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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 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

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Table I - Total Membership Distribution by Grades as of December 31, 1960

<u>Grade</u>		
Fellow	896	
Senior Member	10,001	
Member	47,114	58,011
Associate	12,806	
Student	17,662	70,817
Grand Total		88,479

Table II - Total Membership Distribution by Grade by Percentage as of December 31, 1960

<u>Grade</u>	<u>Grade Percentage</u>		<u>Total Percentage</u>	
Fellow	1			
Senior Member	11			
Member	53			65
Associate	15			80
Student	20			100

Table III - Comparison of Total Membership by Grades, 1958-1960

<u>Grade</u>	<u>As of Dec. 31, 1960</u>		<u>As of Dec. 31, 1959</u>		<u>As of Dec. 31, 1958</u>	
	<u>Number</u>	<u>% of Total</u>	<u>Number</u>	<u>% of Total</u>	<u>Number</u>	<u>% of Total</u>
Fellow	896	1	823	1	770	1.1
Senior Member	10,001	11	9,463	12	8,536	12.0
Member	47,114	53	38,977	49	32,373	45.4
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 IV - Analysis of Total Membership by Grades, 1960

	<u>F</u>	<u>SM</u>	<u>M</u>	<u>A</u>	<u>S</u>	<u>Total</u>
U. S.	807	9,184	43,709	11,129	16,169	80,998
U. S. Possessions	—	7	—29	20	37	93
U. S. Overseas Military	2	38	389	102	12	543
	809	9,229	44,127	11,251	16,218	81,634
Canada	28	231	1,520	761	1,092	3,632
Foreign	59	541	1,467	794	352	3,213
Totals	896	10,001	47,114	12,806	17,662	88,479

Table V - Five-Year Analysis of U. S. and Foreign Membership

	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>	<u>1956</u>
Total	88,479	79,166	71,361	64,773	55,494
U. S. and Possessions	81,634	73,044	65,786	59,961	51,551
Foreign (incl. Canada)	6,845	6,122	5,575	4,812	3,943
Per Cent Foreign	7.7	7.7	7.8	7.4	7.1

Table VI - Membership by Grade, by Annual Dues Rate, 12/31/60

	<u>\$15.00</u>	<u>\$10.00</u>	<u>\$5.00</u>
Fellow	895	1	
Senior Member	8,848	1,153	
Member	28,751	18,363	
Associate	6,986	5,820	
Student			17,662
Totals	45,480	25,337	17,662

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 1 Section	F	SM		M		A		Student	Total
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Binghamton	-	26	4	184	152	24	38	99	527
Boston	65	454	65	1,759	1,061	295	357	1,045	5,099
Merrimack Valley S.	3	58	6	175	110	34	42	141	569
New Hampshire S.	-	20	2	82	56	8	19	43	230
No. Vermont S.	-	5	1	13	5	1	6	28	59
Buffalo-Niagara	-	47	4	178	76	34	28	46	413
Connecticut	9	55	4	248	118	42	45	170	691
Fairfield County S.	10	83	11	218	97	51	41	58	569
Elmira-Corning	2	20	2	61	38	10	12	71	216
Erie	1	5	-	21	10	5	8	7	57
Ithaca	2	16	1	56	34	3	2	62	176
Rochester	3	69	6	203	126	46	41	85	579
Rome-Utica	-	60	13	214	163	40	41	48	579
Schenectady	16	78	9	140	58	13	13	147	474
Syracuse	17	142	31	455	202	48	54	115	1,064
Western Mass.	2	15	1	87	68	21	16	66	276
Totals	130	1,153	160	4,092	2,374	675	763	2,231	11,578

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 2 Section	F	SM		M		A		Student	Total
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Long Island	51	505	35	1,728	829	389	361	596	4,494
New York S.	39	247	22	790	580	270	262	889	3,099
Mid-Hudson S.	1	28	3	279	194	61	30	37	633
Monmouth S.	17	111	17	235	121	66	25	34	626
Westchester S.	8	112	15	339	160	100	51	98	883
Catskill S.	-	3	3	92	54	21	15	9	197
Northern New Jersey	97	578	60	1,482	729	349	230	583	4,108
Princeton	48	129	8	252	149	54	47	145	832
Totals	261	1,713	163	5,197	2,816	1,310	1,021	2,391	14,872
North Carolina	1	29	7	130	144	36	35	39	431
East. No. Carolina S.	-	10	2	23	23	12	8	106	182
West. No. Carolina S.	-	4	1	20	12	8	9	11	65
Northwest Florida	-	4	1	59	45	21	15	9	154
Panama City S.	-	4	-	23	13	1	1	-	61
Orlando	1	50	9	131	99	35	33	16	374
Philadelphia	45	495	47	1,614	1,035	344	223	591	4,394
Lancaster S.	2	33	3	78	35	23	13	12	199
Lehigh Valley S.	1	19	-	37	40	8	8	113	223
Reading S.	-	3	2	20	25	6	10	6	61
South Carolina	1	13	3	45	40	15	15	62	207
Virginia	4	47	2	185	167	43	42	159	651
Washington	56	564	80	1,313	720	304	234	474	3,743
Totals	154	1,674	218	3,051	3,419	1,169	902	2,643	15,226

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 3 Section	F	SM		M		A		Student	
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	Total
Atlanta	1	38	7	169	110	33	27	328	713
Baltimore	14	184	31	587	400	108	81	162	1,567
Central Florida	2	47	7	185	161	41	40	16	499
Florida West Coast	9	53	5	122	110	49	50	23	421
Gainesville	1	20	2	49	23	11	11	145	262
Huntsville	-	19	6	103	106	28	14	200	476
Memphis S.	-	1	-	12	14	9	4	24	64
Nashville S.	2	5	-	25	14	1	1	61	109
Miami	4	32	2	100	39	33	24	71	305
Mobile	-	-	1	20	28	3	4	15	71
North Carolina	1	29	7	130	144	36	35	39	421
East. No. Carolina S.	-	10	2	23	23	12	8	106	184
West.No. Carolina S.	-	4	1	20	12	8	9	11	65
Northwest Florida	-	4	1	59	45	21	15	9	154
Panama City S.	-	4	-	23	12	1	1	-	41
Orlando	1	50	9	131	99	35	33	16	374
Philadelphia	45	495	47	1,614	1,035	344	223	591	4,394
Lancaster S.	2	33	3	78	35	23	13	12	199
Lehigh Valley S.	1	19	-	37	40	5	8	113	223
Reading S.	-	3	2	20	28	6	16	6	81
South Carolina	1	13	3	46	48	15	19	62	207
Virginia	4	47	2	185	169	43	42	159	651
Washington	66	564	80	1,313	720	304	224	474	3,745
Totals	154	1,674	218	5,051	3,415	1,169	902	2,643	15,226

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 4 Section	F	SM		M		A		Student	Total
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Akron	3	27	3	107	50	36	22	73	321
Central Penn.	2	29	5	61	51	5	5	112	270
Cincinnati	6	47	10	171	75	42	21	103	475
Cleveland	4	57	3	187	96	54	46	147	594
Columbus	2	35	5	115	86	29	21	129	422
Dayton	6	131	14	258	171	83	54	132	849
Detroit	12	91	9	413	231	133	53	357	1,299
Emporium	1	49	3	45	24	12	8	8	150
Pittsburgh	13	62	11	235	133	75	44	325	898
Toledo		9	1	55	20	23	3	61	172
Western Michigan		7		34	17	13	22	35	128
Williamsport		3	2	14	7	6	4	24	60
Total	49	547	66	1,695	961	511	303	1,506	5,638

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 5 Section	F		SM		M		A		Student	
	\$15	\$10	\$15	\$10	\$15	\$10	\$15	\$10	\$5	Total
Cedar Rapids	4	1	69	3	179	183	44	39	205	727
Burlington S.	-	-	1	-	12	10	1	2	3	29
Chicago	22	-	305	30	958	529	364	238	928	3,374
Evansville - Owensboro	1	-	33	2	50	27	13	9	31	166
Fort Wayne	2	-	30	1	98	37	28	7	77	280
Indianapolis	2	-	48	4	135	112	37	27	245	610
Louisville	1	-	4	1	33	37	9	13	98	196
Milwaukee	4	-	27	4	184	182	51	78	442	972
Omaha - Lincoln	-	-	17	1	59	45	19	26	107	274
South Bend - Mishawaka	-	-	21	1	85	52	19	18	67	263
Twin Cities	5	-	45	8	326	254	52	55	359	1,104
Totals	41	1	600	55	2,119	1,468	637	512	2,562	7,995
San Antonio-Austin	2	-	37	3	86	59	21	24	194	426
Shreveport	-	-	8	-	20	10	9	6	22	75
Tulsa	2	-	20	-	78	27	36	17	92	272
Wichita	-	-	2	-	52	56	21	11	42	184
Totals	28	-	509	66	1,820	1,316	481	435	1,989	6,899

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 6 Section	F		SM	M		A		Student	
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	Total
Beaumont-Port Arthur	-	4	-	28	11	16	14	101	174
Dallas	10	121	25	406	352	57	58	130	1,159
Denver	4	71	12	229	156	59	55	211	797
Pikes Peak S.	-	4	3	23	9	4	6	3	52
El Paso	-	7	-	48	47	14	25	6	147
Las Cruces- White Sands S.	-	2	2	21	25	6	6	23	85
Fort Worth	-	39	-	145	102	26	23	60	395
Houston	2	72	4	168	93	59	50	223	671
Kansas City	1	45	3	147	80	52	45	254	627
Little Rock	2	7	2	22	12	7	5	82	139
Lubbock	-	2	-	24	15	10	7	42	100
New Orleans	1	14	2	47	57	18	19	100	258
Oklahoma City	-	14	2	91	70	15	24	133	349
St. Louis	4	40	6	195	135	51	40	271	742
San Antonio-Austin	2	37	3	86	59	21	24	194	426
Shreveport	-	8	-	20	10	9	6	22	75
Tulsa	2	20	-	78	27	36	17	92	272
Wichita	-	2	-	52	56	21	11	42	184
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Totals	28	509	64	1,830	1,316	481	435	1,989	6,652

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 7 Section	F	SM		M		A		Student	Total
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Alamogordo- Holloman	-	11	2	39	29	10	18	1	110
Albuquerque- Los Alamos	2	80	10	223	156	32	53	129	685
Anchorage	-	3	3	37	36	17	21	6	123
China Lake	-	6	2	40	48	13	5	3	117
Fort Huachuca	1	22	1	36	26	5	6	1	98
Hawaii	-	9	-	52	21	33	19	5	139
Las Vegas	-	1	3	8	29	3	17	7	68
Los Angeles	26	438	89	1,398	961	294	204	400	3,810
Buenaventura S.	-	20	4	79	60	13	8	9	193
Orange Belt S.	6	83	7	229	160	39	32	127	683
Pasadena S.	10	91	8	253	130	53	42	112	699
San Fernando S.	9	220	37	825	391	136	93	61	1,772
Santa Ana S.	6	175	32	569	456	110	92	132	1,572
Santa Barbara S.	6	40	7	101	89	17	22	115	397
Phoenix	6	56	4	244	153	51	30	100	644
Portland	3	27	1	99	54	29	23	180	416
Sacramento	1	15	2	73	77	28	18	55	269
Salt Lake City	1	9	2	80	87	16	8	193	396
San Diego	3	85	6	396	216	88	50	54	898
San Francisco	46	439	49	1,372	878	231	195	504	3,714
East Bay S.	11	60	9	159	131	50	21	204	645
Seattle	5	52	5	356	335	66	57	330	1,206
Richland S.	-	4	-	28	24	7	8	38	109
Tucson	1	30	3	74	58	14	13	81	274
Totals	143	1,976	286	6,770	4,605	1,355	1,055	2,847	19,037

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

REGION 8 Section	F		SM		M		A		Student	
	\$15	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	Total
Bay of Quinte	-	11	3	29	26	38	14	58	149	
Hamilton	-	10	-	42	14	19	33	34	152	
Kitchener- Waterloo	-	10	-	13	18	11	9	10	71	
London	-	7	-	24	11	18	13	30	93	
Southwest Ontario S.	-	-	1	8	4	8	7	1	29	
Montreal	7	54	5	222	191	64	63	115	721	
Newfoundland	-	-	-	11	5	5	8	1	30	
Northern Alberta	-	3	-	25	15	21	21	115	200	
Ottawa	13	51	8	160	96	39	46	127	540	
Quebec	-	2	-	39	23	8	13	74	159	
Regina	-	-	1	16	11	10	14	62	114	
Southern Alberta	-	1	-	32	8	9	30	106	186	
Toronto	5	40	5	209	96	75	109	211	750	
Vancouver	1	11	2	54	46	46	19	96	275	
Winnipeg	2	5	1	38	34	14	17	52	163	
Totals	28	205	26	922	598	345	416	1,092	3,632	

Table VII - Membership by Region, by Section, by Grade, by Dues, as of 12/31/60

Section	F		SM		M		A		Student	Total
	\$15	\$10	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Benelux	2	-	25	25	23	43	5	10	13	146
Buenos Aires	2	-	19	-	24	20	18	13	75	171
Colombia	-	-	2	-	9	12	5	6	5	39
Egypt	-	-	3	1	10	9	3	-	2	28
Geneva	4	-	19	4	43	15	13	7	2	107
India	1	-	34	-	73	39	20	30	2	199
Israel	1	-	5	-	28	29	13	13	1	90
Italy	-	-	10	3	18	63	41	64	23	222
Rio de Janeiro	1	-	3	1	17	8	7	9	4	50
Tokyo	5	-	58	14	64	59	59	37	73	369
Totals	16		178	48	309	297	184	189	200	1,421

GRAND TOTALS	850	1	8,555	1,086	27,985	17,850	6,667	5,596	17,461	86,051
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(Faint background text listing various countries and regions, including: Argentina, Australia, Belgium, Bolivia, Brazil, British Guiana, British West Indies, Burma, Canada, Ceylon, Chile, China, Colombia, Congo, Costa Rica, Cuba, Cyprus, Czechoslovakia, Denmark, Dominican Republic, Dutch Guiana, Ecuador, Egypt, El Salvador, England, Ethiopia, Fiji Islands, Finland, Formosa, France, French West Indies, Germany, Gibraltar, Greece, Guatemala, Haiti, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Jamaica, Japan, Jordan, Korea, Kuwait, Laos, Lebanon, Liberia, Luxembourg, Malaya, Malta, Mexico, Morocco, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Republic of, Paraguay, Peru, Portugal, Romania, Saudi Arabia, Scotland, Singapore, South Africa, Spain, Sudan, Sweden, Switzerland, Syria, Taiwan, Tanganyika, Thailand, Tunisia, Turkey, Uruguay, U. S. S. R., Venezuela, Wales, West Indies, Yugoslavia.)

