

REPORT OF THE SECRETARY

1964



The Institute of Electrical and Electronics Engineers, Inc.
345 East 47th Street, New York, N. Y. 10017



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

INCORPORATED

345 EAST 47th STREET • NEW YORK, N.Y. 10017

1964 REPORT OF THE SECRETARY

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SECTION A

Table 1 - IEEE Membership by Grade, by Percentage, 2-Year Comparison

Grade	Total	Percentage of Total
Honorary (H)	8	
Fellow (F)	2,595	1
Senior Member (SM)	26,182	17
Member (M)	87,435	57
Associate (A)	13,682	9
Student (S)	24,076	16
Total	153,978	100

Grade	December 31, 1963		December 31, 1964	
	No.	% of Total	No.	% of Total
Honorary (H)	5		8	
Fellow (F)	2,589	2	2,595	1
Senior Member (SM)	26,274	17	26,182	17
Member (M)	82,750	53	87,435	57
Associate (A)	14,215	9	13,682	9
Student (S)	28,676	19	24,076	16
Total	154,509	100	153,978	100

Table 2 - IEEE Membership by Region, by Grade, by Percentage, 2-Year Comparison

	H	F	SM	M	A	Student	Total	Percentage
Region 1	3	874	6,559	22,222	3,812	5,535	39,005	25
Region 2		535	5,268	14,988	2,094	2,996	25,881	17
Region 3		222	2,409	7,484	989	2,460	13,564	9
Region 4	1	166	2,738	9,339	1,320	4,184	17,748	12
Region 5	1	184	2,208	6,353	1,008	3,142	12,896	8
Region 6	1	426	4,662	19,339	2,555	3,473	30,456	20
Subtotal	6	2,407	23,844	79,725	11,778	21,790	139,550	91
U. S. Overseas Military		4	71	605	109	29	818	
Subtotal	0	4	71	605	109	29	818	0
Region 7	1	64	929	3,214	816	1,573	6,597	5
Region 8		94	752	1,812	509	271	3,438	2
Region 9	1	26	586	2,079	470	413	3,575	2
Subtotal	2	184	2,267	7,105	1,795	2,257	13,610	9
Grand Total	8	2,595	26,182	87,435	13,682	24,076	153,978	100

Region	December 31, 1963	Percentage	December 31, 1964	Percentage
1	39,461	25	39,005	25
2	26,032	17	25,881	17
3	13,217	9	13,564	9
4	18,067	12	17,748	12
5	13,048	8	12,896	8
6	30,586	20	30,456	20
Subtotal	140,411	91	139,550	91
U. S. Possessions	210		-	
U. S. Overseas Military	908		818	
Subtotal	1,118	1	818	1
7	6,383	4	6,597	4
8	3,473	2	3,438	2
9	3,124	2	3,575	2
Subtotal	12,980	8	13,610	8
Grand Total	154,509	100	153,978	100

SECTION A

Table 3 - IEEE Life Members, by Grade, 2-Year Comparison

Grade	Contributors*	Noncontributors	Total
Honorary		2	2
Fellow	164	844	1,008
Senior Member	226	1,559	1,785
Member	120	844	964
Associate	3	10	13
Total	513	3,259	3,772

*Contributors to Life Member Fund

Grade	December 31, 1963	December 31, 1964
Honorary	2	2
Fellow	887	1,008
Senior Member	1,414	1,785
Member	786	964
Associate	7	13
Total	3,096	3,772

Table 4 - IEEE Membership Changes, by Grade, 1964

GAINS	H	F	SM	M	A	S	Total
Elections			431	3,043	514	12,133	16,121
Reinstatements	4	13	406	2,693	587	953	4,656
Transfers to		118	264	2,989	636	-	4,007
Total Gain	4	131	1,101	8,725	1,737	13,086	24,784
LOSSES							
Transfers from	-	-	111	248	200	3,448	4,007*
Voided Elections	-	-	-	8	10	-	18
Deceased	1	54	197	216	27	10	505
Resignations	-	10	304	1,013	342	171	1,840
Delinquents	-	61	581	2,555	1,691	14,057	18,945
Total Loss	1	125	1,193	4,040	2,270	17,686	25,315
Net Gain/ Loss	+3	+6	-92	+4,685	-533	-4,600	-531

*Analysis of Transfers, by Grade

Transfers from	SM	M	A	S	Total
Transfers to F	118	-	-	-	118
Transfers to SM	-	241	22	1	264
Transfers to M	-	-	178	2,811	2,989
Transfers to A	-	-	-	636	636
Total	118	241	200	3,448	4,007

SECTION B

Table 1 - IEEE Membership by Region, by Section and Subsection, by Grade
December 31, 1964

REGION 1								Section
Section	H	F	SM	M	A	Student	Subtotal	Total
Berkshire		31	144	198	17	15		405
Binghamton		2	103	312	59	125		601
Boston	1	130	922	3,604	523	674	5,854	7,003
Lynn		6	87	239	30	46	408	
Merrimack Valley		5	89	437	74	136	741	
Buffalo		8	227	519	103	135		992
Connecticut		26	190	742	103	214	1,275	2,586
Fairfield County		20	184	588	126	76	994	
New London		4	33	186	32	62	317	
Elmira-Corning		4	33	118	17	16		188
Ithaca		6	27	85	5	91		214
Long Island		67	691	2,706	459	222		4,145
Maine		9	38	113	15	110		285
Mid-Hudson		4	87	695	104	44	934	1,246
Catskill			14	251	35	12	312	698
Mohawk Valley		3	72	378	61	52	566	
St. Lawrence International			11	39	4	78	132	
New Hampshire		10	88	325	41	140		604
New York	1	103	762	2,843	774	1,422	5,905	8,451
Monmouth		34	221	775	121	82	1,233	
Westchester		36	256	766	144	111	1,313	
North Jersey	1	177	1,087	3,117	508	632		5,522
Princeton		52	217	725	108	170		1,272
Providence		2	83	244	33	122	484	720
Southeastern Mass.		8	27	77	36	88	236	
Rochester		5	150	607	104	112		978
Schenectady		82	317	410	25	190	1,024	1,154
Adirondack		6	38	61	12	13	130	
Springfield		4	49	113	28	97		291
Syracuse		22	242	730	76	78		1,148
Vermont		3	25	59	8	54		149
Worcester County		5	45	160	27	116		353
Total	3	874	6,559	22,222	3,812	5,535		39,005

SECTION B

Table 1 - IEEE Membership by Region, by Section and Subsection, by Grade (continued)
December 31, 1964

REGION 2

Section	H	F	SM	M	A	Student	Subtotal	Section Total
Akron		10	104	274	41	64		493
Baltimore		42	431	1,270	170	85	1,998	2,558
Annapolis		7	87	349	39	14	496	
Eastern Shore			10	42	8	4	64	
Canton			48	86	15	23		172
Central Pennsylvania		4	48	170	19	149		390
Cincinnati		8	133	460	43	68	712	742
Richmond			7	15	6	2	30	
Cleveland		45	455	980	145	229		1,854
Columbus		15	152	498	65	308	1,038	1,137
Cambridge			9	31	5		45	
Chillicothe			13	8			21	
Zanesville			10	20	3		33	
Dayton		20	218	712	121	151		1,222
Delaware Bay		2	64	183	17	77		343
Emporium-Ridgway		2	58	74	13	10		157
Erie		6	98	148	28	46		326
Johnstown		2	36	87	14	19		158
Lehigh Valley		15	197	476	67	176		931
Lima		2	53	112	4	49		220
North Central Ohio		2	42	73	9	13		139
Ohio Valley			13	39	11	2	65	76
Scioto			3	4	3	1	11	
Philadelphia		106	979	3,484	498	565		5,632
Pittsburgh		101	574	1,125	91	250	2,141	2,250
Upper Monongehela		3	14	28	2	62	109	
Sharon		10	88	117	13	91		319
Southern New Jersey		2	16	109	16	13		156
Susquehanna		5	75	268	34	22		404
Washington		126	1,193	3,613	558	410		5,900
West Virginia			25	96	29	53		203
Williamsport			15	37	7	40		99
Total		535	5,268	14,988	2,094	2,996		25,881

SECTION B

Table 1 - IEEE Membership by Region, by Section and Subsection, by Grade (continued)
December 31, 1964

REGION 3								Section
Section	H	F	SM	M	A	Student	Subtotal	Total
Alabama		9	122	283	16	237		667
Atlanta		17	221	366	63	173	840	890
Rome			16	29	2	3	50	
Baton Rouge		1	28	78	2	109	218	312
Lafayette			3	21	1	69	94	
Canaveral		15	140	775	120	37		1,087
Central Virginia		8	79	264	21	49		421
Chattanooga		12	70	120	9	13		224
East Tennessee		1	87	108	2	106	304	361
Upper East Tennessee		1	14	34	4	4	57	
Evansville-Owensboro		2	53	125	18	41	239	276
Paducah			5	19	5	8	37	
Florida West Coast		34	165	606	86	20		911
Fort Walton			9	71	11	3		94
Gainesville		4	29	77	6	125		241
Hampton Roads		4	44	306	41	13		408
Huntsville		2	81	752	78	28	941	971
Muscle Shoals			4	24	1	1	30	
Jacksonville			38	87	27	5		157
Lexington		1	19	115	2	95		232
Louisville		1	46	149	12	48		256
Memphis		2	61	92	27	112	294	328
Jackson			9	19	4	2	34	
Miami		23	125	275	65	72		560
Middle Tennessee			21	67	7	7		102
Mississippi		1	22	96	6	13	138	315
Northeast Mississippi		1	6	35	3	132	177	
Mobile			15	102	6	8		131
Nashville		5	55	91	19	203		373
New Orleans		9	113	366	57	70		615
North Carolina								1,403
Central North Carolina			26	130	12	4	172	
Charlotte		11	102	157	19	46	335	
Eastern North Carolina		13	67	209	41	202	532	
Northwestern North Carolina		1	43	191	22	14	271	
Western North Carolina		5	24	48	9	7	93	
Oak Ridge			39	68	5	3		115
Orlando		11	97	347	47	5		507
Palm Beach		11	33	113	22	8		187
Panama City			21	44	7	3		75
Pensacola		1	12	32	4	3		52
Richmond		1	53	155	20	16		245
Savannah			12	43	6	2		63
South Carolina								525
Central Savannah River		1	9	22	5	4	41	
Charleston			22	100	16	27	165	
Columbia		5	40	62	9	44	160	
Piedmont		2	22	52	7	76	159	
Virginia Mountain		7	87	159	17	190		460
Total	0	222	2,409	7,484	989	2,460		13,564

SECTION B

Table 1 - IEEE Membership by Region, by Section and Subsection, by Grade (continued)
December 31, 1964

REGION 4

Section	H	F	SM	M	A	Student	Subtotal	Section Total
Arrowhead		1	15	57	4	11		88
Cedar Rapids		6	77	324	47	70		524
Central Illinois		10	87	313	34	187		631
Central Indiana		9	153	549	54	344	1,109	1,150
Bloomington			5	27	5	4	41	
Central Iowa		3	45	109	6	151		314
Chicago		39	736	2,212	452	716	4,155	5,106
Calumet		2	37	77	17	55	188	
Fox Valley		3	179	471	68	42	763	
Fort Wayne		9	106	222	39	120		496
*Marion								-
Illinois Valley		1	37	53	10	39		140
Iowa-Illinois			43	102	21	16	182	218
Burlington			6	22	6	2	36	
Madison		6	28	101	7	194		336
Milwaukee		16	240	831	65	237	1,389	1,476
Racine-Kenosha		1	7	54	8	17	87	
Nebraska		4	97	281	41	237		660
Northeast Michigan			47	120	16	29		212
Northeastern Wisconsin		1	30	109	11	88		239
Rock River Valley		2	33	121	16	20		192
Siouxland			21	36	9	37		103
South Bend			44	175	31	302		552
Southeastern Michigan	1	40	374	1,376	195	678		2,664
Southern Minnesota			9	111	12	23		155
Toledo		1	77	136	28	84		326
Twin Cities		10	145	1,181	94	317	1,747	1,919
Red River Valley		1	11	54	2	104	172	
West Michigan		1	49	115	22	60		247
Total	1	166	2,738	9,339	1,320	4,184		17,748

*Marion Subsection dissolved as of December 16, 1964.

SECTION B

Table 1 - IEEE Membership by Region, by Section and Subsection, by Grade (continued)
December 31, 1964

REGION 5								Section
Section	H	F	SM	M	A	Student	Subtotal	Total
Arkansas		6	47	115	13	20	201	356
Northwest Arkansas			20	44	3	88	155	
Beaumont		4	30	68	9	130	241	346
Lake Charles			15	70	16	4	105	
Central Texas		15	94	258	44	203		614
Corpus Christi		3	33	51	17	43	147	181
Victoria-Port Lavaca			7	18	6	3	34	
Dallas	1	23	249	1,209	131	127	1,740	1,772
Waco			4	20	6	2	32	
Denver		28	299	752	106	406	1,591	1,855
Black Hills			3	32	4	52	91	
Pikes Peak		1	40	114	7	11	173	
El Paso		1	45	276	51	169		542
Fort Worth		6	72	311	48	84		521
Houston		10	218	767	140	368	1,503	1,536
Freeport			3	26	1	3	33	
Kansas City		15	236	381	97	263		992
Oklahoma City		12	128	289	48	115		592
Panhandle		1	30	56	17	2		106
St. Louis		38	300	868	91	563	1,860	1,998
Eastern Division		2	22	69	17	28	138	
Shreveport		2	74	88	26	93	283	318
Monroe			8	20	2	5	35	
South Plains		1	16	34	8	38	97	149
Permian Basin			5	36	8	3	52	
Tulsa		10	120	209	56	239		634
West Central Texas		1	16	41	11	3		72
Wichita		5	74	131	25	77		312
Total	1	184	2,208	6,353	1,008	3,142		12,896

SECTION B

Table 1 - IEEE Membership by Region, by Section and Subsection, by Grade (continued)
December 31, 1964

REGION 6

Section	H	F	SM	M	A	Student	Subtotal	Section Total
Alamogordo-Holloman			15	71	19	1		106
Albuquerque		3	123	419	69	144	758	884
Los Alamos-Santa Fe			33	82	7	4	126	
Anchorage			15	74	31	19		139
Antelope Valley			8	48	9	4		69
Boise			35	34	1	6		76
Buenaventura		1	43	259	32	14		349
China Lake			9	95	11	10		125
Foothill		9	182	879	119	94		1,283
Fort Huachuca		1	21	83	9	6		120
Hawaii		1	42	217	53	30		343
Idaho		1	11	75	5	11		103
Las Vegas		1	12	117	26	10		166
Metropolitan Los Angeles		19	231	869	156	238		1,513
Montana				3			3	260
Billings		1	7	28	2	3	41	
Butte			15	20	3	7	45	
Helena		1	10	54	7	99	171	
Orange County		23	359	2,436	290	112		3,220
Phoenix		22	223	771	78	209		1,303
Portland		30	215	413	56	42	756	1,069
Eugene		3	17	50	6	159	235	
Medford		2	3	22	5	46	78	
Richland		3	45	81	11	4	144	180
Walla Walla			5	23	3	5	36	
Sacramento		4	82	208	57	49	400	597
Reno			15	40	4	19	78	
San Joaquin			11	31	13	17	72	
Shasta		1	7	20	10	9	47	
San Diego		18	180	908	113	99		1,318
San Fernando Valley		18	220	1,087	223	86		1,634
San Francisco		42	392	1,094	187	172	1,887	7,692
East Bay		31	206	717	96	242	1,292	
Fresno			10	26	6	411	453	
Santa Clara Valley			71	566	3,109	291	4,060	
San Gabriel Valley	1		21	180	516	69	69	856
Santa Barbara			15	58	206	17	182	478
Santa Monica Bay			37	360	1,106	120	118	1,741
Seattle			21	269	1,098	82	146	1,713
Tacoma			2	21	57	8	9	97
South Bay Harbor			7	207	1,165	159	94	1,632
Spokane			9	52	91	12	103	267
Tucson			3	58	171	17	77	326
Utah			5	60	289	23	254	631
Vandenberg				16	148	35	14	213
Wenatchee				13	29	5	3	50
Total	1	426	4,662	19,339	2,555	3,473		30,456

