

# ELECTRICAL ENGINEERING®

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## IEEE EXCHANGES VISITS

### WITH U.S.S.R. POPOV SOCIETY

President Herwald and your General Manager have recently returned from Moscow where, with nine other IEEE delegates, we participated in the Annual Conference of the Popov Society, the Russian society for radio and electronics engineering. This was one of a series of annual exchange visits inaugurated in 1957. Each year a similar delegation of Russian engineers attends IEEE's International Convention in New York.

At a time when the political relations between the USSR and the Western Powers are moving toward closer cooperation, we are happy to report that our welcome by the Russian engineers and scientists, always cordial in past years, was particularly warm and the exchange of technical information rewarding. The tour included visits to the Academic City near Novosibirsk in Siberia, several universities, Institutes of the Russian Academy of Sciences, and a semiconductor plant in full swing.

By mutual agreement, IEEE publishes English translations of Russian journals, and they in turn produce a Russian version of IEEE's Proceedings.

Since IEEE is a non-national society, it is devoted to maintaining close ties among members of the profession wherever they live. We can be encouraged to know, therefore, that these established channels are being effectively maintained, with abundant evidence of good will on both sides.

Donald G. Fink  
IEEE General Manager

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EACH AUGUST, "Electrical Engineering," (E. E.), due to personnel turnover in the Sections and Chapters, has a host of new readers. "Come on in—the water's fine!"

Turn to the fine print at the bottom of the last page. Meet The Family. . . Then turn to IEEE Spectrum's page as duplicated there. Meet the staff—eager to assist you and never more than a postage stamp away. . . In a hurry? Phone. Glad to hear your voice!

TOOLS AND AIDS. To help IEEE's "rolled-up shirtsleeves brigade" tackle almost any Institute problem, pamphlets and forms are available for the asking; articles for the looking-up. Over 200 were listed in "Where to Find It," blue Supplement issued with E. E. Apr. '68. (Copy, Audrey van Dort)

Basic documents are IEEE Bylaws and the Statements of Policy. Check those in your Manual for up-to-dateness. . . Bylaws, issue of Jan. 4, '68 (copy, Emily Sirjane). . . Policies, issue of Jan. '68 (copy, Emily Sirjane or Bill Layton). Recent Policy changes: (1) On Bonding of Officers, #8-C, and (2) on Advertising (as yet unnumbered), see E. E. June, p. 2; (3) for new #22-A on International Representation in IEEE Standards Activities, and (4) on Conference Registration Fees Differential (as yet unnumbered), see E. E. Apr., pp. 2, 3. (Copies of E. E., Audrey van Dort.) (Questions on changes: 1, John Buckley; 2, Ralph Flynn; 3, John Anderson; 4, Bill Layton)

SELF-HELP. E. E. and Supplements are punched for 3-ring binders. Get one, use it. . . Save 6 issues—after a year we repeat some items for newcomers. . . Save a year's Spectrum, too, for administrative articles and notices and IEEE ads. . . When reading E. E., make underlines, marginal ticks, notes, in immediately usable matter or for future reference, retrieval. . . Section Chairmen get 4 copies—3 for "fanning out" for action on marked items. Saves words in memos.

Skim all of E. E. IEEE is quite an operation. E. E. supplements Spectrum in hitting all high spots. See how the pieces fit together.

The life of the whole is the life of its parts. No one's more vital than you in your appointed function.

HELP OTHERS. Share your experiences. Our masthead says E. E. is here to encourage communication among the units of organization. IEEE thrives on new slants. "Write them up." (Address editor)

#### CHALLENGES AND OPPORTUNITIES

BALLOTS FOR 1969 ELECTED OFFICERS and Directors will be mailed by Sept. 1. Exercise your franchise; encourage other members to vote.

CANDIDATES FOR CHAIRMEN and members of 1969 IEEE Standing Committees and Boards (see E. E. Apr., p. 2). Recommendations made in April-May by Sections, Groups, and incumbent chairmen were processed in June-July (see Calendar of IEEE Elections and Appointments, last page in Statements of Policy in Section Manual or Technical Activities Manual). In August the chairmen are named, subject only to ratification by the 1969 IEEE Board of Directors (BofD) or Executive Committee (ExecCom) in January. Chairmen-designates will shortly receive all nominations made for members of their respective committees and have only until Oct. 1 to recommend their 1969 slates.

TURNOVER IN STANDING COMMITTEES. Last November, some of the designees to four Standing Committees had to be rejected through failure of prospective 1968 chairmen to be guided by the applicable rules: Bylaws 304.4 on Term of Appointment (and normal reappointments); 304.5, Duration of Service; 304.6, Distribution of Appointments; also Statement of Policy #9, on Nomination of Candidates for Standing Committees and Boards, especially para. 4 on personnel-rotation procedure.

ExecCom must enforce Bylaws and Policy on turnover, though sympathetic with the position of a chairman-designate whose duty, even before he assumes office, requires him to select before Oct. 1

the men who will work with him next year. Outgoing chairmen, with 2 years' experience, are the logical mentors of their prospective successors in this, as in other, technicalities.

