faculty advisors. A workshop is not scheduled for the 2011 meeting. We are exploring more efficient ways to serve our faculty and to determine the most valuable assets SEG can provide to them.

The SEG/Chevron Student Leadership Symposium (SLS) brought together 53 students from 31 countries for a weekend of leadership and team building in Denver preceding the 2010 Annual Meeting. The students participated in discussions with the SEG Executive Committee that helped shaped the work of the CUSP for the past year and started the drive behind the new Student Chapter Excellence Program. The students participated in team-building exercises and a hands-on leadership presentation “Leading from Where You Are.” The students participated in the two-day program before engaging in the learning and networking opportunities provided by the Annual Meeting and Exhibition.

Our international presence continues to grow, along with many associated administrative and financial challenges. The number of Challenge Bowls has been on a steady increase with new competitions held in Nigeria and East Africa. The 2011 championship will be held 19 September in conjunction with the SEG Annual Meeting in San Antonio, where many new countries will be represented. CUSP also supported the SEP in Dubai, UAE held in April 2011. Additionally, the SEP Europe will be held in Krakow, Poland, July 2011.

SEG’s first international Student Expo held in Bucharest, Romania (co-sponsored by SEG, AAPG, and EAGE) was a resounding success and proved that this program provides benefits to our students and industry worldwide. The conference had 243 students from 13 countries and 161 attendees (exhibitors and delegates) in attendance. Plans are well under way for the second International Geosciences Student Conference in Krakow, Poland, in July 2011. The SEG Student Chapter at the AGH University of Science and Technology will host the conference and has already received more than 250 student registrations. Future plans may expand the International Student Conferences/Expos to Latin America. We have demonstrated these can be successful if a Student Chapter accepts the challenge and opportunity to organize.

Student Expos in North America have continued to grow as well. Three Expos were held in the past year: the Spring Break Expo in Norman, Oklahoma; the Fall Expo in Houston, Texas; and the West Coast Expo in Northridge, California.

Additionally, we are currently working to define additional student activities at the SEG Annual Meeting to enhance the student’s experience (tours, lectures, meeting spaces, etc.). The SEG Annual Meeting is a great way for students to network with industry, gain leading technology, and make lasting connections with colleagues. By providing our students with more opportunities to gain the valuable experiences from such a technical meeting we are enhancing their future careers as geophysicists as well as ensuring that the next generation of SEG members is well educated and informed.

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## Constitution and Bylaws

**Joseph M. Reilly, chairman**

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The SEG Strategic Governance Review Subcommittee was established under the Constitution and Bylaws Committee (CBSGRC) in September 2007 at the request of then-President Leon Thomsen on behalf of the SEG Executive Committee. Following three years of effort, a draft revised Bylaws was presented to the Executive Committee in August 2010. This document was subsequently published and voted upon at the 2010 Annual Council Meeting. The revised Bylaws failed, by the narrowest of margins, to obtain a two-thirds approval from the Council. Following the Council meeting, the committee proposed specific recommendations to the Executive Committee to obtain additional support. This included the establishment of an Ad Hoc Council Committee, led by Bob Hardage, and dissolution of the Strategic Governance Review Subcommittee. The Ad Hoc Council Committee completed its work in February 2011, whereupon the Constitution and Bylaws Committee proceeded to redraft the proposed Bylaws. The changes were reviewed by SEG staff and the SEG attorney. This revision was presented to the Executive Committee on 5 May 2011. Further revisions requested by the Executive Committee were added to the document, and it was subsequently approved for publication in *The Leading Edge*.

Significant changes from the August 2010 document include:

1. Role of Council and related procedures
  - increased clarity and some increase in authority
2. Election process for Section representatives
  - increased flexibility for Sections to nominate representatives
  - clearly defined terms
3. Number of Directors-at-Large
  - changed from 9 to variable, 6–9
4. “Exploration” has been added back into Purposes and Objectives

In addition, there have been a number of good-housekeeping revisions.

In other business, the Constitution and Bylaws Committee reviewed proposals for two SEG Committees: Deep Geothermal Technical Committee and Data Management Committee. The organizational model for both of these committees was to convert them to Technical Sections once the new Bylaws were approved by Council and membership. The establishment of a Deep Geothermal Technical Committee was subsequently approved by the Executive Committee.

Finally, working with SEG staff, the committee completed its review of the application for a SEG South China Section. Establishment of this Section was subsequently approved by the Executive Committee.

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## Continuing Education

**Edith Miller, chairperson**

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The Continuing Education (CE) Committee’s task is to guard the high-quality standard of the Continuing Education curriculum, by attracting new courses and new instructors, reviewing courses and course materials, and working with the SEG staff to develop a curriculum that meets the needs of the SEG members. As the technology and demographic landscapes change, the curriculum must evolve to meet the shifting needs. This concerns not only new topic material but the geographical locations of course offerings as well.

This year, five new courses were added to the CE curriculum. These courses, all taught by knowledgeable and well-renowned instructors, mostly cover topics that have gained prevalence in recent years. Several of the new instructors are based outside of North America, offering the opportunity to progress the globalization of the CE curriculum.

In the 2010–2011 SEG year, 17 courses were publicly offered, of which 10 were offered at the Annual Meeting in Denver. One course was offered in Pittsburgh, which, as a new location on the Continuing Education program, received excellent attendance. Of the remaining courses, four were offered in Houston and two in New Orleans. In addition, there were 11 private course offerings.

In September 2010, SEG was awarded Authorized Provider status by the International Association for Continuing Education and Training (IACET). This means that students will now be able to receive Continuing Education Credits (CEU)—which are internationally recognized—for completing SEG courses. The accreditation by IACET is an acknowledgment of the high quality of SEG’s course offerings. The SEG staff is currently working with the course instructors to implement the IACET requirements.

Additionally, starting this year, an increasing number of courses will be accompanied by course notes in the form of a printed paperback instead of course notes in a three-ring binder. An idea initially brought forward by the Publications Committee, and supported by the Continuing Education Committee, this is another development adding to the professional quality of the curriculum.

Keeping up with industry trends, there is a continued effort to offer computer-based courses in addition to the face-to-face format—either as recordings of traditional courses, specially designed online learning modules, or interactive online formats.

An exciting new development is the offering of courses in webinar format. Set up as an online meeting, this format allows students to participate from their own home or workplace, while still having the opportunity to interact with the instructor. Michal Ruder kindly volunteered to be the first instructor to offer a course in this new format. We expect that this format will appeal to many SEG members and that we will quickly proceed to develop more webinar offerings.

Another new and promising format is a modular online multimedia course. Instructor Leon Thomsen is currently working with SEG staff to create such a course, consisting of modules of increasing learning levels. Students will be able to purchase individual modules, their starting point determined by an initial assessment.

In October 2010, SEG announced its partnership with International Human Resources Development Corporation (IHRDC), adding 32 online courses to the curriculum. These courses complement our current curriculum. While the CE curriculum is rich in advanced topics, there is a lack of more fundamental material to meet the needs of the growing number of early-career geophysicists among the SEG member base. The IHRDC courses close such gaps in our suite of offerings.

Online activity has also gained a bigger role in the committee's internal process. In January 2011, the committee's Online Collaboration (OLC) site, part of the new SEG Web site, went live. A CE OLC task force was created, consisting of Rob Jacob, John Fernando, and Jill Abbott, with sideline support from Tom Agnew and Edith Miller, to influence the layout of the site, test the functionality, and support other committee members where needed. Even though still in the early phases of adoption, we can already see the great benefit of having a central document library and a platform for discussion.

Last but not least, the committee would like to acknowledge the exceptional job of the staff of SEG's Professional Development department in realizing and executing the CE program: our great thanks to Professional Development Director Tom Agnew and his outstanding staff members, Jill Abbott, Becky Keith, and Ceci Martin.

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## SEG-EAGE DISC

### Baishali Roy, chairman

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Members serving on this committee include: Baishali Roy (chair), Tad Smith (Apache), Ronny Hofmann (Shell), Mita Sen-Gupta (Schlumberger), Ali Tura (ConocoPhillips), Shuki Ronen (CGGVeritas), James Schuelke (Devon), and Stephan Gelinsky (Shell).

The SEG DISC Committee was expanded to include four new members from the Research Committee. The new expanded committee took office effective December 2010. The DISC protocols were also revised with new procedures for nominating DISC instructors. The Committee along with SEG business staff is working on a strategy for the DISC administration in Europe and Middle East for 2012.

The 2010 SEG/EAGE DISC lecture was presented by Colin Sayers from Schlumberger on "*Geophysics Under Stress: Geomechanical Applications of Seismic and Borehole Acoustic Waves.*" The DISC tour included 28 locations with close to 1600 participants, and it received good feedback.

The 2011 SEG/EAGE DISC presented by Julien Meunier from CGGVeritas is on "*Seismic Acquisition: From Yesterday to Tomorrow.*" There are 30 locations on the 2011 tour; so far, Julien has completed 13 locations.

The summary of his course is: There seems to be a recent acceleration in the evolution of seismic acquisition. Offshore, wide-azimuth surveys have resulted in images of remarkable clarity. On land, increase in channel count has allowed the use of denser grids leading to significant noise reduction. Both onshore and offshore, the race for bandwidth extension is tenuous than ever. This course presents these developments as a natural consequence of the conjunction of our need for clearer seismic images and the availability of recent technological advances. The core of the course is the relationship between acquisition parameters and seismic image quality. —*Julien Meunier*

The 2012 DISC instructor will be Chris Liner from University of Houston. His DISC lecture topic is: "*A Practical Overview of Seismic Dispersion.*" His DISC book manuscript is under preparation. The 2013 DISC instructor will be David Johnston from ExxonMobil, and his topic will be: "*Making a Difference with 4D: Practical Applications of Time-lapse Seismic Data.*"

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## Development and Production

### Mark Houston, chairman

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The Development and Production (D&P) Committee over the past year conducted the 2010 D&P Forum (July 2010), hosted the D&P Luncheon at the Annual Meeting (October 2010), and coordinated with SPE on a workshop held in the Middle East in 2011. In collaboration with the SEG Oil and Gas Reserves Committee on a workshop held at the SEG 2010 Annual Meeting, the D&P Committee prepared for the 2011 D&P Forum (July 2011) and began early planning for the 2012 D&P Forum (June 2012).

The 2010 D&P Forum was held in July in Boston. Charlotte Sullivan was the organizing committee chair. The Forum addressed technical issues that can seriously impact successful containment and management of large volume CO<sub>2</sub> injection. The 2½-day meeting in Boston took place in an informal discussion-filled setting where presentations were short. Participants focused on developing an understanding of limitations of current technologies and of the potential for integration of technologies used in injecting, imaging, and quantifying CO<sub>2</sub> in the subsurface; and in predicting the fluid, pressure, and rock property changes that result from large-volume CO<sub>2</sub> injection, storage, and EOR. Six papers presented at the forum were selected and repeated in a workshop titled "Best of D&P Forum" at the 2010 SEG Annual Meeting. These talks were selected for this venue to provide a flavor of the style of forums.

At the 2010 Annual Meeting in Denver, we hosted the D&P Luncheon with Robert Withers speaking on "Uses and Abuses of Geophysics in Production Environments." Withers discussed barriers to commercial acceptance of new technology in a volatile commodities environment in which business drivers force production and facilities engineers to adopt rapid field depletion scenarios. He suggested that the geophysical community should pursue a strategy of engagement in early field development decisions by communicating clear value tradeoffs to foster faster acceptance of new technology.

In April 2011, Maria Angela Capello (D&P-SEG) and Khaled Sheddi (SPE) served as cochairs for a joint SEG/SPE Workshop in Dubai, UAE on “Giant Fields Monitoring and Development.”

The 2011 D&P Forum will be held in Beijing, China at the end of July through early August. Zandong (Sam) Sun, professor at China University of Petroleum, and Enru Liu of Exxon-Mobil Upstream Research are the cochairmen of the organizing committee. The forum topic, “Opportunities and Challenges in Unconventional Resources,” has attracted a strong slate of international presenters for the five-day forum. We anticipate an attendance of more than 100 professionals.

A selection of papers presented at the Beijing forum will be repeated in a workshop titled “Best of D&P Forum” at the 2011 SEG Annual Meeting in San Antonio. These talks will be selected to provide a flavor of the forum. The D&P Committee will host a luncheon at the Annual Meeting. Our speaker will be Elliott Bouillion, president and CEO of Resource Environmental Solutions, who will present “Developing Assets in Environmentally Sensitive Areas.”

We are planning to hold the 2012 D&P Forum in North America and have begun to poll the D&P members for a suitable topic and location.

Mike Payne, former chairman of the D&P Committee, is the D&P representative on the SEG/SPE Intersociety Collaboration Committee.

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## Distinguished Lecture Guillaume Cambois, chairman

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Following years of success with the Distinguished Lecture program, the Honorary Lecture program is now firmly established. The Distinguished Lecture (DL) program honors outstanding individuals who are recognized for the high quality of their contributions to geophysics on an international level and who are outstanding communicators of ideas and concepts. The program is partly supported by CGGVeritas through the SEG Foundation.

The Honorary Lecture (HL) program focuses on the transfer of knowledge within a region and/or topic, recognizing prominent geophysicists and strengthening the services SEG provides to an expanding global membership. The program is fully supported by Shell through the SEG Foundation, enabling the organization of six regional HL tours per year. This year the SEG Executive Committee has approved the creation of a topical HL tour on near-surface geophysics. This tour will cover approximately 20 locations worldwide and will occur on a yearly basis starting in the fall of 2012.

Patrick Connolly, the 2010 Spring DL, presented his lecture titled “*Robust workflows for seismic reservoir characterization*” in 44 locations reaching 2570 geoscientists worldwide. The feedback was excellent as Philip Rorison of ConocoPhillips Alaska commented: “The presentation was good for experienced industry geophysicists, but we also had geologists, [reservoir en-

gineers] and regulators who were able to take away new understanding.”

The 2010 Fall SEG/AAPG DL tour was organized by SEG—as is the case every other year. Carl Sondergeld presented his lecture titled “*Rumblings from the laboratory: Past, present and future*” to 1400 geoscientists in 31 locations. Dave Carlson of PGS Houston provides an example of the positive feedback we received: “Many people commented that Carl’s talk was the best of the year. He had a good balance between showing practical examples and backing up the ideas with appropriate equations.”

Andrey Bakulin is currently serving as the 2011 Spring DL. His lecture titled “*Virtual source method for imaging and monitoring below complex overburden*” has already been presented in 32 locations worldwide.

The 2011 Fall DL will be Doug Oldenburg with a lecture titled “*Imaging the Earth’s near surface: The why and how of applied geophysics for the 21st century.*” The itinerary is in the planning stage.

