

DRAFT

IEEE INFORMATION
and
(Where to find more)

This, in brief outline, is an attempt to cover the history, objectives, organization and work of IEEE. The reader interested in knowing more about IEEE will find numbered references to past publications and current sources on Page ____.

HISTORY - The Institute of Electrical and Electronics Engineers, IEEE Inc., pronounced: (I-Tripple-E) was established by the merger (1) of the American Institute of Electrical Engineers (AIEE), founded 1884 (2); and the Institute of Radio Engineers (IRE), founded 1912 (3). IEEE is incorporated in the State of New York by Certificate of Consolidation, dated January 2, 1963 and by amendment of the Certificate of Incorporation of the AIEE, issued March 16, 1896. It is certified by the U. S. Internal Revenue Service as a non-profit educational and scientific organization, under Section 501 (c3) of the Internal Revenue act of 1954, as tax-exempt and eligible to receive tax-deductible donations.

The merger came about swiftly. Less than 15 months after the two Boards resolved to explore the prospects, the legal formalities were completed, January 2, 1963. By the end of 1963, Regions, Sections, Branches, Groups, Technical Committees, Publications and Meetings had been consolidated and over 155,000 members had been integrated into a single organization.

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This achievement must, of course, be recognized as the result of leadership with vision, boldness, and deft administrative touch in both organizations. It was also the natural and inevitable final step in a progressive sequence of cooperative alliances arranged for the efficient service of the common interests of the members of the two organizations. Joint meetings and conferences had been growing in frequency among the technical and geographical units. The majority of the Student Branches were already unified, a single Standards Committee was functioning, and reciprocal membership privileges had been arranged before merger was formally discussed. IEEE in 1963, as its constituents in 1884 and 1912, was a response to the obvious needs of its time.

Objectives - The purposes of IEEE are scientific, literary, and educational, directed toward the advancement of the theory and practice of electrical, electronic, and allied branches of engineering or the related arts and sciences. (4). The basic function of IEEE is educational: the search for new knowledge, its evaluation, classification, dissemination, preservation, retrieval, and application. IEEE works directly in the public interest and therefore enjoys certain valuable privileges and exemptions along with other such institutions, particularly colleges and universities.

These objectives are carried out through the efforts of IEEE members who write, review, and select the papers and articles that fill the 2500 printed pages published each year by IEEE (5). Members plan, organize and manage

the 90 major meetings conducted by IEEE each year for the presentation and discussion of papers. In addition to these major meetings, over 2000 meetings of scientific and educational value are conducted each year by the 246 local Sections of IEEE (5). All of this effort on the part of IEEE members is concentrated on the basic, stated purpose of the organization. The direct beneficiary is the public. Personal returns to members for their work and by-products of the achievement of the basic objectives. The opportunity to participate, contribute, and share in these byproducts is open to all members of IEEE. The section on "Organization" will tell something of how the work of IEEE is done.

Organization - IEEE is neither a national nor an international organization. For convenience, certain administrative units follow geographical and political boundaries. But, its policies with respect to membership privileges and services are non-national and uniform on a world-wide basis (6). For purposes of administration and representation there are nine Regions. Six are within U.S.A. No. 7 is Canada, No. 8 is Europe and the Middle East, and No. 9 embraces the rest of the world. See Figure (1). The distribution of members, Sections, Subsections, and Branches as of January 1, 1966 is given in TABLE 1.

IEEE members control their organization through the exclusive right by rota to amend the Constitution and to elect the President and 17 other members

of the Board of Directors (7). These 18 meet in January as an annual Assembly and choose the rest of the 26-member Board of Directors (7). A Nominating Committee solicits each year, from the Sections and other organizational units, and from the membership, suggestions for candidates to fill, not only the major offices, but also the many committee posts through which IEEE operates. These are shown on the Organization Chart, Figure 2, on which the applicable Bylaw is noted in each case.

