

UNITED STATES



ACTIVITIES BOARD

The Institute of Electrical and Electronics Engineers, Inc.

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USAB 1983 Report

"USAB has grown in activity and influence over its first 10 years; more, I am sure, than anyone dreamed when it was formed. And this year we are basking in its success: congratulating ourselves when the Congress comes to us and asks us for our opinion, when the President's science advisor says that *Spectrum* is his favorite magazine, and when we find ourselves on prime-time TV giving our opinion on issues. It gets to be very heady. . .

"There is much to be done in the second decade of the United States Activities Board. We must dedicate our efforts to making USAB more effective, more pro-active, better organized, and better attuned to the membership, while at the same time preserving our gains and opposing those who would have us slip back."—

Edward J. Doyle, IEEE Vice President, Professional Activities, at the 1983 USAB National PACE Conference, Sept. 2-5, 1983, Phoenix, Ariz.

Introduction

As noted in the professional-activities portion of the IEEE Centennial Exhibit unveiled late last year at Wescon in San Francisco, "Volunteers of the United States Activities Board and the Professional Activities Committees for Engineers (PACE) are serving members, developing awareness of professional issues among EEs and the public, as well as involving engineers in the local, state, and national political processes."

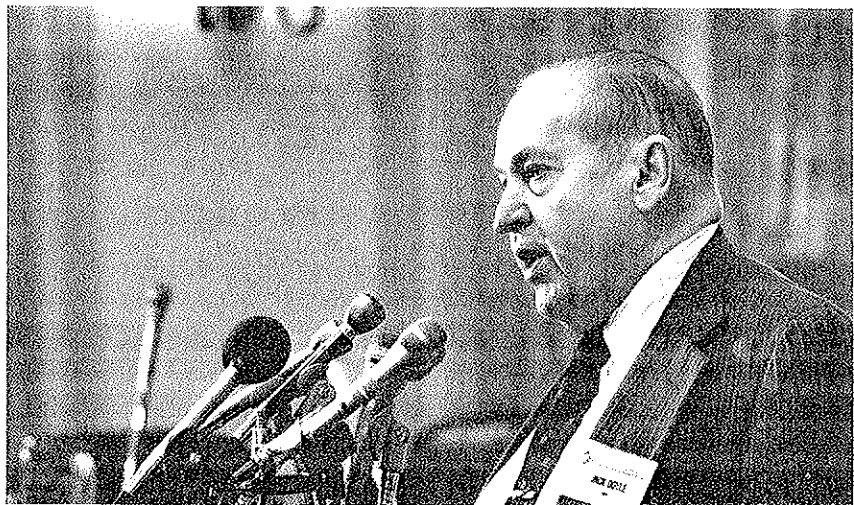
The professional-activities portion of the exhibit then lists ways volunteers establish a professional work environment through enhancing career development, surveying supply and demand and salary and fringe benefits, improving pension benefits, enhancing patent rights, combating age discrimination, supporting more effective utilization of engineering skills, promoting adherence to the IEEE Code of Ethics, and recognizing professional contributions and public service.

It also lists ways in which volunteers influence national technology-policy issues regarding research and development funding; energy use and development; productivity and innovation; health care, radiation, and

environmental quality; international competitiveness and technology transfer; and communications and information technology policy.

This report summarizes ways volunteers have helped establish a professional work environment and influence national technology policy in 1983. It is organized in the following areas: Legislative Activities; Executive Branch Activities; Employment Assistance and Career Maintenance and Development; Conferences; and Communications, Public Information.

"USAB deals with issues that are of interest to all members," said IEEE 1983 Vice President for Professional Activities Edward J. Doyle. "It deals with issues that are timely and in the forefront of public attention."



Legislative Activities

The IEEE testified some 28 times before the U.S. Congress last year, as detailed below:

- The Pension Task Force is on record supporting legislation that would allow nondeductible contributions to individual retirement accounts (IRAs) in excess of \$2000.
- The same task force favored House and Senate legislation addressing pensions with regard to vesting, integration, and portability.
- The USAB also presented Educational Activities Board-supported testimony favoring a tax exemption for employer-paid continuing education.
- The Age Discrimination Task Force supported proposed legislation in the House and Senate modifying *The Age Discrimination in Employment Act*.
- The Manpower Task Force supported a return rule for foreign engineering students with "very limited exceptions," requiring them to leave the United States for two years before they adjust their immigration status.
- The Patent Rights Task Force favored a House bill to set Federal standards for permissible employee pre-

invention assignment agreements, as well as scheduled constituent visits in Members' home districts to support enactment.

