

Plan Now to Participate in National Engineers Week

by **William D. Whipkey**, Chairman,
Ad Hoc Coordinating Committee for
National Engineers Week



IEEE and 14 other engineering societies will co-sponsor the annual celebration of National Engineers Week (NEW) from February 17-23, 1991. The Society of Automotive Engineers (SAE) is the lead society for NEW'91. Honorary Chairman Paul E. Lego, electrical engineer and chief executive officer of Westinghouse Electric Corporation, will head the event. PACE leaders throughout the United States received planning kits filled with press releases and other information in October.

The 1990 National Engineers Week celebration introduced the Discover"E" program, sending more than 6,000 engineers into 7th and 8th grade classrooms across the country to help students understand how engineering influences the world around them. Due to last year's success, the effort will be repeated this year, emphasizing engineering and the environment. The 1991 goal is to involve 10,000 engineers in Discover"E".

Eight corporations are sponsoring the Discover"E" effort, including Westinghouse, IBM, 3M, General Electric, Motorola, Bechtel Engineering, Rockwell, and Chevron. IEEE's goal is to have 90 percent of its Sections contact at least one school, with larger Sections sending volunteers into a school in every metropolitan district.

Sections electing to participate in the 1991 Discover"E" teach-in may obtain an orientation kit by writing to National Engineers Week, P.O. Box 1270, Evans City, PA 16033. The kits contain materials and other helpful suggestions about classroom activities and demonstrations for volunteers taking part in the program. NEW planning kits also are available at this address, if your Section's PACE Chairman did not receive one. This is a fulfillment house, so be sure to request the Discover"E" and NEW planning kits by name.

In September at the 1990 PACE Workshop in Phoenix, I emphasized to those PACE leaders in attendance

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How to Plan a Successful IEEE Section Officers-Industry Executives Meeting

by **John E. Martin**, Director,
IEEE Region 5

Imagine being seated at lunch with a dozen of the top engineering executives in your area. While enjoying a meal with these executives and IEEE Section leaders, you could be exchanging ideas on what your Section should be doing for its members and the industries employing them. You could also be asking for the executives' suggestions on how you might better serve the industries they represent and the IEEE members they employ. Can't you just imagine all of the ideas and suggestions these leaders would have? You would probably get many ideas for your programs for the following year. Quite likely, some of the executives would offer to provide programs, speakers, or facilities for field trips.

You don't just have to imagine such a luncheon, because it is quite practical for your Section to hold a Section Officers-Industry Executives Luncheon. Like any meeting, the format must be carefully planned, the guest list carefully prepared, and the details meticulously attended to; but the rewards are so great that the effort is well worthwhile.

Since the luncheon is for the exchange of ideas, it is wise to think of the appropriate size group. Approximately 20 is the optimum size, equally divided between Section officers and industry executives. If the group is much larger, some people will not have the opportunity to talk

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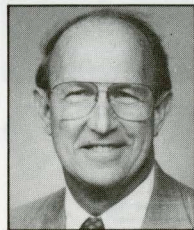
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THE INSTITUTE OF ELECTRICAL
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IEEE UNITED STATES ACTIVITIES



IMPACT

On the AAES Conference

The AAES Conference, "Engineers in America's Future: Supply and Demand, New Problems and New Opportunities" has had problems of its own. Originally scheduled for November 28-29 at the L'Enfant Plaza Hotel in Washington, D.C., it has been postponed until *next September*. IEEE-USA's Manpower Committee was cooperating in program planning and had arranged for Bob Rivers and others to participate as panelists in a session called "Future Scenarios: Impact of Demographic, Economic and Technological Change on Engineering Supply and Demand."

The conference was to commemorate the 40th anniversary of the Engineering Manpower Commission (EMC) of AAES. Since EMC has provided forecasts of manpower needs for 40 years, they should have been able to plan for a conference. Why did the conference fold? Was

the forecast attendance too low? Presumably interest in forecasting engineering manpower needs has not vanished. With the turbulent Department of Defense situation and its ramifications in engineering demand, the conference topic should have been all the more current.

IEEE organizers have always known how to get adequate attendance at conferences. Two favorite options are scheduling enough committee meetings to guarantee your own crowd, and committing enough people to participate in the program so that they *are* the crowd.