From the membership of the Board of Directors there is created each year an Executive Committee of nine to meet monthly and administer the affairs of IEEE under the Bylaws and Policies as defined by the Board. Regions 1 through 8 elect Regional Directors to serve two-year terms on the Board. Region 9 is represented by a Director elected each year by the Annual Assembly.

Regional Committees, of which the Regional Directors are the Chairmen, include representatives of the Sections comprising the Region. Through the Regional Committees and the Regional Director's visitations, personal contact is maintained between the individual member and the Board of Directors.

Each Region has also a Regional Student activities committee composed of Branch Counselors. The Chairman is a member of the IEEE Student Branches Committee.

Reference to Figure 2 shows the seven administrative bodies reporting directly to the Board of Directors. Nine report to the Executive Committee. These

sixteen boards and standing committees promote and conduct the work of IEEE in geographical and functional areas pertaining to membership activities and public relations. The functions of some of these committees, common to all membership organizations, will be obvious. Others whose work is peculiar to IEEE's objectives will be mentioned in relation to that work.

The right hand column of the Organization Chart represents, in very abbreviated form, the large organization devoted to the directly productive technical work of IEEE. The Technical Activities Board (TAB), composed of representatives of the Groups and TAB General Committees, over which the IEEE Vice President-Technical Activities presides, administers the technical affairs under the direction of the Executive Committee of which the Vice President-Technical Activities is ex-officio a member.

Every Board and Committee shown on the Organization Chart is essential to the successful carrying out of the objectives of IEEE. About 10,000 members participate actively in the administration of the work of IEEE in these organizational units. The individual, by virtue of his location or desire, is associated with a Section or a Student Branch. He may also join any Group whose scope includes his technical interest. These two basic units of IEEE will now be examined more closely.

Sections - The IEEE Section (8) (13) is the point of personal contact for the members. Sections and Subsections bring the program of IEEE to where the member lives. It affords him an opportunity to participate actively, to help determine the program contribute to it, and share in its benefits.

A Section may be organized by petition of 50 members. Where a Section territory is large, Subsections (8) may be formed, if as many as 20 members so desire.

Twelve members may organize a Group Chapter (9) within the Section to promote and manage programs and activities in their field of technical interest related to one or more of the IEEE Groups.

Sections of IEEE are to a large degree autonomous and enjoy complete freedom in planning their programs and issuing their own publications. Many conduct formal tutorial programs for members and the public. They elect their own officers and manage their own finances. Funds are allotted by IEEE for the support of Section activities (10). In addition to a base sum, there is an allowance per member and for each meeting held. Section work is coordinated by the IEEE Sections Committee of which the Vice President elected by the members is the Chairman (13).

Branches - IEEE Student Branches are supported in 278 colleges and universities throughout the world (8). Ten IEEE Student members, registered in a "school of recognized standing", with the approval of the faculty, may petition for the establishment of a Student Branch. (11). Each Branch elects its faculty Counselor and officers, and conducts its own program. An allotment of funds is made by IEEE based upon the size of the Branch membership. The IEEE Student Branches Committee coordinates and supervises Branches (13).

Groups - The technical activities of IEEE are represented by 31 specialty Groups (9). IEEE members may join any one or more Groups by application and payment of the Group membership fee. Groups conduct conferences and symposia in their special field of interest and publish the presented papers. In addition, Groups publish selected articles and papers in periodical TRANSACTIONS which may appear monthly, bimonthly, quarterly, or occasionally, as required for the service of the Group members. Over 80% of all IEEE published pages appear in these TRANSACTIONS. Each Group functions in a technical field defined by its scope. Depending on the size of the Group and the breadth of its scope, there may be organized within the Group, Technical Committees which may conduct their own conferences, issue publications, and develop Standards. Some Groups provide for the inclusion in their membership of qualified professionals, not members of IEEE. Each Group has a full set of officers and manages its activities and finances through an Administrative Committee. Each Group is represented on the Technical Activities (TAB) by its Chairman. (12), (13). Group publications receive subsidy from IEEE.

TAB (12) formulates and recommends to the Executive Committee policies, organizational arrangements, Scopes of Groups and TAB General Committees. As with the Board of Directors, TAB manages the technical activities of IEEE through a small Operating Committee which meets frequently.