Year	Total	Year	Total
1960	8,555	1958	8,575
1959	8,112	1957	7,623

Table VIII - Distribution of Foreign Members, 1958, 1959, 1960

1960	1959	1958		1960	1959	1958	
0	0	1	Aden Colony	13	11	11	Ireland
1	1	0	Algeria	90	80	64	Israel
3	0	0	Antilles	222	152	91	Italy
0	0	6	Arabia	369	308	274	Japan
171	110	117	Argentina	3	1	1	Jordan
9	4	2	Austria	7	6	6	Korea
99	97	80	Australia	3	2	2	Kuwait
5	0	2	Bahama Islands	14	13	10	Lebanon
39	24	27	Belgium	5	7	3	Libya
4	4	6	Bermuda	9	8	8	Malaya
1	1	1	Bolivia	2	1	1	Malta
153	155	152	Brazil	60	58	66	Mexico
2	2	0	British Guiana	2	4	3	Morocco
12	12	16	British West Indies	107	64	52	Netherlands
8	11	9	Burma	6	5	6	New Zealand
3,632	3,377	3,057	Canada	2	2	0	Nicaragua
3	4	3	Ceylon	1	0	1	Nigeria
18	12	8	Chile	30	23	26	Norway
2	2	0	China	1	0	0	Nyasaland
39	26	30	Colombia	2	2	1	Okinawa
0	1	0	Congo	17	15	21	Pakistan
3	2	2	Costa Rica	3	2	2	Panama, Republic of
18	26	26	Cuba	1	0	0	Paraguay
0	0	1	Curacao	13	9	8	Peru
1	0	1	Cyprus	13	17	15	Philippine Islands
11	11	9	Czechoslovakia	10	10	9	Poland
89	85	84	Denmark	7	8	6	Portugal
1	1	2	Dominican Republic	1	0	0	Qatar
0	0	1	Dutch Guiana	2	1	2	Romania
7	6	6	Ecuador	0	1	0	Saigon (Viet-Nam)
28	23	26	Egypt	3	4	0	Saudi Arabia
4	3	1	El Salvador	16	17	17	Scotland
485	438	419	England	8	7	4	Singapore
6	3	4	Ethiopia	35	39	38	South Africa
1	1	1	Fiji Islands	20	16	15	Spain
4	3	1	Finland	1	1	0	Sudan
5	5	5	Formosa	145	118	102	Sweden
156	152	136	France	107	97	79	Switzerland
1	0	0	French West Indies	1	1	0	Syria
91	71	75	Germany	1	1	1	Tahiti
1	0	0	Gibraltar	0	0	1	Tanganyika
19	18	27	Greece	1	1	1	Tasmania
3	3	2	Guatemala	9	7	6	Thailand
1	1	0	Haiti	1	0	0	Tunisia
24	19	14	Hong Kong	6	10	9	Turkey
1	2	1	Hungary	6	4	4	Uruguay
5	4	5	Iceland	26	26	10	U. S. S. R.
199	174	174	India	57	52	48	Venezuela
5	4	3	Indonesia	2	3	1	Wales
6	5	3	Iran	1	2	0	West Indies
4	2	3	Iraq	4	1	1	Yugoslavia
GAINS:	Year	Total	Gain	Year	Total	Gain	
	1960	6,845	723	1958	5,575	763	
	1959	6,112	547	-13-			

Table IX - Foreign Membership by Grade, by Country, by Dues as of 12-31-60

Country	F	SM		M		A		S	Total
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Algeria	-	-	-	-	-	-	1	-	1
Antilles	-	2	-	-	-	-	1	-	3
Argentina	2	19	-	24	20	18	13	75	171
Austria	-	3	-	1	1	1	-	3	9
Australia	1	19	3	42	9	15	8	2	99
Bahamas	-	-	-	1	1	-	2	1	5
Belgium	-	5	4	12	9	3	2	4	39
Bermuda	-	1	-	2	-	-	1	-	4
Bolivia	-	-	-	1	-	-	-	-	1
Brazil	1	7	2	38	22	18	14	51	153
British Guiana	-	-	-	1	-	1	-	-	2
British West Indies	-	-	-	3	2	3	3	1	12
Burma	-	-	-	3	2	-	3	-	8
Canada	28	205	26	922	598	345	416	1,092	3,632
Ceylon	-	-	-	1	1	1	-	-	3
Chile	-	1	1	1	4	4	7	-	18
China	-	-	-	2	-	-	-	-	2
Colombia	-	2	-	9	12	5	6	5	39
Costa Rica	-	-	-	1	-	2	-	-	3
Cuba	-	1	-	7	1	5	2	2	18
Cyprus	-	-	-	1	-	-	-	-	1
Czechoslovakia	-	-	-	4	1	3	3	-	11
Denmark	1	4	1	19	25	14	3	22	89
Dominican Republic	-	-	-	-	-	1	-	-	1
Ecuador	-	2	-	2	3	-	-	-	7

(Continued)

Table IX - Foreign Membership by Grade, by Country, by Dues as of 12-31-60

Country	F	SM		M		A		S	Total
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Egypt	-	3	1	10	9	3	-	2	28
El Salvador	-	-	-	2	2	-	-	-	4
England	24	95	16	168	87	40	25	30	485
Ethiopia	-	-	-	3	2	-	1	-	6
Fiji Islands	-	-	-	-	-	1	-	-	1
Finland	-	-	-	1	1	1	1	-	4
Formosa	-	-	-	4	1	-	-	-	5
France	5	34	10	46	19	27	14	1	156
French West Indies	-	-	-	-	-	-	1	-	1
Germany	7	29	6	11	19	7	10	2	91
Gibraltar	-	-	-	-	-	-	1	-	1
Greece	-	1	-	7	4	4	3	-	19
Guatemala	-	-	-	1	2	-	-	-	3
Haiti	-	-	-	-	-	-	1	-	1
Hong Kong	-	-	-	9	8	3	4	-	24
Hungary	-	-	-	-	-	1	-	-	1
Iceland	-	-	-	1	2	2	-	-	5
India	1	34	-	73	39	20	30	2	199
Indonesia	-	3	1	-	-	-	-	1	5
Iran	-	1	-	3	1	1	-	-	6
Iraq	-	-	-	2	1	1	-	-	4
Ireland	-	2	1	2	2	4	-	2	13
Israel	1	5	-	28	29	13	13	1	90

(Continued)

Table IX - Foreign Membership by Grade, by Country, by Dues as of 12-31-60

Country	F	SM		M		A		S	Total
	\$15	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Italy	-	10	3	18	63	41	64	23	222
Japan	5	58	14	64	59	59	37	73	369
Jordan	-	-	-	-	3	-	-	-	3
Korea	-	-	-	1	3	2	1	-	7
Kuwait	-	-	-	1	-	1	1	-	3
Lebanon	-	-	-	5	3	2	3	1	14
Libya	-	-	-	-	2	1	2	-	5
Malaya	-	-	-	7	2	-	-	-	9
Malta	-	-	-	1	1	-	-	-	2
Mexico	1	10	-	20	11	9	9	-	60
Morocco	-	-	-	1	-	1	-	-	2
Netherlands	2	20	21	11	34	2	8	9	107
New Zealand	-	-	-	1	1	2	2	-	6
Nicaragua	-	-	-	1	1	-	-	-	2
Nigeria	-	-	-	-	-	-	1	-	1
Norway	-	4	1	12	2	2	8	1	30
Nyasaland	-	-	-	-	1	-	-	-	1
Okinawa	-	-	-	1	1	-	-	-	2
Pakistan	-	3	-	7	3	1	3	-	17
Panama, Republic of	-	-	-	2	-	1	-	-	3
Paraguay	-	1	-	-	-	-	-	-	1
Peru	-	1	-	2	5	1	4	-	13
Philippine Islands	-	1	-	5	3	3	1	-	13
Poland	-	-	2	1	-	4	2	1	10
Totals	87	637	135	1,791	1,206	791	774	1,433	6,245

(Continued)

Table IX - Foreign Membership by Grade, by Country, by Dues as of 12-31-60

Country	F		SM		M		A		S	Total
	\$15	\$10	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Portugal	-	2	-	-	3	1	-	1	-	7
Qatar	-	-	-	-	-	1	-	-	-	1
Rumania	-	1	-	-	1	-	-	-	-	2
Saudi Arabia	-	-	-	-	3	-	-	-	-	3
Scotland	-	1	1	-	8	-	4	2	-	16
Singapore	-	-	-	-	3	5	-	-	-	8
South Africa	-	5	-	-	17	4	8	-	1	35
Spain	-	3	1	-	5	4	1	-	6	20
Sudan	-	-	-	-	-	1	-	-	-	1
Sweden	4	8	-	-	38	21	34	14	26	145
Switzerland	4	19	4	-	43	15	13	7	2	107
Syria	-	1	-	-	-	-	-	-	-	1
Tahiti	-	-	-	-	1	-	-	-	-	1
Tasmania	-	-	-	-	1	-	-	-	-	1
Thailand	-	-	-	-	3	3	-	2	1	9
Tunisia	-	-	-	-	-	-	-	-	1	1
Turkey	-	1	-	-	2	-	3	-	-	6
Uruguay	-	-	-	-	3	1	1	1	-	6
U. S. S. R.	-	1	16	-	-	-	8	1	-	26
Venezuela	-	9	-	-	17	12	10	9	-	57
Wales	-	-	-	-	1	1	-	-	-	2
West Indies	-	-	-	-	1	-	-	-	-	1
Yugoslavia	-	-	-	-	2	-	-	2	-	4
Totals	87	637	135	1,781	1,206	781	774	1,444		6,845

Table X - U. S. Possessions and Overseas Military Membership as of 12/31/60
Geographical and Grade Breakdown, 1960, and Comparison 1959-1960

U. S. Possessions	F		SM		M		A		S	Totals
	\$15	\$10	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
Canal Zone	-	-	-	-	1	1	2	1	-	5
Guam	-	-	-	-	-	-	2	1	-	3
Marianas Islands	-	-	-	-	-	-	-	-	-	-
Puerto Rico	-	-	7	-	15	12	7	7	37	85
Virgin Islands	-	-	-	-	-	-	-	-	-	-
Caroline Islands	-	-	-	-	-	-	-	-	-	-

Totals 7 16 13 11 9 37 93

	1959	1960
Canal Zone	5	5
Guam	-	3
Marianas Islands	2	-
Puerto Rico	68	85
Virgin Islands	2	-
Caroline Islands	1	-
Totals	<u>78</u>	<u>93</u>

Net Gain - 15

Overseas Military	F		SM		M		A		S	Totals
	\$15	\$10	\$15	\$10	\$15	\$10	\$15	\$10	\$5	
P. O. San Francisco	-	-	8	2	68	75	20	15	6	194
P. O. Seattle	-	-	-	-	1	-	-	-	-	1
P. O. New York	2	-	24	4	131	114	36	31	6	348
Totals	2	-	32	6	200	189	56	46	12	543

	1959	1960
P. O. San Francisco	189	194
P. O. Seattle	-	1
P. O. New York	304	348
Totals	<u>493</u>	<u>543</u>

Net Gain - 50

Table XI - Membership Changes, by Grades, in 1960

<u>GAINS</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>A</u>	<u>S</u>	<u>TOTAL</u>
Elections	-	446	3,237	1,137	9,607	14,427
Reinstatements	9	83	696	338	277	1,403
Transfers to	76	291	5,734	755	-	6,856
TOTAL GAIN	85	820	9,667	2,230	9,884	22,686
<u>LOSSES</u>						
New Elections (Unpaid)	-	11	81	52	-	144
Transfers from	-	74	235	1,691	4,856	6,856
Voided Elections	-	1	10	35	-	46
Deaths	8	41	47	31	12	139
Resignations	1	34	272	182	203	692
Delinquents	3	121	885	598	3,889	5,496
TOTAL LOSS	12	282	1,530	2,589	8,960	13,373
<u>NET GAIN</u>	<u>73</u>	<u>538</u>	<u>8,137</u>	<u>-359</u>	<u>924</u>	<u>9,313</u>

The net gain of 9,313 shown above compares with 7,805 for 1959.

Table XII - Analysis of Transfers, by Grades, 1960

<u>Transfers from</u>	<u>SM</u>	<u>M</u>	<u>A</u>	<u>S</u>	<u>TOTAL</u>
Transfers to F	74	2	-	-	76
Transfers to SM	-	233	57	1	291
Transfers to M	-	-	1,634	4,100	5,734
Transfers to A	-	-	-	755	755
TOTAL	74	235	1,691	4,856	6,856

Table XIII- Analysis of Higher Grade Applications for 1960

Year	Admission Applications	Approved	Rejected	Total
1915				109
1916		122	112	234
1917	Senior Member	446	65	511
1918		351	85	436
1919	Member	3,237	244	3,481
1920		134	15	149
1921		(-505)	(-76.7)	(-581.7)
1922	Transfer Applications	264	22.2	286.2
1923		199	18.3	217.3
1924	Senior Member	291	53	344
1925		(-140)	(-18.0)	(-158.0)
1926	Member	5,734	38	5,772
1927		176	14	190
1928		635	31.8	666.8
1929		195	9.5	204.5
1930		482	21.4	503.4

Table XIV - Life Members, by Grades, as of December 31, 1960

Year	U. S.	Canadian	Other	Total
1931		199	2	201
1932	6,288	115	(-331)	5,972
1933	5,074	90	1	5,165
1934	4,011	125	(-1,204)	2,932
1935	4,180	229	(-959)	3,450
1936	4,896	239	1	5,136
1937	5,099	299	776	6,174
1938	5,089	360	264	5,713
1939	5,039	314	(-56)	5,297
1940	5,213	399	209	5,821
1941	5,209	496	93	5,808
1942	6,112	109	1,316	7,537
1943	7,261	201	1,773	9,235
1944	8,793	285	2,285	11,363
1945	11,054	2,083	2,058	15,195
1946	13,881	1,898	2,642	18,421
1947	15,902	2,252	2,375	20,529
1948	17,403	3,534	2,883	23,820
1949	17,498	5,938	2,460	25,896
1950	18,573	8,196	3,332	29,101
1951	21,442	7,560	2,233	31,235
1952	24,981	4,427	406	29,814
1953	28,891	4,233	3,466	36,590
1954	32,604	4,538	4,260	41,402
1955	36,222	5,356	4,544	46,122
1956	40,060	7,328	5,610	52,998
1957	45,110	10,384	8,106	63,599
1958	51,327	13,446	9,279	74,052
1959	56,400	14,951	6,583	77,934
1960	62,428	16,738	7,805	86,971
1960	70,817	17,662	9,313	97,792

