USAB

UNITED STATES ACTIVITIES BOARD

1987 REPORT

IEEE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Introduction

To build a rewarding career, electrical and electronics engineers must first complete a rigorous education and then remain current on technological advances in their field. They are constantly challenged to apply technology in socially constructive ways.

Yet, there are many policies and issues affecting their profession in which they have no voice. The United States Activities Board (USAB) mediates and reports on these policies and issues on behalf of almost 235,000 IEEE members living in the United States.

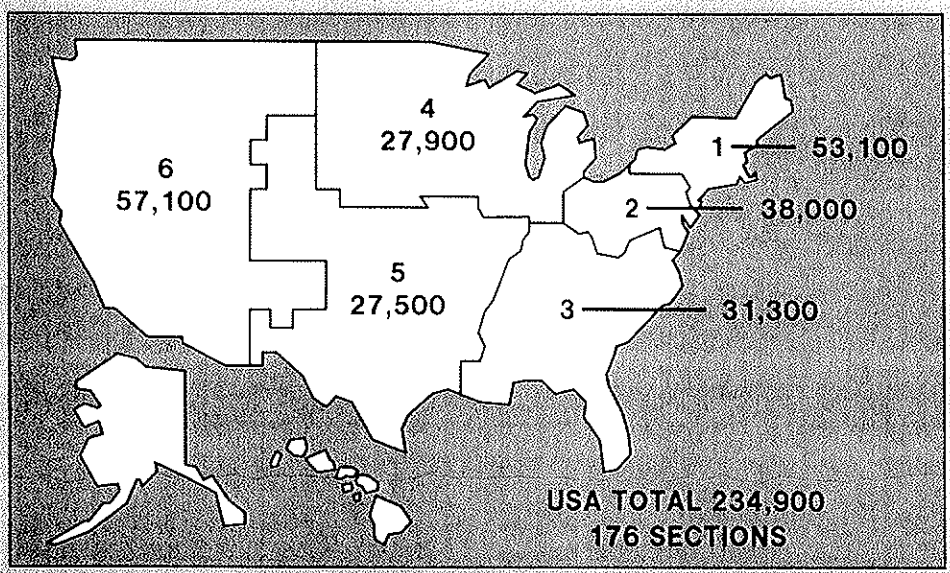
With a budget of more than $2.5 million, USAB conducted targeted programs to support the professional well-being of electrical engineers and the constructive application of technology for all people. The budget includes expenditures on USAB's work with an engineering umbrella group, the American Association of Engineering Societies (AAES). USAB's efforts on behalf of U.S. engineers are magnified by cooperation with this organization of 22 societies representing more than half a million engineers in industry, government, and academia.

The United States Activities Board operates in three areas. The first encompasses those efforts aimed at influencing technology policies and practices propounded by the U.S. government. Included are such technology-related issues as energy resources, communications and information policy, health care engineering, international competitiveness, and technology transfer.

The second encompasses efforts to support or reform state or national policies and practices that affect the livelihoods of electrical engineers in the United States. Efforts include: resource utilization, continuing education, and pension reform.

The third consists of efforts to bolster the professional standing and careers of U.S. IEEE members. Efforts include: job data banks, career maintenance and development activities, and awards and recognition programs.

This summary report describes activities in all three of these areas, beginning with efforts aimed at influencing technology policy and practices propounded by the U.S. government. Additional sections are devoted to briefings, workshops, conferences, and multiyear planning. A single asterisk following an item indicates that it can be obtained without charge from the IEEE Washington Office (telephone 202-785-0017). A double asterisk indicates that an item can be purchased from the IEEE Service Center (telephone 201-981-1393).



USAB represents almost 235,000 U.S. IEEE members.