PUBLICATIONS

A Publications Board (13) coordinates and monitors the technical publications activities of IEEE. The chairman of this Board is the Vice President-Publication Activities. He is a member of the Board of Directors and the Executive Committee. Serving with the Vice President or the Editors of SPECTRUM, PROCEEDINGS, and the STUDENT JOURNAL. Also represented are the Information Processing Committee, the Translated Journals Committee and the Panel of Group Editors. "Information for Authors" is issued by the Publications Board (14) and should be consulted before writing a paper for any of the IEEE publications.

SPECTRUM frequently appears in references throughout this pamphlet. That is because it is the one publication received monthly by all members of IEEE. It carries reports of all significant actions of the Board and administrative bodies, and news of all IEEE activities. This is in addition to its main purpose which is to bring a wide range of technical articles to the membership, written so as to be meaningful to its audience. Included too are abstracts of papers appearing in other IEEE publications, book reviews, letters, and editorials.

PROCEEDINGS of IEEE is a monthly research journal for advanced papers of broad and lasting significance. Special issues are published from time to time to lay a foundation for the development of newly emerging fields.

PROCEEDINGS is available by subscription.

TRANSACTIONS are the specialized journals published by the 31 Groups for their members and available to others by subscription. Each Group TRANSACTIONS has an Editor chosen by the Group Administrative Committee. With the help of competent reviewers, he selects and prepares manuscripts for publication. As a member of the Panel of Group Editors he assists in developing coordination and standards for Group publications. (13).

STUDENT JOURNAL is a special bimonthly publication, providing students of electrical engineering and electronics with career information and educational material of a technical, scientific, or professional nature. It is issued to all IEEE Student Members and is available to others by subscription. The Editor is appointed by the Board of Directors and is a member of the IEEE Publications Board.

INTERNATIONAL CONVENTION RECORD (15) contains the papers presented at the IEEE International Convention and is available at the Convention or on order from Headquarters. The papers usually originate through the work of Groups and Technical Committees which sponsor sessions.

CONFERENCE RECORDS are published by some of the Groups. These contain the papers presented at Group conferences. Conference Records are usually included in the registration fee at the conference and may be purchased from Headquarters (16). These publications are the responsibility of the Conference Committee.

SPECIAL PUBLICATIONS are occasionally issued by Groups or Technical Committees containing surveys, reports, or collections of papers not otherwise available. These are announced from time to time in SPECTRUM (16).

TRANSLATED JOURNALS derived from Russian and Japanese publications in fields of interest to IEEE members are made available with the help of the National Science Foundation. These are available to IEEE members and the public by subscription. Competent Editorial Committees drawn from the Groups and Technical Committees of IEEE, with representation on the Publications Board, select and abstract translated articles for SPECTRUM.

IEEE STANDARDS, chiefly devoted to defining terms, conditions, and limitations which characterize behavior of electrical and electronic apparatus and equipment, are developed, approved and published under the aegis of the IEEE Standards Committee (16) (17).

EDUCATION - It was said earlier that the primary purpose of IEEE can be summed up in the one word "education" and that its major activities are all so directed. While IEEE fosters the advance of science and technology, it does so, not for profit nor for the benefit of any industry or profession, but for the stimulation resulting from the wide dissemination of the resulting knowledge. In this connection should be mentioned the IEEE program in continuing education carried on through the Sections and two IEEE bodies with names and functions related to the broad field of education. The Education Committee is a policy advisory and operating committee with an interest in education at whatever level and under whatever auspices. The Education Group under the Technical Activities Board has as its scope, "..... to

foster improved relations between the electrical and electronic and affiliated industries and schools, colleges and universities", and publishes a quarterly TRANSACTIONS in its field.