The 2010 HL included the following:

- Central and South America: Efrain Mendez-Hernandez with “*Quantitative seismic analysis and its role in improving reservoir description and exploration results*” reached 782 geoscientists in 24 locations. “Dr. Mendez explained in simple and practical form complex issues and this was fantastic,” commented Camilo Mateus Rivera of Universidad Industrial de Santander, Colombia.
- Europe: Aldo Vesnaver with “*Talking and listening to reservoirs: Production monitoring by active and passive seismic*” reached 759 geoscientists in 19 locations. “The lecture was interesting and in some ways very different for us. An awesome example is explaining tomography using Sudoku,” marveled Ievgen Ustenko of Kyiv University, Ukraine.
- Middle East and Africa: Susan Webb with “*Deep gravity—long wavelengths and measured Moho*” reached 879 geoscientists in 19 locations. “Susan was superb, and her people and networking skills are excellent! The SEG lecture is a good initiative to grow the SEG membership and network, particularly in Africa,” noted Samuel Olotu of Shell Nigeria.
- North America: Mike Batzle with “*It’s the fluids that count*” reached 862 geoscientists in 26 locations. “Mike was animated and gave an engaging presentation complete with audience participation. The lecture content was as described, and there was enough content for the novices in the audience as well as plenty of advance material for the experts. Mike was also enjoyable to socialize with before and after the talk,” shared Andrew Parsekian of Rutgers University, New Jersey, USA.
- Pacific South: Ben Clennell with “*Electrical properties of sedimentary rocks from DC to dielectric frequencies*” reached 427 geoscientists in 13 locations. “I was impressed that I kept up with an advanced concept with minimum prior knowledge—no thanks to me but to his great presentation,” revealed Diane Jorgenson of ASEG in Canberra, Australia.
- Pacific South: ASEG/SEG lecturer Alan G. Green with “*Mapping active faults using 3D ground-penetrating radar and 2D*

and 3D high-resolution reflection seismology: Examples from New Zealand.” This tour was organized by ASEG.

- South and East Asia: Deva Ghosh with “*Geophysical issues and challenges in Southeast Asia with emphasis on Malay Basin*” reached 1325 geoscientists in 19 locations. “The slides were really nice. Not only did they contain precious information from various sources but they also provided the students an insight to various state-of-the-art technologies and recent developments in the field of geosciences,” said Subhadeep Sarkar of Banaras Hindu University, India.

Overall the HL program has been attended by more than 5000 geoscientists worldwide (many of them students) through 120 lectures. The feedback has been overwhelmingly positive. A webcast of all lectures is available online through the SEG Web site, along with pictures and a travel log from the lecturers.

The 2011 HL program is as follows:

- Central and South America: Julian Cabrera, “*The state and future directions of prestack depth migration*”
- Europe: Lucy MacGregor, “*Integrating well log, seismic, and CSEM data for reservoir characterization*”
- Middle East and Africa: Tariq Alkhalifah, “*Seismic imaging: Kirchhoff, beam, WEM, RTM, anisotropy—What is Next?*”
- North America: Tad Smith, “*Practical seismic petrophysics: The effective use of log data for seismic analysis*”
- Pacific South: Richard Lane, “*Building on 3D geological knowledge through gravity and magnetic modeling workflows at regional to local scales*”
- South and East Asia: Jung-Ho Kim, “*Incorporating the fourth dimension into geophysical data interpretation*”

None of these lectures would be possible without the diligent work of Tom Agnew, Judy Wall, and Jenny Cole of the SEG business office in Tulsa. Because they do such an efficient job of organizing and managing the tours, the Distinguished Lecture Committee can focus on candidate and topic selection. They make chairing this committee an easy and enjoyable task!

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## Global Affairs

### Ralph Bridle, chairman

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Global Affairs Committee (GAC) activities in 2011 have focused on:

1. Major input to the Constitutional Ad Hoc Committee (CAHC) resolving issues with governance reform
2. Reform and focusing of GAC mission and procedures
3. Creation of Special Global Technical Sessions and an International Reception as an evolution of the former International Showcase/Global Theater
4. Support for CUSP student initiatives
5. Consultative mid-year meeting

The GAC, utilizing online communication tools such as e-mail, Skype, and the new Online Collaboration, supported dis-

cussions among its members and task forces regarding goals, opportunities, and challenges. This enabled the worldwide GAC membership the chance to participate in discussions.

Many GAC members served on the Constitutional Ad Hoc Committee to assist with the development of reforms to the SEG Constitution and Bylaws.

SEG is membership-driven and the GAC provides an effective network of communication from the various local levels to the business office in Tulsa. To focus the GAC efforts, including the updating of all SEG committee procedures, the GAC examined that document and established a Mission statement. The Mission and Procedures have been established to guide the activities of the GAC and ensure its activities and contribution to SEG.

The establishment of Special Global Technical Sessions and an International Reception as a replacement for the International Showcase/Global Theater (IS/GT) was achieved by the special contribution of Dave Pitcher. The GAC decided to focus on North America with the inclusion of the Caribbean to include North America as a part of the global reach of SEG and to focus on an area not previously included in the former IS/GT. As a result, SEG and the GAC have an event in place which will be built on in the future.

The GAC conducted the midyear meeting outside North America at the EAGE conference in Vienna. The GAC Vice Chairman chaired the meeting because the Chairman was unable to attend but was present through a Skype link. The meeting served as a venue to review GAC activities and to present to the general GAC membership the revised proposed governance and an amended procedures document.

A GAC task force liaised with the Committee on University and Student Programs (CUSP) to define a replacement program for the PCs for Student Chapters program. At the most recent midyear meeting in Vienna, the topic was extensively debated, and the consensus of opinion is that a more refined version of the program should be launched.

Ideas floated include the following:

- Software should be provided along with some hours of user training—to be provided by the staff/experts from donor companies (developers) or retired SEG members willing to donate their time.
- Cash for local purchase of the computers should be given instead of shipping old computers.
- Student support should be subject to a form of means testing. Because some of the regions being granted computers have local limitations of electricity/power, funding of other more relevant projects should be evaluated.

In other initiatives with CUSP, the need to organize bonding and seamless interaction time between students during the annual meetings has been tabled for discussion. Suggestions include the establishment of a student zone to encourage social networking and free exchange of ideas among students from all over the world.

The result of this year is that the GAC is well positioned to meet the challenges of the future to enhance the globalization of the activities of SEG.

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## Gravity and Magnetism

### Tim Grow, chairman

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The Gravity and Magnetism Committee focuses on activities within the Society dealing with gravity and magnetism and promotes the knowledge and use of these potential field methods. Our Committee meets twice a year—midyear (April 2010) and again at the Annual Meeting. The annual committee meeting will be 5 p.m. Tuesday, 20 September 2011 at the Convention Center in San Antonio. More than 50 members serve on this committee. They are instrumental in organizing Annual Meeting sessions and activities, providing input to *The Leading Edge*, advising on technical standards, and overseeing the Gravity and Magnetism dedicated list server, which includes geophysicists outside SEG.

The 2011 Annual Meeting features technical oral and poster sessions, a luncheon, and a workshop. Clark Wilson, with abstract-reviewing assistance from committee members, has organized the technical oral and poster sessions. A postconvention workshop titled “Basin Modeling” has been organized by Betty Johnson, Jerry Hensel, Rao Yalamanchili, and Tim Grow. There will be oral and poster presentations in this workshop. The presentations will be scheduled to facilitate maximum interaction and discussions among the participants. The luncheon, organized by Tim Grow, will feature Ian Norton, associate at UTIG in Austin, as speaker. The title of his talk is “Use of potential field data in investigations of the transition from continental extension to oceanic crust in hyperextended margins.”

Our committee is involved in SEG publication activities. A column in *The Leading Edge*, titled “The Meter Reader,” focuses on different issues involving potential fields. The publication of this column is coordinated by Robert Pawlowski. The publication committee consists of Dale Bird and Alan Reid. Bimonthly dinner discussions were organized by committee member Alex Blacque through the Potential Fields SIG of the Geophysical Society of Houston. Continuing education activities continue with Michal Ruder presenting a gravity and magnetism methods and interpretation short course several times through the year.

During 2010, the Gravity and Magnetism Committee submitted a proposal to become a section of the SEG. This proposal was not accepted by the SEG Executive Committee, and a new proposal was drawn up. The new proposal will be submitted to the Executive Committee during 2011.

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## Historical Preservation

### Bob Wyckoff, chairman

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The third annual meeting of the Historical Preservation Committee (HPC) was held in Denver during the SEG Annual Meeting, 19 October 2010. During the past year, activities have

focused on action items and discussions from that meeting.

Activities in progress or completed are as follows:

- Storage facilities (Tulsa) were secured by SEGF for storing geophysical artifacts.
- Moving geophysical artifacts from SEG business office in Tulsa to storage facilities completed.
- Nerwin and Martin (Ft. Worth), professional art movers, moved the artifacts to Tulsa storage, University of Oklahoma, and Fugro, Houston.
- Documents (paper/photos/books) are filed at SEG business office.
- SEGF geophysical artifacts/documents are on exhibit at the ConocoPhillips School of Geology and Geophysics at the University of Oklahoma (OU).
- SEG geophysical exhibits at Oklahoma State University (OSU) Boone Pickens School of Geology were completed.
- SEG Student Sections at OU and OSU will monitor, maintain, and facilitate tours for the SEGF exhibits.
- SEGF Robert Iverson grav/mag collection is on exhibit at Fugro in Houston (GSH is custodian). Open house scheduled for September 2011.
- Ongoing communications with the University of Tulsa to set up exhibits have promise.
- Collaborating with SEG Online Committee to streamline the SEGF Geophysical Virtual Museum is ongoing.
- Inventory/sorting of SEGF artifacts and documents is ongoing.
- Synergy with the Geophysical Society of Houston (GSH) Museum Committee is ongoing for exhibiting and historical preservation of artifacts and documents. Plans are to have a small GSH exhibit at 2011 Annual Meeting in San Antonio.
- SEGF loan policy for artifacts and documents is in use.
- Brian Frehner, history professor at OSU, contacted the SEG HPC with interest in doing research on SEGF geophysical artifacts and documents.
- HPC and the Oklahoma Historical Society have collaborated to exhibit SEGF artifacts in the Oklahoma History Center in Oklahoma City, OK. The exhibit will focus on Ceja, an Oklahoma company, having provided artifacts to SEGF in past years.
- Visit exhibit facilities mid to late 2011 to validate inventory and rotate pieces as needed.
- Assisting with new signage for exhibits is ongoing.

Next steps/agenda to be discussed at the SEG 2011 Annual Meeting in San Antonio include the following:

- Roles of GSH and HPC
- Surplus SEGF artifacts/documents (donate/dispose/transfer)
- Funding for SEGF traveling exhibits, GSH included
- Storage facilities in Tulsa to accommodate storage and staging exhibits
- Sponsors for current exhibits
- Establish budget guidelines
- Brian Frehner research and developing signage for geophysical artifacts (grant)

My sincere thanks goes to committee members, Tom Agnew (SEG staff), Bill Gafford (GSH), OU/OSU staff and students, SEG Foundation, Oklahoma Historical Society, and Ceja for their assistance.

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## Honors and Awards

### Terry K. Young, chairman

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The Committee on Honors and Awards consists of five past presidents of SEG, one appointed each year by the current president to a five-year term, if available. Traditionally, this committee has consisted of the five most-recent past SEG presidents. This year's committee members were: Leon Thomsen, Fred Aminzadeh, Larry Lines, Steve Hill, and myself.

Beginning at the 2010 Annual Meeting in Denver, nominations were solicited from the membership at large to be considered for honors and awards at the next Annual Meeting in San Antonio. The Technical Program Committee of the 2010 Annual Meeting, the Editor of *GEOPHYSICS*, and the Editorial Board of *TLE* provided nominations for the various awards associated with oral presentations, poster papers, and published articles and papers. The decision process involves an extensive amount of research by the committee. Nominations approved by the committee are submitted to the Executive Committee where they must also be approved. The nominations of the 2011 Honors and Awards Committee were approved by the Executive Committee at its meeting 3 May 2011 and by a follow-up electronic ballot 12 May 2011.

The following Honors and Awards will be conferred by SEG in 2011 at the 81st Annual Meeting in San Antonio. Citations for these awards will be published for the Honors and Awards Ceremony in San Antonio and, subsequently, in *The Leading Edge*.

**The Maurice Ewing Medal:** Amos M. Nur

**Honorary Membership:** Peter M. Duncan, Öz Yilmaz, and Roel Snieder

**Cecil Green Enterprise Award:** Chen-Bin Su, Wes Bauske, and Zhiming Li

**Reginald Fessenden Award:** Norman Daniel Whitmore Jr.

**J. Clarence Karcher Award:** Mostafa Naghizadeh, Ramesh Neelamani, and Guojian Shan

**Life Membership:** Shivaji Dasgupta and Joseph Reilly

#### Best Paper in GEOPHYSICS 2010

“Oscillating oil drops, resonant frequencies, and low-frequency passive seismology”  
*Michael K. Broadhead*

#### Honorable Mention Best Paper in GEOPHYSICS

“Coupled equations for reverse time migration in transversely isotropic media”

*Paul J. Fowler, Xiang Du, and Robin P. Fletcher*

“A perspective on 3D surface-related multiple elimination”

*Bill Dragoset, Eric Verschuur, Ian Moore, and Richard Bisley*

“Interpolation with Fourier-radial adaptive thresholding”

*William Curry*

“On data-independent multicomponent interpolators and the use of priors for optimal reconstruction and 3D up/down separation of pressure wavefields”

*Ahmet Kemal Özdemir, Ali Özbek, Dirk-Jan van Manen, and Massimiliano Vassallo*

#### Best Paper in THE LEADING EDGE 2010

“Multiazimuth versus wide-azimuth acquisition designs for sub-Messinian imaging: A finite-difference modeling study in West Nile Delta, Egypt”

*Mian Muhammad Nurul Kabir, Kyoung-Jin Lee, Walter Ritveld, Brian J. Barley, James Keggins, and Graham Johnson*

#### Best Paper Presented at the 2010 Annual Meeting

“Controlled-source elastic interferometric imaging by multidimensional deconvolution with downhole receivers below a complex overburden”

*Joost van der Neut, Kurang Mehta, Jan Thorbecke, and Kees Wapenaar*

#### Honorable Mention, Best Paper Presented at the Annual Meeting

“New opportunities from 4D seismic and lithology prediction at Ringhorne Field, Norwegian North Sea”

*David H. Johnston, Upendra Tiwari, Michael B. Helgerud, and Bernard P. Laugier*

#### Best Poster Paper Presented at the 2010 Annual Meeting

“Seismic wave extrapolation using lowrank symbol approximation”

*Sergey Fomel, Lexing Ying, and Xiaolei Song*

#### Honorable Mention, Best Poster Paper at the Annual Meeting

“Issues regarding the use of time-lapse seismic surveys to monitor CO<sub>2</sub> sequestration”

*Grace Cairns, Helmut Jakubowicz, Lidia Lonergan, and Ann Muggeridge*

#### Best Paper Presented by a Student at the 2010 Annual Meeting

“Role of contact heterogeneities on macroscopic elastic properties of granular media”

*Ratnanabha Sain (Co-authored by Gary Mavko and Tapan Mukerji)*

**Award of Merit (Best Student Paper, Annual Meeting)**

“Stochastic simulation of fault networks from 2D seismic lines”

*Nicolas Cherpeau (Co-authored by Guillaume Caumon and Bruno Lévy)*

**Best Poster Paper Presented by a Student at the 2010 Annual Meeting**

“Comprehensive petro-elastic modeling aimed at quantitative seismic reservoir characterization and monitoring”

*Alireza Shahin (Co-authored by Robert H. Tatham, Paul L. Stoffa, and Kyle T. Spikes)*

**Award of Merit (Best Student Poster Paper, Annual Meeting)**

“Separation of blended data by iterative estimation and subtraction of interference noise”

*Panagiotis Doulgeris (Co-authored by Araz Mahdad and Gerit Blacquiere)*

**Inter-Society Cooperation Task Force  
Brad Birkelo, chairman**

The Inter-Society Cooperation Task Force (ICTF) was formed in 2010 by President Klaas Koster to provide guidance to the SEG on how to better manage the SEG cooperative arrangements with other professional societies. The mission statement for the task force is:

The task force mission is to help SEG plan for successful inter-society cooperation by working with SEG leadership, regional stakeholders, and relevant committees to define the elements of successful cooperation, the membership benefits from such cooperation, the business reasons for such cooperation, and laying out the internal and external processes to decide on and implement cooperative opportunities.