EFFORTS TO INFLUENCE TECHNOLOGY POLICY PROPOUNDED BY U.S. GOVERNMENT

'IEEE Federal Legislative Agenda'

The USAB National Government Activities Task Force produced an updated version of the *IEEE Federal Legislative Agenda** for the 100th U.S. Congress. The *Agenda* provides IEEE-related positions on such diverse topics as retirement income benefits, professional careers of IEEE members, intellectual property, computers and communications, and technology transfer. The publication has been distributed to all members of Congress with a cover letter from Carleton A. Bayless, IEEE Professional Activities Vice President and USAB Chairman.

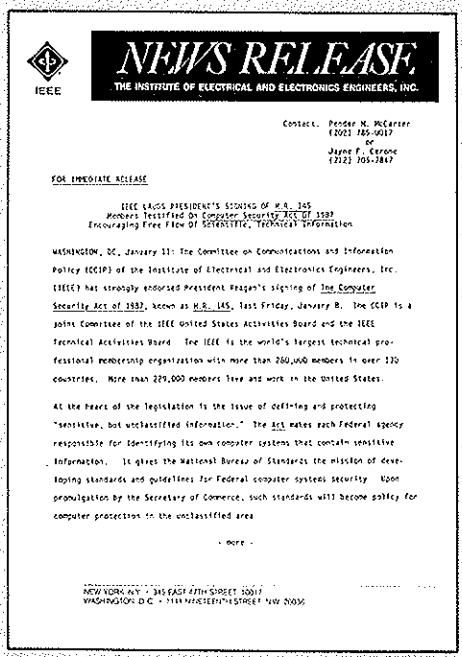
Presenting Technical Papers

In October, the U.S. Department of Defense (DOD) issued a final rule determining how technical papers prepared under DOD auspices can be reviewed and presented at technical conferences. Between 1985-86, IEEE and other societies urged the Defense Department to develop procedures that would limit the time officials take to review papers. IEEE and its counterparts expressed concern that their members were often denied access to needed information because of long review cycles.

Preserving Semiconductor Technology

In 1987, the United States Activities Board urged the U.S. government to act immediately to implement long-term solutions to research and development problems in both semiconductors and gallium arsenide components. In position statements* sent to the President and his Cabinet, USAB stressed that losing the lead in semiconductor technology threatens key American industries, including the U.S. supercomputer industry. USAB suggested that foreign countries' gains in gallium arsenide technology could hurt the U.S. computer and communications industries.

With the objective of avoiding semiconductor overproduction and of opening markets to the United States, USAB recommended placing temporary tariffs on imported semiconductors from Japan, in addition to making changes in U.S. tax policy and laws. As a result of efforts by USAB and others, temporary tariffs were imposed.



IEEE

NEWS RELEASE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Contacts: Procter N. McCarver
(202) 785-0017
or
Jayne F. Carnone
(212) 705-7847

FOR IMMEDIATE RELEASE

IEEE CCIP PRESIDENT'S SIGNING OF H.R. 145
Members Testified On Computer Security Act Of 1987
Encouraging Free Flow Of Scientific, Technical Information

WASHINGTON, DC, January 11: The Committee on Communications and Information Policy (CCIP) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE) has strongly endorsed President Reagan's signing of the Computer Security Act of 1987, known as H.R. 145, last Friday, January 8. The CCIP is a joint Committee of the IEEE United States Activities Board and the IEEE Technical Activities Board. The IEEE is the world's largest technical professional membership organization with more than 260,000 members in over 130 countries. More than 229,000 members live and work in the United States.

