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TECHNICAL DEPT.

# ELECTRICAL ENGINEERING

GETTING TO KNOW YOU! "Electrical Engineering" (E. E.) is no literary gem but a working tool for the "shirtsleeves brigade," some 4,000 strong. The organizational units we reach are named in the footnote, page 2 (p. 2) of each issue. Officers and administrative committees (AdComs) get E. E.; so do the Directors and staff people.

To keep items short our style is telegraphic—staccato—that they who read may run. We "decode" abbreviations only upon first use in each issue. To avoid repeating we ruthlessly refer to back issues and "Spectrum," so always save 12 months' of each.

E. E. never prints what Spectrum prints. For authority we send you direct to By-laws and Statements of Policy, to the Organization Rosters and named Manuals, like the Section Manual and Technical Activities Manual: keep these handy.

## NEEDLES AND PRODS

FOR ALL UNITS April-May are the months for anticipating and hedging against summer slowdown. June is really too late to plan for fall resumption. Key men suddenly disappear with their families into the North Woods and can't be reached by carrier pigeon. . . If your unit changes command in summer, this warning goes double.

NOMINEES FOR OFFICE, 1973. Following actions are now in order:

- 1) Regional Committees of even-numbered Regions 2 to 8, by Apr. 30, present nominees for 1973 Delegate/Regional Directors. (Bylaws 201.3, 313.4, 313.8, 401.7)
- 2) Groups/Societies in Technical Divisions II, IV, VI present, by Apr. 30, nominees for 1973 Delegate/Divisional Directors. (Bylaws 201.2, 310.2, 313.8.) (Tabulation in E. E. Feb., p. 4A.)

3) Sections, Groups/Societies, and other IEEE units, and individual members, before June 1, recommend members for 1973 standing committees and boards (except the IEEE Board of Directors—BofD). (E. E. Feb., pp. 2, 4C, 4D.)

MAJOR ANNUAL MEDAL nominations are due June 1. See Spectrum, Nov. '71, pp. 10-11; E. E. Dec., pp. 4-5. (Information and forms, Una Lennon; specify the medal, since forms differ.)

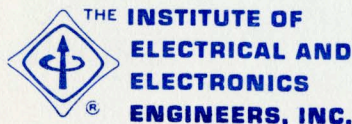
1972 CANDIDATES FOR FELLOW. See Spectrum Nov., p. 12; E. E. Dec., pp. 4E, 4F, 5, particularly the instructions for the sponsor's monitoring responses of references by deadline Apr. 30 at IEEE, New York, and for monitoring IEEE Group/Society evaluations by deadline June 15 at IEEE. If there is the "shadow of a doubt" that required responses have reached New York in time to meet deadlines, sponsor should make phone or letter contact with Emily Sirjane to check. Initiative rests with the sponsor; after deadline is too late.

(Note—This is the first year's experience with Group/Societies' evaluations; procedures may need de-bugging. Keep on top!)

## CHALLENGES AND OPPORTUNITIES

CONSTITUTIONAL CHANGES, permitting entry of IEEE into non-technical areas of the profession throughout the world, were set in motion by BofD action Mar. 23. An explanatory press release is reprinted in white centerfold pages 4E-4F of this E. E.

UNEMPLOYMENT. In his comprehensive article in Spectrum, Feb., pp. 7-9, President Tanner brought up to date the



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I. S. Coggeshall, Editor

recounting of efforts made by IEEE to place its unemployed members. The preceding major compilation was the 28-page "Employment Information" pamphlet (E. E. Apr. '71, p. 4; June, p. 2), still available. (Copy, Joe Casey)

The Tanner article underlines the current viability of the joint attack on unemployment by the presidents of six leading engineering societies spearheaded by IEEE's Mulligan in mid-1971 (E. E. Aug., p. 3; Spectrum Aug., p. 7) and working with the U. S. Department of Labor. The presidents' organization, it will be noted, initially adopted the name of Joint Societies National Employment Advisory Committee (JSNEAC); now called Coordinating Committee of Engineering Society Presidents (CCSP).

IEEE staff regularly refers inquiring members in a dozen critical unemployment areas to VEST, the Volunteer Engineers Scientists Technicians no-cost selective job matching referred to in the Tanner article and in E. E. Dec., p. 4.

