

# ELECTRICAL ENGINEERING®

NEW READERS, GREETING! In no time at all, you'll be aboard the bandwagon, adding your bit to the tune.

Each sheet of the music to your liking! What bores you, play as a 32-measure Rest. What gets you, play fff.

EVERY FEBRUARY "Electrical Engineering" (E.E.) acquires new readers by their election or appointment. Our style is necessarily staccato, in keeping with the Institute's tempo. We decode most abbreviations upon first use in each issue. BofD means IEEE Board of Directors (no other Board); its Executive Committee (no other) is ExecCom.

We refer to previous issues to save repeating. Thus, E.E. Dec., p. 6 refers to an item on the same subject to be found on page 6 of the December 1970 issue. If reference were to December 1969 it would say E.E. Dec. '69, p. 8. Bind your bi-monthly issues so you'll always have six for reference. After a year we repeat for the next freshman class.

We often refer to articles in Spectrum but do not print what Spectrum prints. So save a year's Spectrum.

Wherever possible, and as a favor, we send you to the gospel—IEEE Bylaws—by chapter-and-verse: better than any paraphrase, ever. So keep your Bylaws handy. (Copy, Emily Sirjane)

When we mention a staff member that way, it means that all you have to do is to grab the phone or drop a note and say what you want. It comes to you like a bunny.

Who's Emily? See footnote on last page. Refers you to latest Spectrum, p. 4. Gives her name and job. If it were Mrs.

we'd have said so. Address, phone number, there too.

When reading E.E., use pencil to mark items you might want to retrieve. This newsletter is a tool, not a literary gem. We hope you can believe what you see.

## NEEDLES AND PRODS

REDUCED DUES FOR UNEMPLOYED. To help alleviate financial distress of any IEEE member who is "involuntarily unemployed and seeking re-employment," BofD has provided that full services may be continued during 1971 if the member notifies IEEE of his unemployed status and pays one-half of dues, fees, and subscriptions. Notice to IEEE must be received before Feb. 28, '71, or member services will be interrupted. Notification after that date but before July 1 can reactivate member status. The half payment can be made through July 1, '71. Section chairmen have details; a press release is available. (Copy, Jack Kinn)

UNEMPLOYMENT INFORMATION PACKET. Sections where there is a known high incidence of unemployment have been furnished packets for distribution to members out of work. If inadvertently any Section which can distribute such material has been overlooked, its chairman or designee should write immediately for a mailing. (Inquiries, Jack Kinn)

Included in the packet is helpful material offered by 1) NSPE, 2) Engineers' Joint Council (EJC), and 3) National Registry for Engineers (NRE) of the Manpower Administration, U. S. Department of Labor. In



respect of NRE, any reasonable quantity of forms for actual registry of U. S. members seeking employment, can be furnished. (Material, Jack Kinn)

**MEMBERSHIP BONANZA.** In terms of new members' worth-for-the-money, a March drive for IEEE, Society, and Group members, launched in February with memberships effective April 1, is the financial inducement of the calendar year. Nine months for the price of six. See last paragraph of Bylaws 108.5, 405.7, 501.7 for details. Is your Membership and Transfers Committee (M&T) onto this?

### CHALLENGES AND OPPORTUNITIES

**SELF-ASSESSMENT.** Past Director Elliott made these observations at the November BofD meeting: In the volunteer part of the Institute the management is divided into 3 areas: 1) BofD, 2) ExecCom, 3) Committees and Boards. If the Committee system does not work we have lost one of the three branches of management. . . . Being appointed a chairman or to a committee is an honor and a responsibility. One should not accept unless one feels it will be a better committee when one joins it. . . We should measure the effectiveness of all our activities in this manner: each committee member should ask himself 1) Did you attend the meetings? 2) Did you contribute any new ideas? 3) Did you work? 4) Did any worthwhile activities come out of the committee?

**1972 COMMITTEE PERSONNEL.** IEEE solicits from individual members and all organizational units the names of candidates for appointment to 1972 standing committees and boards, the names of which are listed in Bylaw 304.2 and responsibilities in Bylaws 304 to 311. The general qualifications of candidates, and guidelines for nominations, are given on p. 4-A. Two copies of the form to be used are furnished

as p. 4-B. Nominees are not limited as to the number of candidates. (Extra copies, Emily Sirjane)

**NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS (NSPE).** In an agreement between NSPE and IEEE hailed by the leaders of both organizations as "a most significant step toward cooperation within the engineering profession in a decade," means have been provided for IEEE members to obtain certain services from NSPE at reduced rates, whether or not they are licensed Professional Engineers. A press release of Jan. 15, '71, describing the arrangement and its foreseen advantages, is printed in full on pp. 4I-4J. Section chairmen have been informed. An announcement in February Spectrum will be followed by a fuller account in March, giving directions as to how to sign up. What we print on the canary yellow pages here may be used to answer field questions. (Inquiries, Jack Kinn)

BofD, without thereby endorsing NSPE's policies and objectives, and solely as a means of helping those IEEE members who desire to affiliate with NSPE, is working out this cooperative program.

**EMPLOYMENT WORKSHOPS,** it is the sense of BofD, represent an activity upon which IEEE should concentrate to face the current unemployment situation. The U. S. Department of Labor funded the American Institute of Aeronautics and Astronautics (AIAA) to hold 25 employment re-training workshops, to which AIAA has invited participation by IEEE members. Staff Director Jack Kinn attended the initial workshop on Long Island; later participated in one in Baltimore. An IEEE Employment Workshop has been scheduled for the March Convention. (Information, Jack Kinn)

**NEW SWITCH ON GROUP FLIGHTS** and Economy Fares. When 40 or more IEEE members travel by air together, they may ride "affinity-group flights" at reduced fares on scheduled airlines, through

E. E. is sent without cost beyond dues to officers of IEEE Boards, Committees; Divisions, Societies, Groups, Conferences; Regions, Councils, Sections, Subsections, Chapters, and Branches. Second-class postage is paid at New York, N. Y.

arrangements now being set up. The service will be available to all IEEE members, their wives and children. "Half the fun's going there and getting back."

