

Report of the Secretary—1961

TO THE BOARD OF DIRECTORS
THE INSTITUTE OF RADIO ENGINEERS, INC.
Gentlemen:

The Secretary's Report for the year 1961 is transmitted herewith.

The IRE continues to increase its membership, the percentage for the year being 9 (see Fig. 1 and Tables I and II). Two new Sections were established in other countries and the Section membership outside of North America increased 45 per cent. A slight decrease, however, is to be noted in the International Convention attendance, although the number of exhibits and the number of papers presented were greater than for the year before.

The statistics show that all departments functioned effectively. An effort was made to conserve members' time by reducing, where possible, duplications in meetings.

The new building on Fifth Avenue, New York City, was fully outfitted and occupied, thereby relieving a space shortage.

Respectfully submitted,

Haraden Pratt

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Secretary

January 31, 1962

Professional Group Activities

GENERAL

During 1961 28 Professional Groups operated actively within the IRE. A 29th Group—the Professional Group on Geoscience Electronics—was organized in November 1961 and will be in full operation in 1962.

The majority of IRE members belong to one or more Professional Groups. The Professional Groups have a total membership of 87,060, which includes 7,325 IRE student members who have joined the Groups at the special student member rate of \$1.00 annually. Under the Affiliate Plan 702 scientists and medical doctors, whose major interests lie in fields other than electronics have affiliated with 25 of the Professional Groups.

IRE Headquarters has rendered financial and editorial assistance to the Groups in 1961. The Office of the Professional Groups Secretary provided administrative services for Group operations, the planning of meetings, advance publicity and mailings for all Group activities which included approximately 700 mailings to Group members during the year.

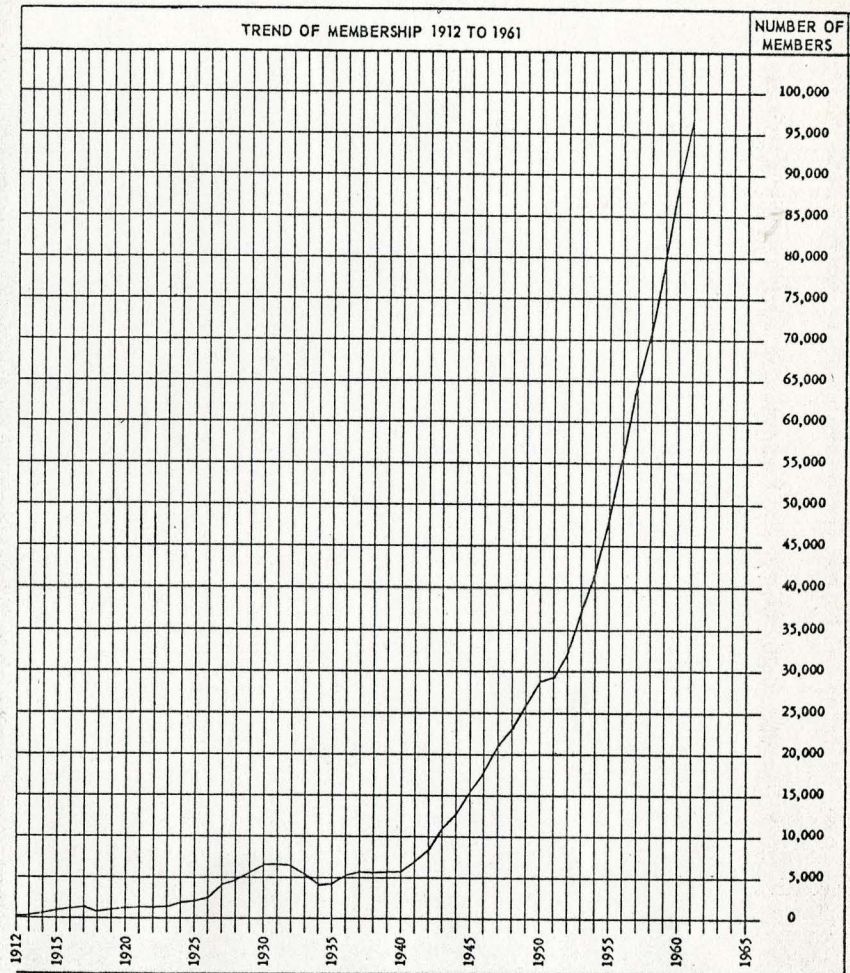


Fig. 1.