How could these lessons have been lost on EMC? Presumably the conference held next September will commemorate EMC's 41st anniversary?

—Pete Rodrigue
Editor in Chief

The newsletter for IEEE-USA's Professional Activities Committees for Engineers

IMPACT is designed to enhance communication among leaders of the Professional Activities Committees for Engineers (PACE) throughout the United States and among the leaderships of PACE, the United States Activities Board, and IEEE. As a medium for both opinions and news, the editorial objectives of IMPACT are to inform its readers in a timely and objective manner of newsworthy activities relative to IEEE's professional purposes; to comment on institutional professional matters, such as the actions of IEEE committees and boards; to serve as a forum for debate on professional matters of concern to PACE through publishing submitted articles, invited editorials, and letters to the editor; to provide news of USAB personalities, appointments, and awards; and to encourage member interest in professional activities.

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Washington Scene

IEEE-USA Volunteers Meet With Government, Industry Leaders to Enhance U.S. Competitiveness
1990 IEEE President Carleton A. Bayless, USAB Chairman Michael J. Whitelaw, and members of IEEE-USA's National Government Activities Committee, including Committee Chairman Edward C. Berntholli, held a *Colloquium on IEEE-USA's Legislative Initiative on U.S. Competitiveness and Pension Portability* on October 19-20 with government and industry leaders in Washington, D.C. The meeting promoted U.S. technological competitiveness and supported expansion of long-term savings programs. IEEE-USA volunteers and staff made presentations on activities in progress supporting the Legislative Initiative. Experts critiqued IEEE-USA's present efforts and made suggestions for the future.

Conferring with Robert M. White, U.S. Department of Commerce Under Secretary for Technology and other invited speakers, IEEE-USA representatives discussed what role the Federal Government should play in U.S. competitiveness. Participants agreed that U.S. manufacturing companies need to re-think strategies, designing programs geared toward total quality products with fewer defects. Such strategies will better enable the United States to compete in international markets.

Speakers pointed out that Japanese competitors use a "concurrent engineering" theory—designing products and manufacturing techniques at the same time—which has effectively enhanced their international competitive edge. Industry leaders present included Turner E. Hasty, Chief Operating Officer of SEMATECH, the consortium devoted to revitalizing U.S. chipmaking capabilities; Kent H. Hughes, President, Council on Competitiveness; J. Richard Iverson, President, American Electronics Association; and Barry J. Leffs, President, Peninsula Engineering Group, Inc.

COMAR Advocates Increased Research

On behalf of IEEE-USA's Committee on Man and Radiation (COMAR), Chairman James C. Lin submitted a statement on the *Potential Health Effects of Power Frequency Electromagnetic Radiation* to the U.S. House of Representatives Subcommittee on Natural Resources, Agricultural Research, and Environment. Lin also wrote a letter to *Science* Magazine Editor Daniel Koshland in response to three articles on the biological effects of electric and magnetic fields that appeared in the magazine's September and October issues.

In the statement and subsequent letter, COMAR reported that scientific data is insufficient to establish whether exposure to power frequency electric and magnetic fields should be considered a health hazard. The Committee concludes that more research is needed to

understand the problem and define safe and unsafe field levels and exposure durations.

With regard to research, COMAR called for increased investigation of interaction mechanisms and animal studies to ascertain causal relationships between power-frequency fields and health effects. The Committee also supported continued efforts in human health studies, but with greater emphasis on confounding factors and known cancer-causing agents. COMAR also noted that a measurement program to identify and characterize electric and magnetic field sources is essential before exposure mitigation procedures can be effectively implemented.

IEEE-USA Supports Revitalizing U.S. Academic Research Facilities

In a recent letter to President George Bush, USAB Chairman Michael J. Whitelaw endorsed Congress' request for Administration support for planning and investment to modernize the U.S. academic research infrastructure. "We share the growing concern that years of inadequate investment in research facilities and equipment is threatening the ability of colleges and universities to attract and educate scientists and engineers and perform the types of research needed to sustain the United States' technological edge," Whitelaw said.

National Science Foundation Acting Director Frederick M. Bernthal responded to Whitelaw's letter, on President Bush's behalf, saying a comprehensive approach for addressing this concern "will be given thorough consideration." Bernthal also noted that NSF is initiating a merit-based program to assist in modernizing and revitalizing U.S. research facilities.