### TOP-SIDE DEVELOPMENTS

**PRESIDENT MULLIGAN** is a principal contributor to "Inside IEEE" column in Spectrum, Jan. '71, p. 15. Improved communication, he says, is a primary goal for the Institute in 1971; and he describes with approval the pilot program carried out in Region 3 in 1970. (See item below under Regions.) His concern for Student relations in the Sections is also made clear.

Refer to it as well for his exposition of the 1971 Budget situation and the December '70 major reduction in staff personnel to meet anticipated lower income in 1971.

"Required reading" for the shirtsleeves brigade—E. E. 's circulation list (E. E. Aug. '70, p. 6).

**LONG RANGE PLANNING.** Junior Past President Granger, 1971 chairman of LRPC, says its immediate task is to take a look at what IEEE should be 5 years hence. LRPC will work on the structure of the Institute in light of the economic environment. Recent necessary budget actions have been in the nature of "major surgery," and BofD has not yet had time to face the problems of "post-operative therapy." There is a risk in dealing with the symptoms rather than the problem. We now face the broad question of what specific roles we expect the Institute to play in the years ahead.

**COMPOSITION OF BOFD, ExecCom, and assignments of Coordinators for 1971** are shown in the tabulation on p. 4C. This may be compared for changes with a similar table in E. E. Feb. '70, p. 8.

A SIMPLE ADIEU to BofD members whose services terminated at the end of 1970: Bruncke, Buchholz, Hedrick, Herwald, Heffner, Lampard, Ports, Savage, Sinclair, Truxal, Van Valkenburg, Wellinger. What a lot of work those names represent!

**CHAIRMEN—BOARDS, COMMITTEES,** 1971. Those named in E. E. Dec., p. 5, were duly elected Jan. 6 & 7. In addition other chairmen for 1971 are: Awards, E. L. Gintzon; Educational Activities, Glen Wade; Finance, R. W. Sears; Intersociety Relations, F. K. Willenbrock; Long Range Planning, J. V. N. Granger; Publications, C. L. Coates; Regional Activities, R. H. Tanner; Technical Activities, Harold Chestnut. Nominations & Appointments (N&A) remains under Senior Past President Willenbrock until Mar. 31. N&A has recommended to March BofD names of N&A members to serve one year beginning Apr. 1, '71, under chairmanship of Junior Past President Granger.

N&A in February receives all proposals for President and Vice President 1972 (E. E. Oct., pp. 2, 4C, 4D); in March N&A will submit names to BofD (Bylaw 313.2).

**IEEE CONFERENCE BOARD.** Normal terms of appointment are for 3 years beginning Apr. 1, and expire on Mar. 31 following each year's Convention, as follows: 1971, E. G. Cameron, D. B. Sinclair; 1972, H. Q. North, T. A. Smith; 1973, S. W. Herwald, W. E. Peterson; 1974, C. G. Killen, Jr., R. Adler.

Assignments for 1971 and 1972 Conventions are as follows:

	Convention	
	1971	1972
Chm., Conference Board	Cameron	North
Chm., Executive Com.	Sinclair	Smith
Meetings Director	North	Peterson
Exposition Director	Smith	Herwald
Member (Mtgs)	Peterson	Adler
Member (Expo)	Herwald	Killen
Staff Director of Convention and Exposition Services,	Bill Hilty.	

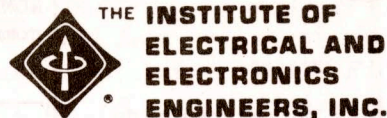
**BOFD & EXECOM SCHEDULE** of meetings in 1971: BofD: Jan. 6, Mar. 25, Aug. 22-23, Nov. 18-19. 1972 BofD and Assembly, Jan. 12. ExecCom: Jan. 7, Mar. 20, Apr. 23, May 14 or 21, June 25, Aug. 20, Sept. 17, Oct. 15 (tentative), Nov. 16, Dec. 17.

**AVAILABILITY OF BYLAWS**, as revised. E. E. Dec., p. 3, called the tune too quickly: on account of extensive changes coming before Jan. '71 BofD, mailing of revised









THE INSTITUTE OF  
ELECTRICAL AND  
ELECTRONICS  
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

GUIDELINES FOR RECOMMENDING NOMINEES FOR SERVICE TO THE IEEE

This form shall be used in submitting the names of nominees to be considered for the elective offices of the IEEE (President and Vice President) and for recommending appointments to the IEEE Committees and Boards. The completed form shall be mailed to the Staff Secretary of the Nominations and Appointments Committee at IEEE, 345 East 47th Street, New York, New York 10017.

The general qualifications for service to IEEE are not different from those in any position of responsibility and trust: competence, experience, willingness to take on the task, availability of time to participate, enthusiasm, and vigor. In the absence of such qualities, it is unwise to recommend a candidate merely as a reward for past service. In fact, if past service indicates that the candidate does not have the competence suitable to the task, he should not be proposed.

Competence implies knowledge and ability to serve creatively and actively, not merely passively. The responsibilities of the IEEE Directors and the tasks of the various Standing Committees and Boards are described in the IEEE Bylaws, and these should be consulted if the nominator is not certain of the tasks to be performed. Two types of competence are involved, technical and administrative. Few candidates possess both in equal measure, but every nominee should be strong in at least one of these, depending on the task he will be called on to perform. The technical tasks require knowledge of one or more engineering or scientific fields and the ability to make sound judgments. Administrative tasks involve the judgment of men and organizational operations, and the ability to develop appropriate Institute policies and objectives.

In judging candidates on the basis of experience, prior work in Institute affairs is, of course, important but should not outweigh ability. Since new vitality must be brought into the IEEE organization, equivalent experience outside the Institute (as in other organizations, or in connection with the candidate's professional employment) should be taken into account. In many cases a candidate, having no experience bearing specifically on the task, may be suitable if he is highly competent, since he will soon "learn the ropes."

Willingness to serve is, of course, essential. There is no rule against a nominee being consulted by the nominator to ascertain this. However, since candidates are proposed from many sources, the Executive Committee and Board may have more candidates than there are open positions. When consulting nominees, therefore, it should be made clear that he cannot be assured of appointment.