**BURNED.** One of the available and recommended no-cost referral services named in "Employment Information" (see preceding item, pp. 11-12, 15-20) is the National Registry for Engineers, Sacramento, Calif. (E. E. Feb. '71, p. 1.) Readers of the pamphlet (pp. 3, 11) and members who attend IEEE employment workshops have been warned against relying on those unethical or dishonest private agencies which offer computer-matched and other referral services for a fat fee but which close up shop when the profits disappear.

A Senior Member in Connecticut writes that he paid a "money-back" fee to a commercial "National Registry" in response to a 1970 ad; that he received no service and that, when he asked for his money back, was told that the concern was in bankruptcy. . . The unkindest cut. . . Beware.

**TOPSIDE AGENDA.** February Executive Committee of BofD (ExecCom) adopted a

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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.

rule that (with the exception of rare "urgent" items) all proposals for action or discussion at their meetings are to be mailed out of IEEE with the meeting Agenda 14 days prior to meeting date. Purpose of the rule: to give BofD or ExecCom members time for prior study and to save time at the meetings.

A unit of BofD or ExecCom (Bylaw 304.2) wishing to have matters discussed or acted upon, should so schedule its meeting as to permit its chairman or secretary to prepare smooth copy afterward and mail it to reach IEEE two weeks plus two working days before scheduled day of BofD or ExecCom meeting. (For schedule, see below.)

**U. S. ENVIRONMENT.** Concerned professionals interested in having their names and short résumés appear in a new (1972) annual directory should send a No. 10 self-addressed stamped envelope to Directory of Environmental Consultants, P. O. Box 8002, University Station, St. Louis, Mo. 73108.

#### TOP-SIDE DEVELOPMENTS

**BofD & EXECOM SCHEDULE** (E. E. Feb., p. 2). Recent changes: April-May meetings will be held in St. Charles, Ill. (57 km W. of Chicago). Nov.-Dec. meetings in Las Croabas, Puerto Rico (near San Juan). ExecCom meets at New York Oct. 26 instead of Oct. 20; Dec. date still tentative. 1973 BofD meets Jan. 10; ExecCom Jan. 11; both at New York.

**CONFERENCE WITH INDUSTRIAL LEADERS** May 3-5 is being planned by IEEE, American Society of Mechanical Engineers (ASME), and the National Society of Professional Engineers (NSPE) jointly, to follow IEEE BofD meeting at Lake Charles, Ill. Purpose is for the participating societies to exchange views with industrial leaders about optimal roles of industry and engineering societies in socioeconomic matters. Each society is inviting about 15 company officers to participate.

**NON-TECHNICAL ACTIVITIES QUESTIONNAIRE** (E. E. Feb., p. 2). March Spectrum, pp. 48-52, carried a summary based upon 47,000 returns. By Mar. 1 the total return had reached 55,231 and was tapering off, without essential change in yes-no percentages on any question.

This input was monitored by U. S. Activities Committee (USAC) of Regional Activities Board (RAB) (E. E. Feb., p. 6). BofD devoted the major part of its Mar. 23 meeting to this sampling of U. S. members' opinions on IEEE's non-technical activities in U. S., and to USAC's recommendations. See Tanner in Spectrum, Mar., p. 7.

**BALLOT SECURITY.** An outside organization will again be used this year to receive and certify ballots for the Tellers Committee.

**NOMINATIONS & APPOINTMENTS (N&A).** This committee, appointed by BofD for the year beginning Apr. 1 '72, will consist of: Directors Mulligan (chairman), Tanner, Granger, Abraham, Cambias, Carnes, Guarrera, Richardson, Young; also F. S. Barnes, B. B. Barrow, R. F. Cotellessa.

**VICE PRESIDENT REGIONAL ACTIVITIES.** The March BofD had before it Bylaw changes creating a new Assembly-elected Director (beginning in January '73) to be Vice President Regional Activities. He would be designated chairman of RAB—an assignment heretofore (and in 1972) held by the member-Elected Vice President.

**WASHINGTON OFFICE OF IEEE.** Ralph L. Clark (A'29-SM'48-F'58) has been appointed Manager, administratively responsible and reporting to General Manager Don Fink, but responsive to the Vice Presidents, Technical and Regional Activities.