SECTION B

Table 1 - IEEE Membership by Region, by Section and Subsection, by Grade (continued)
December 31, 1964

REGION 7

Section	H	F	SM	M	A	Student	Subtotal	Section Total
Bay of Quinte		3	39	91	12	86		231
Hamilton		2	47	145	39	59		292
Kitchener-Waterloo			12	48	27	30	117	160
Guelp			12	24	3	4	43	
London		1	17	73	30	53		174
Montreal		14	242	831	128	177		1,392
Niagara International		1	44	99	24	39		207
Northern Alberta			7	82	23	133		245
Ottawa	1	16	95	433	95	111		751
Quebec			32	76	13	41		162
Regina			4	38	14	83		139
St. Maurice		1	5	32	10	3		51
Southern Alberta			4	46	38	99		187
Toronto		17	203	761	230	325		1,536
Vancouver		6	133	290	76	219		724
Victoria		2	16	58	15	7		98
Winnipeg		1	17	87	39	104		248
Total	1	64	929	3,214	816	1,573		6,597

SECTION BTable 1 - IEEE Membership by Region, by Section and Subsection, by Grade (Continued)
December 31, 1964REGION 8

<u>Section</u>	<u>H</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>A</u>	<u>Student</u>	<u>Subtotal</u>	<u>Section Total</u>
Benelux		8	70	140	39	75		332
Egypt			12	44	9	11		76
France		13	72	147	51	2		285
Geneva		10	64	139	17	15		245
Israel		2	13	74	20	7		116
Italy			42	187	113	66		408
Norway		1	13	44	7			65
United Kingdom and Eire		43	309	611	92	35		1,090
West Germany		7	55	87	29	2		180
Total	0	84	650	1,473	377	213		2,797

SECTION BTable 1 - IEEE Membership by Region, by Section and Subsection, by Grade (Continued)
December 31, 1964REGION 9

<u>Section</u>	<u>H</u>	<u>F</u>	<u>SM</u>	<u>M</u>	<u>A</u>	<u>Student</u>	<u>Subtotal</u>	<u>Section Total</u>
Buenos Aires		3	27	78	34	52		194
Chile			4	22	5	5		36
Colombia			11	70	16	40		137
Mexico		4	57	155	16	39		271
Puerto Rico and Virgin Islands		1	20	96	15	70		202
Rio de Janeiro		3	9	29	5	8		54
Tokyo	1	8	105	302	99	151		666
Total	1	19	233	752	190	365		1,560

SECTION B

Table 2 - IEEE Membership Region 8 by Country by Grade
December 31, 1964 - Two Year Comparison

Country	H	F	SM	M	A	Student	12/31/64	12/31/63
							Total	Total
Algeria								2
Austria			4	7		1	12	11
Cyprus			3	11	1		15	14
Czechoslovakia			1	9	6		16	14
Denmark		1	13	57	16	3	90	108
Finland			2	6	5		13	10
Germany (Except West Germany Section)			4	1	2		7	7
Greece		1	3	33	8	1	46	39
Hungary			5		1		6	4
Iceland				4	2		6	5
Iraq			1	5	2		8	6
Jordan			1	2			3	3
Lebanon			5	16	4		25	25
Libya			4	5	4		13	11
Malta				3			3	3
Morocco				2	1		3	2
Poland		1	2	2	2		7	10
Portugal			1	4			5	4
Rumania							0	3
Spain			9	27	9	44	89	82
Sweden		7	24	106	52	8	197	226
Syria				8	1	1	10	6
Turkey			1	22	6		29	24
USSR			17	3	7		27	25
Yugoslavia			2	6	3		11	8
Total	-	10	102	339	132	58	641	652
Territory assigned to IEEE Sections		84	650	1,473	377	213	2,797	2,770
Grand Total	-	94	752	1,812	509	271	3,438	3,422

SECTION B

Table 3 - IEEE Membership Region 9 by Country by Grade
December 31, 1964 - Two Year Comparison

Country	H	F	SM	M	A	Student	12/31/64	12/31/63
							Total	Total
Aden			1	2			3	3
Afghanistan			1	2	2		5	3
Angola							0	1
Antilles			1	4			5	2
Ascension Island							0	1
Australia		2	51	154	20	8	235	228
Bermuda			3	2	1		6	5
Bolivia			1	7			8	4
Brazil (Except Rio Section)			11	56	24	10	101	125
British Guiana			1	2	1		4	3
Burma				2			2	11
Ceylon			4	4	2		10	9
Congo				1	1	1	3	1
Costa Rica			3	8	2		13	13
Cuba			2	2			4	6
Ecuador			4	8	2	1	15	15
El Salvador		1		10			11	12
Ethiopia				6	1		7	6
Fiji Islands				1			1	1
Formosa			1	9			10	9
Ghana			1	11			12	11
Guatemala				6	1		7	7
Honduras				1			1	2
Hong Kong			6	43	10		59	37
India		3	132	524	85	13	757	609
Indonesia			3	2	11		16	42
Iran			5	16	1		22	16
Ivory Coast							0	1
Kenya			2	9	3		14	11
Korea			4	14	1	2	21	20
Liberia			3				3	5
Malaya							0	5
Malaysia			5	42	4		51	45
Mauritius				3			3	2
Nepal				1			1	1
New Guinea				1			1	1
New Zealand			7	22	6		35	29
Nicaragua				3			3	3
Nigeria			3	18	2	1	24	21
Okinawa				4			4	0
Pakistan		1	23	60	14		98	78
Panama			2	5	2		9	8
Paraguay				1			1	2
Peru			5	20	4	4	33	28
Philippine Islands			8	20	5		33	28
Rhodesia/Nyasaland			3	11	1		15	11
Samoa				1			1	1
Saudi Arabia			7	36	17	3	63	35
South Africa			17	35	5		57	59
Sudan			1	3	1		5	6
Tanganyika			1	1	1		3	4
Thailand			4	20	3	2	29	37
Upper Volta				1			1	-
Uruguay				3	3		6	7

SECTION B

Table 3 - IEEE Membership Region 9 by Country by Grade (continued)
 December 31, 1964 - Two Year Comparison

Country	H	F	SM	M	A	Student	12/31/64	12/31/63
							Total	Total
Venezuela			16	74	22	3	115	108
Viet-Nam			1	4	1		6	7
West Indies			10	32	21		63	52
Total	-	7	353	1,327	280	48	2,015	1,797
Territory assigned to IEEE Sections	1	19	233	752	190	365	1,560	1,378
Grand Total	1	26	586	2,079	470	413	3,575	3,175

SECTION B

Table 4 - IEEE Section and Subsection Meetings, 1964*

Section and subsection	Meetings				Section and Subsection	Meetings			
	S	SS	G	TG		S	SS	G	TG
Akron	9		4	1	Dallas	7		7	9
Alabama	9			15	Waco		4		
Alamogordo-Holloman	7				Dayton	8		19	
Albuquerque	6		8		Delaware Bay	8			
Los Alamos-Santa Fe		7			Denver	6		17	2
Anchorage	4				Black Hills		0		
(1) Antelope Valley	4				Pikes Peak		8		
Arkansas	6				East Tennessee	1		1	
Northwest Arkansas		10			Upper East Tennessee		6		
Arrowhead	8			6	Egypt	7			
Atlanta	9				Elmira-Corning	11			
Rome		4			El Paso	10			
Baltimore	7		33	1	Emporium-Ridgway	8			
Annapolis		6			Erie	9			2
Eastern Shore		6			Evansville-Owensboro	9			
Baton Rouge	11				(3) Paducah		1		
Lafayette		3			Florida West Coast	7		13	12
Bay of Quinte	4				Foothill	6		7	
Beaumont	8				Fort Huachuca	7		3	
Lake Charles		4			Fort Walton	9			
Benelux	2				Fort Wayne	9			
Berkshire	4				(4) Marion		3		
Binghamton	4		3		Fort Worth	8			
Boise	7				France	4			
Boston	0		82	7	Gainesville	7			
Lynn		7			Geneva	13			
Merrimack Valley		9			Hamilton	7			
uenaventura	7		3		Hampton Roads	8			
Buenos Aires	13				Hawaii	8			
Buffalo	4		5	6	Houston	6		4	10
Canaveral	9		6		Freeport		4		
Canton	4				Huntsville	8		5	
Cedar Rapids	6				Muscle Shoals		9		
Central Illinois	9				Idaho	9		3	
Central Indiana	7		5		Illinois Valley	9			7
Bloomington		4			Iowa-Illinois	8			1
Central Iowa	8				Burlington		6		
Central Pennsylvania	4				Israel	4			
Central Texas	7		5		Italy	1			
Central Virginia	10				Ithaca	5			
Chattanooga	6				Jacksonville	9			13
Chicago	4		38	14	Johnstown	8			
Calumet		2			Kansas City	12		1	
Fox Valley		4			Kitchener-Waterloo	8			
Chile	4				Guelph		5		
China Lake	5				Las Vegas	0			
Cincinnati	6		2		Lehigh Valley	7		1	20
(2) Richmond		0			Lexington	7			
Cleveland	5		21	11	Lima	7		3	3
Colombia	0				London	7			
Columbus	8		10		Long Island	2		9	
Cambridge		5			Los Angeles District			117	4
Chillicothe		6			Louisville	9			
Zanesville		11			Madison	6		2	
Connecticut	16			2	Maine	6			
Fairfield County		6			Memphis	8		8	
New London		9			Jackson		6		
Corpus Christi	9			2	Met. Los Angeles	7			
Victoria-Port Lavaca		6			Mexico	3			

Section and Subsection	Meetings				Section and Subsection	Meetings			
	S	SS	G	TG		S	SS	G	TG
Miami	9				Rochester	8		8	
Middle Tennessee	10				Rock River Valley	0			
Mid-Hudson	5				Sacramento	7			10
Catskill		6			Reno		6		
Milwaukee	8		5	11	San Joaquin		6		
Racine-Kenosha		6			Shasta		4		
Mississippi	12				St. Louis	6		2	5
(5) Northeast Mississippi		2			Eastern Division		4		
Mobile	9				St. Maurice	4			
Mohawk Valley	7		4		San Diego	10		10	
St. Lawrence Intn'l		6			San Fernando Valley	7			
Montana	2				San Francisco	2		76	4
Billings		0			East Bay		4		
Butte		4			Fresno		4		
Helena		6			Santa Clara Valley		9		
Montreal	4		3		San Gabriel Valley	7			
Nashville	9				Santa Barbara	8			
Nebraska	7		22		Santa Monica Bay	6			
New Hampshire	10				Savannah	6			
New Orleans	12		6		Schenectady	6		12	4
New York	6		24	70	Adirondack		5		
Monmouth		5			Seattle	8		22	
Westchester		12			Tacoma		3		
Niagara International	7				Sharon	8			
North Carolina	4			15	Shreveport	10			
Central North Carolina		6			Monroe		9		
Charlotte		12			Siouxland	8			
Eastern North Carolina		7			South Bay Harbor	7			
Northwestern N. C.		8			South Bend	11			
Western N. C.		8			South Carolina	0			
North Central Ohio	8				Central Savannah River		2		
Northeast Michigan	9				Charleston		0		
Northeastern Wisconsin	6		1	1	Columbia		1		
Northern Alberta	8				Piedmont		0		
North Jersey	4		11		Southeastern Michigan	10		22	2
Norway	5				Southern Alberta	7			
Oak Ridge	9				Southern Minnesota	6			
Ohio Valley	7				Southern New Jersey	9			
Scioto		3			South Plains	7			
Oklahoma City	5		3		Permain Basin		8		
Orange County	6		9		Spokane	10			4
Orlando	7		4		Springfield	9		5	5
Ottawa	8		3		Susquehanna	10			
Palm Beach	6				Syracuse	5		16	1
Panama City	3				Tokyo	3			
Panhandle	10				Toledo	18			2
Pensacola	8				Toronto	0			
Philadelphia	8		69	16	Tucson	6			
Phoenix	7		5	11	Tulsa	7			3
Pittsburgh	7		9	2	Twin Cities	10		17	
Upper Monongahela		4			Red River Valley		6		
Portland	19				United Kingdom & Eire	0			
Eugene		0			Utah	6			
Medford		6			Vancouver	9		3	11
Princeton	6				Vandenberg	8			
Providence	8				Vermont	8		2	
Southeastern Mass.		0			Victoria	10			
(6) Puerto Rico & Virgin Isles	4				Virginia Mountain	8			
Quebec	4				Washington	2		47	
Regina	7				Wenatchee	9			
Richland	10				West Central Texas	8			
Walla Walla		5			West Germany	0			
Richmond	10				West Michigan	6			
Rio de Janeiro	0				West Virginia	17			

<u>Section and</u> <u>Subsection</u>	<u>Meetings</u>			
	<u>S</u>	<u>SS</u>	<u>G</u>	<u>TG</u>
Wichita	0			
Williamsport	0			
Winnipeg	8			
Worcester County	4			
Total	1,262	338	865	325
Grand Total	2,790			

*As reported to IEEE Headquarters 12/31/64

- (1) - Established 8/13/64
- (2) - Established 5/20/64
- (3) - Established 8/13/64
- (4) - Subsection dissolved 12/16/64
- (5) - Established 9/11/64
- (6) - Established 3/23/64

for the announcements of the local activities

SECTION B

A major activity of

Table 5 - IEEE Section and Subsection Publications, 1964

A ~~Major activity~~ of many Sections and the larger Subsections 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) Group Chapter Meetings and (3) Technical Group Meetings.

