

REPORT OF THE SECRETARY

1952

TO THE BOARD OF DIRECTORS,  
THE INSTITUTE OF RADIO ENGINEERS

GENTLEMEN:

HEREWITH IS PRESENTED THE USUAL ANNUAL REPORT FOR INSTITUTE OPERATIONS FOR THE YEAR 1952, GIVING DATA ON MEMBERSHIP, EDITORIAL DEPARTMENT, TECHNICAL ACTIVITIES, SECTION ACTIVITIES AND STUDENT BRANCHES. THE PROFESSIONAL GROUP ACTIVITIES ARE INCLUDED UNDER THE CHAPTER ON TECHNICAL ACTIVITIES.

1952 WAS CHARACTERIZED BY GROWTH ON ALL FRONTS. MORE MEMBERS, LARGER PROCEEDINGS, A LARGER DIRECTORY, A LARGER CONVENTION, AND THE PHENOMENAL GROWTH OF THE PROFESSIONAL GROUPS AND THEIR TRANSACTIONS MAKE YOUR INSTITUTE STILL MORE IMPORTANT AS THE FUNDAMENTAL INSTRUMENT OF INFORMATION AND COORDINATION IN ITS EXPANSIVE FIELDS OF ENDEAVOR.

RESPECTFULLY SUBMITTED,

HARADEN PRATT,  
SECRETARY

JANUARY 23, 1953

MEMBERSHIP

AT THE END OF THE YEAR 1952, THE MEMBERSHIP OF THE INSTITUTE, INCLUDING ALL GRADES, WAS 32,874, AN INCREASE OF 3,466, OR 12% OVER THE PREVIOUS YEAR. THE 3,466 MEMBER INCREASE IN 1952 WAS MORE THAN 2,233 AND 406, THE INCREASES FOR 1950 AND 1951 RESPECTIVELY. THE PERCENTAGE INCREASE WAS 8% IN 1950, AND 1.4% IN 1951. THE MEMBERSHIP TREND FROM 1912 TO DATE IS SHOWN GRAPHICALLY IN FIGURE 2.

ACTUAL MEMBERSHIP FIGURES FOR 1950, 1951 AND 1952 ARE SHOWN IN TABLE I. OF THE 19,110 NON-VOTING ASSOCIATES, 3,723 HAVE BEEN IN THAT GRADE FOR MORE THAN FIVE YEARS. THE MEMBERSHIP RATIO OF ASSOCIATES TO HIGHER GRADES IS APPROXIMATELY 2 TO 1.

DETAILED ANALYSES CAN BE FOUND ON THE TABLES LISTED ON THE FOLLOWING PAGE.

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TABLE I - TOTAL MEMBERSHIP DISTRIBUTION BY GRADES

GRADE	AS OF DEC. 31, 1952		AS OF DEC. 31, 1951		AS OF DEC. 31, 1950	
	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL
FELLOW	379	1.2	345	1.2	323	1.1
SENIOR MEMBER	3,566	10.8	3,070	10.4	2,726	9.4
MEMBER	4,617	14.0	4,043	13.7	3,803	13.1
ASSOCIATE	20,029***	61.0	17,523**	59.6	14,590*	50.3
STUDENT	<u>4,283</u>	13.0	<u>4,427</u>	15.1	<u>7,560</u>	26.1
TOTALS	32,874		29,408		29,002	

TABLE II - ANALYSIS OF TOTAL MEMBERSHIP DISTRIBUTION BY GRADES

	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A(\$15)</u>	<u>A(\$10)</u>	<u>S</u>	<u>TOTALS</u>
UNITED STATES	335	3244	4116	857	3357	14,175	4110	30,194
U. S. POSSESSIONS		8	21	8	21	94	5	157
U. S. OVERSEAS MILITARY	<u>—</u>	<u>10</u>	<u>32</u>	<u>2</u>	<u>13</u>	<u>121</u>	<u>6</u>	<u>184</u>
	335	3262	4169	867	3391	14,390	4121	30,535
CANADA	15	106	186	22	120	523	133	1,105
FOREIGN	<u>29</u>	<u>198</u>	<u>262</u>	<u>30</u>	<u>212</u>	<u>474</u>	<u>29</u>	<u>1,234</u>
TOTALS	379	3566	4617	919	3723	15,387	4283	32,874

TABLE III - FIVE-YEAR ANALYSIS OF U. S. AND FOREIGN MEMBERSHIP

	<u>1952</u>	<u>1951</u>	<u>1950</u>	<u>1949</u>	<u>1948</u>
TOTAL	32,874	29,408	29,002	26,769	23,437
U. S. & POSSESSIONS	30,535	27,202	26,708	24,434	21,048
FOREIGN ( INCLUDING CANADA)	2,339	2,206	2,294	2,335	2,389
PER CENT FOREIGN	7.1	7.5	7.9	8.72	10.2

\* INCLUDES 1,159 VOTING ASSOCIATES

\*\* INCLUDES 974 VOTING ASSOCIATES

\*\*\* INCLUDES 919 VOTING ASSOCIATES

TABLE IV - DISTRIBUTION OF U. S. MEMBERS, 1951 AND 1952  
 (INCLUDING U. S. POSSESSIONS AND U. S. OVERSEAS MILITARY)

<u>1952</u>	<u>1951</u>		<u>GAIN</u>	<u>LOSS</u>
125	58	ALABAMA	67	
134	101	ARIZONA	33	
72	37	ARKANSAS	35	
3,864	3,304	CALIFORNIA	560	
169	154	COLORADO	15	
476	434	CONNECTICUT	42	
37	35	DELAWARE	2	
759	694	DISTRICT OF COLUMBIA	65	
370	316	FLORIDA	54	
185	219	GEORGIA		34
28	26	IDAHO	2	
1,474	1,487	ILLINOIS		13
519	441	INDIANA	78	
280	251	IOWA	29	
175	149	KANSAS	26	
153	153	KENTUCKY		
107	95	LOUISIANA	12	
47	41	MAINE	6	
1,189	1,113	MARYLAND	76	
1,787	1,518	MASSACHUSETTS	269	
729	673	MICHIGAN	56	
309	301	MINNESOTA	8	
49	64	MISSISSIPPI		15
375	379	MISSOURI		4
24	32	MONTANA		8
74	82	NEBRASKA		8
7	8	NEVADA		1
44	34	NEW HAMPSHIRE	10	
3,129	2,676	NEW JERSEY	453	
365	272	NEW MEXICO	93	
6,342	5,571	NEW YORK	771	
231	199	NORTH CAROLINA	32	
30	15	NORTH DAKOTA	15	
1,493	1,327	OHIO	166	
240	193	OKLAHOMA	47	
172	167	OREGON	5	
1,934	1,682	PENNSYLVANIA	252	
71	76	RHODE ISLAND		5
82	66	SOUTH CAROLINA	16	
40	44	SOUTH DAKOTA		4
107	111	TENNESSEE		4
891	789	TEXAS	102	
108	100	UTAH	8	
18	19	VERMONT		1
573	511	VIRGINIA	62	
458	488	WASHINGTON		30
51	45	WEST VIRGINIA	6	
266	287	WISCONSIN		21
32	34	WYOMING		2

	<u>1952</u>	<u>1951</u>	<u>NET GAIN</u>
TOTAL	30,194	26,871	3,323

**TABLE IV - DISTRIBUTION OF U. S. MEMBERS, 1951 AND 1952 - CONT'D.**  
**(INCLUDING U. S. POSSESSIONS AND U. S. OVERSEAS MILITARY)**

AS OF DECEMBER 31, 1952

STATE	UNITED STATES POSSESSIONS		GAIN	LOSS	TOTALS
	1952	1951			
					125
					134
					72
					3854
					169
					475
					37
					759
					370
					185
					28
					1474
					519
					260
					175
					153
					107
					47
					1189
					1787
					529
					309
					49
					375
					24
					74
					7

		U. S. OVERSEAS MILITARY		GAIN	LOSS	TOTALS
1952	1951					
						11
						11

TABLE V - DISTRIBUTION OF U. S. MEMBERS BY GRADE AND STATE  
AS OF DECEMBER 31, 1952

<u>STATE</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A(\$15)</u>	<u>A(\$10)</u>	<u>S</u>	<u>TOTALS</u>
ALABAMA		2	5		8	75	35	125
ARIZONA		10	30	1	13	74	6	134
ARKANSAS	1	7	5			39	20	72
CALIFORNIA	30	382	507	101	495	1950	399	3864
COLORADO	1	14	25		18	76	35	169
CONNECTICUT	6	54	57	13	64	215	67	476
DELAWARE		3	2		4	20	8	37
DISTRICT OF COLUMBIA	19	126	109	35	87	330	53	759
FLORIDA	1	29	59	16	34	160	71	370
GEORGIA		12	29	2	21	79	42	185
IDAHO			5		6	12	5	28
ILLINOIS	12	97	244	63	214	727	117	1474
INDIANA	3	59	63	10	63	230	91	519
IOWA	1	29	40	4	24	142	40	280
KANSAS		8	27	1	13	95	31	175
KENTUCKY		12	21	2	10	67	41	153
LOUISIANA	1	5	11	4	12	42	32	107
MAINE	2	4	3	1	6	14	17	47
MARYLAND	7	132	200	39	158	569	84	1189
MASSACHUSETTS	27	159	231	45	196	715	414	1787
MICHIGAN	1	41	83	29	86	313	176	729
MINNESOTA	2	18	38	5	30	142	74	309
MISSISSIPPI		2	6		4	19	18	49
MISSOURI	1	30	59	5	32	179	69	375
MONTANA			4	1	2	7	10	24
NEBRASKA		3	17	3	5	29	17	74
NEVADA		1	1	1		3	1	7

TABLE V - DISTRIBUTION OF U. S. MEMBERS BY GRADE AND STATE (CONTINUED)  
AS OF DECEMBER 31, 1952

<u>STATE</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A(\$15)</u>	<u>A(\$10)</u>	<u>S</u>	<u>TOTALS</u>
NEW HAMPSHIRE		5	7	2	5	17	8	44
NEW JERSEY	83	602	428	134	380	1283	219	3129
NEW MEXICO	1	31	67	3	27	189	47	365
NEW YORK	106	734	746	164	667	3070	855	6342
NORTH CAROLINA	2	19	28	6	17	118	41	231
NORTH DAKOTA			2	1	2	6	19	30
OHIO	7	146	237	28	145	756	174	1493
OKLAHOMA		19	31	3	23	136	28	240
OREGON	2	11	28	6	24	68	33	172
PENNSYLVANIA	11	216	245	65	181	947	269	1934
RHODE ISLAND		2	9	2	3	34	21	71
SOUTH CAROLINA		4	13	3	4	56	2	82
SOUTH DAKOTA			6		1	17	16	40
TENNESSEE	1	6	12	2	16	66	4	107
TEXAS	2	79	184	20	84	419	103	891
UTAH		6	4		7	41	50	108
VERMONT		2	1	1		11	3	18
VIRGINIA	3	76	92	17	73	245	67	573
WASHINGTON	2	31	49	5	52	223	96	458
WEST VIRGINIA		2	6	1	5	23	14	51
WISCONSIN		13	36	11	35	120	51	266
WYOMING		<u>1</u>	<u>4</u>	<u>2</u>	<u>1</u>	<u>7</u>	<u>17</u>	<u>32</u>
TOTALS	335	3244	4116	857	3357	14,175	4110	30,194