At the heart of the legislation is the issue of defining and protecting "sensitive, but unclassified information." The Act makes each Federal agency responsible for identifying its own computer systems that contain sensitive information. It gives the National Bureau of Standards the mission of developing standards and guidelines for Federal computer systems security. Upon promulgation by the Secretary of Commerce, such standards will become policy for computer protection in the unclassified area

- more -

NEW YORK, NY • 345 EAST 47TH STREET 10017
WASHINGTON, D.C. • 1111 NINETEENTH STREET, NW 20036

Quoted in a news release, IEEE CCIP Chairman John M. Richardson praises Mr. Reagan's signing of the ***Computer Security Act of 1987,*** *encouraging the free flow of scientific and technical information.*

In July, IEEE members briefed the Office of the U.S. Trade Representative on the U.S. semiconductor industry. Members included Bruno O. Weinschel, IEEE Past President, and John M. Richardson, Chairman of the IEEE Committee on Communications and Information Policy (CCIP). In December, CCIP representatives provided a briefing on semiconductors to the committee staff of Senator Albert Gore, Jr. (D-TN).

R&D Activities

The *Aerospace R&D Committee*, a joint group of the IEEE Technical Activities Board (TAB) and USAB, supported a strong NASA budget, including continuation of the Advanced Communications Technology Satellite (ACTS) program. It developed a USAB position statement on the U.S. Civilian Space Program* urging "the declaration of a set of national goals for our space program that will ensure regaining U.S. leadership."

The *Defense R&D Committee*, also a joint group of TAB and USAB, developed concepts for a series of industrially-managed Centers of Excellence in advanced electronics materials and persuaded the Defense Advanced Research Project Agency (DARPA) to include a prototype center in optoelectronics as one of three new initiatives.

The *Engineering R&D Committee*, another joint TAB-USAB group, developed a position statement on U.S. Engineering R&D,* and is working on a position on recommendations for enhanced engineering education. The committee also endorsed National Bureau of Standards (NBS) programs in computer science and technology.

The *Energy Committee*, also a joint TAB-USAB group, testified on fusion as well as U.S. Department of Energy electric energy systems and energy storage programs. In addition, the committee produced materials and conducted seminars on the U.S. energy program and on fusion power for Congress, IEEE membership, and the public at large.

IEEE Congressional Fellows

USAB sponsors the IEEE Congressional Fellows program which selects electrical and electronics engineers and allied scientists to complete one-year fellowships on the personal staffs of individual Senators or Representatives and on the professional staffs of Congressional Committees. Serving in 1987 as Congressional Fellows were: *Steinar Dale,* a member of the committee staff of the House Science, Space, and Technology Committee and a principal staff member of the Committee's Task Force on Technology Policy; *Dr. Lawrence P. Grayson*, a member of the personal staff of Representative Jack Kemp (R-NY), assigned to a special global competitiveness project; and *Fredrick Matos*, a member of the personal staff of Representative Thomas J. Tauke (R-IA), studying telecommunications issues.

Selected as 1987-88 IEEE Congressional Fellows were: *Dr. George C. Sponsler III*, a member of the personal staff of Senator Paul Simon (D-IL); *Dr. James E. Gover*, a member of the personal staff of Senator Pete Domenici (R-NM); and *Clark E. Johnson,* a member of the personal staff of Representative George E. Brown, Jr. (D-CA). Thirty-three IEEE Congressional Fellows have been selected since 1973.

1987 IEEE Congressional Fellows Steinar Dale (left) and Lawrence P. Grayson chat during break in March ***IEEE Briefing on Federal Electrotechnology R&D Funding*** *on Capitol Hill.*

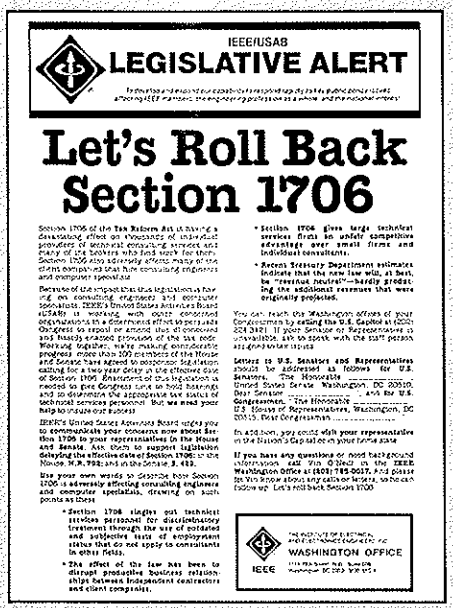
EFFORTS TO SUPPORT STATE OR NATIONAL POLICIES AFFECTING LIVELIHOODS OF U.S. ELECTRICAL ENGINEERS