Table XV - Yearly Membership, 1912-1960

<u>Year</u>	<u>Higher Grade</u>	<u>Student</u>	<u>Yearly Increase (Decrease)</u>	<u>% Increase (Decrease)</u>	<u>Total</u>
1912			-	-	109
1913			122	112.0	231
1914			402	174.0	633
1915			351	55.4	984
1916			208	21.2	1,193
1917			134	11.2	1,327
1918			(-505)	(-38.1)	822
1919			264	32.2	1,086
1920			199	18.3	1,285
1921			197	15.3	1,382
1922			(-140)	(-10.0)	1,242
1923			176	14.2	1,418
1924			635	31.0	2,053
1925			195	9.5	2,248
1926			482	21.4	2,730
1927			1,480	54.3	4,210
1928			613	14.6	4,823
1929			872	17.6	5,695
1930			840	14.8	6,535
1931			199	2.9	6,734
1932	6,288	115	(-331)	(-4.9)	6,403
1933	5,074	125	(-1,204)	(-18.8)	5,199
1934	4,011	229	(-959)	(-18.4)	4,240
1935	4,180	239	179	4.2	4,419
1936	4,896	299	776	17.6	5,195
1937	5,099	360	264	5.1	5,459
1938	5,089	314	(-56)	(-1.0)	5,403
1939	5,213	399	209	3.9	5,612
1940	5,209	496	93	1.7	5,705
1941	6,112	909	1,316	23.1	7,021
1942	7,261	1,533	1,773	25.3	8,794
1943	8,793	2,286	2,285	26.0	11,079
1944	11,054	2,083	2,058	18.6	13,137
1945	13,881	1,898	2,642	20.1	15,779
1946	15,902	2,252	2,375	15.1	18,154
1947	17,403	3,634	2,883	15.9	21,037
1948	17,498	5,939	2,400	11.4	23,437
1949	18,573	8,196	3,332	14.2	26,769
1950	21,442	7,560	2,233	8.3	29,002
1951	24,981	4,427	406	1.4	29,408
1952	28,591	4,283	3,466	11.8	32,874
1953	32,604	4,530	4,260	12.9	37,134
1954	36,222	5,556	4,644	12.5	41,778
1955	40,060	7,328	5,610	13.4	47,388
1956	45,110	10,384	8,106	17.1	55,494
1957	51,327	13,446	9,279	16.7	64,773
1958	56,400	14,961	6,588	10.1	71,361
1959	62,428	16,738	7,805	10.9	79,166
1960	70,817	17,662	9,313	11.8	88,479

THE INSTITUTE OF RADIO ENGINEERS, INC.

TREND OF MEMBERSHIP 1912 TO 1960

NUMBER OF MEMBERS

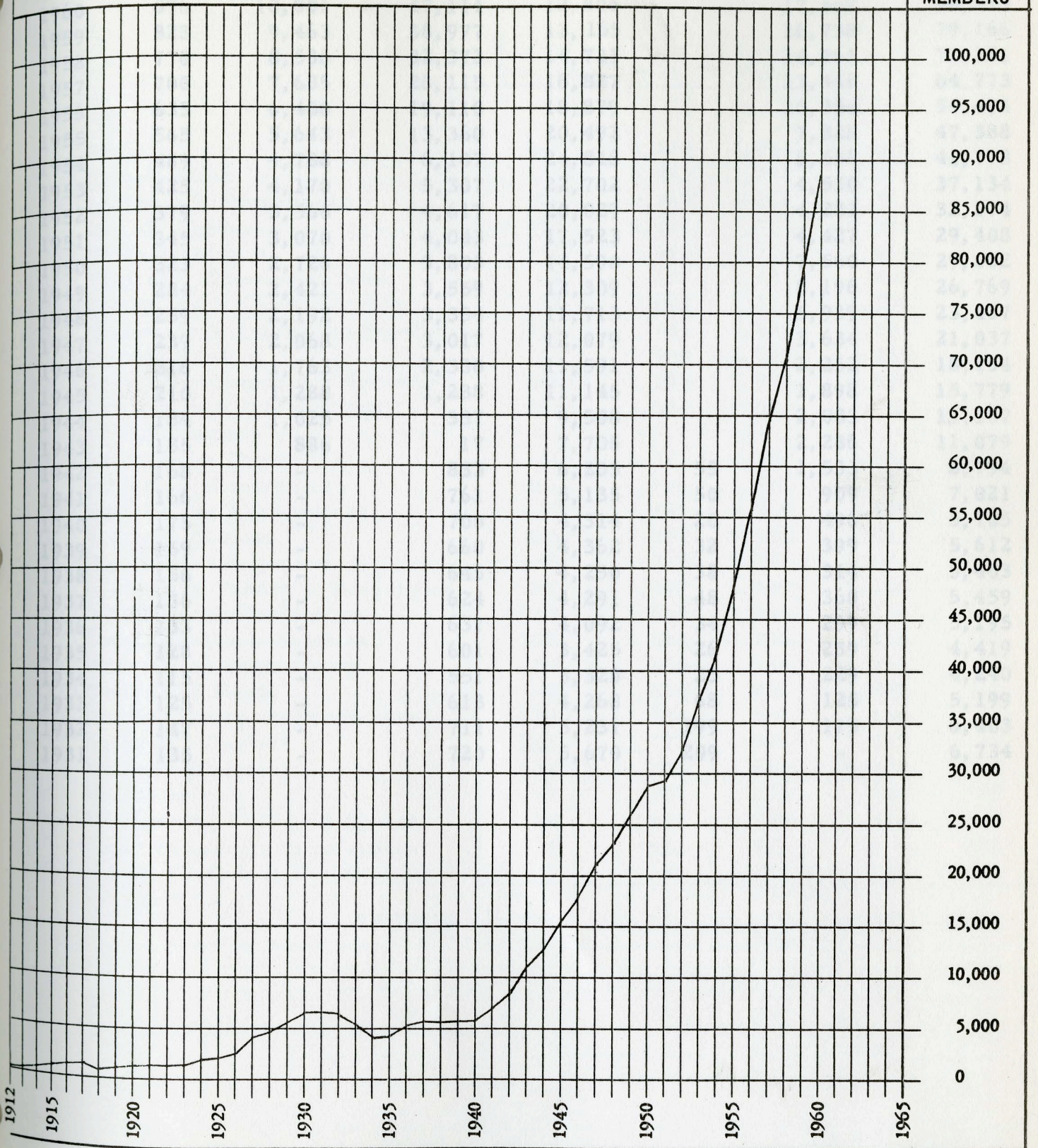


Table XVI - Membership Grade Breakdown, 1931 - 1960

Year	F	SM	M	A	J	S	Total
1960	896	10,001	47,114	12,806		17,662	88,479
1959	823	9,463	38,977	13,165		16,738	79,166
1958	770	8,536	32,373	14,721		14,961	71,361
1957	700	7,685	26,115	16,827		13,446	64,773
1956	635	6,486	19,110	18,879		10,384	55,494
1955	565	5,643	13,360	20,492		7,328	47,388
1954	489	4,780	6,107	24,846		5,556	41,778
1953	425	4,170	5,307	22,702		4,530	37,134
1952	379	3,566	4,617	20,029		4,283	32,874
1951	345	3,070	4,043	17,523		4,427	29,408
1950	323	2,726	3,803	14,590		7,560	29,002
1949	284	2,421	3,559	12,309		8,196	26,769
1948	259	2,192	3,334	11,713		5,939	23,437
1947	239	2,068	3,017	12,079		3,634	21,037
1946	218	1,763	2,330	11,591		2,252	18,154
1945	210	1,288	1,238	11,145		1,898	15,779
1944	184	1,025	337	9,508		2,083	13,137
1943	185	886	17	7,705		2,286	11,079
1942	168	-	833	6,205	55	1,533	8,794
1941	166	-	761	5,135	50	909	7,021
1940	175	-	700	4,314	20	496	5,705
1939	159	-	660	4,362	32	399	5,612
1938	156	-	645	4,250	38	314	5,403
1937	136	-	624	4,291	48	360	5,459
1936	133	-	637	4,092	34	299	5,195
1935	128	-	601	3,425	26	239	4,419
1934	115	-	551	3,320	25	229	4,240
1933	125	-	613	4,268	68	125	5,199
1932	147	-	711	5,231	199	115	6,403
1931	135	-	720	5,670	209	-	6,734
TOTALS							

Table XVII - Professional Group Membership, by Groups, 1959, 1960
(Paid Membership Only)

CODE	GROUP	1960			1959	Net Gain
		Student Discount	Other Paid	Total Paid		
G-1	Audio	445	4,106	4,551	5,403	-852
G-2	Broadcasting	68	1,413	1,481	1,598	-117
G-3	Antennas & Propagation	470	3,743	4,213	3,772	441
G-4	Circuit Theory	1,072	6,451	7,523	7,932	-409
G-5	Nuclear Science	270	1,448	1,718	1,869	-151
G-6	Vehicular Communications	51	1,436	1,487	1,442	45
G-7	Reliability & Quality Control	37	1,675	1,712	1,790	-78
G-8	Broadcast & Television Receivers	199	1,741	1,940	1,874	66
G-9	Instrumentation	71	3,999	4,070	4,323	-253
G-10	Space Electronics & Telemetry	248	3,749	3,997	3,625	372
G-11	Aerospace & Navigational Electronics	183	3,304	3,487	3,752	-265
G-12	Information Theory	171	3,371	3,542	3,342	200
G-13	Industrial Electronics	201	1,776	1,977	2,128	-151
G-14	Engineering Management	235	4,283	4,518	4,509	9
G-15	Electron Devices	475	5,097	5,572	5,043	529
G-16	Electronic Computers	916	8,315	9,231	8,808	423
G-17	Microwave Theory & Techniques	440	5,107	5,547	5,160	387
G-18	Bio-Medical Electronics	261	2,083	2,344	2,134	210
G-19	Communications Systems	226	3,524	3,750	3,265	485
G-20	Ultrasonics Engineering	27	958	985	955	30
G-21	Component Parts	42	1,839	1,881	1,882	-1
G-22	Product Engrg. & Production	23	1,134	1,157	1,115	42
G-23	Automatic Control	268	3,776	4,044	3,963	81
G-24	Military Electronics	173	4,118	4,291	3,907	384
G-25	Education	47	787	834	749	85
G-26	Engineering Writing & Speech	84	1,633	1,717	1,570	147
G-27	Radio Frequency Interference	9	913	922	690	232
G-28	Human Factors in Electronics	17	606	623	427	196
TOTALS		6,729	82,385	89,114	87,027	2,087

Table XVIII - Five-Year Analysis of Professional Group Membership, 1956 - 1960
(Paid Membership Only)

Code	Group	1956	1957	1958	1959	1960
G-1	Audio	3,809	4,324	4,348	5,403	4,551
G-2	Broadcasting	1,119	1,252	1,275	1,598	1,481
G-3	Antennas & Propagation	2,362	2,814	3,117	3,772	4,213
G-4	Circuit Theory	4,510	5,956	6,690	7,932	7,523
G-5	Nuclear Science	1,381	1,624	1,587	1,869	1,718
G-6	Vehicular Communications	966	1,161	1,229	1,442	1,487
G-7	Reliability & Quality Control	1,021	1,369	1,455	1,790	1,712
G-8	Broadcast & Television Receivers	1,925	1,905	1,915	1,874	1,940
G-9	Instrumentation	2,986	3,422	3,710	4,323	4,070
G-10	Space Electronics & Telemetry	1,978	2,499	2,766	3,625	3,997
G-11	Aerospace & Navigational Electronics	2,488	2,893	3,124	3,752	3,487
G-12	Information Theory	2,345	2,721	2,796	3,342	3,542
G-13	Industrial Electronics	1,624	1,785	1,894	2,128	1,977
G-14	Engineering Management	3,327	4,202	4,024	4,509	4,518
G-15	Electron Devices	2,843	3,758	4,221	5,043	5,572
G-16	Electronic Computers	5,461	6,881	7,505	8,808	9,231
G-17	Microwave Theory & Techniques	3,091	3,607	4,034	5,160	5,547
G-18	Bio-Medical Electronics	1,435	1,661	1,711	2,134	2,344
G-19	Communications Systems	1,944	2,304	2,591	3,265	3,750
G-20	Ultrasonics Engineering	632	741	782	955	985
G-21	Component Parts	1,284	1,559	1,648	1,882	1,881
G-22	Product Engrg. & Production	640	821	889	1,115	1,157
G-23	Automatic Control	1,856	2,736	3,233	3,963	4,044
G-24	Military Electronics	1,988	3,221	3,395	3,907	4,291
G-25	Education	*	170	461	749	834
G-26	Engineering Writing & Speech	*	370	1,044	1,570	1,717
G-27	Radio Frequency Interference	*	10	387	690	922
G-28	Human Factors in Electronics	*	*	210	427	623
	Totals	53,015	65,766	72,041	87,027	89,114

* No fees levied

Table XIX - Professional Groups Percentage Increases, 1959, 1960

(excluding Groups established after May, 1957)

<u>Code</u>	<u>Group</u>	<u>1960 - Percentage Increase Over 1959</u>
G-19	Communications Systems	14.9
G-3	Antennas and Propagation	11.7
G-25	Education	11.3
G-15	Electron Devices	10.5
G-10	Space Electronics & Telemetry	10.3
G-24	Military Electronics	9.8
G-18	Bio-Medical Electronics	9.8
G-26	Engineering Writing & Speech	9.4
G-17	Microwave Theory & Techniques	7.5
G-12	Information Theory	6.0
G-16	Electronic Computers	4.8
G-22	Product Engineering & Production	3.8
G-8	Broadcast & Television Receivers	3.5
G-6	Vehicular Communications	3.1
G-20	Ultrasonics Engineering	3.1
G-23	Automatic Control	2.0
G-14	Engineering Management	.2
G-21	Component Parts	minus .0005
G-7	Reliability & Quality Control	minus 4.3
G-4	Circuit Theory	minus 5.1
G-9	Instrumentation	minus 5.9
G-11	Aerospace & Navigational Electronics	minus 7.0
G-13	Industrial Electronics	minus 7.1
G-2	Broadcasting	minus 7.3
G-5	Nuclear Science	minus 8.0
G-1	Audio	minus 15.7