- The same task force favored protection for semiconductor chips and developed a draft Entity Position Statement on intellectual property protection, encompassing patents and copyrights.

- The TAB/USAB R&D Committee supported additional funding for the National Aeronautics and Space Administration (NASA), the National Bureau of Standards, and the National Science Foundation (NSF).

- The TAB/USAB Energy Committee supported increased funding for Federal energy research in fusion, solar and renewables, conservation, and electric energy systems. It also favored development of the Clinch River Breeder Reactor.

- The Scientific Supercomputer Committee endorsed expenditures of \$100 million a year for five years to help "bring supercomputer development to a reasonable state-of-the-art level at the end of this period of time."

- The Production and Innovation Task Force supported legislation calling for reorganization of the Commerce Department into a Department of International Trade and Industry. It also favored providing antitrust immunity for joint R&D.

- The TAB/USAB Technology Transfer Committee endorsed testimony in the House stating: "It should be recognized that the U.S. must ultimately depend on the strength and accomplishments of its scientific and technical community for its regional security. This community needs the freedom to communicate openly to retain its vitality."

- New PACE programs were initiated in Kansas and North Carolina to improve interaction with state governments.

Member Visits—In addition, members of the Pension Task Force, Age Discrimination Task Force, and Patent

Rights Task Force visited Capitol Hill last year to meet with members of Congress. The Pension Task Force held a meeting with Representative Barber Conable (R-N.Y.), Ranking Minority Member, House Ways and Means Committee. The Committee on Communications and Information Policy received a presentation from Representative Ed Zschau (R-Calif.), a member of the House Foreign Affairs Committee.

Congressional Fellows—As of September 1983, five IEEE Congressional Fellows served concurrently on Capitol Hill: with Senator John Glenn (D-Ohio), Jack Lubowsky, director, Scientific Computing Center, State University of New York; with Senator Jeremiah Denton (R-Ala.), Orin Marvel, Senior Engineering Fellow, Defense Electronics Division, Honeywell Inc.; with Senator Howell Heflin (D-Ala.), Doyce Satterfield, manager, Science and Engineering, Office of the Chief of Staff, Department of the Army; with Senator John Warner (R-Va), Lieutenant Colonel Guy Copeland, assistant project manager, Position Location Reporting System/Tactical Information Distribution Systems Program Office, Fort Monmouth; and with Senator Bill Bradley (D-N.J.), George Francis Swetnam Jr., consulting engineer, Mitre Corp.

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PAC Decision—The USAB Operating Committee agreed to drop any further consideration of political action committees (PACs), after finding insufficient member interest. Various surveys showed the membership split on whether the U.S. IEEE should become involved in forming PACs.

Executive Branch Activities

The IEEE Washington Office interacted with the Executive Branch in the following ways:

- The R&D Committee conducted a briefing on Federal R&D Funding in Electrotechnology for Fiscal Year (FY) 1984. Agency officials participating in the briefing included representatives of the Office of Science and Technology Policy, Office of the Undersecretary of Defense for Research and Engineering, Directorate for Engineering, Office of Energy Research, and NASA. The Committee also prepared a report entitled *Electrotechnology-Related Research in FY 1984 Budget*.

- Various officers, volunteers, and staff visited the Presidential science advisor, the NSF director, the National Academies of Science and Engineering presidents, and the Assistant Secretary of Commerce for International Trade.



- In a letter to the Internal Revenue Service, the Committee on Communications and Information Policy (CCIP) supported additional tax credits for software development.

- In addition, the CCIP endorsed a system of voluntary standards to apply to the public telephone network under deregulation, in the absence of Government regulation.

- The committee also endorsed Organization for Economic Cooperation and Development (OECD) Guidelines on Privacy of Personal Data.

