

# ELECTRICAL ENGINEERING®

HERE IT IS - JUNE - JULY, and a salute to many willing workers for IEEE who with their families will enjoy a few weeks of surcease during the summer. . . Have fun!

Early in June, chairmen, looking ahead, should reach the committeemen who may be a lot harder to reach when suddenly needed in late August.

Staff at headquarters will cover all positions with back-ups all summer. The calendar of conferences in IEEE Spectrum shows a dozen interesting technical meetings being held in June, July, August. And West Coast will be busiest in August, all year, with San Francisco's WESCON--a great vacation magnet.

CALENDAR-VALUES IN MEMBERSHIPS. Astute Section and Group officers and administrative and membership committees have been quick to see and to "sell" the advantages of initial half-year IEEE dues and Group fees, now available to applicants for new memberships beginning between April 1 and September 30. (See E. E. No. 10, p. 3 and its Supplement relating to last paragraphs of recently-revised By-laws 108.5 and 405.7)

Out-of-pocket reduction by one-half during these months cushions the initial dues-fees impact upon new members. (Same for subscriptions to IEEE Proceedings--Bylaw 501.7.) These inducements may be emphasized throughout the period, April to September.

For example, there is an inherent "bonus" of one month's "free ride" for applicants signing this month, because their 6-months' charges will carry them for 7 months--June 1 until December 31, 1967.

It's not too early now to look ahead to next fall's MASER (Membership Activity--Stimulated Early Responses). Applicants signed as of October 1 pay only 12-months' dues for full 15-months' service--October 1, 1967, to December 31, 1968 (same By-law). These new, built-in, calendar-phased money concessions are worthy of a dated fall campaign, with advantages not matched again until March - April 1968.

For your sales kit: A 1-page article by President MacAdam, on the value of membership in IEEE, will appear in Spectrum for June 1967.

HOLDING GRADUATING STUDENTS IN IEEE. May - June are crucial months for transitions from Student grade to Member as the boys leave college; also from Student Associate to Associate grade. Of prime importance is obtaining the graduate's future mail address and statement of intent. These are facilitated now by use of a standard form. (Supply, wire or phone Miss Emily Sirjane.) (Staff members' assignments appear each month in Spectrum, 2nd page after table of contents. Address IEEE, 345 East 47th Street, New York, N. Y., 10017. Phone Area 212-752-6800)

Early returns show much better response this year than in the past. Today, also, we have other factors operating in favor of holding Students in IEEE after graduation: (1) automatic upgrading without application, upon graduation in any month in 1967 (E. E. No. 7, p. 6); (2) no billing of dues until November 1967, and then for calendar 1968 only; (3) reduced dues for 1968, the ex-student's first year

as a paying Member or Associate (Bylaw 109.1); (4) additional dues concession period, 1969-70 for Regions 8, 9, 10.

Despite such inducements this job will not do itself. The combined interest and efforts of Counselors are needed, plus the Section and Region of each college of departure, and especially the Section of each industrial and government entity employing electrical engineering graduates, June to September. These entities are well known to the Sections. "Combing them for neophytes" is in the immediate and long-term self-interest of Sections and Chapters. (Membership committees, to note.)

### CHALLENGES AND OPPORTUNITIES

**IMPENDING BYLAW CHANGES.** In the past E. E. has invited comments in advance on major changes in the Bylaws, as part of IEEE's democratic process. As illustrated by the next two items, E. E., whenever possible under its publication schedule's relation to Board of Directors (BofD) meetings, will continue to give advance indication of major and substantive changes in Bylaws while they are still being considered by BofD; so that, if any serious groundswell emerges, it will come to BofD's attention before final action is taken.

**STREAMLINING OF MEMBERSHIP APPLICATIONS.** The Executive Committee of BofD (ExecCom) 3/18/67 recommended Bylaw 106.2 changes, reducing to three the number of references required for admission or transfer to Member or Senior Member grades. Each reference is to be furnished a copy of the applicant's statements and a re-designed reference form emphasizing the need of additional supporting information to permit of intelligent decision.

This matter will be before BofD at San Francisco 8/21-22/67. Comments will be appreciated. Address H. R. Boyd, chairman, Admission & Advancement Committee, care Raytheon Co., 28 Seyon Street., Waltham, Massachusetts with copy to Miss Emily Sirjane.

"SCHOOLS OF RECOGNIZED STANDING." For many years we have had Students

(Bylaw 105.6.a) and Student Branches (407.3) in "schools of recognized standing." More recently IEEE has provided for Student Associates (105.6.b) and Student Associate Branches (407.4) in "educational institutions, approved by the Executive Committee, other than 'schools of recognized standing'," these institutions being, ordinarily, junior colleges having significant programs in engineering and physical sciences.

Bylaw 105.11 has carried the burden of defining "school of recognized standing" for all 4 Bylaws cited (as well as for 105.3.d, which establishes Senior Member eligibility for educators.) But in its present form, Bylaw 105.11 does not settle day-to-day problems raised by: (a) accreditation by Engineers' Council for Professional Development (ECPD) not only of colleges but also of technical institutes; (b) approval by Regional accrediting agencies; (c) accreditations in Regions 7 to 10 outside ECPD and Regional purview; and (d) pertinent distinctions between accredited and non-accredited senior and junior colleges, and among various types of junior schools.

BofD 3/24/67 referred the matter to the Student Branches Committee and the General Manager to work on. Action is contemplated by BofD San Francisco 8/21-22/67. Sections, Student Branch Counselors, and others, who hold as-yet-uncommunicated views on a proper wording for 105.11, should make their suggestions promptly. Especially sought are instances where present interpretations militate against full effectiveness of the IEEE program at specific schools (in any country). Address R. E. Nolte, chairman Student Branches Committee, Dept. E. E., University of Missouri, Rolla, Mo. 65401, with copy to D. G. Fink.

**SECTION STUDENT UNITS.** Subject to concurrence of the Section and of the Student Branches committee involved, ExecCom 4/20/67 authorized the formation of a "Section Student Unit" as "an informal grouping of Students" within the Florida West Coast Section, in a situation where an IEEE Student Branch as an individual engineering society branch, could not be formed on campus under the

(accredited) University of South Florida's rules.

It is anticipated that if counterparts of this problem arise elsewhere, they may be similarly handled with ExecCom approval. (Information, Mr. Leonard)

**ADVERTISING IN GROUP PUBLICATIONS.** Beginning regularly with its January 1968 issue, advertising will be accepted by the Computer Group News. Circulation approaches 14,000. Authorized rates have been established following a market analysis under auspices of ExecCom, which on 3/18/67 made a budgetary appropriation for staff study of potential advertising income of Group publications expressing interest; its impact upon other IEEE publications; other marketing features basic to ExCom's future approvals. (Information on authorizations, R. H. Flynn)

**FUNCTIONAL EXHIBITS AT 1968 CONVENTION.** IEEE announced May 1 that 1968 Convention microwave exhibitors at New York Coliseum will be identity-grouped and that an articulated Microwave Hall will feature multi-exhibitor cooperative presentations, twice daily in symposium form, of the latest technical advances being shown on the floor by microwave exhibitors. These "meetings" will acquaint the visitor with the significance of the technical exhibits and what advances to look for in them.

This "exhibition within an exhibition" will further IEEE's educational aims by providing an additional tangible link between our technical sessions and the displays of hardware and software. Will the idea take hold in other industrial groupings and at other IEEE meetings? (Inquiries, R. H. Flynn; copy, press release, J. M. Kinn)

**3RD FORUM FOR SECTION CHAIRMEN.** The 2nd Forum, held at the March Convention, was so successful (see E. E. No. 10, p. 4) that a 3rd Forum is being prepared for WESCON, San Francisco, August. The March formula will be applied again: 50% of time for timely, on-line information, featuring F. Karl Willenbrock on Publications and S. W. Herwald on IEEE groups; 50% for multi-directional exchange of ideas.

Attendance is necessarily limited to issued invitations. Each Section chairman will automatically receive from Miss Sirjane two invitations, so that he may bring his vice chairman to the Forum.

### NEEDLES AND PRODS

"NEEDED: MORE COMMUNICATION! An organization the size of IEEE can function effectively only when many channels of communication are established and used. Section and Group chairmen should make more use of informal channels, correspondence and telephone, to create common awareness of the activities presently in progress in their respective units. Many of the educational programs developed by Groups and Sections can be of extreme value to others who, unfortunately, are not aware of their existence."

The foregoing paragraph has been lifted unabashed, title and all, from E. E. No. 5, p. 4, a year ago May. Should E. E. repeat itself? Yes. Because its readership changes with officer-and-committee turnover; and not all have access to back issues a year or more old. Because some items have evergreen pertinence--this one, for example: for, although E. E. has been useful in drawing IEEE's 1,200 committees together, we have a long way to go before the solid, local accomplishments of Groups, Sections, and committees are made to "come alive" in its pages.

### TOOLS AND AIDS

**UPDATED COPY OF BYLAWS.** Revisions which appeared as a pink Supplement to E. E. No. 10 were incorporated in a reprint of the Bylaws with effective date of 3/24/67 and distributed widely in April. (Copies, Miss Emily Sirjane)

Arkansas Section and others picked up in it the inadvertent omission of para. 4, Bylaw 406, here quoted in full as it correctly appeared in the former issue, November 3, 1966:

4. A Chapter will be required to maintain the following activities:
- Hold not less than two meetings each year.
  - Maintain a minimum membership of ten members.

REVISED STATEMENTS OF POLICY, dated June '67, will supersede those dated June '66. There have been some recent changes not heretofore publicized. Distribution: (1) through Section Manual and Technical Activities Manual; (2) as a Supplement to next E. E. (No. 12, August). (Copies: R. M. Emberson or Miss Emily Sirjane)

REVISIONS TO UPDATE THE SECTION MANUAL will be mailed this month (June).

"COMMITTEE MANUAL." Bylaw 304.8 requires the General Manager to compile an ExecCom-approved "Committee Manual." This manual, in practice, is the totality of various separately-issued parts, each called a Manual, at present as follows: Sections; Section Memberships and Transfers; Section Publications; Student Branches; Student Counselors. . . Technical Activities; Standards. . . Admission & Advancement; Fellow; Awards Board. . . Nominations & Appointments.

Copies of these parts are independently updated annually and distributed on a "need-to-know" basis. Extra copies may be in limited supply, but if not available for issuance, one may usually be obtained "to see and return." (Address cognizant staff secretary; in case of doubt, Miss Emily Sirjane)

Advance notice: A new "Section Operating Guide" is now in draft stage and under review by the Sections Committee. It will complement the Sections Manual listed above by furnishing day-to-day information needed to operate a Section. Watch for notice of availability.

NEW MEMBERSHIP REINSTATEMENT FORM. Any device preventing erosion of memberships due to lapsed dues is all to the good, especially if it holds an inducement to correct the lapse. A sample copy of a new membership-conserving aid, designed at the request of Membership & Transfers Committee, becomes a (manila) Supplement to this issue of E. E. Through use of this Form, reinstatements can and hereafter will be processed at increased speed. Putting them into general use is a function of Sections. (Supply, Miss Emily Sirjane)

1967 CONVENTION TECHNICAL REPORT. The white Supplement sent with this issue of E. E. constitutes the report of A. B. Giordano, chairman, convention Technical Program committee. . . Groups and others preparing for 1968 Convention and other large meetings will find grist to mill in the statistics. . . The capsule-digests of technical-frontier papers are for anybody's enlightenment and pride in IEEE confreres. (Cf. Spectrum's excellent summary of five selected papers--May '67, pp. 14-16.) Dr. Giordano's report will not appear in Spectrum.

COMMITTEE COMMON LORE - I. Committee-work as a way of life reaches a high point in IEEE. Regardless of their name, size, type, or function, our more successful committees are characterized by stated purpose, capable personnel, and appropriate procedures.

In a series of Green Papers, supplemental to E. E., the editor will attempt to pipe a distillation of IEEE experience in committee-work for judicious sampling by the young. Purpose appears in June, personnel in August; procedures thereafter.

#### TOP-SIDE DEVELOPMENTS

IEEE PARTICIPATION IN ENGINEERS JOINT COUNCIL (EJC). Readers who sent for a copy (offered in E. E. No. 10, p. 6) of IEEE's March 30 Statement to EJC's General Assembly found that the question before BofD at San Francisco in August will be whether IEEE should continue its membership in EJC.

EJC's new 24-man board of directors, in the approval of whose election IEEE's delegates to the general assembly abstained from voting (ibid, p. 3), is named in EJC's periodical, "Engineer," March-April '67, p. 8, distributed to IEEE members.

In IEEE's Statement explicit objection is raised to the procedures of the board's election which, IEEE asserts, "effectively remove all direct society control" over EJC.

E. E. repeats its "comments welcome" invitation, but suggests commentators first obtain a copy of the full 2-page Statement. (D. G. Fink)



## WRAP-UP ON IEEE '67 CONVENTION

by  
Anthony B. Giordano, Chairman of 1967 Technical Program Committee

This year, several innovations were introduced in the Technical Program of the 1967 IEEE International Convention to emphasize recent developments covering a broad spectrum of professional activities. To achieve a planned program, over 90 per cent of the papers were invited papers. At 72 technical sessions, 312 papers were delivered, of which 281 papers were invited. Nearly 20,000 persons attended the technical sessions in spite of three solid days of rain and snow - an average of 270 per session.

The Convention also featured a Convention Digest which described important advances presented by each paper or panel, a Film Theater at the Coliseum organized by the Group on Education, and a highlight session on electronics' role in exploiting the world's oceans. Evaluators were assigned to report on the strengths and weaknesses of each session. The general consensus implied that the Technical Program was very well received. Every session attracted a responsive audience which remained to the very end of each session.

The program presented a broad view on the rapid pace of developments in many technical fields. For example, almost every aspect of integrated circuits was covered giving members an opportunity to learn about the total technology.

To indicate areas of major interests, listed below are two sessions which drew maximum attendance on each half day.

<u>Day</u>	<u>Session</u>	<u>Attendance</u>
Monday A. M.	1. "The Growing Inventory of Microwave Components"	403
	2. "Computed Aided Learning"	323
Monday P. M.	1. "Solid State Devices Frontiers"	435
	2. "Integrated Avionics"	425
Tuesday A. M.	1. "A Survey of Computer Operating Systems"	408
	2. "Control Techniques in the Steel Industry"	320

<u>Day</u>	<u>Session</u>	<u>Attendance</u>
Tuesday P. M.	1. "Managerial Action and Organizational Effectiveness"	447
	2. "How to Apply Systems Analysis Properly to Biological Systems"	427
Wednesday A. M.	1. "New Horizons in Science"	384
	2. "Computer Design of Networks"	307
Wednesday P. M.	1. "Integrated Circuits - Their Current Technology and Economic Status"	772
	2. "New Horizons in Engineering"	713
Thursday A. M.	1. "Integrated Digital Circuits"	316
	2. "What's New in Measurements"	247
Thursday P. M.	1. "Instrumentation for Underwater Research"	228
	2. "Integrated Analog Circuits"	228

The following summary contains comparison data for the years 1965, 1966, and 1967.

<u>Year</u>	<u>Total Registration</u>	<u>Attendance at Technical Sessions</u>	<u>% of Total</u>	<u>No. of Sessions</u>	<u>Average</u>	<u>Highlight Session</u>
1965	58,462	20,098	34.3	80	251	1250
1966	63,650	18,301	28.7	80	230	1196
1967	58,688	19,143	32.5	72	270	1070

The effect of weather and the usual "last day" drop-off are revealed in the following records of daily attendance.

	<u>A. M.</u>	<u>P. M.</u>	<u>Total</u>
Monday	2,561	3,029	5,590
Tuesday	2,389	2,664	5,053
Wednesday	2,312	2,903	5,215
Thursday	1,634	1,651	3,285
<u>Totals</u>	8,896	10,247	19,143

The storm probably accounted for the smaller figures on Tuesday as compared to Monday.

The top ten fields of interests were as follows:

<u>Rank</u>	<u>Field</u>	<u>No. of Sessions</u>	<u>Average Attendance</u>
1.	Microwave Theory & Techniques	2	413
2.	Computer	1	408
3.	New Horizons	3	406
4.	Education	1-1/2	326
5.	Aerospace & Electronic Systems	5	316

<u>Rank</u>		<u>No. of Sessions</u>	<u>Average Attendance</u>
6.	Systems Science & Cybernetics	4	304
7.	Electron Devices	3-1/2	297
8.	Information Theory	2	277
9.	Communication Technology	9	268
10.	Electromagnetic Compatibility	1	265

Based on data submitted by evaluators, over 90 per cent of the papers were rated between satisfactory and good in their technical content. Approximately 23 per cent of the papers were designated as new research. The remainder of the papers were close to an even split between "state of the art" and "applications." Over 93 per cent of the speakers were rated as average to good. Approximately 90 per cent of the sessions provided opportunity for audience participation and discussion.

It was noted during the presentations that -

oceanology activity is intensifying at a rate near that of the space effort 5 years ago and its scope is continuing to increase on an international scale ---. The Electronics engineer is being challenged to provide equipment for peculiar and not-well understood environmental conditions.

much more can be done at microwave frequencies than was previously possible because of availability of larger bandwidths. Switching and filtering components now have the response time and bandwidth capable of operating at these frequencies.

solid state devices are of central importance in the advance of electronics technology. The trend to higher power in microwaves, to greater precision in linear circuits and to better performance in insulated gate field-effect transistors will continue.

integrated circuits have not reached their peak yet; the industry is just maturing to the uses of integrated circuits and large scale integration; advances are being made in this field because consumer products can be made more cheaply and military requirements can be met more easily.

the chief factors generating advances in the field of integrated digital circuits are the need for greater automation of production, reliability and lower maintenance costs.

there is a growing market for higher power and frequency capabilities of solid-state microwave power sources in such applications as phased array radar, satellite communications, microwave links, radiosonde, and telemetry.

- ✂ subjects covered by 11 papers in medical electronics ranged from experiments in direct intervention in brain functions to postoperative monitoring including the complexity of the electrical and chemical interface between living tissue and supplemental devices.
- ✂ speech compression can be achieved without change in pitch or deterioration in the precision and accuracy of speech.
- ✂ time sharing is the key new force in the computer market; time sharing systems were described to determine the future direction of these efforts.
- ✂ technical papers and a panel discussion on Integrated Avionics revealed that prospects of achieving truly integrated avionics system is small; a major problem is how to solve redundancy and integration to get greater reliability.
- ✂ in reviewing the role of engineering in the redesign of man to fit his recognized needs, speakers contributed subjects dealing with man's present design and how to affect it for optimization through engineering and the biomedical sciences; emphasis was on the control and communication aspects of physiology as the engineering of the human organism.
- ✂ panelists at the session on managerial action stressed communication as a means of tying together the bundle of needs and goals that make up a dynamic organization; getting ideas across is one of manager's foremost concerns.
- ✂ the evolutionary process of the electric automobile with emphasis on rechargeable fuel cells rather than hydrocarbon cells was described as desirable and feasible.
- ✂ the future of gas lasers following hot on the heels of rapid transitions in old and new media is full of promise as demand for higher powers, efficiency and spectrally pure output intensifies.
- ✂ almost two thirds of all steel melted in this country will use computer controls to regulate melting within the next decade.

It is with deep personal gratitude that special thanks is conveyed to members of the Technical Program Committee, including session organizers and evaluators, and to members of the IEEE Headquarters staff for their contributions to the success of the program.

We shall look forward to additional improvements as the Technical Program for the 1968 International Convention begins to take shape under the chairmanship of Dr. E. W. Herold.