<u>Code</u>	<u>Group</u>	<u>1959 - Percentage Increase Over 1958</u>
G-10	Space Electronics & Telemetry	31.0
G-17	Microwave Theory & Techniques	27.9
G-19	Communications Systems	26.0
G-22	Product Engineering & Production	25.4
G-2	Broadcasting	25.4
G-18	Bio-Medical Electronics	24.7
G-1	Audio	24.3
G-7	Reliability & Quality Control	23.3
G-23	Automatic Control	22.6
G-20	Ultrasonics Engineering	22.0
G-3	Antennas & Propagation	21.0
G-11	Aerospace & Navigational Electronics	20.1
G-12	Information Theory	19.5
G-15	Electron Devices	19.4
G-4	Circuit Theory	18.5
G-5	Nuclear Science	17.7
G-6	Vehicular Communications	17.3
G-16	Electronic Computers	17.3
G-9	Instrumentation	16.6
G-24	Military Electronics	15.4
G-21	Component Parts	14.2
G-13	Industrial Electronics	12.4
G-14	Engineering Management	12.0
G-8	Broadcast & Television Receivers	minus 2.1

Table XX - Affiliates by Group, 1957 - 1958 - 1959 - 1960

<u>Code</u>	<u>Group</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>
G-1	Audio	2	5	6	6
G-2	Broadcasting	-	-	-	-
G-3	Antennas & Propagation	1	1	2	3
G-4	Circuit Theory	2	2	4	4
G-5	Nuclear Science	5	9	10	27
G-6	Vehicular Communications	-	1	1	1
G-7	Reliability & Quality Control	1	21	42	40
G-8	Broadcast & Television Receivers	-	-	-	-
G-9	Instrumentation	2	2	5	3
G-10	Space Electronics & Telemetry	-	1	1	-
G-11	Aerospace & Navigational Electronics	-	-	2	3
G-12	Information Theory	7	16	29	27
G-13	Industrial Electronics	-	-	-	-
G-14	Engineering Management	2	3	1	4
G-15	Electron Devices	7	8	8	12
G-16	Electronic Computers	15	55	66	68
G-17	Microwave Theory & Techniques	1	2	2	7
G-18	Bio-Medical Electronics	47	104	167	205
G-19	Communications Systems	-	-	1	-
G-20	Ultrasonics Engineering	1	7	4	5
G-21	Component Parts	-	-	1	1
G-22	Product Engrg. & Production	2	2	7	8
G-23	Automatic Control	5	9	12	11
G-24	Military Electronics	8	9	5	4
G-25	Education	-	4	12	10
G-26	Engineering Writing & Speech	-	18	28	30
G-27	Radio Frequency Interference	4	-	3	5
G-28	Human Factors in Electronics	-	-	2	19
Totals		111	279	421	503

Table XXI - Deceased Members - 1960

It is with deep regret that this office records the death of the following members of the IRE during the year 1960.

FELLOWS

Baker, W. R. G. - A'19, F'28, L'57
Bolljahn, John T. - A'43, SM'53, F'59
Hinners, Frank A. - A'12, M'15, F'26, L'59
Hogan, John V. L. - A'12, M'12, F'15, L'55
Hollmann, Hans E. - A'48, F'53
Howe, G. W. O. - F'55
McCoy, D. O. - A'46, SM'50, F'59
McRae, James W. - A'37, F'47

SENIOR MEMBERS

Barker, Charles B., Jr. - SM'53
Brantley, James Q. - S'48, A'53, SM'56
Chrzanowski, Peter - SM'56
Cole, D. D. - M'43, SM'43
Cummings, G. Morton - A'32, M'46, SM'53
Davidson, Ward F. - SM'47
DeVore, Henry B. - A'35, M'40, SM'43
Edwards, Baden J. - M'39, SM'43
Falkowski, Albert J. - M'51, SM'55
Fisher, Benjamin A. - A'38, SM'46
Goode, Harry H. - SM'52
Hall, Elmer L. - A'28, SM'46
Hall, John N. - SM'56
Hall, Leslie S. - M'39, SM'43
Hare, Milton D. - M'47, SM'57
Harmegnies, Paul A. - A'51, M'56, SM'60
Inman, James F. - A'32, SM'46
Jensen, Richard C. - A'31, VA'39, SM'51
Kolo, Roy E. - A'27, SM'45
Levy, Sol J. - SM'43
Lindner, Herbert G. - A'45, M'45, SM'53
Maynard, Charles A. - SM'51
Mellen, Glenn L. - SM'56
Mills, Morris H. - S'42, A'44, SM'51
O'Callaghan, Jerome J. - SM'46
Peaslee, W. D. A. - SM'58
Pilkington, William C. - SM'58
Rojas, F. R. - A'44, SM'46
Rose, Arthur F. - M'24, SM'43, L'59
Speer, Joseph G. - SM'55
Stengel, Elmer S. - SM'57
Stewart, Nelson H. - M'45, SM'51
Taylor, Franklin V. - SM'57
Templeton, Thomas H. - SM'57

Table XXI - Deceased Members - 1960

(Continued)

SENIOR MEMBERS (Continued)

Thomas, John J. - A'51, M'56, SM'57
Treuhaft, Milton A. - S'38, A'39, SM'52
Wallace, Fred C. - A'44, SM'50
Weitmann, Otto - SM'46
Witkowski, Joseph F. - A'23, SM'58, L'58
Wojciechowski, Bogumil M. - M'45, SM'52
Wood, Marc R. - SM'55

MEMBERS

Ardelian, Theodore E. - A'48, M'53
Aveney, Russell J. - M'46
Blackman, William H. - M'59
Bocharoff, George M. - A'36, M'55
Brown, Norman M., Jr. - A'47, M'55
Browning, Rowland E. - M'59
Cohen, Stanley - S'57, M'58
Couch, Laurence J. - A'54, M'56
Cox, Paul D. - M'47
Cunha, Stanley H. - M'56
Eggers, James W. - S'57, M'59
Erdman, John P. - S'48, A'51, M'55
Fink, Jack G. - A'45, M'46
Florez, Jose P. - M'58
Gledhill, Arnold P. - A'49, M'54
Hadden, Frederick A. - S'44, A'51, M'56
Hilliard, Dixey M. - A'39, M'55
Jezek, John E. - A'52, M'59
Jones, Clem - S'56, M'60
Kaylor, Robert L. - A'50, M'55
Kiley, Warren P. - M'58
Knight, Sidney G. - A'26, M'55
Kolkedy, Joseph G. - M'49
Kraguljac, Nikola - M'58
Leggett, Donald A. - M'54
Lewis, Kenneth E. - S'53, A'55, M'60
MacLeod, Allen D. - M'51
Marsh, William - M'59
McGahey, Emmert W., Jr. - S'55, M'57
McKay, Harold B. - A'46, M'55
Metzger, Paul A. - A'52, M'57
Mitchell, I. Allen - A'31, M'59
Nelson, Morris D. - A'48, M'55
Owen, John G. - M'57
Parris, Joel A. - S'54, M'57

Table XXI - Deceased Members - 1960
(Continued)

MEMBERS (Continued)

Pearson, Oscar A. - M'59
Pett, Lewis E. - M'52
Petrowski, Joseph P., Jr. - S'55, M'56
Riley, Thomas M. - S'58, M'59
Schwantes, Robert C. - S'49, A'50, M'55
Shiowitz, Marc - A'52, M'57
Sperr, Arthur E. - A'47, M'55
Sprinkle, Robert E. - M'45
Swallow, Donald S. - A'54, M'57
Tolan, Daniel J. - M'58
Warren, William B. - M'57
Wise, Abraham - S'45, A'49, M'56

Uchida, Toku - S'55

ASSOCIATES

Ahern, Howard G. - A'54
Austin, John F. - A'42
Austin, Leslie C. - A'56
Baptiste, Georg F. - A'59
Beerman, Stanford D. - A'57
Coursey, Philip R. - A'17, L'57
Daly, William J. - A'52
Doolittle, Kenneth H. - A'46
Kelly, Henry S. - A'51
Kmiec, W. J. - A'44
Koenig, Glenroy - A'44
Ketcham, Wilbur R. - A'54
Lancaster, Theodore W. - A'59
Leitch, Donald H. - A'51
Loveland, Harry D. - A'55
Madsen, Carl A. - A'57
Miller, Bernard L. - A'54
Murphy, August W. - S'52, A'53
Packer, Walter H. - A'50
Phillips, John T. - A'54
Pratt, Russell J. - A'58
Price, George O. - S'53, A'54
Roberts, Vernon - A'58
Roth, Thomas J. - S'51, A'55
Sanders, William E. - A'53
Scheller, John A. - A'59
Straub, Nevin L. - A'51
Williams, Alfred R. - A'53
Wright, Omer N. - A'43
Zionts, Samuel - A'51

Table XXII - IRE International Convention

The Convention continues to increase in importance each year and is internationally recognized as one of the largest conventions of its kind in the world. An exhibition of radio-electronic equipment became a part of the annual convention activities in 1930. The growth in Convention activities, from the first convention held in 1926 through 1960, is indicated in the comparison figures itemized below:

<u>Date</u>	<u>Year</u>	<u>Attend- ance.</u>	<u>Firms</u>		<u>Net Space</u>		<u>Papers</u>	
			<u>Repre- sented</u>	<u>Exhibits</u>	<u>Occupied</u>	<u>Presented</u>	<u>Location</u>	
Jan. 18-19	1926	*	0	0	0	6	New York, N. Y.	
Jan. 10-12	1927	425**	0	0	0	5	New York, N. Y.	
Jan. 9-11	1928	800	0	0	0	9	New York, N. Y.	
May 13-15	1929	555	0	0	0	37	Washington, D. C.	
Aug. 18-21	1930	575	*	20**	*	23	Toronto, Canada	
June 4-6	1931	400	*	50	*	19	Chicago, Ill.	
April 7-9	1932	461	*	25**	*	23	Pittsburgh, Pa.	
June 26-28	1933	487	*	35	*	24	Chicago, Ill.	
May 28-30	1934	940	*	56	*	32	Philadelphia, Pa.	
July 1-3	1935	586	*	34	*	21	Detroit, Mich.	
May 11-13	1936	360	*	40	*	19	Cleveland, Ohio	
May 10-12	1937	1,189	*	37	*	30	New York, N. Y.	
May 15-17	1938	1,866	*	29	*	49	New York, N. Y.	
Sept. 20-23	1939	1,668	*	34	*	26	New York, N. Y.	
June 27-29	1940	1,071	*	35**	*	44	Boston, Mass.	
Jan. 9-11	1941	1,310	*	30**	*	28	New York, N. Y.	
June 23-25	1941	353	0	0	0	33	Detroit, Mich.	
Jan. 12-14	1942	1,790	*	30**	*	25	New York, N. Y.	
June 29-30, July 1	1942	256	0	0	0	23	Cleveland, Ohio	
Jan. 28	1943	1,750	0	0	0	11	New York, N. Y.	
Jan. 28-29	1944	1,704	0	0	0	22	New York, N. Y.	
Jan. 24-27	1945	3,000	*	39	*	43	New York, N. Y.	
Jan. 23-26	1946	7,200	1,571	135	13,200'**	88	New York, N. Y.	
Mar. 3-6	1947	12,013	2,845	177	20,830'	118	New York, N. Y.	
Mar. 22-25	1948	14,459	3,059	180	25,900'	130	New York, N. Y.	
Mar. 7-10	1949	15,710	3,427	225	30,700'	144	New York, N. Y.	
Mar. 6-9	1950	17,689	4,088	253	33,600'	163	New York, N. Y.	
Mar. 19-22	1951	22,919	5,082	277	45,672'	198	New York, N. Y.	
Mar. 3-6	1952	28,673	6,306	365	54,246'	211	New York, N. Y.	
Mar. 23-26	1953	35,642	7,493	412	63,033'	214	New York, N. Y.	
Mar. 22-25	1954	39,302	8,799	605	87,192'	242	New York, N. Y.	
Mar. 21-24	1955	42,133	9,504	704	95,782'	248	New York, N. Y.	
Mar. 19-22	1956	41,017***	8,851	716	98,684'	277	New York, N. Y.	
Mar. 18-21	1957	53,811	11,757	840	105,240'	284	New York, N. Y.	
Mar. 24-27	1958	55,811	12,555	950	110,828'	285	New York, N. Y.	
Mar. 23-26	1959	60,050	13,509	1,200	114,117'	263	New York, N. Y.	
Mar. 21-24	1960	69,760	15,889	1,200	113,597'	261	New York, N. Y.	

* Figures not available **Estimated *** Reduction in attendance due to blizzard

Table XXIII - Summary of Income and Expense, 1960

INCOME

Advertising	\$1,710,134	
Member Dues and Convention	1,769,532	
Subscriptions	217,707	
Sales Items, Binders, Emblems, etc.	187,043	
Investments	52,969	
Miscellaneous	<u>1,607</u>	
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	<u>117,500</u>	
Total Expense		\$3,587,193

Reserve for Future Operations - Gross		\$ 351,799
Depreciation		<u>28,033</u>
Reserve for Future Operations - Net		\$ 323,766

Surplus Donated	595,287	
Surplus	<u>2,093,708</u>	

Table XXIV - Balance Sheet, December 31, 1960

ASSETS

Cash and Accounts Receivable	\$1,087,667	
Inventory	<u>20,379</u>	
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	<u>104,609</u>	

Total		<u>3,424,061</u>
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Total Assets		<u><u>\$4,532,107</u></u>
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LIABILITIES AND SURPLUS

Accounts Payable	\$ 94,660	
Total Current Liabilities		\$ 94,660

Deferred Income	1,282,265	
Professional Groups Funds on Deposit	<u>187,389</u>	
		<u>1,469,654</u>

Total Liabilities		\$1,564,314
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Reserve for Publications	165,000	
Reserve for Depreciation	<u>113,798</u>	
Total Reserves		278,798

Surplus Donated	1960	1959	1958	595,287	
Surplus				<u>2,093,708</u>	

Total Surplus					<u>2,688,995</u>
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Total Liabilities and Surplus					\$4,532,107
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Table XXV - 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 of 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 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 1 and in Fig. 1.

Table 1 - Volume of PROCEEDINGS Pages

	<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>
Editorial	2325	2370	2199	1868
Advertising	2485	2760	2169	2700
TOTAL	4810	5130	4368	4568

The number of papers reviewed for the PROCEEDINGS remained relatively constant: 259 papers totaling 2156 pages. Of these 26% 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. 2 and Table 2, 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 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 will be issued in January 1961.

