

Report of the Secretary—1960

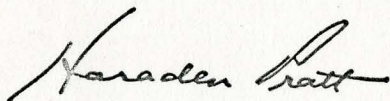
TO THE BOARD OF DIRECTORS
THE INSTITUTE OF RADIO ENGINEERS, INC.
Gentlemen:

The Secretary's Report for the year 1960 is transmitted herewith.

The continued enlargement of your Institute's size and importance, as particularly evidenced by an 11.8% increase in membership (see Fig. 1 and Tables I and II), and a 16.1% increase in attendance at the International Convention during 1960, clearly indicates the growing importance of the fields of endeavor that IRE represents. A mere perusal of these statistics discloses how rapidly our ramified activities are moving forward geographically, technically, professionally, and in education. Also can be seen how the IRE structure serves the membership.

The acquisition of your new building on Fifth Avenue adjoining the main building at 1 East 79th Street was completed and its renovation well under way at the end of the year so that space will soon be ready for the heavier work load carried by the Headquarters Staff.

Respectfully submitted,



Haraden Pratt
Secretary

January 31, 1961

Fiscal

A condensed summary of income and expenses for 1960 is shown in Table III, and a balance sheet in Table IV (page 1106).

Editorial Department

The year 1960 saw the IRE publication program continue its steady growth. During the year the IRE published 135 issues totaling 18,610 pages, of which 15,388 pages were devoted to technical and editorial material, a 6% increase over 1959. The rise in publication output underscored the fact that the Professional Group TRANSACTIONS are growing with continued vigor and now account for more than half the articles published by the IRE.

PROCEEDINGS OF THE IRE

The year was highlighted by the appearance of two special issues of the PROCEEDINGS: "Space Electronics" in April and "Report of the Television Allocations Study Organization" in June. The total number of papers published, 174, was less than the previous year's total of 208 due to the heavy