TABLE I
TOTAL MEMBERSHIP BY GRADES, 1957-1961

Grade	As of Dec. 31, 1961		As of Dec. 31, 1960		As of Dec. 31, 1959		As of Dec. 31, 1958		As of Dec. 31, 1957	
	No.	% of Total	No.	% of Total	No.	% of Total	No.	% of Total	No.	% of Total
Fellow	964	1	896	1	823	1	770	1	700	1
Senior Member	10,570	11	10,001	11	9,463	12	8,536	12	7,685	12
Member	52,284	54	47,114	53	38,977	49	32,373	45	26,115	40
Associate	13,566	14	12,806	15	13,165	17	14,721	21	16,827	26
Student	19,167	20	17,662	20	16,738	21	14,961	21	13,446	21
Totals	96,551		88,479		79,166		71,361		64,773	

TABLE II
GEOGRAPHICAL MEMBERSHIP DISTRIBUTION, 1957-1961

	1961	1960	1959	1958	1957
Total	96,551	88,479	79,166	71,361	64,773
U. S. and Possessions	88,956	81,634	73,044	65,786	59,961
Other Countries (incl. Canada)	7,595	6,845	6,122	5,575	4,812
Per cent Other Countries	7.9	7.7	7.7	7.8	7.4

SYMPOSIA

The Professional Groups are responsible for the procurement of papers and actual management of national symposia. Each Group sponsored one or more technical meetings during this year, in addition to technical sessions at the IRE International Convention, the WESCON. The National Electronics Conference and other jointly sponsored meetings, for a total of 59 meetings of national and international import in 1961.

In an effort to minimize the number of meetings per year and to assist in reducing the general demand on man hours of industry personnel, many of the Group meetings have been successfully joined with those of other Professional Groups and other professional societies.

INTERNATIONAL ACTIVITIES

In order that Professional Group activities may be expanded into international areas of interest, three of our Professional Groups have representation in the following international societies: 1) PG on Automatic Control—International Federation of Automatic Control, 2) PG on Bio-Medical Electronics—International Federation for Medical Electronics, and 3) PG on Electronic Computer—International Federation for Information Processing Societies.

The Professional Group on Bio-Medical Electronics joined with the International Federation for Medical Electronics in sponsoring the 4th International Conference on Medical Electronics held in New York City in July, 1961. Three hundred papers were presented in 36 sessions in addition to six workshop sessions and 80 exhibits. The meeting was attended by 3,000 people from all parts of the world.

Five of the Groups—The Professional Groups on: Antennas and Propagation, Circuit Theory, Information Theory, Instrumentation and Microwave Theory, and Technique co-sponsored the URSI Spring and Fall Meetings.

PUBLICATIONS

During the year all 28 Groups published TRANSACTIONS many of which included the proceedings of their national meetings in one or more issues. Full details on Group TRANSACTIONS are included in the report of the Editorial Department.

CHAPTERS

Chapter growth is continuing at a healthy rate. At present there are a total of 303 active Professional Group Chapters operating in 57 IRE Sections (listing in Table 4 of Section B). Most of the Chapters meet regularly and sponsor meetings covering the fields of interest of their associated Groups in the various Sections of IRE. Chapter meetings held in 1960 and 1961, by Group and by Section, are recorded in Section F, Table 3.

Editorial Department

PROCEEDINGS OF THE IRE

Plans for an extensive series of review and tutorial papers were initiated during the

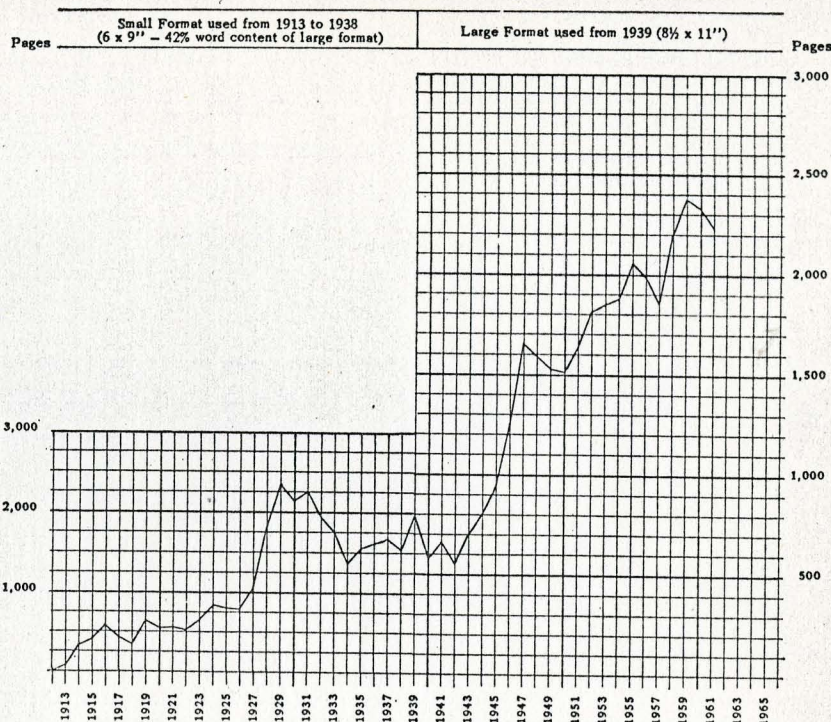
VOLUME OF TECHNICAL AND EDITORIAL MATTER
PUBLISHED IN THE PROCEEDINGS OF THE IRE 1913-1961