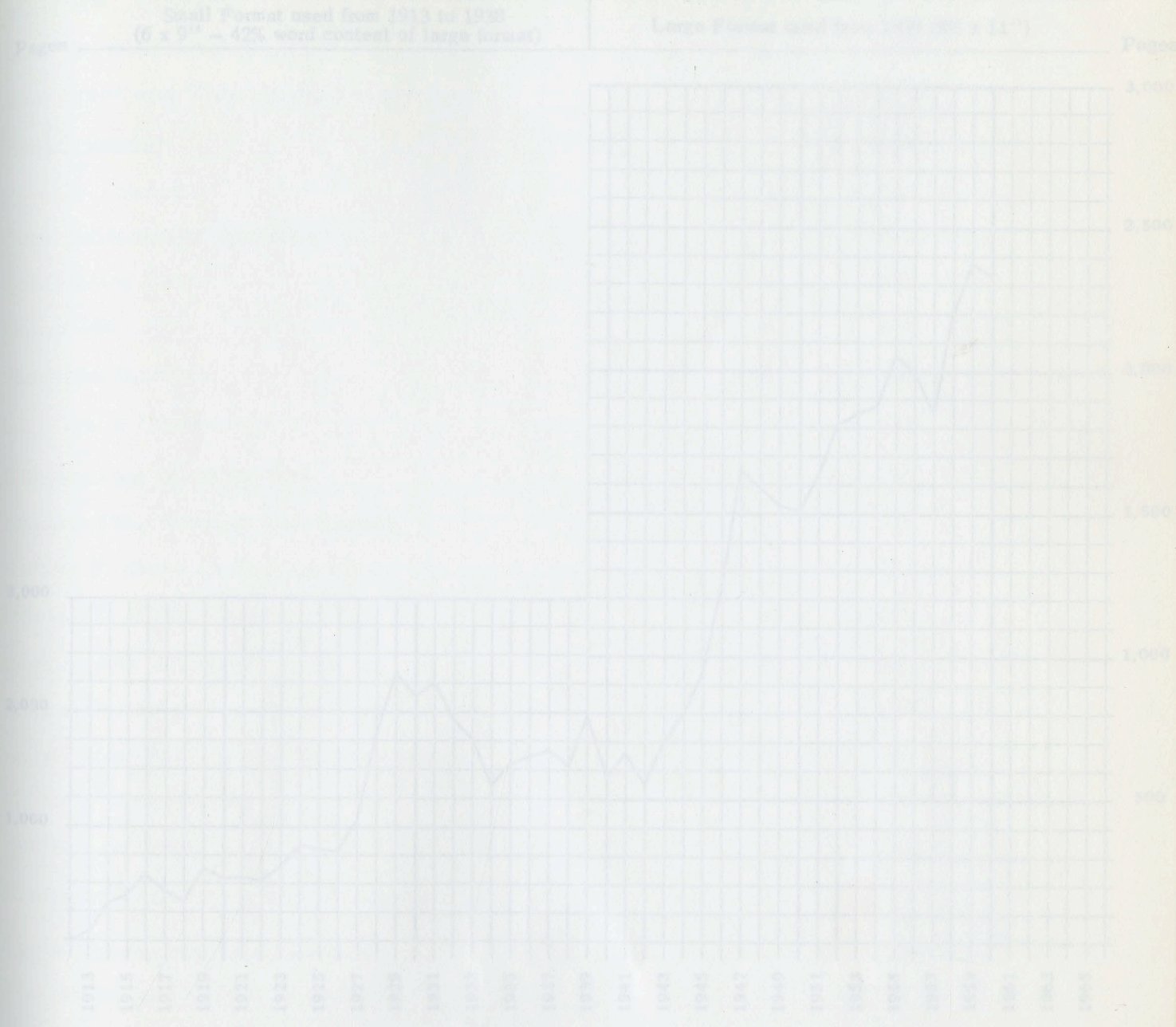


Fig. 1

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

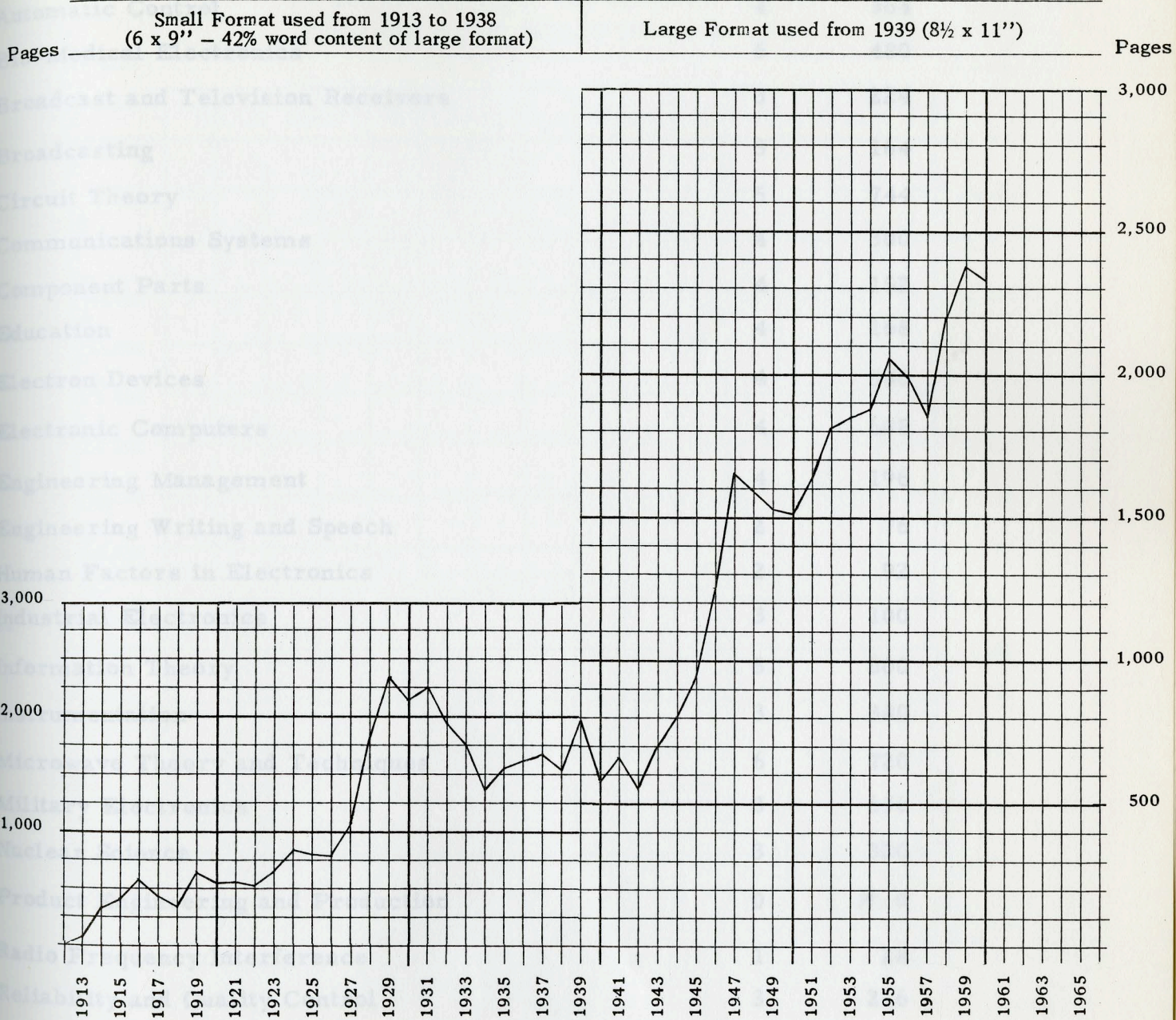


Fig. 1

101	8,728
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Table 2 - Volume of TRANSACTIONS Pages, 1960

	<u>Issues</u>	<u>Pages</u>
Aerospace and Navigational Electronics	4	160
Antennas and Propagation	6	688
Audio	6	272
Automatic Control	4	364
Bio-Medical Electronics	5	480
Broadcast and Television Receivers	3	224
Broadcasting	3	164
Circuit Theory	5	744
Communications Systems	4	300
Component Parts	4	152
Education	4	168
Electron Devices	4	340
Electronic Computers	4	608
Engineering Management	4	196
Engineering Writing and Speech	2	76
Human Factors in Electronics	2	92
Industrial Electronics	3	100
Information Theory	5	600
Instrumentation	3	380
Microwave Theory and Techniques	6	720
Military Electronics	3	636
Nuclear Science	3	320
Product Engineering and Production	0	0
Radio Frequency Interference	1	28
Reliability and Quality Control	3	216
Space Electronics and Telemetry	3	180
Ultrasonics Engineering	2	100
Vehicular Communications	3	308
	<hr/>	<hr/>
	101	8,708

TABLE XXV - TECHNICAL ACTIVITIES

TECHNICAL COMMITTEES IRE sponsors 26 Technical Committees covering phases of the field of Electronics as described in IRE Bylaws Section 5.1.1.

These IRE Committees, assisted by their IRE Subcommittees and Task Groups, produce two types of Standards in the field of Electronics: (A) Standards covering Methods of Measurements, and (B) Standards covering Definitions of Terms.

During 1960, the work of the IRE Technical Committees, of which 224 were held at IRE Headquarters, was as follows:

The seven Standard listed herewith have been approved by the IRE Standards Committee. Reprints of the Standards are available through the IRE Headquarters, 1960. The following are the titles of the Standards approved by the IRE Standards Committee during 1960:

January 1960 IRE 23.11 Standard in Telecommunications Engineering
 February 1960 IRE 23.11 Standard in Telecommunications Engineering
 June 1960 IRE 23.11 Standard in Telecommunications Engineering
 August 1960 IRE 23.11 Standard in Telecommunications Engineering
 September 1960 IRE 23.11 Standard in Telecommunications Engineering
 October 1960 IRE 23.11 Standard in Telecommunications Engineering

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

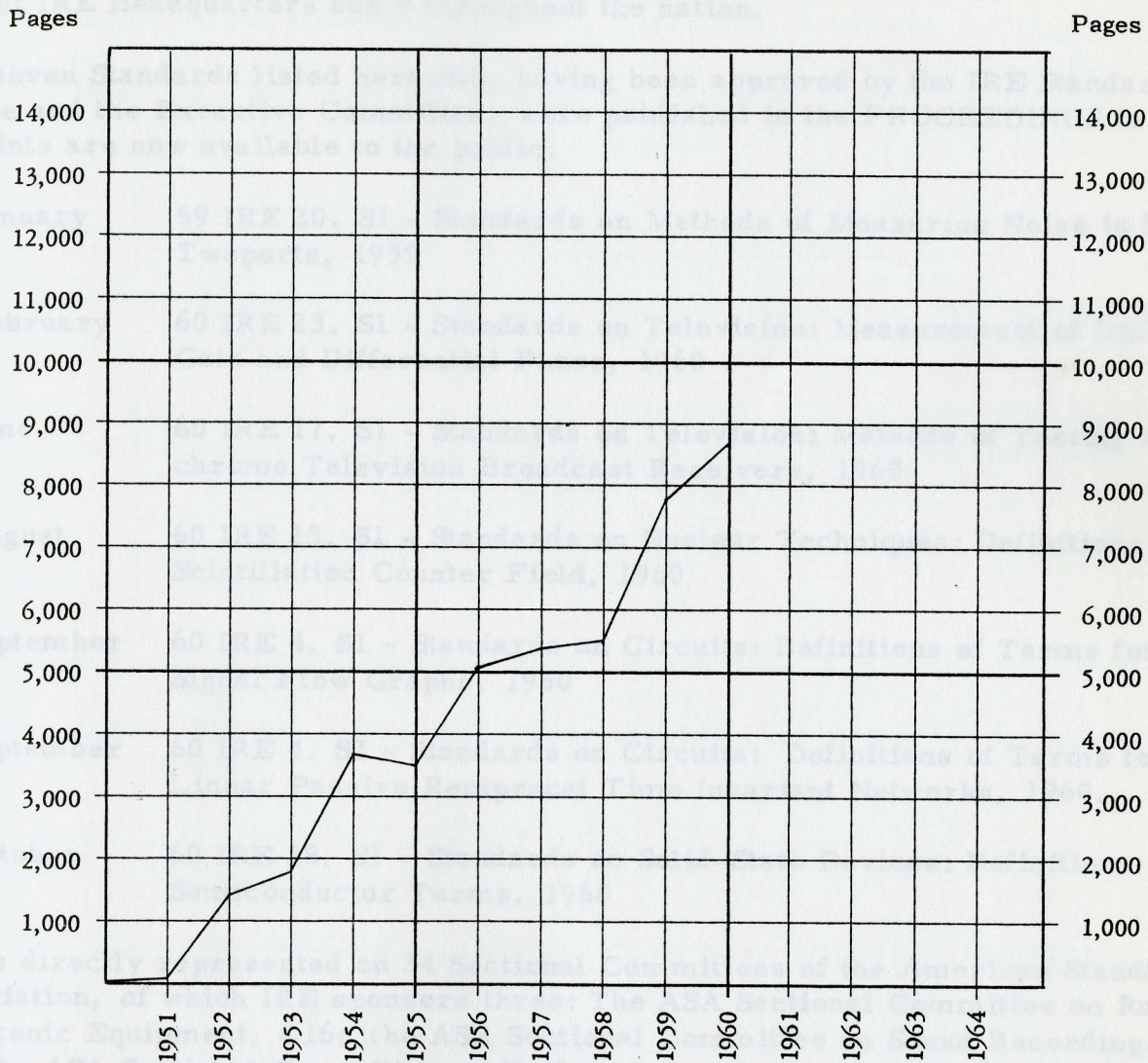


Fig. 2

IRE Technical Committees participated in international standardization in 1960 by reviewing and preparing comments on documents 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 Communications; and Subcommittee 12-1 on Radio

TABLE XXVI - TECHNICAL ACTIVITIES - 1960

TECHNICAL COMMITTEES. IRE sponsors 26 Technical Committees covering phases of the field of Electronics as described in IRE Bylaws Section 504.3.

These IRE Committees, assisted by their 120 Subcommittees and Task Groups, produce two types of Standards in the field of Electronics: (A) Standards containing Methods of Measurements, and (B) Standards containing Definitions of Terms.

During 1960, the work of these Committees included 233 meetings, of which 224 were held at IRE Headquarters and 9 throughout the nation.

The seven Standards listed herewith, having been approved by the IRE Standards Committee and the Executive Committee, were published in the PROCEEDINGS in 1960. Reprints are now available to the public:

January	59 IRE 20. S1 - Standards on Methods of Measuring Noise in Linear Twoports, 1959
February	60 IRE 23. S1 - Standards on Television: Measurement of Differential Gain and Differential Phase, 1960
June	60 IRE 17. S1 - Standards on Television: Methods of Testing Monochrome Television Broadcast Receivers, 1960
August	60 IRE 13. S1 - Standards on Nuclear Techniques: Definitions for the Scintillation Counter Field, 1960
September	60 IRE 4. S1 - Standards on Circuits: Definitions of Terms for Linear Signal Flow Graphs, 1960
September	60 IRE 4. S2 - Standards on Circuits: Definitions of Terms for Linear Passive Reciprocal Time Invariant Networks, 1960.
October	60 IRE 28. S1 - Standards on Solid-State Devices: Definitions of Semiconductor Terms, 1960

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 documents 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.