IEEE-USA Engineering R&D Policy Committee Sponsors Symposium

IEEE-USA's Engineering R&D Policy Committee is sponsoring a symposium on *Government Policymaking and Technological Competitiveness*, December 3-4, in Washington, D.C., for members of the National Electrical Engineering Department Heads Association (NEEDHA). Executive policymaking processes, legislative initiatives, technological competitiveness, and IEEE-USA and the policy process are among the featured topics.

Keynote speakers are Congressman George Brown (D-California) and MIT Professor Michael Dertouzos, author of *Made in America*. Speakers from IEEE-USA's National Government Activities Committee, Engineering R&D Policy Committee and Technology Policy Council will conduct discussions of IEEE-USA's initiatives. Also addressing the symposium will be speakers from the National Science Foundation, The National Institute of Standards and Technology, and the Library of Congress. They will brief participants on Government processes and programs. For more information about the symposium, contact Chris Brantley at the IEEE-USA Office in Washington, D.C.

That Volunteer Deserves A Medal!

How many times have you thought that an IEEE volunteer deserved some sort of reward for all the work he or she does to promote professional activities? Well, here's your chance to make that happen. Nominations for the 1991 United States Activities Board awards are now open.

The awards program of USAB is the only one in the Institute to select recipients solely on the basis of



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accomplishments in professional, non-technical activities, as defined by the IEEE Constitution. It is a means of providing peer recognition for outstanding contributions and service to the development of engineering as a profession.

Nomination forms and further information are available from the IEEE-USA Office in Washington, D.C., where completed forms should be returned by March 31, 1991.

USAB Presents Awards at 1990 PACE Workshop

The 1990 PACE Workshop was held over Labor Day weekend, August 31 to September 3, at The Pointe at Squaw Peak in Phoenix, Arizona. A total of 216 IEEE members and others participated. Approximately 65 percent of the participants were leaders of Professional Activities Committees for Engineers (PACE) representing Sections, Areas, Councils, Regions, Societies or Divisions. Twenty IEEE and USAB Board members were present, along with numerous USAB committee representatives and several Regional officers.

Throughout the Workshop, attendees addressed a broad range of issues of interest to IEEE's U.S. members. The USAB awards ceremony was a Workshop highlight. Edward J. Doyle received the Award for Distinguished Contributions to Engineering Professionalism. Congressman Don Ritter (R-Pennsylvania) received the USAB Distinguished Public Service Award. Authors Samuel Florman and Robert Lucky received the Award for Distinguished Literary Contributions Furthering Engineering Professionalism and the Award for Distinguished Literary Contributions Furthering Public Understanding of the Profession, respectively.

Ten recipients of the Regional/Divisional Professional Leadership Award included Floyd W. Blum (Region 3), Max B. Goldberg (Region 4), S. K. Leong (Region 6), Albert J. Rosa (Region 5), Francine E. Wright (Region 6), Joseph H. Wujek (Region 6), and Baruch Berman (Division II), Merrill W. Buckley, Jr. (Region 2), Edward B. Farkas (Region 1) and Seymour Krevsky (Region 1). Barbara Kent, Harry D. Bostic, and James A. Watson each received a Professional Achievement Award. Lois K. Mays and William T. Sackett were 1990 Citation of Honor recipients.

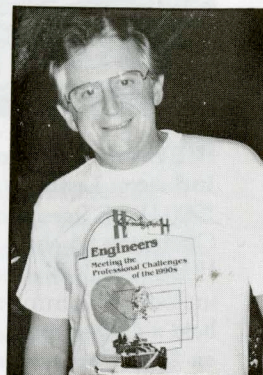
Who Are IEEE-USA's Congressional Fellows? You Could Become One . . .

Applications are being accepted until March 31, 1991 for the 1991-1992 Congressional Fellowship term. IEEE members are competitively selected to serve for one year on the personal staff of an individual Senator or Representative or on the professional staff of a Congressional Committee. One of the program's important purposes is to make practical contributions to the more effective use of science and technology in public policy decision-making.