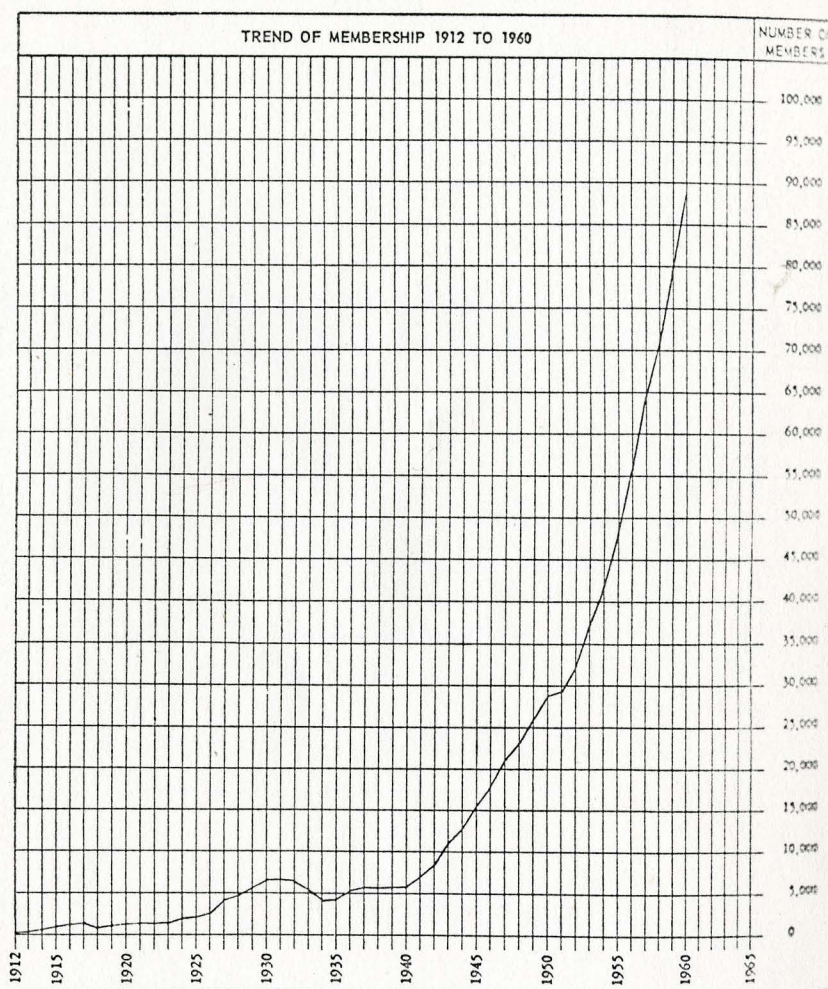


Fig. 1

TABLE I
COMPARISON OF TOTAL MEMBERSHIP BY GRADES, 1958-1960

Grade	As of Dec. 31, 1960		As of Dec. 31, 1959		As of Dec. 31, 1958	
	Number	% of Total	Number	% of Total	Number	% of Total
Fellow	896	1	823	1	770	1.1
Senior Member	10,001	11	9,463	12	8,536	12.9
Member	47,114	53	38,977	49	32,373	45.8
Associate	12,806	15	13,165	17	14,721	20.6
Student	17,662	20	16,738	21	14,961	20.9
TOTALS	88,479		79,166		71,361	

TABLE II
FIVE-YEAR ANALYSIS OF MEMBERSHIP IN U. S. AND OTHER COUNTRIES

	1960	1959	1958	1957	1956
Total	88,479	79,166	71,361	64,773	55,898
U. S. and Possessions	81,634	73,044	65,786	59,961	51,512
Other Countries	6,845	6,122	5,575	4,812	4,386
Per Cent Other Countries	7.7	7.7	7.8	7.4	7.8

6.35.353

TABLE V
VOLUME OF PROCEEDINGS PAGES

	1960	1959	1958	1957
Special	2325	2370	2199	1868
Advertising	2485	2760	2169	2700
TOTAL	4810	5130	4368	4568

schedule of special issues in 1959. However, the number of contributed papers in regular issues rose substantially in 1960. This increase was accompanied by an expansion of the Correspondence section from 209 letters to 280 letters. The continued growth of the Correspondence section, which has now doubled in size in the last three years, made it necessary for the Editorial Board to place a limit on the length of letters to the editor. The resulting total of PROCEEDINGS papers for 1960 is shown in Table V and in Fig. 2.

The number of papers reviewed for the PROCEEDINGS remained relatively constant: 259 papers totaling 2156 pages. Of these 76% were accepted, 39% were referred to the TRANSACTIONS for publication consideration, and 35% were rejected. An additional 153 papers were reviewed for special issues. Seven IRE Standards also appeared during the year.

TRANSACTIONS

The continued good health of the Professional Groups was evidenced by an 11% increase in TRANSACTIONS output during 1960. As shown in Fig. 3, total pages increased from 7,778 in 1959 to 8,616. The total number of papers and letters published, 1,213, accounted for more than half the total IRE output (2,085). It is noteworthy that the number of TRANSACTIONS on a bi-monthly publication schedule rose from 1 to 3.

IRE CONVENTION RECORDS

The 1960 IRE INTERNATIONAL CONVENTION RECORD, published in 10 parts, contained 240 papers and 18 abstracts totaling 2,208 pages, while the 8-part IRE WESCON CONVENTION RECORD contained 135 papers and 23 abstracts totaling 1,188 pages. The IRE WESCON CONVENTION RECORD was published in time for distribution at WESCON.

IRE STUDENT QUARTERLY

Four issues, totaling 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.

IRE DIRECTORY

The 1961 IRE DIRECTORY, which was published in November, 1960, contained 1,432 pages including covers, of which 645 were membership listings and information and 787 were advertisements and listings of manufacturers and products.

NEW PUBLICATIONS

A five-year cumulative index to all IRE publications, covering the years 1954-1958, was issued early in 1960. Meanwhile, work