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 Subcommittees.

APPOINTED IRE DELEGATES TO OUTSIDE ORGANIZATIONS:

IRE appointed Delegates to the following organizations for the one-year period May 1, 1960, to April 30, 1961:

American Standards Association, Inc. (ASA) U. S. Advisory Committee of the International Organization for Standardization Technical Committee 69 on Statistical Treatment of Series of Observations (ISO/TC 69)

Armed Forces-National Research Council Committee: Panel on Bio-Instrumentation.

International Electrotechnical Commission 9 (IEC) U. S. National Committee

International Radio Consultative Committee (CCIR) Executive Committee of U. S. Delegation

International Scientific Radio Union (URSI) Executive Committee, U. S. National Committee

Joint IRE-EIA-SMPTE-NAB Committee for Inter-Society Coordination (JCIC) (Television)

In addition, IRE appointed Representatives to serve on the following organizations for the year 1960:

Council for the American Association for Advancement of Science (AAAS)

National Academy of Sciences - National Research Council, Advisory Board of the Office of Critical Tables

National Bureau of Standards (NBS) IRE Technical Advisory Committee

National Electronics Conference (NEC)

National Research Council (NRC Div. of Engineering & Industrial Research

National Stereophonic Radio Committee (NSRC)

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, Massachusetts, August 31 to September 2, 1960.

THE 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 Twelfth Anniversary dinner was held in May 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 between 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. The 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 publications fees and their members are receiving the pertinent Group TRANSACTIONS regularly. In addition, a large 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, Eng.
- International Information Theory Symposium, Aug. 29-Sept. 3, London, England
- International Symposium on Data Transmission, Sept. 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 on 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 (see list attached). 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.

TECHNICAL MEETINGS, 1960

<u>Name of Meeting</u>	<u>Sponsoring Groups</u>	<u>Place</u>	<u>Date</u>
4th Nat'l. Symposium on Reliability & Quality Control	PGRQC, AIEE, ASQC, EIA	Washington, D. C.	Jan. 11-13
1st Winter Convention on Military Electronics	PGMIL	Los Angeles, Calif.	Feb. 3-5
Solid State Circuits Conference	PGCT, AIEE, University of Pennsylvania	Philadelphia, Pa.	Feb. 10-12
Scintillation Counter Symposium	PGNS, AIEE, AEC, Nat'l. Bureau of Standards	Washington, D. C.	Feb. 25-26
IRE International Convention	All PG's	New York, N. Y.	March 21-24
1st Nat'l. Symposium on Human Factors in Elect.	PGHFE	New York, N. Y.	March 24-25
6th Nuclear Congress	EJC, PGNS	New York, N. Y.	April 3-8
Reliability Training Conference	PGRQC, ASQC, AIEE, EIA	Chicago, Ill.	April 4-9
14th Annual Spring Tech. Conference on Electronic Data Processing	Cincinnati Section, ARS	Cincinnati, Ohio	April 12-13
Conference on Automatic Techniques	PGIE, AIEE, ASME	Cleveland, Ohio	April 18-19
Int'l. Symposium on Active Networks & Feedback Systems	PGCT, PIB, ONR, OSR, USASRDL	New York, N. Y.	April 19-21
Southwestern Regional Conference (SWIRECO)	Region 6, PGBME	Houston, Texas	April 20-22
Nat'l. Aeronautical Electronics Conference	PGANE, Dayton Section	Dayton, Ohio	May 2-4
URSI-IRE Spring Meeting	URSI, PGCT, PGAP, PGI, PGMTT, PGIT	Washington, D. C.	May 2-5
Western Joint Computer Conference	PGEC, AIEE, ACM	San Francisco, California	May 3-5
Symposium on Graduate Programs in Bio-Medical Engineering	PGBME, AIEE, Univ. of Vermont	Burlington, Vt.	May 5-6
PGMTT National Symposium	PGMTT	San Diego, Calif.	May 9-11

TECHNICAL MEETINGS, 1960

(Continued)

<u>Name of Meeting</u>	<u>Sponsoring Groups</u>	<u>Place</u>	<u>Date</u>
Electronic Components Conference	PGCP, AIEE, EIA, WEMA	Wash., D. C.	May 10-12
National Telemetering Conference	PGSET, AIEE, ISA, IAS, ARS	Santa Monica, California	May 23-25
7th Region Technical Conference & Trade Show	Region 7	Seattle, Wash.	May 24-26
Radio Frequency Interference Symposium	PGRFI	Wash., D. C.	June 13-14
Chicago Spring Conference on Broadcast & TV Receivers	PGBTR	Chicago, Ill.	June 20-21
Conference on Standards & Electronic Measurements	PGI, NBS, AIEE	Boulder, Colo.	June 22-24
Workshop on Solid State Electronics	PGE, ASEE	W. LaFayette, Indiana	June 23-24
1st Congress on Int'l. Federation of Automatic Control	PGAC, AACC, IFAC	Moscow, USSR	June 25 - July 9
Nat'l. Convention on Military Electronics	PGMIL	Wash., D. C.	June 27-29
3rd Int'l. Conference on Medical Electronics	PGBME, IFME	London, Eng.	July 21-27
4th Global Communications Symposium	PGCS; US Signal Corps.	Wash., D. C.	Aug. 1-3
WESCON	All PG's, WCEMA, Los Angeles & San Francisco Sections	Los Angeles, California	Aug. 23-26
Int'l. Information Theory Meeting	PGIT, AIEE	London, Eng.	August 29 - Sept. 3
Joint Automatic Control Conference	PGAC, ASME, ISA, AIEE, AIChE	Cambridge, Massachusetts	Sept. 6-8
Conference on Communications	Cedar Rapids Section	Cedar Rapids, Iowa	Sept. 9-10
8th Annual Engineering Management Meeting	PGEM, AIChE, AIEE, ASME, ASCE, AIIE	Chicago, Ill.	Sept. 15-16
International Symposium on Data Transmission	Benelux Section, PGCS	Delft, Netherlands	Sept. 19-21

TECHNICAL MEETINGS, 1960

(Continued)

<u>Name of Meeting</u>	<u>Sponsoring Groups</u>	<u>Place</u>	<u>Date</u>
Nat'l. Symposium on Space Electronics and Telemetry	PGSET	Wash., D. C.	Sept. 19-22
Industrial Electronics Symposium	PGIE, AIEE	Cleveland, Ohio	Sept. 21-22
10th Annual Symposium on Broadcasting	PGB	Wash., D. C.	Sept. 23-24
6th Nat'l. Communications Symposium	PGCS, Rome-Utica Section	Utica, N. Y.	Oct. 3-5
PG on Nuclear Science 7th Annual Meeting	PGNS	Gatlinburg, Tenn.	Oct. 3-5
6th Conference on Radio Interference Reduction	PGRFI, Armour Research Foundation	Chicago, Ill.	Oct. 4-6
Nat'l. Electronics Conference	IRE, AIEE, Illinois Inst. of Tech., etc.	Chicago, Ill.	Oct. 10-12
Int'l. Symposium on Engineering Writing & Speech	PGEWS, Chicago Section	Chicago, Ill.	Oct. 13-14
Symposium on Adaptive Control Systems	L.I. Section	Long Island, N. Y.	Oct. 17-19
Energy Converting Devices	PGED, AIEE	Menlo Park, Calif.	Oct. 20
Electro-Optical Radiation Devices	PGED, AIEE	Menlo Park, Calif.	Oct. 21
East Coast Conference on Aero. & Navig. Electronics	PGANE, Baltimore Section	Baltimore, Md.	Oct. 24-26
Conference on Non-Linear Magnetics & Magnetic Amplifiers	AIEE, PGIE, PGEC	Philadelphia, Pa.	Oct. 26-28
Electron Devices Meeting	PGED	Wash., D. C.	Oct. 27-28
13th Annual Conference on Electrical Techniques in Medicine & Biology	PGBME, AIEE, ISA	Wash., D. C.	Oct. 31-Nov 1-2
Radio Fall Meeting	IRE, EIA	Syracuse, N. Y.	Oct. 31-Nov 1-2
Communications Symposium	Montreal, Section	Montreal, Canada	Nov. 4-5

TECHNICAL MEETINGS, 1960

(Continued)

<u>Name of Meeting</u>	<u>Sponsoring Groups</u>	<u>Place</u>	<u>Date</u>
Mid-American Electronics Convention (MAECON)	Kansas City Section	Kansas City, Missouri	Nov. 14-16
4th Annual Conference on Product Engineering & Production	PGPEP, NEREM	Boston, Mass.	Nov. 15-16
Conference on Magnetism & Magnetic Materials	PGMTT, AIEE, AIP, ONR, AIME	New York, N. Y.	Nov. 14-17
Symposium on Engineering Applications of Probability & Random Function Theory	PGIT, Purdue Univ.	LaFayette, Indiana	Nov. 15-16
Northeast Research & Engineering Meeting (NEREM)	Region 1	Boston, Mass.	Nov. 15-17
PGVC Annual Meeting	PGVC	Philadelphia, Pa.	Dec. 1-2
URSI-IRE "Fall" Meeting	URSI, PGAP, PGI, PGCT, PGIT, PGMTT	Boulder, Colo.	Dec. 12-14
Eastern Joint Computer Conference	PGEC, AIEE, ACM	New York, N. Y.	Dec. 13-15

Professional Group Chapters

Established as of December 31, 1960

<u>Group Code No.</u>	<u>Name of Group</u>	<u>No. of Chapters</u>	<u>Section Location</u>	
G-11	Aeronautical & Navigational Electronics	8	Akron Baltimore Boston Dayton Fla. West Coast	Met. NY, No. NJ & LI Oklahoma City Philadelphia
G-3	Antennas & Propagation	15	Akron Alb.-Los Alamos Boston Buffalo-Niagara Chicago Columbus Dayton Denver-Boulder	Los Angeles Orange Belt Philadelphia San Diego San Francisco Syracuse Wash., D. C.
G-1	Audio	18	Alb.-Los Alamos Baltimore Boston Chicago Cincinnati Cleveland Dayton Hawaii Houston	Milwaukee No. Carolina Philadelphia San Antonio San Diego San Francisco Syracuse Twin Cities Washington, D. C.
G-23	Automatic Control	13	Akron Baltimore Boston Chicago Dallas-Ft. Worth Fla. West Coast Long Island	Los Angeles Milwaukee New York Philadelphia Schenectady Twin Cities
G-18	Bio-Medical Electronics	18	Baltimore Boston Buffalo-Niagara Chicago Cleveland Columbus Houston Los Angeles Memphis	Montreal Met. N. Y., N. J., LI & Princeton North Carolina Omaha-Lincoln Philadelphia Portland San Diego San Francisco Washington, D. C.

Professional Group Chapters

Established as of December 31, 1960

(Continued)

<u>Group Code No.</u>	<u>Name of Group</u>	<u>No. of Chapters</u>	<u>Section Location</u>	
G-2	Broadcasting	11	Boston Cleveland Fla. West Coast Houston Omaha-Lincoln Philadelphia	Pittsburgh San Francisco Twin Cities Vancouver Washington, D. C.
G-8	Broadcast & Television Receivers	1	Chicago	
G-4	Circuit Theory	11	Alb.-Los Alamos Chicago Houston Los Angeles Omaha-Lincoln Philadelphia	Quebec San Antonio San Francisco Seattle Syracuse
G-19	Communications Systems	12	Baltimore Chicago Fla. West Coast Los Angeles Oklahoma City Omaha-Lincoln	Philadelphia Rome-Utica San Francisco Syracuse Toronto Washington, D. C.
G-21	Component Parts	9	Baltimore Buffalo-Niagara Chicago Dayton Los Angeles	Met. NY, NJ, LI Omaha-Lincoln Philadelphia Washington, D. C.
G-15	Electron Devices	9	Boston Elmira-Corning Los Angeles Met. NY, NJ, LI Philadelphia	San Francisco Schenectady Syracuse Washington, D. C.
G-16	Electronic Computers	20	Akron Baltimore Binghamton Boston Chicago Dallas-Ft. Worth Dayton Detroit Houston Long Island	Los Angeles Montreal NY & No. NJ Omaha-Lincoln Philadelphia Phoenix Pittsburgh San Francisco Twin Cities Washington, D. C.

Professional Group Chapters

Established as of December 31, 1960

(Continued)

<u>Group Code No.</u>	<u>Name of Group</u>	<u>No. of Chapters</u>	<u>Section Location</u>	
G-14	Engineering Management	13	Baltimore Binghamton Boston Chicago Dayton Los Angeles NY, No. NJ, LI	Philadelphia Rome-Utica San Francisco Syracuse Twin Cities Washington, D. C.
G-26	Engineering Writing & Speech	8	Boston Chicago Los Angeles New York	No. New Jersey Philadelphia San Francisco Washington, D. C.
G-28	Human Factors in Electronics	1	Los Angeles	
G-13	Industrial Electronics	4	Chicago Cleveland	Omaha-Lincoln Schenectady
G-12	Information Theory	4	Boston Los Angeles	White Sands Proving Grounds Washington, D. C.
G-9	Instrumentation	9	Atlanta Chicago Fla. West Coast Houston Long Island	Los Angeles St. Louis San Francisco Washington, D. C.
G-17	Microwave Theory & Techniques	21	Alb.-Los Alamos Baltimore Boston Buffalo-Niagara Chicago Columbus Denver-Boulder Long Island Los Angeles New York No. New Jersey	Omaha-Lincoln Orange Belt Orlando Philadelphia San Diego San Francisco Schenectady Syracuse Tokyo Washington, D. C.

Professional Group Chapters

Established as of December 31, 1960
(Continued)

<u>Group Code No.</u>	<u>Name of Group</u>	<u>No. of Chapters</u>	<u>Section Location</u>	
G-24	Military Electronics	21	Baltimore Boston Buffalo-Niagara Central Fla. Chicago Dayton Detroit Jt. Ft. Huachuca, Phoenix, Tucson Fort Wayne Indianapolis	Long Island Los Angeles North Carolina Northwest Fla. Philadelphia Rochester Rome-Utica San Diego San Francisco Syracuse Washington, D. C.
G-5	Nuclear Science	10	Albuquerque Boston Chicago Conn. Valley Dayton	Los Alamos Los Angeles Oak Ridge Pittsburgh Washington, D. C.
G-22	Product Engineering & Production	6	Boston Los Angeles NY, NJ, LI	Philadelphia San Francisco Washington, D. C.
G-27	Radio Frequency Interference	4	Ft. Worth Rome-Utica	San Francisco Washington, D. C.
G-7	Reliability & Quality Control	10	Boston Chicago Columbus Fla. West Coast Fort Worth	Los Angeles NY, NJ, LI Philadelphia San Francisco Washington, D. C.
G-10	Space Electronics & Telemetry	11	Albuquerque Central Fla. Chicago Dayton Detroit Huntsville	Los Angeles Philadelphia San Diego San Francisco Washington, D. C.