I - PURPOSES OF COMMITTEES

Standing Committees

Purposes of standing committees (besides being referred to in terms of aims, functions, objectives, duties, responsibilities, mission, charge, or charter) are often defined by their scopes or areas of interest, the latter two terms connoting desirable separation from other committees' activities, to prevent overlap or duplication. (Note - In an engineering society minor overlaps can be tolerated through the process of accommodation and cooperation; "legalistic" insistence upon complete separation wastes time and effort. See E. E. No. 9, editorial, p. 7.)

Committees should operate within assigned limits with which the chairman (at least) should be completely familiar. In IEEE, some of these are set forth in numbered Bylaws and elsewhere:

<u>Committee</u>	<u>Bylaw</u>	<u>Committee</u>	<u>Bylaw</u>
Annual Assembly	203	Subsections	404 <sup>f</sup>
Board of Directors	302.1, 304.2 <sup>a</sup>	Councils (of Sections)	403
Executive Committee	302.6 to 302.11	Regional	401.8
Awards	305	Regional Student	
Publication	306	Activities	401.11
Technical Activities	307 <sup>b</sup>	Student Branches	308.13, 407
Standing Committees	308	Student Branch	
Sections	308.12, 402 <sup>c</sup>	Executive	---- <sup>g</sup>
Section Executive	---- <sup>d</sup>	Groups	405
Section Membership	---- <sup>e</sup>	Group Standing )	
& Transfers		Committees )	---- <sup>h</sup>
		Group Technical )	
		Committees )	
		Group Chapters	
		(in Sections)	406 <sup>i</sup>

<sup>a</sup> Also Constitution, Art. VII, Secs. 1, 6

<sup>b</sup> Also Technical Activities Manual

<sup>c</sup> Also Constitution for Sections, Art. I, Sec. 2 (in Sections Manual)

<sup>d</sup> In Constitution for Sections, Art. VII, Sec. 2

<sup>e</sup> In Sections Manual, p. 1

<sup>f</sup> Also Constitution for Sections, Art. IX, Sec. 1

<sup>g</sup> Constitution for Student Branches, Secs. 2, 15, 21 (in Student Branch Manual, Parts 1, 2, 3)

<sup>h</sup> Constitution for Sections, Model Bylaws for Groups

<sup>i</sup> Also Constitution for Sections, Art. X, Secs. 2, 3; Model Bylaws for Groups

A standing committee which has completed its purpose should be disbanded upon its own recommendation. The parent body also should review the usefulness of its subcommittees. (Thus, ExecCom 3/18/67, Minute 52: "The President requested each ExecCom Coordinator to review the committees under his purview in light of their accomplishments and make recommendations as to the continuation or dissolution of any Standing Committees.")

Standing Committees which have partly served their purposes may often be advantageously combined, or their remaining duties reassigned.

#### Ad Hoc Committees

Purposes of ad hoc committees should be made as definite as possible, so that its reports may be squared with its charter of establishment, and so that it may be discharged with thanks when its mission has been fulfilled. (Thus, ExecCom Nov. 1-2, '66, Minute 241b: "The charge to this ad hoc committee is to define... the types of educational activity in which IEEE, as a society, shall engage, and to recommend... the appropriate organizational structure, bylaw changes, and policy statements needed to implement those activities.")

#### Purposes and Personnel

It has been repeatedly demonstrated that a good chairman and good committee personnel can give a committee increased purpose without encroachment on other committees.

The material which follows has stood the test of time in helping a chairman's introspection: am I giving my committee purpose?

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#### A CHECK CHART FOR COMMITTEE CHAIRMEN - ESPECIALLY NEW ONES

Hendley Blackmon, Vice President, IEEE

If you are a chairman of a committee of our Institute, you are a most fortunate person. You have both major responsibility and exceptional opportunity.

Being chairman not only contributes substantially to IEEE's progress, but will test and develop your natural abilities for leadership about as quickly and completely as any single avenue of personal activity. Principally, this is because IEEE is manned solely by volunteer workers. These volunteer workers are not subject to direct control; and your success will come only in proportion to the real leadership you provide. Doing a good job as chairman brings not only inner personal satisfaction, but also such benefits as sincere professional regard, and many new personal friendships that can not be won any other way.

When you accepted the job as chairman you, too, acted as a volunteer worker. Thus, your ethical responsibility to do a good job is even greater than if this were a payroll job that your boss simply told you to do. By accepting, you indicated you are willing to provide the time and effort required to do a bang-up job; and that the Institute need search no further.

It is good to start early to think the job through and get set, preferably one or two months before the new term starts. Time spent then can ease work and pay fat dividends all through the year.

For example, if I were a chairman preparing for a new term, there are certain key points I'd want to consider rather carefully in advance. Some of these are shown in the attached chairman's check chart. The points are self-explanatory; and since solutions will vary widely within different committees, no "pat" answers are attempted. Essentially, their main purpose is to stimulate advance thinking in the areas of background, planning, organization, and operating efficiency.

Of course there are other factors; but if you make a good score for yourself with points on the check chart, you will tremendously ease the working out of your other problems as they come along.

Remember, the Institute has 160,000 members, but far fewer chairmen. Relatively, you are one man out of a roomful; and our Institute is relying on your leadership.

Committee Chairman's

CHECK CHART

A - How's my BACKGROUND?

Have I:

- 1 - Studied the official charter of my committee in the Bylaws and Committee Manual? . . . . .
- 2 - Read the scopes of other committees that border on my committee's field?. . . . .
- 3 - Is there need to change the stated scope of my committee?

B - How's my PLANNING AHEAD?

Have I set down in writing my specific ideas of what our committee:

- 1 - Should aid to accomplish in the 12 months? . . . . .
- 2 - Should be working for as long-range goals, say over the next 5 years? . . . . .
- 3 - Should do now to attract, develop, and groom for future leaders able new committee members, especially likely young engineers? . . . . .
- 4 - Should do to improve the team work with other related committees? . . . . .
- 5 - Should use as yardsticks for fairly evaluating the interest and effectiveness of each committee member at the end of the year? . . . . .
- 6 - Should do to make the chairman's job easier for the man who follows me? . . . . .

Check One	
YES	NO

C - How's my Committee ORGANIZATION look?

Have I got, or if not, have I considered establishing:

- 1 - A complete set of top-grade officers? (At least, a Vice-Chairman and Secretary) . . . . .
- 2 - An Administrative Committee that is empowered to act on essential matters between full committee meetings? . . .
- 3 - An Advisory Committee, including "elder statesmen" to lean on for sage advice and guidance as needed? . . . . .
- 4 - Additional standing sub-committees to insure that each and every primary segment of our committee's field is continuously covered, and officered by our best available experts?

(Note: Depending upon the type of committee, some potential types of sub-committees include: (a) advance planning, or "watch dog"; (b) applications; (c) bibliography of literature; (d) foreign technology; (e) geographical (West Coast, etc.); (f) paper review; (g) periodic survey of the art; (h) prize papers and honors; (i) program planning; (j) publicity; (k) new projects; (l) research activity; (m) safety; (n) standards activity.)

- 5 - Additional Working Groups of technical experts focused on specific projects that need attention? . . . . .
- 6 - Additional "ad hoc" (for this case alone) committees to clean up any one-shot jobs that need doing promptly? . . .

D - How's my overall OPERATING EFFICIENCY likely to be?

For instance, have I:

- 1 - Set down a logical and specific job assignment for every member on my committee? . . . . .
- 2 - As far as practicable, delegated clear-cut operating responsibilities to my vice chairman, secretary, chairmen of subcommittees, etc. . . . .
- 3 - "Spread the work" sufficiently to insure adequate free time throughout the year to think ahead and plan for the committee's good? . . . . .
- 4 - "Double-checked" to insure that each key job has a good strong "back-up" man or two? . . . . .

Check One

YES NO

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		(in Sections)	406 <sup>i</sup>

<sup>a</sup> Also Constitution, Art. VII, Secs. 1, 6

<sup>b</sup> Also Technical Activities Manual

<sup>c</sup> Also Constitution for Sections, Art. I, Sec. 2 (in Sections Manual)

<sup>d</sup> In Constitution for Sections, Art. VII, Sec. 2

<sup>e</sup> In Sections Manual, p. 1

<sup>f</sup> Also Constitution for Sections, Art. IX, Sec. 1

<sup>g</sup> Constitution for Student Branches, Secs. 2, 15, 21 (in Student Branch Manual, Parts 1, 2, 3)

<sup>h</sup> Constitution for Sections, Model Bylaws for Groups

<sup>i</sup> Also Constitution for Sections, Art. X, Secs. 2, 3; Model Bylaws for Groups



A standing committee which has completed its purpose should be disbanded upon its own recommendation. The parent body also should review the usefulness of its subcommittees. (Thus, ExecCom 3/18/67, Minute 52: "The President requested each ExecCom Coordinator to review the committees under his purview in light of their accomplishments and make recommendations as to the continuation or dissolution of any Standing Committees.")

Standing Committees which have partly served their purposes may often be advantageously combined, or their remaining duties reassigned.

#### Ad Hoc Committees

Purposes of ad hoc committees should be made as definite as possible, so that its reports may be squared with its charter of establishment, and so that it may be discharged with thanks when its mission has been fulfilled. (Thus, ExecCom Nov. 1-2, '66, Minute 241b: "The charge to this ad hoc committee is to define... the types of educational activity in which IEEE, as a society, shall engage, and to recommend... the appropriate organizational structure, bylaw changes, and policy statements needed to implement those activities.")

#### Purposes and Personnel

It has been repeatedly demonstrated that a good chairman and good committee personnel can give a committee increased purpose without encroachment on other committees.

The material which follows has stood the test of time in helping a chairman's introspection: am I giving my committee purpose?

\* \* \* \* \*

### A CHECK CHART FOR COMMITTEE CHAIRMEN - ESPECIALLY NEW ONES

Hendley Blackmon, Vice President, IEEE

If you are a chairman of a committee of our Institute, you are a most fortunate person. You have both major responsibility and exceptional opportunity.

Being chairman not only contributes substantially to IEEE's progress, but will test and develop your natural abilities for leadership about as quickly and completely as any single avenue of personal activity. Principally, this is because IEEE is manned solely by volunteer workers. These volunteer workers are not subject to direct control; and your success will come only in proportion to the real leadership you provide. Doing a good job as chairman brings not only inner personal satisfaction, but also such benefits as sincere professional regard, and many new personal friendships that can not be won any other way.

When you accepted the job as chairman you, too, acted as a volunteer worker. Thus, your ethical responsibility to do a good job is even greater than if this were a payroll job that your boss simply told you to do. By accepting, you indicated you are willing to provide the time and effort required to do a bang-up job; and that the Institute need search no further.

It is good to start early to think the job through and get set, preferably one or two months before the new term starts. Time spent then can ease work and pay fat dividends all through the year.

For example, if I were a chairman preparing for a new term, there are certain key points I'd want to consider rather carefully in advance. Some of these are shown in the attached chairman's check chart. The points are self-explanatory; and since solutions will vary widely within different committees, no "pat" answers are attempted. Essentially, their main purpose is to stimulate advance thinking in the areas of background, planning, organization, and operating efficiency.

Of course there are other factors; but if you make a good score for yourself with points on the check chart, you will tremendously ease the working out of your other problems as they come along.

Remember, the Institute has 160,000 members, but far fewer chairmen. Relatively, you are one man out of a roomful; and our Institute is relying on your leadership.

Committee Chairman's

CHECK CHART

A - How's my BACKGROUND?

Have I:

- 1 - Studied the official charter of my committee in the Bylaws and Committee Manual? . . . . .
- 2 - Read the scopes of other committees that border on my committee's field?. . . . .
- 3 - Is there need to change the stated scope of my committee?

B - How's my PLANNING AHEAD?

Have I set down in writing my specific ideas of what our committee:

- 1 - Should aid to accomplish in the 12 months? . . . . .
- 2 - Should be working for as long-range goals, say over the next 5 years? . . . . .
- 3 - Should do now to attract, develop, and groom for future leaders able new committee members, especially likely young engineers?. . . . .
- 4 - Should do to improve the team work with other related committees? . . . . .
- 5 - Should use as yardsticks for fairly evaluating the interest and effectiveness of each committee member at the end of the year? . . . . .
- 6 - Should do to make the chairman's job easier for the man who follows me? . . . . .

Check One	
YES	NO

C - How's my Committee ORGANIZATION look?

Have I got, or if not, have I considered establishing:

- 1 - A complete set of top-grade officers? (At least, a Vice-Chairman and Secretary) . . . . .
  - 2 - An Administrative Committee that is empowered to act on essential matters between full committee meetings? . .
  - 3 - An Advisory Committee, including "elder statesmen" to lean on for sage advice and guidance as needed? . . . .
  - 4 - Additional standing sub-committees to insure that each and every primary segment of our committee's field is continuously covered, and officered by our best available experts?
- (Note: Depending upon the type of committee, some potential types of sub-committees include: (a) advance planning, or "watch dog"; (b) applications; (c) bibliography of literature; (d) foreign technology; (e) geographical (West Coast, etc.); (f) paper review; (g) periodic survey of the art; (h) prize papers and honors; (i) program planning; (j) publicity; (k) new projects; (l) research activity; (m) safety; (n) standards activity.)
- 5 - Additional Working Groups of technical experts focused on specific projects that need attention? . . . . .
  - 6 - Additional "ad hoc" (for this case alone) committees to clean up any one-shot jobs that need doing promptly? . .

D - How's my overall OPERATING EFFICIENCY likely to be?

For instance, have I:

- 1 - Set down a logical and specific job assignment for every member on my committee? . . . . .
- 2 - As far as practicable, delegated clear-cut operating responsibilities to my vice chairman, secretary, chairmen of subcommittees, etc. . . . .
- 3 - "Spread the work" sufficiently to insure adequate free time throughout the year to think ahead and plan for the committee's good? . . . . .
- 4 - "Double-checked" to insure that each key job has a good strong "back-up" man or two? . . . . .

Check One	
YES	NO

SPEAKERS DIRECTORY

The information listed in this Directory was obtained from reports of Section, Subsection and Group Chapter meetings received in IEEE in the period March 10, 1967 through May 3, 1967.

Section meetings sponsored by Group Chapters are identified by Group Codes  
(See below)

Group Code	Group	Group Code	Group
G-AES	Aerospace & Electronics Systems	G-GE	Geoscience Electronics
G-AP	Antennas & Propagation	G-HFE	Human Factors in Electronics
G-A&E	Audio & Electroacoustics	G-IECI	Industrial Electronics & Control Instrumentation
G-AC	Automatic Control	G-IGA	Industry & General Application
G-BTR	Broadcast & TV Receivers	G-IT	Information Theory
G-B	Broadcasting	G-IM	Instrumentation & Measurement
G-CT	Circuit Theory	G-MAG	Magnetics
G- ComTech	Communication Technology	G-MTT	Microwave Theory & Techniques
G-C	Computer	G-NS	Nuclear Science
G-E	Education	G-PMP	Parts, Materials & Packaging
G-ED	Electron Devices	G-P	Power
G-EI	Electrical Insulation	G-R	Reliability
G-EMC	Electromagnetic Compatibility	G-SU	Sonics & Ultrasonics
G-EMB	Engineering in Medicine & Biology	G-SSC	Systems Science & Cybernetics
G-EM	Engineering Management	G-V	Vehicular
G-EWS	Engineering Writing & Speech		