#### TOP-SIDE DEVELOPMENTS

BOARD OF DIRECTORS meets Aug. 19, Los Angeles; ExecCom, same place, Aug. 18 (Sunday).

REGION 9 AND MEXICO SECTION officers and members were gracious hosts to ExecCom, June 25-27. BofD and ExecCom welcome the felicity of circumstances which permit them occasionally thus to "take IEEE to the members."

A meeting on June 27 of representative Latin Americans with some ExecCom members was reported to have been especially productive. All Directors will be re-encouraged to feel that, in its non-national approach, IEEE is providing a pipeline-reservoir system which technology on a global scale can both feed and tap.

THE REGIONAL DIRECTORS meet as a body on the day before BofD meetings. The Vice President elected by the members (Mr. Holmes in 1968) attends en liaison with ExecCom. In addition to discussing intra- and inter-Regional matters and exchanging experience, these meetings develop suggestions or Resolutions which a designated spokesman (Dr. Brainerd in '68) brings orally to BofD's attention next day. Minutes are kept, and appended to BofD Minutes for subsequent study by the entire BofD.

MINUTES OF EXECCOM bear witness to unstinting discharge of Directors' duties. Actions reported in E. E. are only a fraction of those taken. Examples of E. E. - neglected topics: Resolutions of and references to committees; formulative stages leading to eventual action; reports of the Coordinators, General Manager, Treasurer; supervision of the budget and investment portfolio; advertising and publication sales; costs of supplies,

printing, labor, rentals; membership gains and losses; requests for membership lists; treatment of difficulties worrying individual Groups, Conferences, other units; filling vacancies; authorizing IEEE and joint conferences; passing on changes in Section bylaws; approval of scholarships, awards; establishment of Branches and Student member privileges.

Monthly ExecCom meeting agenda are seldom to be crowded into an ordinary business day. Night sessions are not rare; there are occasional scheduled 2-day meetings. And each meeting is kept within time boundaries only by having been preceded by two weeks' study of material correlated by the General Manager.

("Dedication" is the word for the quality of mind which copes effectively, month after month, with an infinitude of detail in a manner objective and complete. —Ed. E.E.)

LONG RANGE PLANNING. LRP Committee's standing invitation (E. E. Feb., p. 3) has met with satisfactory response and the invitation is renewed.

Four out of five suggestions received have proved to be of a short range nature and have had to be redirected elsewhere, because LRPC's acceptance of "current planning" would hamper IEEE operations.

Long range planning involves "generalized objectives, organizational and operational plans which apply to IEEE broadly." Priority is being given to study of a recent members'-opinion survey and staff analysis of it; to social and governmental involvement; to non-national considerations; and to representation of engineering practice vs. research and education. Similarly broad areas will receive priority later.

Normally, planning involving particular individual organizational units or selected operational procedures are "current planning," not the concern of LRPC. And as each segment of a long range plan is considered for implementation, it becomes "current planning."

LRPC gives two examples: (1) Plan delineating desirable future role of Sections: long range. Plan to realign boundaries of a particular Section in near

future: current planning (to be consonant with any long range plan if such exists). (2) Establishing or discontinuing a generalized IEEE unit: long range. Discontinuing or changing line of report of a particular committee: current planning (again to be tested against any existing long range plan).

### GROUP NEWS

BUDGET TIME is here again. Calendar: Preliminary estimates for 1969, due Aug. 1, reflect desirable changes, plus or minus, compared with 1968 operations and estimates. From them, IEEE Finance Committee at Los Angeles, Aug. 17, determines outlines of over-all IEEE budget. During September, all units perfect detailed budgets within limits set. Soon after Oct. 1, Finance Committee reviews all components of budget and recommends to ExecCom, Oct. 17. ExecCom passes upon consolidated budget and hands to BofD members for study prior to Nov. 19 meeting, at which 1968 BofD finalizes and recommends to January 1969 BofD for adoption.

There is a widely-held feeling that "when you go on record with a forecast, you can never end up a hero." Yet budgets are here to stay with IEEE Groups and other units. No alternative is at hand to control a year-end's closing figures but to measure performance against estimates.

The more realistic each element of the budget, the easier it is to live with. The headaches which come from underestimating expenses or overestimating receipts are well known. But overcompensation to avoid these pitfalls can be no less disastrous. For example, if Groups underestimate printed-page requirements, headquarters may be caught with understaffing for editing, art-work, and proofreading; if pages are overestimated, too large a staff may have been built up and adjustment is painful. Another instance: overestimating expenses for "mandatory" programs, or underestimating availability of funds, may foreclose a worthy program that could have continued with more realistic planning.

MAN-MACHINE SYSTEMS. Scope of this Group was approved by ExecCom May 16 as it tentatively appeared in the pink Supplement to E. E. Apr., p. 1, except that, in (3), "problems" became "considerations."

NUCLEAR SCIENCE. Scope now reads: "The field of interest of the Group shall be that of nuclear science and engineering, including but not limited to: instrumentation for research in nuclear science and engineering, detection and measurement of radiation, radiation monitoring and safety equipment, particle accelerators, nuclear reactor controls and systems, effects of radiation on materials and systems, and applications of radiation and of nuclear power."