Fig. 2.

TABLE III
VOLUME OF PROCEEDINGS PAGES

	1961	1960	1959	1958
Editorial	2,234	2,325	2,370	2,199
Advertising	2,070	2,485	2,760	2,169
	4,304	4,810	5,130	4,368

year, with the objective of publishing one to two such papers in every issue, starting early in 1962. Steps were also taken to reduce by three weeks the minimum time required for publishing letters to the editor. The Correspondence section, which has grown substantially in size and value during recent years, expanded from 280 letters in 1960 to 449 in 1961.

The year highlighted by the appearance of two special issues of the PROCEEDINGS: "Electronic Computers" in January and "Plasma" in December. The total number of papers published, 131, was less than the previous year's total of 174 due to less bulky special issues. However, the total number of PROCEEDINGS editorial pages remained substantially the same, as shown in Table III and in Fig. 2.

The number of papers reviewed for the PROCEEDINGS increased 13% to 292 papers totalling 2475 pages. Of these, 26% were accepted, 41% were referred to the TRANSACTIONS for publication consideration, and 33% were rejected. These ratios were approximately the same as in 1960.

Ten IRE Standards were published in the PROCEEDINGS, an increase of 3 over 1960. In addition, an index to the Abstracts

and References section was provided as Part 2 of the May issue.

TRANSACTIONS

The tenth anniversary of the TRANSACTIONS found the Professional Groups maintaining a high volume of publishing activity while increasing the selectivity and regularity of their publications. The number of papers and letters (1,215) and the total pages (8,336) published in TRANSACTIONS in 1961 represented half of the total IRE output of 2,082 articles and 16,922 pages. Total pages are given in Fig. 3. It is noteworthy that 14 TRANSACTIONS appear quarterly and that 4 TRANSACTIONS are now published 6 times a year.

IRE CONVENTION RECORD

The 1961 IRE INTERNATIONAL CONVENTION RECORD, published in 10 parts, contained 241 papers and 16 abstracts totalling 2,164 pages. The IRE WESCON CONVENTION RECORD, which has appeared annually since 1957, was discontinued in 1961 by the WESCON Board of Directors.

IRE STUDENT QUARTERLY

W. Reed Crone joined the IRE Headquarters staff as Student Affairs Secretary in September. His duties include assisting in the publication of the IRE STUDENT QUARTERLY. Four issues of the STUDENT QUARTERLY, totalling 224 pages, were sent free to IRE Student members during the year. In addition, approximately 24,000 free copies of the September issue were distributed to all non-IRE junior and senior electrical engineering students.

tariat and Editing Committee is so extensive that it is not considered feasible to have a meeting next year so it was proposed to have the next meeting as part of the General Meeting in Venice in May 1963.

The program for future work includes: 1) Drip-proof and splash-proof apparatus requirements, 2) Protection against fire in Ht supplies, 3) Permissible temperatures on materials, 4) Safety capacitor requirements, 5) Testing against implosion danger, and 6) Stability testing for safety.

In accordance with customary procedure, lists of all documents and material received in the Office of the IRE Technical Secretary from the IEC were distributed to the Chairmen of all Professional Groups, Technical Committees and the members of the Joint Technical Advisory Committee.

Joint Committee for Inter-Society Coordination (JCIC)

The JCIC has been relatively inactive and held only one meeting during 1961. In 1960 the committee had requested that ASA call a conference of its Member-Bodies to discuss the desirability of forming a policy by ASA for the minimizing of duplication of effort in developing standards on a subject of common interest to more than one group. This request has been taken under consideration by a special task group which has, in turn, referred it to the Board of Directors. Up to the present time no formal action has been taken by this group.