Professional Group Chapters

Established as of December 31, 1960
(Continued)

<u>Group Code No.</u>	<u>Name of Group</u>	<u>No. of Chapters</u>	<u>Section Location</u>	
G-6	Vehicular Communications	12	Baltimore	Los Angeles
			Chicago	NY, NJ, LI
			Dallas	Omaha-Lincoln
			Detroit	Philadelphia
			Fla. West Coast	Twin Cities
			Houston	Washington, D. C.

26
Groups

279
Chapters

60
Sections

Table XXVII - Section Activities

We were glad to welcome four new Sections into the IRE during the past year.

They are as follows:

- | | |
|---|-------------------|
| 1. Geneva | December 13, 1960 |
| 2. Kitchener-Waterloo (formerly Subsection) | May 17, 1960 |
| 3. Las Vegas | April 21, 1960 |
| 4. Mobile | October 4, 1960 |

The total number of Sections is now 109. Reference to Table XXVIII will show Section Membership statistics for the years 1959 and 1960, as well as meetings held in all Sections for the same period.

The Subsections of Sections now total 28, the following being formed in 1960:

- | | |
|---------------------|---------------|
| Catskill (New York) | July 13, 1960 |
| Pikes Peak (Denver) | July 13, 1960 |

Table XXVIII - Section and Subsection Meetings and Membership - 1959, 1960

Region	Section	M E E T I N G S**						M E M B E R S H I P			
		1959			1960			1960		1959	
		Section	PG	Total	Section	PG	Total	Sub.- Section	Total	Sub.- Section	Total
1	Binghamton	9	1	10	8	4	12		527		495
	Boston	6	71	95	3	56	79		5,957		5,297
	Merrimack Valley S.	6	-	-	7	-	-	569		503	
	New Hampshire S.	5	-	-	5	-	-	230		193	
	No. Vermont S.	7	-	-	8	-	-	59		67	
	Buffalo-Niagara	8	1	9	7	2	9		413		418
	Connecticut	6	5	15	6	0	8		1,260		1,060
	Fairfield County S.	4	-	-	2	-	-	569		409	
	Elmira-Corning	9	0	9	8	0	8		216		149
	Erie	7	-	7	3	-	3		57		60
	Ithaca	8	0	8	6	0	6		176		168
	Rochester	10	0	10	10	1	11		579		496
	Rome-Utica	9	7	16	6	4	10		579		524
	Schenectady	10	0	10	10	0	10		474		411
	Syracuse	7	15	22	5	17	22		1,064		963
	Western Mass.	8	0	8	5	0	5		276		262
			119	100	219	99	84	183		11,578	
2	Long Island	28	15	43	16	13	29		4,494		3,982
	New York	9	48	83	5	33	60		5,438		5,002
	* Catskill S.							197			
	Mid-Hudson S.	10	-	-	8	-	-	633		763	
	Monmouth S.	8	-	-	7	-	-	626		564	
	Westchester S.	8	-	-	7	-	-	883		713	
	Northern New Jersey	7	6	13	9	3	12		4,108		3,696
	Princeton	8	0	8	5	0	5		832		677
		78	69	147	57	49	106		14,872		13,357
3	Atlanta	8	4	12	11	7	18		713		688
	Baltimore	10	23	33	6	13	19		1,567		1,367
	Central Florida	14	4	18	7	1	8		499		448
	Fla. West Coast	10	6	16	10	13	23		421		357
	Gainesville	0	0	0	8	0	8		262		229
	Huntsville	13	0	22	9	0	17		649		551
	Memphis S.	9	-	-	8	-	-	64		55	
	Nashville S.	0	-	-	0	-	-	109		112	
	Miami	10	0	10	9	0	9		305		282
	* Mobile				1	0	1		71		
	North Carolina	10	0	25	11	2	28		670		594
	East No. Carolina S.	8	-	-	7	-	-	184		167	
	W. No. Carolina S.	7	-	-	8	-	-	65		66	
	Northwest Florida	10	1	15	10	3	19		195		171
	Panama City S.	4	-	-	6	-	-	41		45	
	Orlando	5	-	5	9	0	9		374		347
	Philadelphia	9	74	103	7	45	66		4,897		4,318
	Lancaster S.	7	-	-	6	-	-	199		221	
	Lehigh Valley S.	5	-	-	5	-	-	223		216	
Reading S.	8	-	-	3	-	-	81		67		
South Carolina	7	0	7	8	-	8		207		310	
Virginia	9	0	9	14	0	14		651		475	
Washington	10	53	63	9	48	57		3,745		3,368	
		173	165	338	172	132	304		15,226		13,505

Table XXVIII - Section and Subsection Meetings and Membership - 1959, 1960

Reg. Section		M E E T I N G S**						M E M B E R S H I P			
		1959			1960			1960		1959	
		Section	PG	Total	Section	PG	Total	Sub.- Section	Total	Sub.- Section	Total
4	Akron	10	9	19	10	2	12		321		316
	Central Penn.	9	0	9	7	0	7		270		241
	Cincinnati	10	4	14	11	0	11		475		466
	Cleveland	9	3	12	7	4	11		594		533
	Columbus	8	5	13	13	11	24		422		389
	Dayton	7	15	22	1	1	2		849		835
	Detroit	7	12	19	9	15	24	1,299			1,188
	Emporium	13	0	13	11	0	11		150		143
	Pittsburgh	10	4	14	7	3	10		898		758
	Toledo	9	0	9	8	0	8		172		161
	Western Michigan	9	0	9	5	0	5		128		120
	Williamsport	5	0	5	6	0	6		60		63
		106	52	158	95	36	131		5,638		5,213
5	Cedar Rapids	11	0	14	0	0	1		756		701
	Burlington S.	3	-	-	1	-	-	29		35	
	Chicago	8	43	51	6	41	47		3,374		2,932
	Evansville-Owensboro	10	0	10	8	0	8		166		134
	Fort Wayne	8	0	8	8	0	8		280		235
	Indianapolis	6	6	12	10	1	11		610		508
	Louisville	8	0	8	0	0	0		196		163
	Milwaukee	9	5	14	7	4	11		972		915
	Omaha-Lincoln	8	16	24	3	12	15		274		273
	So. Bend-Mishawaka	9	0	9	6	0	6		263		235
	Twin Cities	6	9	15	2	8	10		1,104		975
		86	79	165	51	66	117		7,995		7,071
6	Beaumont-Pt. Arthur	10	0	10	9	0	9		174		137
	Dallas	14	3	17	18	1	19		1,159		979
	Denver	9	0	9	6	4	12		849		726
	*Pikes Peak S.				2	-	-	52			
	El Paso	7	0	12	9	0	10		232		229
	La Cruces- White Sands S.	5	-	-	1	-	-	85		89	
	Fort Worth	14	2	16	8	4	12		395		382
	Houston	9	9	18	6	9	15		671		613
	Kansas City	9	0	9	11	0	11		627		618
	Little Rock	8	0	8	8	0	8		139		139
	Lubbock	8	0	8	8	0	8		100		88
	New Orleans	9	0	9	4	0	4		258		273
	Oklahoma City	10	10	20	8	6	14		349		293
	St. Louis	8	0	8	6	0	6		742		747
	San Antonio-Austin	15	1	16	8	0	8		426		377
	Shreveport	10	0	10	10	0	10		75		73
	Tulsa	7	0	7	6	0	6		272		280
	Wichita	9	0	9	7	0	7		184		153
		161	25	186	135	24	159		6,652		6,107

Table XXVIII - Section and Subsection Meetings and Membership - 1959, 1960

Reg.	Section	MEETINGS **						MEMBERSHIP			
		1959			1960			1960		1959	
		Section	PG	Total	Section	PG	Total	Sub.- Section	Section Total	Sub.- Section	Section Total
7	Alamogordo-Holloman	9	0	9	9	0	9		110		105
	Albuquerque-Los Alamos	7	13	20	8	5	13		685		673
	Anchorage	10	-	10	10	-	10		123		107
	China Lake	6	0	6	7	0	7		117		108
	Fort Huachuca	10	0	10	9	0	9		98		104
	Hawaii	10	0	10	7	0	7		139		131
*	Las Vegas				6	0	6		68		
	Los Angeles	9	97	152	9	103	165		9,126		8,033
	Buenaventura S.	10	-	-	8	-	-	193		155	
	Orange Belt S.	8	-	-	6	6	-	683		571	
	Pasadena S.	4	-	-	9	-	-	699		636	
	San Fernando S.	6	-	-	7	-	-	1,772		1,442	
	Santa Ana S.	9	-	-	9	-	-	1,572		1,104	
	Santa Barbara S.	9	-	-	8	-	-	397		394	
	Phoenix	9	0	9	6	0	6		644		592
	Portland	14	1	15	12	6	18		416		376
	Sacramento	9	0	9	8	0	8		269		227
	Salt Lake City	9	0	9	6	0	6		396		410
	San Diego	12	4	16	9	4	13		898		834
	San Francisco	2	82	85	9	98	109		4,359		3,773
	East Bay S.	1	-	-	2	-	-	645		583	
	Seattle	6	0	11	0	0	5		1,315		1,173
	Richland S	5	-	-	5	-	-	109		99	
	Tucson	6	0	6	8	0	8		274		271
		180	197	377	177	222	399		19,037		16,917
8	Bay of Quinte	7	0	7	8	0	8		149		145
	Hamilton	14	0	14	10	0	10		152		220
*	Kitchener-Waterloo				4	-	4		71		
	London	8	0	10	6	0	6		122		119
	South Western Ontario S.	2	0	-	-	-	-	29		32	
	Montreal	10	4	14	8	1	9		721		646
	Newfoundland	10	0	10	1	0	1		30		45
	Northern Alberta	6	0	6	9	0	9		200		183
	Ottawa	8	0	8	7	0	7		540		431
	Quebec	8	-	8	7	0	7		159		145
	Regina	5	0	5	4	0	4		114		104
	Southern Alberta	5	0	5	0	0	0		186		185
	Toronto	13	0	13	11	1	12		750		741
	Vancouver	11	1	12	9	1	10		275		255
	Winnipeg	9	0	9	6	0	6		163		158
		116	5	121	81	3	84		3,632		3,377

Table XXVIII - Section and Subsection Meetings and Membership - 1959, 1960

Reg.	Section	M E E T I N G S **						M E M B E R S H I P			
		1959			1960			1960		1959	
		Section	PG	Total	Section	PG	Total	Sub.- Section	Section Total	Sub.- Section	Section Total
	Benelux	2	-	2	9	-	9		146		88
	Buenos Aires	11	0	11	0	0	0		171		110
	Colombia	0	0	0	0	0	0		39		26
	Egypt	5	-	5	2	0	2		28		23
	* Geneva				0	0	0		107		
	India	0	0	0	0	0	0		199		174
	Israel	6	0	6	2	0	2		90		80
	Italy	0	0	0	2	0	2		222		152
	Rio de Janeiro	7	0	7	5	0	5		50		49
	Tokyo	6	1	7	1	0	1		369		308
		37	1	38	21	0	21		1,421		1,010
	Totals	1,056	693	1,749	888	616	1,504		86,051		76,860

* Established during 1960

** As reported to IRE Headquarters 12/30/60

RECAPITULATION

1960

Region	1	2	3	4	5	6	7	8	Foreign	Totals
Sections	12	4	15	12	10	16	16	14	10	109
Subsections	4	4	8	0	1	2	8	1	-	28
Membership	11,578	14,872	15,226	5,638	7,995	6,652	19,037	3,632	1,421	86,051
Section Meetings	99	57	172	95	51	135	177	81	21	888
Subsection Meetings	84	49	132	36	66	24	222	3	0	616
Total Meetings	183	106	304	131	117	159	399	84	21	1,504

1959

Region	1	2	3	4	5	6	7	8	Foreign	Totals
Sections	12	4	14	12	10	16	15	13	9	105
Subsections	4	3	8	0	1	1	8	2	-	27
Membership	10,303	13,357	13,505	5,213	7,071	6,107	16,917	3,377	1,010	76,860
Section Meetings	119	78	173	106	86	161	180	116	37	1,056
Subsection Meetings	100	69	165	52	79	25	197	5	1	693
Total Meetings	219	147	338	158	165	186	377	121	38	1,749

(Continued)

Table XXIX - Professional Group Chapter Meetings, by Section, by Group - 1959, 1960*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
Florida																													13
West Coast		6				1	2		0		2								2				0						6
Ft. Huachuca	1960					0	1																0	0					0
	1959																							0					0
Fort Wayne	1960																												0
	1959																												0
Fort Worth	1960						0									1							1				2		4
	1959						1									0											1		2
Gainesville	1960																												0
	1959																												0
Geneva	1960																												0
	1959																												0
Hamilton	1960																												0
	1959																												0
Hawaii	1960																												0
	1959																												0
Houston	1960		0													2													9
	1959		1						0						3			08											9
Huntsville	1960									0																			0
	1959									0																			0
India	1960																												0
	1959																												0
Indianapolis	1960																												1
	1959																												6
Israel	1960																												0
	1959																												0
Italy	1960																												0
	1959																												0
Ithaca	1960																												0
	1959																												0
Kansas City	1960										0																		0
	1959									0																			0
Kitchener-	1960																												0
Waterloo	1959																												0
Las Vegas	1960																												0
	1959																												0
Little Rock	1960																												0
	1959																												0
London	1960																												0
	1959																												0
Long Island	1960					0			2		0			0	0	2	4	0			0	0	1						13
	1959					0			3		0			0	0	0	0	0			0	0	5	4					15

Table XXIX - Professional Group Chapter Meetings, by Section, by Group - 1959, 1960*

SECTION	Group																												Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Williams - 1960																													
port 1959																													
Winnipeg 1960																													
Winnipeg 1959																													
	55	43	89	29	30	57	57	9	39	60	34	16	6	64	69	117	133	88	54	0	39	38	54	86	0	33	10	0	1,309

* As reported to IRE Headquarters 12/30/60

- a - Two separate G-5 Chapters
- b - Joint G-3 & G-17 Chapter
- c - Joint G-3 & G-17 Chapter
- d - Joint with Fort Worth
- e - Joint with Fort Worth
- f - Joint with Phoenix and Tucson
- g - Memphis Subsection Chapter
- h - Joint with Northern New Jersey and Long Island
- i - Joint with Northern New Jersey
- j - Joint with Northern New Jersey, Long Island and Princeton
- k - Orange Belt Subsection Joint Chapter
- l - Joint G-6 & G-19 Chapter

Table XXX - Section and Subsection Meetings

A growing major activity of many Sections and the large majority of Subsections in the past few years is the publication of a local monthly Bulletin for the Section member the increasing activities of the Meetings (2) Professional Group Chapter Meetings and Meetings and national level of interest in the Section meetings.