Congressional Fellows are selected on the basis of their technical competence, their ability to serve in a highly visible environment, and their past service to the Institute. At the time of their selection, they must be U.S. citizens and must have been in IEEE at Member grade or higher for at least four years. Additional information and application kits are available from the IEEE-USA Office in Washington, D.C.



1 Congressman Don Ritter (c.) talks with IEEE General Manager Eric Herz (r.) and IEEE-USA Congressional Fellow Philip Paterno during the PACE Workshop held September 1-3 in Phoenix.



2 PACE Council Chairman Bob Noberini models t-shirt introduced during the 1990 PACE Workshop, with the theme "Engineers Meeting the Professional Challenges of the 1990s." Shirts are for sale from the IEEE-USA Office in Washington, D.C.; call (202) 785-0017 for an order form.

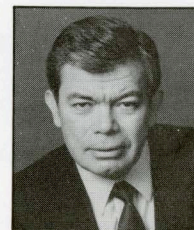
IEEE Committee Organizes Competitiveness Workshop at AAES Conference

IEEE's Technology Policy Conference Committee, a joint committee of IEEE United States Activities and IEEE's Technical Activities Board, is organizing a workshop on U.S. competitiveness at the 1991 Engineering Societies Government Affairs Conference. Dr. Oscar Garcia chairs IEEE's joint committee. The Conference will take place on March 6, 1991 at the Madison Hotel in Washington, D.C. Sponsored by the American Association of Engineering Societies, the Conference is designed to introduce the professional engineering community to important issues facing the incoming 102nd Congress.

Dr. Robert White, Undersecretary for Technology in the Department of Commerce and an IEEE Fellow, will deliver one of the major presentations during the morning plenary session. He will address the Federal government's role in promoting U.S. competitiveness. Dr. Robert Frosch, Vice President for Research of General Motors Corporation and an IEEE Fellow, will moderate IEEE's afternoon Competitiveness Workshop. This session will include discussion by two panels of prominent industry and government spokesmen on actions needing to be taken by both the private and the public sectors to promote U.S. competitiveness.

The audience will include engineering society leaders, members of the engineering, science, and technology community, Congressional and Executive Office staff, and members of the media. To obtain advance registration information, please clip and return the attached form to the attention of Chris Brantley at the IEEE-USA Office in Washington, D.C. Requests may also be faxed, phoned, or carried by Internet to IEEEEDC.

—G. C. Stelluto, G. Aukland



IEEE United States Activities Board

USAB

Chairman's Message

A Time to Reflect on IEEE-USA's 1990 Activities

In 1990, the United States Activities Board set major goals and charged specific committees with their implementation. Let's explore this year's progress:

• **Goal One: Identify strategies for improving this country's international competitiveness. Identify legislative components of those strategies and develop a plan for vigorous IEEE legislative action.**

To help improve America's international competitiveness, IEEE-USA's Committee on Communication and Information Policy (CCIP) addressed many legislative issues. CCIP worked with Congress in drafting legislation in high definition television and high resolution systems. The Committee submitted comments and testimony on reallocation of the spectrum for commercial uses, computer viruses, high-performance computing, and the U.S. role in international standards-setting activities.

CCIP also addressed the Administration's activities in defining the needs of the U.S. telecommunications infrastructure, on the high-performance computing initiative, on restrictions prohibiting the sale of fiber optics to the Soviet Union, on the use of supercomputers in various Federal agencies, and on the sale of Semi-Gas gas systems to the Japanese. Additionally, the Committee monitored such issues as telephone/cable competition, U.S. critical technologies, and export controls on telecommunications equipment.

IEEE-USA's Engineering R&D Policy Committee developed a December Workshop entitled "Government Policymaking and Technological Competitiveness." The workshop is designed to enlist the support of members of the National Electrical Engineering Department Heads Association for IEEE-USA's Legislative Initiative. The R&D Policy Committee also focused attention on direct Federal investment in civilian R&D and Federal support for technological competitiveness, submitting six testimonies on R&D budgets and related legislation. To provide a framework for future legislative activities, the Committee is updating IEEE-USA's positions on "Federal Government Support for Technological Competitiveness" and "The Need for Tax Incentives to Promote a Healthy R&D Effort."