Availability of time to participate is, usually, an important consideration in the candidate's willingness to serve. Committee service is so vital to the welfare of the Institute, that most industrial, academic and governmental organizations recognize its importance and the comparatively small time required (compared with the working year) can be justified. A perfect attendance record at Committee meetings is seldom achieved, even by the Chairman. Moreover, specially gifted Committee workers can contribute far more ideas and wisdom in a few meetings than does the less able member who makes attendance a fetish.

Enthusiasm, vigor and creativity are, we believe, among the most important considerations. One of the troubles experienced by all professional societies is the tendency to populate committees with senior statesmen who, however distinguished, are out of touch with present challenges and opportunities. Electrical and electronics engineering is a fast-moving profession, and the Institute needs a continual infusion of new ideas. Much of this must come from younger men, although chronological age is not necessarily an indicator of a youthful attitude of mind, nor of current involvement in the affairs of the profession.



RECOMMENDED NOMINEE  
FOR IEEE SERVICE

NOMINEE RECOMMENDED FOR: (indicate office, committee, board)

Before filling in, please read Guidelines on reverse side.

NOMINEE \_\_\_\_\_  
First Name Middle Initial(s) Last Name

MAILING ADDRESS \_\_\_\_\_

BUSINESS AFFILIATION \_\_\_\_\_  
Name of Company

Company Address Telephone Number

Title or Position in Company

Indicate present type of work: research, development, sales, teaching, etc.

IEEE RECORD: Present Membership Grade \_\_\_\_\_

\*Offices Held (with dates) \_\_\_\_\_

\*Medals, Prizes, Awards \_\_\_\_\_

Other \_\_\_\_\_

\* If available to nominator.

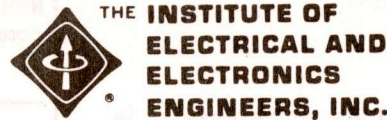
OTHER INSTITUTE AND SOCIETY MEMBERSHIPS AND GRADES \_\_\_\_\_

COMMENTS BY NOMINATOR: Give an outline of the nominee's specific qualifications for the nomination or appointment here (use separate sheet if necessary).

Date Name of Nominator

Telephone Number Address





THE INSTITUTE OF  
ELECTRICAL AND  
ELECTRONICS  
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

GUIDELINES FOR RECOMMENDING NOMINEES FOR SERVICE TO THE IEEE

This form shall be used in submitting the names of nominees to be considered for the elective offices of the IEEE (President and Vice President) and for recommending appointments to the IEEE Committees and Boards. The completed form shall be mailed to the Staff Secretary of the Nominations and Appointments Committee at IEEE, 345 East 47th Street, New York, New York 10017.

The general qualifications for service to IEEE are not different from those in any position of responsibility and trust: competence, experience, willingness to take on the task, availability of time to participate, enthusiasm, and vigor. In the absence of such qualities, it is unwise to recommend a candidate merely as a reward for past service. In fact, if past service indicates that the candidate does not have the competence suitable to the task, he should not be proposed.

Competence implies knowledge and ability to serve creatively and actively, not merely passively. The responsibilities of the IEEE Directors and the tasks of the various Standing Committees and Boards are described in the IEEE Bylaws, and these should be consulted if the nominator is not certain of the tasks to be performed. Two types of competence are involved, technical and administrative. Few candidates possess both in equal measure, but every nominee should be strong in at least one of these, depending on the task he will be called on to perform. The technical tasks require knowledge of one or more engineering or scientific fields and the ability to make sound judgments. Administrative tasks involve the judgment of men and organizational operations, and the ability to develop appropriate Institute policies and objectives.

In judging candidates on the basis of experience, prior work in Institute affairs is, of course, important but should not outweigh ability. Since new vitality must be brought into the IEEE organization, equivalent experience outside the Institute (as in other organizations, or in connection with the candidate's professional employment) should be taken into account. In many cases a candidate, having no experience bearing specifically on the task, may be suitable if he is highly competent, since he will soon "learn the ropes."

Willingness to serve is, of course, essential. There is no rule against a nominee being consulted by the nominator to ascertain this. However, since candidates are proposed from many sources, the Executive Committee and Board may have more candidates than there are open positions. When consulting nominees, therefore, it should be made clear that he cannot be assured of appointment.

Availability of time to participate is, usually, an important consideration in the candidate's willingness to serve. Committee service is so vital to the welfare of the Institute, that most industrial, academic and governmental organizations recognize its importance and the comparatively small time required (compared with the working year) can be justified. A perfect attendance record at Committee meetings is seldom achieved, even by the Chairman. Moreover, specially gifted Committee workers can contribute far more ideas and wisdom in a few meetings than does the less able member who makes attendance a fetish.

Enthusiasm, vigor and creativity are, we believe, among the most important considerations. One of the troubles experienced by all professional societies is the tendency to populate committees with senior statesmen who, however distinguished, are out of touch with present challenges and opportunities. Electrical and electronics engineering is a fast-moving profession, and the Institute needs a continual infusion of new ideas. Much of this must come from younger men, although chronological age is not necessarily an indicator of a youthful attitude of mind, nor of current involvement in the affairs of the profession.



COMPOSITION OF THE 1971 IEEE BOARD OF DIRECTORS  
(Only Present Terms Shown)

DIRECTORS-AT-LARGE  
Elected by members

- |                          |          |
|--------------------------|----------|
| 1 James H. Mulligan, Jr. | 1971-73  |
| President                | 1971+    |
| 2 Robert H. Tanner       | 1971     |
| Vice President           | 1971+    |
| Chm. Regional            |          |
| Activities Board         | 1971     |
| 3 F. Karl Willenbrock    | 1969-71  |
| Senior Past President    | 1971     |
| 4 John V. N. Granger     | 1970-72  |
| Junior Past President    | 1971     |
| 5 David M. Hodgkin       | 1969-71  |
| 6 John R. Whinnery       | 1969-71# |
| Secretary                | 1971*+   |
| 7 Joseph K. Dillard      | 1970-72  |
| 8 Glen A. Richardson     | 1970-72  |