Fifty-seven of the Sections and Subsections now issuing these monthly publications are listed below:

<u>Section</u>	<u>Publication</u>
Akron	"Bulletin"
Albuquerque	"The Blast"
Atlanta	"Atlanta Circuit"
Baltimore	"The Speaker"
Benelux	"The Benelux Bridge"
Binghamton	"Pulse"
Boston	"The Reflector"
Canaveral	"Indian River Engineer"
Central Indiana	"The Reporter"
Central Pennsylvania	"Newsletter"
Central Texas	"The Analog"
Chicago	"IEEE Scanfax"
Cleveland	"Cleveland Section News"
Columbus	"The I-Triple-E Messenger"
Connecticut	"The CONNector"
Dallas	"Direction"
Dayton	"Wave Guide"
Emporium-Ridgway	"Newsletter"
Evansville-Owensboro	"The Transmitter"
Florida West Coast	"Suncoast Signal"
Fort Walton	"The Courier"
Fort Wayne	"The Announcer"
Houston	"The Scope"
Huntsville	"The Live Wire"
Lehigh Valley	"Newsletter"
Long Island	"The Pulse"
Los Angeles	"IEEE Bulletin"
Mohawk Valley	"Echoes"
Monmouth Subsection	"The Scanner"
Montreal	"Current Phase-Phase Courante"
New York	"The Monitor"
North Carolina	"Bulletin"
North Jersey	"The Newsletter"
Oklahoma City	"Sooner Satellite"
Ottawa	"Bulletin"
Philadelphia	"Almanack"
Pittsburgh	"IEEE Bulletin"
Portland	"The BEEP"
Princeton	"The P. S. "
St. Louis	"The Mighty MHO"
San Diego	"IEEE Bulletin"
San Francisco	"IEEE Grid"
Schenectady	"News Bulletin"
Seattle	"Data Link"
South Bend	"The Nucleus"
South Carolina	"Southern Corona"
Southeastern Michigan	"Cross Talk"
Syracuse	"Scanner"
Tokyo	"Denshi Tokyo"
Twin Cities	"The Radiator"
Utah	"The Crystal"
Vancouver	"Contact"
Virginia Sections	"The Virginia Vector"
Central Virginia	
Hampton Roads	
Richmond	
Virginia Mountain	
Washington	"Bulletin"

Table 1 - REPORT OF TECHNICAL ACTIVITIES
GROUPS AND RELATED ACTIVITIES

Mergers and New Groups - If the 1963 report of technical activities was characterized by the gross picture of the merging of two great societies to form the IEEE, 1964 has been characterized by the detailed merging of the technical entities. The chart and description that appears elsewhere in this Report accounts for each such entity inherited from the AIEE and IRE.

The 35 Groups in being on January 1, 1965, might be divided into three categories:

1) Those inherited from IRE and unchanged by any merger with a former AIEE entity; 2) those that are a merger of a former IRE Group with one or more former AIEE Technical Committees, and, in one case, with an entire Division; and 3) new Groups formed by the transition of Technical Committees, or Divisions, to group status. The year 1964 saw one other merger development of equal significance to those mentioned above; namely, the merging of mature, established Groups. Four Groups - Aerospace, Aerospace & Navigational Electronics, Military Electronics, and Space Electronics and Telemetry - have developed a detailed plan for merger; the four Administrative Committees individually adopted the plan and the Groups' membership are currently balloting (over 95% favorable) on adopting and implementing the plan. Several other Groups with related technical interests are examining the possibility of merger; and the five Groups interested in communications are coordinating their overall plans through a Council, established as a sub-committee of the Groups Committee.

Group Membership - A simple measure of the vigor of the IEEE Groups is the count of members, regular and student, and affiliates. The consequences of the difficulties of merging AIEE and IRE membership lists, at the management level must have contributed in large measure to the set-back in the growth of Group membership that was apparent in 1963. A distinct resurgence in the last third of 1964 has brought membership levels back approximately to the December, 1961 levels. This is no cause for complacency, however, because if the annual rate of growth for the five-year period ending December 1961 were projected to December 1964, the IEEE Groups are found still to be lagging. Neglecting this projected growth, one may find some interesting characteristics in the pattern of memberships for the three categories of Groups previously described. The Groups that have not merged with any Technical Committee or Division, have memberships slightly

below the 1961 level. The second category, Groups that merged with a Technical Committee or Division, average five to ten percent above the 1961 level. In the third category, two of the new Groups have been in existence long enough to show meaningful membership data. The Aerospace Group started with about 300 members from its origin in AIEE and has had more than a five-fold increase. The Power Group has passed 7,000 members and, incidentally, has acquired more chapters (50) than any other Group. If one adopts the member-subscriber list for the former bi-monthly, Power Apparatus and Systems, as being equivalent to the voluntary decision to join the Group and pay the annual fee, then the Power Group has seen a more than three-fold increase. The experiences of the Aerospace and Power Groups deserve especial attention because mergers of Technical Committees or Divisions with existing Groups appear to have produced only modest influxes of new members.

3. Evaluation - Publications and Meetings - Statistics on publications, conferences and symposia, and chapter activities appear elsewhere in this Report. In the last part of 1964, some penetrating questions have been raised concerning the quality and timeliness of papers published in the Groups' TRANSACTIONS. The relation of paper publication to proper presentation at a conference and the criterial and procedures for accepting papers either for publication or for conference presentation are involved in these questions. The pre-merger Groups handled publications and conferences quite differently than pre-merger Technical Committees and Divisions. Another unanswered question from 1964 is whether those Groups that now encompass former Divisions in their entirety should continue to follow the Division practices. Answers for the questions will be sought in 1965 through the joint efforts of the Technical Activities Board and Editorial Board, and the Officers and Directors.

Progress was made toward clarification of the role of Groups in sponsoring conferences on special technical subjects and the role of Sections (and Regions) in sponsoring so-called general meetings. A simplified set of rules and procedures have been developed whereby the IEEE, through the General Manager, will control the general course of its diversified activities, while permitting the greatest possible flexibility and adaptability. IEEE's strength lies in its members. IEEE must be prepared to accept innovation and to prosper with the continuously changing pattern of member interest and activities.

4. Technical Operations Committee (TOC)

At their September 23, 1964 meeting, IEEE's Executive Committee authorized establishment of a Technical Activities Board (TAB) to be effective January 1, 1965; and appropriate changes in IEEE Bylaws were made by the IEEE Board at their meeting in October. The new TAB is based on consolidation of the technical activities conducted by the organizational entities of the Technical Operations Committee (TOC) and by the Groups Organization. A consolidated Technical Activities Secretariat has been organized to serve TAB under the direction of Dr. Richard M. Emberson, formerly Groups Secretary.

The attached chart depicting the new TAB Organization illustrates the magnitude of this consolidation, which was underway by mid-1963 and continued through December 1964, from the standpoint of participation by TOC's 6 General Committees (including the IEEE Standards Committee with its 10 Ad Hoc Committees and jurisdiction over 23 Technical Committees (Standards) and their 112 Subcommittees) plus its 6 Divisions consisting of 69 Technical Committees and 320 Subcommittees.

TOC's Technical Committees and Subcommittees have continued to be active through 1964 in the technical programs presented at IEEE's International Convention, the National Electronics Conference (NEC) in Chicago, and the Winter Power Meeting. Many of the Committees and Subcommittees have been responsible for the 1964 program of 40 Special Technical Conferences sponsored either solely by TOC entities or jointly with Groups or with associated Societies. Many of the Conferences published Proceedings.

The IEEE Standards program continued under the coordination of the Standards Committee and the Standards-generating entities of the Technical Committees and Groups. During 1964, 16 IEEE Standards were published, and 5 were in process of balloting as the year ended. In addition, 46 Standards proposals were submitted to IEEE by outside organizations for our concurrence. Two Recommended Practice documents, Electric Systems for Commercial Buildings (IEEE 241), and Electric Power Distribution for Industrial Plants (IEEE 141), were published. Staff work was begun on an alphabetically arranged volume of Definitions of Electrical Terms which IEEE will publish.

5. The Joint Technical Advisory Committee (JTAC)

The Joint Technical Advisory Committee, sponsored by IEEE and EIA (Electronic Industries Association), held a total of six meetings during 1964. The Sixteenth Anniversary Dinner was held in May 1964 at the Waldorf-Astoria Hotel, New York City.

5.1 Radio Spectrum Administration - Subcommittee 62.1

Under the chairmanship of Mr. Philip F. Siling, JTAC set up a Subcommittee to revise its 1952 publication "Radio Spectrum Conservation," together with its 1959 Supplement, taking present-day and future needs of spectrum conservation into consideration. Mr. Siling was assisted by a host of eminently qualified experts and "Radio Spectrum Utilization, 1964" is now available.

5.2 Electromagnetic Compatibility - Subcommittee 63.1

Since 1961 JTAC has endeavored to stimulate the interest of engineers associated with non-military items in the increasing technical and economic problems of their own electromagnetic compatibility. In November 1963, JTAC established a Subcommittee on Electromagnetic Compatibility, under the chairmanship of Richard P. Gifford, to explore pertinent areas and to initiate educational and remedial studies. This Subcommittee will submit a Progress Report to the Office of Emergency Planning early in 1965.

5.3 Microwave Relay System Reliability Subcommittee 63.2

In FCC Docket No. 15130, adopted July 24, 1963, the FCC referred to an earlier JTAC report submitted by request in which JTAC recommended FCC adoption of a policy permitting use of frequency diversity in all cases except where local interference would result. JTAC recommended that a carrier frequency separation of at least 5 to 10 percent should be maintained to obtain full benefits of the use of frequency diversity. The Docket further stated that although JTAC provided the Commission with pertinent analysis and commentary on the relative merits of diversity techniques, the Commission still lacked sufficient data to permit the issuance of considered opinions on this method of achieving reliability, at the cost of spectrum space. JTAC established a Subcommittee on Microwave Relay System Reliability, under the chairmanship of Dr. William H. Radford, in November 1963 to reply to Docket No. 15130. Membership is composed of representation from the user group, equipment manufacturers and the research area. A liaison representative from the FCC attended the four meetings held during 1964. A report will be submitted to the FCC early in 1965.

SECTION C

5.4 Mobile Radio Services - Subcommittee 64.1

On March 26, 1964, the FCC adopted Docket No. 15398 and terminated its inquiry into the allocation of frequencies between 25 and 890 Mc/s. This Docket is an inquiry into the optimum frequency spacing between assignable frequencies in the land mobile service and the feasibility of frequency sharing by TV and the land mobile service. It did not limit inquiries from interested parties but was "hopeful that technical groups such as the Joint Technical Advisory Committee (JTAC) and Electronic Industries Association (EIA) will respond..."

JTAC established a Subcommittee on Mobile Radio Services on May 21, 1964, under the chairmanship of Dr. John A. Pierce, to respond to this Docket and resolved, "That...while Section 4 has been called to JTAC's attention, Section 4D should have priority." JTAC considered that in order to submit a comprehensive report, the individual interests of both the television broadcasters and the land mobile services are necessary. Messrs. Frank Marx of ABC and Waldo A. Shipman of Columbia Gas System Service Corporation were appointed to head these two groups respectively, serving as vice chairmen of the Subcommittee. In June 1964, JTAC advised the FCC that a study limited to channel sharing within the VHF television band only would be of limited value, and apprised the advisability of conducting the study throughout the entire allocated television spectrum, both UHF and VHF. Subcommittee membership has been drawn from both the television broadcasters and the land mobile service. Five meetings were held during 1964. It is anticipated to submit a report to the FCC by April 1, 1965.

6. THE INTERNATIONAL RADIO CONSULTATIVE COMMITTEE (CCIR)

The Executive Committee of the U. S. National CCIR held five meetings during 1964 at which the U. S. Study Group chairmen submitted progress reports. Major attention has been given to detailed preparation for the 1965 Plenary Assembly, and the U. S. responses to studies formulated at the Xth Plenary Assembly are being submitted to the International study groups prior to submission to the XIth Plenary Assembly.

7. THE INTERNATIONAL SCIENTIFIC RADIO UNION (URSI)

The U. S. National Committee of the International Scientific Radio Union (URSI) held two meetings during the Spring URSI/IEEE meeting at the NAS, Washington, D. C. Together with The American Geophysical Union and The American Astronomical Society, URSI jointly sponsored a Symposium on Solar-Terrestrial Relationships, held at the Department of the Interior Auditorium, Washington, D. C., April 20 and 21, 1964.

8. THE IEEE INTERSOCIETY RELATIONS COMMITTEE

The IEEE Intersociety Relations Committee met five times during 1964.

One of the ISRC's major efforts is the evaluation of IEEE participation in the activities of outside organizations. During 1964 a systematized method of appointing IEEE representatives to outside organizations was formulated. This policy on appointment included the recommendation of a Headquarters file on all appointees which would include a yearly report by each representative on the activities of each respective committee.

The ISRC, in coordination with the Education Committee, is in the process of recommending amendments to the Constitution and Rules of Procedure of the Engineers' Council for Professional Development. It is estimated that this study will be completed early in 1965.

To assure uniformity in joint conferences, the ISRC was instrumental in drawing up a "Model Charter for Intersociety Conferences". It recommended that all future intersociety conferences be based on this "model charter".

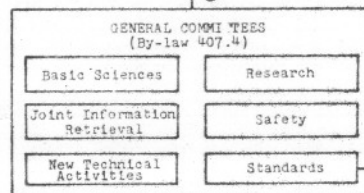
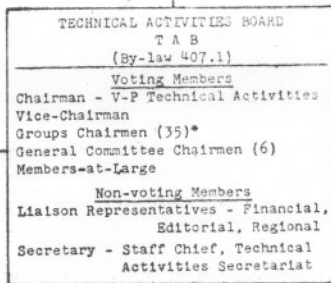
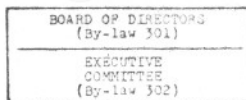
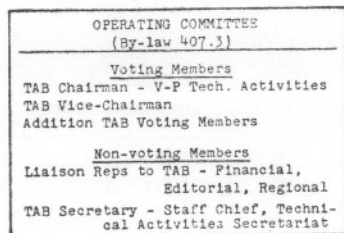
The ISRC is working closely with the State Department in order to set up guidelines which will enable earlier issuance of visas to facilitate the attendance of Russian engineers at major IEEE conventions. This work is being done in conjunction with the Russian Popov Society.

The IEEE, on recommendation from the ISRC, appointed representatives to 22 organizations during 1964.

Currently the ISRC is preparing a proposed policy on the use of IEEE membership lists for recommendation to the Executive Committee.

9. CONSOLIDATION OF IEEE TECHNICAL ACTIVITIES

in
TECHNICAL ACTIVITIES BOARD
JANUARY 1, 1965

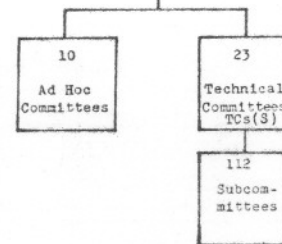


③ In January 1963, 4 General Committees of TOC existed in the merged Institute: NTAC, Research, Safety, & Standards. These were expanded as follows in the months immediately preceding the 1/1/65 consolidation of technical activities:

The Basic Sciences Technical Committee of TOC's S&E Division was reclassified as a General Committee of TOC for transfer to TAB in General Committee status.

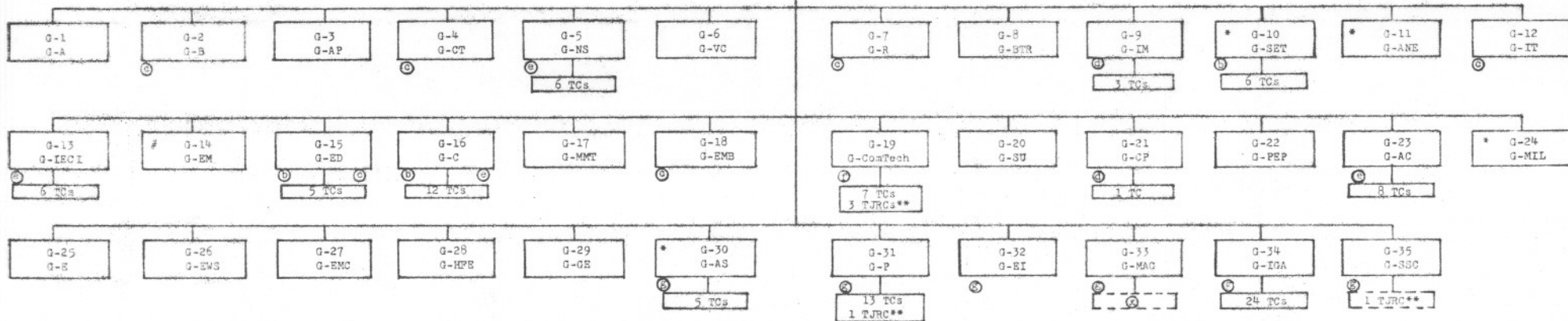
The Information Retrieval Subcommittee of TOC was reclassified as a General Committee of TOC. Effective 1/1/65 it is to be known as the "Joint Information Retrieval Committee" and it reports jointly to the Technical Activities Board (in General Committee status) and to IEEE's Editorial Board.