VOLUME OF TECHNICAL AND EDITORIAL MATTER
PUBLISHED IN THE PROCEEDINGS OF THE IRE 1913-1960

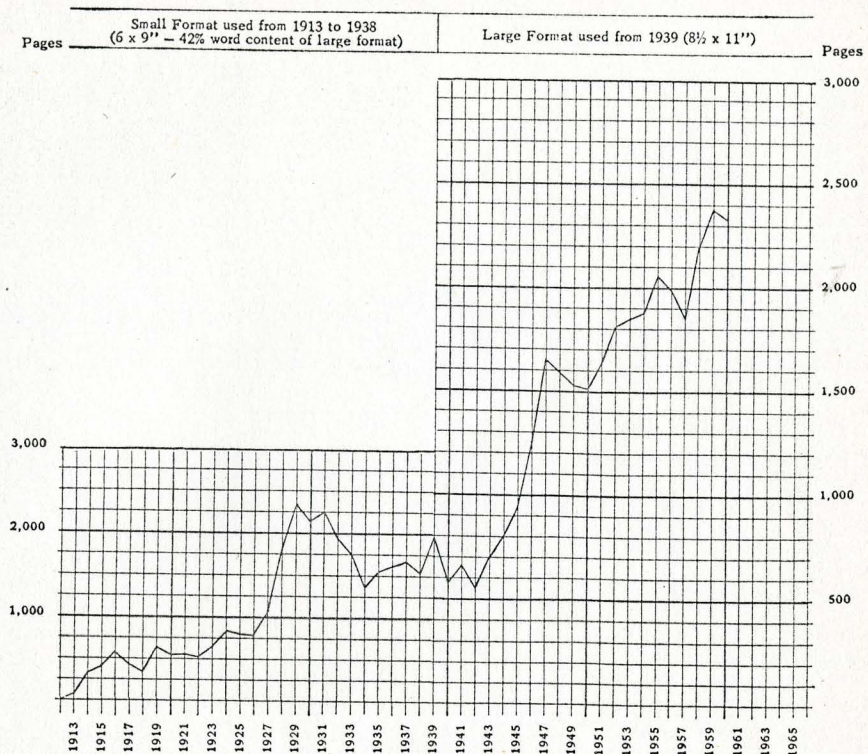


Fig. 2

VOLUME OF TECHNICAL AND EDITORIAL MATTER
PUBLISHED IN THE TRANSACTIONS 1951-1960

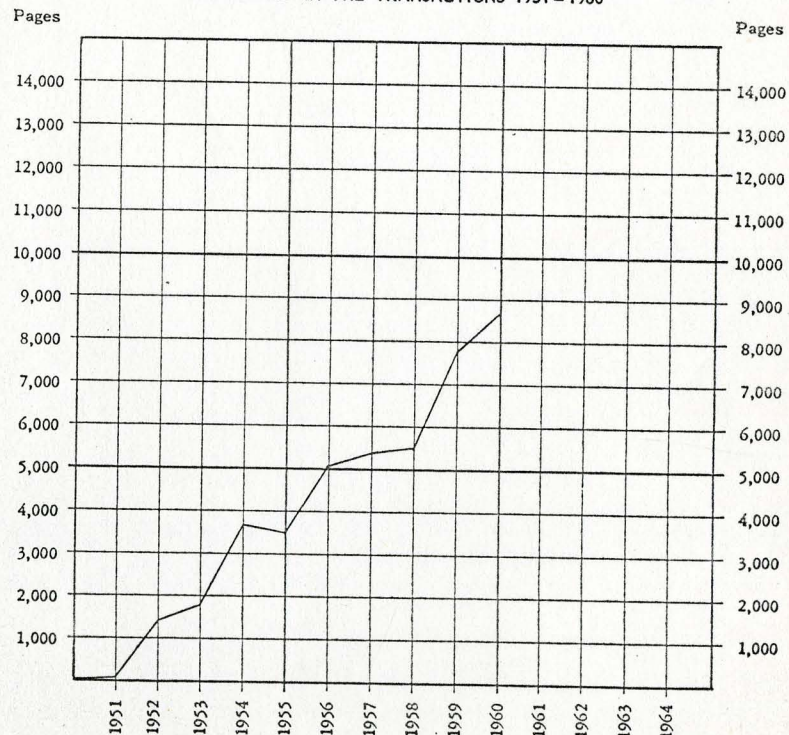


Fig. 3

TABLE III
SUMMARY OF INCOME AND EXPENSE, 1960

Income		
Advertising	\$1,710,134	
Members Dues and Convention	1,769,532	
Subscriptions	217,707	
Sales Items, Binders, Emblems, etc.	187,043	
Investments	52,969	
Miscellaneous	1,607	
TOTAL INCOME		\$3,938,992
Expense		
Proceedings Editorial Pages	\$ 585,458	
Advertising Pages	855,441	
Directory	318,199	
Section Rebates	88,469	
Student Program	142,624	
Professional Groups	237,539	
Sales Items	108,923	
General Operations	587,283	
Convention	545,757	
Publications	117,500	
TOTAL EXPENSE		\$3,587,193
Reserve for Future Operations—Gross	\$ 351,799	
Depreciation	28,033	
Reserve for Future Operations—Net		\$ 323,766