TABLE VI - DISTRIBUTION OF MEMBERSHIP BY REGION, BY SECTION, BY GRADE  
AS OF DECEMBER 31, 1952

<u>REGION</u>	<u>SECTION</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A</u>	<u>S</u>	<u>SECTION TOTAL</u>	<u>REGION TOTAL</u>
1	BOSTON	29	165	240	48	939	443	1,864	2,438
	CONNECTICUT VALLEY	6	61	68	16	339	84	574	
2	NEW YORK	138	897	831	240	4025	859	6,990	7,285
	SCHENECTADY	7	46	38	7	142	55	295	
3	BALTIMORE	3	61	99	14	380	40	597	4,811
	NORTH CAROLINA-VIRGINIA	3	29	47	8	237	81	405	
	PHILADELPHIA	11	220	232	75	1081	185	1,804	
	PRINCETON	20	65	46	4	124	28	287	
	WASHINGTON	25	264	283	75	947	124	1,718	
	AKRON	1	8	32	5	118	22	186	
4	BINGHAMTON		6	25	2	94	7	134	3,402
	BUFFALO-NIAGARA	1	24	37	8	206	18	294	
	CLEVELAND	1	30	55	6	174	56	322	
	COLUMBUS		11	11	6	78	31	137	
	DETROIT	1	41	82	27	397	161	709	
	EMPORIUM	2	30	42	4	80	26	184	
	PITTSBURGH	4	36	37	10	241	95	423	
	ROCHESTER	3	28	28	8	70	9	146	
	SYRACUSE	14	118	98	6	385	76	697	
	TOLEDO		6	13	1	78	15	113	
	WILLIAMSPORT		9	16		22	10	57	
5	CEDAR RAPIDS		26	30	1	134	22	213	4,977
	CHICAGO	12	206	243	65	983	143	1,652	
	CINCINNATI	3	15	47	9	156	40	270	

TABLE VI - DISTRIBUTION OF MEMBERSHIP BY REGION, BY SECTION, BY GRADE (CONTINUED)  
AS OF DECEMBER 31, 1952

<u>REGION</u>	<u>SECTION</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A</u>	<u>S</u>	<u>SECTION TOTAL</u>	<u>REGION TOTAL</u>
5	DAYTON	2	79	82	5	312	12	492	
	DENVER	1	15	29	2	102	52	201	
	DES MOINES-AMES	1	4	11	2	30	16	64	
	EVANSVILLE-OWENSBORO		10	8		45	6	69	
	FT. WAYNE	2	19	17	3	85	7	133	
	INDIANAPOLIS	1	26	33	5	114	49	228	
	KANSAS CITY	1	21	56	4	191	55	328	
	LITTLE ROCK	1	7	5		39	20	72	
	LOUISVILLE		4	14		45	34	97	
	MILWAUKEE		13	33	10	134	60	250	
	OMAHA-LINCOLN		3	18	4	37	20	82	
	ST. LOUIS		18	38	3	158	50	267	
	TWIN CITIES	2	18	50	7	366	116	559	
6	ATLANTA	1	28	69	9	377	103	587	2,078
	BEAUMONT-PT. ARTHUR		3	14	1	41	3	62	
	CENTRAL FLORIDA		15	23	1	63	19	121	
	DALLAS-FT. WORTH	2	43	83	13	264	94	499	
	HOUSTON		21	49	7	115	14	206	
	MIAMI	1	12	32	13	101	50	209	
	OKLAHOMA CITY		4	22	1	50	3	80	
	SAN ANTONIO	1	13	25	2	89	25	155	
	TULSA		15	9	2	108	25	159	
7	EL PASO		6	34	2	107	17	166	5,294
	HAWAII		6	7	6	67	5	91	
	INYOKERN		3	14		48	1	66	
	LOS ANGELES	14	219	289	55	1527	178	2,282	
	NEW MEXICO	1	29	58	2	156	31	277	

TABLE VI - DISTRIBUTION OF MEMBERSHIP BY REGION, BY SECTION, BY GRADE (CONTINUED)  
AS OF DECEMBER 31, 1952

REGION	SECTION	F	SM	M	VA	A	S	SECTION TOTAL	REGION TOTAL
7	PHOENIX		10	30	1	87	6	134	
	PORTLAND	2	11	28	6	102	33	182	
	SACRAMENTO		1	12	6	54	7	80	
	SALT LAKE		6	8		63	55	132	
	SAN DIEGO		27	56	8	221	20	332	
	SAN FRANCISCO	16	108	132	32	595	193	1,076	
	SEATTLE	2	31	55	6	276	106	476	
8	HAMILTON		11	17	1	44	8	81	1,105
	LONDON		4	21		44	11	80	
	MONTREAL	7	33	52	7	145	27	271	
	OTTAWA	4	14	29	3	85	5	140	
	TORONTO	4	37	56	8	237	41	383	
	VANCOUVER		7	11	3	88	41	150	
	BUENOS AIRES	ARGENTINA	2	13	4		56	14	89
		352	3369	4313	885	18298	4262	31,479	

1952 1951  
GRAND TOTAL 2,339 2,206

TABLE VII - DISTRIBUTION OF FOREIGN MEMBERS - 1951 - 1952

<u>1952</u>	<u>1951</u>		<u>1952</u>	<u>1951</u>	
6	5	ARABIA	137	142	INDIA
89	94	ARGENTINA	3	3	INDONESIA
69	72	AUSTRALIA	1	1	IRAQ
2	2	BAHAMAS	6	5	IRELAND
10	9	BELGIUM	24	16	ISRAEL
2	2	BERMUDA	29	26	ITALY
1	1	BOLIVIA	21	10	JAPAN
48	41	BRAZIL	1		KOREA
1	1	BRITISH GUIANA	7	6	LEBANON
4	5	BRITISH WEST INDIES	7	9	MALAYA
3		BURMA	2	1	MALTA
1105	1004	CANADA	32	27	MEXICO
2	2	CEYLON	5	5	MOROCCO
6	7	CHILE	14	15	NETHERLANDS
2	8	CHINA	2	1	NETHERLANDS WEST INDIES
12	12	COLOMBIA	1	2	NEW GUINEA (PAPUA)
1	1	COSTA RICA	15	17	NEW ZEALAND
13	11	CUBA		1	NORTH BORNEO
1		CURACO	8	11	NORWAY
2	1	CYPRUS	17	9	PAKISTAN
4	6	CZECHOSLOVAKIA	6	5	PERU
22	20	DENMARK	9	9	PHILIPPINE ISLANDS
3	2	ECUADOR	4	3	PORTUGAL
16	14	EGYPT	14	10	SCOTLAND
280	298	ENGLAND	52	56	SOUTH AFRICA
1	1	ETHIOPIA	8	9	SPAIN
3	2	FIJI ISLANDS	3	2	STRAIT SETTLEMENTS
50	47	FORMOSA	46	44	SWEDEN
6	6	FRANCE	47	38	SWITZERLAND
9	7	GERMANY	2	2	SYRIA
3	2	GREECE	2	2	THAILAND
1	1	GUATEMALA	10	6	TURKEY
5	7	HONDURAS	5	5	URUGUAY
1	1	HONG KONG	13	13	VENEZUELA
1		HUNGARY	2	2	WALES
		ICELAND			

	<u>1952</u>	<u>1951</u>
GRAND TOTAL	2,339	2,206

U. S. OVERSEAS MILITARY MEMBERSHIP

AS OF DECEMBER 31, 1952

COUNTRY	CANADIAN							TOTALS
	F	SM	M	VA	15 A	10 A	S	
HAMILTON		11	17	1	5	39	8	81
LONDON		4	21		10	34	11	80
MONTREAL	7	33	52	7	31	114	27	271
OTTAWA	4	14	29	3	13	72	5	140
TORONTO	4	37	56	8	48	189	41	383
VANCOUVER		7	11	3	13	75	41	150
	15	106	186	22	120	523	133	1105

U. S. POSSESSIONS

COUNTRY	F	SM	M	VA	15	10	S	TOTALS
					A	A		
ALASKA			7		8	23		38
CANAL ZONE				1	1	2		4
CANTON ISLAND						1		1
PANAMA					1			1
PUERTO RICO		2	6	1	1	11		21
HAWAII		6	7	6	10	57	5	91
VIRGIN ISLANDS			1					1
		8	21	8	21	94	5	157

U. S. OVERSEAS MILITARY MEMBERSHIP

COUNTRY	F	SM	M	VA	15	10	S	TOTALS
					A	A		
P. O. SAN FRANCISCO CALIF.		2	12	1	4	51	2	72
P. O. SEATTLE, WASH.		1	2		1	10		14
P. O. NEW YORK, N. Y.		7	18	1	8	60	4	98
P. O. NORFOLK, VA.								
	10	32	2	2	13	121	6	184

TABLE IX - DISTRIBUTION OF FOREIGN MEMBERS BY GRADE AND COUNTRY  
AS OF DECEMBER 31, 1952

<u>COUNTRY</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A(\$15)</u>	<u>A(\$10)</u>	<u>S</u>	<u>TOTAL</u>
ARABIA		1	1		1	3		6
ARGENTINA	2	13	4		21	35	14	89
AUSTRALIA	2	19	16	7	14	11		69
BAHAMA ISLANDS			1		1			2
BELGIUM			3	1		6		10
BERMUDA		1			1			2
BOLIVIA						1		1
BRAZIL	1	4	9	2	9	23		48
BRITISH GUIANA			1					1
BRITISH WEST INDIES			2		1	1		4
BURMA			1			2		3
CEYLON			1			1		2
CHILE			2		2	2		6
CHINA		1				1		2
COLOMBIA			3		1	7	1	12
COSTA RICA		1						1
CUBA		2	2	2	3	4		13
CURACO					1			1
CYPRUS			2					2
CZECHOSLOVAKIA			1		1	2		4
DENMARK		1	3	1	2	15		22
ECUADOR		1	1			1		3
EGYPT		3	6		1	6		16
ENGLAND	13	71	64	12	64	54	2	280
FIJI ISLANDS		1						1
FORMOSA					1	2		3

TABLE IX - DISTRIBUTION OF FOREIGN MEMBERS BY GRADE AND COUNTRY  
AS OF DECEMBER 31, 1952

<u>COUNTRY</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A(\$15)</u>	<u>A(\$10)</u>	<u>S</u>	<u>TOTAL</u>
FRANCE	1	18	9	1	8	12	1	50
GERMANY	2	1	1		2	2		6
GREECE		1	3			5		9
GUATEMALA						3		3
HONDURAS			17		9	20	1	51
HONG KONG			2		2	1		5
HUNGARY						1		1
ICELAND		4	7		8	28		41
INDIA	1	19	35		13	69		137
INDONESIA		1			1	1		3
IRAQ			1			2		1
IRELAND		1			2	3		6
ISRAEL		1	5		2	15	1	24
ITALY		2	2		8	17		29
JAPAN		1	2		2	15	1	21
KOREA						1		1
LEBANON			1		2	4		7
MALAYA			5			2		7
MALTA			2					2
MEXICO	1	1	5	2	2	16	5	32
MOROCCO		1	3		1			5
NETHERLANDS		4	6		2	2		14
NETHERLANDS WEST INDIES						2		2
NEW GUINEA (PAPUA)		1						1
NEW ZEALAND			4	1	6	4		15
NORWAY		1	3	1		3		8
PAKISTAN		4	5		1	6	1	17