The New & Specialized Technologies Committee, a Technical Committee of TOC's S&E Division, consolidated with the New Technical Activities (General) Committee emanating from TOC.



*At its meeting on 12/16/64, IEEE's Executive Committee approved merger of 4 Groups: G-10(SET), G-11(G-ANE), G-24(MIL), and G-30(AS). A poll of their memberships is underway. Merger will result in reduction of the total number of Groups from 35 to 32.

IEEE GROUPS (35)*
(By-law 405)



In January 1965 there existed in the merged Institute 29 "Professional Technical Groups" established under IRE (as "Professional Groups"). A few which had "Sub-Groups," later called "Technical Committees," are indicated by (1) on the above chart. The two-year transition-period terminating in a consolidation of IEEE technical activities marked the expansion of several of these existent units and the growth of the structure to 35 "Groups" ("Professional Technical" terminology subsequently dropped) via various transfer-moves of units in the AIEE-established (6 Division / 69 Technical-Committee / 320 Subcommittee) TOC structure plus a move by one of the Technical Committees (Standards) which were IRE's Technical Committees placed under the jurisdiction of the IEEE Standards Committee, a General Committee of TOC, 1/1/65.

- ① indicates TOC unit(s) joined and became part of existent Group without retaining individual status/identity
- ② indicates TOC unit(s) joined existent Group retaining individual status/identity
- ③ indicates TOC unit(s) joined existent Group and new Technical Committees were formed (in most instances from Subcommittees)
- ④ indicates a TOC Division combined with existent Group to form a new Group (added a TC)
- ⑤ indicates TOC unit(s) formed a new Group (G-P & G-IGA, formed from Divisions, each added a TC; G-EI & G-MAG were each formed by a single TC; G-AS, formed by 4 TCs, added a TC; G-SSC was recently formed by 2 TCs)

Where a Division moved to form a Group, its Technical Committees and Subcommittees were included in the move. Subcommittees were included in individual moves by parent TCs. Two Subcommittees made individual moves, one joining an existent Group (Reliability) without retaining individual status/identity, the status of the other (Magnetics Subcommittee of the TOC S&E Division Basic Sciences Committee) as a unit of newly formed G-MAG will be established shortly. Companion-Appendix 2-50(2) to TOC 39 10/19/64 Minutes is a list showing status of all Divisions, Technical Committees, and Subcommittees that were part of the TOC roster, on which list the TOC technical entities that participated in the consolidation of IEEE technical activities are identified by name.

**Translated Journals Review Committees

#AIEE's Management activities, as covered by the Management Committee of its Professional Development & Recognition Dept., consolidated with G-EM.

SECTION C

Table 2 - IEEE Group Membership, December 31, 1964; 2 Year Comparison

Group No.	Group Name	1 9 6 4			1964 Total	1963 Total
		Students Discount	Regular	Other Members		
1	Audio	166	222	3,666	4,054	4,308
2	Broadcasting	61	55	1,376	1,492	1,474
3	Antennas & Propagation	408	7	3,449	3,864	4,096
4	Circuit Theory	511	169	5,405	6,085	7,047
5	Nuclear Science	89	63	1,609	1,761	1,706
6	Vehicular Communications	18	20	1,541	1,579	1,577
7	Reliability	18	12	2,234	2,264	2,286
8	Broadcast & Television Receivers	201	30	1,539	1,770	1,760
9	Instrumentation & Measurement	67	75	4,001	4,143	4,067
10	Space Electronics & Telemetry	137	86	4,008	4,231	4,899
11	Aerospace & Navigational Electronics	77	44	3,051	3,172	3,447
12	Information Theory	167	81	3,648	3,896	3,900
13	Industrial Electronics & Control Instrumentation	124	82	2,449	2,655	1,927
14	Engineering Management	136	65	5,248	5,449	4,847
15	Electron Devices	537	28	4,287	4,852	5,269
16	Computer	813	163	8,278	9,254	9,745
17	Microwave Theory & Techniques	225	129	4,936	5,290	5,871
18	Engineering in Medicine & Biology	342	59	2,762	3,163	3,005
19	Communication Technology	332	91	4,969	5,392	4,832
20	Sonics & Ultrasonics	26	28	1,010	1,064	956
21	Component Parts	9	31	1,938	1,978	2,016
22	Product Engineering & Production	24	14	1,346	1,384	1,303
23	Automatic Control	515	59	4,034	4,608	4,472
24	Military Electronics	130	25	4,265	4,420	4,782
25	Education	18	23	1,197	1,238	1,075
26	Engineering Writing & Speech	39	37	1,661	1,737	1,737
27	Electromagnetic Compatibility	9	12	1,403	1,424	1,379
28	Human Factors in Electronics	18	22	679	719	795
29	Geoscience Electronics	10	21	1,137	1,168	800
30	Aerospace	92	11	1,489	1,592	978
31	Power	244	6	6,858	7,108	-
32	Electrical Insulation	7	1	637	645	-
33	Magnetics	3	-	190	193	-
34	Industry & General Applications	5	1	907	913	-
35	Systems Science & Cybernetics	-	-	-	-	-
Total		5,578	1,772	97,207	104,557	96,356

SECTION C

Table 3 - IEEE Group Affiliates, December 31, 1964; 2 Year Comparison

Group No.	Group Name	December 31, 1964	December 31, 1963
1	Audio	4	5
2	Broadcasting	-	-
3	Antennas & Propagation	6	5
4	Circuit Theory	3	2
5	Nuclear Science	118	95
6	Vehicular Communications	1	1
7	Reliability	71	58
8	Broadcast & Television Receivers	-	8
9	Instrumentation & Measurement	2	3
10	Space Electronics & Telemetry	1	1
11	Aerospace & Navigational Electronics	4	5
12	Information Theory	52	27
13	Industrial Electronics & Control Instrumentation	-	-
14	Engineering Management	80	59
15	Electron Devices	12	10
16	Computer	192	154
17	Microwave Theory & Techniques	8	6
18	Engineering in Medicine & Biology	369	286
19	Communication Technology	1	1
20	Sonics & Ultrasonics	11	3
21	Component Parts	1	4
22	Product Engineering & Production	10	7
23	Automatic Control	14	13
24	Military Electronics	4	2
25	Education	10	6
26	Engineering Writing & Speech	40	36
27	Electromagnetic Compatibility	10	9
28	Human Factors in Electronics	24	21
29	Geoscience Electronics	6	5
30	Aerospace	2	1
31	Power	1	-
32	Electrical Insulation	14	-
33	Magnetics	-	-
34	Industry & General Applications	-	-
35	Systems Science & Cybernetics	-	-
Total		1,071	833

SECTION C

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTION

REGION 1		SECTION																																		Total
SECTION	A G-1	BC G-2	AP G-3	CT G-4	NS G-5	VC G-6	R G-7	BTR G-8	IM G-9	SET G-10	ANE G-11	IT G-12	IECI G-13	EM G-14	ED G-15	C G-16	MTT G-17	EME G-18	Com Tech G-19	SU G-20	CP G-21	PEP G-22	AC G-23	MIL G-24	E G-25	EWS G-26	EMC G-27	HFE G-28	GE G-29	AS G-30	P G-31	EI G-32	MAG G-33	IGA G-34	Total	
Berkshire	6	-	1	11	3	1	3	3	4	-	6	2	4	12	10	15	-	2	2	2	11	1	7	5	1	3	4	-	1	1	27	5	1	1	155	
Binghamton	18	6	8	29	2	4	41	5	15	5	18	15	10	32	23	103	8	11	10	9	11	1	27	12	3	5	7	2	2	5	21	1	1	1	471	
Boston	197	44	255	395	82	42	130	58	271	223	193	364	117	314	355	621	421	185	300	79	105	79	222	285	71	82	48	51	79	85	224	34	14	33	6,058	
Buffalo	17	14	25	31	4	6	11	11	17	25	23	37	17	35	16	32	39	19	41	5	9	5	45	46	4	6	6	6	5	6	49	12	-	9	633	
Connecticut	77	21	37	90	41	21	33	24	73	47	38	54	61	90	69	143	48	53	80	32	38	29	70	43	20	29	24	14	21	19	96	15	2	19	1,571	
Elmira-Corning	2	3	1	4	3	1	2	6	6	3	2	1	6	4	25	6	8	3	3	2	10	3	8	3	-	2	2	-	-	2	1	1	-	1	124	
Ithaca	3	2	13	22	6	-	2	3	12	1	1	21	3	7	18	21	13	8	9	1	1	1	17	2	2	-	-	1	-	5	9	1	-	1	206	
Long Island	114	31	164	176	45	27	87	47	106	129	218	138	56	174	102	239	301	87	153	32	69	41	160	245	26	43	49	19	25	43	78	12	-	14	3,250	
Maine	5	3	3	5	2	4	1	2	5	4	7	3	4	1	2	3	3	4	6	2	2	-	5	3	-	1	-	-	1	-	14	-	-	-	95	
Mid-Hudson	29	3	4	47	3	3	14	8	15	1	1	23	12	40	67	273	25	12	19	3	21	10	13	4	8	11	8	3	5	1	19	2	7	3	717	
Mohawk Valley	14	2	24	16	6	2	15	3	3	12	12	11	1	39	7	33	25	6	40	1	8	4	11	40	5	7	21	1	2	3	15	1	-	1	391	
New Hampshire	8	-	33	24	1	6	5	8	21	16	14	9	5	17	11	9	36	8	15	3	6	4	2	20	5	4	4	2	3	1	18	3	-	1	322	
New York	241	108	197	349	93	84	97	107	194	157	177	245	131	261	226	639	307	257	413	69	125	74	204	220	61	114	93	54	47	60	230	39	8	38	5,719	
North Jersey	133	41	118	246	42	58	84	73	148	82	150	147	108	183	192	268	237	85	309	34	86	56	143	158	34	68	44	34	23	51	203	31	9	27	3,702	
Princeton	30	9	23	57	25	9	13	26	34	45	17	38	20	33	106	104	47	23	44	9	17	9	42	19	7	18	3	5	5	6	35	7	4	5	894	
Providence	9	3	8	29	8	6	8	4	20	12	11	21	15	23	13	18	11	7	11	17	14	12	22	13	7	9	6	7	9	5	23	8	1	4	394	
Rochester	26	3	12	43	10	10	13	12	29	14	10	22	23	32	30	56	17	36	40	11	15	13	15	17	8	9	8	2	5	2	34	5	1	6	589	
Schenectady	10	4	15	27	18	6	10	8	24	9	8	18	30	30	53	36	40	21	13	6	10	6	36	9	7	7	8	3	4	7	115	14	1	23	636	
Springfield	2	2	3	8	-	1	-	6	1	1	-	1	2	3	3	8	5	4	1	-	3	3	1	2	3	1	-	-	-	-	14	4	-	-	82	
Syracuse	37	19	53	70	6	5	25	36	23	27	17	70	6	64	80	66	67	15	40	8	19	10	27	93	20	13	5	4	5	6	40	1	-	7	984	
Vermont	1	2	-	2	-	1	3	-	5	-	-	-	2	1	4	-	1	12	1	3	-	-	3	2	2	1	-	-	-	-	5	-	-	-	51	
Worcester	6	3	4	9	1	2	1	3	3	3	3	3	3	5	9	11	5	5	4	1	-	-	6	1	5	1	2	1	1	2	19	-	-	4	126	
TOTAL	985	323	1001	1690	401	299	598	453	1029	816	926	1243	636	1400	1421	2704	1664	863	1554	329	580	361	1086	1242	299	434	339	209	243	310	1289	196	49	198	27,170	

SECTION C

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTION

REGION 2

SECTION	A	BC	AP	CT	NS	VC	R	BTR	DM	SFT	ANE	IT	IECI	EM	ED	C	MTT	EME	Com Tech	SU	CP	PFP	AC	MIL	E	EWS	EMC	HFE	GE	AS	P	EI	MAG	IGA	Total
	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	G-13	G-14	G-15	G-16	G-17	G-18	G-19	G-20	G-21	G-22	G-23	G-24	G-25	G-26	G-27	G-28	G-29	G-30	G-31	G-32	G-33	G-34	
Akron	6	5	17	8	0	3	0	1	3	5	9	4	7	9	1	20	9	5	7	1	1	1	13	4	1	1	1	-	-	1	45	3	-	5	196
Baltimore	42	16	73	111	16	13	46	22	49	90	82	87	18	116	75	124	115	46	83	14	21	14	67	151	13	25	34	10	9	34	112	5	5	11	1,749
Canton	3	-	-	3	-	3	1	1	2	-	-	2	4	4	1	3	-	3	2	1	1	2	3	-	-	1	1	-	-	1	12	2	-	1	57
Central Pennsyl- vania	8	3	19	14	4	4	5	5	10	20	6	21	4	18	10	17	14	13	19	6	2	2	7	21	6	8	10	2	4	4	6	-	-	1	293
Cincinnati	40	12	9	17	8	6	2	9	12	11	5	8	17	15	8	15	9	8	17	3	5	3	24	9	6	4	1	-	-	5	57	3	-	10	358
Cleveland	43	25	15	48	28	15	15	11	46	6	11	10	67	45	31	50	21	40	23	16	10	15	71	7	6	14	4	6	4	25	83	13	-	24	848
Columbus	23	5	68	46	15	10	15	2	29	18	21	29	28	46	32	46	52	27	45	5	8	7	47	30	7	10	5	5	10	9	37	-	3	6	746
Dayton	31	5	24	27	11	4	28	5	35	35	72	26	16	119	32	83	16	27	23	6	29	11	27	56	6	13	19	8	4	21	28	3	1	5	856
Delaware Bay	8	-	4	7	1	-	1	-	5	1	2	5	5	7	3	10	4	5	4	3	4	2	7	2	1	1	1	-	-	-	18	8	-	3	122
Emporium- Ridgway	-	2	-	1	-	-	2	3	2	1	-	1	-	1	7	4	1	-	-	3	9	3	1	-	-	-	-	-	-	-	4	-	2	-	47
Erie	6	-	3	3	1	1	1	-	3	1	1	-	5	6	1	2	-	2	5	4	2	3	6	4	-	1	-	-	-	10	11	2	-	12	96
Johnstown	1	3	1	1	1	-	-	1	2	-	2	-	-	2	1	1	2	-	1	1	2	-	1	-	-	-	-	-	-	-	10	-	-	-	33
Lehigh Valley	17	5	3	17	1	5	10	6	14	4	5	5	14	11	69	23	26	7	9	11	8	6	13	8	4	6	2	3	3	2	59	2	4	2	384
Lima	1	1	3	4	-	1	1	-	2	-	2	-	4	4	4	3	1	2	-	-	-	1	2	1	-	1	1	-	-	31	5	-	1	3	79
North Central Ohio	3	-	-	2	-	1	2	1	2	1	-	1	4	1	4	4	1	-	5	1	3	3	2	2	1	2	1	1	-	4	13	1	1	2	69
Ohio Valley	1	1	-	-	-	2	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	9
Philadelphia	157	76	133	265	52	54	118	73	159	195	130	189	101	223	152	488	158	147	249	38	94	97	169	237	47	79	54	27	26	56	192	31	12	44	4,322
Pittsburgh	29	18	12	51	46	23	16	13	34	11	6	19	50	52	68	80	11	28	26	13	6	10	75	6	11	7	10	5	5	5	193	20	9	27	995
Sharon	5	3	-	1	1	-	2	1	-	-	-	-	6	4	2	8	-	-	1	-	1	2	4	-	1	3	-	-	-	27	4	-	7	83	
Southern New Jersey	4	1	4	6	1	1	3	2	6	1	16	1	1	10	2	6	-	2	4	-	1	-	1	2	-	3	1	-	-	-	2	-	-	-	81
Susquehanna	8	6	10	15	9	7	9	12	7	5	11	2	2	9	20	7	19	3	10	6	11	6	6	10	-	5	3	-	1	3	9	-	1	1	233
Washington	158	90	323	257	76	74	98	49	208	338	180	244	50	345	168	429	257	131	448	36	56	37	103	429	41	87	139	40	69	89	131	15	8	9	5,212
West Virginia	2	4	7	2	4	5	1	-	2	3	-	-	7	3	1	5	6	-	4	1	2	1	5	-	-	2	1	-	2	-	8	1	-	3	82
Williamsport	1	2	2	1	1	-	-	-	-	-	-	1	-	2	6	3	6	1	2	-	-	-	2	2	2	-	-	-	-	1	4	-	-	1	40
Total	597	283	730	907	276	232	377	217	632	746	561	655	410	1053	698	1432	728	497	987	169	276	226	656	981	153	273	288	107	137	301	1068	113	47	177	16,990