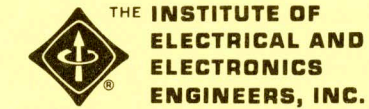
### SECTION NEWS

SECTION CALENDAR. The model in Section Manual, pp. 37-39, is "bare bones"—created to be clothed locally in the flesh of functional committee activity. Have all such Section committees reduced their schedules and targets to writing, July-to-June? Does the Section Chairman have copies with which to supervise?

FORUM FOR SECTION CHAIRMEN, Sierra Room, Statler-Hilton, Los Angeles, Wednesday afternoon, Aug. 21. Last reminder. (E. E. June, p. 5)

SPEAKERS DIRECTORY. Most recently issued with E. E. Oct. '67, this document reappears by request as a canary-yellow Supplement to this issue. It covers January-to-April 1968 topics, speakers, papers, events, reported by Sections. Useful in planning other Section and Chapter meetings. (Extra copy, Emily Sirjane). May-to-July meetings, with October E. E.

STRIKE WHILE THE IRON IS HOT. New member-applicants, from Oct. 1 until the end of 1968, pay in advance only the usual full year's 1969 IEEE dues or Group fees, or subscription to any periodical for 1969; and receive, as a bonus, full benefits during the remaining months of 1968. (Bylaws 108.5, 405.7, 501.7). Applicants receive



E. E. No. 18  
August 1968

### SPEAKERS DIRECTORY

The information in this Directory was obtained from reports of meeting held by Sections, Subsections and Group Chapters during the period January 1, 1968 through April 30, 1968.

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

Group Code	Group	Group Code	Group
G-AES	Aerospace & Electronic Systems	G-GE	Geoscience Electronics
G-AP	Antennas & Propagation	G-IECI	Industrial Electronics & Control Instrumentation
G-A&E	Audio & Electroacoustics	G-IGA	Industry & General Applications
G-AC	Automatic Control	G-IT	Information Theory
G-BTR	Broadcast & TV Receivers	G-IM	Instrumentation & Measurement
G-B	Broadcasting	G-MAG	Magnetics
G-CT	Circuit Theory	G-MMS	Man-Machine Systems
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-VT	Vehicular Technology
G-EWS	Engineering Writing & Speech		