**TABLE IX - DISTRIBUTION OF FOREIGN MEMBERS BY GRADE AND COUNTRY**  
**AS OF DECEMBER 31, 1952**

<u>COUNTRY</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>VA</u>	<u>A(\$15)</u>	<u>A(\$10)</u>	<u>S</u>	<u>TOTAL</u>
PERU		1	1		2	2		6
PHILIPPINES			3		2	4		9
PORTUGAL		1	1			2		4
SCOTLAND	1	1	5		1	6		14
SOUTH AFRICA		5	17		9	20	1	52
SPAIN		1	3		1	3		8
STRAIT SETTLEMENTS			1		1	1		3
SWEDEN	2	4	7		8	25		46
SWITZERLAND	3	6	4		6	28		47
SYRIA						2		2
THAILAND						2		2
TURKEY						9	1	10
URUGUAY			1			3	1	5
VENEZUELA		2	2		5	4		13
WALES		1			1			2
	29	198	262	30	212	474	29	1,234

GRAND TOTAL 1,234

TRANSFERS FROM

	<u>SM</u>	<u>M</u>	<u>A</u>	<u>S</u>	<u>TOTAL</u>
TRANSFERS TO F	44	1	-	-	45
TRANSFERS TO SW	-	191	191	-	372
TRANSFERS TO M	-	-	341	1	342
TRANSFERS TO A	-	-	-	1,556	1,556
TOTAL	44	192	532	1,557	2,315

TABLE X - MEMBERSHIP CHANGES, BY GRADES, IN 1952

<u>GAINS</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>A</u>	<u>S</u>	<u>TOTAL</u>
ELECTIONS		191	499	1,949	2,317	4,956
REINSTATEMENTS	1	34	60	562	99	756
TRANSFERS TO	45	372	342	1,556		2,315
<hr/>						
TOTAL GAIN	46	597	901	4,067	2,416	8,027
<hr/>						
<u>LOSSES</u>						
NEW ELECTIONS (UNPAID)		5	13	66	3	87
TRANSFERS FROM		44	182	532	1,557	2,315
VOIDED ELECTIONS		1		38		39
DEATHS	6	13	6	26	8	59
RESIGNATIONS	1	18	51	477	255	802
DELINQUENTS	5	20	75	422	737	1,259
<hr/>						
TOTAL LOSS	12	101	327	1,561	2,560	4,561
<hr/>						
NET GAIN	34	496	574	2,506	-144	3,466

THE NET GAIN OF 3,466 SHOWN ABOVE COMPARES WITH 406 FOR 1951.

TABLE XI - ANALYSIS OF TRANSFERS, BY GRADES, 1952

	<u>TRANSFERS FROM</u>				<u>TOTAL</u>
	<u>SM</u>	<u>M</u>	<u>A</u>	<u>S</u>	
TRANSFERS TO F	44	1	-	-	45
TRANSFERS TO SM	-	181	191	-	372
TRANSFERS TO M	-	-	341	1	342
TRANSFERS TO A	-	-	-	1,556	1,556
<hr/>					
TOTAL	44	182	532	1,557	2,315

TABLE XII - ANALYSIS OF HIGHER-GRADE APPLICATIONS FOR 1952

	<u>DOMESTIC</u>	<u>CANADIAN</u>	<u>FOREIGN</u>	<u>TOTAL</u>
	<u>APPROVED</u>		<u>REJECTED</u>	
<b>ADMISSION APPLICATIONS</b>				
SENIOR MEMBER	191		13	
MEMBER	499		33	
<b>TRANSFER APPLICATIONS</b>				
SENIOR MEMBER	372		11	
MEMBER	342		6	

TABLE XIII - LIFE MEMBERS, BY GRADES, AS OF DECEMBER 31, 1952

	<u>DOMESTIC</u>	<u>CANADIAN</u>	<u>FOREIGN</u>	<u>TOTAL</u>
FELLOW	27	2	1	30
SENIOR MEMBER	9	0	1	10
MEMBER	0	0	0	0
VOTING ASSOCIATE	8	0	0	8
ASSOCIATE	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>
TOTAL	45	2	3	50

G-1	QUALITY CONTROL			318
G-2	BROADCAST & TELEVISION RECEIVERS			750
G-3	INSPIRIMENTATION			1477
G-4	RADIO TELEMETRY & REMOTE CONTROL			
G-5	AIRBORNE ELECTRONICS			1048
G-6	INFORMATION THEORY			771
G-7	INDUSTRIAL ELECTRONICS			530
G-8	ENGINEERING MANAGEMENT			740
G-9	ELECTRON DEVICES			475
G-10	ELECTRONIC COMPUTERS			1241
G-11	MICROWAVE THEORY & TECHNIQUES			471
G-12	MEDICAL ELECTRONICS			
G-13	COMMUNICATIONS SYSTEMS			
				12,582

TABLE XIV - PROFESSIONAL GROUP MEMBERSHIP, BY GROUPS, AS OF DECEMBER 31, 1952  
(PAID MEMBERSHIP ONLY)

<u>CODE</u>	<u>GROUPS</u>	<u>TOTAL MEMBERSHIP</u>
G-1	AUDIO	1681
G-2	BROADCAST TRANSMISSION SYSTEMS	358
G-3	ANTENNAS & PROPAGATION	1008
G-4	CIRCUIT THEORY	1192
* G-5	NUCLEAR SCIENCE	
G-6	VEHICULAR COMMUNICATIONS	419
G-7	QUALITY CONTROL	315
G-8	BROADCAST & TELEVISION RECEIVERS	750
G-9	INSTRUMENTATION	1477
* G-10	RADIO TELEMTRY & REMOTE CONTROL	
G-11	AIRBORNE ELECTRONICS	1048
G-12	INFORMATION THEORY	771
G-13	INDUSTRIAL ELECTRONICS	530
G-14	ENGINEERING MANAGEMENT	742
G-15	ELECTRON DEVICES	479
G-16	ELECTRONIC COMPUTERS	1241
G-17	MICROWAVE THEORY & TECHNIQUES	471
* G-18	MEDICAL ELECTRONICS	
* G-19	COMMUNICATIONS SYSTEMS	
		12,482

\* NO ASSESSMENT LEVIED BY GROUP.

IT IS WITH DEEP REGRET THAT THIS OFFICE RECORDS THE DEATH OF THE FOLLOWING MEMBERS OF THE INSTITUTE DURING THE YEAR 1952.

#### FELLOWS

WALTER C. EVANS (M'36, SM'43, F'45)  
ALFRED L. GREEN (A'28, F'38)  
AUGUST HUND (M'16, F'27, L'52)

SAMUEL S. MACKEOWN (M'29, F'40)  
H. LESLIE McMICHAEL (M'20, F'25)  
LOUIS G. PACENT (A'12, M'15, F'27)

#### SENIOR MEMBERS

CHARLES B. AIKEN (A'25, M'35, SM'43)  
WILLIAM C. BALLARD, JR. (SM'46)  
JOHN JAMES DOWNING (SM'46)  
RAYMOND E. DRAKE (SM'45)  
FRED O. GRIMWOOD (A'46, SM'49)  
CHARLES H. GUILLES (A'42, SM'51)  
EDWARD C. HOMER (A'28, SM'45)

M. GLENN JARRETT (A'38, SM'49)  
WALLACE J. MILLER (SM'47)  
W. C. OSTERBROCK (A'24, M'39, SM'43)  
EARL GEORGE PORTS (A'25, M'33, SM'43)  
JOHN F. SKIRROW (M'27, SM'43)  
ERNEST J. VOGT (A'41, SM'49)

#### MEMBERS

FRANK E. GISSLER (A'45, M'48)  
JAMES C. JOHNSON (M'46)  
RALPH R. KENIGSON (M'53)

STANLEY T. KUDUK (A'48, M'52)  
RICHARD B. PADDOCK (M'46)  
PAUL F. SHUEY (A'37, M'46)

#### VOTING ASSOCIATES

ALLAN K. BAYLEY (S'32, A'35, VA'39)  
FRANCIS SCHAAR BENSON (A'28, VA'39)  
JOSEPH F. KNAPP (A'25, VA'39)

HENRY LADNER (A'31, VA'39)  
LISS C. PETERSON (A'32, VA'39)

#### ASSOCIATES

DAVID R. AIKEN (S'50, A'51)  
JOHN L. BENNETT (S'51, A'53)  
BERNARD BLACHERE (A'47)  
A. S. BOGATKO, JR. (S'49, A'49)  
JOHN G. BUTTNER (A'49)  
HARRY G. FAWCETT (A'45)  
PHILIP A. GRIDLEY (S'48, A'50)  
ARTHUR HEBB, JR. (A'48)  
ORVILLE O. HILL (A'45)  
CLIFFORD E. HODGE (A'48)  
THEODORE H. KEMP (A'43)

ARTHUR JAMES LEYLAND (A'40)  
J. B. MORRISSETT (A'49)  
RALPH J. NICHOLLS (S'49, A'50)  
ROY S. L. PELLETIER (S'50, A'50)  
ALBERT L. PERLEY (A'41)  
RAJA RAO (A'47)  
JOHN PENFIELD ROBERTS (S'49, A'50)  
DAVID SCHAFFERMAN (S'49, A'50)  
VICTOR J. WEBER (A'41)  
THEODORE ZUSCHLAG (A'42)

#### STUDENTS

JOSEPH E. ANZINO (S'50)  
ORION P. HORNE (S'52)  
CLARENCE R. JUNE (S'51)  
JAMES BARBA LEGRAZIE (S'48)

WILLIAM E. MCGEE (S'50)  
EDWARD J. RUNCK (S'50)  
WILLIAM C. SCOTT (S'51)  
CHARLES L. WARNER (S'51)

A CONDENSED SUMMARY OF INCOME AND EXPENSES FOR 1952 IS SHOWN IN TABLE XV, AND A BALANCE SHEET FOR 1952 IS SHOWN IN TABLE XVI.

### IRE NATIONAL CONVENTIONS

TABLE XV - SUMMARY OF INCOME AND EXPENSES, 1952

THE IRE NATIONAL CONVENTION CONTINUES TO INCREASE IN IMPORTANCE EACH YEAR AND IS NOW INTERNATIONALLY RECOGNIZED AS ONE OF THE LARGEST CONVENTIONS OF ITS KIND IN THE WORLD. THE GROWTH IN CONVENTION ACTIVITIES FOR THE YEARS 1946 THROUGH 1952 IS INDICATED IN THE COMPARISON FIGURES ITEMIZED BELOW:

<u>YEAR</u>	<u>ATTENDANCE</u>	<u>EXHIBITS</u>	<u>NO. OF FIRMS REPRESENTED</u>	<u>NET SPACE OCCUPIED</u>	<u>TOTAL NUMBER OF PAPERS PRESENTED</u>
1946	7,200	135	1,571	13,200 *	88
1947	12,043	177	2,845	20,830	118
1948	14,459	180	3,059	25,900	130
1949	15,710	225	3,427	30,700	144
1950	17,689	253	4,086	33,600	163
1951	22,919	277	5,082	45,672	198
1952	28,673	356	6,306	56,886	211

\* ESTIMATED

A CONDENSED SUMMARY OF INCOME AND EXPENSES FOR 1952 IS SHOWN IN TABLE XV, AND A BALANCE SHEET FOR 1952 IS SHOWN IN TABLE XVI.