REGION 1

Section Subsection(SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Berkshire	Edward E. Grazda Hayden Publishing Co. 850 Third Avenue New York, N. Y. 10022	"Writing Technical Articles"		3/13/67
Binghamton	Dr. James Simpson General Precision, Inc. Mt. Pleasant, N. Y. 12457	"The Optically Pumped NMR Gyroscope"	G-AES	3/8/67
	John Mercer Federal Aviation Agency Washington, D. C. 20553	"Automated Air Traffic Control System Dev."	G-AES	4/5/67
	Raymond L. Costa Allis-Chalmers Mfg. Co. P. O. Box 512 Milwaukee, Wisc. 53201	"Fuel Cells"	G-P	4/18/67
	Henry A. Stone, Jr. Bell Laboratories Whippany, N. J. 07981	A One-Day Conference "New Horizons in Quality and Reliability"	G-R	3/18/67
	H. E. Reese General Electric Co. Valley Forge, Pa. 19481	"Through The Looking Glass"	"	"
	F. A. Applegate General Electric Co. Daytona Beach, Fla. 32016	"Preparing for Future Reliability Requirements"	"	"
	Wayne H. McGlade Le Tourneau - Westinghouse Co. Peoria, Illinois 61613	"Screening - A Tool for Reliability Assurance"	"	"
	Dr. R. Vanzetti Raytheon Company Wayland, Mass. 01778	"Quality Control as a Design Engineering and Management Tool"	"	"
	P. A. Toole IBM Corporation Endicott, N. Y. 13760	"Infrared for Product Evaluation"	"	"
	E. H. Barnett Corning Glass Works Corning, N. Y. 14830	"On Time Quality Control"	"	"
	R. G. Tate IBM Corporation Boulder, Colorado 80302	"Evolutionary Operations"	"	"
	W. Workman Texas Instruments Inc. Dallas, Texas	"New Manufacturing Plants-A Challenge to Quality"	"	"
	J. J. Naresky RADC, Griffiss AF Base Rome, N. Y. 13440	"Common Failure Modes of Integrated Circuits and Their Relationship to Reliability"	"	"
	L. S. Potter IBM Electronics Sys. Ctr. Owego, N. Y. 13827	"Reliability and Maintain- ability in the Air Force"	"	"
		"The Physics of Failure of Tunnel Diodes in the Practical Case"	"	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Boston	R. J. Jones Itek Corporation Lexington, Mass. 02173	"Large Signal Circuit Analysis by Digital Computer"	G-AES	3/9/67
	Dr. Gary D. Bernard M. I. T. Cambridge, Mass. 02139	"Current Status of Holography"	G-ED	3/15/67
	Professor Donald E. Troxel M. I. T. Cambridge, Mass. 02139	"An Introduction to Digital Integrated Circuits"	G-ED G-MTT	3/15/67
	Professor Donald E. Troxel M. I. T. Cambridge, Mass. 02139	"A Reading Machine for the Blind"	G-EMB	2/14/67
	Dr. Lester Goodman National Institute of Health Bethesda, Md.	"Engineering in Medicine at the National Institute of Health"	G-EMB	3/14/67
	R. R. Perron Arthur D. Little, Inc. Cambridge, Mass.	"Ultrasonic Atomization-The Design and Application of a 60 KHZ Atomizer for Fuel Oil"	G-IECI	4/11/67
	S. L. Bernstein M. I. T., Lincoln Lab. Lexington, Mass. 02173	"An Efficient Signalling Scheme for a Large Class of Channels"	G-IT	3/29/67
	Dr. T. J. Goblick, Jr. M. I. T., Lincoln Lab. Lexington, Mass. 02173	"Source Encoding with a Fidelity Criterion"	G-IT	4/11/67
	Milton Collins Teradyne, Inc. 87 Summer Street Boston, Mass. 02110	"Small Computer Operated Test Systems"	G-IM	3/9/67
	Russell Houghton Conap Inc. Allegany, N. Y. 14706	"Use of Polyurethanes in Electronics"	G-PMP	3/14/67
	Scott M. Foster Emerson & Cummings Inc. Canton, Mass. 02021	"Use of Epoxies"	G-PMP	"
	Frederick Lockhard (Address Unknown, Contact) IEEE Boston Section Office 31 Channing Street Newton, Mass. 02158	"Use of Silicones"	G-PMP	"
	K. L. Hicks Stone & Webster 225 Franklin Street Boston, Mass. 02110	"Power System Security for Electric Utilities"	G-P	2/14/67
	R. L. Winship Allis-Chalmers Co. Hyde Park, Mass. 02136	"Future of Vacuum Interruption"	G-P	3/14/67
	James F. Norberg Exide Company Philadelphia, Pa.	"Electric Vehicle"	G-P	4/11/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Boston (Cont'd.)	Major William A. Porter NASA - Apollo Program Washington, D. C. 20546	"Quality in our Outer Space Programs - Manned Space Missions"	G-R	3/9/67
	Waldemar J. Poch RCA Astro Electronics Div. Princeton, N. J. 08540	"Space Radiation Effects on Transistors and Solar Cells"	G-R	3/30/67
	Alexander L. Pugh, III M. I. T. Cambridge, Mass. 02139	"Industrial Dynamics"	G-SSC	3/15/67
Merrimack Valley (SS)	Dr. H. S. McDonald Bell Laboratories Murray Hill, N. J. 07971	"Graphical Facilities for a Large Computer Center"		3/27/67
	Richard D. Thornton Mass. Institute of Technology Cambridge, Mass. 02139	"Some Electrical Engineering Aspects of Transportation Research"		4/17/67
Connecticut	Raymond W. Hasse, Jr. U. S. Navy Underwater Sound Lab., Fort Trumbull New London, Conn. 06320	"Modern Tools for Modern Oceanography"		3/14/67
	Dr. Noah H. Kramer Stelma, Inc. 190 Henry Street Stamford, Conn. 06902	"Automation of Technical Control of Communication Systems"	G-A&E	3/28/67
	Kendall Preston, Jr. Perkin-Elmer Corp. Wilton, Conn. 06897	"Optical Analog Computers"	G-C	3/1/67
	Kendall Preston, Jr. Perkin-Elmer Corp. Wilton, Conn. 06897	"Holography"	G-ED	11/3/66
	Britton T. Vincent, Jr. Texas Instruments, Inc. P. O. Box 5012 Dallas, Texas 75222	"Microwave Integrated Circuits - Potentials, Performance, Problems"	G-ED	3/16/67
	Charles W. Deegan Convex Company Southington, Conn. 06489	"Convex Application of Digital Computer for System Control"	G-P	4/18/67
	Lucian A. Gehami Northeast Utilities Service Co. Hartford, Conn.	"Installation of the Convex Direct Digital Control System"	"	"
Fairfield County (SS)	Professor Eugene Ehrlich Eng. Dept., Columbia Univ. New York, N. Y. 10028	"Effective Verbal Communication Techniques"		12/1/66
	David M. Goodman School of Eng. & Science New York University 401 West 205 Street New York, N. Y. 10034	"Automatic Test Equipment for Production, Quality Control and Performance Verification"		4/10/67
New London (SS)	Dr. Robert Northrup Univ. of Connecticut Storrs, Conn. 06268	"Model Studies of Random Neuron Interaction"		2/22/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
New London (SS) (Cont'd.)	- Dr. Paul Mali Electric Boat Division General Dynamics Co. Eastern Point Road Groton, Conn. 06340 - William L. Nash Pfizer & Company Groton, Conn. 06340 - Dr. R. J. Kochenburger Univ. of Connecticut Storrs, Conn. 06268 - Dr. William A. Von Winkle U.S.N. Underwater Sound Lab. New London, Conn. 06320 - Philip Pearson Univ. of Connecticut Storrs, Conn. 06268 - Stanley Harasimowitz Thames Valley Tech. Inst. 574 New London Tpke. Norwich, Conn. 06360	Panel Discussion: "Should Engineering Un- dergraduates be Required to Specialize Within the Fields of the Profession?"		4/12/67
Elmira-Corning	Meredith C. Gourdine Gourdine Systems, Inc. 112 Naylor Avenue Livingston, N. J. 07039  W. E. Sturm West Penn Power Co. Cabin Hill Greensburg, Pa. 15602	"Engineering Aspects of Electrogasdynamics"  "The Electric Auto- mobile"		2/20/67  3/29/67
Long Island	Dr. Preston R. Bassett Sperry Gyroscope Co. Great Neck, N. Y.  Walter N. Dean, Sr. Sperry Gyroscope Co. Great Neck, N. Y.  Dr. Louis J. Cutrona Conductron Corp. Ann Arbor, Michigan 48104  Charles Howell Microwave Associates Burlington, Mass. 01803	"An Electronic History of Long Island"  "World Navigation"  "Optical Processing as Applied to Synthetic Aperture Radar"  "Integrated Microwave Circuits"		11/17/66  1/10/67  2/28/67  1/31/67
Maine	Ralph Bean Central Maine Power Co. Augusta, Maine 04330  Robert M. Webber General Electric Co. Schenectady, N. Y. 12305	"Some Aspects of Atomic Power"  "Digital Computer Program for Electrical Power Systems"	G-AES  G-P	3/15/67  3/8/67
Mid Hudson	- J. L. Reynolds - G. T. Sincerbox IBM Corp., Memory Project P. O. Box 390 Poughkeepsie, N. Y. 12602	"Holography and its Applications"		3/30/67
Catskill (SS)	S. Peschel Hipotronics, Inc. Brewster, N. Y. 10509	"Locating Underground Cable Faults"	G-P	3/9/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Catskill (SS) (Cont'd.)	- S. Lampie; M. Brush (Addresses unknown) Contact Section Secretary: - Richard Cobb 49 Carmen Drive Poughkeepsie, N. Y. 12603  Dr. Milton A. Rothman Princeton University Plasma Physics Lab. Princeton, N. J. 08540	"Locating Underground Cable Faults"  "Plasma Physics and Thermonuclear Power Research"	G-P	3/9/67  4/3/67
Mohawk Valley	S. G. Miller General Electric Co. LMED Utica, New York  E. P. O'Connell Griffiss Air Force Base Rome, N. Y. 13440  C. A. Conover General Electric Co. Syracuse, New York  Dr. Nathan Schwartz Graduate School, Syracuse University Syracuse, N. Y. 13210	"LMED's Experience with Integrated Circuits"  "Modern Evaluation of Microcircuits Reliability"  "Advanced Concepts in Time Sharing"  "Special Problems Asso- ciated with Engineering Obsolescence and Retraining"	G-R  "  G-C  G-EM	2/20/67  "  4/11/67  11/11/66
St. Lawrence International (SS)	- Frank Bingham (Address unknown) Contact Section Secretary: - Irving Goodman P. O. Box 124 New Hartford, N. Y. 13413  Richard A. Reid, Jr. Sprague Electric Co. North Adams, Mass. 01247  John Short Clarkson College of Technology Potsdam, N. Y. 13676  P. B. Henderson Clarkson College of Technology Potsdam, N. Y. 13676  Henry Domingoes E. E. Dept., Clarkson College Potsdam, N. Y. 13676	"ITE Semi-Conductor Rectifiers"  "Characteristics of Hybrid Microcircuits"  "History & Development of Computers"  "Boolean Algebra, Logic & Switching"  "Transistor Logic, Flip-Flops, Shift Register, Accum. Mem."		3/15/67  4/12/67  4/13/67  4/20/67  4/27/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented	Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
New Hampshire	-R. G. Barbour; Earl Legacy -Richard A. Nichols All of Public Service Co. of New Hampshire Manchester, N.H. 03101	"34.5 KV Distribution"		2/8/67	Providence (Cont'd.)	Harold K. Work National Academy of Engrg. Washington, D. C.	"The National Academy of Engineering: Its Purposes and Effect on Engineering"		3/15/67
	Edward E. Kelly New England Telephone Springfield, Mass.	"Telephone Network Management"		2/8/67	Rochester	Dr. Seymour Schwartz Univ. of Rochester Med. Center Rochester, N. Y. 14620	"Hyperbaric Oxygenation"	G-EMB	3/7/67
	-Dr. Albert D. Frost Univ. of New Hampshire Durham, N.H. 03824	"Interferometer Techniques in Radio Astronomy"	G-AP	3/15/67		Louis Siegel Univ. of Rochester Med. Center Rochester, N. Y. 14620	"The Digital Computer as a Laboratory Instrument"	G-EMB	4/4/67
	-John L. Allen M. I. T. Cambridge, Mass. 02173	"Antennas Man-Made or Otherwise"	"	"	Springfield	-Duane Cromack Univ. of Massachusetts Amherst, Mass. 01002	"High Speed Land Transportation"		1/9/67
New York	-S. H. Dodington ITT Federal Labs Nutley, N.J. 07110	"New Development & Distance Measurement Equipment"	G-AES	1/12/67		-D.M. Morton Northeast Utilities Hartford, Conn.	"Private Microwave Systems"		"
	-Joseph A. Losier General Precision Labs 63 Bedford Rd. Pleasantville, N. Y. 10570	"TALAR - New Precision Approach Landing Aids"	"	"		A. Richardson Goodlatte Pratt & Whitney Aircraft Farmington, Conn. 06032	"Turbotrain"		2/21/67
North Jersey	C. L. Sulzberger Public Service Gas & Elec. Co. 80 Park Place Newark, N. J. 07102	"Determination of Pumped Storage Requirements And Limi- tations on a Long-Range System Basis"				-R. J. O'Brien Western Mass. Electric Co. W. Springfield, Mass. 01089	"Northfield Project Recreation Facilities"		3/6/67
	Edward L. Sinte Communication Systems Inc. Paramus, N. J. 07652	"Evolution of the Military Communication System in Europe"	G-ComTech	12/13/66		-JET Students Springfield Technical High School Springfield, Mass.	"JETs Annual Meeting"		"
	W. L. Ross Bell Telephone Labs. Holmdel, N. J. 07733	"Application of PCM in Telephone Plant"	G-ComTech	1/26/67		-Walter Wandeloski Western Mass. Electric Co. W. Springfield, Mass. 01089	"Conversion of Overhead Distribution Systems to URD"		4/3/67
	Herbert M. Wall IBM Corporation Waltham, Mass. 02154	"Computer Aided Electronic Circuit Reliability Analysis"	G-R	4/13/67		-Dr. George P. Bentley Kollmorgen Northampton, Mass. 07060	"Color Technology in Industry"		"
Princeton	-B. A. Jacoby; R. D. Lohman RCA Princeton, N. J. 08540	"Integrated Circuits Yesterday, Today and Tomorrow"		3/14/67	Syracuse	N. E. Halaby Pan American World Airways Pan American Building New York, N. Y. 10017	"Modern Transportation"		1/9/67
	Carlo Yulo NAFEC, Inc. Atlantic City, N. J.	"The National Aviation Facilities Experimental Center"		4/11/67		W. K. MacAdam A T & T Co. 195 Broadway New York, N. Y. 10007	"Information Retrieval and Man's Ability to Absorb"		3/7/67
Providence	William Marquet (Address Unknown) Contact Section Secretary: Lawrence Urban 69 Meadowcrest Dr. Riverside, R. I. 02915	"Research Submarine Alvin"		2/21/67		Hugh A. Hair Syracuse Univ. Research Corp. Syracuse, N. Y.	"Microwave Integrated Circuits"	G-AP G-MTT	3/16/67
						Dr. R. L. Anderson Syracuse Univ. Dept. of Elec. Engrg. Syracuse, N. Y. 13210	"Heterojunctions: Fact and Fancy"	G-ED	4/12/67
						Clayton P. Fisher, Jr. General Electric Co. 570 Lexington Ave. New York, N. Y. 10022	"How Good A Manager Am I?"	G-EM	3/30/67
					Vermont	J. Dynan Candon Vermont Yankee 77 Grove St. Rutland, Vermont 05701	"Progress Report on Vermont Yankee Nuclear Plant"		3/21/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Vermont (Cont'd.)	William Stebbins Burlington Electric Light Dept. Burlington, Vermont 05401	"Burlington's Proposed 50 MW Steam Plant"		4/11/67
Worcester County	-Howard H. Brown (Moderator) Vee-Arc Corporation 50 Milk Street Westboro, Mass. 01581 -Charles F. Jost Sprague Electric Co. Marshall St. N. Adams, Mass. 01220 -John Klar; Edward Floyd; -Lou Sirkin; George Green; -Bruce MacPherson; R. Starbard (Addresses Unknown) Contact Section Secretary: Benjamin R. Neely, Jr. Morgan Construction Co. 15 Belmont St. Worcester, Ma. 01605	Panel Discussion "Procurement Problems of the Engineer"		3/21/67

REGION 2

Baltimore (Annapolis SS)	Harold V. Nutt U. S. N. Marine Eng. Lab. Annapolis, Md.	"Continuing Education for the Engineer"		3/8/67
"	J. E. Walsh Baltimore Gas & Electric Co. Baltimore, Md. 21203	"Operation of Baltimore Gas & Electric Company Bulk Power System"		4/12/67
(Eastern Shore SS)	Charles Wagner Westinghouse Electric Corp. E. Pittsburg, Penna. 15112	"Engineering Considera- tions of 500 KV Substation Equipment"		3/7/67
	Lester K. Fero NASA Washington, D. C. 20546	"The Role of Saturn in Post-Apollo Programs"	G-AES	4/18/67
	John Ritterhoff The Martin Co. Middle River, Md. 21220	"Nuclear Power in Space"	G-AES	3/14/67
	Ronald Blight Microwave Associates Burlington, Mass. 01803	"Integrated Microwave Circuits"	G-AP G-MTT	3/8/67
	-Clayton Steele Baltimore Met. Transit Authority Baltimore, Maryland -James A. Gardner The Budd Company Philadelphia, Penna.	"Recent Transit Devel- opments in the Baltimore Area" "First of the New Breed in Rapid Transit Cars"	G-IGA	3/13/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Canton	D. C. Cook American Electric Power Co. 2 Broadway New York, N.Y. 10004	"The Engineer in the American Culture"		2/23/67
	G. Mambourg Ohio Power Co. 301 Cleveland Ave., S. W. Canton, Ohio 44702	"Relay Coordination in a Power System"		3/21/67
Central Pennsylvania	Thomas Vieira Eastman Kodak Co. Rochester, N. Y.	"An Electrical Engineer's Role in Industrial Production Facilities"		2/23/67
Cincinnati	-James Rockwell Jr. Children's Hospital 240 Bethesda Avenue Cincinnati, Ohio 45229 -Gareth A. Dehner Cincinnati Milling Machine Co. Cincinnati, Ohio -Richard Reiman Cincinnati Gas & Electric Co. Cincinnati, Ohio 45202 -Jess Chamberlain City of Cincinnati Water Pollution Control Cincinnati, Ohio	Prize Paper Night "Medical Application of Laser" "ECM-Learns Self Control" "Changes in Electrical Design, W. C. Beckjord Station, No. 5 to No. 6" "Telemetry in Water Pollution Control"		3/13/67 " " " "
	Ruben Cohn (Address Unknown) Contact Section Secretary: Richard J. Reiman Rm. 510 Annex The Cincinnati Gas & Elec. Co. P. O. Box 960 Cincinnati, Ohio 45201	"Inspection Tour of Electrical Distri- bution System"	G-P	3/16/67
Cleveland	-Richard F. Willett 2301 Euclid Ave. Cleveland, Ohio 44115 -Clarence F. Paulus 3578 Cummings Rd. Cleveland Heights, Ohio 44118 -B.H. Hayes 37 S. Franklin St. Chagrin Falls, Ohio 44022	Panel Discussion: "Why Don't Engineers Communicate?"		3/16/67
	Dr. A. J. Goldwyn (Address Unknown) Contact Section Secretary: Herbert H. Heller 1769 Middlehurst Rd. Cleveland, Ohio 44118	"Information Retrieval"		4/20/67
	Dr. Leon Lasden Case Institute of Technology 10900 Euclid Ave. Cleveland, Ohio 44106	"Computer Programming"	G-CT	3/14/67
	Dr. Robert Sparks Case Institute of Technology University Circle Cleveland, Ohio 44106	"Removal of Waste Products from the Body by Means of Microencapsulated Enzymes and Reactants"	G-EMB	3/29/67