Members of the ICTF are Brad Birkelo, Rick Miller, Wafik Beydoun, Robert Talley, Ralph Bridle, Doug Wyatt, Ken Bee-ney, Mike Payne, and Terry Todd.

The group met several times via teleconference to discuss current and historical cooperation between the SEG and other societies and to define the characteristics of the important strategic and successful cooperation from SEG’s past. The ICTF intends to deliver to the Executive Committee the results of its analysis and practical tools to implement the results of its work across SEG. The deliverables will recognize the reality that the elements of collaboration and cooperation will be different depending upon the groups that SEG decides to work with and the programs that the organizations work together on.

The ICTF’s goal is to complete its analysis and report to the Executive Committee by the time of the 2011 Annual Meeting.

**SEG–AAPG Cooperation  
Bill Barkhouse, representative**

Following its discussions at the SEG 2010 Annual Meeting in Denver, the SEG–AAPG Cooperation Committee met at the AAPG Annual Meeting to continue to explore possibilities for joint SEG–AAPG activities. During this time, the SEG President created an SEG Inter-Society Cooperation Task Force (ICTF) to provide guidance to SEG on how to better manage SEG cooperative arrangements with other professional societies. Consequently, the activity of the SEG–AAPG Committee has not progressed past base discussion while awaiting input from the ICTF.

The present committee is led by Lee Billingsley, past AAPG President, and the new SEG Executive Committee appointee, Bill Barkhouse, past SEG President. The next meeting will be held at the upcoming SEG 2011 Annual Meeting in San Antonio in September.

**SEG–AGU Collaboration  
John Bradford, cochair**

The AGU-SEG Collaboration Committee (ASCC) was established as part of the SEG-AGU Alliance Memorandum of Understanding (MOU) signed in 2010. In that MOU, the ASCC was charged with considering and making recommendations to the respective organizations regarding other areas of cooperation, such as joint workshops or programs and continuing-education courses. Members of the 2011 ASCC include Louise Pellerin (AGU cochair), John Bradford (SEG cochair), Rick Blakely, John Hole, Walt Snyder, and Christina Tapia.

The cochairs met at the SEG 2010 Annual Meeting in Denver to discuss formation of the committee. In December 2010, Blakely and Hole joined the committee, and we met at AGU’s Annual Meeting in San Francisco; Snyder had agreed to join the committee but could not attend the meeting. At the December meeting, we brainstormed how we can foster collaboration between SEG and AGU, and possibilities to fill the last position of committee member. We agreed that a representative from the petroleum industry would be an asset; Tapia was invited and agreed to join the committee. The first meeting of all committee members was held via conference call on 11 February 2011. Subsequent conference calls are scheduled on a 4–6 week basis.

Our initial efforts have centered around developing joint workshops and meetings with the recognition that SEG and AGU provide complementary support for geophysical sciences: SEG is known for strength in methodology development while AGU is known for strength in the application of geophysics to broader scientific questions. These boundaries are of course gray and there is a substantial, but complementary overlap of interests, particularly among certain disciplines. These include both methods (passive and active source seismology, gravity and magnetics, electrical and electromagnetic methods) and appli-

cations (near-surface geophysics, geothermal exploration and characterization, basin analysis, and characterization). While there is overlap in interests, there are substantial member communities in SEG and AGU that do not interact. There is much to gain for both groups to facilitate communication in areas of common interest.

In May, the ASCC forwarded a recommendation to the SEG Executive Committee that the SEG enter into a standing agreement with the AGU that specifies the details of how joint meetings will be operated. The proposed agreement follows the same guidelines as the agreement signed with SPE in 2010. The SEG Executive Committee approved this agreement pending approval by the AGU. At the same time, the first joint meeting to be governed by the new agreement was approved: a workshop on Cryosphere Geophysics to be held in January 2013. Other workshop topics and meetings under consideration include basin analysis, full waveform modeling and inversion, geothermal, hydrogeophysics, unconventional energy targets, and near-surface geophysics.

Our hope is that the meetings and workshops will lead to joint publications. The first book published jointly between SEG and AGU, *Advances in Near-surface Seismology and Ground-penetrating Radar*, became available earlier this year. A second book on *Electrical and Electromagnetic Hydrogeophysics* is currently in the works.

A second area in which we see potential for strong collaboration is student programs. SEG offers well-organized and successful student programs while AGU has a large student membership. We believe that the information exchange and potential future collaborations that could arise from joint student activities will be of substantial benefit to the geophysics community overall.

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## SEG–SPE Collaboration

### Brad Birkelo, representative

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The SEG–SPE Collaboration Committee formed out of a 2009 MOU signed between the two societies is designed to encourage and promote closer collaboration between the two societies on topics of mutual interest. The Committee was formed in 2010 and consisted of three SEG representatives and three SPE representatives. SEG representatives were Brad Birkelo, Mike Payne, and Terry Todd. SPE representatives were Gene Narahara, Sid Smith, and Mark Rubin. The group met several times including a one-day workshop at the SEG business office in Tulsa where the group went through an exercise to identify the collaboration opportunities that represented the best strategic opportunities for both societies.

A number of ideas were put forward for each society to consider. Opportunities considered interesting to follow-up on were joint meetings, publications collaboration, energy education, wiki, and young professionals programs. The flagship opportunity decided upon by the group was a series of meeting events designed around a topic involving the integration of

geophysics and engineering. An Events Steering Task Force was proposed to float ideas for the meeting topics and to begin the process of vetting, approving, and organizing the events. Co-chairs for this group, John Waggoner and Robert Withers, were invited and accepted the offer to lead this group.

The Task Force was charged with:

- a) identifying technical topics of interest to members of SEG and SPE,
- b) proposing new events based on those topics,
- c) creating a charter for the Event Steering Committee that defines the committee and its responsibilities,
- d) securing Executive Committee/Board approval from both societies, and
- e) taking the necessary steps to become a permanent committee of both societies.

The SEG–SPE Collaboration Committee will oversee and support the Task Force while continuing to look for ways to promote strategic collaboration between the two societies.

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## IQ Earth/Interpretation

### Ron Masters, chairman

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This is an active year for the IQ Earth/Interpretation Committee, cosponsoring three workshops at the 2011 Annual Meeting in San Antonio, and launching major new initiatives in the IQ Earth theme.

The workshops include:

#### 1. Geophysical Data Interpretation for Unconventional Reservoirs

Organizers: Yongyi Li, Bill Goodway, Helen Farrell, Stephanie Nowak, Ron Masters

Connecting essential and increasingly diverse geophysical data for unconventional reservoirs to geomechanics, reservoir characterization, completion, and production.

#### 2. Case Studies and Methods in Computational Seismic Chronostratigraphy

Organizers: Matthias Imhof, Tracy Stark, Huyen Bui, Michael Pelissier, Ron Masters

Guiding and accelerating development, application, and uptake of emerging technology for interactive or automatic construction of chronostratigraphic frameworks—assigning age to each seismic surface. *Co-sponsored with the SEG Research Committee*

#### 3. Carbonate Research in China: Technologies Meeting Tough Challenges

Organizer: Sam Sun

Comprehensive overview of the geological and geophysical technologies that will be required to unlock the huge potential of paleozoic reservoirs in China.

The IQ Earth initiative aspires to build a frontier community of interpreters and their allies, who face new challenges in conducting integrated quantitative Earth studies for exploration. This year we are organizing a work crew to put on the first annual IQ Earth Forum in summer 2012, which will be followed by a workshop of selected papers at the following Annual Meeting, and appropriate publications. The committee also has a keen interest in making multidisciplinary full-field geophysical data sets available in the public domain, to serve as a resource for industry and academia in comparative studies and technology development.

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## Meetings Review and Planning

### Tin-Wai Lee, chairperson

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The Meetings Review and Planning Committee (MRPC) has two objectives: (1) to review meeting support requests from geoscience societies around the world, and (2) to create a strategy for the SEG to execute meetings internationally in the future.

This year, the committee has reviewed 17 requests from Azerbaijan, China, Hungary, India, Japan, Saudi Arabia, Scotland, and the United States. Several requests were for meetings and workshops located in China, which validates the need for the SEG Beijing Office, as China will continue to be an area of growth opportunity. Several requests were also for meetings and workshops within the United States, which continue to be our core.

There were two highlights this year in our objective of proactively seeking opportunities for SEG. One highlight has been the development of the SEG–AGU Collaboration Committee for a series of joint meetings. An MRPC member serves on that committee, which strengthens the collaboration and opportunity for synergy. The other highlight is the development of plans for international SEG meetings. The SEG Global Relations and Meetings Department has taken previous and continued input of the MRPC, expanded it, and performed a lot of research and analysis to create a four-year business plan proposal and presented it to the SEG Executive Committee in May. At the time of this Annual Report, the details of that meeting have not been disclosed, but the MRPC optimistically anticipates the execution of the four-year plan and working with the Global Relations and Meetings Department.

Despite the development of the SEG–AGU Collaboration Committee and work of the SEG Global Relations and Meetings Department, there is still a strong need for the MRPC. An important part of the MRPC objective of proactively creating an international meetings strategy is to serve our members in under-represented areas and nurture societies in establishing themselves and their meetings. The MRPC hopes to develop this strategy in the coming year.

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## Membership

### Gustavo Carstens, chairman

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During the 2010 Annual Meeting in Denver, the Membership Committee identified several action items and worked on them during the year. Some of them were completed and others are still pending.

A recommendation to reestablish the Developing Nations Dues Fund was presented to the Executive Committee but was not approved.

An expulsion recommendation for three members accused of serious misconduct and dishonesty was presented to the Executive Committee; however, no action was taken.

The Executive Committee was also presented with a request to review dues for Emeritus members, financial hardships, and unemployment, as well as to draft new or revise the guidelines for the Membership and Executive committees to follow when determining if an exception to the policy shall be granted.

A request from Koya Suto was presented to the SEG staff. The request was to make available a short check-box-type of survey at the time of subscription renewal. The question, “What is your main interest?” would be followed by options such as petroleum, minerals, engineering, or solid Earth. Members would then be instructed to mark their discipline of interest.

Other pending requests to the Executive Committee include reducing the retirement age from 65 to 60, as well as exploring a mentor program in conjunction with the Young Professional program.

We also plan to work with the Global Affairs Committee (GAC) to create a task force on engaging the Sections and Associated Societies. Another pending issue is to work with GAC to create a joint task force.

And finally, the discussion continues regarding the pros and cons of eliminating the distinction between Associate and Active members.

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## Mining and Geothermal

### Bob Lo, chairman

### Mark Shore, vice chairman

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The mining and geothermal community is relatively small, and for a number of years we have concentrated on actively promoting and organizing technical sessions and workshops every other year.

The 2010 Annual Meeting was one of the active years for the committee, and we organized two technical sections on mining geophysics, one on geothermal technology, and one mixed mining and geothermal poster session. This was one of the more active years, drawing a large number of submitted papers. A workshop on the use of physical property measurements in mineral exploration also was organized for the 2010 Annual Meeting. Our committee meeting at the SEG Annual Meeting was sponsored by Geotech Ltd.

In October 2010, the Mining and Geothermal Committee organized a workshop at the Society of Economic Geologists' meeting in Keystone, Colorado. The workshop, titled "Exploration in 2020, Tools and Techniques to Explore Under Cover," was a sanctioned SEG event.

The 2011 Annual Meeting is an "off" year for us. Nevertheless, Jose R. Arce volunteered to be a key contact and organized a full oral technical session for the 2011 Annual Meeting. For this meeting, the committee will not be organizing a luncheon. Depending on the number of mining and geothermal geophysicists attending the meeting, a committee meeting at the Annual Meeting might be organized.

For 2012, in addition to the usual activities of promoting mining and geothermal papers and workshops, organizing a luncheon and speaker and a committee meeting, we will try to organize a field trip. This is a topic that comes up every two years, and we are seeking someone to champion this effort.

The Mining and Geothermal Committee list server, sponsored by Geosoft Ltd., currently has 227 members. The list server is used by the committee to communicate to a global group of peers interested in the affairs of the committee as well as to provide a unique forum that permits enrolled members to pose questions of concern to the collective group.

Committee meetings were held at mining and exploration trade shows, such as the Cordilleran Roundup in Vancouver and the PDAC in Toronto.

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## The Near-Surface Task Force

### John Bradford, chairman

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For more than a decade, SEG has maintained that near surface geophysical applications are an important component of its mission and vision; for example, a primary mission identified in the 2001 SEG Strategic Plan was to "promote and expand the use of geophysical science in engineering and infrastructure development and for environmental purposes." Despite this recognition, opportunities and decisions have been addressed ad-hoc and there has not been a sustained effort to foster services and growth for the near-surface component of SEG's membership. As a result of this approach, little progress has been made to broaden SEG's base while other organizations such as the AGU Near-Surface Focus Group have flourished. To increase SEG's relevance and visibility to the near-surface community, the 2010 SEG Executive Committee approved a strategic plan with the intent to grow the near surface membership and provide an exciting portfolio of programs and services. Key components of the plan include:

- **Leadership:** Work with the SEG Near-Surface Geophysics Section (NSGS) to establish a Near-Surface Task Force to refine and lead the implementation of the strategic plan. Provide budgetary and staff support to support the task force and advance the plan.
- **Communication:** Work to ensure that SEG is recognized by the near-surface community as the leading organization for applied theory and technology development.

- **Structure:** Create SEG structure and administration that enables and ensures a stronger voice for the SEG near-surface community.
- **Meetings and Publications:** Establish high-visibility, ongoing programs at the Annual Meeting such as a standing special session or regular forums. Actively work to engage and partner with local or regional organizations internationally to hold joint meetings, workshops, and forums and to develop publications from those activities.
- **Continuing Education:** Establish a program of lecturers and continuing education for NSG.
- **Water:** Establish a high profile for hydrogeophysical applications.
- **Geoscientists Without Borders:** Evolve this SEG Foundation program into SEG's flagship near-surface university and student program.
- **Nontraditional:** Establish communication outreach to groups that do not currently have a significant presence at SEG including engineering, infrastructure, forensics, and archaeology.