DIRECTORS-AT-LARGE  
Elected by Assembly

- |                           |          |
|---------------------------|----------|
| 1 Harold Chestnut         | 1971     |
| Vice President            |          |
| Technical Activities      | 1971*+   |
| 2 Clarence L. Coates      | 1971     |
| Vice President            |          |
| Publications              |          |
| Activities                | 1971*+   |
| 3 Ray W. Sears            | 1971     |
| Treasurer                 | 1971*+   |
| 4 Tatsuji Nomura          | 1971-72  |
| Director Region 10        | 1971-72* |
| 5 Edward A. Wolff         | 1971     |
| Vice Chairman             |          |
| Technical Activities      | 1971*    |
| 6 Edward L. Ginzton       | 1971     |
| Chairman Awards Board     | 1971*    |
| 7 Glen Wade               | 1971     |
| Chairman Educational      |          |
| Activities Board          | 1971*    |
| 8 William O. Fleckenstein | 1971#    |

REGIONAL DIRECTORS  
Elected by Regional members

- |                        |         |
|------------------------|---------|
| 1 James A. Storer      | 1970-71 |
| 2 George Abraham       | 1971-72 |
| 3 Seymour Cambias, Jr. | 1970-71 |
| 4 Hansford W. Farris   | 1971-72 |
| 5 Lloyd B. Cherry      | 1970-71 |
| 6 John J. Guarrera     | 1971-72 |
| 7 William H. Thompson  | 1970-71 |
| 8 Paul G. A. Jespers   | 1971-72 |
| 9 Carlos J. Lohmann    | 1970-71 |

DIVISIONAL DIRECTORS  
Elected by Divisional members

- |                     |         |
|---------------------|---------|
| 3 William T. Carnes | 1971-73 |
| 4 Leo Young         | 1971-72 |

DIRECTORS EMERITUS

- Alfred N. Goldsmith  
also Editor Emeritus  
Elgin B. Robertson

EXECUTIVE COMMITTEE

- |              |                      |
|--------------|----------------------|
| Mulligan     | (Chairman)           |
| Tanner       | (Vice Chairman)      |
|              | Regional Activities  |
|              | Membership and       |
|              | Transfers            |
|              | Student Activities   |
|              | Admissions and       |
|              | Advancement          |
| Chestnut     | Technical Activities |
|              | Conference Board     |
| Coates       | Publication          |
|              | Activities           |
|              | History              |
|              | Young Engineers      |
|              | -                    |
| Fleckenstein | Nominations and      |
| Granger      | Appointments         |
|              | Intersociety         |
|              | Relations            |
|              | Long Range Planning  |
|              | Finance              |
| Sears        | Life Member Fund     |
|              | Employee Benefits    |
| Wade         | Educational          |
|              | Activities           |
|              | Fellow               |
| Whinnery     | Bylaws               |
|              | Awards               |

\* Elected by the 1971 Assembly to these positions  
+ Corporate Officers  
# W. O. Fleckenstein appointed by Assembly to complete J. R. Whinnery's elected term during 1971





# Technical Activities Board

## 1. Groups and Societies

The Bylaws have been amended to provide for both Groups and Societies, as follows:

### 405.1 - Add the following:

"With the approval of the IEEE Board of Directors, there may be established IEEE Societies, to which apply all the bylaws, policies, rules and procedures applicable to the IEEE Groups, provided that any future new or amended bylaws, policies, rules and procedures specific to such Societies shall take precedence. Where appropriate, present references to Groups in IEEE documents and forms shall apply to the Societies."

Three Groups have been approved as IEEE Societies, effective January 1, 1971:

- Computer
- Control Systems
- Power Engineering

## 2. Divisional Organization and the Nomination and Election of Divisional Directors

On January 1, in addition to the three Societies, G-MMS and G-SSC merged to become the IEEE Systems, Man and Cybernetics Group. The composition of the six TAB Divisions is as follows:

- |             |   |
|-------------|---|
| Division 1: | Audio and Electroacoustics Group<br>Circuit Theory Group<br>Control Systems Society<br>Information Theory Group   |
| Division 2: | Electrical Insulation Group<br>Industrial Electronics and Control Instrumentation Group<br>Industry and General Applications Group<br>Instrumentation and Measurement Group<br>Nuclear Science Group<br>Power Engineering Society<br>Vehicular Technology Group |



Division 3: Aerospace and Electronic Systems Group  
Broadcasting Group  
Broadcast and TV Receivers Group  
Communication Technology Group  
Electromagnetic Compatibility Group

Division 4: Antennas and Propagation Group  
Electron Devices Group  
Magnetics Group  
Microwave Theory and Techniques Group  
Parts Materials and Packaging Group  
Sonics and Ultrasonics Group

Division 5: Computer Society

Division 6: Education Group  
Engineering in Medicine and Biology Group  
Engineering Management Group  
Engineering Writing and Speech Group  
Geoscience Electronics Group  
Reliability Group  
Systems, Man, and Cybernetics Group

In 1971, Divisions 1 and 5 are each to nominate and elect a Division Director for a 1972-3 term. Bylaw 310.2 provides that the Group Chairmen and Society Presidents in the Divisions are to submit nominations by April 30. The IEEE Nominations and Appointments Committee will then select and publish a slate, with not less than two candidates for each position. The members of the Groups and Societies then have an opportunity to submit nominations by petition, with an August 15 deadline, reference article XII, section 3 of the IEEE Constitution. Ballots will be mailed from IEEE headquarters on or about September 1.

### 3. Retirement of John J. Anderson

At the end of 1970, J. J. Anderson retired from the IEEE staff after a continuous service of 31 years. Known as Andy by his many friends, he served AIEE in several capacities including Secretary of the Standards Committee. He continued in this latter capacity after the merger to form IEEE. Andy leaves with the best wishes of his friends among the IEEE membership and at headquarters.

### 4. Joint Technical Meetings Committee

The Regional Activities Board and Technical Activities Board have established a Joint RAB/TAB Technical Meetings Committee, as recommended by an ad hoc study committee last year. Vice-Presidents Chestnut and Tanner are appointing the representatives of the two parent Boards and the IEEE Conference Board will also have a representative. Mr. Donald S. Brereton has been asked to serve as the first JTMC Chairman. The JTMC's attention initially will be directed towards the policies, rules, and procedures applicable to all IEEE technical meetings. Any recommendations for improvements, perhaps including Bylaw amendments, will be submitted to the RAB and TAB OpCom prior to submittal to the IEEE Executive Committee or Board, as appropriate.