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Cleveland (Cont'd.)	-Kenneth Kreh General Electric Co. Detroit, Michigan	"Unique Applications & Justification of Numerical Control"	G-IECI	2/6/67
	-Richard Saba Reliance Elect. & Engrg. 24701 Euclid Ave. Cleveland, Ohio 44112	"Speed Ratio Control Using Digital Techniques"	"	"
	Philip D. Blair General Electric Co. Nela Park East Cleveland, Ohio 44112	"Light" (with Film)	G-IGA	2/23/67
	-William S. Watkins (Moderator) William S. Watkins & Associates 34711 Chardon Rd. Willoughby, Ohio 44094	Panel Discussion: "Engineering Interfaces and Inadequacies"	G-IGA	3/9/67
	-John F. Cachat Ohio Crankshaft Co. 3800 Harvard Ave. Cleveland, Ohio 44105			
	-Harold H. Ackmann Allis-Chalmers, Inc. 1717 E. 9th St. Cleveland, Ohio 44114			
	-Anthony J. Betchik Reliable Electric Co. 13518 Enterprise Ave. Cleveland, Ohio 44135			
	-Fred P. Sener Cleveland Electric Illum. Co. P. O. Box 5000 55 Public Square Cleveland, Ohio 44141			
	Phillip A. Smith General Electric Co. Erie, Penna.	"Railway Electrification"	G-P	2/28/67
	John McCormick (Address Unknown) Contact Section Secretary: Herbert H. Heller 1769 Middlehurst Rd. Cleveland, Ohio 44118	"Remote Control of Base Stations"	G-V	2/21/67
	Harold E. Stevens Bird Electronic Corp. Solon, Ohio 44139	"Directional RF Peak Power Measurements"	G-V	4/17/67
Columbus	-Edgar A. Harty North Electric Co. P. O. Box 2556 Columbus, Ohio 43214	"Careers As An Engineer"		4/16/67
	-Samuel L. Oppenheimer Ohio Technical Institute 886 Sunbury Rd. Columbus, Ohio 43219			
(Zanesville SS)	J. B. Christopher Ohio Power Company Box 431 Canton, Ohio 44701	"System Operations"		1/12/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Columbus (Zanesville SS) (Cont'd.)	David Pharmer Westinghouse Co. Columbus, Ohio	"Modern Appliances"		2/21/67
	Charles Stewart Stewart-Glapat Corp. Zanesville, Ohio 43701	"Food Irradiation Process"		3/9/67
	Dr. Jules Duga Batelle Memorial Institute Columbus, Ohio	"Cryogenics"		4/13/67
Delaware Bay	Charles A. Achey, Jr. (Address Unknown) Contact Section Secretary: William R. Hitchens 11 Amherst Drive Newark, Delaware 19711	"Your Handwriting Shows"		3/6/67
	-J. Edward Andrews, Jr. (Address Unknown) Contact Section Secretary: (See Above)	Student Prize Papers: "Design & Development of Telemetry for Vibrating Member"		4/3/67
	-James H. Meacham (Address Unknown) (Contact Secretary - Above)	"Approaches to the Design of a Solid-State Vidicon Camera"		"
	-Robert N. Spencer (Address Unknown) (Contact Secretary - Above)	"Equivalent Circuit of Single Phase Induction Motor"		"
	H. E. Stouffer Delmarva Power & Light Co. 600 Market Street Wilmington, Delaware 19899	"Electric Heat, Design, Application and Future"	G-P G-IGA	4/20/67
Emporium-Ridgeway	Dr. Clark (Address Unknown) Contact Section Secretary: C. Carryl Hendrickson Rd. 1 Emporium, Pa. 15834	"Auto Safety: The Engineering Remedy"		3/14/67
	L. E. Flory R. C. A. Princeton, N.J. 08540	"Medical Electronics"		4/10/67
Erie	E. E. Kolatorowicz General Electric Co. 3001 E. Lake Rd. Erie, Penna. 16511	"The Electric Car Revisited"		3/28/67
	Dr. J. Donald Lasher Hamot Hospital 4 E. 2nd St. Erie, Penna. 16512	"The Artificial Kidney"		4/5/67
Johnstown	Price Harley (Address Unknown) Contact Section Secretary: H. A. Hiltz 191 Ellsmere Drive Johnstown, Pa.	"The Electrics of Continuous Casting"		3/14/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Johnstown (Cont'd.)	J. B. Bunch (Address Unknown) Contact Section Secretary: H. A. Hiltz 191 Ellsmere Drive Johnstown, Pa. 15904	"High Voltage D-C Transmission"		4/25/67
Lehigh Valley	V. E. Rutter Bell Telephone Labs. Laureldale, Penna. 19605	"The Bell System Picturephone"	G-ED	3/31/67
	Howard Stevens (Address Unknown) Contact Section Secretary: Henry L. Robidoux Metropolitan Edison Co. Box 542 Reading, Penna. 19603	"Nuclear Power Plant Instrumentation & Control"	G-P	2/24/67
Lima	Paul J. Hawkshaw Research & Development Center Westinghouse Electric Corp. Pittsburgh, Penna.	"A New Rapid Transit System"		3/15/67
	Dr. Cyril G. Veinott Reliance Electric & Engrg. Co. 24701 Euclid Ave. Cleveland, Ohio 44117	"Computer Design Techniques"		4/19/67
North Central Ohio	J. F. Noble Westinghouse Electric Corp. Pittsburgh, Penna.	"Atomic Power Present & Future"		3/30/67
Philadelphia	-Eugene S. Wheeler Bell Telephone Co. 1 Parkway Philadelphia, Penna. -Samuel S. Baxter City of Philadelphia Water Dept. Philadelphia, Penna. -Richard Holgate 1000 Chestnut St. Philadelphia, Penna. 19107	"What if Philadelphia Had a Power Blackout?"		4/3/67
	Dr. A. B. Glenn RCA Moorestown, N.J. 08057	"Deep Space Communi- cations"	G-AES	12/1/66
	Alfred J. Arker General Electric Company Missile and Space Division Philadelphia, Penna. 19101	"Nuclear Space Power"	G-AES	1/19/67
	Jean P. Mather University City Science Center 34th & Market St. Philadelphia, Penna.	"The Adjunct Research Center--Industrial Experiment Station of the Twentieth Century."	G-AES	3/9/67
	R. R. Duersch General Electric Co. Research & Development Center Schenectady, New York	"Gradient Techniques for Design Optimization"	G-AC	4/17/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Philadelphia (Cont'd.)	Dr. John F. Sanford General Electric Co. Valley Forge, Penna. 19481	"Aerospace Applications of Gyrocompassing"	G-AC	2/27/67
	Dr. A. K. Newman Moore School of Elec. Engrg. University of Pennsylvania Philadelphia, Penna. 19104	"Control System Synthesis by Liapunov Techniques"	G-AC	3/28/67
	-Sam Gubin; James Hawley (Addresses Unknown) Contact Section Secretary: Stanley Zebrowitz 1010 Edann Rd. Oreland, Pa. 19075	"TV Broadcast Communications Satellite System"	G-B	10/11/66
	Dr. Murlan S. Corrington RCA Camden, N.J.	"Computer Aided Design; Present and Future"	G-CT	4/5/67
	Dr. H. L. Van Trees Mass. Institute of Technology Cambridge, Mass.	"Analog Modulation, Bounds and System Performance"	G-ComTech G-VC	4/10/67
	W. F. Simon UNIVAC-Sperry Rand Corp. Blue Bell, Pa. 19422	"System Design Problems Related to Crosstalk, Noise and Grounding"	G-EMC	2/9/67
	Frank J. Toner General Electric Company Transmission Division Philadelphia, Penna.	"Trends in Union- Management Relation- ships on the American Scene"	G-EM	3/7/67
	J. J. Gillespie RCA Camden, N.J.	"How to Get Your Engineers Talking to One Another"	G-EWS	4/4/67
	Harry L. VanTrees M. I. T. Cambridge, Mass. 0213	"Analog Modulation: Bounds and System Performance"	G-IT	4/10/67
	D. C. Hoffman; R. J. Reifschneider General Electric Company 6901 Elmwood Ave. Philadelphia, Penna. 19142	"Solid State Trip Device for LV Power Circuit Breakers"	G-IGA	4/4/67
	W. L. Doelp Philco-Ford Corporation Lansdale, Penna. 19446	"Tour the Amazing World of Integrated Circuit Manufacture"	G-PMP	3/8/67
	J. S. Dunn Struthers-Dunn Co. Lambs Road Pitman, N.J. 08071	"Relays, Their Use & Manufacture"	G-PMP	4/12/67
	John Ferensik Philadelphia Electric Co. 1000 Chestnut Street Philadelphia, Penna. 19107	"Muddy Run Pumped Storage Project -- Electrical & Operating Aspects"	G-P	4/11/67
	Thomas B. Foley Simplex Cable Company Cambridge, Mass.	"Developments & Field Experience on Poly- ethylene Insulated Cables Through 138 KV"	G-P	2/21/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Philadelphia (Cont'd.)	Ronald B. Shores General Electric Company 6901 Elmwood Ave. Philadelphia, Penna. 19142	"EHV Power Circuit Breakers"	G-P	1/9/67
	S. N. Greenberg General Electric Company Valley Forge, Penna. 19481	"Mechanized Reliability Predictions Using MIL-HDBK-217A Data"	G-R	3/8/67
	H. R. Spaans; W. S. Thomson Bell Telephone Co. of Penna. Philadelphia, Penna. 19103	"No. 1 ESS"	G-ComTech	3/13/67
Pittsburgh	-L. Wagner WTAE-TV 400 Ardmore Blvd. Pittsburgh, Penna. 15230	"Color Television, System and Operating Requirements"		3/27/67
	-H. Ennes (Address as above)	"Color Television Theory and Standards"		"
	Joe E. Lempert Westinghouse Research Lab. Pittsburgh, Penna. 15235	"The Electron Beam Welder as a Welding Tool"	G-IGA	1/25/67
	R. D. Phelps General Electric Company Schenectady, New York	"Numerical Control in Heavy Industry"	G-IGA	2/23/67
Upper Monongahela (SS)	Dr. R. D. Haun, Jr. Westinghouse Co. Research and Dev. Section Pittsburgh, Penna.	"Lasers"		2/16/67
	Jerry S. Lee (Address Unknown) Contact Subsection Secretary: Edwin C. Barbe 804 Des Moines Ave. Morgantown, W. Va. 26505	"Audio Delay Alert System"		3/16/67
Sharon	G. W. Minor Westinghouse Company Sharon, Penna. 16146	"Automatic Driverless Trains at Westinghouse"		4/12/67
	Ron Schmid Westinghouse Company East Pittsburgh, Penna.	"Ferroresonance"	G-P	3/22/67
Southern New Jersey	Lawrence J. Curran Atlantic City Electric Co. Kentucky & Bacharach Blvd. Atlantic City, N. J.	"The Development of Underground Trans- mission & Distribution Facilities"		3/16/67
Susquehanna	Dr. W. Deming Lewis Lehigh University Bethlehem, Penna.	"Education for the Space Age"		3/7/67
	J. R. Fendley, Jr. RCA Labs. Princeton, N. J. 08540	"Noble Gas Ion Lasers"		4/4/67
Washington	Arnet Curry Motorola Comm. and Electronics, Inc. 577 Edgewood Elmhurst, Illinois 60126	"History and Develop- of Radio Communica- tions for Railroads"	G-AES	3/13/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Washington (Cont'd.)	P. Gene Smith Research Triangle Institute P. O. Box 490 Durham, North Carolina 27702	"Signal Acquisition in Multiple Aperture Arrays"	G-AP	2/21/67
	Dr. Isadore Katz The Johns Hopkins Univ. Applied Physics Lab. Silver Springs, Md.	"Probing the Clear Atmosphere with Radar"	G-AP	3/21/67
	Edwin Dyke Radio Science Company McLean, Virginia 22101	"Loading and Prototype System Parameters for Bit Error Rate (BER) Prediction"	G-ComTech	2/21/67
	Dr. Erna Hoover (Address Unknown) Contact Section Secretary: George Abraham 3107 Westover Dr., S. E. Washington, D. C. 20020	"No. 1 Electronic Switching System"	G-C	3/1/67
	Albert D. LaRue Varian Associates 611 Hansen Way Palo Alto, Calif. 94304	"Twystron, a Hybrid TWT"	G-ED	2/16/67
	Frank Brand USAEC Microwave and Quantum Elec. Div. Ft. Monmouth, N. J. 07703	"Microwave Integrated Circuits"	G-ED	3/6/67
	Rawson Bennett 3200 N. Columbus St. Arlington, Va. 22207	"The Uses and Abuses of Middle Managers"	G-EM	2/9/67
	Dr. R. Syski Stat. and Prob. Div., Math. Dept. University of Maryland Baltimore, Md. 21201	"Stochastic Integrals and the Diffusion Equation"	G-IT	2/15/67
	Dr. Thomas L. Saaty Arms Control and Disarmament Agency Washington, D. C.	"Quantitative Models in Arms Control"	G-IT	3/15/67
	Dr. George Mueller NASA Washington, D. C. 20546	"The Apollo Program: Scientific Objectives and Engineering Problems"	G-IM	2/20/67
	Dr. Peter L. Bender (Address Unknown) Contact Section Secretary: George Abraham 3107 Westover Dr., S. E. Washington, D. C. 20020	"Proposed New Speed of Light Measurements - Why and How?"	G-IM	2/16/67
	Ernest Stern M. I. T. Lincoln Lab. Lexington, Mass. 02173	"Remanence Phase Shifters for Phased Arrays"	G-MTT	2/14/67
	Thomas M. Hyltin Texas Instruments P. O. Box 5012 Dallas, Texas 75222	"A Specific Example of the Use of Microwave Integrated Circuits in a Phased Array Radar"	G-MTT	3/14/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Washington (Cont'd.)	-John Condon, Moderator Panelists: Col. D. Heaton; -Edward Nucci; Raymond Knight; -Seymour Lorber (Addresses Unknown) Contact Section Secretary: George Abraham 3107 Westover Dr., S. E. Washington, D. C. 20020	Panel Discussion: "Systems Effectiveness"	G-R	2/8/67
	Donald L. Costello ARINC Research Corp. 2551 Riva Road Annapolis, Maryland	"Theory of Toys and Games with Implication to Systems Science, Cybernetics and Human Thought"	G-SSC	2/16/67
	Frederick Bauer Ford Motor Company 20000 Rotunda Dr., Box 2053 Dearborn, Michigan 48124	"Vehicular Communi- cations for the Masses"	G-V	2/28/67
West Virginia	Robert E. Weiler Westinghouse Company Box 10864 Pittsburgh, Penna. 15236	"Nuclear Power for Mars Mission"		3/13/67
<u>REGION 3</u>				
Alabama	Sabert Oglesby Southern Research Institute 2000 9th Ave. S. Birmingham, Alabama	"Engineering Research Program at Southern Research Institute"		3/13/67
	R. A. Patrick Allis-Chalmers Pittsburgh, Penna.	"A Modular Approach to Underground Residential Distribution"		4/10/67
	B. W. Roberts Southern Bell Tel. Co. 1710 First Ave. N. Birmingham, Alabama 35203	"Time-Sharing Computers"	G-ComTech	3/13/67
	Leslie Sparks Southern Bell Tel. Co. 1706 Second Ave., N. Birmingham, Alabama 35204	"Wideband Data Transmission"	G-ComTech	4/10/67
	R. W. Kelly Line Material Industries Milwaukee, Wisconsin	"Lightning Protection of Underground Distribution Equipment"	G-P	3/13/67
	Gayle Riley Alabama Power Company 600 North 18th St. Birmingham, Alabama	"Series Capacitor Installation to Reduce Voltage Fluctuation Caused by an Electric Arc Furnace"	G-P	4/10/67
Atlanta	Jarvis D. Cotton Westinghouse Electric Corp. Pittsburgh, Penna.	"World Energy Supplies"		4/17/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Atlanta (Cont'd.)	Ralph E. Lamar ITT World Communications, Inc. 67 Broad St. New York, N. Y. 10004	"Live TV Coverage by Transportable Earth Station of the Gemini Recoveries"	G-ComTech	2/27/67
	Clayton V. Steele American Tel. and Tel. Co. Atlanta, Georgia 30303	"Long Lines Tropo- spheric Scatter Radio Systems"	G-ComTech	3/20/67
	Aubrey M. Bush Georgia Institute of Technology Atlanta, Georgia 30332	"Synthesis of Linear Time-Varying Systems"	G-ComTech	4/24/67
Macon-Warner Robins (SS)	J. Reese (Address Unknown) Contact Section Secretary: Demetrius T. Paris Georgia Tech. School of Elec. Engrg. Atlanta, Georgia 30332	"Microelectronics Today"		3/23/67
Rome (SS)	Clarence Flarity General Electric Company Philadelphia, Penna.	"Solid State Devices in Power Systems"		3/7/67
Baton Rouge	Charles Nunez Gregory - Salisbury New Orleans, La.	"Low Voltage Cable Systems"		2/9/67
	Gen. R. G. MacDonald U. S. Corps of Engineers Baton Rouge, La.	"Engineering Activities on the Mississippi River"		3/15/67
	Eustace Soares Industrial Engineering Services 921 Bergen Ave. Jersey City, N. J. 07306	"Grounding Industrial Circuits"		4/20/67
Lafayette (SS)	Dr. Charles J. Monier Univ. of Southwestern Louisiana Lafayette, La. 70501	"A Compensation Technique for Non-Linear Autonomous Systems"		1/11/67
	Jack Gremillion (Address Unknown) Contact Section Secretary: Edward M. Loggins P. O. Box 2431 Baton Rouge, La. 70821	"The Oil Industry and Engineers"		2/20/67
	H. E. Mortimer Gulf States Utilities Co. P. O. Box 2951 Beaumont, Texas 77704	"Power Supply Problems in the Atomic Age"		3/8/67
Canaveral	-G. H. Magruder; B. S. Chen (Addresses Unknown) Contact Section Secretary: Horst A. Poehler 400 Third Ave. Sea Park Homes Eau Gallie, Fla. 32937	"Tel IV Telemetry Facility"		3/16/67
	Norman C. Seiler Radiation Inc. Melbourne, Fla. 32901	"Programmable PCM Systems"	G-AES	2/7/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Canaveral (Cont'd.)	B. L. Crew General Electric Company P. O. Box 2500 Daytona Beach, Florida	"Information Retrieval - No Indexing - No Programming"	G-ComTech	3/27/67
	R. O. Morrissette Radiation Incorporated Palm Bay, Fla. 32901	"The Susceptibility of Airborne Magnetic Memories to Magnetic Fields"	G-EMC	2/21/67
	- William Lang Florida Power & Light Co. P. O. Box 3100 Miami, Fla. 33169	"Computer Application in Florida Power & Light Co."	G-P	11/17/66
	- Kae Armer Florida Power & Light Co. Cocoa, Fla. 32922	"What is a Home-maker" "	"	"
Central North Carolina	Dr. R. J. Menzies Duke Univ. Marine Lab. Durham, N. C.	"Biological - Engineer- ing Requirements for Deep Sea Research"		3/21/67
	Gerald C. Glover National Env. Satellite Center Suitland, Maryland	"Weather Data and Weather Control"		4/18/67
Central Virginia	William Patton NSPE 2029 "K" St., N. W. Washington, D. C. 20006	"The Influence of Con- gressional Activities on Engineers and Engineering"		2/23/67
Charlotte	- E. Bruce Barton Duke Power Company 422 South Church Street Charlotte, N. C. 28202	"Magnetic Tape Demand Metering"		3/13/67
	- Harold R. Allgood (Address as above)	"Battery Decay and Ground Detection System for Plant Marshall"		"
	- Carl E. Dowdey (Address as above)	"The Electrical Features of the Coal Handling System at Plant Marshall"		"
Chattanooga	H. E. Nestlerode (Address Unknown) Contact Section Secretary Richard C. Crawford 203 Power Bldg. TVA Chattanooga, Tenn.	"Where is the Signal Corps? "	G-ComTech	4/18/67
	R. Bruce Shipley Tennessee Valley Authority 203 Power Building Chattanooga, Tenn.	"Digital Analysis of Single Pole Switching on EHV Lines"	G-P	4/4/67
Daytona	Mr. Schultz General Instrument Lab. Clearwater, Florida	"Impact of Mosfet's on Integrated Circuits"		1/16/67
	V. Hajek Naval Training Devices Center Orlando, Florida	"Special Contractual Technical Requirements for Training Devices"		3/27/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Daytona (Cont'd.)	Prof. McAllister Florida Atlantic University Boca Raton, Florida 33432	"Let's Use the Ocean"		4/24/67
	M. David Prince Lockheed Georgia Company Marietta, Georgia 30060	"Man-Machine Graphics for Computer Aided Design"	G-C	3/29/67
Eastern North Carolina	Erich Christian ITT Telecommunication 2912 Wakeforest Rd. Raleigh, N. C.	"The Computer: Impact and Consequences"		3/10/67
	-Prof. Wilbur C. Peterson; -Prof. Alfred J. Goetze North Carolina State Univ. Raleigh, N. C.	"Feedback Control of an Unstable Process"		4/7/67
	-Prof. N. F. J. Matthews (Address as above)	"An Automatic, Programmable Data Transfer System"		"
	-Prof. F. J. Tischer (Address as above)	"Activities in the Area of Electromagnetics"		"
	-C. W. Bostian (Address as above)	"Loop Antennas with Active Elements"		"
	-A. T. Shankle (Address as above)	"Schlieren Prism for Light Beams"		"
	-Prof. William J. Barclay (Address as above)	"Cryogenic Thin-Film Microwave Devices"		"
	-J. P. Moffatt (Address Unknown) Contact Section Secretary: Darrell V. Menscer 3025 Glenridge Dr. Raleigh, N. C.	"Optical Correlation Processing"		"
	-Harold W. Clark ITT Telecommunications 320 Park Ave. New York, N. Y. 10022	"The Communications Explosion"		"
East Tennessee	-Prof. P. C. Cromwell Univ. of Tennessee Ferris Hall Knoxville, Tenn. 37916	"Algebraic Solutions for Non-Linear Differential Equations With the Help of a Digital Computer"		3/18/67
	-Dr. H. P. Neff (Address as above)	"A New Approach to Radiation and Scattering From Dipole Antennas"		"
	-J. W. Keller Knoxville Utilities Board P. O. Box 1951 Knoxville, Tenn. 37901	"Load and Fault Studies of the KUB System Using a Small Memory Computer"		"
	-Ivan D. Campbell; Boyd Venable American Zinc Co. of Tenn. Mascot, Tenn. 37806	"Surface & Underground Mine Equipment"		4/8/67
Evansville- Owensboro	W. Elwood (Address Unknown) Contact Section Secretary: Robert L. Joest Whirlpool Company Highway 41, North Evansville, Indiana 47707	"Oceanography"		2/21/67
	Phil Garret General Electric Company Schenectady, New York	"Micro-Electronics- Integrated Circuits"		3/14/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Florida West Coast	Dr. Robert G. Dean Dept. of Coastal Engineering University of Florida Gainesville, Fla. 32601	"Ocean Engineering"		3/15/67
	Louis Calden Honeywell Company St. Petersburg, Fla.	"Large Scale Integrated Circuits"		4/19/67
	Herman Van De Vaart Sperry Rand Research Center Sudbury, Mass. 01776	"Microwave Solid State Delay Lines"	G-MTT	4/11/67
	Clifford B. Benham Florida Power Corp. St. Petersburg, Fla. 33701	"Progress and Problems in EHV-AC Overhead Transmission"	G-P	4/5/67
Ft. Walton	Richard Kreitinger Boeing Company Seattle, Washington	"Supersonic Transport"		4/6/67
Gainesville	Prof. C. T. Sah University of Illinois Urbana, Illinois 61801	"Recent Developments of Field Effect Transistors II"		3/2/67
	E. R. Owen General Electric Company Daytona Beach, Fla.	"Advances in Data Management Systems"		3/22/67
Jacksonville	-Albert F. Collins Southern Bell T & T Co. Rm. 611 Jacobs Bldg. Jacksonville, Fla.	"Telephone Toll Coordination"		3/13/67
	-Kenneth Taylor Southern Bell Tel. 421 W. Church St. Jacksonville, Fla. 32202	"Telephone Switching"		"
	-Lt. A.H. Robbins U.S. Navy, Comfairiax NAS Jacksonville, Fla.	"Waste Disposal & Pollution"		"
Louisville	Richard Murphy Naval Air Test Center Patuxent River, Md. 20670	"Techniques of Airborne Microwave Radiometry"		3/16/67
	Prof. Alexander B. Bereskin Univ. of Cincinnati Cincinnati, Ohio 45221	Seminar: "Principles of Microelectronics" "General Considerations in Monolithic Integrated Circuits and Photographic Techniques"		3/30/67
	Joseph H. Nevin (Address as above) Dr. Eugene T. Yon Case Institute of Technology Cleveland, Ohio 44106	"Epitaxial Growth" "Diffusion Processes"		"
Memphis	William I. Henry, Jr. Assisted by: Jorge Rojas Christian Brothers College 650 E. Parkway, S. Memphis, Tenn. 38104	Student Prize Paper: "Delta Modulation"		3/21/67
	J. C. Flippin Memphis Astronomical Society Memphis, Tenn.	"Amateur Astronomy - An Invitation to Discovery"	G-P	3/13/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Memphis (Cont'd.)	William Cruess Quindar Electronics Corp. Newark, N. J.	"Solid State Supervisory Control"	G-P	4/10/67
Miami	C. I. Rice Nova University Ft. Lauderdale, Fla.	"Current Status and Future Plans for Nova Institute of Advanced Technology"		3/28/67
	John C. Tirrell Sprague Electric Co. Semi-Conductor Div. N. Adams, Mass. 01247	"Integrated Circuits, Hybrid and Monolithic, Advantages and Limitations"		4/25/67
Middle Tennessee	Dr. Roy Smelt (Address Unknown) Contact Section Secretary: Percy G. King 604 Iris Dr. Tullahoma, Tenn. 37388	"The Engineer and Scientist in Our Society"		2/20/67
	Dr. Joseph Teno AVCO Everett Research Group Everett, Mass. 02149	"MHD Work in the AEDC Lorho Facility and General Industrial Applications for MHD"		4/20/67
	Gerald C. LaCook ARAMCO Corp. Dhahran, Saudi Arabia	"Electrical Power Systems in Saudi Arabia"	G-P	4/7/67
Northeast Mississippi (SS)	Charles Farish Univ. of Miss. Med. Center Jackson, Miss. 39216	"Versatile Control Unit for the Artificial Heart"		3/7/67
Mobile	Dr. Lillian Gilbreath (Address Unknown) Contact Section Secretary: Albert L. Pardue Alabama Power Co. 150 St. Joseph Box 1349 Mobile, Ala.	"How Engineering Affects the Human Environment"		2/22/67
	Wayne Mooneyhan (Address Unknown) Contact Section Secretary (See Above)	"The Purpose and Facts Behind the Mississippi Test Facility"		2/27/67
	R. A. Jamison Reliance Mfg. Company Cleveland, Ohio	"Paper Machine Drives"		3/27/67
Nashville	Robert Reed Vanderbilt University Nashville, Tenn. 37203	"Pulse Width Modulation in Control Systems"		3/2/67
	George McAllister, Jr. Plug-In Instruments, Inc. Nashville, Tenn. 37210	"Fabrication of Special Electrical Systems from Shelf Items"		4/6/67
New Orleans	Adm. Pierre N. Charbonnet, Jr. 8th Naval District New Orleans, La.	"Carrier Warfare - A Study in Men & Machines"		4/6/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
New Orleans (Cont'd)	Homer L. Huddleston Motorola 7138 Envoy Court Dallas, Texas 75207	"The Use of High Frequency Crystal Filters to Combat RF Interference"	G-ComTec	3/30/67
	Dr. Y.J. Seto Electrical Engrg. Dept. Tulane University New Orleans, La. 70118	"Controlled Thermo- nuclear Reactions"	G-EMC	3/1/67
	John C. Hughes, Jr. Chrysler Corp., Space Div. P.O. 2920 New Orleans, Louisiana Virgil E. Haywood (Address as above)	Panel Discussion: "New EMC/EMI Speci- fications"	G-EMC	4/12/67
	Charles H. Norris (Address as above)	"The Discipline of Magnetics as an Important Environment"	"	"
		"EMI Considerations in Applying Medical Instrumentation"	"	"
Oak Ridge	Dr. Fred C. Maienschein Oak Ridge National Lab. P.O. Box X Oak Ridge, Tenn. 37830	"Design Aspects of the Oak Ridge Electron Linear Accelerator"	"	3/9/67
	Dr. P.R. Bell ORNL P.O. Box X Oak Ridge, Tenn. 37830	"The DCX-2 Experiment"	"	4/13/67
Orlando	Robert E. Mallison Martin Marietta Corp., Orlando Div. Orlando, Fla. 32805	"Laser Principles, Theory and Applica- tion"	G-AES	3/22/67
	Dr. Jack Salz BTL Holmdel, N.J.	"Frequency Modulation & Phase Modulation Techniques"	G-ComTec	2/16/67
	Donald R. Ayer Sanders Associates, Inc. Nashua, New Hampshire 03060	"Practical Solid State Microwave Components"	G-MTT	3/1/67
	Thomas Leonard Varian Associates, Bomac Div. Beverly, Mass. 01915	"Performance Limits of Solid State Signal Sources"	G-MTT	4/19/67
	Clifford B. Benham Florida Power Corp. St. Petersburg, Fla. 33701	"Ultra-High Voltage Transmission"	G-P	2/28/67
Pensacola	I. N. Howel Southern Bell Telephone Co. Pensacola, Florida	"Random Noise Distribution"	"	3/27/67
Richmond	W. B. Rodeman General Electric Company Richmond, Virginia	"Nothing is Certain Except Change"	"	3/16/67
	Clayton C. Armstrong Reynolds Metals Company 4900 Augusta Ave. Richmond, Va. 23230	"Structural Engineering for Electric Power Transmission"	"	4/6/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Savannah	Harry J. Morgan Savannah Office, FBI Savannah, Georgia	"Work of The FBI (And How Computers Serve in Investigation)"	"	3/9/67
South Carolina Central Savannah River (SS)	Mr. Van Martin Honeywell Corp. Columbia, S. C.	"User-Manufacturer Relationship"	"	1/31/67
	William S. Lee Duke Power Company Box 648 Greenville, S. C. 29601	"Keowee-Toxaway Project"	"	2/23/67
Charleston (SS)	Robert E. Maxwell S. C. Electric & Gas Co. Columbia, S. C.	"Deadly Attitudes with Reference to Safety"	"	1/5/67
Piedmont (SS)	G. A. Black; Ansele Blair; Francis W. Chapman Duke Power Company Greenville, S. C. 29601	"The Growth of Duke Power Company in the Greenville Area"	"	2/16/67
Virginia Mountain	Charles E. Hatsell (Address Unknown) Contact Section Secretary: James L. Crowgey 2603 Vancouver Dr. Roanoke, Va. John E. Vest (Address Unknown; See Above) Richard C. Brooks (Address Unknown; See Above)	Student Prize Papers: "Application of Time Compression Techniques to Correlation"	"	4/7/67
		"Integrated Circuits"	"	"
		"Analysis of the Sum of Two Sine Waves"	"	"
Western North Carolina	Robert Babcock General Electric Company Hendersonville, N. C. 28739	"Modern Ballasting Practices"	"	2/28/67
	Grier I. Wallace, Jr. Ranson & Wallace Co. 116 1/2 E. Fourth St. Charlotte, N. C. 28202	"A Stitch in Time" (Insulation Absorption Testing)	"	3/28/67
	Kenneth Morrow Southern Bell Telephone Co. Stanfield, N. C. 28163	"Coaxial Cable Techniques"	"	4/25/67
Winston-Salem	J. F. Swanson Bell Telephone Labs. Winston-Salem, N. C.	"Computers in Engineering"	"	3/16/67
	Harold W. Clark I. T. T. Telecommunications 320 Park Ave. New York, N. Y. 10022	"The Communications Explosion"	"	4/7/67
		<u>REGION 4</u>		
Arrowhead	Russell O. Ohlson Square D Company Minneapolis, Minn.	"Procedure for Determin- ing Short Circuit Values in Secondary Electrical Distribution Systems"	"	2/8/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Cedar Rapids	Dr. Herbert True (Address Unknown) Contact Section Secretary: Murrell F. Jessen 2295 17 Ave. Marion, Iowa 52302	"How to Recognize Yourself in a Herd of Elephants"		2/16/67
	J. R. Burkhart General Electric Co. 1015 Locust St. St. Louis, Mo. 63101	"HVDC Trans- mission Systems"		3/15/67
	Edwin Hattendorf Collins Radio Co. Cedar Rapids, Iowa	"Aircraft Flight Control & All- Weather Landing Systems Design"		4/18/67
Central Illinois	Kote Spellnes Automatic Electric Co. Northlake, Illinois 60164	"Electronic Switching Systems for the Telephone Industry"		3/21/67
	Alfred V. Dasburg General Railway Signal Co. P. O. Box 600 Rochester, N. Y. 12602	"Advance Control Techniques Applied to Modern Railroads"		4/18/67
	W. J. Poppelbaum University of Illinois Urbana, Illinois 61801	"Hybrid Graphical Processors"	G-CT	2/28/67
	Charles Snail Line Material Co. Elmhurst, Illinois 60126	"Control of Distribution Equipment"	G-P	3/28/67
Central Indiana	Dr. J. L. Hartman General Motors Res. Labs. Box 894 Indianapolis, Ind. 96206	"The Electric Automobile"	G-P	4/20/67
Central Iowa	Dr. A. Pohm Elec. Engrg. Dept. Iowa State University Ames, Iowa 50010	"Trends in Computer Technology"		2/15/67
	E. A. Irland Bell Telephone Labs. Indian Hills Naperville, Illinois 60540	"Electronic Switching By Computer"		3/8/67
Chicago	-Bert Johnson (Address Unknown) Contact Secretary: Paul F. Carroll 827 Clover Court Glenview, Ill 60025	"Introduction to Hybrid Computers"	G-AS G-C	3/9/67
	-Lawrence T. Bryant (Address Unknown) Contact Section Secretary above	"Hybrid Simulation of a Neutron Reactor Control System"	" "	" "
	Dr. A. T. Adams Syracuse University Syracuse, N. Y. 13210	"Electrically Small Antennas--Dipoles and Slots"	G-AP G-MTT	12/8/66