Miss Rebecca Abst will be his assistant. Office address is Suite 601, 1625 Eye St., N. W., Washington, D. C. 20006; phone (202) 785-0017.

Mr. Clark was chairman of the Joint Technical Activities Council (JTAC) in 1960-62. He hails from Michigan, obtained his degree in E. E. at Michigan State, and was Commander, U. S. Navy. His career has been made chiefly in Washington, and

in government service except as to his consulting firm of Ring & Clark and a period as manager of the Washington office of Stanford Research Institute. His past 10 years have been in the Executive Office of the President, offices of telecommunications policy and management. (See Spectrum for April.)

**ON ADVICE TO GOVERNMENT.** The Institute is fortunate to secure a manager of its Washington office who has had years of experience with the Government. Advice to Government is not always accepted completely. For example, JTAC's long experience in advising the Federal Communications Commission (FCC) is on tap as a bellwether.

Recently, in regard to FCC's pilot land-mobile spectrum-management project in Chicago, JTAC had to remind the FCC amicably that FCC's choice of a compromise plan of achieving national management of only "slices" of the spectrum represented a significant departure from the total regional resources management concept advocated by JTAC.

**TECHNOLOGY FORECASTING and Assessment.** (E. E. Feb., pp. 3-4.) RAB and the Technical Activities Board (TAB) have each allocated funds in their 1972 budgets so that interested Group/Societies may proceed.

The recent socioeconomic questionnaire returns showed members' interest in technology forecasting for career planning (3-to-1) and in contributing their services personally (4-to-3). To prevent naive approaches, TAB will require that projects be undertaken only with approval and staffing by the appropriate Group/Society administrative committees (Adcom) and these, in turn, are to agree on clearly defined technical areas and to assure themselves that assessments of current research and development (R&D) trends are being projected by those most qualified to do so. Estimates will include economic and social, employment and career-planning, aspects.

**ASSOCIAZIONE ELETTRONICA ED ELETTRONICA ITALIANA (AEI).** A 2-year agreement between IEEE and AEI has been signed, adapted to the national engineering-society situation obtaining in Italy. It

carries out IEEE's transnational objective of a people-to-people 2-way exchange of information, benefitting both parties.

**HARADEN PRATT AWARD.** The late Past President, Director, and Secretary left IEEE funds for an award, bearing his name, to be made annually or less often "for outstanding service to the Institute" by a Senior Member or Fellow. A committee of ExecCom has been named by President Tanner to recommend form of recognition, procedures, and candidates for consideration by BofD.

#### PUBLICATION NEWS

**APPLYING OUR OWN TECHNOLOGY.** Accustomed to having their brain-children adopted by industry and the public, it is easy for engineers to ignore the benefits of keeping some of them in the family.

One instance of self-adoption was Leo Beranek's now historic use of a plastic 33 RPM recording, realistically to demonstrate points in this paper "Digital Synthesis of Speech and Music." Bound into Vol. AU-18, no. 4, Dec., '70, the 18cm, 2-side record was bound in (with tear perforations) as pages 429-430, keyed to the text.

Along that line, why should engineers, who invented Public Address and TV, have so much difficulty in projecting their own public image?

**IEEE ANNUAL CATALOG, 1972,** first of its kind, describes books, periodicals, microfiche, conference publications, audio cassettes, standards, courses, services, emblems, and all current items (with prices) obtainable on order. 48 pp. 14 x 42 cm. Mailed to members. (Extra copies, Bill Hilty)

Impressive. Brings together in one place the wealth of Institute educational resources, heretofore scattered.

**ANNUAL INDEXES** of IEEE periodicals customarily appear in December issues; recently they have been computer-generated.

As a byproduct of the computer base a combined index in common alphabetic

arrangement covering contents of all 1971 journals will be published this spring, for members at \$7.50. Watch Spectrum for announcement. This will be an annual.

With dissolution of IEEE Information Services (E. E. Dec. '70, p. 4; Feb. '71, p. 4) the computer processing of annual-index data were transferred from in-house to Inforonics, Inc. However, indexing and keyboarding of index data will continue to be performed in IEEE.

There has been no interruption or substantive changes in Inspec abstracts/index joint publications of IEEE and Institution of Electrical Engineers (IEE, London). See preceding item on Annual Catalog, which lists them.