The Near-Surface Task Force (NSTF) members include Klaus Holliger, Jan van der Kruk, James Irving, Peter Annan, Rick Miller, Jianghai Xia, and John Bradford (chair). The NSTF held its first meeting at the 2010 Annual Meeting in Denver and has held teleconferences every 1–2 months since. Our first order of business was to prioritize the strategies and begin moving forward with implementation. We have made substantial progress toward implementation of several strategies, and the results of this work are summarized below.

In early December, the NSTF requested that the 2011 SEG Executive Committee approve a Near-Surface Honorary Lecturer (HL). This first recommendation to come from the Task Force was unanimously approved and is planned to begin fall 2012. The NS HL is the first topical HL to be funded by SEG (all previous HLs have been regional) and will make approximately 20 tour stops internationally each year.

Also in December, the NSTF requested that SEG approve a standing special session at the Annual Meeting devoted to hydrogeophysics. Given the importance of water resources to society as a whole, the use of geophysics to characterize ground and surface water is critical. The importance of hydrogeophysics will only increase as stress on sources of fresh water continues to increase. Hydrogeophysics is one of the most actively growing areas of geophysics both in numbers of practitioners and researchers and in technological development. SEG has shown solid support for hydrogeophysics; the 2006 summer research workshop and the 2008 Annual Meeting SEG Forum focused on hydrogeophysics. Most recently, a one-off Special Session was held at the 2010 Annual Meeting. It is time to establish a stable platform for hydrogeophysics at the Annual Meeting. The SEG Executive Committee gave final approval for this initiative in February.

One component of the strategic plan is the development of member products and services within North America. In 1992, members of what was then called the SEG Engineering

and Groundwater Geophysics (E&GG) Committee split off to form an independent organization named the Environmental and Engineering Geophysical Society (EEGS). This organization has become a functioning independent society that operates in North America. At present, the objectives of the SEG Near Surface Section and the EEGS are essentially the same: to advance and promote the rigorous science, technology, and professional practice of applied geophysics. Additionally, the two groups share substantial overlap in membership, perhaps greater than 50%.

The NSTF believes that maintaining two separate groups in North America with essentially the same mission and constituency weakens the community overall—for example, by stretching the pool of volunteers available to serve either society and by overlapping efforts in meetings, publications, etc. Because of SEG's strengths in meetings and publications, an international footprint, a strong member focus, and a high professional standing, the task force believes that the near-surface community gains much through affiliation with SEG. Discussions have commenced with EEGS about increased collaboration, with the ultimate goal of improving member services.

These are the first of what we expect will be a number of exciting new activities and member services to come out of the NS strategic planning and implementation process. A substantial component of these efforts will be expanding SEG's outreach and services to near-surface members outside of North America. For example, SEG will co-sponsor the International Workshop on Advanced GPR in Aachen, Germany, 2011; the International Conference on Environmental and Engineering Geophysics in Changsha, China, 2012; and GPR 2012 in Shanghai, China. Additionally, we are considering the development of a continuing education curriculum and establishing ties with other groups of applied geophysicists that have not traditionally had an affiliation with SEG such as engineering, forensics, and archaeology.

Editor's note: Geoscientists *Without* Borders is a registered trademark of the SEG Foundation.

## Nominations

### Stephen J. Hill, chairman

The Committee on Nominations for 2010–2011 consisted of Stephen Hill, Larry Lines, Micki Allen, Fred Aminzadeh, Lee Lawyer, Karl-Andreas Berteussen, and John Bradford. The committee held its first meeting in October at the 2010 Annual Meeting in Denver. To communicate with the maximum number of members, a Call for Nominations was published both in *The Leading Edge* and on the SEG Web site. Our teleconference meetings and e-mail communications were held throughout the winter and early spring.

After a series of meetings, we were able to recommend the following slates of excellent candidates for the Executive Committee and District Representation as published in the April 2011 issue of *TLE*.

The Committee on Nominations recognizes that candidates have made an important commitment to SEG by allowing their

names to stand in nomination. In view of this commitment and today's increased workload for exploration geophysicists, we are grateful to these dedicated individuals.

Nominees for the Executive Committee include:

Executive Committee Nominees	
President-elect	Peter Annan David Monk
First vice president	William Abriel Joseph Reilly
Second vice president	William Doll Richard Miller
Vice president	Kamal Al-Yahya Wafik Beydoun
Secretary-treasurer	Frank Dumanoir Nancy House
Editor	Tamas Nemeth

Nominees for District Representatives include:

District Representative Nominees		Number of representatives to be elected
District 2	Jim Basick Sergey Fomel Fuchun Gao Robert Meek Richard Zinno	4
District 3	Biondo Biondi David Hale John Toldi	1
District 4	Michael Fehler Enders Robinson Douglas Wyatt	1
District 7	Guillaume Cambois Helmut Jakubowicz	1
District 9	Ferdinand Aniwa Maurice Gidlow Iyabode Sindiku	1

## SEG Online

### Stephan Gelinsky, chairman

Through its online presence, SEG can reach a far wider public audience than through its traditional activities alone (print publications, meetings, and live continuing education). Therefore, SEG has a vested interest in obtaining and sharing online information that maintains SEG's standards of excellence and promotes the science of geophysics. In support of this, per its Charter, the Online Committee (OC) solicits, identifies, and se-

lects online strategic issues (i.e., new or enhanced SEG Online features, processes, relationships, content, etc.) for assessment of user value and strategic alignment, and implementation planning. As online technologies mature, the OC helps SEG evaluate and implement those online services that advance its objectives in service to all of its constituencies.

January 2011 marked another important milestone in the evolution of SEG Online. A major upgrade to the Web site, and the enabling IT infrastructure behind it, was released to the membership. A good summary of key achievements and the role the OC played in helping to deliver those is provided by Peter Pangman's article in *The Leading Edge* (Pangman, P., 2011, The SEG online partnership—membership, donors, and staff: *TLE*, 30, 492–494).

The newly designed SEG Web site represents a significant achievement that will provide a better online environment for our members and, for that matter, the wider geophysical community. A key new component is “online collaboration.” Once it is fully rolled out, all our SEG committees and interest groups will have efficient virtual workspaces. Just as important and following the example of the successful *TLE* Editorial Board, the Online Committee has recently set up the Online Technical Content Board. The board, headed by Bill Dragoset, is coordinating the rapidly growing online technical content featured on the SEG Web site, similar to the way that the *TLE* Editorial Board solicits and reviews technical content in *The Leading Edge*. It is envisioned the OLTC Board will naturally complement rather than duplicate existing structures such as the Online Committee and *TLE* Editorial Board. The OLTC Board will focus on content rather than Web infrastructure enhancements. For example, an Online Committee task force will establish the “product concept” for the aspired “Technical Discussion Fora,” and the OLTC Board will then coordinate the subsequent operation of those Fora.

The SEG Online Committee's main priority remains expanding online collaboration into a truly useful tool for all our members. SEG currently provides to select committees a set of SEG-hosted online-collaboration and communication tools to facilitate their interaction in virtual global teams. Key collaboration tools are member home pages, document sharing, and archival areas, with committee blogs and wikis planned for future enhancement. Once our SEG committees are routinely utilizing these tools, we plan to expand online collaboration to include our student chapters and set up technical discussion fora to allow the general SEG membership to interact in a professional networking environment. Other projects the OC task forces are preparing to enter the development pipeline include an enhanced geophysical software and data sharing, SEG Wiki, and a geophysical virtual museum.

The OC meets three times a year (winter, summer, and at the Annual Meeting). It welcomes and invites input from all SEG members to help SEG make SEG Online an even better applied geophysics communication platform.

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## Online Technical Content Board

### Bill Dragoset, chairman

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During the previous year, the SEG Online Technical Content Board (OLTCB) was formed by the Online Committee with a mandate to review and solicit online technical content and to ensure that the technical content is abundant, appropriate, and useful. The technical content referred to does not include the SEG books, abstracts, and journals already available online.

The initial members of the OLTCB include: Rebecca Latimer, Yonghe Sun, Frank Dumanoir, Rick Miller, Kris Innanen, and Bill Dragoset, with Dragoset chairing the Board as Online Technical Editor. Whitney Emerick is the OLTCB's liaison to the SEG staff and Mike Graul serves as the OLTCB's liaison with the SEG Executive Committee. Being an offshoot of the SEG Online Committee, the OLTCB works with that committee in a complementary fashion.

The major accomplishments during the OLTCB's first year include:

- Recruiting the volunteer Board members listed above.
- Creation of a policy manual for the OLTCB that defines its objectives, structure, procedures, and activities.
- Establishment of an online collaboration site for the Board.
- Finalizing the OLTCB product concept, which lists the various online projects in which the OLTCB intends to be involved.
- Selection of an SEG Geophysical Wiki as the OLTCB's first main project. The wiki concept and policies were defined. The concept document was passed to the SEG IT staff for selection of software and implementation. The current goal is to have the wiki's public launch in August 2011. This target date might be extended, pending evaluation of the project scope by the SEG IT staff. The wiki initially will be populated with the definitions from Sheriff's dictionary.

In the coming year, the OLTCB plans to:

- Recruit an administrator and a team of moderators for the SEG Wiki.
- Monitor and evaluate the usability, usage, and value of the Wiki and modify as necessary to solve any problems encountered with the initial version.
- Work with the SEG Technical Standards Committee to install the SEG Standards in the Wiki.
- Decide whether related professional societies should be invited to participate in the Wiki, and if so, develop the collaborative policies and concept.
- Define the concept and policies for an SEG Online Technical Discussion Forum.
- Publicly launch the Technical Forum during 2012.
- Pursue the development of additional online content as opportunities arise.

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## Property Development Task Force

### Gary G. Servos, chairman

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The real estate committee/Property Development Task Force was established to evaluate and recommend to the Executive Committee the potential of developing the existing SEG property with an additional building(s), potentially generating additional revenue.

Preliminary pro forma estimates suggested that potential existed and further evaluation was warranted. A committee was formed to conduct the additional evaluations. Previous zoning, land utilization, and other historical information was gathered and reviewed. An updated land survey was conducted to validate drainage patterns and potential problems because much of the surrounding properties had been developed since the previous survey. Meetings were held with local land planners, property leasing experts, property managers, and zoning attorneys. The consensus was that the SEG property is a prime real estate holding and offers potential benefits to SEG if developed.

A recommendation to the Executive Committee to form a wholly owned subsidiary to hold and manage the property and building(s) to the benefit of the SEG was recommended and approved. A not-for-profit SEG subsidiary is currently forming.

Detailed pro forma evaluations will be prepared and recommendations made to the Executive Committee as to a detailed plan of development for the SEG property.

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## Publications

### Yonghe Sun, chairman

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The Publications Committee functions as the editorial board for SEG's book program. It is responsible for approving book proposals, managing development of books, and approving completed books. The committee also addresses strategic issues related to book publication and recommends actions to the Executive Committee as necessary.

Committee members are Yonghe Sun, chair; Michael Pelissier; Louise Pellerin; Ian Jones; Rebecca Latimer; Lianjie Huang; Sergey Fomel; and Wei Liu, Translations Committee chair and ex-officio member. Editor Vladimir Grechka is the Executive Committee liaison, and Publications Director Ted Bakamjian is the staff liaison.

During fiscal year 2011, SEG published the following:

- *Advances in Near-surface Seismology and Ground-penetrating Radar*, edited by Richard D. Miller, John H. Bradford, and Klaus Holliger (copublished with AGU and EGS)
- *Geophysical Characterization of Gas Hydrates*, edited by Michael Riedel, Eleanor C. Willoughby, and Satinder Chopra
- *GEOPHYSICS Today: A Survey of the Field as the Journal Celebrates its 75th Anniversary*, edited by the editors of GEOPHYSICS
- *Heavy Oils: Reservoir Characterization and Production Monitoring*, edited by Satinder Chopra, Laurence R. Lines, Douglas R. Schmitt, and Michael L. Batzle

- *Methods and Applications in Reservoir Geophysics*, edited by David H. Johnston
- *Seismic Acquisition from Yesterday to Tomorrow*, by Julien Meunier (2011 DISC book)
- *Seismology of Azimuthally Anisotropic Media and Seismic Fracture Characterization*, by Ilya Tsvankin and Vladimir Grechka

Titles due for publication in the second half of 2011 include the following:

- *Interpretation of Three-Dimensional Seismic Data*, seventh edition, by Alistair Brown (copublished with AAPG)
- *Multicomponent Seismic Technology*, by Bob A. Hardage, Michael V. DeAngelo, Paul E. Murray, and Diana Sava
- *First Steps in Seismic Interpretation*, by Donald A. Herron
- *Numerical Modeling of Seismic Wave Propagation: Gridded Two-way Wave-equation Methods*, edited by Johan O. A. Robertsson, Joakim O. Blanch, Kurt Nihei, and Jeroen Tromp

During the past year, SEG also has more than doubled the number of titles in SEG eBooks. In addition to the new titles added during the course of the year, SEG added approximately 50 legacy titles thanks to SEG Foundation funding for scanning and file preparation.

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## Publications Policy

### Michael Schoenberger, chairman

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The Publications Policy Committee (PPC), now in its fifth year, addresses a range of issues that fall outside the purview of other publications-related committees or involve more than one such committee. It focuses on strategic issues such as member publications benefits, intersociety publication initiatives, publication pricing policies, and questions of commercialism and conflicts of interest in publications. The committee recommends actions to the Executive Committee as necessary.

Committee members are Michael Schoenberger, chairman; Reinaldo Michelena, TLE Editorial Board chairman; Yonghe Sun, Publications Committee chairman; Wei Liu, Translations Committee chairman; Johan Robertsson, GEOPHYSICS representative; Bill Dragoset, Online Technical Content Board chairman; Kees Wapenaar, at-large member; Sven Treitel, at-large member; Vladimir Grechka, editor, ex-officio member and Executive Committee liaison; and Ted Bakamjian, publications director and staff liaison.

Committee activities since last year's report was published included the following:

- Developed and submitted for approval to the Executive Committee a set of Ethical Guidelines for SEG Publications.
- Adjusted procedures to have the Online Committee be represented by the chairman of its subcommittee, the Online Technical Content Board, rather than the Online Committee chairman, and submitted them to the Executive Committee for approval.

- Voted to examine the possibility of launching a new journal devoted to interpretation case histories and formed a sub-committee to examine this.
- Developed procedures for examining new journal proposals and recommended them to the Executive Committee for approval.
- Recommended that the Executive Committee approve adding the SEG Technical Program Expanded Abstracts archive to SPE's OnePetro platform subject to having the option to exit at any time (with reasonable notice to SPE).
- Recommended that the Executive Committee approve discontinuing production of the SEG Yearbook DVD but continuing to produce the Yearbook for free download.
- Recommended that the Executive Committee approve discontinuing production of the SEG Technical Program Expanded Abstracts DVD and that the free-access period for the online expanded abstracts be extended on an experimental basis for one month after this year's annual meeting.
- Recommended that the Executive Committee approve requesting that the SEG Foundation transfer US \$4,000 from its Publications Fund to SEG for use in expansion of the soon-to-launch Global Meeting Abstracts.
- Recommended that the Executive Committee take no action on a suggestion to discontinue the voucher program for GEOPHYSICS reviewers and editors. Endorsed staff efforts to make voucher issuance and redemption entirely electronic and to make adjustments to the editor/reviewer recognition program in concert with the incoming Editor.