### 5. Dues Deferral

At the December 7-8 meeting of TAB, recommendations were made to the IEEE Executive Committee that the plight of temporarily unemployed members be recognized by some form of dues deferral or suspense. Such relief has been authorized by the IEEE Board. See Dr. Coggeshall's report, page 1, for details.

### SPECIAL MESSAGE FROM HAROLD CHESTNUT, VICE PRESIDENT - TECHNICAL ACTIVITIES

The 1971 Technical Activities Board (TAB) and TAB Operating Committee (TAB OPCOM) got underway in early January with meetings in Washington, D. C. and New York City respectively. The following will serve as a brief report to IEEE Group and Society members of a number of the more significant matters discussed at these meetings.

President J. H. Mulligan was present at both meetings and emphasized the importance for the IEEE and TAB to be concerned with our services to individual members. As an example of its concern for its members, he mentioned that the Board had voted for the year 1971 that IEEE members who were unemployed and seeking employment could, upon notifying IEEE Headquarters in writing, obtain full Institute and Group services for this year at 50% of normal dues. He also reported that a successful effort to assist IEEE members who were interested in participating in a pension plan and in being made aware of legislative activities associated with engineering employment had been worked out between the IEEE and the National Society of Professional Engineers. President Mulligan stressed the need for TAB to seek ways of cooperating with the Educational and Regional Activities Boards to provide additional technical services at the Section and Group Chapter level.



As Chairman of TAB, I have recommended the following technical activities for particular emphasis for the year 1971:

Education - Develop material for surveys and for applications oriented lectures and courses. Develop with EAB for RAB use.

Computer Aided Design - Attention will be directed at encouraging individual groups to emphasize their own needs as well as to participate in CAD Committee sponsored activities.

Finances - Group publications, conferences, and general level of financial activities will have to be in keeping with the current tight economic conditions.

New Technologies and Mergers - Technologies are changing and we must modify IEEE efforts to accommodate to present and future technical opportunities. Efforts shall be made to provide technical activities in new technological fields and to bring about mergers of existing groups or portions thereof where this will be beneficial to a significant number of IEEE members.

Impact of Electrotechnology on Society - Electrotechnology is influencing the outside world - socially, technically, and economically. TAB must develop ways to interact with other disciplines and appropriate governmental agencies to take into account these changes.

Standards - Current efforts to keep up-to-date with increasing the needs of IEEE members, ANSI, IEC, and ISO will be continued.

Also warranting particular attention during 1971 will be the financial conditions of the Groups and Societies as well as TAB as a whole. Further, attention will be directed to improving Group leadership through training workshops and to improving our monitoring of technical meetings.

The subject of IEEE Group and Society definition received considerable attention during the TAB OPCOM and TAB meetings as well as at the Executive Committee meetings. As a result of these discussions it appears that there is developing a considerably improved understanding of the meanings of these two terms and a clarification of the procedures required for a Group to become an IEEE Society. The role of TAB OPCOM in providing guidance to the Groups making up TAB was strengthened.

Despite the belt tightening in a financial sense required of TAB and its associated Groups and Societies, a vigorous program of publications, meetings, and standards activities is planned for 1971. After the first year of experience with the new Divisional Directors organization, it is apparent that important benefits are inherent in this method. TAB and TAB OPCOM look forward to a productive year ahead in trying to provide to you IEEE Group and Society members the sort of service you desire and the IEEE can afford.



## PRESS RELEASE ON IEEE - NSPE AGREEMENT

New York, N. Y. . . . In an action that leaders of the two organizations hailed as a most significant step toward cooperation within the engineering profession in decades, members of the 160,000-member Institute of Electrical and Electronics Engineers now will be able to avail themselves of certain services and publications offered by the National Society of Professional Engineers.

The new services will be available at varying fees, and will include eligibility to participate in such activities as the NSPE Employment Referral service and retirement program, NSPE legislative programs, receipt of many NSPE publications, as well as some participation in state and local services.

"In our broad discussions with leaders of IEEE during the past weeks, we learned that many of their members have expressed a desire for greater participation in the nontechnical problems facing our profession," said NSPE President Harry C. Simrall, P.E. "These activities parallel very closely the areas in which the NSPE has been involved for many years. The items in which these men are interested include government liaison, both in the legislative process and the administrative decisions, and at the Federal, state and local levels. They are concerned with broad employment problems, ranging from the current problems they have as individuals; and collectively in such things as portable pensions, patent right and registration.

"They are anxious for unified action in improving the image and status of the profession through public relations and such professional matters as guidance, ethics and cooperation and liaison with other professional groups. They desire to participate individually in the decision-making process and to be a part of an organizational pattern that is effective at Federal, state and local levels. They do not see the need for another organization."

Commenting on this agreement, Dr. James H. Mulligan, Jr., President of the IEEE, stated: "The leadership is well aware of the increasing interest of many of its members in matters of economic, social and political involvement. IEEE has traditionally limited its activities to the dissemination of technical information concerning electrical and electronic technology. In contrast, the NSPE has limited its activities to the nontechnical area and has developed programs and accumulated expertise in many areas in which IEEE members are presently expressing concern. In addition, NSPE appears to have the particular form of organization needed to be effective in these areas.

"Until 1970, the NSPE confined membership to registered engineers and this prevented many IEEE members from being a part of their activities. With the revised criteria permitting non-registered membership in NSPE a large number of IEEE members can now become NSPE

members. It seemed apparent, however, that if some mechanism could be worked out whereby more IEEE members might take advantage of NSPE's activities, this would provide an immediate opportunity to fulfill their express desire for greater involvement in the non-technical areas of the profession. The Boards of Directors of both organizations now have approved a course of action which should provide greater strength for effective programs in these areas."