**COMMITTEE DISBANDED.** The Committee on Methods of Publication of the Publications Board (PUB), having served its purpose, may be disbanded at its own suggestion by amendment of Bylaw 308.3.

(It is the prerogative of any IEEE unit to monitor its activities and initiate corrective action. ExecCom Coordinators review the committees under their purview in light of accomplishments and make recommendations as to the continuation or dissolution of standing committees. (E. E. June '67, Green Paper, p. 2.)

Before disbanding, the subject committee and the staff collaborated on a 3-page status report on three ongoing experiments in electronic composition (AES and EWS experiments and a hybrid) and 4 other current developments, in and out of IEEE, on composing mathematical material. (Copy, Woody Gannett)

#### CONVENTION NEWS

**THIS APRIL E. E.,** because it is being written for the most part before the middle of March, necessarily has to refer readers to the June issue for news developed by and at Intercon '72, Mar. 20-23, including BofD meeting, Mar. 23, and ExecCom, Mar. 22, actions. (See pp. 4E-4F, 8.)

**OF THE BANQUET ADDRESS** by North American Rockwell's President Robert Anderson a pre-Convention release said the



### IEEE REGIONAL OUTSTANDING LECTURE TOURS

We give below a supplementary list of speakers who have agreed to participate in the IEEE Regional Outstanding Lecture Tours. The first list of 36 speakers was published as the light blue insert in EE, February 1972.

The topics offered by all speakers will be general reviews with concern for applications, making them more suited to broad Section meetings than specialized Chapter meetings. The same speakers may also be willing to offer specialized lectures to Chapters.

<u>SPEAKER</u>	<u>INSTITUTION</u>	<u>TOPIC</u>
Dr. Lewis Clairbourne	Texas Instruments	Applications of surface wave acoustic wave devices to communications equipment (radar, VHF, UHF, bandpass filters). Systems applications.
Dr. L. Stephen Coles	Stanford Research Institute	Speech Understanding Systems.
Mr. Harold S. Field	Omni Tech Corp.	Oil-well instrumentation. Instrumentation for petroleum production.
Dr. Herbert Matthews	Sperry Rand	Surface acoustic waves. Magnetoelastic phenomena.
Prof. Albert H. Rubenstein	Northwestern University	Research on research. (Industrial engineering and management sciences)
Dr. C. H. Walter	Ohio State Research Foundation	New developments in antennas.

Many Groups and Societies also maintain lists of speakers suitable for the more specialized audiences attending Chapter meetings. These include the IEEE Computer Society, IEEE Groups on Engineering in Medicine and Biology, Microwave Theory and Techniques, Reliability, Aerospace and Electronic Systems, the Magnetics Society, and the Power Engineering Society. Speakers Bureaux are under development in the Groups on Engineering Management and Circuit Theory.

Requests for speakers and further information should be made to Dr. Peter D. Edmonds, Administrator, Technical Services, IEEE Headquarters, 345 E. 47th St., New York City, N. Y. 10017. Phone (212) 752-6800 X333, or to coordinators of Group and Society Programs.

Section officers are encouraged to publish this information in Section Bulletins with a request that members make their preferences known to the Section Program Chairman.



## APPLICATIONS

### Membership Identification

Membership Rosters  
Directory Data  
Section and Regional Journals  
Company Rosters

### Subscription Fulfillment

Mailing Labels  
Publication Distribution  
Selective Mailings Within Data Base  
Committee Lists and Labels  
Promotional Lists & Labels  
Company Subscription Service

### Membership Profiles

Questionnaire Preparation and Analysis  
Membership Statistics  
Trend Analysis  
Marketing Synoptics  
Group/Society Matricies  
Conference Registration  
Ballot Preparation and Statistics  
Student Rosters by School

### Membership Accounting

Membership Billing  
Reminder Notices  
Cash Receipts Journal  
Accounts Receivable Ledger  
Accounts Payable Ledger  
Sales Analysis and Inventory  
General Ledger  
Financial Statements  
Budget Reports

## COMPUTER CONFIGURATION

IBM 360/40

- Central Processing Unit (2040) Internal storage capacity of 192K alphanumeric characters.
- Disk (2319) Nine active modules. Stores up to 29.17 million bytes on each disk pack.
- Card Read Punch (2540) Reads at rate of 1,000/400 per minute, punches 300/200 per minute.
- Tape (2401 I) One 7 Track-Density 556-800 bytes per inch.  
2401 II) Two 9 Track-Density 556-800 bytes per inch.
- Printer (1403) Speed 1110/310 alphanumeric lines per minute. Print span of 132 characters.
- Cathode Ray Tube (2260) Display of 960 alphanumeric characters.