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Chicago (Cont'd)	Jack R. Kelly, Jr. (Address Unknown) Contact Section Secretary Above	"Instrumentation for Antenna Measurements"	G-AP	2/17/67
	Dr. Robert Adler Zenith Radio Corp. 6001 W. Dickens Ave. Chicago, Illinois 60639	"Diffraction of Light by Ultrasound"	G-ComTech	3/7/67
	-R.W. Ketchledge; S.L. Neuser Bell Telephone Labs. Naperville, Illinois 60540	"Development, Facilities and Methods at Indian Hill"	G-ComTech	4/5/67
	Dr. Arthur Roberts Argonne National Labs. Argonne, Illinois 60439	"The Computer as Orchestra"	G-C	2/20/67
	-Dr. Lawrence Stark University of Illinois Chicago, Ill 60612	"Pattern Recognition by Digital Computer: Artificial Intelligence?"	" "	" "
	-Dr. Gordon Brown Mass. Institute of Technology Cambridge, Mass. 02139	"Engineering Symposium, 1971" - (A Review of Engineering for the Years of 1966 to 1971 in Regard to Education, Technology, New Products, Production Techniques and Communi- cation)	G-EM	11/3/66
	-Dr. Gordon Van Wylen University of Michigan Ann Arbor, Michigan			
	Dr. Gustave J. Rath Northwestern University Evanston, Illinois 60201	"Education - New Markets and Problems for the Electrical Engineer"	G-EM	11/11/66
	William Arrott Gardner, Jones & Cowell, Inc. 79 W. Monroe St. Chicago, Illinois 60603	"The Engineer's Role in Public Relations"	G-EM	3/31/67
	Dr. Walter S. Moos University of Illinois 840 S. Wood St. Chicago, Illinois 60612	"Behavior Pattern With Respect to Certain Atmospheric Change"	G-EMB	2/14/67
	Roy A. Nelson (Address Unknown) Contact Section Secretary: Paul F. Carroll 827 Clover Court Glenview, Ill. 60025	"New Insulation System Ideas"	G-IGA	2/14/67
	E. E. Griesser; R. L. Barrison NACON Corp. Boston, Massachusetts	"The Sodium Conductor"	G-IGA	2/14/67
	E. F. Lasure Cutler-Hammer Corp. Milwaukee, Wisconsin	"The Role of Control Systems in Ware- housing Operations Using Stacker Cranes"	G-IGA	4/20/67
	Prof. John C. Hancock School of Elec. Engrg. Purdue University West Lafayette, Ind. 47906	"On the Problem of Signaling Through a Channel With Memory"	G-IT	2/22/67