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTION

REGION 3

SECTION	A G-1	BC G-2	AP G-3	OT G-4	NS G-5	VC G-6	R G-7	BTR G-8	IM G-9	SET G-10	ANE G-11	IT G-12	IECI G-13	EM G-14	ED G-15	C G-16	MTT G-17	EME G-18	Com Tech G-19	SU G-20	CP G-21	PEP G-22	AC G-23	MIL G-24	E G-25	EWS G-26	EMC G-27	HFE G-28	GE G-29	AS G-30	P G-31	EI G-32	MAG G-33	IGA G-34	Total
Alabama	2	3	9	10	1	1	-	1	5	6	3	1	4	6	5	6	6	6	7	1	-	1	11	6	6	2	-	-	-	1	42	-	-	4	156
Atlanta	24	14	18	28	2	9	2	8	11	14	13	15	11	18	6	20	15	13	39	4	3	3	9	13	6	8	15	-	2	2	49	4	-	6	404
Baton Rouge	1	1	1	1	2	1	-	1	4	1	1	2	1	5	2	1	2	4	4	-	1	-	3	-	1	1	-	-	1	-	17	1	-	2	62
Canaveral	16	3	28	22	4	2	37	4	32	123	30	23	6	47	6	65	20	17	35	2	4	7	18	32	4	9	19	3	7	18	15	-	-	-	658
Central Virginia	11	3	5	16	5	38	5	4	6	3	6	5	7	15	13	15	12	6	30	2	6	6	12	6	5	6	8	1	4	14	9	1	-	4	289
Chattanooga	2	2	1	-	-	2	-	-	-	-	-	-	1	2	-	2	-	-	6	-	-	-	1	-	-	1	-	-	-	-	54	-	-	1	75
East Tennessee	6	3	2	7	4	1	-	2	3	3	1	2	3	5	6	6	1	2	5	-	1	2	12	-	2	-	-	-	2	57	1	-	2	141	
Evansville-Owensboro	5	5	3	3	1	1	7	5	4	2	-	-	5	10	8	4	5	1	1	1	6	2	2	-	1	4	1	-	1	11	-	-	1	100	
Florida West Coast	13	10	12	21	6	17	23	3	19	30	28	13	8	31	12	37	48	11	26	4	8	6	14	22	4	10	14	4	8	9	30	3	1	-	505
Fort Walton	2	-	-	2	-	-	-	1	1	1	2	-	-	3	1	2	-	-	-	-	-	-	-	6	-	-	1	-	-	2	-	-	-	-	24
Gainesville	4	-	6	12	3	-	3	1	5	1	2	6	1	5	31	13	16	9	3	1	1	-	16	2	5	1	-	-	1	2	3	1	-	-	154
Hampton Roads	9	3	9	6	8	1	4	1	12	14	9	5	6	9	4	10	11	2	8	3	-	-	8	17	3	8	1	-	1	4	7	-	1	1	185
Huntsville	20	2	22	26	7	2	28	3	41	64	17	8	7	40	15	59	24	4	19	3	10	4	52	22	5	11	19	2	4	38	9	2	-	-	589
Jacksonville	1	-	-	-	-	3	-	-	1	1	-	-	2	1	-	1	1	2	-	-	1	-	-	1	-	1	-	-	-	-	9	1	-	1	27
Lexington	6	-	1	3	2	-	3	3	1	1	-	3	1	6	4	11	2	4	7	-	4	3	3	1	1	-	-	-	-	-	6	-	-	1	77
Louisville	1	3	2	6	1	2	3	-	3	-	1	-	7	6	3	2	2	3	1	-	-	-	6	2	2	1	2	2	-	3	16	1	-	1	82
Memphis	2	1	-	3	1	1	-	3	1	-	1	-	2	2	2	1	1	9	2	-	-	-	3	1	-	-	-	-	-	-	31	1	-	-	68
Miami	15	9	2	11	3	7	5	6	13	12	13	1	6	11	5	14	1	12	9	3	3	4	6	6	3	4	2	3	6	4	37	2	-	-	238
Middle Tennessee	-	-	-	1	1	-	1	-	3	-	-	-	1	2	-	1	-	1	-	1	-	-	-	-	-	1	-	-	-	7	7	-	-	-	27
Mississippi	1	1	1	4	-	-	-	-	1	-	-	1	-	4	-	5	-	6	3	-	-	-	7	-	3	1	-	-	1	-	6	-	-	1	46
Mobile	-	-	-	-	-	-	-	-	4	1	-	-	5	1	-	1	-	1	-	-	-	-	2	1	-	-	1	-	-	-	3	-	-	1	21
Nashville	7	7	2	9	2	1	1	1	5	7	5	1	2	1	4	9	6	6	7	3	3	1	14	4	1	1	-	1	-	1	12	-	-	-	124
New Orleans	10	7	10	6	3	7	6	4	14	15	9	4	6	15	4	10	8	10	3	2	2	1	5	1	2	2	13	1	3	7	58	-	-	3	251
North Carolina	25	16	12	28	8	9	9	7	14	17	9	11	11	26	22	36	25	32	35	4	7	12	17	25	9	11	2	3	2	5	52	8	2	4	515
Oak Ridge	1	-	-	1	22	-	-	-	3	-	-	1	4	1	2	3	-	-	-	-	-	-	2	-	-	2	-	-	-	2	7	-	-	-	51
Orlando	11	-	15	18	5	6	12	3	12	25	7	18	7	19	6	26	24	2	32	3	6	3	11	24	-	8	5	-	1	2	4	-	-	-	315
Palm Beach	3	-	-	4	1	1	3	1	7	2	3	-	4	-	3	17	-	1	1	2	2	1	2	4	3	-	2	-	3	2	8	-	-	-	80
Panama City	4	2	1	2	-	1	1	1	3	1	1	1	-	2	2	1	1	2	2	3	-	-	-	3	1	1	1	-	-	-	2	-	-	-	39
Pensacola	1	1	-	-	-	-	-	-	1	2	-	-	-	-	-	-	1	2	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	10
Richmond	3	1	4	-	-	3	-	2	4	2	2	-	2	6	1	4	1	1	6	1	-	-	1	1	2	1	2	-	2	-	17	-	-	2	71
Savannah	1	1	-	1	-	1	-	-	-	-	2	-	1	1	1	3	-	-	2	-	-	-	1	1	-	1	-	-	-	2	-	-	-	-	19
South Carolina	4	6	3	3	2	4	1	2	7	3	2	4	3	12	5	5	2	3	9	1	7	4	8	11	2	3	2	-	1	-	10	4	-	1	134
Virginia Mountain	4	3	3	7	1	1	-	-	2	1	4	-	5	3	4	8	4	4	1	-	1	1	7	2	5	2	-	1	-	-	11	2	-	2	89
Total	215	107	172	261	95	122	154	67	242	352	171	125	129	315	177	398	239	176	303	44	76	61	253	215	76	101	110	21	47	126	602	32	4	38	5,626

SECTION C

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTION

REGION 4

SECTION	A	BC	AP	CT	NS	VC	R	BTR	IM	SET	ANE	IT	IECI	EM	ED	C	MTT	BME	Com Tech	SU	CP	PEP	AC	MIL	E	EWS	EMC	HFE	GE	AS	P	EI	MAG	IGA	Total
	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	G-13	G-14	G-15	G-16	G-17	G-18	G-19	G-20	G-21	G-22	G-23	G-24	G-25	G-26	G-27	G-28	G-29	G-30	G-31	G-32	G-33	G-34	
Arrowhead	2	1	-	1	-	-	-	1	1	1	-	-	-	3	1	11	-	1	-	-	-	-	-	1	-	-	-	-	-	-	5	1	-	1	31
Cedar Rapids	10	2	12	27	5	3	15	2	8	11	19	9	5	30	7	36	16	15	17	-	4	3	12	5	7	9	3	2	-	2	8	-	-	1	305
Central Illinois	17	2	34	40	5	2	3	4	9	9	5	16	5	12	22	46	26	14	8	4	4	3	25	4	17	4	-	-	2	3	39	-	-	1	385
Central Indiana	50	10	16	40	3	9	6	39	17	13	8	28	19	33	34	43	15	29	33	1	10	12	66	29	14	7	4	3	4	4	53	2	3	8	665
Central Iowa	5	6	4	11	2	2	-	3	1	3	1	2	2	5	6	17	7	7	5	-	1	-	8	5	9	4	1	-	-	1	16	-	1	1	136
Chicago	204	35	77	160	78	131	57	159	115	65	52	77	123	273	95	161	98	103	169	36	74	38	103	80	24	50	36	8	9	17	237	25	4	34	3,007
Fort Wayne	8	3	5	12	1	4	5	9	3	4	3	2	8	15	11	4	5	5	12	-	3	3	4	6	1	6	-	-	1	1	20	6	1	1	172
Illinois Valley	2	-	-	2	-	-	-	-	1	2	-	1	3	2	1	2	1	2	1	-	-	-	2	-	1	2	-	-	-	-	6	-	-	-	31
Iowa - Illinois	2	-	-	4	3	1	2	1	2	2	1	2	5	5	5	4	1	2	1	1	-	-	1	-	-	2	-	-	-	1	25	-	-	5	78
Madison	10	5	6	40	3	-	1	3	7	6	5	15	13	5	23	38	6	15	13	1	7	3	22	-	10	2	-	3	2	1	27	1	1	3	297
Milwaukee	30	11	4	46	8	9	14	7	32	9	16	7	49	42	26	39	24	36	10	5	18	10	51	7	12	12	80	4	1	18	105	15	5	22	784
Nebraska	14	9	13	12	4	12	2	3	8	7	4	3	11	9	13	22	6	16	17	6	7	3	8	4	5	3	6	-	1	3	95	3	-	2	331
Northeast Michigan	3	1	-	2	5	-	1	-	5	1	-	2	7	3	4	2	2	2	1	2	3	2	2	2	1	-	-	-	-	-	10	4	-	1	68
Northeastern Wisconsin	5	2	2	4	1	3	-	4	-	3	-	3	3	5	3	7	-	-	-	1	-	1	7	-	2	-	-	-	-	1	10	-	-	3	70
Rock River Valley	8	1	1	6	4	1	1	-	6	3	-	-	10	9	5	10	1	1	2	-	3	1	6	1	-	-	2	1	-	5	10	2	-	5	105
Siouxland	2	5	-	12	1	1	-	1	-	1	1	-	1	1	3	-	-	1	2	-	-	-	-	-	1	-	-	-	-	-	13	-	-	-	46
South Bend	30	10	8	17	6	4	4	8	8	5	6	7	8	17	8	14	11	14	12	1	2	5	19	5	6	4	1	-	2	4	6	-	1	2	255
Southeastern Michigan	44	24	75	129	27	40	20	12	45	51	23	93	35	65	83	195	90	51	71	10	11	15	85	44	35	24	11	9	15	18	203	6	2	15	1,676
Southern Minnesota	3	4	3	9	1	3	1	5	5	-	-	5	-	7	4	16	2	20	4	1	3	3	4	-	-	2	-	-	-	-	1	-	-	1	107
Toledo	10	-	5	5	1	1	1	1	9	2	-	3	12	8	4	11	3	5	5	4	2	5	11	2	2	5	1	-	-	-	17	4	-	1	140
Twin Cities	43	20	13	79	10	17	25	5	37	23	28	33	23	72	58	238	24	40	42	8	25	14	73	35	10	20	7	8	4	16	81	7	5	4	1,147
West Michigan	5	4	1	2	1	3	2	2	3	-	2	2	4	4	2	2	1	2	2	-	-	-	1	1	3	2	-	1	1	1	11	2	-	1	68
Total	507	155	279	660	169	246	160	269	322	221	174	310	346	625	418	918	339	381	427	81	177	121	510	231	160	158	152	39	42	96	998	78	23	112	9,904