The Executive Committee acted in accordance with all recommendations submitted to it from the Publications Policy Committee with exception of the Annual Meeting DVD. The Executive Committee voted to have the contents delivered on a USB card for which SEG would charge a modest fee.

## Research

### Christine Krohn, chairperson

The SEG Research Committee serves to improve communication among earth scientists interested in applied research, to advise the SEG Executive Committee on research matters, and to identify research topics worthy of a focused workshop and to organize these workshops.

The committee meets formally twice each year. One meeting occurs in conjunction with the Annual Meeting, while the winter meeting is traditionally hosted in January by a member of the committee at his or her company or university. In 2011, Biondo Biondi hosted the meeting at Stanford University. The most visible activity of the committee is organizing Summer Research Workshops, often in conjunction with other professional societies, and the postconvention Workshops and Special Sessions at the Annual Meeting.

For the 2011 Annual Meeting, the committee is sponsoring the following Special Sessions and Workshops:

#### 2011 Annual Meeting Special Sessions

- Recent advances and the road ahead
- Environmental challenges in fracturing of unconventional resources

#### 2011 Annual Meeting Research Workshops

- Geophysics and engineering: Convergence of disciplines
- Seismic imaging in thrust-belts with rugged topography—challenges, problems, and solutions
- Fundamentals of shale reservoir characterization: Why shales are different from other formations
- Full waveform inversion: Beyond the phase of direct acoustic arrivals?
- The highs and lows of broadband seismic: From acquisition through inversion
- Advances in geothermal systems exploration, characterization, and challenges ahead
- Compressive sensing and computation
- Seismic acquisition new technologies: What for who?
- Case studies of seismic interpretations in the stratigraphically restored domain
- From image to insight: Can we leverage pore-scale observations through rock physics models?

The committee is sponsoring the following Workshops to be held in 2012:

#### 2012 SEG/EAGE Summer Research Workshop

- Velocity model building in complex geology

#### 2012 SEG/AGU Research Workshop

- Hydrogeophysics

#### 2012 SEG Summer Research Workshop

- New advances in integrated reservoir surveillance

The 2011 EAGE/SEG Summer Research Workshop, "Toward a full integration from geosciences to reservoir simulation," was 1–2 September in Trieste, Italy. The 2011 SEG Summer Research Workshop, "Inverting the reservoir," was 26–30 June in Quebec City, Canada.

The format of the Research Committee meeting to be held in conjunction with the 2011 Annual Meeting in San Antonio will be changed. We will return to the old format of having a short business meeting at the convention center immediately after the Thursday workshops, followed by a dinner at a local restaurant. The SEG Executive Committee accepted a proposal to make the dinner an official SEG event with contracting and registration handled by SEG staff. These dinners have become large, involving 80 or more attendees, and it has been difficult to make the business arrangements. This move will facilitate the committee's ability to involve a larger group of members and to attract new members and students.

Getting students more involved in committee activities is a goal of the committee and will be accomplished through im-

proved use of online communication capability through SEG. This will enable committee members and noncommittee members to join technical discussions, inviting SEG Student Members to attend the committee meeting held in conjunction with the Annual Meeting, and having student representation on the committee.

At the request of SEG Past President Steve Hill, the Research Committee developed a set of hot topics for distribution to various SEG committees and staff for use in planning Society products. This list will be revisited in late 2011.

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## Reviews

**Ali I. Mese, chairman**

**David C. Bartel, vice chairman**

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Members of the Reviews Committee publish reviews of books of geophysical interest in *The Leading Edge*. The book reviews not only help keep SEG members up to date with the recent geophysical publications, but they also include other geoscience disciplines. This feature in *TLE* provides the committee a continuing presence to interact with the entire SEG membership.

We are a global committee with one-third of our members outside the United States. The committee has 35 members affiliated with various service companies, operators, consulting and research companies, and prominent universities. The committee communicates entirely by e-mail, allowing all members to participate regardless of their geographical locations.

We added two new members to the Reviews Committee this year to enable timely turnaround of the soaring numbers of the requested book reviews for our members.

Book lists are sent to committee members several times a year. SEG staff send the selected books to the reviewers, and the reviews are e-mailed back to me to forward to SEG staff. Members' suggestions on books to review are also taken into consideration.

The publishers soliciting a review provide our main source of books. We have been successful in working with the SEG Publications Department to quickly receive new SEG publications for review and subsequent publication of the review.

I would like to thank Merrily Sanzalone of the SEG Publications Department for her help in handling the logistical side of the review process. I would also like to thank David C. Bartel, Dean Clark, Vladimir Grechka, Jenny Kucera, and Spring Harris for their efforts in the rapid conversion of the e-mailed reviews into the finished products in *The Leading Edge*. Finally, thanks to all the contributors to the "Reviews" column. Without them, the committee could not have reached the level of efficiency we've accomplished today.

Any member who would like further information or would like to contribute to the review process is welcome to contact [Ali.Mese@Geomech.org](mailto:Ali.Mese@Geomech.org).

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## Technical Standards

**Rune Hagelund, chairman**

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Technical Standards Committee (TSC) members include: Rune Hagelund (chairman), Stewart Arthur Levin (vice chairman), Geoffrey Eric Keyser, Barry D. Barrs, Jeffrey L. Johnson, Peter Green, Friedrich Roth, Nils Aatland, and Jill Lewis.

Rune Hagelund and Barry Barrs serve as OGP liaisons. Rune Hagelund and Jerry Hubbard serve as Energistics liaisons.

The TSC announced the publication of an update to the SEG-D Rev 3.0 standard in May. The updated standard officially was released at the TSC meeting at the EAGE conference in Vienna.

The update contains clarifications and typographic corrections to issues found with the format since its initial publication. The update does not change the binary storage format itself but simplifies and clarifies usage of the standard.

The industry has been discussing the need for an electromagnetic (EM) data field format for a few years, and a new subcommittee was formed this year with this focus. The subcommittee also will look into the possibility of using more modern, self-describing data formats as part of SEG standards.

A workgroup has been formed to create a seismic field storage medium recommendation. The workgroup is a response to the removal of the storage device recommendation appendix in the SEG-D Rev 3.0 standard and has been requested by the industry since the appendix's publication.

The committee continues to cooperate with the International Association of Oil and Gas Producers (OGP) on the development of new positioning standards, and new P1 and P2 standards are now close to being released. These will replace the old P1/90, P2/94 and SEG P1, SEG P2 standards.

The release of the updated positioning standards will affect several SEG standards, and the committee endeavors to ensure that standards-within-standards are working to align the SEG standards with the new formats. The SPS format is the first to be affected, and the coordination between OGP and the SPS subcommittee is ongoing. The SEG has been lobbying and giving presentations at various conferences and trade shows to encourage all parties to create a common meta-data format across all the updates.

The committee also continues to cooperate with Energistics, and it is currently involved in the development of, among others, a new velocity model standard. The velocity standard is expected to be incorporated into SEG-Y at a later stage. SEG also may be asked to host the new standard once completed.

To increase format awareness, Jill Lewis continues to promote the work of SEG and the importance of exchange formats, and she has given presentations at various trade shows and data management conferences.

During the forthcoming year, the committee will continue to align the existing standards with the new developments in the industry, in addition to the ongoing work on new standards. The committee also will continue its work to promote common

solutions across the industry and the idea of “standards within standards.” We also expect to rejuvenate the work on the SEG-Y format, which has been put on hold awaiting the completion of the new positioning formats from OGP. The details of how to proceed on these tasks are expected to be topics for discussion at the 2011 Annual Meeting in San Antonio in September.

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## Tellers

### Sherwin Eskew, chairman

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Survey and Ballot Systems, Inc. (SBS) was contracted to conduct the SEG election this year. SBS designed and distributed a Web ballot and a paper ballot to each voting SEG member. SBS received, tabulated, and verified the votes, then submitted the results to the SEG business office. The SEG Tellers Committee verified the count provided by SBS.

Official ballots were sent out 3 June 2011 to 7,879 Active members eligible to vote in this year’s election. In addition to receiving a paper ballot, 7,599 eligible voters received e-mail from SBS with personalized login information and specific instructions to vote electronically if they preferred.

The annual election had a participation rate of 33.9%. The final results include 2,674 returned ballots received on or before 29 July. Of those ballots, 2,103 were submitted via Web voting and 571 paper ballots were returned by mail. This figure does not include 29 ballot envelopes that were deemed invalid; 25 members failed to sign their return envelope, one member did not include the ballot in the correct envelope, and three members did not include a ballot in the return envelope. Nine members duplicated votes by using both the paper and Web method of voting; therefore SBS counted the Web votes as valid and the paper votes as invalid as directed by SEG.

The election results are as follows:

#### 2011–2012 SEG Executive Committee

President-elect:	David J. Monk
First vice president:	William L. Abriel
Second vice president:	Richard D. Miller
Vice president:	Wafik B. Beydoun
Secretary-treasurer:	Nancy J. House
Editor:	Tamas Nemeth

#### District Representatives

District #2:	James Basick, Robert Meek, Dick Zinno, Sergey Fomel
District #3:	Dave Hale
District #4:	Enders Robinson
District #7:	Helmut Jakubowicz
District #9:	Iyabo Sindiku

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## The Leading Edge Editorial Board

### Reinaldo J. Michelena, chairman

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An SEG Past President and former member of *The Leading Edge (TLE)* Editorial Board—Larry Lines—said to me a few years ago that his main satisfaction in working for *TLE* was that he could see the product of his work and the rest of the Editorial Board in the hands of the whole SEG membership every single month. This remarkable achievement is possible thanks to the effort of a dedicated and hardworking *TLE* staff and an Editorial Board that work constantly under tight schedules to meet the demands of the printer. From the *TLE* staff, we must start by thanking *TLE* Editor Dean Clark who has been the backbone of this publication for almost 30 years, maintaining the necessary continuity but at the same time demonstrating flexibility to adapt to new ideas coming from an ever-changing Editorial Board. We should also thank the rest of *TLE* staff: Jenny Kucera, associate editor and Spring Harris, assistant editor. Other SEG staff who work on *TLE* much of their time are graphics designers Robert Miller and Tonia Payne and graphics department manager Kathy Gamble who designs the covers. Mel Buckner is the advertising representative, and Merrily Sanzalone coordinates the book reviews and the reports to the government.

The *TLE* Editorial Board continues to be a diverse group of individuals representing different backgrounds from the industry and academia. The new Board members this year were Shuki Ronen and Tad Smith, who replaced Jeff Deere and Colin Sayers, respectively. Alan Jackson will become the Chairman of the *TLE* Board at the end of the 2011 Annual Meeting in San Antonio when he starts his fourth and last year as member of the Board. Other Board members who will continue their service to *TLE* in the coming year are Gregory Baker and William Goodway. Chris Liner will also continue serving *TLE* this year as Special Editor.

Besides reviewing and ensuring that all papers published meet *TLE* publication standards, one of the main responsibilities of the Editorial Board is to select topics for special sections that represent technical areas of current interest for different segments of the Society. Special section topics covered since the last report are seismic interpretation, multicomponent seismic, reverse time migration, near-surface geophysics, reservoir characterization, shales, offshore technology, Geoscientists *Without Borders*, interferometry applications, Africa, and practical applications of anisotropy.

Special sections scheduled for upcoming months include: multiple attenuation, time-lapse measurements, land acquisition/vibroseis, Canada/Arctic technology, physics of rocks, near-surface measurements in exploration geophysics, carbonate research in China, mining geophysics, marine and seabed technology, and seismic inversion for reservoir properties.

The award for Best Paper published in *TLE* in 2010 was given to “Multiazimuth versus wide-azimuth acquisition designs for sub-Messian imaging: A finite-difference modeling study in West Nile Delta” by Nurul Kabir, Kyong-Jin Lee, Walter Rietveld, Brian Barley, Jim Keggin, and Graham Johnson.

Due to budgetary constraints, *TLE* is published under a strict policy limiting the number of pages per issue. This year, the total page count was 1544 (right on target for the 128 pages budgeted for each issue), down from the 1714 pages in 2009.

Besides being one of the main vehicles to disseminate technical information that reaches the whole Society, *TLE* is also a source of revenue for SEG. The actual revenue from advertisements for the current 2011 fiscal year has been US\$878,451 so far, and this number is expected to reach close to US\$1 million by the end of the fiscal year.

Since it went live in April 2010 and after sorting through some technical difficulties, the usage of the online digital edition of *TLE* has increased significantly, averaging more than 1100 visits per month during April and May 2011. The digital edition can complement the material presented in the printed edition and could even become an additional source of revenue from advertisement as the number of visitors keeps increasing.

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## Translations

### Wei Liu, chairman

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The Translations Committee continued its traditional activity of reviewing and recommending books for translation from foreign languages and subsequent publication by SEG. Following the review and acceptance of the book *The Way to Obtain a Better Resolution in Seismic Prospecting—Systematical Analysis of High-resolution Seismic Exploration* by Qing-zhong Li, the committee has organized a team of volume editors working to translate the book into English.

The committee is considering translation and publication of the book *SAL: Geologia e Tectônica: Exemplos nas Bacias Brasileiras*, published in Portuguese. The book is proposed for a possible joint publication by SEG and AAPG. Another two books (*Inverse Problems in Geophysics* and *Models of Media in Exploration Seismology*) in Russian are under translation review and editing.

The committee is also reviewing a book proposal of expanding a work in borehole seismic technology published in Russian into an up-to-date and complete manuscript for publication by SEG.

In collaboration with the Publications Committee and the regional SEG offices, the committee has reviewed and endorsed modifications to the SEG Procedures Manual. New book translation proposals now follow the modified procedures. The committee evaluated Chinese translation of selected issues of *The Leading Edge*, endorsed a scientific publishing seminar in China subsequently approved by the Executive Committee, and continues to discuss possible translation of selected SEG materials from English into other languages, with the goal of extending access to them to more geoscientists.

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## SEG Women's Network

### Eve Sprunt, chairperson

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In November 2010, SEG President Klaas Koster formed a task force charged with providing a recommendation on forming a professional women's network in SEG. The proposal was approved by the SEG Executive Committee in March 2011. The task force was then converted into a standing committee.

The mission of the SEG Women's Network Committee is to:

- Promote greater participation and leadership of women in geophysics worldwide
- Promote greater female engagement in SEG activities, at the local, regional, and global levels
- Create a community for mutual support among female SEG members
- Enhance recruiting of women to the profession and mentoring of young female professionals
- Envision and recommend strategies to retain women in the industry
- Elevate awareness of the value a diverse workforce brings to business

One of the first actions taken by the Women's Network Committee was the creation of an online community, <http://www.seg.org/web/seg-womens-network>.