- The committee received a briefing from the Defense Department on Telecommunications in Emergencies.

Employment Assistance, Career Maintenance and Development

In addition to Legislative and Executive Branch activities, the USAB sought to provide employment assistance and support career maintenance and development as follows:

- The Employment Assistance Task Force published two editions of *An Employment Guide for Engineers and Scientists*, with information on career planning, résumé preparation, interviewing techniques, and employment agencies. Complimentary copies were distributed to unemployed members.

- The same task force proposed that the Professional Engineering Employment Registry (PEER) arrange for prospective employers to obtain the résumés of U.S. IEEE participants.

- The Career Maintenance and Development Task Force convened the Third IEEE Careers Conference on "Enhancing Engineering Careers by Fulfilling Individual and Organizational Goals." Held in Palo Alto, California, the conference attracted more than 100 participants with sessions on "Career Transitions," "Mentoring," and "Engineer Utilization," plus a workshop on nontechnical aspects of engineering

performance. Participating in the conference, Past President James B. Owens expressed his continued support for career-maintenance-and-development activities such as those sponsored by USAB.

- The same task force published a document entitled *Professional Practices for Engineers, Scientists, and Their Employers*, which *Electronics* magazine cited in an article with the headline, "IEEE Backs Stable Employment."

- The 1977 IEEE Position Paper on "IEEE Members' Professional Needs" was reviewed by USAB and submitted to members for their consideration in the December 1983 *IMPACT*.

- USAB volunteers and staff assumed a leadership role in developing the American Association of Engineering Societies' (AAES) Code of Ethics. The USAB surveyed IEEE members regarding the Code.

- The Pension Task Force prepared *How to Evaluate Your Pension Plan* and developed an analysis of the pension plans of the top 10 employers of IEEE members.

- The Licensure and Registration Task Force conducted workshops for potential writers of questions for the electrical engineering portion of the Professional Engineers Examination

administered by the National Council of Engineering Examiners (NCEE).

- Service Contract Task Force representatives visited Cape Canaveral, Idaho Falls, Huntsville, and Oak Ridge to evaluate "recompetition" of service contracts.

- The same task force also monitored requests for proposals (RFPs) and contracts such as the Shuttle Processing Contract at the Kennedy Space Center.

- Meetings were held with the NASA contracting officer and two companies that were service bidders on recent multibillion-dollar contracts.

Conferences

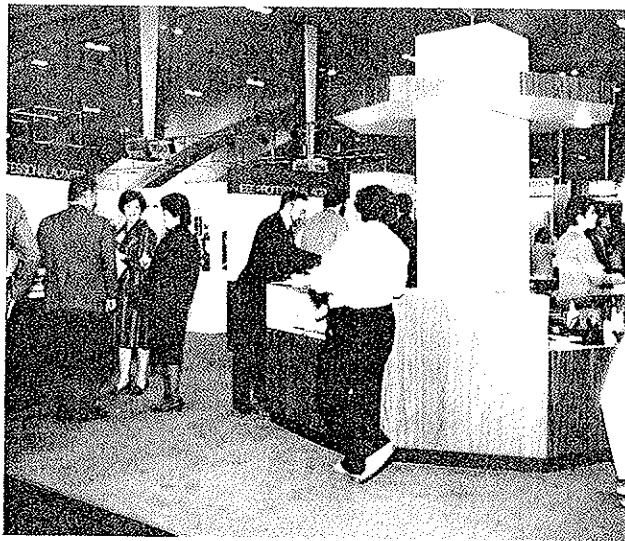
Among the conference activities of USAB were the following:

- The 1983 National PACE Conference was held Sept. 2-5, 1983, in Phoenix, Arizona. It included a daylong workshop on enhancing leadership effectiveness, presentations on USAB challenges in its second decade, and discussions of USAB political involvement as well as manpower issues. A conference report is available from the IEEE Washington Office.

- The Engineering Awareness Task Force supported development of the

Members of the Senate Commerce, Science, and Transportation Committee Senator Howell Heflin (D-Ala.), Senator Slade Gorton (R-Wash.), and Senator Donald W. Riegel (D-Mich.) receive IEEE/USAB testimony on The Manufacturing Sciences and Technology R&D Act prepared by USAB's Russell C. Drew.