TABLE IV
BALANCE SHEET, DECEMBER 31, 1960

Assets		
Cash and Accounts Receivable	\$1,087,667	
Inventory	20,379	
TOTAL CURRENT ASSETS		\$1,108,046
Investments at Cost	1,769,701	
Buildings and Land at Cost	1,261,361	
Furniture and Fixtures at Cost	288,390	
Other Assets	104,609	
TOTAL		\$3,424,061
TOTAL ASSETS		\$4,532,107
Liabilities and Surplus		
Accounts Payable	\$ 94,660	
TOTAL CURRENT LIABILITIES		\$ 94,660
Deferred Income	1,282,265	
Professional Groups Funds on Deposit	187,389	
		1,469,654
TOTAL LIABILITIES		\$1,564,314
Reserve for Publications	165,000	
Reserve for Depreciation	113,798	
TOTAL RESERVES		278,798
Surplus Donated	595,287	
Surplus	2,093,708	
TOTAL SURPLUS		2,688,995
TOTAL LIABILITIES AND SURPLUS		\$4,532,107

on the *IRE Dictionary of Electronics Terms and Symbols*, containing all definitions of terms and graphical and letter symbols which have appeared in IRE Standards over the past 18 years, was completed. The Dictionary was issued in January, 1961.

Technical Activities

During 1960, 26 Technical Committees and their 120 subcommittees and Task Groups held 233 meetings, of which 224 were held at IRE Headquarters and 9 throughout the nation.

Seven IRE Standards, having been approved by the IRE Standards Committee and the Executive Committee, were pub-

lished in the PROCEEDINGS in 1960. Reprints are now available to the public.

IRE is directly represented on 34 Sectional Committees of the American Standards Association, of which IRE sponsors three: The ASA Sectional Committee on Radio and Electronic Equipment, C16; the ASA Sectional Committee on Sound Recording, S4; and the ASA Sectional Committee on Nuclear Instrumentation, N3. One IRE Standard received approval by the American Standards Association in 1960, and is now available overseas through its international agency.

IRE Technical Committees participated in international standardization in 1960 by reviewing and preparing comments on docu-

ments for the United States National Committee of the International Electrotechnical Commission.

The International Electrotechnical Commission (IEC)

The annual meeting of the International Electrotechnical Commission was held in New Delhi, India from October 31 to November 7, 1960. The following meetings, of particular significance to the IRE, took place: Technical Committee 45 on Electrical Measuring Instruments used in connection with Ionizing Radiation; Technical Committee 12 on Radio Communication; and Subcommittee 12-1 on Radio Receiving Equipment. IRE secured the services of two delegates to represent the United States, and the IRE Technical Committees prepared these delegates on all items to be discussed at this meeting.

In addition, IEC Technical Committee 25 on Symbols, met in Paris, France, from April 20 to 22, 1960. At this meeting, the United States was represented by a delegate appointed by the IRE.

Appointed IRE Delegates to Outside Organizations

IRE appointed Delegates to a number of organizations for the one-year period May 1, 1960, to April 30, 1961 (as listed on page 60A of the October, 1960 PROCEEDINGS).

The Joint Annual Spring Meeting of the International Scientific Radio Union (URSI) and IRE was held in Washington, D.C.—May 2–5, 1960. The Fall Meeting was held at the Boulder Laboratories, National Bureau of Standards, Boulder, Colo., December 12–14, 1960. The IRE Professional Groups on Antennas and Propagation; Circuit Theory; Information Theory; Instrumentation; and Microwave Theory and Techniques co-sponsored these meetings. Several IRE Board members attended the XIIIth General Assembly of URSI which was held at the University of London, London, England, from September 5 through 15, 1960.

During 1960, the Executive Committee of the U. S. National CCIR (International Radio Consultative Committee) Organization held three meetings during which the representatives of the fourteen Study Groups summarized and reported on their activities. Lists of all material received at IRE during 1960 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 IRE-EIA-SMPTE-NAB (JCIC) Committee for Inter-Society Coordination held four meetings during 1960 to discuss the problems facing intersociety coordination. The scope of JCIC has been expanded.

Armed Forces National Research Council Committee: Panel on Bio-Instrumentation held several meetings of its various Panels during the year. Among these were one in Los Angeles, April 19–20, 1960, and another at Woods Hole, Mass., August 31 to September 2, 1960.