MEETINGS - The annual IEEE International Convention and Electrical and electronics Engineering Exhibition, held in New York, is the largest technical gathering in the world (15). It is managed each year by a Convention Committee with numerous subcommittees including a Technical Program Committee responsible for allotting and coordinating sessions. About 90 major meetings are sponsored or co-sponsored by IEEE, its Groups and Committees, each year. These are scheduled as far as 5 years in advance (18). Many of these are held annually under the auspices of a Group or Technical Committee, and managed by a Conference Committee on which the local Section, or its appropriate Group Chapter is the major element. In some cases formal and continuing contracts are in force between IEEE and other Societies for the sponsorship at joint meetings.

AWARDS - IEEE Awards include the Medal of Honor, four Major Awards, eight Field Awards, three Paper Prizes and two Scholarships (19). Awards are administered by the IEEE Awards Board (13) of which a Director is Chairman. With the assistance of eight committees, the Awards Board prepares recommendations for action by the Board of Directors. Selection of recipients is made after solicitation of nominations from the organizational units and the individual members of IEEE.

In addition to its own Awards, IEEE participates with other Societies in the selection of candidates for, and presentation of, interdisciplinary awards as follows:

Fritz Medal
Hoover Medal
Marsten Award

Noble Award
Sperry Award
Washington Award

INTERSOCIETY RELATIONS - IEEE is a part of several engineering society federations with objectives relating to broad professional and educational matters such as United Engineering Trustees (EUT) (20), Engineers' Council for Professional Development (ECPD) (20), Engineers Joint Council (EJC) (20), and the Conference of Representatives of Engineering Societies of Western Europe and United States (EUSEC) (20).

There is also a long list of federations and organizations with which IEEE associates in the holding of meetings and conferences and cooperates in other general or special programs (13). On all matters of membership in, or association with, other organizations, the Board of Directors is advised by the Intersociety Relations Committee (13).

Headquarters - The IEEE Staff is now located in the United Engineering Center at 345 E. 47th Street, New York, New York 10017. The General Manager's office and the Technical Activities staff occupy the 10th floor. Other departments are located on the first, 9th, 15th and 16th floors. Inquiries and

orders for publications should be addressed to IEEE. If the subject concerns a special area of work, it may be addressed to the head of the department concerned.

General Manager	Donald G. Fink
Administrative Services	W. J. Keyes, Director
Editorial Services	E. K. Gannett, Director
Educational Services	J. M. Kinn, Director
Technical Services	R. M. Emberson, Director

Staff Secretaries to IEEE Standing Committees and Boards:

Awards Board	Una B. Lennon
Education Committee	L. D. Leonard
Fellow Committee	Emily Sirjane
Finance Committee	W. J. Keyes
History Committee	N. S. Hibshman
Intersociety Relations Comm.	J. M. Kinn
Membership and Transfers Committee	Emily Sirjane
Nominations and Appointments Committee	Emily Sirjane
Professional Relations Committee	J. M. Kinn
Publications Board	E. K. Gannett
Sections Committee	Emily Sirjane
Standards Committee	J. J. Anderson
Student Branches Committee	L. D. Leonard
Technical Activities Board	R. M. Emberson

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- (1) ELECTRICAL ENGINEERING (AIEE) Dec. 1961, April 1962
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- (2) ELECTRICAL ENGINEERING (AIEE) 50th Anniversary May 1934
- (3) PROCEEDINGS of IRE 50th Anniversary May 1962
- (4) IEEE Constitution EE (AIEE) and PROC of IRE April 1962
- (5) Annual Report of the Secretary SPECTRUM _____ 1966
- (6) Policy Statement SPECTRUM _____ 1965
- (7) Bylaws 200, 301
- (8) List of Sections, Subsections, Branches, Committees and Groups
SPECTRUM annually in the Spring.
- (9) Group Chairmen and Editors List SPECTRUM in early Fall