REGION 1

<u>Section Subsection (SS)</u>	<u>Speaker and Address</u>	<u>Title of Speech</u>	<u>Group Code</u>	<u>Date Presented</u>
Berkshire	F. C. Van Wormer General Electric Co. Schenectady, N. Y.	"Underground Distribu- tion Systems of the Future"	G-P	1/10/68
	Dr. Edward H. G. Hon Yale University New Haven, CT 06520	"Medical Electronics"		3/19/68
	Glen D. Breuer General Electric Co. Schenectady, N. Y.	"H. V. D. C. Trans- mission Systems"	G-P	4/4/68
	P. K. Rummel Benet Research And Engineering Labs. Watervliet Arsenal Watervliet, N. Y. 12189	"Low Cycle Fatigue Behavior of Cannon Barrels"		4/15/68
Binghamton	Harold E. Nash U. S. N. Underwater Sound Labs. Fort Trumbull, New London, CT	"Underwater Acoustic Systems"	G-AES	1/24/68
	Leon Harmon (Address unknown) Contact Section Secretary: Leon D. Hall N. Y. S. Elec. & Gas Corp. 4500 Vestal Pkwy. E. Binghamton, N. Y. 13903	"Natural And Artificial Intelligence"	G-C	2/14/68
	Dr. P. M. Lewis General Electric R & D Lab Schenectady, N. Y.	"Application of Threshold Logic in Digital Computers"	G-C	3/27/68
	Sheldon B. Akers, Jr. General Electric Co. Syracuse, N. Y.	"Some Problems and Tech- niques of Automatic Wire Layout"	G-C	4/22/68
	L. A. Holden Allis-Chalmers 1344 Hyde Park Ave. Boston, MA 02136	"EHV Air Blast Circuit Breaker Design, Test and Erection"	G-P	2/29/68
	John H. Cronin Westinghouse Electric Corp. (Address unknown) Contact Section Secretary: (See above)	"EHV Design Consider- ations Relating to Switching Surges, Lightning & Radio Interference"	G-P	3/27/68
	Boston	Dr. E. Covert MIT Cambridge, MA	"Wind Tunnel Measurements on a Slot Antenna In a Plasma Layer"	G-AP
Dr. M. Mentzoni Sylvania Applied Res. Lab. Waltham, MA		"Laboratory Studies of Slot Antenna Breakdown"	"	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Boston (Cont'd.)	Herbert W. Brack Allis-Chalmers Mfg. Co. West Allis, Wisconsin Gerald F. Connolly Boston Edison Co. Boston, Mass.	"Traser-Laser For Instrumentation"	G-P	1/9/68
	J. Hubbs E.H. Research Labs. Oakland, CA	"Pulse Measurements"	G-IM	1/10/68
	Don Breslow ITEK Burlington, Mass.	"Techniques of Digital Filters"	G-AES/C	1/10/68
	S. Lees Forsyth Dental Infirmary Harvard Medical School	"Applications of Ultrasonics In Biomedical Engineering"	G-EMB	1/11/68
	D. Malins S. Malins & Son, Inc. Boston, Mass.	Panel Discussion: "The Electrical Contractor Speaks Out"	G-IGA	1/16/68
	J. H. Mulhall Polaroid Corp. (Address Unknown) Contact Section Secretary: Ruth A. King 50 Ballardvale Road Andover, MA 01810	"Film Industry Tour"	G-PMP	1/16/68
	S. Karp NASA Cambridge, Mass. D. Powers NASA Cambridge, Mass.	"NASA (ERC) Communica- tion and Electro-Optical Programs"	G-ComTech	1/17/68
	J. E. Rowe University of Michigan Ann Arbor, Michigan	"Electron, Plasma and Solid- State Device Research in the Soviet Union"	G-ED	1/18/68
	L. F. McManus J. P. Cleaver Co. Princeton, N. J.	"The Search for Top Level Management Talent"	G-EM	1/23/68
	Bernard M. Gordon Gordon Engineering Watertown, Mass.	"Some Engineering and Design Considerations for Industrial Electronic Products."	G-IECI	1/30/68
	J. Armitage Northeastern University (Address unknown) Contact Section Secretary: (See above)	"Electroretinography"	G-EMB	2/8/68
	Dr. John Rheinstein Lincoln Lab. Lexington, MA	"Short Pulse Scattering- Analytical"	G-AP	2/13/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Boston (Cont'd.)	Dr. Gerald Ross and Joseph Delorenzo Sperry Rand Res. Ctr. Sudbury, MA.	"Scattering Studies - Experimental"	G-AP	2/13/68
	John G. Anderson General Electric Co. Pittsfield, Mass.	"Ultra-High Voltage Transmission"	G-P	2/13/68
	T. Berger Raytheon Co. Wayland, Mass.	"Some New Results and Trends in Rate Distortion Theory"	G-IT	2/14/68
	Richard S. Smithly Federal Pacific Electric Co. Newark, N. J.	"Ground Fault Protection- Recent Developments"	G-IGA	2/20/68
	R. W. Damon Sperry Rand Research Center Sudbury, Mass.	"Solid-State Microwave Delay Lines"	G-MTT	2/20/68
	W. E. Vander Velde MIT Cambridge, Mass.	"Current Systems Theory- Good Answers to the Wrong Questions"	G-SSC	2/21/68
	Dr. Charles Leigh NASA-ERC 575 Tech. Square Cambridge, Mass.	"Collision Avoidance Systems"	G-AES	2/26/68
	R. L. Smith Erie Technological Products, Inc. Erie, Pa. E. L. Zeigler (Address - See above)	"Performance And Applica- tion of Subminiature "State- of-the-Art" EMI Filters"	G-EMC	2/28/68
	M. Lopin E. G. & G. Boston, Mass.	"The Minactor"	G-ED/PMP	2/29/68
	L. C. Hamiter, Jr. Marshall Space Flight Ctr. Huntsville, Alabama	"Assuring the Reliability of Microcircuits Used in Space Applications"	G-R	2/29/68
	Kenneth L. Hicks Stone & Webster Engr. Corp. Boston, Mass.	"Coordination of Disaster Control Procedures for Large Interconnected Systems"	G-P	3/5/68
	Charles Concordia General Electric Co. Schenectady, N. Y.	"Factors In System Design For Reliable Electric Power Supply"	G-P	3/5/68
	W. Myers Delco Products Rochester, N. Y.	"Q. C. and Reliability Can Utilize Computers"	G-R	3/7/68
	Harry Jung Baird Atomic 33 University Road Cambridge, Mass.	"The High Speed Digital Readout System"	G-IECI	3/12/68
	J. W. Forrester MIT Cambridge, Mass.	"Industrial Dynamics- A Systems Approach"	G-SSC	3/13/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Boston (Cont'd.)	H. E. Stinehelfer, Sr. Microwave Associates, Inc. Burlington, Mass.	"Circuit Analysis of Microwave Networks Using Computers"	G-AES/MTT	3/13/68
	G. L. Brownell Mass. Gen. Hospital Boston, Mass.	"Medical Uses of Short-Lived Isotopes"	G-NS/EMB	3/14/68
	A. W. Ellinthorpe USN Underwater Sound Lab. New London, Conn.	"The Undersea Communication Channel"	G-IT/ComTech	3/14/68
	R. V. Heiman Honeywell EDP Waltham, Mass.	"Automated Design of I/C Logic and Interconnections" "Electrical Interconnection Problem"	G-C "	3/26/68 "
	R. C. Engelhardt Honeywell EDP Waltham, Mass.	"A Register Transfer Level Language"	"	"
	J. Harris Sylvania Needham, Mass.	"Design and Packaging of Custom Integrated Circuits"	G-PMP/AES	3/26/68
	J. Brandenberger Raytheon Co. MSD Bedford, Mass. J. Ciccio (Address-above)	"Design and Packaging of an Airborne Fire Control Subsystem Using Monolithic and Hybrid IC's"	"	"
	P. B. Black Sylvania Waltham, Mass.	"Planning in a Dynamic Technological Environment"	G-EM	3/26/68
	-Dave Elovitz Honeywell Co. -Al Howard General Electric Co. -John McInnis Simplex Wire & Cable -Don Lutz Avco Research Lab. -Vince Gardner Beth Isreal Hospital (Addresses unknown) Contact Section Secretary: Ruth A. King 50 Ballardvale Road Andover, MA 01810	Panel Discussion: "The Plant Engineer Speaks Out"	G-IGA	3/26/68
	Dr. Allan C. Schell Air Force Cambridge Research Lab. Lexington, Mass.	"Antenna Pattern Synthesis" "A Short Non-Sponsored Analysis of Engineering Salaries"	G-AP "	3/28/68 "