Jack Fraum -  
Manager -  
EDP and Systems

William J. Keyes -  
Director -  
Administration Services



## IEEE BOARD RECOMMENDS EXPANSION INTO NON-TECHNICAL AREAS

New York, N. Y., March 24, 1972. Robert H. Tanner, the President of the Institute of Electrical and Electronics Engineers, announced today that the IEEE Board of Directors at a special meeting yesterday had agreed in principle to recommend to the membership a change in its Constitution which would permit entry into non-technical fields, while continuing its present scientific and educational functions. The action came after analysis by the Board of 57,000 replies to a questionnaire mailed to members in the United States early this year. The details of the questions and a tabulation of 47,000 replies appear in the March issue of IEEE SPECTRUM.

The U. S. members were asked whether they would favor IEEE becoming more active in political and economic matters of concern to the electrical engineering profession. The response was affirmative by a vote of better than 2-to-1. Other matters included in the questionnaire were the preparation by IEEE of position papers, recommendations on professional employment practices, pension plans, salary surveys, public relations, technological forecasting, continuing education and career guidance. With few exceptions the returns indicated a desire on the part of the U. S. membership to enter or enlarge programs in these areas. President Tanner reported that some of these activities, such as technological forecasting and career guidance, are permitted under the present Constitution and the IEEE has active programs now under way in these areas. Professional activity in economic, social, legislative and ethical areas of the profession is, however, barred by the present Constitution. He reported to the Board a legal opinion that the proposed amendment to the Constitution would permit the Institute to enter all of the areas dealt with in the questionnaire. He noted that the proposed amendment would expressly bar IEEE from engaging in collective bargaining, customarily dealt with by labor unions.

A provision of the proposed amendment, necessary to implement non-technical programs governed by the laws and customs of individual countries, provides that the IEEE may engage in activity that meets the needs of members residing in a particular country or area of the world. An implementing Bylaw, covered by this provision, provides that payment for special services so rendered would be reflected in the dues and fees charged in the respective areas of the world.

Mr. Tanner stated that, as anticipated in a matter of such fundamental importance to the Institute, the vote by the Board was not unanimous, but the vote, 18 to 5 in favor, showed that a substantial majority of the Board supported the proposed move when the vote occurred. Later in the meeting all members of the Board present declared their support of the action.

The wording of the proposed amendment will be released after review by legal counsel and after a program of specific implementation, which would be undertaken if the members adopt the amendment, is acted on by the Board at its May meeting. Thereafter, publication of the amendment and the program in IEEE SPECTRUM is planned, followed by presentation of the amendment to the members for vote, in ballots to be mailed in September. If approved by the required two-thirds of the members voting, a further step, a conforming modification of the Charter under which IEEE is incorporated in New York State, must be taken, after which implementation of the new amendment can legally occur.

Mr. Tanner said that it was the hope of the Board that the membership would grant approval of the amendment by a substantially larger vote than the required two-thirds. He emphasized that the provisions of the Constitution relating to the Institute's present technical activities have been retained unchanged, except for minor editorial revisions to improve their clarity, and that the Board was committed to continue and to advance its position as the leading technical society, in membership and resources, in the world.

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speaker would make the point that "during the past five years, 5,000,000 workers were added to the service industries while over 78,000 scientists and engineers are now unemployed. He sees scientists and engineers in a state of siege and will advise them to fight not for the future but for a future."

IMPACT OF SOCIOLOGICAL CHANGE upon formulation of Intercon '72 program was explored by Associate Editor Beardsley in Spectrum, Feb., pp. 20-23. . . In March (pp. S4-S8) he reported an electronics industry forecast for 1972 based on interviews with 8 concerns exhibiting. His prognosis: A Turnaround.

A MEDICAL SEMINAR on "Engineering in the Hospital," organized by the medical engineering group of Massachusetts General Hospital, ran concurrently with Intercon '72. Students were registered at only \$10—a Best Buy.