IEEE-USA's Defense R&D Policy Committee developed a workshop on "American Technology Leadership: Strategies for the 1990s." Workshop participants identified and assigned priorities to proposed IEEE-USA activities in the fields of technology transfer, education, and U.S. government initiatives. Exploring the U.S. role in developing medical device standards, IEEE-USA's Health Care Engineering Policy Committee co-sponsored a symposium, "U.S. Medical Device Industry and the Impact of International Competition."

Speakers representing the U.S. Department of Commerce, the Federal Drug Administration, and the medical device industry gave presentations.

In addition to other efforts to improve U.S. competitiveness, Edward J. Doyle, Chairman of IEEE-USA's Committee on U.S. Competitiveness has written a paper discussing the issues. The paper will be published in booklet form by year-end.

• **Goal Two: Design a prototype pension plan to provide a truly portable pension system for U.S. technologists and other professional employees.**

IEEE-USA's Pensions Committee has contributed to this 1990 goal by developing the "Pension Coverage and Portability Improvement Proposal," an entity position statement USAB approved at its May meeting. The statement recommends design specifications for a portable pension system to provide an increasingly mobile American work force with a more adequate retirement income. In July, the Committee approved a draft legislative proposal expanding pension coverage and portability in employer-sponsored plans, prepared by Dr. Thomas Woodruff, former Staff Director of a Presidential commission on pension policy.

Committee members and staff are communicating IEEE-USA's concerns and policy recommendations to staff members on key Congressional committees, including the Senate Committee on Labor and Human Resources, the Senate Committee on Finance, the House Committee on Education and Labor, and the House Ways and Means Committee, as well as to staff members who handle pensions and tax matters for key members of Congress in personal visits to their Capitol Hill offices.

• **Goal Three: Expand services to provide meaningful employment assistance to unemployed U.S. members. Pursue opportunities that create technical jobs.**

Employment assistance workshops were conducted in Massachusetts, New York and New Jersey by IEEE-USA's Employment Assistance Committee. A new workshop is being developed for Section use. The Committee produced a pocket-sized Job Search Record Book and began distributing it at an October Employment Assistance Workshop in Los Angeles. The first IEEE co-sponsored job fair was held in Los Angeles in October. Additional locally sponsored fairs are expected early in 1991. To familiarize local IEEE leaders with IEEE-USA's work in the employment assistance area, the Committee gave presentations at the PACE Workshop and IEEE Sections Congress.

IEEE-USA's Career Maintenance and Development Committee also contributed to this goal by conducting

workshops on Career Transitions, Career Crises, and Careers—Phase II. The Committee has chosen the theme "Change & Competitiveness & Careers" for its biennial Careers Conference in October 1991.

● **Goal Four: Expand ongoing cooperation with other concerned organizations to formulate solutions to the unacceptable conditions in U.S. precollege mathematics and science programs.**

IEEE-USA's Precollege Education Committee (PEC) participated this year in several inter-society efforts. The Committee is a member of the Triangle Coalition for Science and Technology Education, which was successful in getting several Triangle positions incorporated into key education bills pending in Congress. PEC also provided volunteers in four communities for experimental Local Alliance Partnership programs. Sponsored by the Triangle Coalition in collaboration with the National Association for Partners in Education and funded by the National Science Foundation, the program will be expanded to more communities if it proves successful. Additionally, an AAES-organized Engineering Societies on Precollege Mathematics and Science Education formed a National Coalition of Engineering Societies on Precollege Mathematics and Science Education. The Coalition's long-range objective is to get an engineer affiliated with every school in the nation as liaison with the local engineering community.

The Committee produced and distributed more than 5,000 copies of a new *Directory of Volunteer Opportunities in Precollege Mathematics and Science Education for Engineers and Scientists* to U.S. IEEE leaders, as well as other engineering, science, and education societies. The directory provides information about established, ongoing programs in various U.S. cities that rely on volunteer help and encourage individual participation.

● **Goal Five: Foster an improved understanding within the major IEEE Boards about IEEE-USA's quest to coordinate and optimize resources toward achieving its agenda.**

IEEE-USA's strong presence at the recent IEEE Sections Congress was another step in educating IEEE leaders about Washington-based efforts. More than 20 IEEE-USA

NEW—continued

that National Engineers Week offers a magnificent opportunity to focus public attention on the engineering profession and its contributions to society. I recommended that each IEEE entity appoint one or more volunteers to be responsible for planning and coordinating IEEE activities during NEW'91. While I encourage Sections and Chapters to continue participating in joint NEW activities with the local units of other engineering societies, I also urge them to move forward with existing IEEE activities involving interaction with students and the public.