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Boston (Cont'd.)	A. A. Yung RCA Somerville, N. J.	"Complementary MOS Transistor in Digital Circuit Applications"	G-ED	3/28/68
	A. I. Dranetz Dranetz Eng. Labs. Plainfield, N. J.	"Sonar Measurements"	G-IM	4/4/68
	F. S. Young Westinghouse Elec. Co. Pittsburgh, Penn.	"UHV Transmission-Part 2: Underground"	G-P	4/9/68
	R. M. Mattison The MITRE Corp. Bedford, Mass.	"Communication Needs Analysis"	G-ComTech	4/11/68
	George Reynolds Technical Operations, Inc. (Address unknown) Contact Section Secretary: Ruth A. King 50 Ballardvale Road Andover, MA 01810	"Optical Filtering and Holography"		4/15/68
	K. R. Ingham MIT Cambridge, Mass.	"Spelled Speech Generation"	G-EMB	4/17/68
	F. F. Lee MIT Cambridge, Mass.	"Problems in Reading Machines"	G-EMB	4/17/68
	Contact Section Secretary (see above)	Panel Discussion: "Integrated Microwave Circuits"	G-ED/MTT	4/17/68
	Walter Rotman AFCRL Bedford, Mass. J. L. Poirier (Address-see above)	"Electromagnetic Scattering of Wideband Random Signals by Random Scatterers"	G-AP	4/24/68
	Dr. John Schindler (Address-see above)	"Electromagnetic Scattering of Wideband Random Signals by Random Scatterers"	"	"
	E. R. Berlekamp Bell Telephone Labs. Murray Hill, N. J.	"A Survey of Algebraic Coding Theory"	G-IT	4/24/68
	-Roger Long Sylvania Waltham, Mass. -Charles Snell Sylvania Waltham, Mass.	"Thick Film Hybrids in Action"	G-PMP "	4/25/68 "

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Lynn (SS)	William McCarthy Sylvania Woburn, Mass.	"Integrated Circuits"		1/16/68
	Paul J. Reardon MIT Lab. for Nuclear Science Cambridge, Mass. Joseph J. Gand (Address-see above)	"Linear Accelerator At Middleton"		2/13/68
	-Mark Bendersky Marblehead High	Science Fair: "Permeable Membranes"		4/23/68
	-John Kosian	"An Automated Radio Station"		"
	-Doug Robinson Lynnfield High	"Air Pollution"		"
	-John Lundstrom Essex Agricultural	"Vosyl-A Speech Synthesiser"		"
	-Edwin S. Rich Jr. Lynnfield High	"Hydronics in Oceanographic Research"		"
	-John G. VanBobo Peabody High (Addresses Unknown) Contact Subsection Secretary: Arthur J. Bearnse Sylvania Elec. Products, Inc. 75 Sylvan Street Danvers, Mass. 01923			
Merrimack Valley (SS)	Dr. J. H. B. George Arthur D. Litter Co. Cambridge, Mass.	"Prospects For Electric Cars"		1/22/68
	John S. Hayes Harris, Upham & Co., Inc. Boston, Massachusetts	"Investments and the Stock Market"		2/19/68
	Robert H. Klie Bell Telephone Labs. North Andover, Mass.	"Guided Waves for Commu- nications; Past, Present, Future"		3/25/68
	F. Laurence Gosnell Wang Laboratories Tewksbury, Mass.	"Electronic Calculating Machines; Past, Present, and Future"		4/22/68
Buffalo	F. R. Hazelton Cornell Aeronautical Lab. Buffalo, N. Y.	"Vehicules in the Deep Ocean"		1/4/68
	Edwin Burgin (Address unknown) Contact Section Secretary: Ray W. Ames 132 Evergreen Drive Tonawanda, N. Y. 14150	"Effective Coordination of Low Voltage Power Dis- tribution Systems"	G-IGA	1/16/68
	Thomas Hanlon Cornell Aeronautical Lab. 4455 Genesee Street Cheektowaga, N. Y.	"Man's Greatest Invention"	G-EWS	1/16/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Buffalo	S. A. R. Ayyar Cornell Aeronautical Lab., Inc. P. O. Box 235 Buffalo, N. Y. 14221	"Applications of Functional Analysis to Optimal Circuit Disign"	G-IT	1/17/68
	D. J. Greene N. Y. Telephone Co. 20 Park St. Albany, N. Y. Dr. Ralph R. Romer University of Buffalo (Address unknown) Contact Section Secretary Ray W. Ames 132 Evergreen Drive Tonawanda, N. Y. 14150	"Standby Power Supplies"	G-P	1/25/68
	Dr. Michael G. Rekoff Bell Telephone Whippany, N. J.	"Model Study of Lake Erie"		2/1/68
	J. H. Wittman Sylvania Electronic Systems 1100 Wehrle Drive Buffalo, N. Y.	"Vibrating Momentum Exchange Device and a Self-Balancing Single Axis Space Environment Simulator"	G-AC	2/6/68
	J. Lindholm Sylvania Electronic Systems 1100 Wehrle Drive Buffalo, N. Y.	"Comparison of Satellite Multiple Access Modulation Techniques"	G-IT	2/21/68
	Howell Boyd Texas Instruments, Inc. Dallas, TX	"State of Art in Micro- wave Integrated Circuit Techniques"	G-MTT/AP	2/28/68
	Dr. F. Karl Willenbrock W. R. Harris (Addresses Unknown) Contact Section Secretary (See above)	"Industry Looks At Engineering"		3/7/68
	Bruce McLaughlin Bethlehem Steel Corp. Buffalo, N. Y.	"The Non-random Properties of Long Pseudo-random Sequences"	G-IT	3/20/68
	Arthur Faverio Airborne Instrument Lab. Melville, Long Island, N. Y.	"Power Distribution & Pro- tection in a large Steel Plant"	G-IGA	3/21/68
	James S. Thorp Cornell University Ithaca, N. Y.	"Solid State Microwave Sources"	G-MTT/AP	3/27/68
	Dr. J. P. Schalkwijk Sylvania Applied Research Lab. Waltham, Mass.	"Computation of Optimal And Sub-Optimal Bang- Bang Control"	G-AC	4/9/68
	William F. Grauch Niagara Mohawk Power Corp. 535 Washington Street Buffalo, N. Y.	"Coding for Bandlimited Additive Noise Channels With Feedback"	G-IT	4/17/68
		"Elm Street Terminal Station"	G-P	4/25/68