TABLE XV - SUMMARY OF INCOME AND EXPENSES, 1952

INCOME

ADVERTISING	\$ 544,509.60
MEMBER DUES AND CONVENTION	594,731.73
SUBSCRIPTIONS	60,110.96
SALES ITEMS - BINDERS, EMBLEMS, ETC.	31,041.91
INVESTMENT INCOME	17,682.56
MISCELLANEOUS INCOME	<u>529.43</u>

TOTAL INCOME

\$1,248,606.19

LIABILITIES AND SURPLUS

EXPENSE

PROCEEDINGS EDITORIAL PAGES	\$ 215,159.90
ADVERTISING PAGES	273,976.05
DIRECTORY	92,475.77
SECTION AND STUDENT BRANCH REBATES	40,425.97
PROFESSIONAL GROUP EXPENSE	23,618.30
SALES ITEMS	16,378.26
GENERAL OPERATIONS	256,394.78
CONVENTION COST	<u>167,753.34</u>

TOTAL EXPENSE

1,086,182.37

SURPLUS

\$ 162,423.82

RESERVE FOR DEPRECIATION

9,211.53

NET SURPLUS

\$ 153,212.29

\*1953 ITEMS, PROCEEDINGS FOR MEMBERS AND SUBSCRIBERS, ADVERTISING AND CONVENTION SERVICE.

TABLE XVI - BALANCE SHEET - DECEMBER 31, 1952

ASSETS

CASH AND ACCOUNTS RECEIVABLE	\$ 313,960.02	
INVENTORY	<u>14,955.71</u>	
TOTAL CURRENT ASSETS		\$ 328,915.73
INVESTMENTS AT COST	799,384.49	
BUILDING AND LAND AT COST	356,687.30	
FURNITURE AND FIXTURES AT COST	108,257.86	
OTHER ASSETS	<u>23,231.07</u>	
TOTAL		<u>1,287,560.72</u>
TOTAL ASSETS		<u>\$1,616,476.45</u>

LIABILITIES AND SURPLUS

ACCOUNTS PAYABLE	\$ 16,683.43	
FEDERAL TAXES ON EMBLEMS, ETC.	<u>86.66</u>	
TOTAL CURRENT LIABILITIES		\$ 16,770.09
*DEFERRED LIABILITIES	387,453.03	
PROFESSIONAL GROUP FUNDS ON DEPOSIT	<u>33,383.07</u>	
TOTAL OTHER LIABILITIES		<u>420,836.10</u>
TOTAL LIABILITIES		\$ 437,606.19
RESERVE FOR DEPRECIATION		39,477.41
SURPLUS - DONATED	595,530.38	
SURPLUS - EARNED	<u>543,862.47</u>	
TOTAL SURPLUS		<u>1,139,392.85</u>
TOTAL LIABILITIES AND SURPLUS		<u>\$1,616,476.45</u>

\*1953 ITEMS, PROCEEDINGS FOR MEMBERS AND SUBSCRIBERS, ADVERTISING AND CONVENTION SERVICE.

## EDITORIAL DEPARTMENT

### PROCEEDINGS OF THE I.R.E.

THE YEAR 1952 WAS HIGHLIGHTED BY PUBLICATION IN NOVEMBER OF THE LARGEST ISSUE OF PROCEEDINGS EVER TO APPEAR, THE 532-PAGE TRANSISTOR ISSUE. THE ISSUE WAS THE SECOND IN A SERIES OF SPECIAL ISSUES DEVOTED TO ONE SUBJECT.

THE TOTAL NUMBER OF PAGES PUBLISHED IN THE PROCEEDINGS DURING THE YEAR WAS 3,604, INCLUDING COVERS, A MARKED INCREASE OVER PREVIOUS YEARS. THE NUMBER OF PROCEEDINGS PAGES PUBLISHED IN EACH OF THE LAST FOUR YEARS IS GIVEN IN TABLE I. THE NUMBER OF EDITORIAL PAGES PUBLISHED EACH YEAR SINCE 1913 IS SHOWN IN FIGURE 1.

TABLE I - VOLUME OF PROCEEDINGS PAGES.

	<u>1952</u>	<u>1951</u>	<u>1950</u>	<u>1949</u>
EDITORIAL	1,804	1,628	1,516	1,532
ADVERTISING	1,800	1,424	1,016	872
TOTAL	3,604	3,052	2,532	2,404

TECHNICAL PAPERS TOTALING 235 WERE PUBLISHED IN 1952, AS AGAINST 173 IN 1951. IN ADDITION, 5 IRE STANDARDS WERE PUBLISHED IN 1952 AS AGAINST 8 IN 1951. AUTHORSHIP OF THESE PAPERS WAS BY 313 INDIVIDUALS OF WHOM 224, OR 72 PER CENT, WERE MEMBERS OF THE INSTITUTE. IN 1951, 175 OF THE 239 AUTHORS, OR 73 PER CENT, WERE MEMBERS.

SEVERAL IRE COMMITTEES AND PROFESSIONAL GROUPS ASSISTED IN THE PROCUREMENT AND REVIEW OF PROCEEDINGS PAPERS. AS A RESULT, 13 SUCH PAPERS WERE PUBLISHED WITH THE APPROVAL OF THE FOLLOWING: 8 PAPERS APPROVED BY PROFESSIONAL GROUPS, 3 BY THE TUTORIAL PAPERS SUBCOMMITTEE OF THE EDUCATION COMMITTEE, 1 BY THE STANDARDS COMMITTEE, AND 1 BY THE VIDEO TECHNIQUES COMMITTEE.

THE VOLUME OF PAPERS SUBMITTED FOR PUBLICATION INCREASED SUBSTANTIALLY. DURING 1952, 339 PAPERS TOTALING AN ESTIMATED 2,162 PROCEEDINGS PAGES WERE SUBMITTED, OR AN AVERAGE OF 28 PAPERS AND 180 PAGES PER MONTH. DURING 1951, 241 PAPERS OF 1,680 PAGES WERE RECEIVED, OR 20 PAPERS AND 140 PAGES PER MONTH.

THE BACKLOG OF PAPERS ON HAND IN THE EDITORIAL DEPARTMENT AT THE END OF 1952 CONSISTED OF 86 PAPERS TOTALING 546 PROCEEDINGS PAGES, OF WHICH 45 PAPERS OR 265 PAGES HAD BEEN ACCEPTED FOR PUBLICATION, THE REMAINDER BEING UNDER REVIEW. THIS REPRESENTED A SIGNIFICANT IMPROVEMENT OVER THE BACKLOG TOTAL AT THE END OF 1951 OF 153 PAPERS OR 704 PAGES.

#### PROFESSIONAL GROUPS TRANSACTIONS

THE YEAR 1952 SAW A HEALTHY GROWTH IN THE PUBLICATION ACTIVITIES OF THE PROFESSIONAL GROUPS OF THE IRE. AS A RESULT, DURING 1952 THE EDITORIAL DEPARTMENT PUBLISHED 22 ISSUES OF TRANSACTIONS TOTALING 189 PAPERS AND 1474 PAGES FOR 10 GROUPS, AS COMPARED WITH THE 1951 TOTALS OF 6 ISSUES TOTALING 6 PAPERS AND 98 PAGES FOR 2 GROUPS. THE TOTAL VOLUME OF TRANSACTIONS MATERIAL PUBLISHED TO DATE IS GIVEN IN TABLE 2.

TABLE 2 - VOLUME OF TRANSACTIONS MATERIAL PUBLISHED, 1951 AND 1952

<u>GROUP</u>	<u>ISSUES</u>	<u>PAGES</u>
AIRBORNE ELECTRONICS	6	114
ANTENNAS AND PROPAGATION	4	636
AUDIO	10	268
BROADCAST AND TELEVISION RECEIVERS	1	16
CIRCUIT THEORY	1	104
ELECTRON DEVICES	1	36
ELECTRONIC COMPUTERS	1	80
INSTRUMENTATION	1	68
QUALITY CONTROL	1	62
VEHICULAR COMMUNICATIONS	2	188
TOTAL	28	1,572

#### IRE DIRECTORY

THE 1952 IRE DIRECTORY WAS THE LARGEST DIRECTORY PUBLISHED TO DATE, CONTAINING 856 PAGES INCLUDING COVERS, OF WHICH 357 WERE MEMBERSHIP LISTINGS AND

INFORMATION, 499 WERE ADVERTISEMENTS AND LISTINGS OF MANUFACTURERS AND PRODUCTS. THE 1951 DIRECTORY TOTALED 766 PAGES.

EDITORIAL DEPARTMENT

THE EDITORIAL DEPARTMENT IS DIRECTED BY EDITOR ALFRED N. GOLDSMITH IN MATTERS OF EDITORIAL POLICY, CONTENT, AND FORMAT, AND BY EXECUTIVE SECRETARY GEORGE W. BAILEY IN MATTERS OF FINANCE AND ADMINISTRATION. BOTH FUNCTION THROUGH ADMINISTRATIVE EDITOR E. K. GANNETT AND AN EFFECTIVE STAFF. IT HAS BEEN GREATLY ASSISTED BY THE COUNSEL AND CO-OPERATION UNSTINTINGLY GIVEN BY THE MEMBERS OF THE BOARD OF EDITORS, PAPERS REVIEW COMMITTEE, AND THE ADMINISTRATIVE COMMITTEE OF THE BOARD OF EDITORS.

AVAILABLE TO THE INDUSTRY:

52 IRE 7, 51 STANDARDS ON MAGNETRONS: DEFINITIONS OF TERMS, 1952

52 IRE 7, 52 STANDARDS ON GAS-FILLED RADIATION COUNTER TUBES: METHODS OF TESTING, 1952

52 IRE 7, 53 STANDARDS ON GAS-FILLED RADIATION COUNTER TUBES: DEFINITIONS OF TERMS, 1952

52 IRE 20, 32 STANDARDS ON PULSES: DEFINITIONS OF TERMS, PART II

SUPPLEMENT TO STANDARD

51 IRE 17, 51 PRACTICAL CONSIDERATIONS IN MEASURING VME RECEIVER OSCILLATOR RADIATION

52 IRE 17, 51 STANDARDS ON RECEIVERS: DEFINITIONS OF TERMS

IN ADDITION TO STANDARDIZATION WORK DONE ON THE ABOVE, THE FOLLOWING STANDARDS WERE ADOPTED BY THE STANDARDS COMMITTEE AND SUBMITTED FOR EXECUTIVE COMMITTEE APPROVAL DURING THE LATTER PART OF 1952. THEY WILL APPEAR IN THE PROCEEDINGS AT AN EARLY DATE:

STANDARDS ON SOUND RECORDING AND REPRODUCING: METHODS OF MEASUREMENT OF NOISE

STANDARDS ON TELEVISION: DEFINITIONS OF COLOR TERMS

STANDARDS ON MODULATION SYSTEMS: DEFINITIONS OF TERMS

THE ANNUAL REVIEW COMMITTEE IS COMPLETING ITS SURVEY, "RADIO PROGRESS DURING 1952," WHICH WILL APPEAR IN A SPRING ISSUE OF THE PROCEEDINGS.

## TECHNICAL ACTIVITIES

1952

TECHNICAL COMMITTEES. THERE WERE 166 TECHNICAL COMMITTEE MEETINGS DURING 1952. THIS FIGURE INCLUDES MEETINGS OF THE 23 MAIN COMMITTEES, AS WELL AS SUB-COMMITTEES AND TASK GROUPS. A TOTAL OF 133 WERE HELD AT IRE HEADQUARTERS; THE REMAINING 33 ELSEWHERE.

THE ACTIVITIES OF THE IRE TECHNICAL COMMITTEES ARE REPORTED IN THE PROCEEDINGS.