Possible National Engineers Week activities include displays, competitions, awards ceremonies honoring such community members as outstanding math and science teachers as well as fellow engineers, presentations before civic groups, appearances on local television and radio talk

presenters, including OpCom members and staff, conducted tutorials and breakouts during the Congress. IEEE-USA staffed a publications table throughout the Congress. Participating in nine different sessions at the Sections Congress, the PACE Council Chairman, PACE Regional and Divisional Committees Chairmen, and the Student Professional Awareness Committee Chairman explained the nature and purpose of the PACE network in the United States, how it functions at the Section, Region, Chapter, and Society levels, and how it trains its leaders.

● **Goal Six: Enhance the internal and external images of IEEE in the United States through quality improvement of IEEE United States Activities and proactive press reporting.**

USAB had its Quinquennial Review in 1990. Communications was one of the problems cited, and as *Impact* readers know, these issues are being addressed. The Communications Committee supports the publication and audio-visual communication efforts of all five USAB Councils and their individual committees. Both *Impact* and *Professional Perspective*, USAB's insert in *The Institute*, published articles of significant interest to members, including employment assistance resources available to help members, how IEEE-USA influences the Federal R&D budget development process, the "peace dividend," and patenting, as well as pensions and U.S. competitiveness as key components of IEEE-USA's Legislative Initiative. As has been our practice, IEEE-USA's annual report is published in the February issue of *Professional Perspective*. In addition, the two reader dialogue columns, "Planning Your Personal Finances," introduced in 1989, and "Career Talk," introduced in 1990 in *Professional Perspective*, have been very successful.

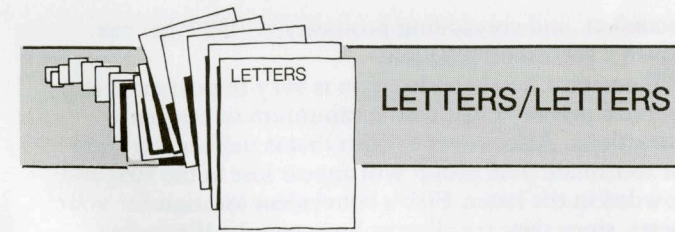
In retrospect, 1990 has been a year of tremendous effort and activity for IEEE-USA. What I have covered in this column are just a few of the highlights. If you would like more information on these activities or others, please contact me through the IEEE-USA Office in Washington, D.C. I commend all those volunteers who had a role in making 1990 a year of accomplishment—especially the members of USAB, of IEEE-USA's committees, and the PACE network—for their conscientious and continuing efforts. Thanks to you and to our hardworking IEEE-USA staff, progress continues to be made.

—Michael J. Whitelaw, P.E.

shows, newspaper articles, and radio and TV public service announcements. IEEE-USA's *PACE Leaders' Handbook* is a good source for ideas.

IEEE and PACE are committed to local IEEE participation in Discover"E" and other NEW'91 activities in fulfillment of Article I, Section 2, Paragraph 2, of the IEEE Constitution: "The IEEE shall strive to enhance the quality of life for all peoples throughout the world through constructive application of technology in its field of competence. It shall endeavor to promote the understanding of the influence of such technology on the public welfare."

I hope IEEE will have at least 90 percent of all its U.S. Sections and Societies involved in National Engineers Week by 1993, when IEEE will take on the role of lead sponsoring society. ♦



Members Need Better Support

Impact (September 1990) contains some excellent material that cannot and should not just be read without garnering the support it needs and deserves from every IEEE member. The common thread through the whole issue is simply that IEEE (along with all the other technical societies) must take a deep breath, swallow hard and then face up to a real-world fact: the main reason for IEEE's existence, and that of all technical societies, is to promote member professional well-being, like addressing the clear concerns of Larry Dwon and the membership at large.

Now I know this simple, all-encompassing statement may sound too basic, but I assure everyone that after my experiences in the past four-and-one-half years, I have learned some very valuable lessons. I would like to share them with as many members as possible.