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Connecticut	W. H. Stinson Westinghouse Corp. Pittsburgh, Pennsylvania	"Advanced Method of Energy Conversion"	G-P	1/16/68
	Norman Works Pratt & Whitney Aircraft 400 Main Street East Hartford, CT	"From Thrust to Watts"	G-IGA	1/16/68
	Dr. Wolfgang Gaertner Gaertner Res., Inc. (Address Unknown) Contact Section Secretary: Elliot J. Wilcox 199 Fitch Hill Road Guilford, CT 06437	"Micro-Electronics In Systems of the Future"	G-ED	1/16/68
	Louis Coutermash Bunker-Ramo Corp. Stamford, CT	"Quality Assurance in a Commerical Company"	G-R	2/12/68
	Dr. Noah Kramer Stelma Inc. Stamford, Conn.	"Technical Control"	G-A&E G-ComTech	2/20/68
	Dr. R. Bowling Barnes Barnes Engineering Stamford, CT	"Barnes Thermograph"		2/20/68
	Thomas Rogers Machlett Laboratories Stamford, CT	"X-Ray Image Intensifier"		"
	Samuel Levine Bunker Ramo Corporation Stamford, CT	"Problems In Man-Machine Display Design & Use"	G-C	2/20/68
	William Jones Olin Mathieson Chemcial Corp. New Haven, CT	"Recruitment of Managerial Personnel"	G-EM	3/19/68
	Warren C. Whittum Farrel Corporation Ansonia, CT	"Motivation of Managerial Personnel"	"	"
	George C. Izenour George C. Izenour Associates Box 1699 Yale Station New Haven, CT 06520	"Engineering & The Contemporary Theatre"	G-IGA	3/19/68
	Dr. Joseph Dietrich Combustion Engineering Windsor, CT	"Energy Content of Nuclear Fuels"	G-NS	4/16/68
	Thomas Stafford IBM Systems Div. Mr. J. Githeus Bell Telephone Labs. (Address Unknown) Contact Section Secretary: (See above)	"Computer Organization, Parallel vs Serial"	G-C	4/16/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Connecticut (Cont'd.)	Lloyd R. Jones Rolock Incorporated Fairfield, CT	"Direct Current Circuits"		4/22/68
	David Stuart NEPEX Brush Hill West Springfield	"Current Status and Future Planning of NEPEX"	G-P	4/23/68
Fairfield County (SS)	Richard H. Podoloff (Address Unknown) Contact Subsection Secretary: Alan Knapp 6 Mohawk Drive Norwalk, CT 06851 Richard C. Casey (Address Unknown) Contact Subsection Secretary: (See above)	"Banks & Computers"		1/25/68
	J. M. Schamberger Northeast Utilities Service Co. Hartford, CT J. Sugrue Connecticut Light & Power Co. Norwalk, CT	"New Sources of Power"		4/25/68
		"The Norwalk Harbor Station"		"
New London (SS)	Dr. Herbert H. Richardson Mass. Institute of Technology Cambridge, Mass.	"Concepts and Technological Developments in Advanced Ground Transportation Systems"		1/11/68
	Dr. Juri Matisoo IBM Thomas J. Watson Labs. Yorktown Heights, N. Y.	"Electric and Electrical Applications of Super Conductivity"		2/15/68
	William J. Prysner U.S. Navy Underwater Sound Lab. New London, Conn.	"Electromagnetic Compat- ibility, Its Definition, Problems & Future"		3/12/68
	Dr. Eugene L. Green U.S. Navy Underwater Sound Lab. New London, CT	"Optical Signal Processing Principles; Present and Future"		4/10/68
		"Uses of Coherent Optical Systems"		
Elmira- Corning	A. D. Tuttle N. Y. S. Electric & Gas Elmira, N. Y.	"Nuclear Power for N. Y. S."		1/15/68
	Dr. H. G. Moeller Corning Glass Works Corning, N. Y.	"Trends in Medical Electronics"		2/20/68
	Warren G. Kingsley Conelec Elmira, N. Y.	"Conelec Precision Fuel Meter- ing System"		3/18/68