Apart from the usual type of papers on electronic, monitoring, and computing equipment, techniques, and instrumentation, highlight of interest was a session, chaired by an M. D., on professional interaction between the physician, engineer, lawyer, and patient. A final session was addressed to the question "Will electronics change medical practice?"

"You've come a long way, baby!"

#### REGION AND SECTION NEWS

ADAPTED FROM CEDAR RAPIDS Section's "Corona:"

Paying IEEE dues and receiving Spectrum and meeting notices but doing nothing else is like ordering a steak and not eating it when the waitress brings it over.

Cut it. Bite in. Start chewing. Enjoy it! . . . Do things you can't do as a non-member. Join some activity. Get on a committee. Be useful. Help yourself. Savor full value: Help others.

MEMBERSHIP & TRANSFERS (M&T). A year ago it was said (E. E. Apr. '71, p. 4B): "The local Section continues to be the backbone of the M&T job. Sections both large

and small have demonstrated that when Section management gets behind it and staffs up a strong M&T Committee, outstanding results can be achieved."

A case in point was 1971's early telephone and personal-visit followup of members whose dues were in arrears. "Many Sections," says Emily Sirjane from her vantage point, "did a great job" in preventing preventable losses.

Early in March this year Sections were furnished a list of dues-in-arrears as of Feb. 29; they had previously been reminded (Dec. 31) to organize through M&T a personal followup of every non-paid-up member to obtain a reason (intentional or inadvertent) for lapse of dues. (Copy of instructions, Emily Sirjane)

A member saved serves-and-is-served as well as a member enrolled.

STUDENT ACTIVITIES. Charlie Stewart, Director Member Services, announces appointment to his staff of Robert K. Asdal, BSEE '70, Fairleigh Dickinson University, as Coordinator Student Activities. Bob was chairman of his IEEE Student Branch, and comes to us with fresh, first-hand contacts with young engineers in four industrial concerns in Princeton and Northern New Jersey. He will act as secretary to RAB's Student Activities Committee.

YOUNG ENGINEERS. (Cf E. E. Feb. '70, p. 2; Apr. '71, p. 3.) RAB's Policy & Planning Committee is studying societal needs of engineers 30 years of age and younger. A pilot inquiry in the Atlanta area will be extended to Region 3 and other Regions if successful. One information source being explored by telephone and other informal contacts is the under-30 dues-in-arrears group, whose reasons for dropout should shed light on unfulfilled societal needs of our younger members.

RAB RELATIONS DEVELOPMENT Ad Hoc Committee has been formed to develop member-relations material of a Regional or Section nature to assist the Regional Directors. This is distinct from IEEE's over-all public relations. Region 4 has been selected for the pilot inquiry.

INTERESTING COMPARISONS involving IEEE and sister societies are made in a 5-page Reprint RE-17-3-21 from "RCA Engineer," obtainable on request from Irving M. Seideman (M'55), RCA Astro-Electronics Div., P. O. Box 800, Princeton, N. J. 08540. Thumbnail sketches are included by which may be compared or related: ACM, AIAA, AIP, ASME, ASQC, ASTM, IEEE, SMPTE, NSPE. (Cf. E.E. Feb. '70, pp. 4, 4C-4F, 5.)

#### TOOLS AND AIDS

IEEE SECRETARY'S REPORT for 1971 became available as soon as "received" by BofD Mar. 23. (Copy, Emily Sirjane)

Copies were duly mailed to Sections and Group/Societies. This document of 122 pages gives statistics of membership, meetings, and activities; and information about the Institute by unit components, committees, and publications. It is ordinarily abridged and printed with the Treasurer's report in June Spectrum (e. g., June '71, pp. 56-68).

LABELS, PRINTING & MAILING. IEEE Headquarters charges for services ordered by Sections, Group/Societies, and other units can be found in pink centerfold pages 4I-4J included with E.E. Feb. '72. (Copy, Bill Keyes)

Pertinent U. S. postal requirements are given, as well as IEEE policy limitations on use of mailing lists and labels.