The committee's first major event will be a Women's Network breakfast meeting at the 2011 Annual Meeting in San Antonio on 21 September. Attendance is limited to 100. The keynote speaker will be Alexandra Herger, director of international exploration and new ventures at Marathon Oil. Chevron and Nexen have offered to provide sponsorship for the breakfast. The committee is establishing connections for support, collaboration, and mentoring at professional gatherings at the SEG annual and regional meetings, and within the online community and in additional informal activities.

The SEG Women's Network is creating liaisons to collaborate on common objectives with P.R.O.W.E.S.S. (American Association of Petroleum Geologists (AAPG) women's committee), Society of Petroleum Engineers (SPE), and the Association of Women Geoscientists (AWG).

One of the goals of the committee is to gather data on the status of women in the industry. To learn more about factors that impact the career decisions of energy and petroleum industry professionals including work-life balance, SPE launched a dual-career couple survey on 28 April 2011 that closed on 10 May 2011. The plan is to wait for the results of the SPE survey before deciding whether to recommend that SEG undertake a similar survey.

## Youth Education

### Lisa Buckner, chairperson

The Youth Education Committee was reinstated as an official SEG committee on 25 March 2011 with the appointment of a chairperson. Subsequently, a core group composed of former and new committee members was appointed and more are welcome to join. During the summer, we wrote our policies and procedures.

A small group of dedicated and enthusiastic former committee members met unofficially at the 2010 Annual Meeting in Denver. We discussed our goals and ensured that they were aligned with the recommendations of the SEG Task Force to the SEG Executive Committee. We are in the process of developing age-appropriate guidelines and supporting materials that any SEG member can access and utilize when preparing to educate pre-university students, teachers, and parents about geophysics and geophysical careers. Outreach opportunities include: classroom presentations, school career fairs, science fairs, teacher workshops, and community events (e.g., Boy Scouts and Girl Scouts, Earth Science Week, museums). We are collaborating with other SEG committees (Global Affairs and University and Student Programs) and sister societies.

## SEG–ISEF Subcommittee

### Richard Nolen-Hoeksema, chairman

The SEG ISEF Subcommittee's focus is the International Science and Engineering Fair (ISEF), which occurs annually in May.

The 2012 ISEF will be held 13–18 May 2012, in Pittsburgh, Pennsylvania.

#### Activities:

The 2011 ISEF was 13–18 May 2011, in Los Angeles, California.

The SEG judging team at the 2011 ISEF included Chuck Meeder (Marathon Oil), Steven Constable (Scripps Institution of Oceanography), YoungHee Kim (California Institute of Technology), and myself (e4sciences|Earthworks LLC).

The SEG judging team selected the following projects to receive awards or honorable mentions, listed in the table below.

An article about the 2011 ISEF was published in the August 2011 issue of *The Leading Edge*.

Award	Awardee	Project	Title
First	Andrew Feldman	EE071	Acoustic Imaging Using Optimized Beamforming Techniques
Second	Clara Fannjiang	PH062	Better Images, Fewer Samples: Optimizing Sample Distribution for Compressed Sensing in Radio Interferometry
	Marni Wasserman	EA011	Investigating Climate Change: A Comparative Analysis of Colonial and Modern Weather Data
Third	Amy Robinson	EA005	Astronomical Image Processing: Eliminating Random Atmospheric Noise and Enhancing Low Resolution Images, Year III
	Marian Bechtel	EE053	A Stand-Off Seismo-Acoustic Method for Humanitarian Demining
	Alexander Kendrick	EE025	Electromagnetic Detection of Aquifers
Honorable Mention	Alexander Finney	EE009	Precision Location of Acoustic Sources
	Jenna Huling	EV006	Enhanced Adsorption of Arsenic on Aquifer Solids: Impact of Oxidative Treatment of Aquifer Solids
	Calvin Ling and Mark Sands	EM306T	Detecting Oil Spills Using Synthetic Aperture Radar
	Andrey Halim and Reyner Jong	EN317T	Bamboo-based Composites for Earthquake-Resistant Building Materials

Table

# Reports of the Ad Hoc Committee Chairmen

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## Council Ad Hoc

### Bob A. Hardage, chairman

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The Council Ad Hoc Committee (CAHC) was formed by the Executive Committee to develop Bylaws language that would result in a compromise between those on the Council who voted for the revised Bylaws at the 2010 Annual Meeting in Denver and those who voted against the proposed Bylaws. The goal of the CAHC was to cause a new set of revised Bylaws to be approved at the 2011 Council Meeting and then moved onward to Active Member vote. The principal task of the CAHC was to agree on fundamental principles and concepts that Bylaws should state, and to pass their thinking to the Constitution and Bylaws Committee before they began their rewriting of the Bylaws that were rejected in Denver.

Ten people served on the CAHC: Samir Abdelmoaty, Ralph Bridle, Dennis Cooke, Karen Dittert, Fred Hilterman, Lee Lawyer, Alison Small, Leon Thomsen, Sven Treitel, and Aldo Vesnaver. The CAHC convened in early January and completed its work 28 February 2011. CAHC advice and recommendations were delivered to the Constitution and Bylaws Committee in early March. CAHC philosophy is now embedded in the Bylaws language that has been published and that has been submitted for Council consideration.

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## SEG Oil and Gas Reserves

### Henk Jaap Kloosterman, chairman

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**General.** SEG OGRC has increased its membership to 21 members during the last year. The committee now well represents the global geophysical community, including geographic diversity with multinational participation and different facets of the industry with large integrated companies, midsized and small E&Ps, academics, and third-party consulting firms.

**Reserves Workshop.** SEG OGRC conducted a successful workshop on “The Role of Geophysics in Reserves Estimation” at the 2010 Annual Meeting. More than 75 people attended the workshop. Overall conclusion from the workshop was that SEG should become more proactive in developing guidelines and best practices for the application of geophysical technologies in reserves booking and reporting. The workshop clearly demonstrated the increased level of interest in reserves estimation within the geophysical industry, partly as a result of the introduction of the modernized SEC Guidelines. It was decided to plan for another workshop at the 2011 Annual Meeting in San Antonio, to be held in September. During this meeting, emphasis will be placed on the rollout of the PRMS-AD (see below) and its implications for the geophysical community.

**JCORET.** SEG sponsorship of JCORET was formalized during the last year. The objectives of JCORET are to review and improve courses designed to bring industry-approved training to engineers and geoscientists in the areas of recommended evaluation practices, reserves and resources definitions, and ethics training. The following three SEG OGRC members were assigned to JCORET: Fred Aminzadeh (three-year term), Bruce Withers (two-year term), and Jamie Robertson (one-year term).

**PRMS-AD.** SEG has become a formal sponsor of the Petroleum Resources Management System Application Document (PRMS-AD) together with SPE, WPC, AAPG, and SPEE. Issue of final PRMS-AD document is expected to be in time for rollout at the 2011 Annual Meeting. SEG OGRC has made a significant contribution to the definition of Chapter 3: “Seismic Applications.” The PRMS-AD is considered a key guidance document to the industry at large on resource volumes estimation and classification. SEG sponsorship of the PRMS-AD reflects the increasingly more important role for geoscientists in this process.

# Reports of the Representatives

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## AGI Environmental Geoscience Advisory Azra N. Tutuncu, representative

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The Environmental Geoscience Advisory Committee (EGAC) has been established to help identify and focus on the highest priority environmental informational needs and issues best addressed by the geosciences community. The activities of the AGI Environmental Affairs Program are guided by the EGAC. Representatives of AGI's member societies serve on the EGAC along with liaison representatives from selected government agencies, academic institutions, and the industry. Approximately 30 geoscientists are actively involved in various aspects of environmental research and industrial applications, and the EGAC provides a forum for developing broad consensus concerning the role of geosciences in key environmental issues.

We have a portal within the SEG Web site to relay relevant environmental information to the interested SEG members in a timely manner. SEG members may find recent news via AGI EGAC at the following portal address:

[http://www.seg.org/SEGportalWEBproject/portals/SEG\\_Online.portal?\\_nfpb=true&\\_pageLabel=pg\\_gen\\_content&Doc\\_Url=prod/SEG-About-SEG/About-Related-Organizations/about-related-organizations.htm](http://www.seg.org/SEGportalWEBproject/portals/SEG_Online.portal?_nfpb=true&_pageLabel=pg_gen_content&Doc_Url=prod/SEG-About-SEG/About-Related-Organizations/about-related-organizations.htm)

The AGI Leadership Forum 2010 titled “Water Resources: National Policy and Global Implications” took place 20 September 2010 in Washington, D.C. and was attended by the SEG representative along with other member society representatives. The speakers at the Forum included policy makers such as U.S. Department of the Interior Assistant Secretary for Water and Science Anne Castle; Marcia McNutt, director, U.S. Geological Survey and science advisor to the Secretary of the Interior; Mary Glackin, deputy under-secretary, National Oceanic and Atmospheric Administration; Denise Keehner, director, Office of Wetlands, Oceans, and Watersheds, U.S. Environmental Protection Agency; and several academicians. The event was followed by the annual Geosciences Congressional Visits Days on 20–21 September 2011. The constructive visit from geoscientists about the importance and value of geoscience and geoscience-related engineering research and education is the most effective way to inform and impact federal science policy. The outcome from the Leadership Forum and AGI Government Days along with other AGI events was input to a letter by the AGI Geopolicy Working Group (AGI, AAPG, AEG, AIPG, AGU, AWG, GSA, SSA, and

SSSA) for the new Congress and Mid-Administration that was distributed to congressional members and relevant congressional committees as well as policymakers in the Administration and others in early 2011.

The letter outlines the critical needs of the nation and the world at the outset of the twenty-first century and provides policy guidance in “Critical Needs for the Twenty-first Century: Role of the Geosciences” and this can be reviewed in the AGI Web site ([www.agiweb.org/gap](http://www.agiweb.org/gap)).

EarthNotes are summaries of interesting and timely information about Earth and Earth scientists. They are stand-alone, short illustrative reports that inform the general public about how Earth is part of their lives. The reports are contributed by knowledgeable Earth scientists on a wide range of topics, from understanding the health risks associated with wildfire ash to explaining how deep-water oil drilling is accomplished. EarthNotes are one way that AGI works to increase public awareness of the vital role the geosciences play in society's use of resources and interactions with the environment and since the initiation in late 2009, five EarthNotes have been published. They are The National Research Council's Oil in the Sea Studies, and include the following:

- Oil in the Sea: Sources
- Oil in the Sea: Weathering
- Hydraulic Fracturing and Shale Gas Production
- Japan's March 11, 2011 Earthquake and Tsunami
- The Earthquake-Groundwater Connection

SEG members can subscribe to published and upcoming EarthNotes at <http://www.agiweb.org/environment/earthnotes/updates/index.html>.

In further pushing the integration of geoscience and engineering efforts to help the many challenges faced by the oil and gas industry—in the United States and globally—the Environmental Geoscience Advisory Committee (EGAC) provided help linking efforts of the AGI president, various committees, and SEG's Geoscientists *Without Borders*. The EGAC Committee members have also been consulted during the organization of a special session titled “Environmental Challenges of Hydraulic Fracturing” for the SEG Annual Meeting to be held in San Antonio in September 2011.

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## International Association of Oil and Gas Producers Geomatics

### Rune Hagelund, representative and liaison

### Barry Barrs, SEG–OGP liaison

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Rune Hagelund attended the Geomatics Committee meetings in Houston (October 2010) and Stavanger (April 2011).

The *Surveying and Positioning Committee of the Oil and Gas Producers* (OGP) (<http://www.ogp.org.uk/>) was renamed *Geomatics Committee* at the meeting in Houston October 2010 to reflect the wider responsibility of the committee. Following the name change, an internal reorganization into more subcommittees was presented. This is currently ongoing.

The OGP Geomatics Committee is currently working on several new standards and various other guidelines and recommendations. Primary concern for SEG are the new positioning standards P1/11 and P2/11 which are currently in final draft. These two standards will affect various parts of the industry including SEG standards like SEG-Y, SEG-D, and SPS. The SEG Technical Standards Committee (TSC) is working closely with OGP on these issues.

A major effort of the Geomatics Committee over the last few years is the Geospatial Integrity of Geoscience Software (GIGS) guidelines, now nearing completion. These guidelines consist of three parts—guidelines, checklist, and test data set—and define how to classify software with geospatial engines into four categories (gold, silver, bronze, none). It is expected they will be used throughout the industry and that contracts will start specifying quality requirements for contractors' software packages.

Of other initiatives, it is important to mention the *Guidelines for the Conduct of Offshore Drilling Hazard Site Surveys* that was published in April 2011 because this has become a major industry focus over the last year. The work on the *Seabed Survey Data Model (SSDM)* also seems to be catching the interest of several larger companies, and the standardization of delivery and exchange of Seabed Survey GIS data seems to attract wider industry focus.

In addition to the internal standards work, the Geomatics Committee is cooperating with Energistics (and SEG) on various initiatives such as velocity modeling and RESQML.

In addition to what is mentioned above, the OGP Geomatics Committee has published several guidelines and recommendations. Please refer to <http://www.epsg.org/> and <http://www.ogp.org.uk/> for more details on the work of the committee.

In the coming year, the Geomatics Committee will be releasing the positioning standards P1 and P2. The GIGS guidelines will also be made public. Plans are also made to start work on updating the remaining P# positioning standards, starting with the P6 bin grid format.

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## IPTC Management

### Philippe M. Doyen, board member

### Joseph M. Reilly, board member

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The International Petroleum Technology Conference (IPTC) is an international oil and gas conference and exhibition. The event rotates between various venues in the Eastern Hemisphere. The scope of the conference program and associated industry activities addresses technology and relevant industry issues that challenge industry specialists and management around the world.

The IPTC is a collaborative effort among the American Association of Petroleum Geologists (AAPG), the European Association of Geoscientists and Engineers (EAGE), the Society of Exploration Geophysicists (SEG), and the Society of Petroleum Engineers (SPE).

In 2009, the sponsoring societies agreed to incorporate IPTC and form a Board of Directors to provide greater oversight for this event. The SEG appointed Joseph M. Reilly and Philippe Doyen to the IPTC Board. The first Board meeting was held in Barcelona on 14 June 2010. Following that meeting, IPTC was incorporated in Hong Kong. Routine business between IPTC staff and the Board has been conducted via e-mail and teleconference, thus establishing a good relationship between Board members and staff.

The IPTC Board met on 15 December in Hong Kong. The primary focus of this meeting was to agree on organizational issues and to discuss the upcoming conference in Bangkok, Thailand, 15–17 November 2011.

The planning and execution of the 2011 Bangkok meeting is now well under way. This meeting will be hosted by PTT Exploration and Production Plc., (PTTEP) a company of PTT Group. With the theme "*Technology and Operational Excellence: Keys to Sustainable Global Energy*," a robust technical conference program is planned and associated industry activities will address technology and relevant industry issues that challenge industry specialists and management around the world.