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Elmira-Corning (Cont'd.)	Prof. Fred H. Gertz Alfred University (Address Unknown) Contact Section Secretary: William M. Sackinger 119 E. William Street Bath, N. Y. 14810	"Effectice Writing"		4/1/68 4/1-8-15- 4/22
Ithaca	Prof. Peter Elias Harvard University Cambridge, Mass.	"Bounds on the Performance of Optimum Quantizers"		2/13/68
	C. J. Tunis IBM Endicott, N. Y.	"Some Alphanumeric Charac- ters I have Known or What's a Nice Pattern Like You Doing in a Lousy Category Like This?"		3/6/68
	Dr. B. Mandelbrot IBM T. J. Watson Research Lab. Yorktown Heights, N. Y.	1/f Noises, Sporadic Processes, and Applications (The D. C. Catastrophe)		4/25/68
Maine	Edward L. Hathaway Portland Pipe Line Corp. (Address Unknown) Contact Section Secretary: Peter E. Dunn 9 Green Street Augusta, ME 04330	"Electrical Aspects of the Portland Pipe Line"	G-P	2/21/68
	John A. Hackett Bell Telephone Labs. Holmdel, N. J.	"Traffic Service Position System" (TSPE No. 1)		3/13/68
	-David F. Gould (Address Unknown) Contact Section Secretary: (See above)	"Patent Law Seminar"		4/17/68
	-Theodore L. Brown Tibbetts Industries, Inc. Camden, Main	"		"
	-William J. Clisham (Address Unknown) Contact Section Secretary: (See above)	"		"
	-James V. Tuta (Address Unknown) Contact Section Secretary: (See above)	"		"
Mid-Hudson	Dr. Robert M. Kellogg IBM Endicott, N. Y.	"Medical Electronics"		2/20/68
	John R. Vogel Central Hudson South Road Poughkeepsie, N. Y. Paul J. Vinett Central Hudson South Road Poughkeepsie, N. Y.	"N. Y. Power Pool- Organization and Operations Aspects"	G-P	3/12/68
		"N. Y. Power Pool-Planning Aspects"	"	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Mid-Hudson (Cont'd.)	Lou Leon FAA Eastern Region Kennedy International Airport Queens, N. Y.	"Highlights of Air Traffic Control in the N. Y. Metropolitan Area"		3/27/68
Catskill (SS)	R. M. Kellog IBM Corp. (Address Unknown) Contact Vice Chairman: Bernard Kazmierczak 24 Edgewood Drive Windemere Estates Saugerties, N. Y.	"Continuous Flow Centrif- ugation of Whole Blood"		2/20/68
	Dr. James E. Mendenhall Consumers Union Mount Vernon, N. Y.	"Consumers Want to Know"		4/11/68
Mohawk Valley	John Rayle General Electric Co. Syracuse, N. Y.	"Computers as a Manage- ment Tool"	G-EM	1/23/68
	Dr. Rabah A. Shahbender RCA Laboratories Princeton, N. J.	"Sonic Film Memory"	G-C	4/2/68
	William Maroney Microwave Associates Burlington, Mass.	"Microwave Integrated Circuits"	G-AES	4/23/68
St. Lawrence International(SS)	Clyde M. Osborn Sylvania Cornwall, Ontario, Canada	"A Touch of Color"		3/13/68
	Walter Weening Corning Glass Company Canton, N. Y.	"The Corning Story"		4/10/68
New Hampshire	Robert Carberry Litton Systems, Inc. VanNuys, CA	"Space Age Power Conversion"		1/10/68
	Donald Shepard Public Service Co. of N. H. Manchester, N. H.	"New England Power Exchange"		1/10/68
	John Murphy Federal Aviation Agency Nashua, N. H.	"FAA Control Center Facility Description"		2/14/68
	William E. Pastori Airborne Instruments Lab. Deer Park, N. Y.	"Measuring Microwave Noise"	G-AP/MTT	2/28/68
	R. P. Samolis Northeast Utilities Ser. Co. (Address Unknown) Contact Section Secretary: Donald F. Blodgett, Jr. Sanders Assoc. Inc. 1 2720 95 Canal Street Nashua, N. H.	"The Northfield Pumped Storage Facility"		3/13/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
New Hampshire (Cont'd.)	Donald Shiengold Philbrick-Nexus Div. of Teledyne Dedham, Mass.	"Operational Amplifiers"		3/13/68
	Carl J. Sletten Air Force Cambridge Res. Lab. (Address Unknown) Contact Section Secretary: Donald F. Blodgett, Jr. Sanders Assoc. Inc. 1 2720 95 Canal Street Nashua, N. H. 03060	"Requirements for New Antenna Technology"	G-AP/MTT	3/27/68