THE POLICY OF PUBLISHING STANDARDS IN THE PROCEEDINGS, AS INITIATED IN 1949, IS BEING CONTINUED. THE STANDARDS LISTED BELOW WERE PUBLISHED IN 1952 AND ARE AVAILABLE TO THE INDUSTRY:

52 IRE 7. S1 STANDARDS ON MAGNETRONS: DEFINITIONS OF TERMS, 1952

52 IRE 7. S2 STANDARDS ON GAS-FILLED RADIATION COUNTER TUBES:  
METHODS OF TESTING, 1952

52 IRE 7. S3 STANDARDS ON GAS-FILLED RADIATION COUNTER TUBES:  
DEFINITIONS OF TERMS, 1952

52 IRE 20. S2 STANDARDS ON PULSES: DEFINITIONS OF TERMS, PART II

SUPPLEMENT TO STANDARD

51 IRE 17. S1 PRACTICAL CONSIDERATIONS IN MEASURING VHF RECEIVER  
OSCILLATOR RADIATION

52 IRE 17. S1 STANDARDS ON RECEIVERS: DEFINITIONS OF TERMS

IN ADDITION TO STANDARDIZATION WORK DONE ON THE ABOVE, THE FOLLOWING STANDARDS WERE ADOPTED BY THE STANDARDS COMMITTEE AND SUBMITTED FOR EXECUTIVE COMMITTEE APPROVAL DURING THE LATTER PART OF 1952. THEY WILL APPEAR IN THE PROCEEDINGS AT AN EARLY DATE:

STANDARDS ON SOUND RECORDING AND REPRODUCING: METHODS OF MEASUREMENT  
OF NOISE

STANDARDS ON TELEVISION: DEFINITIONS OF COLOR TERMS

STANDARDS ON MODULATION SYSTEMS: DEFINITIONS OF TERMS

THE ANNUAL REVIEW COMMITTEE IS COMPLETING ITS SURVEY, "RADIO PROGRESS DURING 1952," WHICH WILL APPEAR IN A SPRING ISSUE OF THE PROCEEDINGS.

THERE HAS BEEN NO CHANGE IN THE NUMBER OF MAIN TECHNICAL COMMITTEES. EIGHTEEN NEW SUBCOMMITTEES AND TASK GROUPS HAVE BEEN SET UP FOR SPECIFIC PURPOSES DURING 1952. THERE ARE NOW 83 SUBCOMMITTEES AND TASK GROUPS WITHIN THE IRE TECHNICAL COMMITTEE STRUCTURE. SEVERAL CHAIRMEN HAVE APPOINTED AD HOC COMMITTEES TO SURVEY FUTURE WORK AND REORGANIZE AND ACTIVATE SUBCOMMITTEES. THE STANDARDS COMMITTEE HAS PROPOSED THAT BRIEF PROGRESS REPORTS, INCLUDING FUTURE PLANS, BE SUBMITTED BY TECHNICAL COMMITTEE CHAIRMEN FOR CIRCULATION TO ITS MEMBERS. THIS WILL ACQUAINT ALL COMMITTEES WITH OVERALL TECHNICAL ACTIVITIES AND PLANS AND ENABLE MEMBERS TO CONSIDER REVISIONS TO THE EXISTING SCOPES.

PROFESSIONAL GROUP SYSTEM. (AS SHOWN IN TABLE XIV - PAGE 19)

THERE ARE NINETEEN PROFESSIONAL GROUPS PRESENTLY ACTIVE.

DURING THE YEAR 1952 EIGHTEEN OF THE GROUPS SPONSORED NATIONAL MEETINGS, JOINT SYMPOSIA WITH OTHER PROFESSIONAL SOCIETIES AND TECHNICAL SESSIONS. TEN GROUPS SPONSORED TECHNICAL SESSIONS AT THE 1952 NATIONAL CONVENTION. FOURTEEN GROUPS SPONSORED THE TECHNICAL SESSIONS AT THE 1952 WEST COAST CONVENTION AT LONG BEACH.

AT THE NATIONAL ELECTRONICS CONFERENCE HELD IN CHICAGO, THE IRE WAS REPRESENTED BY THE AUDIO AND ENGINEERING MANAGEMENT PROFESSIONAL GROUPS, BOTH OF WHICH SPONSORED TECHNICAL SESSIONS.

THE JOINT IRE-AIEE-RTMA CONFERENCE ON QUALITY ELECTRONIC COMPONENTS HELD IN WASHINGTON WAS SPONSORED BY THE PROFESSIONAL GROUP ON INSTRUMENTATION AND WAS ATTENDED BY OVER 1050 PERSONS. THIS GROUP ALSO SPONSORED SESSIONS AT THE ANNUAL MEETING OF THE INSTRUMENT SOCIETY OF AMERICA HELD IN CLEVELAND AND AT THE CENTENNIAL OF ENGINEERING IN CHICAGO.

MORE THAN 1000 PERSONS ATTENDED THE JOINT IRE-AIEE-ACM COMPUTER CONFERENCE HELD IN DECEMBER IN NEW YORK CITY. IRE SPONSORSHIP WAS THROUGH THE PROFESSIONAL GROUP ON ELECTRONIC COMPUTERS WHICH ALSO SPONSORED A COMPUTER CONFERENCE AT THE UNIVERSITY OF CALIFORNIA, LOS ANGELES, JOINTLY WITH THE DEPARTMENT OF ENGINEERING OF THE UNIVERSITY.

THE IRE-IAS-ION-RTCA SYMPOSIUM ON AIR TRAFFIC CONTROL HELD IN NEW YORK WAS SPONSORED BY THE PROFESSIONAL GROUP ON AIRBORNE ELECTRONICS AT THE NATIONAL MEETING OF THE INSTITUTE OF THE AERONAUTICAL SCIENCES. THIS GROUP ALSO SPONSORED THE NATIONAL CONFERENCE ON AIRBORNE ELECTRONICS IN DAYTON, OHIO.

AT THE IRE-RTMA RADIO FALL MEETING HELD IN SYRACUSE, THE TECHNICAL SESSIONS WERE SPONSORED BY THE PROFESSIONAL GROUPS ON BROADCAST & TELEVISION RECEIVERS, ELECTRON DEVICES AND QUALITY CONTROL.

THE JOINT URSI-IRE MEETING HELD IN WASHINGTON WAS SPONSORED BY THE PROFESSIONAL GROUP ON ANTENNAS AND PROPAGATION. SEVERAL MEMBERS OF THE GROUP ALSO ATTENDED THE GENERAL ASSEMBLY OF THE URSI HELD IN SYDNEY, AUSTRALIA.

THE JOINT IRE-AIEE SCINTILLATION COUNTER SYMPOSIUM HELD IN WASHINGTON WAS SPONSORED BY THE PROFESSIONAL GROUP ON NUCLEAR SCIENCE AND WAS ATTENDED BY 400 PERSONS.

THE THIRD ANNUAL MEETING OF THE VEHICULAR COMMUNICATIONS PROFESSIONAL GROUP WAS HELD IN WASHINGTON. THIS WAS A THREE DAY MEETING COMPRISING A TECHNICAL PROGRAM AND DEMONSTRATIONS.

THE SECOND ANNUAL MEETING OF THE PROFESSIONAL GROUP ON BROADCAST TRANSMISSION SYSTEMS WAS HELD AT THE FRANKLIN INSTITUTE IN PHILADELPHIA.

THE INDUSTRIAL ELECTRONICS PROFESSIONAL GROUP SPONSORED A SYMPOSIUM ON "ELECTRONICS AND MACHINES" IN CHICAGO.

THE MICROWAVE THEORY AND TECHNIQUES PROFESSIONAL GROUP SPONSORED A NATIONAL MEETING ON "MICROWAVE CIRCUITS" IN NEW YORK.

THE COMMUNICATIONS SYSTEMS PROFESSIONAL GROUP SPONSORED TWO SYMPOSIA AT BRENTWOOD, LONG ISLAND AND AT THE COLES SIGNAL LABORATORY.

TEN PROFESSIONAL GROUPS PUBLISHED 22 TRANSACTIONS DURING 1952. ALL GROUPS ARE EXPECTED TO ASSIST IN THE PROCUREMENT OF PAPERS FOR PUBLICATION IN THE PROCEEDINGS.

THE PROFESSIONAL GROUP MANUAL WAS REVISED IN 1952 AND A SUBCOMMITTEE IS NOW WORKING ON A PROFESSIONAL GROUP-CHAPTER MANUAL.

PROFESSIONAL GROUP ACTIVITY WITHIN THE SECTIONS IS INCREASING RAPIDLY. THERE ARE FORTY-FOUR OFFICIAL CHAPTERS OPERATING WITHIN THE SECTIONS AT THE PRESENT TIME. ALL PROFESSIONAL GROUPS HAVE APPOINTED SECTIONAL ACTIVITIES COMMITTEES TO STIMULATE INTEREST IN CHAPTERS IN THE VARIOUS SECTIONS.

#### INSTITUTE REPRESENTATIVES ON OTHER BODIES

THE MAJORITY OF THE IRE REPRESENTATIVES ON OTHER BODIES WERE APPOINTED FOR A ONE-YEAR PERIOD, MAY 1, 1952 TO APRIL 30, 1953. THESE INCLUDE REPRESENTATIVES ON THE FOLLOWING:

COUNCIL OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

IRE-AIEE COMMITTEE ON NOISE DEFINITIONS

URS I

IRE-AIEE-NEMA COORDINATION COMMITTEE ON COMMERCIAL INDUCTION AND DIELECTRIC HEATING APPARATUS

U. S. NATIONAL COMMITTEE OF THE INTERNATIONAL ELECTROTECHNICAL COMMISSION AS WELL AS ADVISERS ON SYMBOLS AND ADVISERS ON ELECTRICAL MEASURING INSTRUMENTS OF THAT ORGANIZATION

IRE-AIEE COMMITTEE ON HIGH FREQUENCY MEASUREMENTS

CCIR - UNITED STATES EXECUTIVE COMMITTEE

IRE-RTMA-SMPTE-NARTB COMMITTEE FOR INTER-SOCIETY COORDINATION (TELEVISION)

ATOMIC ENERGY COMMISSION - POLICY COMMITTEE FOR RELEASE OF TECHNICAL INFORMATION

THE IRE REPRESENTATIVES WHO HAVE BEEN ASSISTING THE STATE DEPARTMENT WITH PROBLEMS RELATING TO THE INTERNATIONAL RADIO CONSULTATIVE COMMITTEE (CCIR) OF THE INTERNATIONAL TELECOMMUNICATIONS UNION, COLLABORATED WITH THE GOVERNMENT IN PREPARATORY WORK FOR THE NEXT PLENARY ASSEMBLY SCHEDULED FOR 1953.

IN MARCH 1952 THE POLICY COMMITTEE FOR RELEASE OF TECHNICAL INFORMATION OF THE ATOMIC ENERGY COMMISSION WAS RECONSTITUTED AS A PERMANENT COMMITTEE WITH REVISED TERMS OF REFERENCE AND SOME CHANGES IN MEMBERSHIP. IN THE FUTURE THIS COMMITTEE WILL PROBABLY ACT ONLY AS AN ADVISORY BODY TO THE COMMISSION, PERFORMING DEFINITE TASKS

WHEN REQUESTED. THE IRE IS REPRESENTED ON THIS POLICY COMMITTEE.

THE JOINT IRE-AIEE COMMITTEE ON HIGH FREQUENCY MEASUREMENTS HAS ORGANIZED THE 3RD CONFERENCE ON HIGH FREQUENCY MEASUREMENTS TO BE HELD IN WASHINGTON IN JANUARY, 1953.