Opposing Section 1706 of "Tax Reform Act"

In response to member concerns, a major effort was launched in 1987 to "roll back" Section 1706 of *The Tax Reform Act of 1986*. According to USAB leaders, Section 1706 disrupts the tax status of consulting engineers, computer specialists, and individuals and firms providing technical services.

USAB found the section detrimental to problem solving, productivity, innovation, and new business development. Through *Legislative Alerts** to IEEE members and the press, an advertisement in the trade press, work with other interested

groups, and contacts on Capitol Hill, USAB sought a moratorium on or a repeal of Section 1706.



IEEE/USAB

LEGISLATIVE ALERT

Let's Roll Back Section 1706

Section 1706 of the Tax Reform Act is having a devastating effect on thousands of individual providers of technical consulting services and many of the lenders who fund their efforts. Section 1706 also adversely affects many of the clients serviced and has hurt consulting engineers and computer specialists.

Because of the impact that this legislation is having on consulting engineers and computer specialists, IEEE's United States Activities Board (USAB) is working with other concerned organizations on a determined effort to persuade Congress to repeal or amend that ill-conceived and hastily enacted provision of the tax code. Working together, we're making considerable progress: more than 100 members of the House and Senate have agreed to cosponsor legislation calling for a one-year delay in the effective date of Section 1706. But more legislative support is needed to give Congress time to hold hearings and to determine the appropriate tax status of technical services personnel. But we need your help to make our success.

IEEE's United States Activities Board urges you to communicate your concerns now about Section 1706 to your representatives in the House and Senate. Ask them to support legislation delaying the effective date of Section 1706 in the House (H.R. 998) and in the Senate (S. 483).

Use your own words to describe how Section 1706 is adversely affecting consulting engineers and computer specialists. Drawing on such points as these:

- Section 1706 singles out technical services personnel for discriminatory treatment through the use of outdated and subjective tests of employment status that do not apply to consultants in other fields.
- The effect of the law has been to disrupt productive business relationships between independent contractors and client companies.
- Section 1706 gives large technical services firms an unfair competitive advantage over small firms and individual consultants.
- Recent Treasury Department estimates indicate that the new law will, at best, be "revenue neutral"—hardly justifying the additional revenues that were originally projected.

You can reach the Washington offices of your Congressmen by calling the U.S. Capitol at (202) 224-3121. If your Senator or Representative is unavailable, ask to speak with the staff person assigned with tax issues.

Letters to U.S. Senators and Representatives should be addressed as follows for U.S. Senators: The Honorable ..... United States Senate, Washington, DC 20510. Dear Senator: ..... and for the U.S. Congressmen: The Honorable ..... U.S. House of Representatives, Washington, DC 20515. Dear Congressman: .....

In addition, you could visit your representative in the District Office in your home state.

If you have any questions or need background information, call Tim O'Neil in the IEEE Washington Office at (202) 785-0017. And please do let us know about any action taken, so we can follow up. Let's roll back Section 1706!

IEEE WASHINGTON OFFICE

USAB's full-page ad in September 7 ***Electronic Engineering Times*** *seeks support for consulting engineers, computer specialists, and individuals and firms providing technical services.*

Encouraging Pension Portability

USAB's Pension Committee endorsed legislation in the U.S. House of Representatives considered to be an important first step in establishing portability for vested pension benefits. The legislation would permit employers to transfer the accumulated assets of former employees to accounts that are similar to Individual Retirement Accounts and simplified employment pension plans.