The IPTC features an important Industry Award for "Excellence in Project Integration." This award is for a company, organization, or institution that has made an outstanding achievement in integrated project management. Revised IPTC Award guidelines have been prepared and reviewed by the Board of Directors. The new guidelines were issued after the 2011 IPTC Award Committee Meeting held on 31 January 2011.

IPTC has also started planning for a conference in Beijing, China, 5–7 December 2012. A meeting with the cosponsors, CNPC and ExxonMobil, occurred in association at the Board of Directors meeting on 8 July 2011 in Beijing.

It has been agreed that the IPTC will become an annual event held in December and alternating between Middle East (primarily Doha) and Asia Pacific locations. Following the China 2012 event, IPTC staff have therefore submitted plans to hold IPTC 2–4 December 2013 in Doha, Qatar; IPTC 2014 in Kuala Lumpur, Malaysia; and IPTC 2015 in Doha, Qatar. This proposal

was subsequently endorsed by the Board of Directors and was approved by the SEG Executive Committee in April.

## OTC Board of Directors

### Wafik B. Beydoun, representative

Founded in 1969, the Offshore Technology Conference (OTC) is the world's foremost event for the development of offshore resources in the fields of drilling, exploration, production, and environmental protection. 2011 OTC was held 2–5 May at Reliant Park in Houston. Attendance at the 2011 OTC reached a 29-year high of 78,150, up 8% from last year. Attendance surpassed the 2010 total of 72,025, and the sold-out exhibition was the largest since 1982 at 603,000 square feet, up from 568,000 square feet in 2010. New this year was the OTC Parkway spanning from Reliant Center to Reliant Arena, which increased the outdoor exhibition space. The event had 2,520 companies from 40 countries, including 306 new exhibitors in 2011, and added exhibitors from Egypt, Hong Kong, Indonesia, and the Philippines.

“The outstanding attendance underscores that OTC is the show to attend, and reflects the economic recovery as well as the importance of global offshore resource development in meeting world energy demand. This is an industry that rises to and meets incredible challenges, and the best minds from around the world come together at OTC to share our knowledge, to learn about technological advances and innovative approaches, to solve problems, and to discuss important issues that affect the entire planet,” said Susan Cunningham, 2011 OTC chairman.

This year's event offered one of the strongest technical programs ever with speakers from every major global producing area. A primary focus of the conference was the impact on deepwater drilling of the Macondo accident in the Gulf of Mexico, with 11 sessions presenting government and energy leaders discussing the lessons learned to take forward across the globe. OTC's Spotlight on New Technology program highlighted 15 innovative technologies that are already making the industry more effective. The inaugural Annual OTC Dinner was attended by more than 1,000 industry leaders and conference attendees, and raised \$200,000 for the Gulf of Mexico Foundation. OTC also presented its 2011 Distinguished Achievement Awards at the sold-out event Sunday at the George R. Brown Convention Center.

“The health and sustainability of the Gulf of Mexico is vital to the businesses that work in and alongside it. Recognition by the Offshore Technology Conference is the culmination of decades of collaborative efforts between the Gulf of Mexico Foundation and the offshore industries to understand and protect the quality of the Gulf of Mexico ecosystem,” said Gulf of Mexico Foundation President and CEO Quenton Dokken in accepting the OTC donation.

OTC continues to grow with two new conferences being held in 2011:

1. The OTC Arctic Technology Conference was held in February in Houston, focusing on both offshore and onshore

technology for Arctic exploration and development. It was a clear success: 1,318 total attendees; 23 countries/31 states represented; 79 booths; 130 oral presentations and 13 poster presentations.

2. OTC Brasil, focusing on global deepwater projects with a special emphasis on Brazil, will be held in Rio de Janeiro in 4–6 October 2011. It is attracting strong exhibitor interest (close to 200 exhibitors). Their technical program is fully booked: 200 abstracts were accepted (out of 635 received) and will be deployed in 24 technical sessions.

The 2012 OTC will take place 30 April–3 May 2012 at Reliant Park. For more information, visit [www.otcnet.org](http://www.otcnet.org).

**Background about OTC and its relationship to SEG.** SEG is a sponsoring organization of the OTC. The relationship dates to 1969 when SEG accepted an invitation to join with AIME and seven other engineering and scientific societies to establish OTC as an interdisciplinary meeting on technology related to offshore resources. As a sponsoring organization, SEG is entitled to appoint one of the 12 members to the OTC board of directors. To provide an idea of how interdisciplinary the OTC is, a list of the other 11 sponsoring organizations follows: AAPG; American Institute of Chemical Engineers; American Institute of Mining, Metallurgical, and Petroleum Engineers; American Society of Civil Engineers; Institute of Electrical and Electronics Engineers—Oceanic Engineering Society; International Petroleum Technology Institute (formerly ASME-PD); Marine Technology Society; Society for Mining, Metallurgy, and Exploration Inc.; Society of Naval Architects and Marine Engineers; Society of Petroleum Engineers; and The Minerals, Metals and Materials Society.

SEG and its members accrue several benefits through participation in the OTC. First, it is an event where one can broaden her/his view of the technology and technical advances that are required to make the oil and gas industry what it is. Second, besides the big-time hardware on display and discussed in technical sessions, there are strong reservoir engineering and geosciences technical sessions that are, without question, relevant to what most geoscientists are working on today. Third, as with almost any well-attended industry meeting, it's a good place to network. Fourth, this meeting alone provides about 5% of the total annual income for the SEG.

SEG and its members help make OTC the success that it is. SEG members who work on the 2010-2011 SEG/OTC OTC.11 Technical Program subcommittee include: Charles Knobloch (chairman), Rocco Detomo (vice chair), Jim Kreamer, Aurora Castelan, Dan Heinze, William Barkhouse, Larry Scott, Dave Ridyard, Don Herron, John MacDonald, Gene Sparkman, and Dan Ebrum. Past subcommittee chair Joseph M. Reilly is now the Technical Program general vice chair for Technical Program Committee. Charles Knobloch will also be reporting in this Annual Report information on the SEG/OTC OTC.11 Technical Program subcommittee.

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## OTC Technical Program

### Charles Knobloch, chairman

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Founded in 1969, the Offshore Technology Conference is the world's foremost event for the development of offshore resources in the fields of drilling, exploration, production, and environmental resources. This year marked the 42<sup>nd</sup> year of OTC.

OTC ranks among the 200 largest trade shows held annually in the United States and is among the 10 largest meetings in terms of attendance. Attendance at the 2011 OTC reached 78,150. Attendance surpassed the 2010 total of 72,025, and the sold-out exhibition was the largest in 29 years, up from 568,000 square feet in 2010, filled with well over 2500 companies.

SEG is one of 12 sponsoring professional societies of the technical program. The technical program features four full days of presentations, in eight concurrent sessions, covering the latest and most important topics, technologies, and innovations in today's exploration and production industry.

For 2011, the spotlight SEG-sponsored geophysics technical sessions included:

**Advances in Seismic Imaging:** Thursday morning Session 48. Aurora Castelan led this joint AAPG-SEG session.

**Offshore Exploration Areas:** Potential Future Activity, Thursday afternoon Session 55. Jim Kreamer led this session.

SEG also sponsored two topical luncheons and two sessions:

**Major Investments in Indonesia:** Wednesday luncheon with Indonesia's director general for oil and gas, Evita Herawati Legowo (presented by Tubagus Haryono, head of BPH Migas Indonesia). Charles Knobloch moderated this luncheon.

**New Technologies for Enhanced Oil Recovery:** Thursday luncheon with James Tour, Professor Smalley Institute for Nanoscale Science and Technology, Rice University. Dan Heinze moderated this luncheon.

**Offshore Carbon Sequestration:** Wednesday morning Session 29, including legal and carbon capture panelists from oil and service majors. Jim Kreamer moderated this panel.

**Active Arena: Super-Giant Offshore Field Development—50 Billion Barrels of Oil:** Monday afternoon session. This SEG and IEEE co-sponsored session included a keynote by Ali Khalifa Al Shamsi, director of Offshore Divisions ADNOC regarding UAE's long-term plan for oil and gas production and power generation. Joe Reilly and Gamal Hassan cochaired this session.

VIPs from Indonesia were invited and participated in OTC panels.

Members of the 2010–2011 SEG/OTC OTC.11 Technical Program Subcommittee include: Charles Knobloch (chairman), Rocco Detomo (vice chair), Jim Kreamer, Aurora Castelan, Dan Heinze, William Barkhouse, Larry Scott, Dave Ridyard, Don Herron, John MacDonald, Gene Sparkman, and Dan Ebrom. Past subcommittee chair Joseph M. Reilly led the overall technical program as vice chair for Technical Program Committee.

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## Joint Committee on Reserves Evaluator Training

### Fred Aminzadeh, representative

### James D. Robertson, representative

### Robert J. Withers, representative

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At its meeting on 15–16 October 2010, the SEG Executive Committee voted to accept an invitation to SEG to become a sponsoring member of the Joint Committee on Reserves Evaluator Training (JCORET). In January 2011, President Klaas Koster appointed Fred Aminzadeh, Jamie Robertson, and Robert Withers as the initial SEG representatives to JCORET. As a result, this is the first report on JCORET activities to appear in an SEG Annual Report.

JCORET was started in 2007 by four sponsors: SPE (Society of Petroleum Engineers), AAPG (American Association of Petroleum Geologists), SPEE (Society of Petroleum Evaluation Engineers), and WPC (World Petroleum Council). SEG is now the fifth sponsor. As stated in 2007 SPE paper 107738-PP ("Historic Agreement Establishes Training Program for Petroleum Reserves Evaluators" by Michael Black, Dan Olds, and D. Ronald Harrell), the purpose of JCORET is to "develop high-quality training modules to be presented and taught to professional reserves evaluators by industry experts at an affordable cost." Prior to JCORET, geoscientists and petroleum engineers working as reserves evaluators (i.e. responsible for estimating hydrocarbon reserves, future production and the economic value of the reserves and production under a recognized classification/evaluation system) have not had a recommended set of training courses to attend for their continuing education. JCORET is tasked to identify a library of such courses representing best industry practices across the various technical skills required for expert reserves evaluation. JCORET focuses in particular on the following areas of training: (a) reserves and resources definitions, (b) recommended geological and engineering evaluation practices, and (c) ethics. JCORET uses a peer-review process to assess the quality and suitability of existing courses for a JCORET recommendation. JCORET also identifies gaps in training where no suitable course is currently offered to evaluators, and then acts to encourage a professional society or particular individual to develop a relevant course to overcome the deficiency. The Committee has a Web site ([www.jcoret.org](http://www.jcoret.org)) where SEG members can find comprehensive information about JCORET's purpose and process, a list of currently approved training courses and information for authors who may wish to submit a course to JCORET for approval.

Since January 2011, the SEG representatives have participated in two JCORET quarterly meetings. In addition to getting to know the representatives from the other professional societies and gaining an understanding of the committee's history and current activities, we have learned that there are no JCORET-approved courses on how to use 3D and 4D seismic data or perhaps other geophysical data in structured reserves evaluation. It is, in fact, not clear whether any such courses even exist. We will be working with JCORET to add geophysical

methods to outlines of ideal evaluator training courses and to encourage members of SEG to develop suitable geophysical training modules for evaluators that can be added to JCORET's list of approved courses.

SEG representation on JCORET functions as a "subcommittee" activity of the SEG Oil and Gas Reserves Committee chaired by Henk Jaap Kloosterman, and we will be working closely with the SEG Oil and Gas Reserves Committee on all JCORET-related projects.

# SEG Foundation

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## Foundation Board of Directors

**Thomas A. Smith, chairman**

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Thanks to our donors and volunteers for a successful 2010! Each year, the SEG Foundation builds upon its successes, resulting in exciting new challenges and developments, and 2010 has been no exception. Due to the hard work, generosity, and dedication of all our 2010 donors, our volunteers, and our Tulsa staff, the SEG Foundation continues its work in Advancing Geophysics Today—Inspiring Geoscientists For Tomorrow!

Your 2010 Board consisted of 13 directors. The SEG Executive Committee appointed Frank Brown, Peter Duncan, and Tom Smith to new, three-year terms; and reappointed Bill Barkhouse to a third term. The Board elected officers of Bill Barkhouse, Chair; Gary Servos, Vice Chair; and Jeff Springmeyer, Treasurer. Other directors were Mark Gregg, Susie Peebler, Robert Talley, John Gibson, Fred Hilterman, Mike Forrest, and Dominique Robert. In addition to attending quarterly Board meetings, my fellow directors actively served on several Board committees, for these are where much of the business that comes before the Board is carefully assessed. Board committees active in 2010 included Finance, Development (fundraising), Audit, and Nominations. For 2011, we have added to this list a Program Committee to provide guidance to staff and the grant committee chairs on broader program-related issues.

Grant award recipients were again selected by four dedicated grant program committees: Scholarship, chaired by Wenjie Dong; Travel Grants, chaired by Bob Van Nieuwenhuise; Projects of Merit/Field Camps, chaired by Martin Stupel; and Geoscientists *Without Borders*, chaired by Alexander Mihai Popovici. All in all, combining the board and the grants committees, 43 dedicated volunteers deserve our accolades for what they have achieved on your behalf. As the current (2011) Board chair, I cannot overemphasize how important the dedication and contribution of these volunteers is to the effectiveness of your Foundation.

How does the work of the Foundation relate to SEG? To put it simply, the Foundation was established in 1987 as a charitable and educational “supporting organization” for the SEG, and the Foundation exists to raise funds and to make grants aligned with SEG’s mission. To successfully do this, we must communicate effectively with our membership and corporate constituents, engage in fundraising and grant best practices, codify our

activities through sound policies and procedures, and exercise effective financial oversight of the assets entrusted to us.

A key facet of the SEG Foundation is fundraising and donor stewardship, or “development.” Building on past successes, we continued strengthening our processes and activities with our many recent donors in 2010. Instrumental to this has been our quarterly donor newsletter, *Carrying the Torch* (available at [www.seg.org/foundation](http://www.seg.org/foundation)). We have continued expanding our annual giving donor clubs with High Velocity (gifts of US \$1000–5000) and the popular Doodlebugger Society (gifts of \$50–\$900). We continue to strengthen the Foundation’s premier donor club, the Trustee Associates, by opening membership to individuals based on cumulative lifetime giving of \$10,000 or greater.

I am pleased to announce that as of 31 December, the Foundation had the support of 459 Doodlebuggers and 73 High Velocity contributors! We also added 11 new Trustee Associates in 2010, bringing the total to 202. The complete list of donors is available at [www.seg.org/foundation](http://www.seg.org/foundation). Your generosity provides the essential sustaining funding that enables all the activities of the Foundation. Without your commitment, our impact on the geophysical community would be so much less.

But let’s not forget—our goal is not just to raise money, but to be good stewards and use this money wisely. Grants directly to SEG during the year were close to \$1 million for programs including Honorary Lecture, Distinguished Lecture, SEG Online, student membership dues support, and several dynamic new student programs. These essential SEG programs are sharing technology advances with our global members, providing role models for students and young professionals, and driving the growth and engagement of student members.