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Chicago (Cont'd)	Charles E. Chastain High Strength Plastics Corp. 1401 W. Jackson Chicago, Illinois 60607	"How to Use Epoxies Successfully in Electrical-Electronic Applications"	G-PMP	2/14/67
	Roger J. Mueller Amphenol Connector Div. 1830 South 54th Ave. Chicago, Illinois 60650	"Progress in Sub-miniature Connectors"	G-PMP	4/4/67
	E. A. Griesser Simplex Wire & Cable Co. 2058 North 15th St. Melrose Park, Illinois	"New Insulation System Ideas" - "New Sodium Conductor"	G-P	2/14/67
	Howard R. Stevens Illinois Bell Tel. Co. 212 W. Washington Chicago, Illinois 60606	"Improved Mobile Telephone System"	G-V	2/16/67
Calumet (SS)	Dr. Rex Hurt Rahrer, Hibler & Replogle Chicago, Illinois	"Going From Engineering to Management"		2/13/67
	E. J. Steeve; J. A. Schneider Commonwealth Edison Co. 1319 S. First Ave. Maywood, Ill. 60153	"Sodium Conductor Cables"		3/13/67
Fox Valley (SS)	D. N. Eggenberger Electronics Div. Argonne National Lab. Argonne, Ill. 60439	"The Search to See An Atom-Electron Microscope"		3/1/67
Illinois Valley	D. J. Pirhofer Aero-Space Division Sun Electric Corporation 6323 Avondale Ave. Chicago, Illinois	"Electrical Aspects of Military Ground Support and Test Equipment"		3/2/67
	S. J. Manual (Address Unknown) Contact Section Secretary: Floyd Feldman Le Tourneau Westinghouse Co. Peoria, Illinois	"E. H. V. Commitments & Experience by Public Utilities & Industry"		4/6/67
Iowa Illinois Burlington (SS)	R. G. Henneman Iowa-Illinois Gas & Electric Co. Rock Island, Illinois 61201	"Interconnected System Operation"		2/9/67
Madison	John E. Anderson Univ. of Wisconsin Dept. of Elec. Engrg. Madison, Wisconsin 54306	"Making Cash Old Fashioned - Computers in Retail Sales"		3/28/67
	John Rauheim Line Materials Co. Milwaukee, Wisconsin	"Arc Phenomena in Vacuum Switching"		4/25/67
Milwaukee	Louis J. Lawson Lear Siegler Inc. Cleveland, Ohio	"The Modern Cyclo-Converter- Applications to Industrial AC Electric Drive Systems"	G-IGA	3/29/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Milwaukee (Cont'd.)	Pierre E. Schmid Allen-Bradley Co. 1201 S. 2nd St. Milwaukee, Wisc. 53204	"VHF and UHF Antenna Multiplexers for Missile and Space Telemetry"	G-MTT	3/28/67
Nebraska	Robert H. Ballard Omaha Public Power District 17th & Harney Omaha, Nebraska 68102	"Report on the Nebraska Power Industry Committee System Planning Study for the Years 1968-1985."		3/16/67
	James Lee Nebraska Public Power System Columbus, Nebraska 68601	" "		"
	Philip W. Bogner Westinghouse Electric Corp. Bloomington, Indiana 61701	"Lightning and Lightning Protection"		4/20/67
	Capt. Richard J. Gowen USAF Academy Colorado 80840	"Bioengineering: Today and Tomorrow"	G-EMB	3/20/67
	Dr. Neal Cholvin Iowa State University Ames, Iowa 50010	"Biomedical Research at Iowa State"	G-EMB	4/13/67
	John F. Bates Gibbs & Hill, Inc. 393 7th Ave. New York, N. Y. 10001	"Today's Nuclear Power Plants"	G-P	3/28/67
	-Donald MacClymont; -James Murray Line Material Industries Milwaukee, Wisconsin	"Reclosers - Application and Coordination"	G-P	4/25/67
Northeast Michigan	Gilbert S. Keeley Consumers Power Co. Parrell Rd. Jackson, Michigan 49201	"Nuclear Power Development in Michigan"		4/20/67
Northeastern Wisconsin	William Younger Allen-Bradley Milwaukee, Wisconsin	"What's an EE Doing in Sales"		4/6/67
Rock River Valley	David R. Dalzell, Jr. Beloit Corporation Beloit, Wisconsin 53511	"Engineering Applications of Computer"		2/23/67
	John Thurew (Address Unknown) Contact Section Secretary: George R. Teslik 4519 Manheim Rd. Rockford, Ill. 61108	"Quiktran - Remote Data Processing"		3/23/67
Siouxland	Jean Ronhe (Address Unknown) Contact Section Secretary: C. L. Christensen Iowa Public Service Co. Storm Lake, Iowa 50588	"Underground Residential Distribution"		3/6/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Siouxland (Cont'd.)	H. W. Graybill I-T-E Circuit Breaker Co. Greensburg Div. Greensburg, Pa. 15601	"Trends in E. H. V. Substation Equipment"		3/28/67
	-James S. Smith General Electric Co., Central Reg. Chicago, Illinois	"Present Worth Economic Studies"		4/17/67
	-Larry Potter General Electric Co. Information Systems Div. Chicago, Illinois	"Computer Time Sharing"		"
	-Jules Vieaux IBM Corporation Minneapolis, Minnesota	"Role of Computers in Electrical Engineering"		"
South Bend	-Joseph J. Cooney Bendix Missile Systems Div. Mishawaka, Indiana 46544	"FM Receiver Interference"		3/16/67
	-Donald Moran Notre Dame University Notre Dame, Ind. 46556	Student Paper Contest: "Phase-locked Loop Systems"		"
	-John Walsh (Address Same as Above)	"System Concepts: Idea, Approach and Method"		"
	-Albert Metailer (Address Same as Above)	"Electronic Circuit Considerations in Integrated Circuits"		"
	Dr. Alan Monkewicz Notre Dame University Notre Dame, Ind. 46556	"Lasers - Fundamen- tals of Theory and Applications"		4/4/67
Southeastern Michigan	Dr. Weston E. Vivian Conductron Corporation Ann Arbor, Michigan	"Prospects for Upcoming Space and Oceanography Programs"	G-AES	4/18/67
	G. A. Deschamps University of Illinois Urbana, Illinois	"Geometrical Represen- tation of Wave Polari- zation"	G-AP G-MTT G-ED	4/19/67
	Harold Chestnut (Address Unknown) Contact Section Secretary: Walter Kerwick Gen. Motors Res. Lab. Twelve Mile & Mound Roads Warren, Michigan 48090	"Systems Engineering in Industry"	G-AC G-IT	3/14/67
	Prof. Karl L. Zim The University of Michigan Ann Arbor, Michigan	"Computer Aids to Learning"	G-C	3/15/67
	-C. A. Badeau The Thomas and Betts Co. Elizabethtown, N. Y. 12932	"The Termination of Aluminum Conductors"	G-IGA	3/7/67
	-R. S. Davis I-T-E Circuit Breaker Co. Bulldog Div. Detroit, Michigan	"Aluminum Bus Preparation and Usage"	"	"
	Nathan Tonelson Commercial Satellite Corp. Washington, D. C.	"The New Era of Commercial Satellite Communications"	G-P	3/14/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Southeastern Michigan (Cont'd.)	- E. Gordon Glewwe; - Joseph T. Zimnoch The Okonite Company Passaic, New Jersey	"New Developments in Insulated Cable"	G-P	4/18/67
	J. R. Neubauer RCA Camden, N. J.	"EIA Standards for Vehicular Communi- cations Equipment"	G-V	2/23/67
	Donald Gieb (Address Unknown) Contact Section Secretary: Walter Kerwick Gen. Motors Res. Lab. Twelve Mile & Mound Roads Warren, Michigan 48090	"Exploring Available Education Programs in Solid-State Electronics"	G-V	3/23/67
Toledo	Henry G. Pfanner NASA Lewis Labs, Plum Brook Station Sandusky, Ohio 44870	"Computers and Control at NASA Plum Brook Station"	G-AC	3/16/67
Twin Cities	Lloyd E. Berggren North Star Res. & Dev. Inst. Minneapolis, Minnesota	"Mass Transportation for Urban Areas"		1/31/67
	Dean Flaygstad (Address Unknown) Contact Section Secretary: Kenneth K. Dols 5913 Oliver Ave., S. Minneapolis, Minn. 55419	"Stereo Headphones: Their Design & Development"	G-A&E	1/24/67
	Keith S. Emmons Ampex Corp. 401 Broadway Redwood City, Calif. 94063	"Editec and Velocity Compensator"	G-B	2/14/67
	Joseph Kahnke Honeywell Sys. and Res. Center Minneapolis, Minn. 55413	"Design of the Tracking and Telemetry Sub- systems for the scanner Spacecraft"	G-ComTech	2/16/67
	Richard Hedger IBM Corporation Rochester, Minn. 55901	"IBM 2250 Remote Terminal Display Device"	G-C	2/21/67
	Ronald Kral; William B. Smith (Addresses Unknown) Contact Section Secretary Above	"Simultaneous All- Channel Signaling (SACS)"	G-V	1/12/67
Red River Valley (SS)	Val Tereski North Dakota State University Fargo, N. D. 58102	"Computer Applications"		12/21/66
	John E. Hagberg (Address Unknown) Contact Section Secretary Above	"Modern Trends in Protective Relaying"		1/18/67
	Don Coder N. W. Bell Telephone Co. Fargo, N. D. 58102	"Cross-Bar Automatic Switch Dialing"		2/15/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
West Michigan (Cont'd.)	Clayton D. Alway Upjohn Co. Henrietta St. Kalamazoo, Michigan 49006	"Scientific Instrumentation"		3/8/67
	Dr. Kenneth Haines University of Michigan Ann Arbor, Michigan	"Modern Holography"		4/13/67
<u>REGION 5</u>				
Beaumont	Dr. Thomas L. Martin Jr. Southern Methodist University Dallas, Texas 75222	"Engineering for the Human Environment"		2/22/67
	-Robert Mitchell Lamar State College of Technology Beaumont, Texas	"Electric Cable Fault Detection Methods with Special Emphasis on Time Domain Reflectometry"		3/20/67
	-Charles A. Smith Address Same as Above	"Fiber Optics - Advances"		"
	-John Stone Address Same as Above	"Properties and Application of Superconductors"		"
Lake Charles (SS)	Mark Pharr Gulf South Research Institute New Iberia, Louisiana 70560	"Engineering for the Human Environment"		2/23/67
	Herbert N. Hickok General Electric Co. 4219 Richmond Ave. Houston, Texas 77027	"Silicon Control Rectifier Workshop"	G-P	1/17/67
Central Texas	John C. Gray Westinghouse Electric Corp. Pittsburgh, Pa. 15230	"Nuclear Power Plants"		3/9/67
Corpus Christi	Joseph Marks; Lionel Garza (Addresses Unknown) Contact Section Secretary: D. Fred Kauffmann 4105 Markins Dr. Corpus Christi, Texas 78411	Student Paper Contest: "Digital Clock"		3/16/67
	-Harold Palmer; Lloyd Jordan -Robert Dworaczyk (Addresses Unknown) Contact Section Secretary Above	"Character Generator"		"
	-Donald Jones; Herbert Gottschling (Addresses Unknown) Contact Section Secretary Above	"Complex Wave Synthensus on an Analogue Computer"		"
Victoria - Port Lavaca (SS)	Jack Nelligan Pyle - National Company Chicago, Illinois	"A Discussion of Article 500 of National Electric Code"		1/26/67
	Clyde Hale Allen-Bradley Company Houston, Texas	"Industrial Reed Devices"		2/23/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Dallas	Dr. Harold Goldberg Ling-Temco-Vought Garland, Texas 75040	"This is LTV Electrosystems"		3/14/67
	Dr. Gregory Young Hughes Aircraft Company Culver City, Calif. 90230	"Signal Processing Antenna Arrays Using Decision Theory to Maximize Information Content"	G-AP	2/22/67
Denver	Henry J. Ochs, Jr. Colorado State Board of Registration Denver, Colorado	"Professional Engineers Registration in Colorado"		11/7/66
	G. A. Mickelson Federal Aviation Agency Denver, Colorado	"Air Traffic Control"		1/13/67
	Edward F. Cleary Wilbur Smith and Associates 1212 Avenue of Americas New York, N. Y. 10036	"Electronic Techniques in Automobile Traffic Control"		2/17/67
	W. K. MacAdam American Tel. & Tel. Co. 195 Broadway New York, N. Y. 10007	"Relationship Between Information Retrieval and Man's Ability to Absorb"		3/9/67
	W. B. Collins The Martin Company P. O. Box 179 Denver, Colorado 80201	"Electrical Power Sources for Space Vehicles"	G-AES	12/15/66
	Dr. Georg Goubau USASCC Fort Monmouth, N. J. 07703	"Optical Waveguides"	G-AP	2/6/67
	Dr. Bruce Barrow Sylvania Electronics Systems Waltham, Mass. 02154	"A Tropospheric - Scatter Rake System & Its Uses in Propagation Measurements"	G-ComTech	2/9/67
	-R. W. Beatty NBS Boulder, Colorado 80302	"Some Programs in the Development of Micro- wave Standards and Calibration Services"	G-MTT	2/9/67
	-M. T. Decker (Address Same as Above)	"Uses of Microwave Frequencies to Study and Solve Problems in Telecommunications"	"	"
	-W. R. Atkinson (Address Unknown) Contact Section Secretary: Prof. W. R. Wheeler College of Engineering Univ. of Denver Denver, Colo. 80210	"Microwave Studies of Atmospheric Electricity"	"	"
	Prof. E. Bahar University of Colorado, EE Dept. Boulder, Colorado 80302	"Academic Studies and Graduate Research Programs in Micro- waves"	"	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
El Paso	Dr. Charles Moore Langmuir Laboratory New Mexico Inst. of Mining and Technology Socorro, N.M. 87801	"Atmospheric Electricity"		1/12/67
	Aileen Page (Address Unknown) Contact Section Secretary: George M. Buchanan 3207 Titanic Ave. El Paso, Texas 79904	"Residential Lighting Techniques in Commercial Areas"		2/28/67
	William Burgess; James Goodrich; James Wilson (Address Unknown) Contact Section Secretary Above	Panel Discussion: "Electrical-Electronic Evolution of El Paso, Circa 1927"		3/9/67
	Col. Robert S. Buchanan Aerospace Pilot School Edwards Air Force Base California 93523	"Aerospace Flight Test Work and Space Pilot Training"		4/13/67
Fort Worth	Warren E. Bruene Collins Radio Co. Dallas, Texas	"Single Side Band Techniques"		2/21/67
Houston	Dr. C. P. Boner C. P. Boner and Associates 1508 Hardouin Avenue Austin, Texas 78703	"Jones Hall Acoustics"	G-A&E	3/2/67
	Dr. Neil R. Burch Baylor Univ. College of Medicine Houston, Texas 77025	"Psychophysiology: Man-Machine Interface"	G-EMB	3/7/67
	Jack Harbaugh (Address Unknown) Contact Section Secretary: A. Sidney Badger 11510 N. Lou Al Dr. Houston, Texas 77024	"Extended Use of Semi-Conductors"	G-P	3/15/67
Panhandle	Edward E. Hudgins Westinghouse Electric Corp. Pittsburgh, Pa.	"Application of Computers on Electric Utility Systems"		3/1/67
	Bernard Shield Celanese Chemical Company Pampa, Texas 79065	"Power Generation Using Heated Process Gas to Drive Expander Turbine"		4/10/67
	Floyd Stark Southwestern Pub. Svs. Co. Guymon, Okla. 73942	"Electrical System at Power Generation Plant"		"
Permian Basin	Jack Harbough Westinghouse Co. Houston, Texas	"Solid State Devices and Their Application for Industrial Purposes"		3/21/67
St. Louis	Dal Maxville Bussman Mfg. Co. St. Louis, Missouri	"The Playing - Engineer"		2/22/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
St. Louis (Cont'd.)	Dr. Edward M. Davis Jr. IBM, Bldg. 300 Hopewell Junction, N. Y. 12533	"Engineers and the Decision Making Process"		3/8/67
	R. Bormann Cutler Hammer Co. 8118 Page Boulevard St. Louis, Mo. 63130	"Direct Status Logic Control"	G-IGA	3/6/67
	William A. Woehr Eagle Signal - Bliss Co. 736 Federal St. Davenport, Iowa 52803	"Timers and Counting Control Equipment"	G-IGA	4/3/67
Shreveport	-David B. Steeve (Address Unknown) Contact Section Secretary: G. R. McLemore 927 Sheridan Shreveport, La. 71111	Student Papers: "Useful Unijunctions"		3/14/67
	-John Nichols (Address Unknown) Contact Section Secretary Above	"Superconductivity as Applied to the Development of the Cryotron"		"
	-Gary E. Tryon (Address Unknown) Contact Section Secretary Above	"The Prediction of Failures in Electronic Systems"		"
	Jim Pooser Westinghouse Electric Corp. Pittsburgh, Pa.	"A Summary of the Past, Present and Future of Atomic Power as Applied by the Electric Utility Industry"		4/11/67
Monroe (SS)	Edward Flarety Texas Instruments, Inc. Dallas, Texas	"Power Control Using Bi-Direction AC Switches"		2/21/67
	Thomas Sherman Preformed Line Products Co. Cleveland, Ohio	"Field Studies in Connection with Aeolian Vibration of Conductors"	G-P	3/28/67
South Plains	Robert Cash Nova Corporation Lubbock, Texas	"The Development of a Small Electronics Firm"		3/13/67
Tulsa	Clyde Blanchard Blanchard & Associates Tulsa, Oklahoma	"Creative Thinking"		3/21/67
West Central Texas	John H. Boynton NASA Manned Space Center Houston, Texas	"Apollo & Apollo Applications"		2/25/67
	Ferris R. Summers Westinghouse Electric Corp. 507 Dallas Ave. Houston, Texas 77002	"Opportunities in Change"		3/14/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
West Central Texas (Cont'd.)	Russ Gundrum (Address Unknown) Contact Section Secretary: Walter A. Meller West Texas Utilities Co. P. O. Box 841 Abilene, Tex. 79604	Science Fair Winner: "A New Method of Modulating Light Waves"		4/10/67
Wichita	-Gaylord Brockway; -Edwin Tarver Wichita State University Wichita, Kansas 67208 -William Carter (Address Same as Above) -Joseph Yonushka RCA Camden, New Jersey -Robert Minton (Address Same as Above) -Non Lee (Address Same as Above) John Ware (Address Unknown) Contact Section Secretary: Vernon N. Johnson 1625 South Edgemoor Wichita, Kans. 67218 T. H. Popplewell Southwestern Bell Telephone Co. Topeka, Kansas Dr. Earnest Crow Wesley Medical Center Wichita, Kansas 67214	Student Prize Papers: "The Audiographic Training Unit" "An Experimental Laser" "Application and Device Development of SCR's" "Design of Large- Signal VHF Transistor Power Amplifiers" "Frequency Multiplica- tion Using 'Overlay' Transistors" "Circuit Techniques for Control, Using Small Signal SCR's" "New Skyways of Communications" "The Use of Electronics in Cardiac Diagnosis and Treatment"		3/29/66 " 4/20/66 " " 11/19/66 11/29/66 12/15/66
<u>REGION 6</u>				
Alamogordo- Holloman	Dr. William W. Carter U.S. Army Missile Command Huntsville, Alabama	"Status of Recent Army Missiles and Rockets"		4/12/67
Albuquerque	Dr. O.M. Stuetzer Sandia Corporation PO 5800, Sandia Base Albuquerque, N.M. 87115	"A Day in the Life of an Engineer 25 Years From Now"		3/14/67
Los Alamos Santa Fe (SS)	Ralph Partridge; Robert Strait Los Alamos Scientific Lab. Los Alamos, N.M. 87544 Gorden Bird Cambridge Thermionics Corp. Cambridge, Mass.	"Airborn Electronic Eclipse Instrumen- tation" "Peltier-Effect Thermo- electric Coolers for Electronics"		4/7/67 2/15/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Albuquerque (Cont'd.) Los Alamos- Santa Fe (SS)	Dr. Franz Jahoda Los Alamos Scientific Lab. P. O. Box 1663 Los Alamos, N.M. 87544	"Holography: Principles and Applications"		3/13/67
Boise	Wendell Smith Idaho Power Company Boise, Idaho	"Fish and Conservation Problems in Hydro Plant Construction"		4/4/67
Buenaventura	James V. Ferrero, Jr. Hughes Aircraft Company Culver City, Calif. 90230 Donald Sullivan Naval Missile Center Point Mugu, Calif. Dr. Stanley Kaisel Teledyne, Inc. 3165 Porter Drive Palo Alto, Calif. 94304	"Engineering Manage- ment of a Major Airborne Weapon System" "Engineering Management at the Naval Missile Center" "Engineering Manage- ment Aspects of a Microwave Tube Firm"	G-EM G-EM G-EM	1/12/67 2/15/67 3/15/67
China Lake	Joseph A. Mosko U.S. Naval Ordnance Test Station China Lake, Calif. 93555	"Summary of Frequency Response Measurements on Various HiFi Tape Recorders"		3/9/67
Foothill	L. B. Fletcher Watkins-Johnson Co. Palo Alto, California Dr. R. C. Hansen Aerospace Corporation El Segundo, Calif. 90245 Lacey Johnson General Electric Co. 3600 Wilshire Blvd. Los Angeles, Calif. 90005 Donald Campbell Riverside City Public Utilities 3920 Mulberry St. Riverside, California	"Use of Yttrium Iron Garnet in Electrically Tuned Microwave Circuits" "Large Apertures and Arrays" "Computer Time Sharing" "Foreign Power System (Iran)"	G-AP G-MTT G-AP G-MTT G-P G-P	1/10/67 2/14/67 2/21/67 4/10/67
Fort Huachuca	Prof. D.R. Campbell Cochise Junior College Paul Spur, Arizona Dean Corkery Cochise Jr. College Douglas, Arizona 85607	"Modern Mathematics" "A New College in a New Society"		2/28/67 3/30/67
Hawaii	Frederick L. Mason (Address Unknown) Contact Section Secretary: Lester W. Lataille 44257 Mikiola Dr. Kaneohe, Hawaii 96744	"Antartica"		2/22/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Hawaii	Alfred V. Chow L. T. V. Honolulu Research Center Honolulu, Hawaii	"Signal Proceedings by Correlation Methods"		3/8/67
Idaho	-Virgil Van Deventer; -Robert D. DeForrest Hyers Electronics Co. Denver, Colorado	"Integrated Circuit Reliability and Applications"		12/14/66
	Robert W. Hyndman, Jr. Argonne Nat'l. Lab. P. O. Box 2528 Idaho Falls, Ohio 83401	"Reactor Transfer Function Analysis by On-Line Digital Computer"		3/29/67
	Jack R. Elwood Bonneville Power Administration P. O. Box 3621 Portland, Oregon 97208	"Power System Automation"		4/12/67
Los Angeles Council	-Floyd Goss Dept. of Water and Power 111 N. Hope Los Angeles, Calif. 90012	"Fantastic Island - Atoms for Power, Atoms for Water"		3/8/67
	-Raymond Durante (Address Unknown) Contact Council Office: 3600 Wilshire Boulevard Los Angeles, Calif. 90005	"Office of Saline Water Presentation (Dept. of Interior)"		"
	Robert J. Wallace Jet Propulsion Labs. Pasadena, Calif.	"The NASA/JPL 210- foot Diameter Antenna"	G-AP G-MTT	2/9/67
	Dr. J. M. Mendel Douglas Aircraft Co. 3000 Ocean Park Blvd. Santa Monica, Calif. 90405	"On-Line Learning Control: Basic Concepts"	G-AC G-CT	2/15/67
	Dr. Nhan Levan UCLA, Dept. of Engrg. Los Angeles, Calif. 90024	"On a Method of Characterizing Lossless N-Port Networks"	G-AC	3/15/67
	-C. T. Koerner; T. T. Nishikubo P. T. & T. Co. 611 Wilshire Blvd. Los Angeles, Calif. 90017	"Transmission Features of Switched Services Networks"	G-ComTech	3/7/67
	-James A. Palmer C-Cor Electronics Inc. OB Rd. LB State College, Pa. 16801	"Temperature Effects on Wide Band Amplifiers & Coaxial Cable"	G-ComTech	4/4/67
	-Kenneth A. Simons Jerrold Corp. Box 37 Hatboro, Pa. 19040	"Wide Band Amplifiers & Cross Modulation Problems"	"	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles (Cont'd.)	Willis H. Ware; R. M. Patrick Rand Corporation Santa Monica, Calif.	"Computers in Society"	G-C	2/16/67
	Stewart Nellis Technical Wire Products Cranford, N.J. 07016	"A Comprehensive Approach to EMI Free Enclosure Design"	G-EMC	2/16/67
	Dr. J. O. McCaldin North American Aviation Thousand Oaks, Calif. 91360	"Ion Bombardment Doping of Semiconductors"	G-ED	1/10/67
	J. E. Smith Lockheed Electronics 6201 E. Randolph St. Los Angeles, Calif. 90022	"High Speed 2-1/2D Memories"	G-ED	2/14/67
	Dr. Peter O. Clark Hughes Research Labs. 3011 Malibu Canyon Road Malibu, Calif. 90265	"State-of-the-Art in the CO <sub>2</sub> Laser"	G-ED	3/14/67
	Robert Russel Electro-Optical Systems, Inc. 300 N. Halstaad Street Pasadena, Calif. 91107	"Implanted Telemetry"	G-EMB	3/9/67
	P. Belski (Address Unknown) Contact Council Office 3600 Wilshire Boulevard Los Angeles, Calif. 90005	"Application of Current Limiting Fuses in Low Voltage Circuits"	G-IGA	1/19/67
	D. W. Borst International Rectifier Corp. El Segundo, Calif. 90245	"Solid State Devices for Power Control"	G-IGA	2/14/67
	C. S. Perkins A. C. Martin & Assoc. Los Angeles, Calif.	"Heat of Light"	G-IGA	3/21/67
	Prof. J. Carlyle UCLA Los Angeles, Calif. 90024	"Some Nonparametric Methods in Detection Theory"	G-IT	2/16/67
	Dr. R. Tausworthe J. P. L. Company Pasadena, Calif.	"Cycle Slipping in Phase Locked Loops"	G-IT	3/8/67
	Robert J. Wallace J. P. L. Company Pasadena, Calif.	"The NASA/JPL 210 ft. Dia. Antenna"	G-MTT	2/9/67
	Dr. J. B. Fishman Nucleonics Devpt. Co. Pasadena, Calif.	"Nuclear Solutions to Industrial Gaging"	G-NS	3/6/67
	Jack B. Cline Bendix Pacific North Hollywood, Calif.	"Electronic System Operation in the Deep Ocean Environ- ment"	G-PMP	1/17/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles (Cont'd.)	-E. A. Myers Jr. Southern California Edison Co. Los Angeles, Calif.	"Problems Involved in Dealing with Utilities and Customers"	G-P	2/28/67
	-Leo Press Sampson, Randell & Press Los Angeles, Calif.			
	R. Berger (Address Unknown) Contact Council Office: 3600 Wilshire Boulevard Los Angeles, Calif. 90005	"EDP Equipment & Maintainability"	G-R	3/23/67
	Ted Crowell (Address Unknown) Contact Council Office above	"Reliability at Disneyland"	G-R	4/15/67
	Roy B. Carpenter, Jr. North American Aviation Inc. Los Angeles, Calif.	"Football - A Systems Challenge"	G-SSC	2/16/67
	Prof. David A. Wismer University of California Los Angeles, Calif.	"Decomposition and Multilevel Methods for System Optimi- zation"	G-SSC	3/16/67
	-Vern E. Stineman (Address Unknown) Contact Council Office above	"Future Communications - Sooner Than You Think"	G-V	3/13/67
	-R. W. Johnson Pacific Ordinance & Electronics Co. Codemite Division Anaheim, California	"Field Tests of the Codemite Teleprinter Via Radio"	"	"
	Al Goldstein (Address Unknown) Contact Council Office above	"Role of Audio in Vehicular Communi- cations"	G-V	4/10/67
Montana Billings (SS)	William F. Graham U. S. Bureau of Reclamation Billings, Montana	"East-West Power System Closure"		2/20/67
Helena (SS)	Richard Shevalier Montana Power Company Helena, Montana 59601	"Electricity Comes to Montana"		2/2/67
	Roy Durham; Theodore Rintala; Curt Zook The Mountain States Tel. & Tel. Co. 560 North Park Ave. Helena, Montana 59601	Panel Discussion: "Microwave Radio and Multiplex"		3/4/67
	Dr. Daniel N. March Montana State University Bozeman, Montana 59715	"Meteor Burst Transmission"		4/20/67
Orange County	- Dr. Daniel G. Aldrich University of California Irvine, Calif. 92664	"What in the World is Happening to the University?"		2/23/67
	- Dr. Nicholas A. Begovich Hughes Aircraft Co. Fullerton, California	"Engineering Education"		"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Orange County (Cont'd.)	-Raymond Durante Office of Saline Water, Interior Dept. & Power Plant" Washington, D. C.	"Bolsa Island Desalination		3/8/67
	-Floyd Goss L. A. Dept. of Water & Power Los Angeles, Calif.			"
	Admiral Charles F. Horne General Dynamics Co. 1675 W. 5th St. Pomona, Calif. 91766	"Education and Industry"		4/11/67
	George Kaposhilin (Address Unknown) Contact Section Secretary: John W. Gillings 11602 Ninth St. Garden Grove, Calif. 92640	"Characteristics and Applications of New Microwave Diodes"	G-AP G-MTT	12/6/66
	Basil C. Vafiades Raytheon Co. 130 Second Ave. Waltham, Mass. 02154	"Criteria for Selection of Ferrite Devices"	G-AP	2/7/67
	Keith Wheeler F. E. Olson Inc. Los Angeles, California	"Communicate Effectively"	G-EM	2/17/67
	R. C. Stillinger (Address Unknown) Contact Section Secretary Above	"Where Will Systems Practice Take Us by 2001 A. D. "	G-EM	3/19/67
Phoenix	R. C. Freeman General Electric Co. 570 Lexington Ave. New York, N. Y. 10022	"Nuclear Power & Water"		3/28/67
	Walter K. MacAadam A T & T Co. 195 Broadway New York, N. Y. 10007	"IEEE and Information Retrieval"		4/27/67
	Dr. C. Lester Hogan Motorola Semiconductor Products 5005 E. McDowell Rd. Phoenix, Arizona 85008	"Status and Future of Integrated Circuits"	G-AP G-ED G-MTT	3/13/67
	W. W. Mumford Bell Telephone Labs. Murray Hill, N. J. 07971	"Noise Performance Factors in Communi- cation Systems"	G-AP G-ED G-MTT	4/10/67
	Stephen S. Osder Sperry-Phoenix Company Deer Valley, Arizona	"Control Concepts in Automatic Landing"	G-AC	3/16/67
	Robert W. Bemer The General Electric Co. Computer Dept. 13430 N. Black Canyon Highway Phoenix, Arizona, 85029	"An American on the French Computing Scene"	G-C	3/22/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Phoenix (Cont'd.)	-W.G. Walker, Chairman -Jan Narud; H. Z. Bogert; -K. Hall; T. Mitsutomi	Panel Discussion: "System Implication of Large Scale MOS Arrays"	G-C	4/26/67
	Robert R. Clark Arizona Public Service Box 391 Prescott, Arizona 86301	"Childs Power Plant (A Romantic History)"	G-P	4/15/67
Portland	Dr. Thomas H. Lee General Electric Company 6901 Elmwood Avenue Philadelphia, Pa. 19142	"New Technologies for HV Transmission Systems"		2/21/67
	Charles H. Smith Westinghouse Electric Corp. 10469 Roselle St. San Diego, Calif. 92121	"CACHALOT-- Prolonged Submergence Diving System"		3/16/67
	Dr. Amon Yariv California Inst. of Technology Pasadena, Calif. 91109	"Recent Advances in Optical Modulation"		3/27/67
	Larry Mills Good Samaritan Hospital 1015 NW 22nd Ave. Portland, Oregon 97210	"Advances in Medicine Through Electronics"		4/20/67
	Roy Johnson Portland General Electric Co. 621 S. W. Alder St. Portland, Oregon 97205 W.S. Greer Westinghouse Electric Corp. 1414 N. E. Grand Ave. Portland, Oregon 97232	"Telemetry of Power System Load Data"	G-P	3/8/67
		"Remote Metering of Residential Watthour Loads"	"	"
		Technical Papers Competition:		
	-Ferris D. White Pacific Power & Light Co. Portland, Oregon	"Calculation of Potential Rise of Station Ground Grids During Station Faults"	G-P	4/12/67
	-Dr. C. A. E. Uhlig Eonneville Power Administration 1002 Holaday St. Portland, Oregon	"Properties of Corona Modes in Thin Wire to Plane Gaps and Their Practical Applications"	"	"
	-H. Gordon Jensen (Address Same as Above)	"Designing Self Supporting Transmission Towers with the Digital Computer"	"	"
	-E. Robert Perry; Albert M. Frey Allis Chalmers Co. 13404 N. W. Connell Rd. Portland, Oregon	"Epoxy Post Type Voltage Graded Insulator"	"	"
	-Dr. C. A. E. Uhlig; J. E. Brown Bonneville Power Administration 1002 Holaday St. Portland, Oregon 97224	"The Influence of Wind on EHV Transmission Line Conductor Corona and Means for Its Reduction"	"	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Richland	C. S. Bucholz Vitro Company Richland, Washington 99352	"The Corrosion Protection of Under- ground Stainless Steel Pipe Lines at Hanford"		4/18/67
	- D. W. Liby General Electric Co. Richland, Washington 99352	"Data Processing Applications to a Large Duel Purpose Reactor"		"
	- K. O. Creek General Electric Co. Richland, Washington	"Multipurpose Process Tube Monitoring System"		"
	- T. B. Correy Battelle Northwest Richland, Washington	"What Makes a Welding Arc Perform its Required Function"		"
Walla Walla (SS)	Byron Brenden Battelle Northwest Richland, Washington 99352	"Holography and Specific Applications of Lasers"		12/8/66
Sacramento	Paul E. Shaad Sacramento Municipal Utility District, Box 15830 Sacramento, California	"A Report on Russia"	G-P	3/16/67
Reno (SS)	- Ronald Lee University of Nevada Reno, Nevada 89109 - Richard Belaustegui University of Nevada Reno, Nevada 89109	"Morris Code Coder- Decoder"		3/16/67
		"Design for Typewriter to be Used by Physically Handicapped"		"
	Dr. James T. Anderson University of Nevada Reno, Nevada 89109	"Computers and Time"		4/22/67
	Charles R. La Porte Hewlett Packard Co. 3939 Lankershim Blvd. N. Hollywood, Calif. 91604	"Ultrasonic Detection"		4/13/67
Shasta (SS)	George Rezos 1980 Watt Ave. Sacramento, Calif. 95825	"California Communi- cations Network"		2/15/67
	Russell Pope, KHSL TV 180 East 4th St. Chico, California 95926	"Video Tape Recording"		3/15/67
San Diego	- C. Allen Paul Grossmont College El Cajon, California - W. E. Dellegar (Address Same as Above)	"Engineering Technology Program at Grossmont College"		1/11/67
		"Role of the Electronics Technician With A. S. Degree"		"
	H. E. Crow COAV Electronics 5725 Kearny Villa Rd. San Diego, Calif. 92123	"Color Television Equipment"		2/8/67
	D. G. Dudley North American Aviation Downey, California	"Systematic Design Pro- cedure for Frequency Scannable Antennas"	G-AP G-MTT	11/19/66