Combating Age Discrimination

USAB's Age Discrimination Committee joined other interest groups to obtain Senate hearings on a lack of responsiveness of the Equal Employment Opportunity Commission (EEOC) in enforcing the law on age discrimination. In September, USAB's chairman provided written testimony to the Senate Special Committee on Aging that older engineers are "particularly hard hit by age discrimination in employment" because their technical knowledge and experience is often underestimated.

EFFORTS TO BOLSTER THE PROFESSIONAL STANDING AND CAREERS OF U.S. IEEE MEMBERS

1987 IEEE U.S. Member Salary & Fringe Benefit Survey

According to the *1987 IEEE U.S. Member Salary & Fringe Benefit Survey,*** the median salary of IEEE members is $53,889. The survey, which has been purchased by some 1,400 individuals, also notes that IEEE members living in Santa Cruz, CA, and Atlanta, GA, fare the best "across the board." In addition, the *Salary & Fringe Benefit Survey* has been distributed free of charge to regional Labor Department offices assisting Federal officials in determining prevailing wages for immigrants. The survey results have been widely covered by publications in and out of IEEE.

PEER, SEER

In 1987, USAB inaugurated a new employment registry, the Self-Employed Engineers Registry, or SEER. The registry is designed for semiretired consultants, presently employed but aspiring entrepreneurs, and full-time or part-time consultants and contractors — all of whom can store their resumes in a computerized data base. The SEER service, operated under contract with Career Technologies Corp. in Andover, MA, supplements the already available Professional Engineering Employment Registry (PEER).

IEEE members can gain access to both services by writing to Career Technologies and by dialing into the firm's computer with a touch-tone telephone or personal computer and modem. During 1987, approximately 8,000 IEEE applicants were contacted by prospective employers using PEER. Brochures* are available describing both services.

1987 USAB Awards

In addition to awards for distinguished contributions to engineering professionalism, citations of honor, Regional-Divisional professional leadership, and professional achievement, two new USAB awards were created in 1987. These included awards for *Distinguished Literary Contributions Furthering Public Understanding of the Engineering Profession* and *Distinguished Contributions Furthering Engineering Professionalism.*

Stephen H. Unger, professor, ethicist, and adviser to the USAB Ethics Committee, was chosen to receive the *USAB Award for Distinguished Contributions to Engineering Professionalism.* The award, USAB's most prestigious, is given annually to an individual for "expanding public understanding of the engineering profession."

Precollege Education

The Precollege Education Committee, a joint committee of the IEEE Educational Activities Board and USAB, encourages members to become involved in working with their local school boards and participating in student competitions and science fairs. It has also developed a brochure* on what IEEE members and Sections can do to strengthen precollege math and science education at the local level. And a periodic information sheet* is available describing recent examples of precollege efforts by members and Sections.

BRIEFINGS, WORKSHOPS, CONFERENCES

With five councils and 50 committees and task forces, USAB volunteer leaders met on scores of occasions in 1987 to plan and implement professional and technology policy activities. In September alone, almost 30 meetings were held; in October, USAB took a leading role in several conferences.

In 1987, 34 Student Professional Awareness Conferences (S-PACs) were held to acquaint engineering students with professional issues in

their field. Since 1979, 171 S-PACs have taken place.

Major briefings, workshops, and conferences held in 1987 included:

- *February:* 1987 IEEE U.S. Technology Policy Conference on "Engineering Education Policy to Enhance U.S. Industrial Productivity" (Digest**)
- *March:* IEEE Briefing on Federal Electrotechnology R&D Funding in Fiscal Year 1988 (Document*)
- *May:* Breakfast Meeting of the Technology Policy Study Task Force/House Science, Space, and Technology Committee
- *September:* 1987 National PACE Workshop (Report*) and Symposium on Policy Issues in Information and Communication Technologies in Medical Applications (Publication*)
- *October:* Fifth Biennial IEEE Careers Conference on "The Engineer's Life and Career in Today's World" (Record**)
- *November:* Symposia on "Ethical and Economic Issues in Biomedical Engineering Technology" and "Technological Advances in Models for Biomedical Research."