Fifty-four of the Sections and Subsections now leading the are listed below:

- Akron
- Albuquerque-Los Alamos
- Alamogordo-Holloman
- Baltimore
- Beaumont-Port Arthur
- Benelux
- Binghamton
- Boston
- Cedar Rapids
- Central Florida
- Central Pennsylvania
- Chicago
- Cleveland
- Columbus
- Connecticut
- Dallas
- Dayton
- Denver
- Detroit
- Exportum
- Evansville-Owensboro
- Florida West Coast
- Houston
- Huntsville
- Kansas City
- Long Island
- Los Angeles
- Miami
- Monmouth Subsection (New York)
- New York
- North Carolina
- Northern New Jersey
- Northern Vermont Subsection (Boston)
- Oklahoma City
- Ottawa

Table XXX - Section and Subsection Publications, 1960

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 now issuing these monthly publications are listed below:

Akron	"The Bulletin"
Albuquerque-Los Alamos	"The Blast"
Alamogordo-Holloman	"The Missile"
Baltimore	"The Speaker"
Beaumont-Port Arthur	"The Scatter"
Benelux	"The Benelux Bridge"
Binghamton	"Pulse"
Boston	"The Reflector"
Cedar Rapids	"Meeting Notice"
Central Florida	"Indian River Engineer"
Central Pennsylvania	"Newsletter"
Chicago	"Scanfax"
Cleveland	"Cleveland Section News"
Columbus	"IREmitter"
Connecticut	"The Connector"
Dallas	"dIREction"
Dayton	"Wave Guide"
Denver	"The Denver Decibel"
Detroit	"Cross Talk"
Emporium	"Newsletter"
Evansville-Owensboro	"The Transmitter"
Florida West Coast	"Suncoast Signal"
Houston	"The Scope"
Huntsville	"The Live Wire"
Kansas City	"The Local Oscillator"
Long Island	"The Pulse"
Los Angeles	"The Bulletin"
	"The Mid-month Bulletin"
Miami	"Miamitron"
Monmouth Subsection (New York)	"The Scanner"
New York	"The Monitor"
	"The Mid-month Monitor"
North Carolina	"Bulletin"
Northern New Jersey	"IRE Newsletter"
Northern Vermont Subsection (Boston)	"The Viren"
Oklahoma City	"Sooner Satellite"
Ottawa	"IRE Bulletin"

Table XXX - Section and Subsection Publications, 1960 (Cont'd.)

Philadelphia	"Almanack"
Pittsburgh	"Bulletin"
Portland	"Portland Pi"
Princeton	"P. S. "
Rochester	"The Communicator"
Rome-Utica	"IRE Echoes"
St. Louis	"The Mighty Mho"
* Academy of Salt Lake City	"Salt Lake Crystal"
Air Force San Antonio-Austin	"The Analog"
San Diego	"Bulletin"
San Francisco	"The Grid"
Schenectady	"IRE Bulletin"
Seattle	"Data Link"
South Bend-Mishawaka	"The Nucleus"
Syracuse	"Scanner"
Tokyo	"Denshi Tokyo"
Tucson	"The wIRE"
* Arlington Twin Cities	"The Radiator"
Auburn Un. Washington	"Bulletin"
Bradley University	IRE-AIEE re-established 11/28/60 as Joint Branch
Bridgeport, University of	IRE-AIEE re-established 12/13/60 as Joint Branch
Brigham Young University	IRE
British Columbia, University of	IRE-AIEE
Brooklyn, Polytechnic Institute of	IRE-AIEE (Day Div.)
Brooklyn, Polytechnic Institute of	IRE-AIEE (Eve. Div.)
* Broome Technical Community College	IRE
Brown University	IRE-AIEE
Bucknell University	IRE-AIEE
Buenos Aires, University of (Argentina)	IRE 10/4/60
California Institute of Technology	IRE-AIEE
California State Polytechnic College	IRE
California State Polytechnic College (Kellogg-Yeerles Campus)	IRE
California, University of (Berkeley)	IRE-AIEE
* Capitol Radio Engineering Institute	IRE
Carnegie Institute of Technology	IRE-AIEE
Case Institute of Technology	IRE-AIEE
Catholic University of America	IRE-AIEE
* Central Technical Institute	IRE
Cincinnati, University of	IRE-AIEE
Clarkson College of Technology	IRE-AIEE
Clemson College	IRE-AIEE
Colorado, University of	IRE-AIEE
Colorado State University	IRE-AIEE
Columbia University	IRE-AIEE
Connecticut, University of	IRE-AIEE
Cooper Union	IRE-AIEE
Cornell University	IRE-AIEE

Table XXXI - Student Branches, 1960

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:

<u>School</u>	<u>Branch</u>	<u>Formed 1960</u>
* Academy of Aeronautics	IRE	
Air Force Institute of Technology	IRE-AIEE	re-established as a Joint Branch on 4/11/60
Akron, University of	IRE-AIEE	
Alabama, University of	IRE-AIEE	
Alaska, University of	IRE-AIEE	
Alberta, University of	IRE-AIEE	
Arizona State University	IRE	
Arizona, University of	IRE-AIEE	
Arkansas, University of	IRE-AIEE	
* Arlington State College	IRE	4/21/60
Auburn University	IRE	
Bradley University	IRE-AIEE	re-established 11/28/60 as Joint Branch
Bridgeport, University of	IRE-AIEE	re-established 12/13/60 as Joint Branch
Brigham Young University	IRE	
British Columbia, University of	IRE-AIEE	
Brooklyn, Polytechnic Institute of	IRE-AIEE (Day Div.)	
Brooklyn, Polytechnic Institute of	IRE-AIEE (Eve. Div.)	
* Broome Technical Community College	IRE	
Brown University	IRE-AIEE	
Bucknell University	IRE-AIEE	
Buenos Aires, University of (Argentina)	IRE	10/4/60
California Institute of Technology	IRE-AIEE	
California State Polytechnic College	IRE	
California State Polytechnic College (Kellogg-Voorhis Campus)	IRE	
California, University of (Berkeley)	IRE-AIEE	
* Capitol Radio Engineering Institute	IRE	
Carnegie Institute of Technology	IRE-AIEE	
Case Institute of Technology	IRE-AIEE	
Catholic University of America	IRE-AIEE	
* Central Technical Institute	IRE	
Cincinnati, University of	IRE-AIEE	
Clarkson College of Technology	IRE-AIEE	
Clemson College	IRE-AIEE	
Colorado, University of	IRE-AIEE	
Colorado State University	IRE-AIEE	
Columbia University	IRE-AIEE	
Connecticut, University of	IRE-AIEE	
Cooper Union	IRE-AIEE	
Cornell University	IRE-AIEE	

Table XXXI - Student Branches, 1960 (Cont'd.)

<u>School</u>	<u>Branch</u>	<u>Formed 1960</u>
Dayton, University of	IRE-AIEE	
Delaware, University of	IRE-AIEE	
Denver, University of	IRE-AIEE	
Detroit, University of	IRE-AIEE	
* Devry Technical Institute	IRE	
Drexel Institute of Technology	IRE-AIEE	
Duke University	IRE-AIEE	
Fairleigh Dickinson University	IRE	
Fenn College	IRE	
Florida, University of	IRE-AIEE	
George Washington University	IRE-AIEE	
Georgia Institute of Technology	IRE	
Hofstra College	IRE	
Houston, University of	IRE	
(College of Engineering)	IRE-AIEE	
* Houston, University of	IRE	
(College of Technology)	IRE	
Howard University	IRE-AIEE	
Idaho, University of	IRE-AIEE	
Illinois Institute of Technology	IRE	
Illinois, University of	IRE-AIEE	
Iowa, State University of	IRE	
Iowa State University of Science and Technology	IRE-AIEE	4/21/60
John Carroll University	IRE	10/20/60
Johns Hopkins University	IRE-AIEE	
Kansas State University of Agriculture and Applied Science	IRE	
Kansas, University of	IRE-AIEE	
Kentucky, University of	IRE	
Lafayette College	IRE-AIEE	
Lamar State College	IRE	
La Salle College	IRE	
Laval University	IRE-AIEE	
Lehigh University	IRE-AIEE	
Los Angeles State College of Applied Arts & Sciences	IRE	
Louisiana Polytechnic Institute	IRE-AIEE	
Louisiana State University	IRE-AIEE	
Louisville, University of	IRE-AIEE	3/8/60
Lowell Technological Institute	IRE	
Loyola University of Los Angeles	IRE	
Maine, University of	IRE	
Manhattan College	IRE-AIEE	
Manitoba, University of	IRE	
Marquette University	IRE-AIEE	
Maryland, University of	IRE-AIEE	
Massachusetts, University of	IRE-AIEE	4/29/60

Table XXXI - Student Branches, 1960 (Cont'd.)

<u>School</u>	<u>Branch</u>	<u>Formed 1960</u>
Massachusetts Institute of Technology	IRE-AIEE	
Merrimack College	IRE-AIEE	12/13/60
Miami, University of	IRE	
Michigan College of Mining and Technology	IRE-AIEE	
Michigan State University	IRE-AIEE	
Michigan, University of	IRE-AIEE	
* Milwaukee School of Engineering	IRE	
Minnesota, University of	IRE-AIEE	
Mississippi State University	IRE	
Missouri School of Mines and Metallurgy, University of	IRE-AIEE	
Missouri, University of	IRE-AIEE	
* Mohawk Valley Technical Institute	IRE	
Montana State College	IRE-AIEE	
* Municipal University of Omaha	IRE	5/31/60
Nebraska, University of	IRE-AIEE	
Nevada, University of	IRE-AIEE	
Newark College of Engineering	IRE	
** New Bedford Institute of Technology	IRE-AIEE	re-established 2/17/60 as a Joint Associate Branch
New Hampshire, University of	IRE-AIEE	
New Mexico State University	IRE-AIEE	
New Mexico, University of	IRE-AIEE	
New York, College of the City of	IRE	
* New York, State University of	IRE	4/21/60
* New York Trade School	IRE	10/20/60
New York University	IRE (Day Div.)	
New York University	IRE-AIEE (Eve. Div.)	
North Carolina State College	IRE-AIEE	
North Dakota, University of	IRE-AIEE	
North Dakota State College	IRE-AIEE	
Northeastern University	IRE-AIEE	
* Northrop Institute of Technology	IRE	
Northwestern University	IRE-AIEE	
Norwich University	IRE-AIEE	
Notre Dame, University of	IRE-AIEE	
Ohio Northern University	IRE-AIEE	
Ohio State University	IRE-AIEE	
Ohio University	IRE-AIEE	
Oklahoma, University of	IRE-AIEE	
* Oklahoma City University	IRE	3/8/60
Oklahoma State University	IRE-AIEE	
Oregon State College	IRE	
* Oregon Technical Institute	IRE	
Ottawa, University of	IRE	
Pennsylvania, University of	IRE-AIEE	
Pennsylvania State University, The	IRE-AIEE	
Pittsburgh, University of	IRE	
* Port Arthur College	IRE	4/29/60

Table XXXI - Student Branches, 1960 (Cont'd.)

<u>School</u>	<u>Branch</u>	<u>Formed 1960</u>
Pratt Institute	IRE-AIEE	
Princeton University	IRE-AIEE	
* Provincial Institute of Tech. & Art.	IRE	
Puerto Rico, University of	IRE	
Purdue University	IRE-AIEE	
Rensselaer Polytechnic Institute	IRE-AIEE	
Rhode Island, University of	IRE-AIEE	
Rice University	IRE-AIEE	
* Rochester Institute of Technology	IRE	11/14/60
Rose Polytechnic Institute	IRE-AIEE	
Royal Military College of Canada	IRE	
Rutgers University	IRE-AIEE	
* Ryerson Institute of Technology	IRE	
Saint Joseph's College (Pa.)	IRE	4/21/60
St. Louis University	IRE	
San Diego State College	IRE	
San Jose State College	IRE-AIEE	
Santa Clara, University of	IRE-AIEE	
Saskatchewan, University of	IRE	
Seattle University	IRE	
South Carolina, University of	IRE-AIEE	
South Dakota School of Mines and Technology	IRE	
South Dakota State College	IRE-AIEE	
Southern California, University of	IRE-AIEE	
Southern Methodist University	IRE-AIEE	
* Southern Technical Institute	IRE	3/8/60
Southwestern Louisiana, University of	IRE	
Stanford University	IRE-AIEE	
Stevens Institute of Technology	IRE-AIEE	
Swarthmore College	IRE-AIEE	
Syracuse University	IRE-AIEE	
Tennessee Agricultural & Industrial State University	IRE	
Tennessee, University of	IRE-AIEE	
Texas, Agricultural & Mechanical College of	IRE-AIEE	
Texas College of Arts & Industries	IRE	
Texas Technological College	IRE-AIEE	
Texas, University of	IRE-AIEE	
Toledo, University of	IRE-AIEE	
Toronto, University of	IRE	
* Tri-State College (Indiana)	IRE	3/8/60
Tufts University	IRE-AIEE	
Tulane University	IRE-AIEE	
Union College (Schenectady)	IRE-AIEE	
U. S. Naval Postgraduate School	IRE	
Utah State University	IRE	
Utah, University of	IRE-AIEE	

Table XXXI - Student Branches, 1960 (Cont'd.)

<u>School</u>	<u>Branch</u>	<u>Formed 1960</u>
* Valparaiso Technical Institute (Indiana)	IRE	1/5/60
Valparaiso University	IRE	
Vanderbilt University	IRE-AIEE	
Vermont, University of	IRE-AIEE	
Villanova University	IRE-AIEE	
Virginia Polytechnic Institute	IRE-AIEE	
Virginia, University of	IRE-AIEE	
Washington University (Missouri)	IRE-AIEE	
Washington State University	IRE-AIEE	
Washington, University of	IRE-AIEE	
Wayne State University	IRE-AIEE	
* Wentworth Institute	IRE	
Western Ontario, University of	IRE	
* West Virginia Institute of Technology	IRE	
West Virginia University	IRE-AIEE	
Wichita, University of	IRE-AIEE	
Wisconsin, University of	IRE-AIEE	
Worcester Polytechnic Institute	IRE-AIEE	
Wyoming, University of	IRE-AIEE	
Yale University	IRE-AIEE	
Youngstown University	IRE-AIEE	

* Student Associate Branches

** Joint Student Associate Branch