First, IEEE has been very supportive of me by publishing articles and interviews, giving me a Citation of Honor award, and accepting me as a Senior Member. I am very grateful for all the support, but the time has come to lay out on the table some very disturbing facts, which point to some very serious deficiencies in all technical societies.

I have spoken more than 100 times about my experiences with the Space Shuttle *Challenger* disaster, and I always answer questions after the talks. With minor variations, I seem to be asked the same questions almost every time. One is, "What support did you receive from the technical societies?" I answer that IEEE has supported me with many articles, and ASME asked me to present a paper at its annual meeting. The follow-up question usually is, "But what substantive support did you receive concerning your job, or legal aid?" I answer that I received several offers to circulate my resume from two IEEE Regional officers, but no other help was offered by any other organization in any form.

The people asking the questions typically express disappointment with my answers. I try to point out that all U.S. technical societies are basically in debt to industry and government. Most do not exist to service the professional problems of their membership, in my opinion. Then, I give some examples to support my belief. All U.S. technical societies receive tremendous financial and attendance support from industry and government in the form of payment, use of employer resources, time to prepare and publish papers, payment of conference fees, and paid time-off to attend conferences. These highly visible support activities corrupt the neutrality and objectivity of the technical societies.

I firmly believe that engineers are used as a renewable resource. This is a direct result of weak and generally non-existent support from the technical societies, combined with the huge industrial exemption from professional engineering license requirements currently not being addressed by anyone.

The Association of Professional Engineers, Geologists and Geophysicists of Alberta, Canada, invited me and Captain Bob Pearson, an airline pilot who is the subject of the book *Freefall*, to speak on ethics. His airline company in Canada tried to blame him and his copilot for an accident, even though no serious injuries resulted and everyone considered them heroes.

After several years of fact-finding hearings, which were called for and fully supported by the Pilots Association, Bob and his copilot were exonerated of any blame or wrongdoing. This is the role that a professional association should perform.

Captain Pearson asked me whether I received any job support from any of my professional organizations; I said no. He was curious about the dues structure in our professional organizations; so I told him that typically dues were about \$100 per year. He laughed and said, "No wonder you didn't receive any meaningful support with the dues structure as it is." He told me that pilots typically pay around \$2,000 per year. He was quick to add that pilot numbers are relatively small compared to the number of engineers in Canada—that was the reason for high dues.

Try as I did to explain, Pearson simply could not understand why professional technical organizations in the United States would not support their members against punishment from employers. With so many members in societies like IEEE, a very modest increase in dues, coupled with a redirection of resources, would produce a very strong, independent technical society, according to Pearson. Such a society could truly afford to serve its members in resolving disputes.

I'm guessing that IEEE leaders think I'm just advocating a professional union at the expense of the many services that IEEE provides. Actually, I abhor unions, but I thoroughly support open and constructive two-way communication. I also support members' desires for changes in priorities toward true independent professionalism in IEEE.

Professional engineering registration, taken as a voluntary action by all engineers regardless of employer exemption, will start the ethical inertia back in the right direction. This is especially true, if coupled with a rise in real technical society independence and freedom from implied loss of industrial and government support.

Just imagine how a manager might respond if he or she constantly heard the phrase, "Are you asking me to violate my professional engineering code of ethics by insisting that this defective product be shipped or this technically deficient design be approved for manufacture and sale?" Don't you think this would change how decisions are made and business is conducted? I do, especially if massive numbers of engineers would take the exams and become registered. At the same time, a strong technical society push could repeal the current government and industrial exemptions of not requiring a professional engineering license to practice as an engineer.

I'm not suggesting this task will be easy to accomplish or even easily understood and accepted by many, but I believe our long-term survival as engineers requires we do whatever is necessary to protect our profession and enable us to attain some modest level of stability and a voice in what we are engaged in. I am not asking anyone to do

anything that I have not already done myself. In retrospect, I wish I had become licensed many years ago.

My last statement has much speculation in the form of maybe, may, and might, but the speculation is plausible to me. So let's all take off our self-serving hats and place our egos on the shelf. Let's roll up our sleeves and take a shot at a positive change for the good of all members and our profession, especially for the young people entering the engineering profession—our nation's future.