Joint Technical Advisory Committee (JTAC)

The Joint Technical Advisory Committee held a total of ten meetings for the period July 1, 1959, through June 30, 1960. The 10th Anniversary dinner was held in June 1960 at the University Club, New York.

Volume XVII, the cumulative Annual Report of the JTAC Proceedings was published in September, 1960. Section I of the Report included official correspondence between the Federal Communications Commission and the Joint Technical Advisory Committee (IRE-EIA) and correspondence pertinent to the activities of the JTAC; Section II contained approved Minutes of Meetings of the Joint Technical Advisory Committee from July 1, 1959, through June 30, 1960.

The JTAC ad hoc Subcommittee 60.1 was formed in January, 1960 to study Frequency Diversity problems posed by the FCC. The Committee submitted its report to the FCC in November, 1960.

In July, 1960, the JTAC, recognizing the technical and policy problems concerning the United States, formed an ad hoc Subcommittee on Frequency Allocations for Space Communications to study problems posed by the FCC's inquiry into the allocation of frequency bands for space communication of an industry-wide nature. The Subcommittee held three meetings during 1960.

Professional Group System

General: There are currently 28 Professional Groups operating actively within the IRE. A majority of IRE members have taken advantage of the Professional Group System which now has a total membership of 89,114. Included are 6,729 Student members of the IRE who have joined the Groups at the special Student member rate of \$1.00 annually. Under the newly instituted Affiliate Plan, 503 scientists and medical doctors, whose major interests lie in fields other than electronics, have affiliated with a number of the Professional Groups.

All of the Groups have levied publication fees and their members are receiving

the pertinent Group TRANSACTIONS regularly. In addition, large a number of company, university and public libraries have subscribed to the TRANSACTIONS of all the Groups. There is also a demand for individual Group subscriptions and individual copies of the TRANSACTIONS from outside sources.

Financial and editorial assistance were among the many services rendered by Headquarters to the Groups during 1960. The Office of the Technical Secretary provided administrative services for Group operations, the planning of meetings, advance publicity and the recording and mailing for all activities, including 800 mailings to Group members during the year.

Symposia: The procurement of papers and actual management of national symposia are entirely in the hands of the Professional Groups. Each of the Groups 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 1960 (see list attached). The Groups participated in the following meetings held overseas:

International Conference on Automatic Control, June, 1960, Moscow, USSR

Third International Conference on Medical Electronics, July, 1960, London, England

International Information Theory Symposium, August 29–September 3, London, England

International Symposium on Data Transmission, September, 1960, Delft, Netherlands

Publications: During the year 27 Groups published TRANSACTIONS. Since publication began in 1951 the number of issues and pages published have expanded each year. Full details in Group TRANSACTIONS are included in the Report of the Editorial Department.

Professional Group Chapters: 279 Professional Group Chapters have been organized

by Group members in 60 IRE Sections. Chapter growth is continuing at a healthy rate. Most of the Chapters are meeting regularly and sponsoring meetings covering the fields of interest of their associated Groups in the various Sections of the IRE.

Section Activities

We were glad to welcome four new Sections into the IRE during the past year. They are as follows: Geneva, Kitchener-Waterloo, Las Vegas, and Mobile.

The total number of Sections is now 109.

The Subsections of Sections now total 28, the following having been formed in 1960: Catskill (New York) and Pikes Peak (Denver).

A growing major activity of many Sections and the larger Subsections in recent years is the publication of a local monthly Bulletin to fulfill the need for announcing to the Section member the increasing activities of the Section, including 1) Section Meetings, 2) Professional Group Chapter Meetings, and 3) Information on the local and national level of interest to the Section member.

Fifty-four of the Sections and Subsections are now issuing these monthly publications.

Student Branches

The number of Student Branches formed during 1960 was 13. The total number of Student Branches is now 196, 124 of which operate as joint IRE-AIEE Branches, 24 as Student Associate Branches, and 1 as a joint IRE-AIEE Student Associate Branch.

Following is a list of the Student Branches formed during the year: Arlington State College, University of Buenos Aires (Argentina), Merrimack College, Municipal University of Omaha, State University of New York, New York Trade School, Oklahoma City University, Port Arthur College, New York Trade School; Oklahoma City University, Port Arthur College, Rochester Institute of Technology, Saint Joseph's College (Pennsylvania), Southern Technical Institute, Tri-State College (Indiana), and Valparaiso Technical Institute (Indiana).