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Diego (Cont'd.)	Prof. Victor H. Rumsey University of California La Jolla, Calif. 92037	"Frequency Independent Antennas"	G-AP G-MTT	2/7/67
San Francisco	Dr. Glenn Keitel San Jose State College Electrical Engrg. Dept. San Jose, California	"Introduction to Tropospheric Propagation Characteristics"	G-AP	2/21/67
	Robert F. White Lenkurt Electric Company San Carlos, Calif. 94070	"Tropospheric Effects on Line of Sight Propagation"	G-AP	3/21/67
	James W. Daniels B & K Instruments 1 First St. Los Altos, Calif. 94022	"A Method for Determining the Characteristics of the Stereo Phonograph Cartridges"	G-A&E	1/19/67
	Leo Kulka Golden State Records 665 Harrison St. San Francisco, Calif.	"Modern Studio Techniques for Multi-Channel Stereo Recordings"	G-A&E	2/16/67
	Roger M. Bakke IBM, Control Systems Development Center San Jose, California	"Direct Digital Control"	G-AC	1/17/67
	Dr. Richard C. Dorf University of Santa Clara Santa Clara, California	"Modern Control Theory and Engineering Education"	G-AC	2/21/67
	G. Hurtig Fairchild Semiconductor Co. Mountain View, Calif. 94040	"The Practical Aspects of Active Filter Design"	G-CT	1/18/67
	-H. J. Orchard; W. Kerwin; -W. Howard (Addresses Unknown) Contact Section Office; 701 Welch Road Palo Alto, Calif. 94304	"Comparisons of New Methods of Active RC Circuit Design"	G-CT	3/1/67
	David C. Wright Spectra-Physics Inc. Mountain View, Calif. 94040	"Laser Potential (Applications) Real and Imaginary"	G-ComTech	1/18/67
	Dr. William Pancoe University of Wyoming Dept. of Zoology Laramie, Wyoming 82070	"A Look at the Nervous System as a Communi- cations Channel"	G-ComTech G-EMB	3/15/67
	Dr. Gabriel F. Groner (Address Unknown) Contact Section Office Above	"Real Time Recognition of Hand-Printed Text"	G-C	1/24/67
	-Dr. Richard Petriz; -Dr. Hugh Mays (Addresses Unknown) Contact Section Office Above	"Engineering of Large Scale Arrays and Computer Aids"	G-C	2/28/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Francisco (Cont'd.)	Donald J. White White Electromagnetics, Inc. Rockville, Maryland 20850	"Automating EMI Measurements"	G-EMC	1/25/67
	Kay Magleby; Thomas Tisch Hewlett-Packard Co. 1501 Page Mill Rd. Palo Alto, Calif. 94304	"Instrumentation Computer"	G-IM	1/18/67
	Kenneth Malory Stanford University Stanford, Calif. 94305	"Instrumentation at SLAC"	G-IM	2/8/67
	-Raymond Kado UCLA School of Medicine West L. A., Calif. 90025	"Physiologic Electrodes"	G-EMB	2/20/67
	-P. Vanrysselberghe Stanford University Stanford, Calif. 94305	"Electrochemistry of Physiologic Electrodes"	" "	" "
	D. G. Lampard Monash University Dept. of Elec. Engrg. Melbourne, Australia	"Random Walks and Electric Circuits"	G-IT	1/19/67
	Herbert Robbins University of Michigan Dept. of Mathematics Ann Arbor, Michigan	"A Class of Sequential Decision Procedures"	G-IT	2/16/67
	Prof. A. V. Pohm Iowa State University Elec. Engrg. Dept. Ames, Iowa	"Magnetic Film Memories"	G-MAG	1/11/67
	-James Rahilly Philco Co., W.D.L. Div. Palo Alto, Calif. 94303	"Microwaves and Communication Satellite Technology"	G-P G-MTT	1/18/67
	-Louis Cuccia Address Same as Above	" "	" "	" "
	Leo Young Stanford Research Institute Menlo Park, Calif. 94025	"Microwave Filters and Diplexers"	G-MTT	3/8/67
	R. B. Patten E G & G Las Vegas, Nevada	"Twenty Years of Nuclear Weapons Diagnostic Instru- mentation"	G-NS	3/20/67
	Thomas C. Lauhon Hewlett Packard Co. Microwave Div. Palo Alto, Calif.	"The Role of Industrial Design in the Electronics Industry"	G-PMP	1/24/67
	A. C. Eulberg General Dynamics Corp. General Atomic Div. San Diego, California	"The Zinc-Air Battery for Vehicular Propulsions"	G-P	3/14/67
	M. A. Robbins Canadian Marconi Co. Montreal, Canada	"The Art and the State of Single-Sideband"	G-V	1/19/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Francisco (Cont'd.) East Bay	Dr. Alfred Holzer Lawrence Radiation Labs. Livermore, Calif. 94550	"Underground Engineering and the Plowshare Program"		1/23/67
		Panel Discussion:		
	- T. R. Ferry; M. A. Kirsch; - E. G. Lambert; H. J. Stefanetti; - J. M. Yllaraz Pacific Gas and Electric Co. 245 Market St. San Francisco, Calif. 94105	"Design, Construction, and Operation of the 500 KV Intertie System"		2/27/67
Santa Clara Valley (SS)	- Phillip Cobb, Pierre Lamond; - W. L. Whitsett (Addresses Unknown) Contact Subsection Secretary: Donald D. McCauley 23548 Ravensbury Ave. Los Altos Hills, Calif. 94022	Panel Discussion: "Find Your Place in Industry"		1/26/67
		Electric Automobile Symposium:		
	- Eric P. Grant (Address Unknown) Contact San Francisco Section Office: 701 Welch Road Palo Alto, Calif. 94304	"Public Needs, Public Acceptance and Govern- mental Response"		2/24-25/67
	- Manfred Altman Institute for Direct Energy Conversion University of Pa. Philadelphia, Pa. 19104	"The Electric Automobile - A Discussion of Strategy, Tactics, and Leadership"		"
	- George J. Taylor (Address Unknown) Contact San Francisco Section Office Above	"Motor Vehicle Pollution in California"		"
	- Bradley Cozzens Dept. of Water and Power 111 North Hope Street Los Angeles, Calif. 90012	"Electric Utility Associa- tion Promote the Electric Automobile"		"
	- Stanley Blois (Address Unknown) Contact San Francisco Section Office Above	"Electric Car Sales and the Electric Utility"		"
	- William P. Haynes; - H. B. Neilson U. S. Bureau of Mines Pittsburgh, Pa.	"Evaluation of a Battery Powered Truck"		"
	- John A. Kirtland FMC Corp. 1105 Coleman Avenue San Jose, Calif. 95110	"Vehicle Electric Drive Development in the Military"		"
	- Richard C. Dori University of Santa Clara Santa Clara, Calif.	"An Interchangeable Electric Automobile Transportation System"		"
	- R. Peter Keegan G. W. Williams Co. Belmont, Calif. 94002	"Environmental Planning and the Electric Automo- bile"		"
	- A. C. Eulberg General Dynamics Corp. General Atomic Div. San Diego, Calif.	"Electric Power, Energy and Economics for Urban Automotive Applications"		"