Grants to the geophysical community (“third parties”) also increased in 2010 to more than \$1 million. These grants included \$434,150 in scholarships to 118 recipients; \$185,504 in travel grants to 197 students; \$101,809 in support of 11 summer field camps; \$323,287 in awards to four new Geoscientists *Without Borders* projects; and \$5,000 in support of two Projects of Merit.

Our newest program, Geoscientists *Without Borders*, continues to expand. This program supports humanitarian application of geosciences around the world. The program kicked off in 2008 with a visionary sustaining investment by Schlumberger: a five-year commitment of US \$1 million. Since its launch, Geoscientists *Without Borders* has made strides in program development and with project successes. One project

has been completed in Indonesia. Current projects are under way in Australia, Honduras, India, Jamaica, Romania, South Africa, and Thailand. New awards in 2010 included a potable groundwater project in Australia, an earthquake-warning project in Jamaica, a pollution-protection project in Romania, and a hydrogeophysical investigation project in South Africa. You can learn more about these exciting projects at [www.seg.org/gwb](http://www.seg.org/gwb).

The SEG Foundation proudly thanks Schlumberger/WesternGeco, Global Geophysical, Geophysical Pursuit, and CGG-Veritas for supporting Geoscientists *Without* Borders. CGG-Veritas is the newest corporate supporter of this program, announcing a two-year commitment during the 2010 Donor Luncheon at SEG Annual Meeting. Along with these supporters, we are truly grateful to Debra and Mark Gregg (KiwiEnergy, Ltd.) for their extraordinary investment to the program and subsequent launching of the first Geoscientists *Without* Borders endowment challenge in December 2010. During this time, Debra and Mark issued a challenge to the SEG Foundation: “raise \$125,000, and we will match it.” In less than two weeks, more than \$250,000 was committed to the new endowment. Thrilled by the results, Debra and Mark came back with another challenge: “raise an additional \$125,000, and we will match that too!” To realize their vision, a number of SEG members have committed to this endowment challenge. More are needed to meet the need! Let me encourage you to join the effort by donating online ([www.seg.org/donate](http://www.seg.org/donate)) or mail, and indicating “GWB endowment” in the memo field of the online donation form or check.

The rapid increase in third-party grants over the past few years has required a comprehensive overhaul of the Foundation’s procedures. We are committed to the principle that recipients will be selected by independent committees, representative of our global membership, acting according to best-practice policies and procedures. The Foundation assumed responsibility for

these committees in late 2008, and the Board developed new policies and procedures for each committee. The Foundation’s conflict of interest policy has been expanded to include committee members. I am pleased to report for 2010 that this restructuring of the grant committees was fully operational. The Board is confident that our grant committees are now well positioned to carry out our donors’ intent, as well as meet our legal obligations as a recognized 501(c)(3) charity.

The Foundation’s financial performance continued a recovery that commenced in 2009, after the dramatic investment market drop of 2008. Year-end net assets increased to \$17,745,938, of which 62% are endowed. Grants to SEG and third parties totaled \$2,212,224. Donor contributions were \$1,988,487. Our “Fundraising Ratio,” one generally accepted measure of nonprofit financial performance, was 9.4%. This metric compares development expenses to contributions received. According to the American Institute of Philanthropy and the Better Business Bureau Wise Giving alliance, the ratio should be less than 35%. The SEG Foundation considers the best-practice benchmark to be 15%.

This past year has been one of much progress and great strides for the SEG Foundation. I want to thank all who have contributed, from the \$25 student Doodlebuggers to several new major gift donors. I thank my Board and the committed members of the Finance and program grant committees. And I thank our hard-working staff in the SEG Business Office led by Executive Director Steven Davis, Foundation Director Peter Pangman, and Grant Programs Manager Rhonda Jacobs. Together, we are advancing geophysics today and inspiring geoscientists for tomorrow.

Editor’s note: Geoscientists *Without* Borders is a registered trademark of the SEG Foundation.

# SEG Subsidiaries

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## SEAM

### William (Bill) Abriel, chairman

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The SEG Advanced Modeling (SEAM) Corporation was established in 2007 as a wholly owned subsidiary of SEG. Our purpose is to advance the science and technology of applied geophysics through cooperative industry efforts focused on subsurface model construction and generation of geophysical data sets for problems of importance to the resource-extraction industry. Please see the Web site for details: <http://www.seg.org/SEAM>.

SEAM provides opportunities for companies to share the high cost of model design and data simulation. It also provides a forum for industry leaders to discuss geophysical problems of common interest, advances the art of modeling and computation by stimulating research and development, and provides data sets for industry benchmarks and educational purposes. SEAM intends to proceed in phases; each phase will last approximately two to three years and will be conducted by an industry consortium assembled around a geophysical challenge of great current relevance.

SEG Past President Steve Hill appointed Dennis Cooke and Manik Talwani to three-year terms on the SEAM Board of Directors, effective 1 January 2011. They joined Bill Abriel, Craig Beasley, Sheldon Breiner, Xiong Li, Walter Lynn, and Jesse Perez. The Board elected as officers Abriel (chair), Lynn (vice chair), and Perez (treasurer). Perez chairs the Audit Committee, consisting of Talwani, and nonboard members Robert Corbin, Jerry Dresner, Leigh House, and Prasad Narayan.

The Board has been occupied this year with completing SEAM Phase I, continuing the tasks on the Research Partnership to Secure Energy for America (RPSEA) portion of the project, and launching Phase II. The Board continues to ensure that the operations of SEAM are conducted in a fiscally and legally sound manner.

**SEAM Phase I.** The final “classic” data sets from the Phase I project were distributed to the Participants in May 2011, marking the final deliverable of the project. The data produced under Phase I will remain proprietary for two years, until May 2013, when it will be made available to the general public. A comprehensive final report is being produced and will be available to the SEG membership in the summer of 2011. This phase focused on

the challenges of subsalt imaging in tertiary basins, with particular relevance to the deepwater Gulf of Mexico. The project had a budget of US \$2.45 million and was supported by 24 Participants: Anadarko, BHPBilliton, CGGVeritas, Chevron, ConocoPhillips, Devon, Eni, EMGS, ExxonMobil, Fusion, Geotrace, GX Technology, Hess, Landmark, Maersk, Marathon, Nexen, Petrobras, PGS, OHM/RockSolidImages, Repsol, StatoilHydro, Total, and WesternGeco.

The SEAM Phase I project manager is Mike Fehler who coordinates the various activities of the SEAM project, participant subcommittees, and contractors. Mike is currently a senior research scientist at the Massachusetts Institute of Technology. His qualifications include a career as scientist and division leader at the Los Alamos National Laboratory, editor and president of the Seismological Society of America, and principal investigator on numerous U.S. DOE research projects. Mike is supported by the SEG staff consisting of Jan Madole, SEG research programs manager, and Peter Pangman, SEAM director of geophysics.

A large geologic model representative of a 60-block area of the deepwater Gulf of Mexico is a core product already receiving extensive use by the participants. The model was constructed in a form that easily enables extension to other complex imaging challenges by adding the rock properties necessary for elastic, nonseismic, anisotropic, and viscoelastic. Approximately 65,000 shot records, containing as many as 450,000 traces each, were simulated by Tierra Geophysical LLC (now Halliburton). Quality control was conducted by Nexus Geosciences Inc. (now WesternGeco). Eleven “classic” data sets were extracted with the assistance of participating companies Landmark Graphics and WesternGeco. These data sets are intended to provide useful subsets that can be easily accessed for industrial and academic research.

The simulated data sets and Earth models are stored at Landmark Graphics “PetroBank” for up to 10 years. They are distributing copies to participants and will fill orders from the global geophysical community once the two-year period of proprietary usage by participants has passed. The data are compressed 10:1 with a compression/decompression utility available to SEAM users through royalty-free license from Landmark Graphics. More than 20 TB of compressed data are in storage.

**SEAM RPSEA.** SEAM announced in June 2009 the successful conclusion of negotiations with RPSEA for a \$2 million award

for the project “Geophysical Modeling for Studying Acquisition and Processing Methods in the Deepwater Gulf of Mexico.” The Phase I group of Participants contributed an additional \$500,000 from the Phase I budget.

Additional synthetic data are being acquired over the SEAM Phase I numerical Earth model. The data sets generated to date are an acoustic absorbing upper surface seismic simulation over a portion of the model and a full-tensor gravity simulation over the full model. Additional data sets to be acquired will be elastic seismic, controlled-source electromagnetic (CSEM), and magnetotelluric (MT). These data sets will lead to better understanding of elastic-wave propagation effects and will enable research into joint-inversion techniques. Sandia National Lab is under contract for assessing the scope of the elastic simulation, and for the utilization of their elastic code in designing numerical qualification procedures.

A request for bid (RFB) for the CSEM simulation was issued to five likely vendors in October 2010, along with the earth model and instructions for conducting qualifying simulations. EMGS in Norway was selected to conduct the full model simulation. As with all SEAM simulations, this simulation will be over-sampled relative to current field acquisition schemes. This approach provides the opportunity for decimation testing and acquisition design improvement.

A RPSEA contact extension was executed in August 2010 to add a TTI anisotropic simulation over a portion of the model (approximately 10,000 shots). This will extend the project by nine months (to March 2012) and \$800,000. Seventeen participants have joined the TTI task which will provide supplemental funding of \$15,000 each, resulting in total project funding of \$5.7 million for the SEAM Phase I-RPSEA projects. The SEAM Earth model has now been updated with anisotropic and dip parameters. A RFB was issued to eight likely vendors in March 2011, along with the Earth model and instructions for conducting several qualifying simulated shots. Contract negotiation with the selected vendor commenced in June.

**SEAM Phase II.** The Board identified the focus of Phase II as “Challenges in imaging of land-seismic survey data.” Focus sessions were formed at the 2009 SEG workshop in October during the Annual Meeting, as well as a special industry meeting called by Ken Lerner in Houston in February 2010. During these sessions, it was determined that the next challenge of greatest impact for the industry is related to land-data problems, with near-surface complications, significant coherent noise, and fractured geology. With the opportunity to acquire vastly greater channels in the field, an important aspect of the Phase II planning will include sufficient tests of acquisition sampling.

The three-year project, “Land Seismic Challenges,” launched in January 2011 with a kick-off meeting in March 2011 and a Management Committee meeting in April 2011. Eighteen companies have committed to participating in Phase II at \$60,000 per year, and additional companies are considering joining. The Board is confident that the consortium will include 20 or more companies.

The current participants include Anadarko, BGP, BHPBilliton, BP, CGGVeritas, Chevron, Eni S.p.A., ExxonMobil, Global Geophysical, GX Technology, Hess, Marathon, Repsol, Saudi Aramco, Shell, Sinopec, Statoil, and WesternGeco. Technical committees for Near-Surface Model, Subsurface Model (shales), Acquisition and Processing, and Numerical Modeling have been established. All Participants agree that Phase II will require significant elastic modeling. The experience of the Phase I-RPSEA project will be highly relevant.

SEAM retained Michael Oristaglio as the Phase II project manager. Oristaglio is currently a research professor at Yale University. His qualifications include a career as project manager at Schlumberger Westchester Research, recent consulting on high-performance computing issues with Laurence Livermore National Lab, and copincipal investigator on a current DOE carbon sequestration grant.

**SEAM Publicity.** The board is committed to disseminating SEAM results to the global geophysical community. Recent technology transfer activities include the following:

- Progress reports by Phase I Project Manager Michael C. Fehler were published in *The Leading Edge* in October 2010 and March 2011. These supplement earlier progress reports in June 2007, August 2007, August 2008, March 2009, July 2009, October 2009, February 2010, and June 2010.
- An active presence at the SEG Summer Research Workshop on Subsalt Imaging in July 2010. SEAM organized a poster presentation. Several workshop presentations involved studies based on the SEAM earth model.
- An overview presentation by Phase I Project Manager Michael C. Fehler at the AGU Annual Meeting in December 2010.
- Participation at the RPSEA booth at the OTC Conference in May 2011.

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## SEG Global, Inc. Samir Abdelmoaty, chairman

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SEG Global, Inc. is a for-profit company, fully owned by SEG, founded to provide strategic and tactical oversight and recommendations to the SEG Executive Committee regarding the planning, establishment, resourcing, and management of SEG’s regional offices, and it is the avenue for future development of regional offices.

SEG Global, Inc. Board of Directors include Samir Abdelmoaty (chairman), Nader C. Dutta (vice chairman), Leon Thomsen (treasurer), Abdullatif A. Al-Shuhail, David Monk, Guillaume Cambois, Jie Zhang (Abu Dhabi), Jie Zhang (Beijing), and Ricardo Rosa Fernandez.

In mid-2010, the SEG Executive Committee charged SEG Global, Inc. with being the custodian of the priority list of focus areas for SEG’s global activities. Subsequently, the Board established the following priority list: (1) China, (2) Middle East, (3) Brazil, (4) Asia Pacific, (5) Russia, and (6) India.

**SEG China:** In addition to providing professional and membership services, SEG China has launched its Chinese Web site, published the SEG China e-Newsletter, organized the March 2011 Shale Gas Technology Forum in Chengdu, and initiated a series of educational events including training courses, DL, HL, and DISC Lectures. Three other forums/workshops are planned in China before year end. The SEG China Advisory Committee has been rejuvenated. Based on SEG Global, Inc. recommendation, the SEG president has appointed members of the committee with Professor Jie Zhang as Chairman and Mr. Huasheng Zheng as Vice Chairman.

**Middle East Office:** The SEG Executive Committee has approved opening an SEG office in the Middle East. However, due to political unrest in the region, an assessment of the political situation in the region has been reviewed by the Board and staff and discussed with several NOCs, IOCs, and other interested parties to get their views on the situation. The Board, with the support of the Global Relations and Meetings Department, has recommended to the Executive Committee to defer the decision regarding office location and timing while continuing to monitor the situation in the Middle East.

**Brazil Activities:** Kerry Cosby and Crystal Dugger met with SBGf to discuss conducting events under the SBGf SEG MOU. They also met with representatives from Petrobras, SEG Student Chapters, and GAC Country Representative Carlos Abreu to discuss Brazil activities.

**Asia Pacific:** SEG and SPE's Asia Pacific affiliate in Kuala Lumpur have developed an MOU for joint meetings and workshops in Asia Pacific. The first event, a workshop on pore-pressure prediction, is planned for Phuket, Thailand in February 2012.

**Russia:** SEG and EAGO met recently in Vienna to finalize and sign an MOU which provides for the societies to develop joint programs (conference, workshops, continuing education courses, translations) in Russia.

**India:** SEG and SPG plan to conduct a joint workshop on "Imaging in the Foothills" in association with SPG's biannual meeting in Hyderabad in early 2012.

# **SEG Consolidated Financial Statements**

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**Society of Exploration Geophysicists**

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**REPORT AVAILABLE UPON FINAL AUDIT**

# SEG Foundation Financial Statements

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SEG Foundation

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**REPORT AVAILABLE UPON FINAL AUDIT**