SECTION C

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTIONS

REGION 5

SECTION	Com																										Total								
	A G-1	BC G-2	AP G-3	CT G-4	NS G-5	VC G-6	R G-7	BTR G-8	IM G-9	SET G-10	ANE G-11	IT G-12	IECI G-13	EM G-14	ED G-15	C G-16	MTT G-17	EME G-18	Tech G-19	SU G-20	CP G-21	PEP G-22	AC G-23	MIL G-24	E G-25	EWS G-26		EMC G-27	HFE G-28	GE G-29	AS G-30	P G-31	EI G-32	MAG G-33	IGA G-34
Arkansas	12	1	1	2	2	-	2	5	4	2	2	-	4	6	2	4	1	4	3	1	-	1	6	1	4	1	-	-	1	7	20	2	-	2	103
Beaumont	5	6	-	1	-	2	-	-	-	-	-	-	2	2	1	1	2	-	-	-	-	-	2	-	1	1	-	-	-	-	7	-	-	-	33
Central Texas	27	13	21	23	11	2	3	6	15	9	15	15	3	4	17	21	13	23	8	6	4	5	8	13	14	6	6	3	19	3	66	-	-	1	403
Corpus Christi	1	1	1	1	-	1	-	1	2	-	-	-	3	2	-	5	-	1	1	-	-	1	3	1	-	2	-	-	1	2	9	1	-	-	40
Dallas	63	24	61	108	16	31	28	28	43	56	48	43	29	101	79	91	92	31	81	17	24	13	36	65	12	23	13	4	66	8	109	2	2	2	1,449
Denver	28	20	78	55	17	8	8	11	83	43	14	26	20	34	27	50	60	41	54	6	7	8	45	34	18	19	13	5	16	31	110	1	2	8	1,000
El Paso	11	3	11	14	8	7	3	3	16	17	9	7	1	18	8	26	10	6	9	2	1	-	5	9	1	15	4	3	2	4	8	-	-	2	243
Fort Worth	10	4	9	13	5	4	6	2	1	9	10	7	4	7	5	27	9	4	4	2	-	1	17	9	4	2	8	1	4	7	26	1	-	2	224
Houston	53	13	19	51	19	20	15	7	53	45	18	39	27	50	18	94	10	44	27	10	12	9	28	9	6	8	5	4	97	17	71	3	1	5	907
Kansas City	23	10	21	34	9	2	9	7	20	10	22	5	7	26	12	31	22	22	20	5	3	9	15	11	11	12	1	4	4	6	69	3	-	2	467
Oklahoma City	14	6	7	12	6	9	3	3	10	13	11	7	5	15	13	19	7	3	26	-	2	3	11	22	4	3	2	1	1	1	81	-	-	-	320
Panhandle	-	1	-	-	-	1	-	-	-	-	-	-	2	1	-	-	1	-	1	-	-	-	1	-	-	-	-	-	-	9	-	-	-	-	17
St. Louis	26	13	31	40	10	7	26	4	31	29	45	28	28	44	17	61	32	34	27	5	10	10	63	35	17	17	13	4	2	23	110	8	1	18	869
Shreveport	9	2	2	8	1	4	1	2	4	1	1	1	5	3	2	5	2	2	4	2	2	-	2	1	5	2	1	1	2	-	26	-	-	2	105
South Plains	6	6	4	9	3	3	-	1	6	1	-	3	2	1	6	6	1	1	4	-	-	-	2	1	4	2	-	-	3	-	4	-	-	-	79
Tulsa	11	8	10	20	6	4	5	4	14	11	10	16	9	9	11	27	7	7	8	5	4	3	20	11	6	-	6	-	21	4	30	-	-	4	311
West Central Texas	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	2	1	-	2	-	-	-	1	-	-	-	-	1	-	-	5	-	-	1	15
Wichita	7	2	6	8	-	1	3	3	5	2	7	2	-	4	2	7	6	1	4	-	6	2	4	8	1	4	2	2	1	3	10	1	-	-	114
Total	306	133	282	399	113	107	112	87	307	248	213	199	151	327	220	477	276	224	283	61	75	65	269	230	108	117	74	33	240	116	770	22	6	49	6,699

SECTION C

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTIONS

REGION 6

SECTION	Com																																		Total	
	A G-1	BC G-2	AP G-3	CT G-4	NS G-5	VC G-6	R G-7	BTR G-8	DM G-9	SET G-10	ANE G-11	IT G-12	IECI G-13	EM G-14	ED G-15	C G-16	MTT G-17	EME G-18	Tech G-19	SU G-20	CP G-21	PEP G-22	AC G-23	MIL G-24	E G-25	EWS G-26	EMC G-27	HFE G-28	GE G-29	AS G-30	P G-31	EI G-32	MAG G-33	IGA G-34		
Alanogordo-Hollenman Albuquerque	1	-	5	-	-	-	-	1	6	13	4	1	-	6	-	9	4	3	1	-	-	-	5	7	-	2	-	1	-	2	-	-	-	-	-	71
Anchorage	4	2	3	1	-	1	-	-	3	3	7	1	2	4	-	3	2	-	7	1	-	-	3	2	1	5	3	-	3	-	10	-	-	-	71	
Antelope Valley	3	1	-	3	-	-	1	-	4	5	3	-	-	-	1	8	1	-	1	-	-	-	1	3	-	-	1	-	-	2	2	-	-	-	40	
Boise	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	8	-	-	14	
Buenaventura	8	1	8	15	4	3	5	2	17	14	12	8	4	29	12	23	13	5	7	3	5	1	5	25	2	2	10	-	5	7	2	-	-	-	257	
China Lake	5	2	4	9	1	1	2	1	5	9	1	2	1	7	1	4	9	1	2	1	1	-	9	8	1	1	-	1	1	2	1	-	-	-	93	
Foothill	28	7	37	48	13	10	21	11	49	73	24	37	17	54	28	81	63	24	34	5	16	8	56	65	10	28	10	7	12	18	31	2	-	8	935	
Fort Huachuca	4	-	2	2	-	1	5	-	4	1	1	4	-	4	2	15	1	1	12	-	-	-	-	22	1	6	8	1	-	-	1	-	-	-	98	
Hawaii	10	2	11	7	1	3	2	2	9	5	11	6	4	12	3	12	4	-	18	1	1	-	8	9	2	6	4	-	5	2	18	-	-	1	179	
Idaho	2	1	-	1	13	1	-	-	12	1	-	1	2	-	2	2	-	1	-	-	1	-	4	-	1	-	-	-	1	-	1	1	-	-	48	
Las Vegas	3	-	2	5	12	1	-	1	7	3	-	2	3	5	3	3	1	3	3	-	1	1	6	1	-	-	1	-	-	1	12	-	-	-	80	
Metropolitan Los Angeles	42	11	44	79	14	24	20	14	38	59	30	46	18	36	41	136	51	31	49	5	26	11	72	40	8	26	13	8	7	21	100	5	1	7	1,133	
Montana	2	2	2	5	1	2	1	1	3	2	2	4	2	4	1	3	3	4	8	-	2	-	4	2	2	1	1	1	1	1	13	-	-	2	82	
Orange County	68	11	79	154	21	14	74	19	98	159	115	97	44	130	116	373	105	67	92	22	52	27	149	148	15	45	32	22	35	56	41	12	1	8	2,501	
Phoenix	22	7	31	72	5	14	24	12	16	37	27	28	15	30	56	131	54	15	37	4	19	9	37	25	7	13	10	3	6	12	65	4	3	3	853	
Portland	26	9	6	18	12	8	6	2	33	7	5	10	16	22	26	30	11	21	19	4	6	3	22	4	9	11	11	6	3	-	144	8	-	4	522	
Richland	1	-	-	2	8	1	2	1	4	1	-	-	3	3	-	2	-	2	1	1	-	-	1	-	-	1	1	-	-	-	20	-	-	2	57	
Sacramento	14	10	8	11	9	18	4	5	21	8	8	4	11	14	9	18	9	3	16	1	4	4	16	6	8	11	6	-	2	10	41	1	-	6	316	
San Diego	52	9	53	52	15	7	24	8	46	75	42	37	17	47	33	83	56	28	29	11	15	11	38	52	7	14	15	6	19	27	29	2	-	3	962	
San Fernando Valley	70	22	112	109	40	21	75	22	113	138	106	75	44	111	87	292	149	52	78	24	50	35	117	143	12	31	40	26	26	48	43	5	1	16	2,333	
San Francisco	214	62	228	388	125	75	96	99	227	314	133	219	106	322	415	547	455	181	291	39	67	88	265	211	62	85	60	25	59	82	288	23	6	35	5,892	
San Gabriel Valley	46	10	39	59	22	13	27	10	70	82	32	53	28	51	47	103	53	36	50	15	22	13	43	27	5	11	9	4	27	21	53	5	4	3	1,093	
Santa Barbara	17	2	17	27	19	4	3	4	17	24	8	16	10	20	23	25	24	8	13	6	9	2	17	23	5	4	5	2	7	10	6	-	-	6	383	
Santa Monica Bay	59	7	71	121	23	14	47	23	67	133	88	88	34	89	92	228	100	59	82	12	35	30	127	95	12	28	35	33	24	54	23	6	1	6	1,946	
Seattle	53	11	69	54	15	12	14	6	55	48	39	39	18	76	26	64	60	38	65	13	12	5	60	46	12	17	31	8	11	53	71	6	1	15	1,123	
South Bay Harbor	48	7	45	90	14	14	43	11	45	114	61	63	24	81	70	171	71	26	58	10	33	13	105	79	8	20	23	11	16	55	15	5	1	8	1,458	
Spokane	4	3	6	4	5	3	-	2	2	2	-	1	3	5	6	10	3	6	4	1	-	1	3	3	3	1	-	2	1	2	27	-	-	-	113	
Tucson	8	3	20	16	4	8	7	6	11	15	8	12	6	13	8	17	14	11	17	2	4	2	15	15	1	3	16	-	3	2	3	-	-	-	270	
Utah	16	3	6	12	1	3	8	3	9	11	6	7	3	12	13	39	8	16	13	2	2	-	16	7	12	4	-	1	6	2	17	-	-	1	259	
Vandenberg	3	3	4	3	-	-	1	2	7	25	8	1	-	6	1	5	4	-	5	-	-	-	2	7	-	4	1	-	1	15	2	-	-	-	110	
Wenatchee	1	1	-	-	-	-	-	-	-	-	-	-	3	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	7	-	-	-	14	
Total	855	212	927	1394	452	281	531	271	1036	1421	784	875	445	1211	1155	2465	1348	649	1025	192	392	271	1219	1085	211	391	349	170	287	508	1107	86	20	134	23,759	

SECTION C

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTIONS

REGION 7

SECTION	A	BC	AP	CT	NS	VC	R	BTR	IM	SET	ANE	IT	IECI	EM	ED	G	MTT	BME	Com	SU	CP	PEP	AC	MIL	E	EWS	EMC	HFE	GE	AS	P	EI	MAG	IGA	Total
	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	G-13	G-14	G-15	G-16	G-17	G-18	Tech	G-19	G-20	G-21	G-22	G-23	G-24	G-25	G-26	G-27	G-28	G-29	G-30	G-31	G-32	G-33	
Bay of Quinte	11	4	6	4	3	-	2	5	5	2	3	3	10	2	7	12	5	16	5	1	2	2	14	6	3	2	1	-	-	-	20	1	1	6	164
Hamilton	14	2	3	8	2	2	5	9	4	2	3	4	7	10	5	6	7	2	10	5	2	3	10	3	2	6	-	-	2	-	20	8	1	8	183
Kitchener-Waterloo	17	3	3	13	2	-	3	13	1	1	5	4	2	3	8	10	5	3	7	2	7	2	6	2	6	3	1	2	-	1	8	2	-	-	145
London	7	2	3	1	1	-	-	2	2	2	3	1	3	3	1	3	2	2	-	2	-	1	2	1	2	2	-	-	2	-	13	2	-	-	65
Montreal	45	29	35	47	14	14	19	20	28	20	29	21	39	40	21	38	46	33	72	17	9	20	51	21	14	16	10	3	8	5	121	12	1	17	935
Niagara International	9	-	4	9	1	3	2	3	6	6	5	3	4	5	3	6	5	2	4	1	5	2	11	4	4	1	1	1	2	1	20	2	1	3	139
Northern Alberta	11	-	3	5	4	5	-	1	2	2	5	3	3	6	2	9	7	2	6	1	-	-	4	2	2	4	-	-	4	2	10	1	-	1	107
Ottawa	22	8	33	27	11	6	10	8	20	22	20	15	11	22	17	35	32	10	49	8	10	5	17	40	7	11	10	5	9	7	28	3	2	5	545
Quebec	6	4	8	7	1	2	1	4	2	2	3	3	4	4	4	7	8	2	8	1	1	2	10	2	1	2	1	1	1	1	28	1	-	2	134
Regina	-	-	4	4	2	2	1	-	2	2	-	1	4	2	2	6	2	5	10	-	-	-	1	-	-	1	-	-	1	4	-	-	-	56	
St. Maurice	-	1	-	-	-	-	-	-	1	-	-	-	2	1	-	1	-	1	1	-	-	1	1	-	2	1	-	-	-	6	-	-	-	19	
Southern Alberta	6	3	3	1	2	3	-	3	1	5	1	-	3	4	-	3	3	2	6	1	-	-	-	1	1	1	-	4	1	-	7	1	-	-	66
Toronto	63	29	29	47	6	30	11	25	32	18	14	13	42	31	39	63	31	31	55	6	15	17	42	12	15	18	8	6	7	8	142	9	3	18	935
Vancouver	19	8	12	10	1	17	2	9	10	6	7	4	13	10	8	18	16	11	38	2	3	-	14	1	3	6	4	1	3	2	77	2	-	3	340
Victoria	4	1	-	2	-	2	-	-	1	1	-	-	-	2	-	1	-	1	-	1	-	1	1	-	1	1	-	1	-	6	-	-	1	28	
Winnipeg	14	5	7	12	7	6	4	1	6	2	7	2	9	4	7	6	7	6	10	-	6	3	11	6	1	3	1	1	2	1	18	3	-	-	178
Total	248	99	153	197	57	92	60	103	123	93	105	77	156	149	124	224	176	129	281	48	60	59	195	101	64	78	37	24	42	29	536	47	9	64	4,039

SECTION C

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTIONS

REGION 8

SECTION	A G-1	BC G-2	AP G-3	CT G-4	NS G-5	VC G-6	R G-7	BTR G-8	IM G-9	SET G-10	ANE G-11	IT G-12	IECI G-13	EM G-14	ED G-15	C G-16	MIT G-17	BME G-18	Com Tech G-19	SU G-20	CP G-21	PEP G-22	AC G-23	MIL G-24	E G-25	EWS G-26	EMC G-27	HFE G-28	GE G-29	AS G-30	P G-31	EI G-32	MAG G-33	IGA G-34	Total
Benelux	43	9	24	43	14	10	17	59	27	21	20	36	25	17	31	48	24	14	33	13	19	8	36	16	8	11	8	5	5	9	13	3	-	2	671
Egypt	1	2	4	8	5	-	-	9	2	4	3	-	1	2	3	5	3	1	5	-	1	1	2	1	2	1	1	-	-	-	7	-	-	-	74
France	19	7	33	39	22	8	26	16	34	29	18	35	23	12	40	60	36	17	32	15	31	9	42	25	10	6	5	7	11	12	20	9	2	6	716
Genera	16	7	13	29	11	6	12	13	24	17	12	17	14	14	37	29	23	13	19	8	12	7	16	15	4	6	7	3	7	5	28	8	-	3	455
Israel	3	-	4	15	5	3	2	1	10	9	4	4	6	3	5	18	1	8	5	1	5	2	13	4	1	1	1	2	1	-	2	1	-	1	141
Italy	22	9	26	64	18	15	23	22	29	17	16	45	20	20	40	82	32	14	32	10	35	16	43	25	8	6	8	7	5	6	16	5	1	5	742
Norway	2	2	6	8	1	2	3	2	7	6	5	6	3	2	5	10	7	5	7	1	4	3	7	10	-	-	1	1	2	1	7	-	-	3	129
United Kingdom and Eire	28	11	27	60	18	11	17	14	46	18	18	20	26	25	67	47	51	22	43	15	27	15	38	25	10	5	4	4	5	6	91	11	-	10	835
West Germany	10	6	15	29	8	2	12	7	15	14	13	22	8	11	25	31	27	7	14	7	16	4	18	16	3	4	5	2	2	4	6	3	-	-	366
Total	144	53	152	295	102	57	112	143	194	135	109	185	126	106	253	330	204	101	190	70	150	65	215	137	46	40	40	31	38	43	190	40	3	30	4,129