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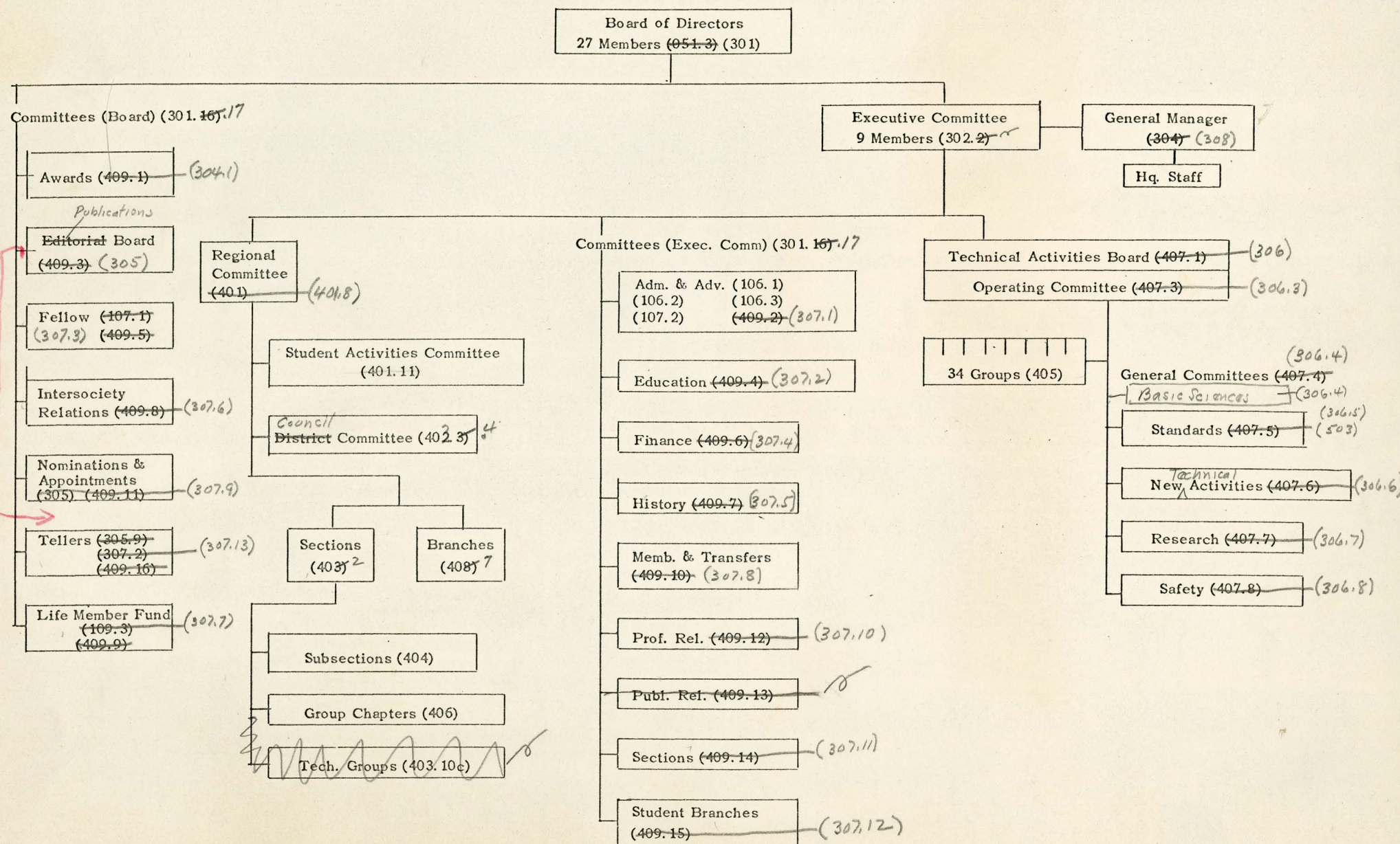
- (10) IEEE Manual for Sections
- (11) IEEE Student Branch Manual
- (12) Technical Activities Manual
- (13) IEEE Organizational Roster 1966
- (14) Information for Authors SPECTRUM
- (15) SPECTRUM announcement February and March
- (16) List of available issues available from Headquarters
- (17) IEEE Standards Manual
- (18) Master Meeting Schedule issued Quarterly by Headquarters
- (19) IEEE Awards (An Invitation to Nominate) available from Headquarters
- (20) See Annual Reports

TABLE I

Regions	Membership			Sections	Subsections	Branches
	Members	Students	Totals			
1-6 USA	117,641	21,892	139,533	156	56	246
7 Canada	5108	1,717	6825	16	1	24
8 Europe Mid-East	3280	233	3513	10	0	4
9 Other	3184 + 726	395 + 22	3579 + 748	8	0	4
Totals	129,939	24,259	154,198	190	57	278

Figure 2

SUMMARY OF IEEE ORGANIZATION (Bylaw No.)