THE IRE REPRESENTATIVE ON THE URSI EXECUTIVE COMMITTEE ADVISED THAT A MAJOR PART OF THE EFFORTS IN 1952 WERE CONCERNED WITH THE ARRANGEMENTS FOR THE 10TH GENERAL ASSEMBLY OF URSI HELD IN SYDNEY, AUSTRALIA IN AUGUST. REPORTS REGARDING THIS ASSEMBLY WILL BE MADE AT THE WINTER MEETING OF URSI.

THE U. S. NATIONAL COMMITTEE OF THE INTERNATIONAL ELECTROTECHNICAL COMMISSION DEVOTED CONSIDERABLE TIME TO DISCUSSION CENTERING AROUND THE INTERNATIONAL MEETING HELD AT SCHEVENINGEN, HOLLAND.

JOINT TECHNICAL ADVISORY COMMITTEE.

THE JOINT TECHNICAL ADVISORY COMMITTEE HELD NINE MEETINGS DURING 1952.

THREE VOLUMES WERE PUBLISHED BY JTAC DURING 1952. VOLUMES VII AND IX EACH INCLUDED SECTION I - OFFICIAL CORRESPONDENCE BETWEEN THE FEDERAL COMMUNICATIONS COMMISSION AND THE JOINT TECHNICAL ADVISORY COMMITTEE (IRE-RTMA) WITH OTHER ITEMS PERTINENT TO THE ACTIONS OF THE JTAC, AND SECTION II, APPROVED MINUTES OF MEETINGS OF THE JOINT TECHNICAL ADVISORY COMMITTEE (IRE-RTMA); VOLUME VII, WHICH WAS ISSUED IN JANUARY, 1952, COVERED THE PERIOD 1 JULY, 1950 - 30 JUNE, 1951 AND VOLUME IX, ISSUED IN DECEMBER, 1952, COVERED THE PERIOD 1 JULY, 1951 - 30 JUNE, 1952.

VOLUME VIII OF THE JTAC PROCEEDINGS, ENTITLED RADIO SPECTRUM CONSERVATION WAS PUBLISHED IN BOOK FORM. IN THE INTEREST OF PUBLIC SERVICE, THE JTAC AND ITS SPONSORS, THE IRE AND RTMA, MAILED A TOTAL OF 2,225 VOLUMES THROUGHOUT THE WORLD TO PROFESSIONAL SOCIETIES, INDUSTRY GROUPS, GOVERNMENT OFFICIALS, EDUCATIONAL INSTITUTIONS, LIBRARIES, TECHNICAL PUBLICATIONS, RESEARCH LABORATORIES, ETC.

THE JTAC SUBCOMMITTEE ON LAND-MOBILE CHANNEL ALLOCATIONS HELD FOUR MEETINGS DURING 1952, INCLUDING FOUR DAYS OF FIELD TESTING IN SYRACUSE, N. Y. ADDITIONAL FIELD TESTING AND DEMONSTRATIONS WERE HELD IN CAMDEN, N. J. THIS SUBCOMMITTEE WAS

ORGANIZED ON OCTOBER 9, 1951 TO ACT AS CONSULTANT TO THE JTAC IN THE PREPARATION OF A REPLY TO THE FCC REGARDING ITS REQUEST FOR INFORMATION AS TO CHANNEL ALLOCATIONS FOR COMMUNICATION SERVICES. IT IS EXPECTED THAT CONCLUSIONS AND RECOMMENDATIONS WILL BE AVAILABLE EARLY IN 1953.

A SUBCOMMITTEE WAS ORGANIZED IN FEBRUARY 1952 TO UNDERTAKE A STUDY AIMED TOWARD RECOMMENDATIONS FOR THE SIMPLIFICATION OF THE FCC'S TECHNICAL REQUIREMENTS CONTAINED IN THEIR RULES AND REGULATIONS AND IN THEIR STANDARDS OF GOOD ENGINEERING PRACTICE. THIS SUBCOMMITTEE INCLUDES FOUR ACTIVITIES, I.E., AERONAUTICAL, BROADCAST, MARINE SERVICES, AND LAND-MOBILE.

THE JTAC HAS UNDERTAKEN, AT THE REQUEST OF THE FEDERAL COMMUNICATIONS COMMISSION, A COMPREHENSIVE STUDY OF THE INCREASINGLY IMPORTANT PROBLEM OF INTERFERENCE. THE PROBLEM RELATES PARTICULARLY TO SEVERAL FIELDS PRESENTING DIFFICULTIES OF CURRENT CONCERN TO THE COMMISSION - CERTAIN ASPECTS OF THE PROBLEM HAVE BEEN ASSIGNED BY JTAC TO IRE AND RTMA.

#### NTSC

THE INSTITUTE CONTINUED TO PROVIDE ASSISTANCE FOR THE WORK OF THE NATIONAL TELEVISION SYSTEMS COMMITTEE. 75 MEETINGS OF THE NTSC WERE HELD AT INSTITUTE HEADQUARTERS IN 1952.

SECTION ACTIVITIES

WE WERE GLAD TO WELCOME FIVE NEW SECTIONS INTO THE INSTITUTE

DURING THE PAST YEAR. THEY ARE AS FOLLOWS:

- BINGHAMTON (MARCH) 1952
- CENTRAL FLORIDA (SEPTEMBER) 1952
- EL PASO (SEPTEMBER) 1952
- HAMILTON (MAY) 1952
- LITTLE ROCK (MARCH) 1952

THE TOTAL NUMBER OF SECTIONS IS NOW 65. REFERENCE TO TABLE XVII WILL SHOW A MEMBERSHIP INCREASE IN 51 OF THE 65 SECTIONS.

THE BINGHAMTON AND HAMILTON SUBSECTIONS BECAME FULL SECTIONS, AND THE URBANA SUBSECTION WAS DISSOLVED IN THE YEAR 1952. THE SUBSECTIONS OF SECTIONS NOW TOTAL 15, THE FOLLOWING BEING FORMED IN 1952:

- CHARLESTON (ATLANTA SECTION) FEBRUARY, 1952.
- HUNTSVILLE (ATLANTA SECTION) JULY, 1952
- ORANGE BELT (LOS ANGELES SECTION) NOVEMBER, 1952
- WICHITA (KANSAS CITY SECTION) MAY, 1952

TABLE XVII - SECTION MEETINGS AND MEMBERSHIP  
(INCLUDING SUBSECTIONS)

<u>SECTIONS</u>	<u>NUMBER OF MEETINGS</u>			<u>MEMBERSHIP OF SECTIONS</u>					
	<u>1952</u>	<u>1951</u>	<u>1950</u>	<u>1952</u>	<u>%1</u>	<u>1951</u>	<u>%1</u>	<u>1950</u>	<u>%1</u>
AKRON	11	9	9	186	+21	154	+2	151	-4
ATLANTA	9	10	10	587	+8	544	-12	621	-20
BALTIMORE	10	10	10	597	+2	587	+25	468	+12
BEAUMONT-PORT ARTHUR	10	10	11	62	+19	52	+15	45	+18
*BINGHAMTON	7	-	-	134	-	-	-	-	-
**BOSTON	15	18	9	1864	+16	1613	+6	1515	+22
BUENOS AIRES	10	4	14	89	-5	94	-18	115	-18
BUFFALO-NIAGARA	8	9	9	294	+11	266	+7	249	+57
CEDAR RAPIDS	11	10	11	213	+14	187	+9	172	+4
*CENTRAL FLORIDA	-	-	-	121	-	-	-	-	-
**CHICAGO	18	10	7	1652	+8	1531	-4	1598	+1
**CINCINNATI	17	10	11	270	+23	220	-3	226	+14
CLEVELAND	10	9	11	322	+8	299	-6	318	+1
COLUMBUS	11	10	9	137	+12	122	+6	115	-3
CONN. VALLEY	12	10	11	574	+12	512	+5	486	+9
DALLAS-FT. WORTH	20	15	10	499	+2	491	-16	583	+13
DAYTON	7	11	9	492	+12	439	+7	410	+9
DENVER	11	7	9	201	+7	187	-15	219	+12
DES MOINES-AMES	10	9	7	64	+7	60	-28	83	+6
DETROIT	9	10	9	709	+9	652	-2	668	+2
*EL PASO	6	-	-	166	-	-	-	-	-
EMPORIUM	19	11	9	184	+16	158	+8	146	-1
EVANSVILLE- OWENSBORO	10	9	8	69	-1	70	-10	78	-
FT. WAYNE	8	9	6	133	+30	102	+13	90	+23

**TABLE XVII - SECTION MEETINGS AND MEMBERSHIP (CONT'D.)**  
(INCLUDING SUBSECTIONS)

SECTIONS	NUMBER OF MEETINGS			MEMBERSHIP OF SECTIONS					
	1952	1951	1950	1952	%	1951	%	1950	%
*HAMILTON	8	-	-	81	-	-	-	-	-
HAWAII	12	10	8	91	-6	97	-9	107	-
HOUSTON	7	10	10	206	+13	183	-15	215	-8
INDIANAPOLIS	6	7	10	228	+12	203	-19	250	-6
INYOKERN	10	2	8	66	+6	62	+26	49	+29
KANSAS CITY	10	8	10	328	+6	311	-14	360	+2
*LITTLE ROCK	9	-	-	72	-	-	-	-	-
LONDON	11	6	10	80	-9	88	-25	117	+5
**LOS ANGELES	19	16	10	2282	+23	1852	+7	1732	+22
LOUISVILLE	9	10	9	97	+56	62	-55	137	-26
MIAMI	-	9	2	209	-27	288	+12	257	-
**MILWAUKEE	14	9	10	250	-7	268	-22	345	-4
MONTREAL	5	10	11	271	+9	248	-2	252	+7
NEW MEXICO	9	10	11	277	-9	303	+13	269	+13
NEW YORK	41	36	12	6990	+10	6331	+4	6109	+8
NORTH CAROLINA- VIRGINIA	6	7	7	405	+13	359	-7	386	+4
OKLAHOMA CITY	8	2	-	80	+31	61	-	-	-
OMAHA-LINCOLN	3	5	7	82	-9	90	-23	117	+12
OTTAWA	9	12	10	140	+4	135	+7	126	+23
PHILADELPHIA	17	13	7	1804	+18	1530	+9	1408	+15
PHOENIX	3	6	-	134	+34	100	-	-	-
PITTSBURGH	9	10	9	423	+3	410	-5	430	+1
PORTLAND	13	11	13	182	+3	177	-15	208	+4
PRINCETON	10	10	7	287	+6	272	+2	266	+2
ROCHESTER	7	4	8	146	+13	129	-8	140	+18
SACRAMENTO	5	5	4	80	+11	72	-8	78	+18

**TABLE XVII - SECTION MEETINGS AND MEMBERSHIP (CONT'D.)**  
**(INCLUDING SUBSECTIONS)**

SECTIONS	NUMBER OF MEETINGS			MEMBERSHIP OF SECTIONS					
	1952	1951	1950	1952	%	1951	%	1950	%
ST. LOUIS	9	9	8	267	-10	296	-20	371	-7
SALT LAKE	7	9	6	132	+7	123	-5	130	-6
SAN ANTONIO	9	11	10	155	+2	152	-3	157	+8
SAN DIEGO	12	12	12	332	-4	345	+32	262	+13
SAN FRANCISCO	17	18	17	1076	+4	1034	+1	1025	+1
SCHENECTADY	6	8	6	295	-3	304	-10	336	+21
SEATTLE	6	9	11	476	-10	530	-2	542	+14
SYRACUSE	15	18	8	697	-1/2	701	+22	574	+17
TOLEDO	10	9	10	113	+4	109	+1	108	-2
TORONTO	14	22	8	383	-3	393	-1	398	-8
TULSA	11	5	-	159	+21	131	-	-	-
TWIN CITIES	10	9	12	559	+47	381	-9	418	-4
VANCOUVER	10	10	4	150	+13	133	-15	156	-
**WASHINGTON	12	10	11	1718	+9	1570	+6	1481	+10
WILLIAMSPORT	7	5	5	57	+12	51	+19	43	-8
	674	602	520	31,479	+11	28,224	+2	27,715	+9

TOTAL MEMBERSHIP OF INSTITUTE ..... 32,874 +12 29,408 +1 29,002 +8

1 PERCENTAGE INCREASE OR DECREASE BASED ON PRECEDING YEAR.

\*SECTIONS FORMED DURING 1952.