Appointed IRE Delegates to Outside Organizations

IRE appointed delegates to eleven organizations for the one-year period—May 1, 1961 to April 30, 1962 (as listed on page 50A of the October, 1961 PROCEEDINGS).

During 1961, the Executive Committee of the U. S. National CCIR (International Radio Consultative Committee) held five meetings during which the representatives of the fourteen Study Groups summarized and reported on their activities. The Executive Committee formed an *ad hoc* committee for the purposes of making arrangements for the meetings of the International CCIR Study Groups IV and VIII to be held in Washington, D. C., March 12-23, 1962, prior to the 1962 IRE International Convention. Lists of all material received at IRE during 1961 were distributed quarterly to the Chairmen of the IRE Technical Committees and Professional Groups, as well as to the members of the Joint Technical Advisory Committee.

The Joint Annual Spring Meeting of the International Scientific Radio Union (URSI) and IRE was held in Washington, D. C., May 1-4, 1961. The Fall Meeting was held at the University of Texas, Austin, Tex., October 23-25, 1961. These meetings were co-sponsored by the IRE Professional Groups on Antennas and Propagation; Circuit Theory; Information Theory; Instrumentation; and Microwave Theory and Techniques.

The Plenary Session of the International Special Committee on Radio Interference (CISPR) was held at the University of

TABLE IV

1961 SUMMARY OF INCOME AND EXPENSE

Income		
Advertising	\$1,600,766	
Member Dues and Convention	1,863,812	
Subscriptions	238,407	
Sales Items, Binders, Emblems, etc.	176,147	
Investments	55,100	
Miscellaneous	2,037	
TOTAL INCOME		\$3,936,269
Expense		
PROCEEDINGS Editorial Pages	681,353	
Advertising Pages	834,897	
Directory	363,161	
Section Rebates	97,563	
Student Program	142,573	
Professional Groups	330,212	
Sales Items	88,561	
General Operations	736,796	
Convention	579,359	
Publications	17,500	
TOTAL EXPENSE	\$3,871,975	
Reserve for Future Operations—Gross		\$ 64,294
Depreciation		34,041
Reserve for Future Operations—Net		\$ 30,253

TABLE V

BALANCE SHEET, DECEMBER 31, 1961

Assets		
Cash and Accounts Receivable	\$1,022,872	
Inventory	37,295	
TOTAL CURRENT ASSETS		\$1,060,167
Investments at Cost	1,853,498	
Buildings and Land at Cost	1,601,473	
Furniture and Fixtures at Cost	377,273	
Other Assets	100,543	
TOTAL		3,932,787
TOTAL ASSETS		4,992,954
Liabilities and Surplus		
Accounts Payable	226,050	
TOTAL CURRENT LIABILITIES		\$ 226,050
Deferred Income	1,499,207	
Professional Groups Funds and Deposit	252,292	
		1,751,499
TOTAL LIABILITIES		\$1,977,549
Reserve for Publications	165,000	
Reserve for Depreciation	135,355	
TOTAL RESERVE		300,355
Surplus Donated	595,287	
Surplus	2,119,763	
TOTAL SURPLUS		2,715,050
TOTAL LIABILITIES AND SURPLUS		\$4,992,954

Pennsylvania, Philadelphia, Pa., October 1-6, 1961. The PGRFI supported this meeting. Lists of documents received at IRE Headquarters during 1961 were distributed quarterly to the Chairmen of IRE Technical Committees and Professional Groups, as well as to the members of the Joint Technical Advisory Committee.

The Council for the American Association for the Advancement of Science (AAAS) held its 128th Annual Meeting December 26-31, 1961, in Denver, Colo.

The National Bureau of Standards (NBS) IRE Technical Advisory Committee is divided into six groups. Individual group meetings have been held periodically during 1961.

The National Electronics Conference (NEC) held its Annual Meeting October 9

to 11, 1961, in Chicago. This meeting was sponsored by the AIEE, Illinois Institute of Technology, IRE, Northwestern University, the University of Illinois, *et al.*

The Joint Technical Advisory Committee (JTAC) of IRE and EIA

The Joint Technical Advisory Committee held a total of nine meetings for the period July 1, 1960, through June 30, 1961. The Thirteenth Anniversary Dinner was held in May 1961 at The Waldorf-Astoria, New York City.

The JTAC *ad hoc* Subcommittee 60.2 was established in July 1960 to study problems posed by the FCC's inquiry into the allocation of frequency bands for space communication of an industry-wide nature. The