—Roger M. Boisjoly, P.E.
Mesa, Arizona

INDUSTRY MEETING—*continued*

in the allotted time. If the group is much smaller, the benefit of hearing others' ideas is limited. When industry executives hear one another offering ideas for programs and field trips, it may prompt them to think of similar opportunities within their industries. Also, a group of 20 can all be seated at one or two tables. This seating stimulates conversation and getting to know one another better.

Establishing an industry executive guest list is the most important task in setting up a Section Officers-Industry Executives Luncheon. Target the industries you wish to focus on, and ask members from those industries for suggestions on the most appropriate guests. Usually, high-ranking company personnel, directly related to engineering are the best bets. Frequently, they will have titles such as Vice President, Director, or Manager of Engineering. However, they may well be Presidents or Plant Managers, depending upon the facility and company. You can also use your Chapter Chairmen to develop a guest list. Ask them to invite leaders from industries important to their Chapters or to suggest appropriate guests.

Once the list is developed, it is important to extend invitations personally. Inviting the executives first by telephone is essential. Then, send follow-up letters providing them with luncheon details and supplying them with a reminder for their calendars.

Re-emphasize in the follow-up letters that you want them to tell you how you can better serve your members in their industries. They will probably do some advance homework and seek out some IEEE members in their organizations.

Most executives will be very pleased to receive a personal luncheon invitation, when you explain that you want their input on how IEEE can better serve their industries and employees. If you don't have the name of an individual to invite in a targeted company, have your secretary call the company receptionist. The secretary should ask for the name of the top individual directly related to engineering. Once you have a name, follow the procedures I've already suggested. This is the only way to reach the individuals that you truly want to attend.

In written follow-up invitations include a schedule of events clearly indicating a start-up and a conclusion time. Starting about 11:30 A.M. with refreshments and introductions, serving lunch at noon, following with

discussion, and concluding promptly at 1:30 P.M. has proven a successful schedule.

Choosing a luncheon location is very important. First, reserve a private room with a minimum of outside distractions. Also, select a room that is neither too large nor too small. The group will appear lost in the first and crowded in the latter. Pick a convenient location for your guests, since they are all very busy people. If possible, arrange for a room with a little atmosphere. For instance, an appropriate room at a private country club works very well. Finally, be sure that the food and the service are appropriate for members and guests.

Use pre-printed name badges to keep introductions to a minimum, and have place cards at the table so that guests and IEEE members will be optimally seated to assist conversation during lunch. Preorder lunch to facilitate prompt service. Attention to detail will emphasize to those invited that IEEE is an effective organization. They will conclude your interest in utilizing their time and your members' time is genuine.

Adopt an after-lunch program that best fits your requirements. Break the ice by asking everyone to introduce and tell a little about themselves. Have the Chairman begin. He or she can set the pattern for the amount and kinds of details desired.

Next, have one of the IEEE members give a five-minute overview of IEEE and the local Section. Proceed around the room, asking the guests to describe their views and ideas on improving service to members and their industries. Take meeting minutes. You will want to follow-up later, and an outline of events will be helpful. Finally, be sure to conclude at the announced time, after appropriately thanking your guests.

Promptly after the meeting, write a personal letter to your guests thanking them for their attendance and participation. Enclose a copy of IEEE's Membership Application and Information pamphlet with the letter, explaining that it contains additional information about IEEE. Also, request your contacts to pass the application on to someone they think might be interested in becoming an IEEE member.

Distribute copies of meeting notes to executive committee members and make follow-up assignments. Be sure unanswered questions are answered. Convey any offers to provide speakers, meetings, or facilities for field trips to the proper Section or Chapter officers.

You can request Regional PACE funds to finance Section Officer-Industry Executive Luncheons. Whether you request funding or finance the luncheon by other means, *do not* ask industry executives to pay for their lunches. To do so would destroy the impression you have worked so hard to create—which is, recognizing important industry people and how they can contribute their ideas and suggestions.

A well-planned, organized, and executed Section Officer-Industry Executive meeting can contribute significantly to the personal and professional growth of your Section's members. It should provide you with information to improve your planning of meetings and programs, to establish contacts with executives in your members' companies, and to increase the executives' awareness of the programs and activities of IEEE and your local Section and Chapters. ♦