ROSTERS BY "COMPANY" AFFILIATIONS. A very high return of information sought in connection with dues billings in Nov. '71 warrants the expectation that by the end of April Section and Group/Society Rosters of members-by-companies can be produced of far more usefulness than even before (E.E. Oct. '71, p. 7). "Companies" in this usage include government agencies, colleges, and so on. Announcement will be made when lists can be read out by computer and purchased by units. (Information, Bill Keyes)

IEEE's COMPUTER. With E.E. Aug. '69 we included a centerfold, pp. 4A-4D,

giving details on what we then had, how it worked, and what it could do for Sections, Groups, and other units. The material has now been updated and is included herein as centerfold pp. 4C-4D. (Copies, Jack Fraum)

#### "FOR YOUR INFORMATION"

THAT BACKGROUND NOISE. Q.—Why do you clutter E.E. with interminable references to back issues? A.—1) To save words and readers' time. 2) To encourage readers to save back issues for looking up something when it becomes "hot." 3) To help a reader, burned up about one subject, to trace its genesis back and back and back. 4) To frame E.E. as a concise history of IEEE—shorter than official Minutes; hitting more angles than is justified in Spectrum.

KING'S ENGLISH. Q.—Why do you "write your stuff" in the U. S. vernacular? A.—1) To hold spellbound E.E.'s U. S. readership—a big chunk. 2) To forewarn overseas visitors of what they'll hear in New York.

We note with satisfaction that, when "IEEE Region 8 Newsletter" (London) picks up an E.E. item, it is recast in Oxford English—precisely understood throughout Europe, North Africa, and the Near East.

LIFE MEMBERS do not pay membership dues but many of them join with other members in making voluntary, tax-deductible contributions to the Life Member Fund. An LMF Committee report is available showing how funds are being used, and inviting suggestions for sponsoring new activities catering to older members' interests whether or not they are Life Members. (Copy, Bill Keyes)

CALENDAR CROOKED. (E.E. Feb., p. 7.) Yom Kippur falls on Sept. 18-19, '72, not on Sunday, the 10th, as alleged! Thanks to Nelson Blachman (F'66) for poking Y<sup>e</sup> Ed. in the ribs.

P. O. CUTS REDUNDANCY, invites queries, by adopting 2-letter state abbreviations which (together with 3-digit contracted Zipcodes for cities and towns)

now solely describe where a piece of U. S. mail was launched.

New abbreviations for states having cities of population  $\geq 300K$  are: AL Alabama, AR Arizona, CA California, CO Colorado, FL Florida, HI Hawaii, IL Illinois, IN Indiana, MA Massachusetts, MI Michigan, MN Minnesota, NE Nebraska, OH Ohio, OK Oklahoma, OR Oregon, TN Tennessee, TX Texas, WA Washington, WI Wisconsin. Undisturbed were 20 states already having 2-letter abbreviations. "World Almanac" '72 carries the full list (p. 973, plus 38 pp. of Zipcodes); but only the very latest dictionaries are of any help at this time when business firms and the press are beginning to ape the Post Office.

OF THIS YEAR'S MEDAL OF HONOR recipient, Jay Wright Forrester, outstanding pioneer in digital computers (and, more recently, at M. I. T., in their societal applicability), the Institute's publicity release said: "He was born 20 miles from the nearest town of Anselmo, Nebraska, [pop. '50: 316] on a cattle ranch which had been homesteaded by his parents."

Stars still hover above the most unlikely birthplaces.

The miracle, expressed in chances/10<sup>9</sup>, is that mendelian inheritance will be nurtured through a fortuitous, often hostile environment to the end that some day there shall be synthesized an idea, ideal, or program never before conceived by the mind of man. . . And it does happen here!

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<u>Centerfold pages:</u>	<u>Pages</u>
Green - TAB News	4A-4B
Ivory - IEEE's Computer	4C-4D
White - Non-technical Areas	4E-4F

#### WELCOME ABOARD!

Affiliation of South Carolina Sections, replacing former Subsections of South Carolina Section (dissolved).

New Sections: (formerly Subsections, territory unchanged)  
Central Savannah River, Charleston, Columbia, and Piedmont Sections.  
Northern Canada Section (formerly called Northern Alberta Section).

New Subsections:  
Interior Alaska Subsection of Alaska Section.

New Delhi Subsection of India Section.

New Group/Society Chapters in Sections:  
Binghamton Section: Electron Devices Group Chapter.

Florida West Coast Section: Computer Society Chapter.