SECTION C

REGION 9

TABLE 4 - 1964 IEEE GROUP MEMBERSHIP BY GROUP, BY REGION, BY SECTIONS

SECTION	Com																															Total				
	A-1	A-2	A-3	AP	AT	NS	VC	R	BTR	IM	SET	ANE	IT	IECI	EM	EU	C	MTT	AME	TECH	SU	CP	PEP	AC	MIL	E	EWS	EMC	HFE	GF	AS		P	EL	MAG	IGA
	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	G-13	G-14	G-15	G-16	G-17	G-18	G-19	G-20	G-21	G-22	G-23	G-24	G-25	G-26	G-27	G-28	G-29	G-30	G-31	G-32	G-33	G-34		
Buenos Aires	7	3	3	9	5	2	1	6	8	4	1	5	6	2	5	12	9	8	6	3	3	1	7	1	7	1	2	3	1	1	1	1	3	2	-	131
Chile	3	-	1	5	1	1	1	1	1	1	2	2	1	-	3	3	2	1	1	1	1	1	3	-	2	1	1	-	-	-	-	2	-	-	39	
Colombia	4	3	14	8	-	2	-	6	7	1	2	-	3	2	-	14	6	4	8	-	-	2	4	1	1	1	-	-	-	-	1	18	1	-	113	
Mexico	6	2	5	11	4	3	1	7	3	3	2	5	6	13	9	9	7	-	5	-	3	6	6	3	4	3	1	-	1	-	44	5	-	3	180	
Puerto Rico and Virgin Islands	4	3	5	4	3	3	-	1	-	-	-	-	1	5	2	2	5	2	6	-	-	1	-	2	-	-	1	-	1	-	14	-	-	-	65	
Rio de Janeiro	1	-	3	2	1	-	-	1	-	-	-	1	-	1	1	1	2	1	5	-	-	-	1	-	1	1	-	-	-	2	13	-	-	38		
Tokyo	43	40	88	102	38	32	48	52	62	52	42	99	53	32	140	126	120	58	86	44	57	37	77	41	24	25	28	29	25	23	50	27	2	7	1,809	
Total	68	51	119	141	52	42	50	74	81	61	49	112	70	55	160	167	151	74	117	48	63	48	98	48	33	34	33	30	28	27	144	35	2	10	2,375	

GROUP NAME		GRAND TOTAL
G-1	Audio	3,925
G-2	Broadcasting	1,416
G-3	Antennas & Propagation	3,815
G-4	Circuit Theory	5,944
G-5	Nuclear Science	1,717
G-6	Vehicular Communications	1,478
G-7	Reliability	2,154
G-8	Broadcast & Television Receivers	1,684
G-9	Instrumentation & Measurement	3,966
G-10	Space Electronics & Telemetry	4,093
G-11	Aerospace & Navigational Electronics	3,092
G-12	Information Theory	3,781
G-13	Industrial Electronics & Control Instrumentation	2,469
G-14	Engineering Management	5,241
G-15	Electron Devices	4,626
G-16	Computer	9,115
G-17	Microwave Theory & Techniques	5,125
G-18	Bio-Medical Electronics	3,094
G-19	Communication Technology	5,167
G-20	Sonics & Ultrasonics	1,042
G-21	Component Parts	1,849
G-22	Product Engineering & Production	1,277
G-23	Automatic Control	4,501
G-24	Military Electronics	4,270
G-25	Education	1,150
G-26	Engineering Writing & Speech	1,626
G-27	Electromagnetic Compatibility	1,422
G-28	Human Factors in Electronics	664
G-29	Geoscience Electronics	1,104
G-30	Aerospace	1,556
G-31	Power	6,704
G-32	Electrical Insulation	649
G-33	Magnetics	163
G-34	Industry & General Applications	812
Total		100,691

SECTION C

Table 5 - Group Chapters - December 31, 1964

Group Code No.	Name of Group	No. of Chapters	Section Locations		
G-30	Aerospace	8	Atlanta Baltimore Cleveland	Denver Houston Lima	Seattle San Francisco
G-3	Antennas & Propagation	27	Akron Albuquerque Baltimore Boston Buffalo Central Pa. Chicago Columbus Dayton	Denver Foothill Huntsville Kansas City Los Angeles Long Island Montreal Nebraska New Orleans	Orange County Philadelphia San Diego San Francisco Seattle SE Michigan Syracuse Toronto Washington, D. C.
G-1	Audio	20	Albuquerque Boston Central Indiana Central Texas Chicago Cincinnati Cleveland	Dayton Houston Kitchener-Waterloo Milwaukee Montreal Nebraska	Ottawa Philadelphia St. Louis San Diego San Francisco Twin Cities Washington, D. C.
G-23	Automatic Control	16	Akron Baltimore Boston Chicago Dallas-Fort Worth	Long Island Los Angeles Milwaukee New York North Jersey Philadelphia	Phoenix Pittsburgh San Francisco Schenectady Twin Cities
G-2	Broadcasting	12	Cleveland Florida West Coast Houston Montreal	Nebraska Philadelphia Pittsburgh St. Louis	San Francisco Twin Cities Vancouver Washington, D. C.
G-8	Broadcast & Television Receivers	4	Chicago Central Indiana	Nebraska	Philadelphia
G-4	Circuit Theory	11	Albuquerque Cedar Rapids Central Texas Chicago	Cleveland Houston Los Angeles Nebraska	Philadelphia San Francisco Syracuse
G-19	Communication Technology	22	Baltimore Boston Canaveral Chicago Connecticut Dallas Denver	Florida West Coast Long Island Mohawk Valley Monmouth Nebraska North Jersey Oklahoma City Orlando	Philadelphia San Francisco Seattle Syracuse Toronto Twin Cities Washington, D. C.
G-21	Component Parts	9	Baltimore Chicago Dayton	Houston Los Angeles Nebraska	NY/NJ/LI Philadelphia Washington, D. C.

SECTION C

Table 5 - Group Chapters - December 31, 1964 (continued)

Group Code No.	Name of Group	No. of Chapters	Section Locations		
G-16	Computers	26	Akron Baltimore Binghamton Boston Chicago Cleveland Dallas-Fort Worth Dayton	Houston Long Island Los Angeles Mohawk Valley NY/Conn. Nebraska North Jersey Orange County Philadelphia	Phoenix Pittsburgh San Diego San Francisco SE Michigan Syracuse Twin Cities Utah Washington, D. C.
G-25	Education	1	Utah		
G-27	Electromagnetic Compatibility	14	Boston Canaveral Chicago Dayton Fort Worth	Huntsville Los Angeles Mohawk Valley New Orleans	NY/NJ/LI Philadelphia San Francisco Seattle Washington, D. C.
G-15	Electron Devices	13	Albuquerque Boston Los Angeles NY/NJ/LI	Nebraska Philadelphia Pittsburgh San Francisco	Schenectady SE Michigan Syracuse Twin Cities Washington, D. C.
G-14	Engineering Management	19	Baltimore Binghamton Boston Buenaventura Chicago Cleveland	Dayton Houston Huntsville Los Angeles Mohawk Valley New Orleans	NY/NJ/LI Philadelphia San Francisco Seattle Syracuse Twin Cities Washington, D. C.
G-18	Engineering in Medicine & Biology	25	Baltimore Boston Buffalo Central Texas Chicago Cleveland Columbus Dayton Denver	Houston Los Angeles Memphis Milwaukee Montreal Nebraska NY/NJ/LI & Princeton	North Carolina Philadelphia Portland Rochester San Diego San Francisco Seattle Twin Cities Washington, D. C.
G-26	Engineering Writing & Speech	10	Boston Chicago Los Angeles	North Jersey Philadelphia San Francisco SE Michigan	Syracuse Twin Cities Washington, D. C.
G-29	Geoscience Electronics	1	Houston		
G-28	Human Factors in Electronics	1	Los Angeles		
G-13	Industrial Electronics & Control Instrumentation	5	Boston Chicago	Cleveland Nebraska	Schenectady
G-34	Industry & General Applications	3	Baltimore	Boston	San Francisco

SECTION C

Table 5 - Group Chapters - December 31, 1964 (continued)

Group Code No.	Name of Group	No. of Chapters	Section Locations		
G-12	Information Theory	9	Baltimore Boston Buffalo	Los Angeles Nebraska Philadelphia	San Francisco Syracuse Washington, D. C.
G-9	Instrumentation & Measurement	11	Boston Chicago Houston Idaho	Long Island Los Angeles Miami	Philadelphia San Francisco Utah Washington, D. C.
G-17	Microwave Theory & Techniques	31	Albuquerque Baltimore Boston Buffalo Chicago Columbus Dallas Denver Florida West Coast Foothill	Huntsville Kansas City Long Island Los Angeles Milwaukee Montreal Nebraska New York North Jersey Orange County Orlando	Philadelphia San Diego San Francisco Schenectady Seattle SE Michigan Syracuse Tokyo Toronto Washington, D. C.
G-24	Military Electronics	23	Atlanta Baltimore Boston Buffalo Canaveral Central Indiana Chicago Dayton	Fort Walton Fort Huachuca/Phoenix/Tucson Long Island Los Angeles Mohawk Valley Nebraska Ottawa	Philadelphia Rochester San Diego San Francisco South Carolina SE Michigan Syracuse Washington, D. C.
G-5	Nuclear Science	10	Albuquerque (2) Boston Chicago	Dayton Idaho Los Angeles	Nebraska San Francisco Washington, D. C.
G-31	Power	50	Akron Atlanta Baltimore Binghamton Boston Central Indiana Central Texas Chattanooga Chicago Cincinnati Cleveland Connecticut Dallas Dayton Denver East Tennessee Foothill	Florida West Coast Fort Worth Houston Kansas City Los Angeles Madison Memphis Mid-Hudson Mid-Tennessee Milwaukee Nebraska New Orleans New York/Long Island North Jersey Oklahoma City Philadelphia	Phoenix Portland Rochester St. Louis San Diego San Francisco Schenectady Seattle Shreveport SE Michigan Syracuse Tokyo Toronto Twin Cities Utah Vancouver Washington, D. C.
G-22	Product Engineering & Production	7	Boston Chicago Los Angeles	New York/ New Jersey/ Long Island	Philadelphia San Francisco Washington, D. C.
G-7	Reliability	12	Baltimore Binghamton Boston Canaveral	Chicago Florida West Coast Fort Worth Los Angeles	NY / NJ / LI Philadelphia San Francisco Washington, D. C.

SECTION C

Table 5 - Group Chapters - December 31, 1964 (continued)

Group Code No.	Name of Group	No. of Chapters	Section Locations		
G-10	Space Electronics & Telemetry	15	Albuquerque Atlanta Boston Canaveral Chicago	Dayton Denver Huntsville Los Angeles Orlando	Philadelphia San Diego San Francisco Utah Washington, D. C.
G-6	Vehicular Communications	14	Chicago Cleveland Dallas Florida West Coast Houston	Los Angeles Nebraska NY / NJ / LI Philadelphia	San Francisco SE Michigan Toronto Twin Cities Washington, D. C.
31 Groups		406 Chapters		75 Sections	

Table 1

REPORT OF EDITORIAL ACTIVITIES, 1964GENERAL

In contrast to 1963, which was a year of study and deliberation regarding future editorial plans, 1964 was a year of action and change. Without a doubt, the highlight of the year was the January appearance of IEEE SPECTRUM. This new magazine, which is general in nature and primarily educational in content, serves the entire IEEE and goes to all members with the exception of Student members. After only a year of publication, SPECTRUM has firmly established itself as a major integrating and unifying force for the IEEE and the electrical and electronics engineering profession.

Also of major import was the implementation of the decision to continue the PROCEEDINGS OF THE IEEE by placing it on a paid subscription basis. It is encouraging to note that the 1964 subscriptions to this research-oriented journal were in excess of 55,000.

Considerable progress was made during the year in merging the former publications of the AIEE and IRE. Several new Group TRANSACTIONS were established in areas not previously served by this publication medium. At the same time, all former publications, with the exception of ELECTRICAL ENGINEERING, were continued without interruption or substantial change in character or quantity. ELECTRICAL ENGINEERING was discontinued, having been replaced by SPECTRUM.

The total 1964 IEEE editorial program, excluding the translated journals, resulted in the publication of more than 2100 papers and 1000 letters, for a total of over 23,000 editorial pages during the year. This latter figure represents a slight increase in the number of pages published in journals and a decrease in the pages of preprinted papers.

To keep the Editorial Board in close touch with the complex and expanding editorial activity of the IEEE, a Board member was given responsibility to oversee and report on each of the following: PROCEEDINGS, SPECTRUM, Group TRANSACTIONS, Translated Journals, STUDENT JOURNAL, and Information Retrieval. Boards of Consultants, modeled after that in existence for the STUDENT JOURNAL, were established under the Editorial Board member responsible for PROCEEDINGS and SPECTRUM.

The year 1964 saw the retirement of Charles S. Rich from the Headquarters editorial staff after 34 years of dedicated service to the AIEE and the IEEE. He carried with him the esteem and best wishes of his many friends and associates.

PROCEEDINGS OF THE IEEE

The policy of publishing high-level, research-oriented papers of broad interest in the PROCEEDINGS was continued. Although the philosophy was adopted that the coverage of this journal be expanded to include all areas pertinent to the IEEE, few non-electronics papers were submitted for consideration during 1964. The year was highlighted by the appearance of two special issues dedicated to the thriving fields of Cryogenic Electronics and Integrated Electronics and one special issue covering all phases of Project West Ford.

The number of regular papers submitted for publication consideration during 1964 and their disposition remained about the same as in the past, viz., 281 papers were received of which 31% were accepted, 32% were referred to the TRANSACTIONS Editors for consideration, and 37% were rejected. The number of letters published showed a modest increase, being 513 as compared to 506 for 1963, and 407 pages were devoted to this quick method of announcing important research results.

During the year the PROCEEDINGS carried a total of 1845 editorial pages and 659 pages of advertising and other non-editorial material, making a grand total of 2504 pages published.

IEEE SPECTRUM

The 1964 editorial year began with a flourish with the successful launching of IEEE SPECTRUM in January. During the late 1963 and early 1964, the Headquarters editorial staff was augmented by an art director and two staff writers to make this major undertaking possible.

The majority of the 69 articles published in SPECTRUM were solicited from authors acknowledged to be outstanding in the various subject areas covered. A few articles were voluntarily contributed and three were staff written. Of the 2560 pages published, 1389 were devoted to technical and editorial matter and 1171 consisted of advertising and other non-editorial material.

TRANSACTIONS

The TRANSACTIONS, both Bimonthly and Group, again encompassed a major share of the IEEE publication activity. During 1964 there were 31 Groups which published TRANSACTIONS, and these accounted for 114 issues totaling 12,119 pages. These figures include the publication output of the Power Group, which was formed from a TOC Division on July 1, 1964.

The three Bimonthly TRANSACTIONS produced 19

SECTION D

TRANSACTIONS (continued)

issues made up of 3020 pages. These figures do not include those issues of the IEEE TRANSACTIONS ON POWER APPARATUS AND SYSTEMS published after the formation of the Power Group, but do include an 880-page Special Supplement to that TRANSACTIONS which was printed to eliminate the 1963 backlog of papers.

It is worthy of note that this year two TRANSACTIONS, those of the Electron Devices Group and the Power Group, became monthly publications.