The alternatives now open to IEEE members are:  
Subscription to NSPE Services - Available at a fee of \$15 a year, these services available include: eligibility for the Professional Engineer Employment Referral Service (PEERS); eligibility for the NSPE retirement program; receipt of LEGISLATIVE BULLETIN, Legislative Action Report, Legislative Opinion Request and one practice section newsletter (except PEPP newsletter); participation in the NSPE Salary Survey; subscription to the Professional Engineer magazine; and member rate on all NSPE publications. (See accompanying Fact Sheet for additional details on these services.)  
Services from State Society Organization - Available at a fee of \$30. -- \$15. to be service charge to National, \$15. to be service charge at state level. In addition to the above services, IEEE members would receive the state publication and such other state services and participation as might be available, but would have no vote in state society or National activities. Several states have programs of discussions with employers on desirable employment practices for engineers.

In addition, membership in NSPE is available to IEEE members, subject to eligibility provisions of NSPE which relate the grade of membership available to the specific professional qualifications of the individual engineer. Such membership may be had at fees ranging from \$35 to \$75, depending on state and chapter in which member functions. As a member, he would receive all services of the National, state and local societies and have voting privileges. Membership would enable participation in all activities of the local, state and National societies in such matters as improving the status of engineers, public relations, community involvements, ethics, career guidance, committee participation, holding office, voting on policy matters, and related activities.

Presidents Mulligan and Simrall noted further that the cooperative action by the two societies might lead to similar arrangements with other technical organizations.

### FACT SHEET ON NSPE PUBLICATIONS AND SERVICES

Legislative Bulletin - This publication is issued monthly, summarizing Federal legislation introduced into Congress and as it progresses through the legislative process. It is a four-page bulletin.



Legislative Opinion Request - This publication requests the opinion of those receiving it as to their position on various legislative proposals which may be introduced from time to time. It attempts to summarize with sufficient details to be understood the elements of proposed legislation. It may be limited to a particular bill, or if several bills have been introduced on the same subject will attempt to summarize the thrust of the legislation and the variations in the proposals.

Legislative Action Report - This is issued as legislation progresses through the various stages of consideration. It suggests to those receiving it the desirability of contacting their legislators with the position of the Society and is the mechanism by which the profession can be most effective.

Practice Section Newsletters - NSPE has four newsletters, one each for engineers employed in government, industry, private practice and education. The newsletters primarily report significant developments in the area of employment for each group of engineers. Items reported range from significant statistical information, reporting on studies of value to that type of employment, employment practices, salary and economic considerations and similar concerns.

Professional Engineers Employment Referral Service (PEERS) - This service to which only members of NSPE are eligible permits an unemployed, or soon to be terminated, engineer to place his name and a short resume on his experience on file with NSPE. These are summarized and sent without individual identification to over one thousand employers. If the employer is interested in the anonymous summary, a contact to NSPE will provide him with the name and address of the individual so that he may contact him to get a full resume together with any details concerning employment.

NSPE Retirement Program - This program is a combined annuity and mutual fund program to which NSPE members are eligible, providing for an investment program with guaranteed annuity through an insurance aspect and a variable annuity return via the mutual fund.

Salary Survey - The NSPE conducts a biennial survey of the income of its members and reports the results in a variety of breakdowns by age, field of employment, type of work assigned, and degree of responsibility.

#####



## RADIO SPECTRUM UTILIZATION IN SPACE

The Joint Technical Advisory Council (JTAC)\* gives a new authoritative look at the effect of space communication on one of man's natural resources in its recently released book RADIO SPECTRUM UTILIZATION IN SPACE.

This important new report deals with the variety of technical problems that are developing due to the added space use of radio spectrum. Included in this new reference volume are up-to-the-minute discussions of such problems as:

- Spectrum for space services in the 1970s.
- The multi-dimensional aspect of space and spectrum, relative to satellite communication.
- Considerations in antenna designs on both satellite and earth to provide the greatest spectrum utilization over the largest earth area.
- Effect of modulation techniques on the reuse density of the geostationary spectrum.
- Propagation effects.
- Considerations in the assignment of radio frequency spectrum to satellite and terrestrial users, including sharing criteria.
- Significant experiments that will affect communications in the 1970s.

\*The JTAC (Joint Technical Advisory Council) was created in 1948 to respond to a need for unbiased technical evaluation of problems involving the use of the radio spectrum. It is sponsored by the Electronic Industries Association and the Institute of Electrical and Electronics Engineers.



With the increasing use of satellite communications, it is necessary to re-evaluate the criteria for the various methods of using the radio spectrum. RADIO SPECTRUM UTILIZATION IN SPACE updates the JTAC's earlier report, RADIO SPECTRUM UTILIZATION, by taking into account the growing need to provide information to the telecommunication community on frequency management, and spectrum and orbit utilization for satellite services. Background scientific information and references have been included in the new volume to assist technical personnel in their day-to-day work.

PLEASE FILL IN BELOW AND RETURN TODAY

IEEE, 345 East 47 Street, New York, New York 10017

Payment is enclosed for \_\_\_\_\_ copies of RADIO SPECTRUM UTILIZATION IN SPACE at \$12 to members of IEEE and EIA, and \$24 to others.

NAME \_\_\_\_\_ TITLE \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

the EIA-sponsored (Electronic Industries Association) sessions on sales and marketing techniques, and on how to start a new business. At the Coliseum 28 broad-gauge practical subjects have been selected for the technical applications. While the showmen know in advance that they'll be handling hot items like minicomputers and CATV, something unexpected almost always pops up to steal the headlines.

ADVANCE REGISTRATION. See Advance Program, pp. 1, 2, 7. Worth emphasizing at any IEEE meeting between now and Mar. 5 is the saving of \$3 obtained by registering by mail (latest postmark Mar. 5); or a penalty of \$3 for failing to do so, depending upon how you look at it. This is the first recent year for advance registration. Because it's new, some members are going to muff it and be vexed on Mar. 22. . . Students, see Student News, below. . . Fee for a lady guest accompanied by a registrant is \$2, whether paid in advance or at the Convention; ladies' program this year is "extra-special."

COMPLIMENTARY REGISTRATION for unemployed IEEE members. Proof of unemployment status (such as unemployment insurance book, or termination notice), shown discreetly to any cashier upon presentation of a registration card, is all that is required to attend Convention events as though registration fee had been paid. . . Attendees are not permitted to make solicitations for employment to exhibitors, nor to distribute resumes or circulars.