House Science, Space, and Technology Committee Staffer Patricia G. Garfinkel (left) talks with 1987 IEEE Vice President Carleton A. Bayless and 1987 IEEE President Henry L. Bachman on Capitol Hill.

1987 IEEE President Bachman addresses a May breakfast meeting of the Technology Policy Study Task Force of the House Science, Space, and Technology Committee on Capitol Hill.

MULTIYEAR PLANNING

Under the leadership of USAB Chairman Bayless, Vice Chairman Edward C. Bertnolli, and Professional Activities Staff Director Leo C. Fanning, USAB developed Strategic, Tactical, and Operational Plans. The *Strategic Plan** specifies USAB's long-term goals and objectives. The *Tactical Plan** pinpoints possible activities from 1988 to 1992. And the *Operational Plan** provides a short-term guide for completing these activities. In addition, USAB published a six-panel brochure, titled *IEEE U.S. Professional Activities,** and revised its slide-tape presentation, *USAB: An Overview.**

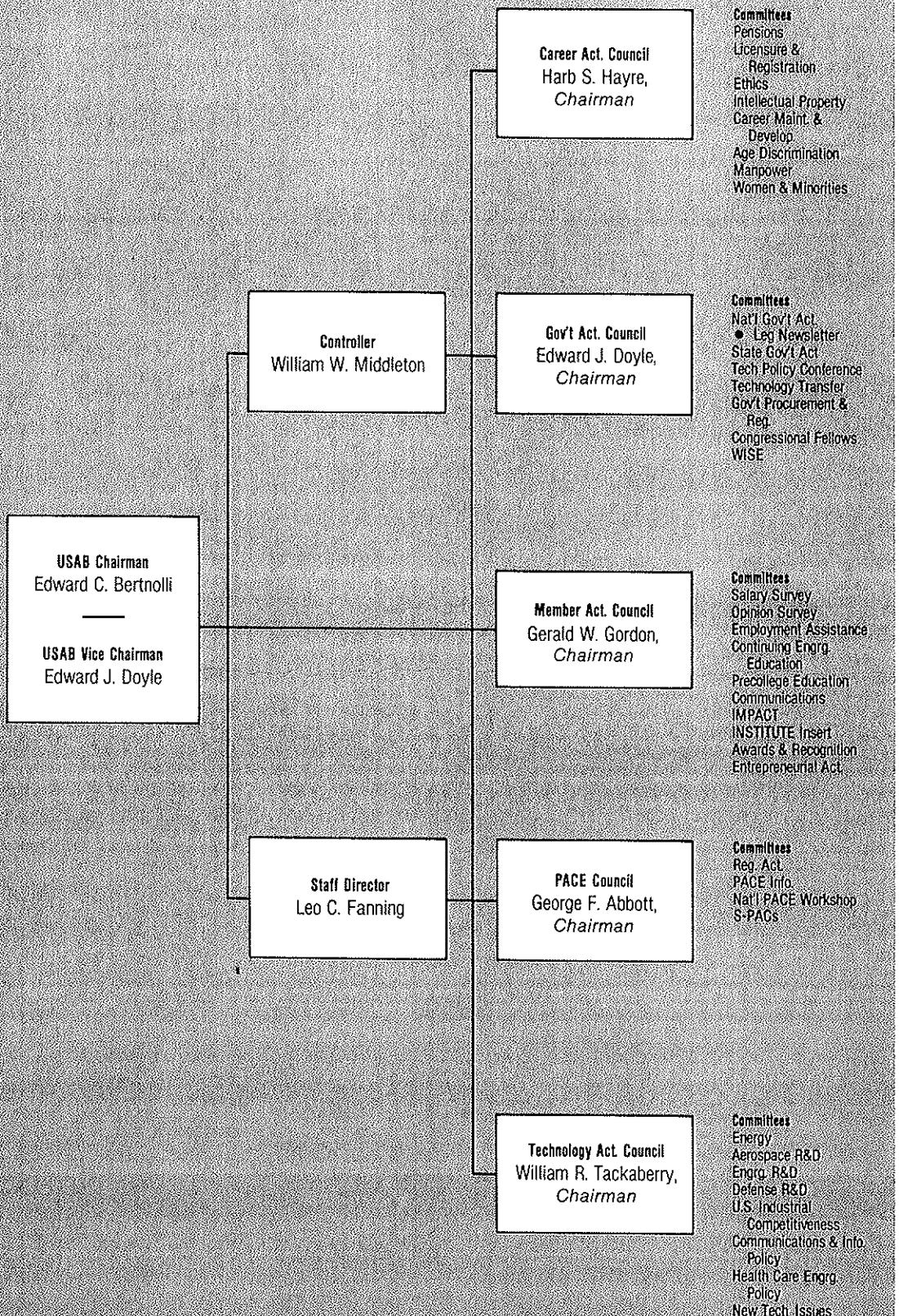
*1988 IEEE Professional Activities Vice President Edward C. Bertnolli leads a discussion at September **National PACE Workshop** in Kansas City, MO.*