"For contributions to the extension of international radio communication and to the standardization of radio engineering systems and devices." Recipient, IRE Medal of Honor (1944); IRE Founders Award (1960).

John D. Ryder—Dean College of Engineering, Michigan State University, East Lansing, Mich. Born 1907. Ph.D. (1944) Iowa State University. IRE President, 1955. IRE Editor, 1958–59; IRE Director, 1952–59; IRE Committees, 1945–46, 1948 to date; AIEE Committees, 1945–60. AIEE Fellow (1951) citation: "For inventions in the field of instrumentation and control, and contributions to electrical engineering literature and education." IRE Fellow (1952) citation: "For his contributions in industrial applications of electronics circuits and to education in radio and allied fields."

William G. Shepherd—Professor and Head of Electrical Engineering, University of Minnesota, Minneapolis, Minn. Born 1911. Ph.D. (1937) University of Minnesota. IRE Director, 1960–62; IRE Committees, 1951–60. IRE Fellow (1952) citation: "For his contributions to the

development and design of electron tubes, particularly the reflex klystron."

Eugene C. Starr—Consultant, Bonneville Power Administration, Portland, Ore. Born 1901. E.E. (1938) Oregon State College. AIEE Director, 1958–62; AIEE Committees, 1941–62. AIEE Fellow (1949) citation: "For research in high voltage phenomena and contributions to electrical engineering education."

F. Karl Willenbrock—Associate Dean and Director of Laboratories, Division of Engineering and Applied Science, Harvard University, Cambridge, Mass. Born 1920. Ph.D. (1950) (Applied Physics) Harvard University. IRE Director, 1962; Chairman, IRE Boston Section, 1959–60.