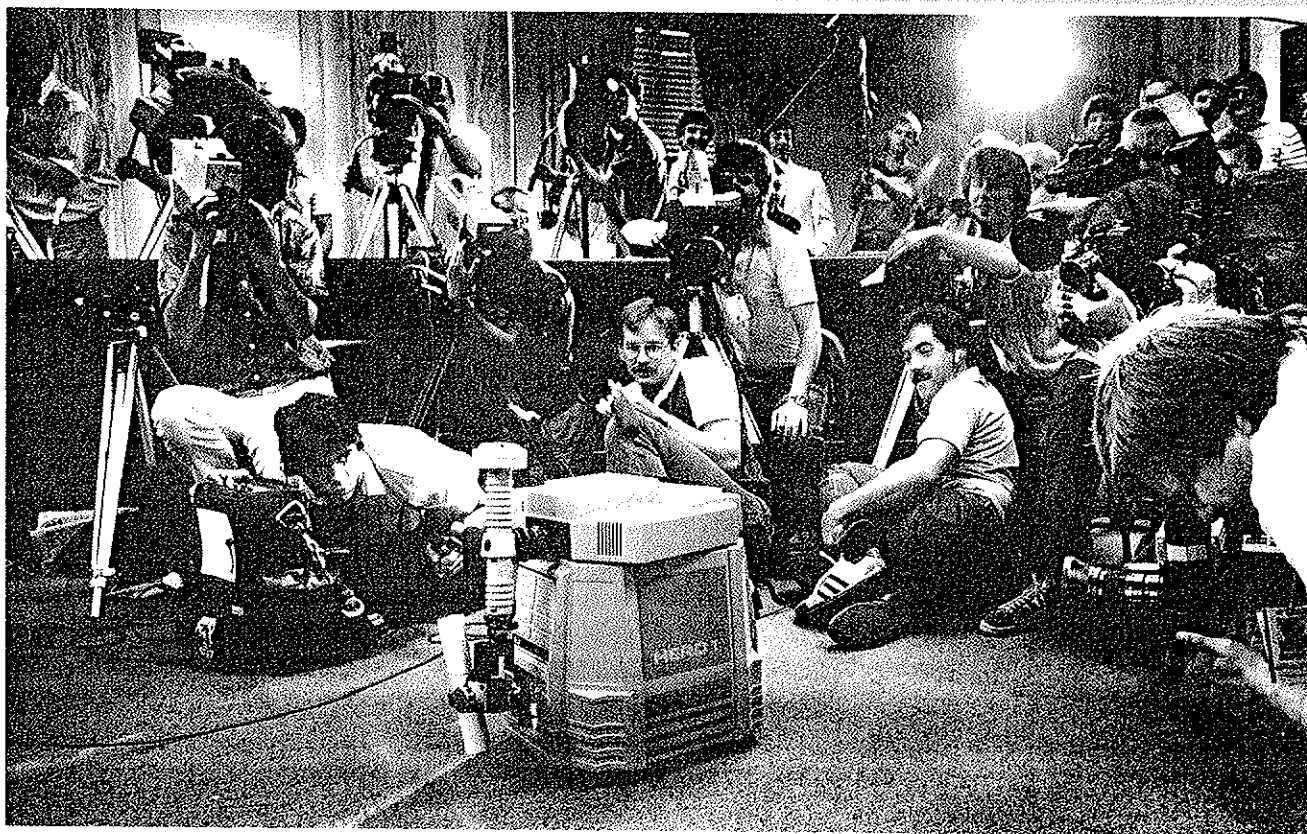
The professional-activities portion of the IEEE Centennial Exhibit emphasizes that IEEE volunteers help establish a professional work environment and influence national technology policy.



The IEEE Centennial Exhibit was unveiled at Wescon in San Francisco in November 1983.