Milwaukee Section: Computer Society Chapter.

Milwaukee Section: Joint Instrument & Measurement Group/Industrial Electronics & Control Instrumentation Group Chapter.

Rochester Section: Computer Society Chapter.

Reconstituted Chapters in Sections:

Joint New York/Connecticut/Long Island/North Jersey Sections: Electromagnetics Group Chapter. (Connecticut added)

Staff: Washington Office IEEE, Ralph L. Clark, Manager.

Robert K. Asdal, Coordinator, Student Activities.

## " S P E C T R U M " R E - A N A L Y Z E D

Don Christiansen examined for college Students and Branch Counselors at Intercon '72 the broad continuum of future appeal required of "IEEE Spectrum," as he sees it in assuming the Editorship. By permission, the technical spectral band is here displayed for "E.E.'s" readers.

Spectrum has begun a reordering of priorities. Its charter is the coverage of both technical and social-issue topics. But it must do both in a more professional and timely manner. As the "flagship" of the Institute it should be the most prestigious and the best read magazine in the electrical/electronics field. More than 95% of its readers should take delight in reading it, and find it crammed full of helpful (and yes, even inspiring) information.

The reader should expect and consistently find that Spectrum helps improve his performance on the job, puts his job and his skills in perspective, helps him earn more money, and enables him to gain more enjoyment and satisfaction from his chosen profession.

Technical articles must deliver more in fewer pages. There must be fewer "All About ..." articles and more that deliver the salient developments on a given topic. To improve readership, more articles per issue are a must. The expansion of technology alone means that Spectrum will have to deliver more information on more topics to more readers.

New techniques for broadened technical coverage are being explored. For example, avenues to the Group/Societies are being paved so that potentially important articles can be spotted and developed promptly. We also visualize a force of "IEEE Spectrum technical correspondents" spotted strategically to serve as eyes and ears of Spectrum around the world.

Spectrum is intended to be a highly readable and well read magazine, not a magazine of record or first disclosure. Hence, the presentation of an article in Spectrum must depart radically from the manner in which the same subject is treated in Group or Society Transactions. Readers will forego articles and items loaded with jargon of a specialty, and overburdened with unnecessary mathematics. The upshot, I suggest, is that Spectrum's technical articles must become sharper and, in general, shorter.

Personality. I think it important that Spectrum develop its own "personality." Its content, style and format must have distinctive trademarks that cause it to clearly stand out from the competition. Spectrum must become a better looking magazine. The cover is already a step ahead of most in the field. Top priority in the

"cosmetic department" is improvement of appeal of our feature articles, from headings to text to illustrations. A top-grade editorial staff should add value to material submitted. Not only will such a staff permit Spectrum to track the industry, but to be at its cutting edge.

Part of the magazine's personality development should be in the area of "humanizing" it. People are important. Even engineers are interesting. Also, I am an advocate of surprise as an editorial element. The reader finds something unexpected—that delights him or dismays him and causes him to happily agree or angrily disagree. An editor must "live" with his readers and with industry experts, and react quickly and accurately. One specific result will be that Spectrum will be able to turn around faster on a feature article (or shorter item) than any other monthly electrical/electronic publication.

Good editing is a tough job at best, and one of the most disconcerting aspects is not being able to "close the loop" with the reader. If the reader does not talk back to the magazine, it has lost one of the most important inputs in keeping itself on target.

Using the reader service card in better ways is contemplated in achieving feedback. More sophisticated ways will be tried to get significant evaluation of how good a job the magazine is doing.

Social issues constitute a new challenge in Spectrum's coverage. Important is the cultivation of thoughtful, significant, and often controversial inputs. One technique under study is establishment of a "young engineers advisory board" to provide a new type of input, admittedly and intentionally biased.

There are plenty of controversial issues that can arouse worthy thought, worthwhile feedback, and even the basis for feature articles, from readers. On the other hand, too many letters on one topic, or one type of topic (social issues, professionalism, unionism, etc.) may signal an imbalance in serving readers' needs.

One indication that we are headed in the right direction is this comment recently received: "Hey—you guys are cutting into my free time. I used to read the issue in 2 minutes, now it's taking 3 to 4 hours. If it were back to trivia and showoff articles, I could play more handball instead of reading so much!"