\*\*INCLUDING PROFESSIONAL GROUP CHAPTER MEETINGS.

TABLE XVIII - SUBSECTION MEETINGS

<u>SUBSECTION</u>	<u>PARENT SECTION</u>	<u>NUMBER OF MEETINGS</u>
AMARILLO-LUBBOCK	DALLAS-Ft. WORTH	6
CENTRE COUNTY	EMPORIUM	8
CHARLESTON	ATLANTA	-
HUNTSVILLE	ATLANTA	-
LANCASTER	PHILADELPHIA	7
LONG ISLAND	NEW YORK	9
MID-HUDSON	NEW YORK	7
MONMOUTH	NEW YORK	7
NORTHERN NEW JERSEY	NEW YORK	9
ORANGE BELT	LOS ANGELES	-
PALO ALTO	SAN FRANCISCO	5
ROME	SYRACUSE	6
SOUTH BEND	CHICAGO	-
WICHITA	KANSAS CITY	4
WINNIPEG	TORONTO	4
CALIFORNIA INSTITUTE OF TECHNOLOGY	IRE	72
CALIFORNIA STATE POLYTECHNIC COLLEGE	IRE	
CALIFORNIA, UNIVERSITY OF	IRE-AIEE	
CORNELL INSTITUTE OF TECHNOLOGY	IRE-AIEE	
DARTMOUTH INSTITUTE OF TECHNOLOGY	IRE	
CLARKSON COLLEGE OF TECHNOLOGY	IRE	
COLUMBIA, UNIVERSITY OF	IRE-AIEE	
COLUMBIA, UNIVERSITY OF	IRE-AIEE	
CONNECTICUT, UNIVERSITY OF	IRE-AIEE	
COOPER UNION	IRE-AIEE	
CORNELL UNIVERSITY	IRE-AIEE	

TABLE XIX - STUDENT BRANCHES, 1952

THE NUMBER OF STUDENT BRANCHES FORMED DURING 1952 WAS 5, ALL OF WHICH OPERATE AS JOINT IRE-AIEE BRANCHES. THE TOTAL NUMBER OF STUDENT BRANCHES IS NOW 114, 76 OF WHICH OPERATE AS JOINT IRE-AIEE BRANCHES.

FOLLOWING IS A LIST OF THE STUDENT BRANCHES:

<u>SCHOOL</u>	<u>BRANCH</u>	<u>FORMED 1952</u>
AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS	IRE-AIEE	
AKRON, UNIVERSITY OF	IRE-AIEE	
ALABAMA POLYTECHNIC INSTITUTE	IRE	
ALBERTA, UNIVERSITY OF	IRE-AIEE	
ARIZONA, UNIVERSITY OF	IRE-AIEE	
ARKANSAS, UNIVERSITY OF	IRE	
BRITISH COLUMBIA, UNIVERSITY OF	IRE-AIEE	
BROOKLYN, POLYTECHNIC INSTITUTE OF	IRE-AIEE (EVENING DIV.)	
BROOKLYN, POLYTECHNIC INSTITUTE OF	IRE (DAY DIV.)	
BROWN UNIVERSITY	IRE-AIEE	4/8/52
BUCKNELL, UNIVERSITY OF	IRE-AIEE	
CALIFORNIA INSTITUTE OF TECHNOLOGY	IRE	
CALIFORNIA STATE POLYTECHNIC COLLEGE	IRE	
CALIFORNIA, UNIVERSITY OF	IRE-AIEE	
CARNEGIE INSTITUTE OF TECHNOLOGY	IRE-AIEE	
CASE INSTITUTE OF TECHNOLOGY	IRE	
CLARKSON COLLEGE OF TECHNOLOGY	IRE	
COLORADO, UNIVERSITY OF	IRE-AIEE	
COLUMBIA, UNIVERSITY OF	IRE-AIEE	
CONNECTICUT, UNIVERSITY OF	IRE-AIEE	
COOPER UNION	IRE-AIEE	
CORNELL UNIVERSITY	IRE-AIEE	

STUDENT BRANCHES (CONT'D.)

<u>SCHOOL</u>	<u>BRANCH</u>	<u>FORMED 1952</u>
DAYTON, UNIVERSITY OF	IRE	
DELAWARE, UNIVERSITY OF	IRE-AIEE	
DENVER, UNIVERSITY OF	IRE-AIEE	
DETROIT, UNIVERSITY OF	IRE-AIEE	
DREXEL INSTITUTE OF TECHNOLOGY	IRE-AIEE	
FENN COLLEGE	IRE	
FLORIDA, UNIVERSITY OF	IRE-AIEE	
GEORGE WASHINGTON UNIVERSITY	IRE	
GEORGIA INSTITUTE OF TECHNOLOGY	IRE	
ILLINOIS INSTITUTE OF TECHNOLOGY	IRE	
ILLINOIS, UNIVERSITY OF	IRE-AIEE	
IOWA, STATE UNIVERSITY OF	IRE	
IOWA STATE COLLEGE	IRE-AIEE	
JOHN CARROLL UNIVERSITY	IRE	
JOHNS HOPKINS UNIVERSITY	IRE-AIEE	
KANSAS STATE COLLEGE	IRE	
KANSAS, UNIVERSITY OF	IRE-AIEE	
KENTUCKY, UNIVERSITY OF	IRE	
LAFAYETTE COLLEGE	IRE-AIEE	
LEHIGH UNIVERSITY	IRE	
LOUISIANA STATE UNIVERSITY	IRE-AIEE	
LOUISVILLE, UNIVERSITY OF	IRE	
MAINE, UNIVERSITY OF	IRE	
MANHATTAN COLLEGE	IRE-AIEE	
MARQUETTE UNIVERSITY	IRE-AIEE	
MARYLAND, UNIVERSITY OF	IRE-AIEE	

STUDENT BRANCHES (CONT'D.)

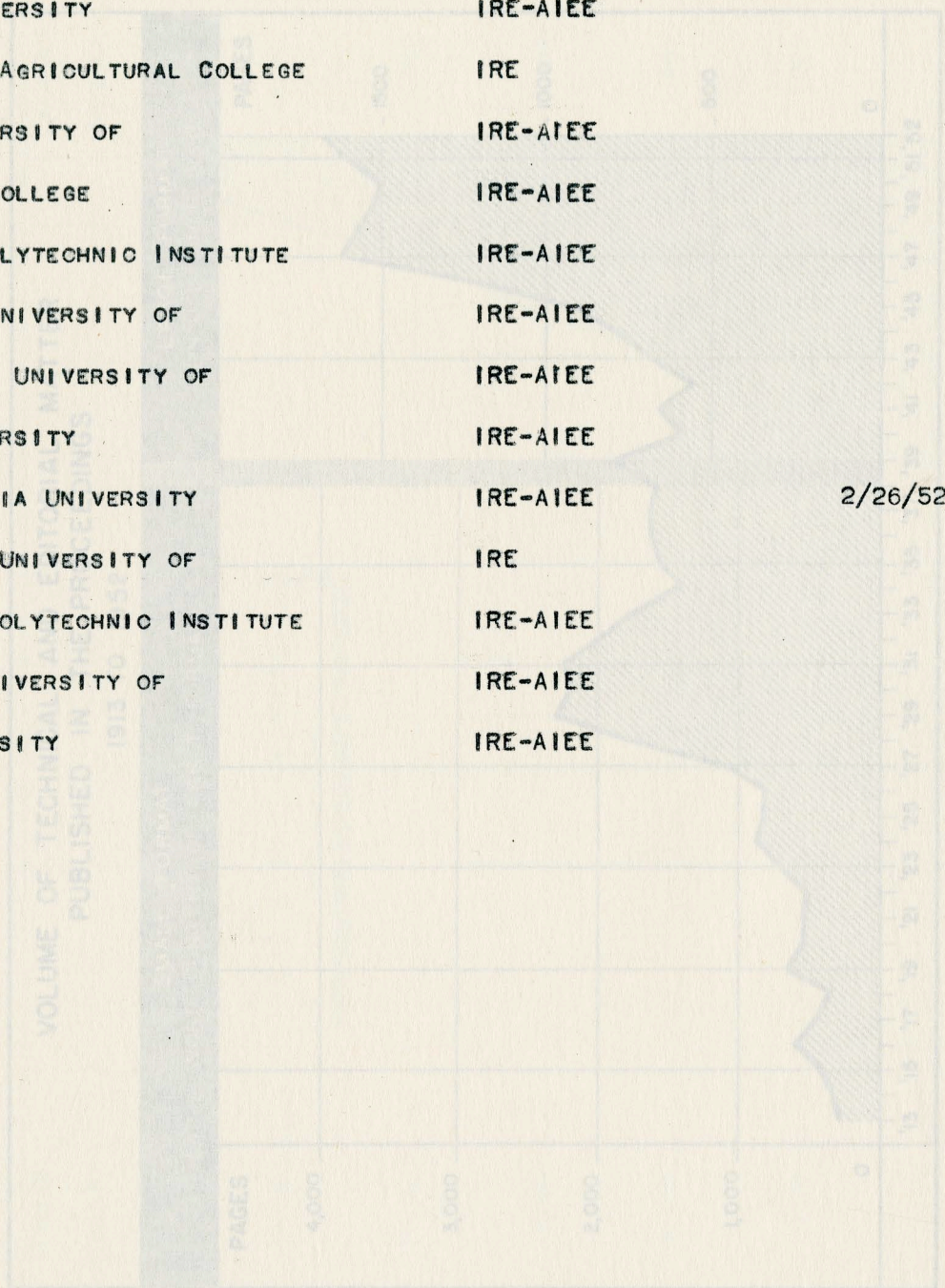
<u>SCHOOL</u>	<u>BRANCH</u>	<u>FORMED 1952</u>
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	IRE-AIEE	
MIAMI, UNIVERSITY OF	IRE	
MICHIGAN COLLEGE OF MINING AND TECHNOLOGY	IRE-AIEE	
MICHIGAN STATE COLLEGE	IRE-AIEE	
MICHIGAN, UNIVERSITY OF	IRE-AIEE	
MINNESOTA, UNIVERSITY OF	IRE-AIEE	
MISSISSIPPI STATE COLLEGE	IRE	
MISSOURI SCHOOL OF MINES AND METALLURGY	IRE-AIEE	
MISSOURI, UNIVERSITY OF	IRE-AIEE	
MONTANA STATE COLLEGE	IRE-AIEE	
NEBRASKA, UNIVERSITY OF	IRE-AIEE	
NEWARK COLLEGE OF ENGINEERING	IRE	
NEW HAMPSHIRE, UNIVERSITY OF	IRE-AIEE	7/8/52
NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS	IRE-AIEE	
NEW MEXICO, UNIVERSITY OF	IRE	
NEW YORK, COLLEGE OF THE CITY OF	IRE	
NEW YORK UNIVERSITY (DAY DIV.)	IRE	
NEW YORK UNIVERSITY (EVE. DIV.)	IRE-AIEE	
NORTH CAROLINA STATE COLLEGE	IRE	
NORTH DAKOTA, UNIVERSITY OF	IRE-AIEE	
NORTH DAKOTA AGRICULTURAL COLLEGE	IRE-AIEE	6/3/52
NORTHEASTERN UNIVERSITY	IRE-AIEE	
NORTHWESTERN UNIVERSITY	IRE-AIEE	
NOTRE DAME, UNIVERSITY OF	IRE-AIEE	
OHIO STATE UNIVERSITY	IRE-AIEE	

STUDENT BRANCHES (CONT'D.)