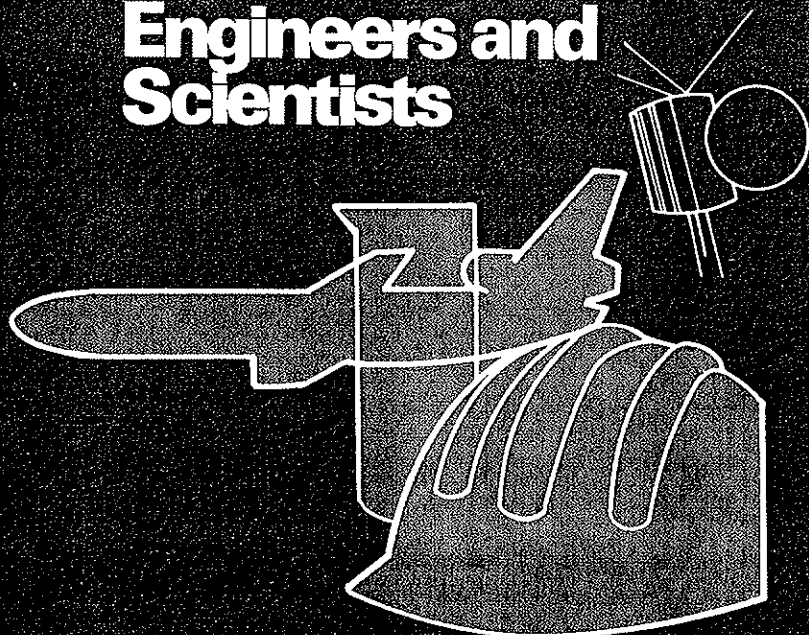
Major media surround Hero 1, the robot, clutching IEEE/USAB testimony presented with its computer-synthesized voice, during the June 1983 Senate hearings on The Manufacturing Sciences and Technology R&D Act. Hero's statement, prepared by a USAB volunteer, noted: "I have many of the same capabilities as my larger industrial brothers. We can work well with humans. But we have limits. We need better sensors, mechanical systems, and user-friendly software. We can serve you better with better technology."

(Washington Times—Julia Gaines)



EMPLOYMENT GUIDE for Engineers and Scientists

2nd Edition



Employment Guide for Engineers and Scientists cover.

professional activities portion of the IEEE Centennial Exhibit including a live satellite feed from Congress, a video tape on "The USAB in Washington," and two personal computers providing USAB information on an interactive basis.

- Almost two dozen Student Professional Awareness Conferences were held last year "to increase professional awareness among student members of the IEEE." The conferences are a joint project of the Regional Activities Board and USAB.

- The Age Discrimination Task Force sponsored workshops at Southeastcon, Ohmcon, and Maecon. Presentations were also made last year at the Region 5 Conference, and various IEEE Section meetings.

- The Technical Conference Networking Task Force supported presentations on professional activities before various IEEE technical societies including the Control Systems Society and the Engineering in Medicine and Biology Society.

- The TAB/USAB Technology

Policy Committee completed extensive planning of the IEEE 1984 Conference on U.S. Technology Policy scheduled in Washington, D.C., Feb. 22-23. The theme of the conference is

"ElectroTechnology and Innovation."

Included among the speakers are:

Simon Ramo, George A. Keyworth II, Richard D. DeLauer, Representative Doug Walgren (D-Pa.), Representative Ed Zschau (R-Calif.), and Dr. John Slaughter, Chancellor, University of Maryland.

- Similar planning was completed for an IEEE Centennial Briefing on Electrotechnology to be held for major media in Washington, D.C., Feb. 21-22, 1984.

- USAB volunteers and staff supported the AAES Public Affairs Forum held last October in Washington, D.C. More than 100 people attended the conference with the theme, "U.S. Technological Literacy: Framing the Issues."