DESERVED RECOGNITION will be given at the annual banquet to the 100th anniversary celebration of the founding of the Institution of Electrical Engineers (IEE) in London in 1871. (IEEE, as AIEE, was founded in 1884.)

LIFE MEMBERS, as in recent years, have received personal invitations to accept certain privileges at the Convention. (Information, John Callahan)

Without any "package" tie-in they also received in Dec. '70, their routine annual reminder that many among them do

voluntarily contribute to the Life Member Fund. (Contribution cards, Bill Keyes)

CONVENTIONS AND CONFERENCES bring the gregariousness of members to a hot focus. Engineers and their wives, milling around, making contacts which eventually engender friendships, are found to be not aloof automatons but as human as lawyers, journalists, physicians, or educators.

"It's not what you know, it's whom you know." ???! Wrong again, Bud! It's both.

#### NEWS OF THE REGIONS

WORKSHOPS FOR SECTION CHAIRMEN. Past Director Bruncke in 1970 spearheaded this internal training program for RAB's Membership Services Committee. Its objective was to help Section chairmen and officers understand their part of Institute operations; some had not had the advantage of "going through the chairs."

It was found expedient, in the exchange of views, ideas, and operating methods to match chairmen of Sections of comparable size. It was found that maximum discussion time was the most important element in scheduling.

At the March 1970 Convention, 52 Sections were represented; some Sections sent two men. (E. E. June '70, p. 4) Consensus was overwhelmingly in favor of workshops as a training device. Results have also been measurable by reduction of complaints by members, because officers were better informed. At Regional Directors' request, workshops were held at Conferences in Los Angeles (E. E. Aug. '70, p. 4), Dallas, Washington (2), Boston. Eventually one or more were held in Regions 1-6 (U. S.) and 7 (Canada). Between 135 and 150 of the 205 Section chairmen participated.

In 1971 the program calls not only for Section Officers' Workshops but also workshops for Section Committeemen, Branch chairmen, Counselors, Council or Area chairmen, Section and Region publication editors; also workshops on Section/Chapter and Section/Branch relationships, and on the technician's role in IEEE. But "the problem still exists of helping all



volunteers to meet the needs of local members."

**OTHER WORKSHOPS AT MARCH CONVENTION.** Following a successful pattern of the past, this year's busy Convention schedule will include a Workshop for Section chairmen and vice chairmen. (Cf. E.E. Dec. '69, p. 6; Feb. '70, p. 6; Dec. '70, p. 3.)

A separate workshop will be conducted for editors of Section and Regional publications, and another for Group chairmen.

**IMPROVED INTERNAL COMMUNICATION.** After each BofD meeting in 1971, each Regional Director will furnish his Sections a precise of what went on. Likewise each elected and acting Divisional Director will inform his Groups and Societies; and chairmen of Boards reporting to BofD will inform Board members.

This should strengthen personal lines of communication between Directors and their units. Editors of newsletters, bulletins, and other Regional, Section, and Society and Group publications will be quick to take advantage of this information to spread the word.

Added to the new "Inside IEEE" columns of Spectrum, to which the President and Directors will contribute each month, there should hereafter be no dearth of information available to the members. E.E. reaches the officers and committee-men but not the members—unless some editor (conspicuously the successive editors of IEEE Region 8 Newsletter) picks up selected items, dresses them up, puts them into readable language, and broadcasts them.

**REGIONAL LABORATORY CONCEPT,** using Region 3 for pilot studies in 1970 (E.E. Apr. '70, p. 3; June, p. 5), will spread to other Regions in 1971, as predicted.

RAB's Policy Planning Committee identifies the problems and suggests solutions. In the matter of Regional interstructures, for example, Director Cambias reported to November BofD that every Section in Region 3 had been visited by an Area Chairman. . . In each Area, committees

were set up, on Career Guidance, Membership & Transfers, Awards, Student Activities, Meetings, and Newsletter. . . Area chairmen met the day before the Regional Meeting and brought their findings to the Region. . . Area chairmen have uncovered worthwhile volunteers in the Sections; have developed much better Chapter/Section relationships. . . General results: 1) Through direct contact with Area chairmen, members now know they're in the Section, in IEEE, and that their needs can be laid directly by their Regional Director before the BofD. 2) Section officers have been motivated to treat their jobs as a responsibility: are now handling their Sections as a business. 3) Regional Directors are better informed on what members want.

**STAFF SUPPORT STRENGTHENED.** Support of Regional and Section activities will be strengthened by the January appointment of Charlie Stewart as Staff Director Member Services and as Staff Secretary RAB; and allocation to him of Emily Sirjane, Esmi Bidstrup, and Bob Loftus and their staffs. Assignment to him of Student activities is in line with transfer of the Student Activities Committee (SAC) to RAB on Jan. 1, '71 (E.E. Aug., p. 5; Oct., p. 5). Membership & Transfers Committee (M&T) support, and Regional and Section concerns, will be major responsibilities.

**TOTAL IEEE MEMBERSHIP AT Dec. 31, '70,** was 169,059, compared with 166,348 at end of 1969 and 162,368 at end of 1968. Figures included about 24,000 Students.

**BILLING FOR DUES & FEES** is covered by Bylaws 110.1 to 110.6. First half installment '71 was due Jan. 1. Bills went out in Oct. '70, and a reminder in Dec. '70; another was due to be mailed on Feb. 1, '71, to members not paid up. Sections will receive lists reflecting unpaid members as of Jan. 22 (a month earlier than heretofore). Since the cutoff date (Feb. 28) is a month earlier this year, each Regional Director has asked his Section chairmen to have M&T committees tactfully follow up, by personal visit or telephone, those listed, to ascertain and report reasons for non-renewal. (Note— Since remittances made

after Jan. 20 would not have been recorded prior to generation of the lists, it is likely that some members may say they've already remitted. (Cf. E.E. June '70, pp. 4-5)

Regional Directors have circulated copies of "A Section Program for Follow-Up on Members in Dues Arrears," and should be kept informed of results. (Copy, Charlie Stewart)

**SPEAKERS BUREAU.** Sections interested in obtaining speakers may be interested in an offer by Sola Electric Division, 1717 Busse Road, Elk Grove Village, Illinois 60007 (phone 312-439-2800; Telex 2-53395) to arrange personal appearances of its president and marketing, sales, and engineering executives at IEEE meetings and conferences. (Pamphlet, arrange with Sola direct)

#### STUDENT NEWS

**MISTAKE.** The Editor of E.E. apologizes to Counselors who were misinformed, by an item E.E. Dec., p. 2, that a report was due in January. A change in Bylaw 407.10 in 1970, shifted the due-date to "the completion of each academic year."