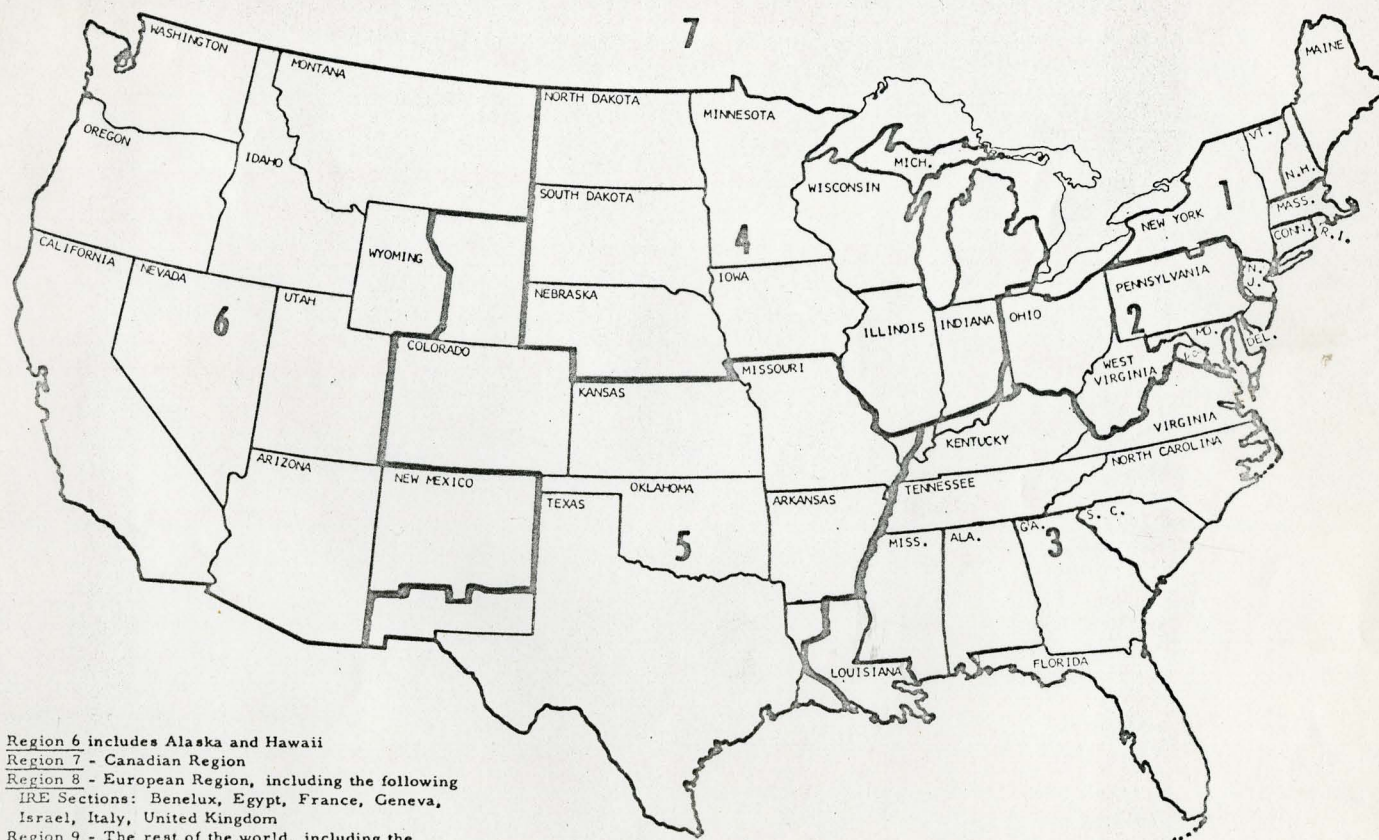
Note: The following are biographies of two members not listed on the enclosed ballot. The Merger Committee will suggest to the elected Board that each be designated "Director Emeritus."

Alfred N. Goldsmith—Consulting Engineer, New York, N.Y. (IRE Founder and Charter Member). Born 1889. Ph.D.

(1911) Columbia University. Sc.D. (hon.) (1935) Lawrence College. IRE President, 1928; IRE Secretary, 1918–27; IRE Editor, 1912–28, and 1930–53; IRE Editor Emeritus, 1954 to date; IRE Director, 1912–62; IRE Committees, 1913–53. IRE Fellow (1915) citation: "For his contributions to radio research, engineering and commercial development, his leadership in standardization, and his unceasing devotion to the establishment and up-building of the Institute and its Proceedings." AIEE Fellow (1920) citation: "For pioneering in the development of radio communications." Recipient IRE Medal of Honor, 1944; IRE Founders Award, 1954.

Elgin B. Robertson—President, Elgin B. Robertson, Inc., Dallas, Tex. Born 1893. E.E. (1915) University of Texas. D. Eng. (hon.) (1954) Southern Methodist University. AIEE President, 1953–54; AIEE Director, 1947–56; AIEE Committees, 1944–61. AIEE Fellow (1945) citation: "For original designs of outdoor substation structures, important developments in transformers and switchgear, and outstanding service to the War Production Board." Honorary Member, AIEE, 1959.

TENTATIVE REGIONAL BOUNDARIES OF IEEE (Subject to Adjustment)



Region 6 includes Alaska and Hawaii
 Region 7 - Canadian Region
 Region 8 - European Region, including the following IRE Sections: Benelux, Egypt, France, Geneva, Israel, Italy, United Kingdom
 Region 9 - The rest of the world, including the following IRE Sections: Buenos Aires, Chile, Colombia, India, Rio de Janeiro, Tokyo

Figure 2

area of work, it may be addressed to the head of the department concerned.

General Manager	-	Donald G. Fink
Administrative ^{services} Sources	-	W. J. Keyes, Director
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