Communications, Public Information

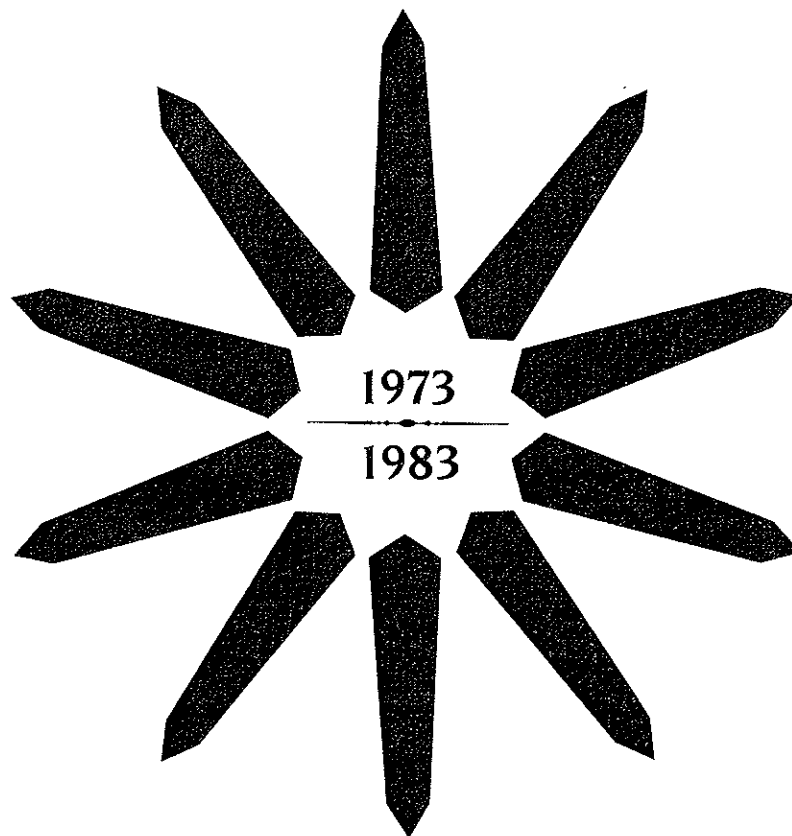
Last year, USAB produced the following publications: 1983 IEEE U.S. Member Salary and Fringe Benefit Survey; Employment Guide for Engineers and Scientists; 1983 IEEE U.S. Member Opinion Survey; PACE Guide on Age Discrimination; PACE Conference Report; Profile of Women in IEEE; IEEE's United States Activities Board: The First 10 Years; IMPACT; Legislative Report; USAB 1982 Report, distributed on Capitol Hill, to media, and at IEEE conferences; USAB Program Plan; and USAB Directory. Slide shows included productions on age discrimination, "Energy in Perspective," USAB history, professional activities, pensions, and electrotechnology.

In addition, as part of the Institute's overall public information objectives to enhance public recognition of the engineering profession, the following activities took place:

- An IEEE Fellow appeared on the nationally-syndicated *Phil Donahue Show*, reassuring viewers about the impact of computers.
- Perhaps the first testimony ever presented in Congress by a robot was offered on behalf of the IEEE/USAB in support of S. 1286, *The Manufacturing Sciences and Technology R&D Act*.
- Four American-inventors stamps were unveiled and issued by the U.S. Postal Service in conjunction with the celebration of the first 10 years of IEEE professional activities, the "USAB Decennium," and other IEEE activities.
- Also, in recognition of member achievements, the Awards Committee made these presentations: the *USAB Award for Professionalism* to Hans C. Cherney; the *USAB Award for Distinguished Public Service* to Senator James A. McClure (R-Idaho); the *USAB Citation of Honor* to Robert A. Barden, Wallace D. Decker, Ronald J. Fredricks, and Robert J. Frank; *USAB Regional Professional Activities Awards* to Alex Gruenwald (Region 1), Robert E. Weiler (Region 2), Joseph A. Wiencko Jr. (Region 3), David W. Ford (Region 4), George R. Dean (Region 5), and Alfred H. Barauk (Region 6); plus 24 *USAB Certificates of Appreciation*.

United States Activities Board

THE FIRST TEN YEARS



IEEE's United States Activities Board: The First 10 Years cover.

Conclusion

In conclusion, 1983 Professional Activities Vice President Doyle describes "the growing reputation" of USAB in Washington: "Over the past 10 years, we have become a strong force in Washington, especially considering the small dollar amount we spend there compared to other organizations. Both sides of our efforts—the technical advice we give and the positions we take to enhance the welfare of our members and all

engineers—contribute to our reputation."

Further information can be obtained from the IEEE Washington Office, Public Information, 1111-19th St., N.W., Suite 608, Washington, D.C. 20036; telephone 202-785-0017.