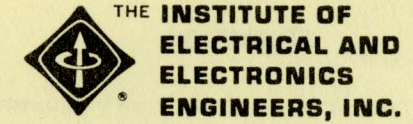
Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Santa Clara Valley (SS) (Cont'd.)	- Edward D. Marande (Address Unknown) Contact San Francisco Section Office: 701 Welch Road Palo Alto, Calif. 94304	"A Review of Electric Vehicle Technology"		2/25/67
	- Zachary Stewart Osborn & Stewart San Francisco, Calif.	"Human Factors in the Electric Auto"		"
	- Howard Wilcox (Address Unknown) Contact San Francisco Section Office Above	"Present Status of Electric Vehicle Research and Development in General Motors"		"
	- Morris Eisenberg Electrochimica Corp. Menlo Park, Calif.	"New Electro-Chemical Power Sources for Electrical Vehicles"		"
	- M. McMullan Electric Storage Battery Co. Philadelphia, Pa.	"Batteries for Power Sources"		"
	- R. C. Shair Gulton Industries Metuchen, N. J.	"Progress Report on Lithium Batteries"		"
	- Y. C. Lee Lockheed Inc. Sunnyvale, Calif.	"Fuel Cells as Power Sources"		"
	- W. E. Sturm West Penn Power Co. Greensburg, Pa.	"An 'Allectric' Future"		"
	- William Hugle Hugle Industries Santa Clara, Calif.	"The Electric Auto"		"
	- John E. Mungenast General Electric Co. Auburn, N. Y. 13021	"Semi-Conductor Power Controls"		"
	- Donald V. Femling Fairchild Semiconductor, Inc. Mt. View, Calif. 94040	"Solid State Electric Motor Control Design"		"
	- Dr. Tom Suvor Dyna-Volt Corporation Sacramento, California	"Electric Automobile - New Engineering Break- through"		"
San Gabriel Valley	Dr. Edwin W. Dennison California Inst. of Technology Pasadena, Calif. 91109	"The Role of Electronics in Astronomy Today"		3/15/67
	Robert A. Neilson Jet Propulsion Lab Pasadena, California 91103	"Performance Monitoring on Manned Space Vehicles"		4/19/67
Santa Monica Bay	Gen. John W. Cave UCLA Graduate School of Business Los Angeles, Calif. 90024	"Some of our Most Common Management Problems"		2/20/67
	Dr. Chancey Starr UCLA College of Engineering Westwood, California 96137	"Engineering Education for the Future"		4/3/67
	John H. Rubel Litton Industries Los Angeles, California	"FDL - Ship to Shape Sealifts Future"		3/13/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Spokane	-James Glick; Jerry Copp Chelan County Public Utility District Wenatchee, Washington 98801	"Underground Power Facilities for Mission Ridge Ski Development"		2/28/67
	-Lyle Younkers Mission Ridge, Inc. Wenatchee, Washington 98801	"Ski Lift Operations"		"
	C. L. Pleasance General Electric Co. P. O. Box 1207 Seattle, Washington 98111	"The Unique Role of the Process Computer in Industrial Automation"		3/29/67
Utah	Dr. Tracy Hall Brigham Young University Provo, Utah 84601	"High Temperature Research in Solid- State Materials"		9/29/66
	Dr. Walter Fiala AKG Co. Vienna, Austria	"Recent Developments in Microphones"		10/25/66
	Dr. K. D. Baker University of Utah Salt Lake City, Utah 84112	"Aurora Borealis Research"		11/3/66
	Dr. David Evans University of Utah Computer Science Salt Lake City, Utah 84112	"State of Art & Future of Computers"		3/16/67
	Gilbert Moore Thiokol Co. Astro Met. Div. Ogden, Utah	"History of Sounding Rockets Measurements in the United States"	G-AES	2/13/67
	Clare K. Olsen (Address Unknown) Contact Section Secretary: D. K. Johnson 2842 Cherry Blossom Lane Salt Lake City, Utah 84117	"Propulsion Power Supply System for the San Francisco Bay Area Rapid Transit System"	G-P	1/19/67
Vandenberg	Dr. Frank S. Holman Boeing Co. Seattle, Washington	"SST Handling Qualities and Automatic Landing Considerations"		3/22/67
Wenatchee	Ray M. Gilbert Westinghouse Electric Co. Wenatchee, Washington 98801	"The Westinghouse Skybus"		4/11/67
<u>REGION 7</u>				
Bay of Quinte	Boris Dudin USSR Embassy Ottawa, Ontario, Canada	"Engineering & Engineering Education in USSR"		2/16/67
	R. Westley (Address Unknown) Contact Section Secretary: P. H. Wittke 107 Herchmer Cres. Kingston, Ont., Canada	"Automatic Aircraft Landing"		2/22/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Bay of Quinte (Cont'd.)	R. P. Schwalm Canadian National Railways Toronto, Ontario, Canada	"Communications & Electronics in Modern Railroading"		4/12/67
Canadian Atlantic	John M. Beddoes Northern Electric Co., Ltd. Ottawa, Ontario, Canada	"The Impact of Integrated Electronics"		2/15/67
	G. Martin; J. Vines Fairey Canada Ltd. Halifax, N.S., Canada	"Bear Trap, the Shipborne Helicopter Hauldown System"		3/15/67
Kitchener- Waterloo	-D. R. Groat (Address Unknown) Contact Section Secretary: John V. Hanson University of Waterloo Waterloo, Ontario, Canada	Student Paper Awards: "Tone Envelope Synthesis for Electronic Organs"		3/6/67
	-W. L. Renwick (Address Unknown) Contact Section Secretary Above	"A Digital Sweep-frequency Oscillator"		"
	-B. M. Schaefer (Address Unknown) Contact Section Secretary Above	"PCM Decommutation Using an 'On-Line' Computer"		"
	-V. McRae (Address Unknown) Contact Section Secretary Above	"Audio Input Circuits Using Field-Effect Transistors"		4/11/67
	T. S. Nelson (Address Unknown) Contact Section Secretary Above	"Complementary Symmetry Class B Audio Amplifiers"		"
	-Prof. Raymond G. Anthes University of Waterloo Waterloo, Ontario, Canada	"Twin-T Audio Oscillators"		"
Guelph (SS)	Norman Ostiguy Canadian General Electric Co. Montreal, Quebec, Canada	"Central Computer Communications with Remote Satellite Computer Installations"		3/28/67
Niagara International	L. F. Stringer Westinghouse Electric Corp. Box 2025 Buffalo, New York 14205	Industrial Electronic Seminar: "Basic Course in Solid- State Electronics"		2/22/67
	L. F. Stringer Westinghouse Electric Corp. Box 2025 Buffalo, New York 14205	"Properties of Semi- conductors - A Theoretical Approach"		3/1/67
	L. F. Stringer Westinghouse Electric Corp. Box 2025 Buffalo, New York 14205	"Preparation of Semi- conductor Materials, and the Pn Junction"		3/8/67
	W. S. Mullin Windsor Utilities Commission Windsor, Canada	"Insulation, Co-ordination & Lighting Protection"		3/23/67
Northern Alberta	Eugene W. Boehne I-T-E Circuit Breaker Co. 1900 Hamilton St. Philadelphia, Pa. 19130	"Nature, Art and Arithmetic"		4/12/67

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Ottawa	John M. Beddoes Northern Electric Co. Ottawa, Ontario, Canada	"Impact of Integrated Electronics"		3/7/67
	-S/L J. Heal; J. Day; G. Davies Defense Research Telecomm. Establishment Shirley Bay Ottawa, Ontario, Canada	"Military Satellite Communications Systems"	G-AES	2/21/67
	Grant Richardson National Energy Board Ottawa, Ontario, Canada	"System Planning Aspects of the Nelson	G-P	1/17/67
	Dr. Petar N. Miljanic National Research Council Ottawa, Ontario, Canada	"Solid State Speed Control of Induction Motors"	G-P	4/18/67
Southern Alberta	F. Brenner Western Electronic Systems 4331 - 4th St., S.E. Calgary, Alberta, Canada	"The New Sound System for the Jubilee Auditorium"		3/20/67
Toronto	Dr. W.V. Tilston Sinclair Radio Labs. 21 Toro Road Downsview, Ontario, Canada	"Holograms"		1/19/67
	-Dr. M. Mongeau; A.L. Lippay Rehabilitation Institute of Montreal Quebec, Canada	"Myoelectric Control Systems for Artificial Limbs"		3/16/67
	B. P. Williamson (Address Unknown) Contact Section Secretary: John R. Leslie Ont. Hyd. Dobson Res. Lab. 200 Kipling Ave., S. Toronto, Ontario, Canada	"The Chemistry and Physics of Contact Surfaces"	G-P	3/9/67
	J.E. Morrison Sinclair Radio Labs. Limited 31 Toro Road Downsview, Ontario, Canada	"Mobile Diplexing"	G-V	1/26/67
	D.M. Hinton Bell Telephone Co. of Canada Belleville, Ontario, Canada	"The Common Carrier and Mobile Systems"	G-V	3/2/67
Vancouver	M.O. Long Woodward Governor Co. Rockford, Illinois	"Governor Aspects of Coteau Creek Project 4"	G-P	4/17/67
Victoria	T. Costello The Boeing Co. Seattle, Washington	"The Lunar Orbiter Program"		3/2/67
	-E.J. Fraser National Electrolab Associates Vancouver, B.C., Canada	"Monitoring Wild Animals Through Radio Tele- metering Systems"		4/6/67
	-A. Lance University of British Columbia Vancouver, B.C., Canada			"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Winnipeg	Prof. B. Hodson University of Manitoba Fort Garry, Manitoba	"A Computer in Every Engineer's Home"		2/28/67
	S. Szumlanski; L. Hembroff Manitoba Institute of Technology Winnipeg, Manitoba, Canada	Student Papers Night: "Design & Operation of a Logic System Using Static Controls"		3/13/67
<u>REGION 8</u>				
Egypt	Yehia Ali Hussein Organization for BC & TV P.O. Box 1186 Cairo, Egypt	"Technology of Semi- conductor Applications Part II"		2/28/67
	Prof. I. Giebov High - Dam Aswan, Egypt.	"Excitation & Regulation Systems of High-Dam Powerful Synchronous Machines"		3/6/67
	Safwat Salieb Atomic Energy Organization Abu-Zaabal, Egypt	"Charge Carrier Inertia in Semiconductors"		3/7/67
Sweden	-Prof. Gosta Hellgren; -Prof. Nicolai Herlofsson -Mr. Staffan Westbeck Royal Institute of Technology Stockholm 70, Sweden	Panel Discussion: "Electrical Engineering Education in Swedish Universities"		1/12/67
	Prof. Stig Ekelof Chalmers Institute of Technology Gibraltargatan 5 T Gothenburg, Sweden	"The Induction Law from Faraday to Einstein"		4/25/67



345 EAST 47TH STREET, NEW YORK, N.Y. 10017 AREA CODE 212 752-6800

APPLICATION FOR REINSTATEMENT OF IEEE MEMBERSHIP

To the Board of Directors:

Gentlemen: I hereby make application for reinstatement of my IEEE membership in the same grade I held when my previous membership became inactive. If readmitted, I will be governed by the Constitution of the IEEE as long as I continue a member. Furthermore, I agree to promote the objects of the IEEE as far as shall be in my power.

Date

Sign full name in pen

INSTRUCTIONS

Applicants for reinstatement have the option of:

- 1. Paying all dues in arrears, in which case the IEEE membership will be recorded as uninterrupted. The total number of years of IEEE membership will be considered when calculating eligibility for Life Membership in the IEEE. Do not send any payment under this option. IEEE will invoice you for the amount due.
2. Paying entrance fee (if necessary) and the required dues for the current year. Please consult the schedule on the reverse side of this application to determine the proper sum to be submitted with this application for reinstatement under this option. Note that those who had previously resigned in good standing are not required to pay the \$3.00 entrance fee.

Please complete both sides of this application, indicating your choice of reinstatement.

DATE OF BIRTH

ADDRESS FOR IEEE MAIL

(Print or use typewriter)

(Month) (Day) (Year)

First Name Middle Initial Family Name

Street Address

MALE FEMALE

City State (Country) Zip Code

FILL OUT THIS APPLICATION IN COMPLETE DETAIL AND MAIL WITH REMITTANCE TO IEEE HEADQUARTERS AT ABOVE ADDRESS.

(DO NOT USE SPACE BELOW)

MEMBERSHIP PROGRESSION

Table with 12 columns for tracking membership progression.

MEMBERSHIP NUMBER REINSTATEMENT DATE ACKNOWLEDGEMENT NOTIFICATION

**EDUCATION**

(PROVIDE ANY NEW INFORMATION NOT PREVIOUSLY FURNISHED TO THE IEEE)

College or University (1)	to Dates	Other Schools	(Names and dates)
Major Course	Degrees Received	Date	
College or University (2)	to Dates		
Major Course	Degrees Received	Date	

**PRESENT OCCUPATION**

Title or Position	Firm or Organization Name	Address
Nature of Work done by Firm or Organization		
Nature of Your Work		

Use the following schedule in determining payment to be submitted with application for reinstatement under option (1) below.

Applications Received in IEEE	Entrance Fee	Dues to December 31	Total Remittance With Application
April 1 - September 30	\$3.00	\$12.50	\$15.50
October 1 - December 31	\$3.00	*\$25.00	\$28.00
January 1 - March 31	\$3.00	\$25.00	\$28.00

\*Covers dues to December 31 of the following year

Pay full annual amount for Groups and subscriptions on payments received in IEEE during the period October 1 - March 31.  
Pay one-half of annual amount for Groups and subscriptions on payments received in IEEE during the period April 1 - September 30.

Please check appropriate boxes, indicating your choice of reinstatement:

- Please reinstate my membership in IEEE from this date. I do not wish to pay membership dues in arrears. Enclosed is my payment, based on the schedule above.
  - IEEE membership dues and entrance fee. . . . . \$ \_\_\_\_\_
  - Enrollment in the following IEEE Groups (use codes from leaflet): \_\_\_\_\_ \$ \_\_\_\_\_
  - Subscription to PROCEEDINGS OF THE IEEE. . . . . \$ \_\_\_\_\_
- I wish to pay all dues in arrears to restore my continuity of IEEE membership. Please bill me for:
  - All IEEE membership dues in arrears.
  - Current enrollment in the following IEEE Groups: (use codes from leaflet) \_\_\_\_\_
  - Current subscription to PROCEEDINGS OF THE IEEE.

CONVOCATION ON STUDENTS AT 1968 CONVENTION. ExecCom 4/20/67 "approved in principle" an experimental gathering of three specified representatives from each of the ten Regions. Planning is entrusted to ExecCom's Student Branches Coordinator Hendley Blackmon, working with the Student Branches committee and the ad hoc committee on Educational Activities. (More as it develops.)

IEEE PERIODICALS FOR STUDENTS. ExecCom 4/20/67 has recommended to BofD 8/21-22/67 that, effective with the beginning of the academic year in September, each Student member be given the choice of receiving either the IEEE Student Journal or IEEE Spectrum; and that for \$3 added to his \$5 annual dues he receive both.

This does not involve Bylaws but the Student Branch Manual, Sec. 2, Privileges, paras. 5, 6. (Comments to Hendley Blackmon, copy Leonard; address above)

"FOR YOUR INFORMATION"

THE SECTIONS COMMITTEE consists of 10 Directors, representing all Regions; and 34 other members, chosen from representative Sections among the present 197. A quarter of all 44 are from outside the United States.

Under the chairmanship of Vice President Blackmon, 6 ad hoc committees, with chairmen named below, are studying topics as follows: A. A. Johnson: long-range planning for Sections; E. R. Chenette: an effective program of continuing education at Section level; B. B. Barrow: Section relationships with Chapters, Groups, and Student Branches; B. S. Angwin: keeping Sections better informed about overall Institute activities (and vice-versa for two-way communication); W. R. Clark: improving the operating efficacy of Sections, including Section publications; L. C. Holmes: improving Section committee structure, operation, activities, including Section Chairmen's Forum.

Readers' comments invited. Deadline, July 1 '67. Address chairman named, in care Miss Emily Sirjane, staff secretary.

IEEE MEMBERSHIP DIRECTORY. Questionnaires relating to entries will begin to go out in June. As to your own, assume that others will wish to know your title and employer's name, and (within the limitations of the questionnaire) enough plant address so that blind-number long-distance calls, as well as mail, will reach you. But if you wish, you are free to use home address or P.O. Box only.

IN-DEPTH SAMPLING OF MEMBERSHIP ATTITUDES toward IEEE and its publications has begun. ExecCom Jan. 4, '67 approved a survey of the membership by Opinion Research Corp. to obtain definitive indications.

NO CORPORATE MEMBERSHIPS IN IEEE. An industrial firm asked several Groups for copies of back issues of Transactions on the basis of its alleged "corporate membership" in IEEE. Presumably it was an inadvertent request, made in good faith, nevertheless it had no basis in fact. No concern has a claim to IEEE publications or records. IEEE's membership is exclusively individual: unlike the situation in other societies, a corporation cannot become a member of IEEE. (Chairmen, secretaries, please note.)

IEEE EMBLEM ON TIE CLIPS. ExecCom 3/18/67 authorized the sale of tie clips, integral with IEEE emblem. Because Regions 8-10 request explanation of non-dictionary terms, tie clips press the edges of a slipknot necktie together and to the shirt closure. Emblem-mounted tie pins will still be available; these serve similar anchoring purpose by piercing the material, and may alternatively be worn as a button on the coat lapel. (Illustrated price-list, Member Service Department, IEEE)

IEEE's GENERAL MANAGER FINK is author of a featured article on pp. 14ff of EJC's "Engineer" for March-April mailed to IEEE members. Pursuing machine/brain analogies developed in his recent book "Computers and the Human Mind," Don imputes to future generations of IEEE computers (not the present one) conceivable artistic, creative capabilities, manifested (between runs of strip-lists and

dues-bills) by an outpouring of musical compositions for Giovanni Palestrina & the Tijuana Brass. . . Seriously, this is "required reading" if you would know what manner of man our Don is--Ed.

LOS ANGELES COUNCIL. Some may have wondered at the absence of Los Angeles among the Big-6 Sections in membership in 1966, reported by the Secretary (E. E. No. 10, p. 3). It was because the L. A. area is organized as IEEE's only Council (Org. Roster, Jan. '67, p. 45; Bylaw 403). At end of '66, it comprised 12 Sections with combined membership of 13,479; 28 Group Chapters; a working complement of 130 officers; an office at 3600 Wilshire Boulevard with a staff of 4, headed by Executive Secretary Ray Banks. Its "Bulletin", issued 10 times yearly, runs 24 pp., about 52% editorial, 48% advertising.

Organizational flexibility built into IEEE permits of separate solutions for different problems. In the New York area, 3 Sections (Long Island, North Jersey, and New York with its Westchester Subsection) cared for 16,441 members without an umbrella structure but with several inter-Sectional Group Chapters.

Comparative study of the Organizational Roster and the annual Secretary's Report will repay anyone interested in "how the other fellow organizes." (Copies, Miss Emily Sirjane)

TECHNICAL ACTIVITIES BOARD (TAB) COUNCILS. Not to be confused with Bylaw-403 Councils, are the 3 Councils of TAB Groups: Systems, Communications, and Solid-State Circuits Councils. Each Council represents several IEEE Groups, in contiguous technical areas, which for one purpose or another have found it advantageous voluntarily to pool their efforts, with approval of TAB and without surrendering basic organizational and fiscal autonomy residing in each Group by virtue of Bylaw 405 and ExecCom's approval of its Constitution.

"A LITTLE NONSENSE now and then is relished by the wisest men." Treasurer Granger, at 2nd Forum of Section Chairmen, spoke for everyone present when he

said: "Most budgetary troubles are caused by too much month at the end of the money!"

E. E. will print quips useable to make committee-work liveable. (Address Editor)

WHO GETS E. E.: See E. E. No. 9, p. 6. Up-to-date information will appear in future issue.

### WELCOME ABOARD!

All newly-elected Section, Subsection, and Chapter officers and committeemen.

Those newly-elected Group chairmen, officer, and committeemen who take office this mid-year for an 18-months' tenure.

Staff: Harold Hoffman, who has been added to Spectrum's staff as Assistant Editor. His appointment will strengthen the capability of the magazine's complement to edit and re-write technical articles submitted for publication.

New Section: Venezuela Section

Under New Name:

Vehicular Group (formerly Vehicular Communications)

New Group Chapters in Sections:

New Jersey Coast Section: Aerospace & Electronic Systems Chapter

Pittsburgh Section: Joint, Communication Technology - Vehicular Chapter

- end -

Supplements:

Canary - Speakers Directory  
Manila - Membership Reinstatement Form  
White - Technical Report - 1967 Convention  
Green - Committee Common Lore - I