Conclusion

In conclusion, Mr. Bayless summarized 1987 goals and accomplishments as improved communications with members, enhanced and expanded conference programs, strengthened relationships with other societies, increased influence on career and technical issues in Washington, and improved planning activities.

*1987 IEEE Professional Activities Vice President Bayless addresses almost 200 practicing engineers, industry managers, social and behavioral scientists, and press at October's **Fifth Biennial IEEE Careers Conference** in San Diego, CA.*

1988 United States Activities Board Operations



1987 IEEE United States Activities Board

Carleton A. Bayless
Vice President, Professional Activities and Chairman, USAB

Michael J. Whitelaw
Director, Region 1

Joseph M. DeSalvo
Director, Region 2

George F. Abbott
Director, Region 3

James E. Holte
Director, Region 4

Edward C. Bertnolli
Director, Region 5

Richard L. Doyle
Director, Region 6

Timothy N. Trick
Director, Division I

Martha Sloan
Director, Division V

Thomas H. Grim
Director, Division VI

George P. Rodrigue
Member-at-Large, 1986-87

Peter A. E. Rusche
Member-at-Large, 1987-88

Benjamin J. Leon
Chairman, Member Activities Council

Edward J. Doyle
Chairman, Government Activities Council

Harb S. Hayre
Chairman, Career Activities Council

Alan F. Culbertson
Chairman, Technology Activities Council

George R. Dean
Chairman, Professional Activities Council for Engineers

William W. Middleton
Controller

Leo C. Fanning
Staff Director

IEEE Washington Office

1111-19th Street, NW, Suite 608
Washington, D.C. 20036-3690
U.S.A.
(202) 785-0017 (Office Receptionist)
(202) 785-2180 (Information Recording)

Staff

Leo C. Fanning
Staff Director, Professional Activities

William R. Anderson
Administrator, Professional Programs

Gloria Aukland
Manager, Communications

Linda Hall
Administrative Assistant

Ann C. Hartfiel
Manager, Member and Professional Activities

William G. Herrold
Manager, Technology Activities

Heidi F. James
Program Analyst

Valerie Keels
Administrative Assistant

Pender M. McCarter
Manager, Public Information-Washington

Alicia A. McPherson
Administrator, Office Services

Maureen McTighe
Administrative Assistant

Vin O'Neill
Administrator, Professional Programs

Catherine S. McGowan
Editorial/Production Coordinator

W. Thomas Suttle
Manager, Government and Career Activities

IEEE Public Information
Washington, D.C.
January, 1988