<u>SCHOOL</u>	<u>BRANCH</u>	<u>FORMED 1952</u>
OHIO UNIVERSITY	IRE-AIEE	12/9/52
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE	IRE-AIEE	
OREGON STATE COLLEGE	IRE	
PENNSYLVANIA, UNIVERSITY OF	IRE-AIEE	
PENNSYLVANIA STATE COLLEGE, THE	IRE-AIEE	
PITTSBURGH, UNIVERSITY OF	IRE	
PRATT INSTITUTE	IRE	
PRINCETON UNIVERSITY	IRE-AIEE	
PURDUE UNIVERSITY	IRE	
RENSSELAER POLYTECHNIC INSTITUTE	IRE-AIEE	
RHODE ISLAND, UNIVERSITY OF	IRE-AIEE	
RUTGERS UNIVERSITY	IRE-AIEE	
ST. LOUIS UNIVERSITY	IRE	
SAN DIEGO STATE COLLEGE	IRE	
SAN JOSE STATE COLLEGE	IRE	
SEATTLE UNIVERSITY	IRE	
SOUTH CAROLINA, UNIVERSITY OF	IRE-AIEE	
SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY	IRE	
SOUTHERN CALIFORNIA, UNIVERSITY OF	IRE-AIEE	
SOUTHERN METHODIST UNIVERSITY	IRE-AIEE	
STANFORD UNIVERSITY	IRE-AIEE	
STEVENS INSTITUTE OF TECHNOLOGY	IRE-AIEE	
SYRACUSE, UNIVERSITY OF	IRE-AIEE	
TENNESSEE, UNIVERSITY OF	IRE	
TEXAS, UNIVERSITY OF	IRE-AIEE	
TOLEDO, UNIVERSITY OF	IRE-AIEE	

STUDENT BRANCHES (CONT'D.)

<u>SCHOOL</u>	<u>BRANCH</u>	<u>FORMED 1952</u>
TORONTO, UNIVERSITY OF	IRE-AIEE	
TUFTS COLLEGE	IRE-AIEE	
TULANE UNIVERSITY	IRE-AIEE	
UTAH STATE AGRICULTURAL COLLEGE	IRE	
UTAH, UNIVERSITY OF	IRE-AIEE	
VILLANOVA COLLEGE	IRE-AIEE	
VIRGINIA POLYTECHNIC INSTITUTE	IRE-AIEE	
VIRGINIA, UNIVERSITY OF	IRE-AIEE	
WASHINGTON, UNIVERSITY OF	IRE-AIEE	
WAYNE UNIVERSITY	IRE-AIEE	
WEST VIRGINIA UNIVERSITY	IRE-AIEE	2/26/52
WISCONSIN, UNIVERSITY OF	IRE	
WORCESTER POLYTECHNIC INSTITUTE	IRE-AIEE	
WYOMING, UNIVERSITY OF	IRE-AIEE	
YALE UNIVERSITY	IRE-AIEE	



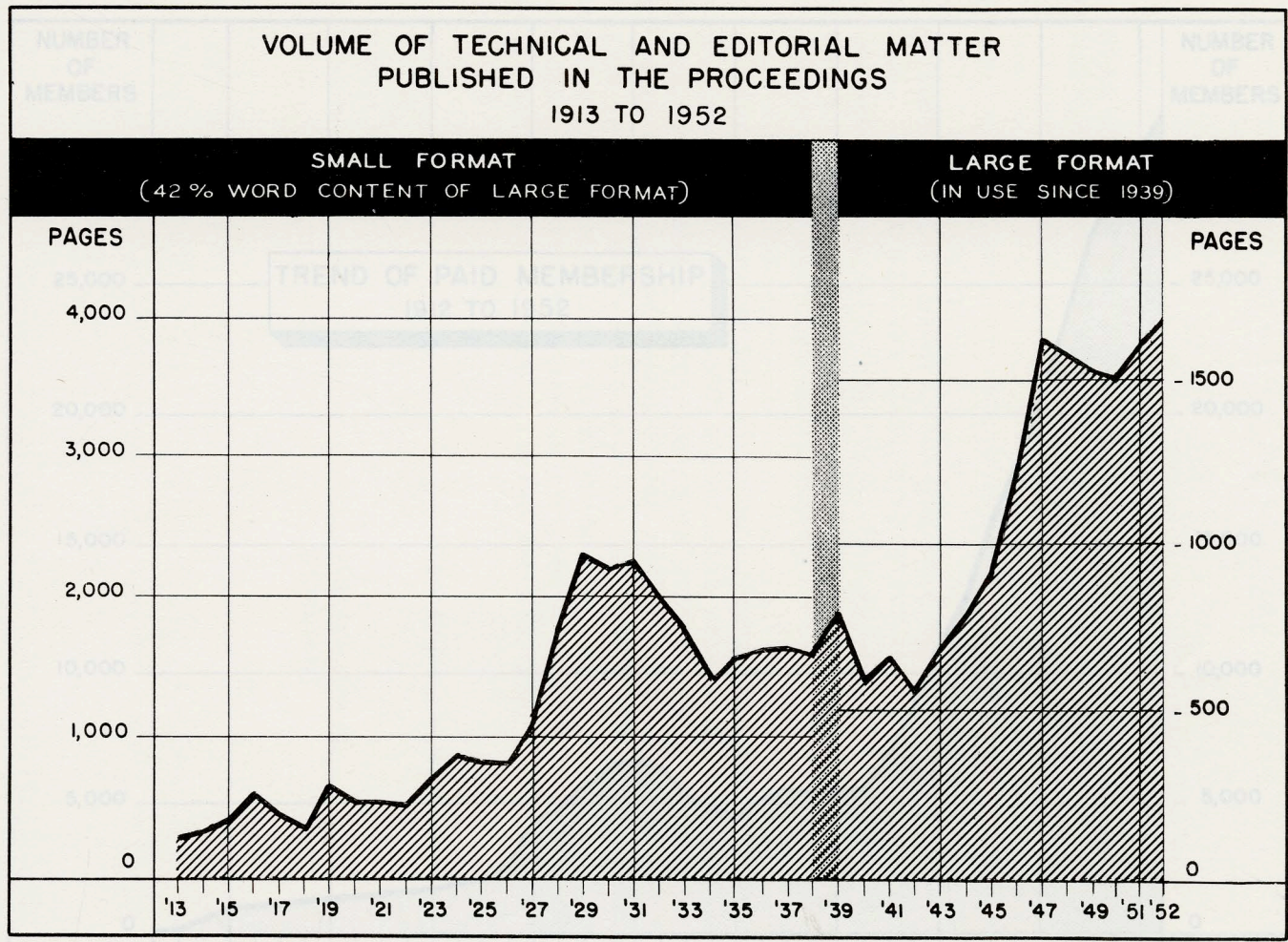


FIGURE 1

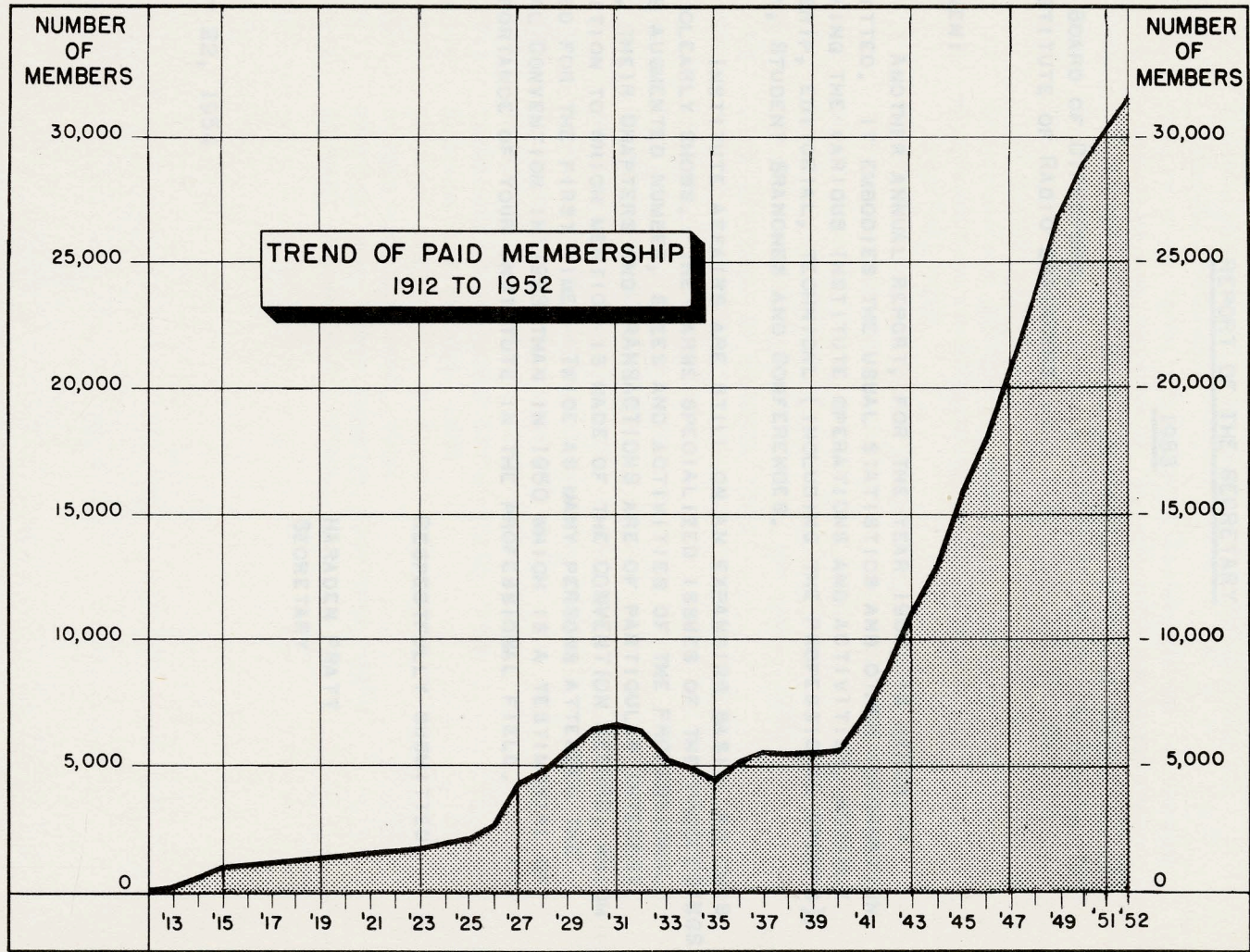


FIGURE 2 .