**STUDENT MEMBERS AND BRANCHES.** January BofD revised Bylaws 105.4, 5, 6, 11; 407.1 to 9; 407.11 to 15, making Educational Activities Board (EAB)—recommended changes in policy. Results of these revisions will be, broadly, to provide only one Student grade, eliminating Student Associates; to have Student Branches only, eliminating Student Associate Branches; to broaden the term "school of recognized standing" to include bonafide community colleges, junior colleges, and technical institutes—all with appropriate accreditation; and to provide that Students graduating with at least a 4-year degree be upgraded to Member grade, and others be upgraded to Associate grade.

**PRE-COLLEGE GUIDANCE.** L. E. Saline chairman of IEEE's Pre-College Guidance Committee, on Jan. 6 gave all Section chairmen definitive guidelines for present and future guidance activities. It is "relevant" in the senses 1) that it takes account of the tempo-

rary unemployment in aerospace and defense sectors of engineering; 2) that it is coordinated with the Engineers' Council for Professional Development (ECPD) guidance programs to which BofD subscribes. (Copy, Bob Loftus)

**MEMBERSHIP & TRANSFERS (M&T)** chairman Sullivan states that "the serious problem is inducement for Students to retain their IEEE membership after graduation. M&T is concentrating on this problem." (Cf. E.E. June '69, pp. 6-7)

February-March is the right time of year for Section chairmen and Counselors in the same city to work out plans at the college end to block possibility of loss of Students' contact with IEEE when they graduate. Either a Student 1) goes elsewhere (i. e., to some other concerned Section) to assume his first job, or 2) leaves college without a job and remains tied to IEEE only by the slender thread of his address-for-Spectrum (which, by the way, should be of temporary interest to a really concerned Section.)

**CERTIFICATES OF APPRECIATION** will be awarded during the Directors' Reception at the March Convention to Frank E. Barnes and Charlie Beardsley for their work on the Student Journal (recently discontinued).

**STUDENTS AT MARCH CONVENTION.** IEEE Student members may register by mail for \$2 up to and including letters postmarked Mar. 5. At the Convention, IEEE Student member fee will be \$3. See Advance Program. Non-IEEE students under 18 years old will not be admitted; those 18 or over pay at the non-member rates: \$7 by mail to Mar. 5; \$10 at the Convention. For Advance Registration use the form on pp. 1-2 of the Advance Program. (Copy, Renee Carey)

#### "FOR YOUR INFORMATION"

**JTAC ISSUES NEW BOOK.** The Joint Technical Advisory Council of IEEE and the Electronic Industries Association (EIA) has brought out a new volume, "Radio Spectrum Utilization in Space," described on pages 4K-4L of this issue, directed to frequency management, and Spectrum and orbit utilization for satellite services.



Members of a number of Chapters in the Sections will be interested, among others. (Inquiries, Audrey van Dort)

**THREE DISTAFF FELLOWS.** When Elizabeth Laverick (SM '55 - F '71) was elected Fellow by the November BofD (E.E. Dec., p. 4), she joined two others on the distaff side who also hold Fellow IEEE distinction: Grace M. Hopper (S '52 - M '54 - F '62) and Jenny E. Rosenthal (SM '57 - F '66).

IEEE now has at least 638 women members, about 45% of whom are Students.

**IEEE LIFE INSURANCE.** As noted in E.E. Oct., p. 5, the carrier's experience record has been excellent, and more members are signing up after comparing our plan and results with others open to them. A 60% dividend on annual premium has just been declared to those eligible. These members would be justified in calling it "a half-year free and the other half at a 20% discount."

Some IEEE members, because of their age, health, or eligibility in other plans, may do better elsewhere. Each member also has to make his own projection as to how long the present favorable dividend credit can be sustained as the average age of all who are insured changes. (Inquiries, Administrator, IEEE Group Insurance Program, 1707 L St., N. W., Suite 800, Washington, D. C. 20036)

**COMPUTER BEING SHARED.** In E.E. Dec. '68, p. 7, it was stated that Exec-Com was arranging to share the IEEE computer on a no-loss basis with other educational, non-profit societies. The

American Institute of Physics has availed itself of such sharing for some time. Recently we began service to Drug & Therapeutic Information, Inc.

**HERITAGE** from Lee Nicol, public relations expert under Jack Kinn: "Approach any subject with awareness—like an owl approaching a taxidermist." Facts we once seized we now approach.

### WELCOME ABOARD!

Quarter-deck: Flourishes, side-boys, for 12 new Directors: Abraham, Carnes, Coates, Farris, Fleckenstein, Ginzton, Guarrera, Jespers, Nomura, Wade, Wolff, Young.

Chairmen, Members of IEEE units, taking up new duties, wherever you are!

### New Group Chapters in Sections:

Hamilton Section: Joint Chapter on Circuit Theory, Information Theory, Computer, Communication Technology, and Automatic Control

Wichita Section: Joint Chapter on Power and Industry & General Applications

Staff: Charles F. (Charlie) Stewart, Jr., Staff Director, Member Services. B. A., Colgate. Come to IEEE with several years' experience with the American Institute of Mining, Metallurgy & Petroleum Engineers (AIME) and recently Assistant Executive Secretary of its constituent, The Metallurgical Society (TMS)

\* \* \*

<u>Centerfold Pages</u>	<u>Pages</u>
White - Committee Nominees (2)	4A-4B
White - 1971 BofD	4C-4D
Green - TAB News	4E-4H
Canary - Press Release—NSPE	4I -4J
Blue - JTAC Book	4K-4L