IEEE STUDENT JOURNAL

The bimonthly student magazine of the IEEE continued to serve the Student membership during 1964. It provided its more than 25,000 readers with 288 pages of technical and other career information, including 43 articles.

TRANSLATED JOURNALS

The IEEE continued its program of translating and publishing four Russian and two Japanese technical journals. This program is carried out with the support of the National Science Foundation. The year 1964 saw the appearance of 4308 pages translated from the Russian and 1394 pages from the Japanese. Advance tables of contents of issues to be translated were carried in SPECTRUM, as were signed critical reviews of selected papers which had been published.

SPECIAL PUBLICATIONS AND PREPRINTS

The papers presented at the IEEE International Convention held in New York in March resulted in publication of a ten-part CONVENTION RECORD totaling 2577 pages, as compared to the 1963 total of 1988 pages.

In addition, 8 Special and Technical Conference Publications were issued comprising 1156 pages. Finally, a total of 217 papers, amounting to 3312 pages, were individually preprinted in photo-offset form for six meetings and conferences.

SECTION E

Table 1 - IEEE Student Branches and Student Branch Membership, 1964

Eleven Student Branches were established during 1964. The total number of Student Branches is now 270, operating as follows:

- 213 - IEEE Student Branches
- 56 - IEEE Student Associate Branches*
- 1 - IEEE Student/Student Associate Branch

<u>School</u>	<u>Section Location</u>	<u>Region</u>	<u>Membership***</u>
*Academy of Aeronautics	New York	1	37
Air Force Institute of Technology	Dayton	2	25
Akron, University of	Akron	2	39
Alabama, University of	Alabama	3	72
Alaska, University of	Anchorage	6	16
Alberta, University of	Northern Alberta	7	87
Arizona State University	Phoenix	6	153
Arizona, University of	Tucson	6	65
Arkansas, University of	Arkansas	5	85
Arlington State College	Fort Worth	5	138
Auburn University	Alabama	3	125
Bradley University	Illinois Valley	4	46
*Brevard Engineering College	Canaveral	3	24
Bridgeport, University of	Connecticut	1	37
Brigham Young University	Utah	6	66
*British Columbia Vocational School	Vancouver	7	26
British Columbia, University of	Vancouver	7	142
*Bronx Community College	New York	1	48
*Bronx Community College (Evening Div.)	New York	1	6
Brooklyn, Polytechnic Institute of (Day Div.)	New York	1)	
Brooklyn, Polytechnic Institute of (Evening Div.)	New York)	151
*Broome Technical Community College	Binghamton	1	33
Brown University	Providence	1	21
Bucknell University	Williamsport	2	28
Buenos Aires, University of	Buenos Aires	9	22
California Institute of Technology	San Gabriel Valley	6	15
California State Polytechnic College (San Luis Obispo)	Santa Barbara	6	182
California State Polytechnic College (Kellogg-Voorhis Campus)	Foothill	6	42
California State College at Long Beach	South Bay Harbor	6	30
California State College at Los Angeles	Metropolitan Los Angeles	6	24
California, University of (Berkeley)	San Francisco	6	167
**California, University of (Los Angeles)	Santa Monica Bay	6	59
**California Western University	Santa Monica Bay	6	14
*Capitol Radio Engineering Institute	Washington	2	44
Carnegie Institute of Technology	Pittsburgh	2	52
Case Institute of Technology	Cleveland	2	70
Catholic University of America	Washington	2	21
*Central Technical Institute	Kansas City	5	63
Christian Brothers College	Memphis	3	36
Cincinnati, University of	Cincinnati	2	73
Citadel, The	South Carolina	3	18
Clarkson College of Technology	Mohawk Valley	1	30
Clemson University	South Carolina	3	65
Colorado State University	Denver	5	33
Colorado, University of	Denver	5	152
Columbia University	New York	1	59
Concepcion, Universidad de	Chile	9	3
Connecticut, University of	Connecticut	1	77
Cooper Union, The	New York	1	46

<u>School</u>	<u>Section Location</u>	<u>Region</u>	<u>Membership***</u>
Cornell University	Ithaca	1	72
Dayton, University of	Dayton	2	48
*Dayton, University of, Technical Institute	Dayton	2	10
Delaware, University of	Delaware Bay	2	59
Denver, University of	Denver	5	50
Detroit, University of	Southeastern Michigan	4	44
*DeVry Technical Institute (Illinois)	Chicago	4	365
*DeVry Technical Institute (Canada)	Toronto	7	4
Drexel Institute of Technology	Philadelphia	2	103
Duke University	North Carolina	3	20
**-*Eastern Ontario Institute of Technology	Ottawa	7	22
Ecole Polytechnique	Montreal	7	52
*Electronic Technical Institute	San Diego	6	18
**Escuela Tecnica Superior de Ingenieros de Telecomunicacion (Spain)	-	8	43
Evansville College	Evansville-Owensboro	3	28
Fairleigh Dickinson University	North Jersey	1	66
Fenn College	Cleveland	2	51
Florida, University of	Gainesville	3	119
*Franklin Institute of Boston	Boston	1	61
**-*Franklin University	Columbus	2	-
Fresno State College	San Francisco	6	10
Gannon College	Erie	2	42
*Gaston Technical Institute	North Carolina	3	35
George Washington University	Washington	2	43
Georgia Institute of Technology	Atlanta	3	119
**Grove City College	Sharon	2	50
*Hamilton Institute of Technology, The	Hamilton	7	51
Hartford, University of (Hillyer College)	Connecticut	1	31
Hawaii, University of	Hawaii	6	7
*Heald Engineering College	San Francisco	6	63
Hofstra College	Long Island	1	19
Houston, University of (College of Engineering)	Houston	5	83
*Houston, University of (College of Technology)	Houston	5	17
Howard University	Washington	2	53
*Hudson Valley Community College	Schenectady	1	29
Idaho, University of	Spokane	6	30
Illinois Institute of Technology	Chicago	4	38
Illinois, University of (Urbana)	Central Illinois	4	141
*Illinois, University of Navy Pier, Chicago	Chicago	4	29
Indiana Institute of Technology	Fort Wayne	4	56
Iowa, State University of	Cedar Rapids	4	53
Iowa State University of Science & Technology	Central Iowa	4	102
John Carroll University	Cleveland	2	29
Johns Hopkins University, The	Baltimore	2	25
Kansas State University of Agriculture & Applied Science	Kansas City	5	54
Kansas, University of	Kansas City	5	19
Kentucky, University of	Lexington	3	86
Lafayette College	Lehigh Valley	2	66
Lamar State College of Technology	Beaumont	5	100
La Salle College	Philadelphia	2	15
Laval University	Quebec	7	22
*Lawrence Institute of Technology	Southeastern Michigan	4	65
Lehigh University	Lehigh Valley	2	44
Louisiana Polytechnic Institute	Shreveport	5	86
Louisiana State University	Baton Rouge	3	84
Louisville, University of	Louisville	3	30
Lowell Technological Institute	Boston	1	87
Loyola University	Santa Monica Bay	6	31

<u>School</u>	<u>Section Location</u>	<u>Region</u>	<u>Membership***</u>
Maine, University of	Maine	1	84
Manhattan College	New York	1	181
**-*Manitoba Institute of Technology	Winnipeg	7	18
Manitoba, University of	Winnipeg	7	49
Marquette University	Milwaukee	4	72
Maryland, University of	Washington	2	96
Massachusetts Institute of Technology	Boston	1	180
Massachusetts, University of	Springfield	1	75
Merrimack College	Boston	1	30
Miami, University of	Miami	3	37
Michigan Technological University	Northeast Wisconsin	4	34
Michigan State University	Southeastern Michigan	4	117
Michigan, University of	Southeastern Michigan	4	159
Milwaukee School of Engineering	Milwaukee	4	81
Minnesota, University of	Twin Cities	4	135
Mississippi State University	Mississippi	3	114
Mississippi, The University of	Memphis	3	15
Missouri, The University of (Rolla)	St. Louis	5	303
Missouri, University of	St. Louis	5	99
*Mohawk Valley Community College	Mohawk Valley	1	29
Monmouth College	New York	1	27
Montana State College	Montana	6	88
Nebraska, University of	Nebraska	4	64
Nevada, University of	Sacramento	6	18
Newark College of Engineering	North Jersey	1	177
New Hampshire, University of	New Hampshire	1	84
*New Mexico Highlands University	Albuquerque	6	30
New Mexico State University	El Paso	5	48
New Mexico, University of	Albuquerque	6	71
*New York City Community College	New York	1	57
New York, The City College of the City University of	New York	1	97
*New York Institute of Technology	New York	1	71
New York, State University of, Agricultural & Technical Institute	Mohawk Valley	1	32
*New York State University (Alfred)	Buffalo	1	86
New York, State University of (Buffalo)	Buffalo	1	33
New York University (Day Div.)	New York	1)	
New York University (Evening Div.)	New York	1)	120
North Carolina State College	North Carolina	3	14
North Dakota State College	Twin Cities	4	42
North Dakota, University of	Twin Cities	4	49
Northeastern University	Boston	1	173
**-*Northern Alberta Institute of Technology	Northern Alberta	7	-
Northrop Institute of Technology	Metropolitan Los Angeles	6	80
Northwestern University	Chicago	4	52
Norwich University	Vermont	1	20
Notre Dame, University of	South Bend	4	74
Ohio Northern University	Lima	2	31
Ohio State University	Columbus	2	150
*Ohio Technical Institute	Columbus	2	49
Ohio University	Columbus	2	30
*Oklahoma City University	Oklahoma City	5	-
Oklahoma State University	Tulsa	5	168
Oklahoma, University of	Oklahoma City	5	66
*Omaha, Municipal University of	Nebraska	4	9
Oregon State College	Portland	6	147
*Oregon Technical Institute	Portland	6	47
Ottawa, University of	Ottawa	7	40
Pacific States University	Metropolitan Los Angeles	6	33
Pacific, University of	Sacramento	6	9
Padova, Universita di	Italy	8	22
**Pennsylvania Military College	Philadelphia	2	28

<u>School</u>	<u>Section Location</u>	<u>Region</u>	<u>Membership***</u>
Pennsylvania State University	Central Pennsylvania	2	163
Pennsylvania, University of	Philadelphia	2	69
*Pierce College	San Fernando Valley	6	4
Pittsburgh, University of	Pittsburgh	2	81
*Port Arthur College	Beaumont	5	24
Prairie View A & M College	Houston	5	6
Pratt Institute	New York	1	30
Princeton University	Princeton	1	43
Puerto Rico, University of	Puerto Rico & Virgin Islands	9	58
Purdue University	Central Indiana	4	179
**Queen's University	Bay of Quinte	7	16
*Queensborough Community College	New York	1	20
RCA Institutes, Inc.	New York	1	177
*Radio College of Canada	Toronto	7	-
*Radio Engineering Institute	Nebraska	4	68
Rensselaer Polytechnic Institute	Schenectady	1	67
Rhode Island, University of	Providence	1	50
Rice University	Houston	5	48
*Roanoke Technical Institute	Hampton Roads	3	23
Rochester Institute of Technology	Rochester	1	34
Rochester, The University of	Rochester	1	20
Rome, University of	Italy	8	26
Rose Polytechnic Institute	Central Indiana	4	71
Royal Military College of Canada	Bay of Quinte	7	6
Rutgers University	Princeton	1	32
*Ryerson Polytechnical Institute	Toronto	7	24
**Sacramento State College	Sacramento	6	17
St. Joseph's College	Philadelphia	2	17
St. Louis University	St. Louis	5	17
San Diego State College	San Diego	6	23
San Francisco State College	San Francisco	6	31
San Jose State College	San Francisco	6	73
Santa Clara, University of	San Francisco	6	78
Saskatchewan, University of	Regina	7	44
Seattle University	Seattle	6	25
*Sinclair College	Dayton	2	5
South Carolina, University of	South Carolina	3	34
South Dakota School of Mines & Technology	Denver	5	49
South Dakota State University	Twin Cities	4	74
Southeastern Massachusetts Technological Institute, Bradford Durfee Branch	Providence	1	39
Southeastern Massachusetts Technological Institute, New Bedford Branch	Providence	1	26
*Southern Alberta Institute of Technology, The	Southern Alberta	7	97
Southern California, University of	Metropolitan Los Angeles	6	53
Southern Methodist University	Dallas	5	31
*Southern Technical Institute	Atlanta	3	9
*Southwest Missouri State College	Kansas City	5	38
Southwestern Louisiana, University of	Baton Rouge	3	34
*Spartan School of Electronics	Tulsa	5	30
*Spring Garden Institute	Philadelphia	2	16
Stanford University	San Francisco	6	88
Stevens Institute of Technology	North Jersey	1	37
Swarthmore College	Philadelphia	2	11
Syracuse University	Syracuse	1	45
*Temple University, The Community College and Technical Institute of	Philadelphia	2	67
Tennessee Agricultural & Industrial State University	Nashville	3	26
Tennessee Polytechnic Institute	Nashville	3	74
Tennessee, University of	East Tennessee	3	92
Texas Agricultural & Mechanical University	Houston	5	97
Texas College of Arts & Industries	Corpus Christi	5	28

<u>School</u>	<u>Section Location</u>	<u>Region</u>	<u>Membership***</u>
Texas Technological College	South Plains	5	26
Texas, University of	Central Texas	5	164
Texas Western College	El Paso	5	95
Toledo, University of	Toledo	4	63
Toronto, University of	Toronto	7	72
Tri-State College	Fort Wayne	4	25
Tufts University	Boston	1	11
Tulane University	New Orleans	3	59
Union College	Schenectady	1	55
*Union County Technical Institute	North Jersey	1	28
*Union Technical Institute	North Jersey	1	64
United States Naval Postgraduate School	San Francisco	6	53
Universidad Distrital Francisco Jose de Caldas	Colombia	9	36
Utah State University	Utah	6	45
Utah, University of	Salt Lake City	6	77
*Valparaiso Technical Institute	South Bend	4	190
Valparaiso University	South Bend	4	50
Vanderbilt University	Nashville	3	84
Vermont, University of	Vermont	1	31
Villanova University	Philadelphia	2	49
Virginia Military Institute	Virginia Mountain	3	23
Virginia Polytechnic Institute	Virginia Mountain	3	82
Virginia, University of	Central Virginia	3	35
*Voorhees Technical Institute	New York	1	56
*Ward School of Electronics	Connecticut	1	38
Washington State University	Spokane	6	56
Washington University	St. Louis	5	32
Washington, University of	Seattle	6	70
Waterloo, The University of	Kitchener-Waterloo	7	34
Wayne State University	Southeastern Michigan	4	99
*Wentworth Institute	Boston	1	39
Western Michigan University	West Michigan	4	38
Western Ontario Institute of Technology, The	Southeastern Michigan	4	58
Western Ontario, University of	London	7	10
West Virginia Institute of Technology	West Virginia	2	35
West Virginia University	Pittsburgh	2	56
Wichita State University	Wichita	5	50
Windsor, University of	Southeastern Michigan	4	22
Wisconsin, University of	Madison	4	188
Worcester Polytechnic Institute	Worcester	1	64
Wyoming, University of	Denver	5	71
Yale University	Connecticut	1	23
Youngstown University	Sharon	2	48

*IEEE Student Associate Branches

**Established in 1964

***Membership as of November 15, 1964