New Jersey Coast	John Kiesling RCA Astro Electronics Division Princeton, N. J.	"Phased Arrays for Space"	G-AES	1/17/68
	William E. Plummer Executive Office of the President of U. S. Washington DC	"The Problems of Frequency Management"	G-EMC	1/23/68
	Dr. Elie J. Baghdady ADCOM Inc. Cambridge, Mass.	"Comparison and Selection of Multiplexing Techniques"	G-ComTech	2/7/68
	William Keister Bell Telephone Laboratories Holmdel, N. J.	"Timesharing and Communication Systems"	G-C	3/6/68
	Dr. Max Asa Monmouth Medical Center Long Branch, N. J.	"Telemetry Problems in Physiological Measurements"	G-EMC	4/16/68
	Amos E. Joel, Jr. Bell Telephone Laboratories Holmdel, N. J.	"Switching Machines-Real Time Data Processors"	G-C	4/18/68
Metropolitan New York	Prof. O. Ondra Manhattan College, N. Y.	"Structural Planning & Design"		1/3/68
	J. Bates (Address Unknown) Contact Section Secretary: Alexander Kohan American Tel. & Tel. Co. 123 Williams St. N. Y., N. Y. 10038	"Electrical Engineering Applications"		1/3/68
	F. Blackwood (Address Unknown) Contact Section Secretary: (See above)	"Engineering Economics and Practice"		1/4/68
	Prof. O. Ondra Manhattan College, N. Y.	"Structural Planning & Design"		1/8/68
	R. G. Gallager MIT Cambridge, Mass.	"Information Theory and Its Applications"	G-IT	1/9/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Met. New York (Cont'd.)	-R. Ludsey BTL Holmdel, N. J.	"Information Theory and Its Applications"	G-IT	1/9/68
	-M. Schwartz Poly Institute of Brooklyn Brooklyn, New York	"	"	"
	-D. Schilling (Address-see above)	"	"	"
	Jeak-Paul Keller RCA (Address Unknown) Contact Section Secretary: Alexander Kohan American Tel & Tel. Co. 123 William St. New York, N. Y. 10038	"Application of Linear Integrated Circuits"	G-ComTech	1/9/68
	P. Zarakas Consolidated Edison (Address Unknown) Contact Section Secretary: (See above)	"Electrical Engineering Applications"	G-P/IGA	1/10/68
	R. E. Anderson Newark College of Engineering Newark, New Jersey	"Switching Systems and Their Applications"	G-E	1/10/68
	Dr. L. A. D'Asaro Bell Telephone Laboratories Murray Hill, N. J.	"Recent Progress in Junction Lasers"	G-ED	1/11/68
	Arthur W. Holt Control Data Corporation Rockville, Md.	"A Progress Report on Optical Character Recognition"	G-C	1/16/68
	B. Vonderschmidt RCA (Address Unknown) Contact Section Secretary: (See above)	"Linear Integrated Circuits"	G-ComTech	1/16/68
	S. Sonsky Dept. of the Navy (Address Unknown) Contact Section Secretary: (See above)	"Electrical Engineering Applications"	G-P/IGA	1/17/68
	John Marley ITT Avionics Division 500 Washington Avenue Nutley, N. J.	"Microelectronics as Applicable to the Avionics Industry"	G-AES	1/18/68
	Dr. Jacob I. Hirsch New York University New York, N. Y.	"An Algorithm for Reading Electrocardiograms"	G-EMB	1/23/68
	Dr. Maurice J. Kirby Sperry Gyroscope Division Great Neck, N. Y.	"Unreliability or Incomplete Maintenance"	G-R	1/23/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Met New York (Cont'd.)	Alfred L. Geraci Sperry Gyroscope Division Great Neck, N. J.	"A Space Program of Proven High Reliability"	G-R	1/23/68
	R. E. Anderson Newark College of Engineering Newark, New Jersey	"Elementary Building Blocks"	G-ComTech	1/24/68
	R. E. Anderson (Address-see above)	"Application of Building Blocks"	G-ComTech	1/31/68
	R. E. Anderson (Address-see above)	"Memories"	G-ComTech	2/7/68
	Dr. Edgar Codd IBM Yorktown Heights, N. Y.	"An Eight-State Self- Reproducing Automata"	G-C	2/14/68
	R. E. Anderson (Address-see above)	"Electronic System Elements"	G-ComTech	2/14/68
	James Pomerene IBM (Address Unknown) Contact Section Secretary: Alexander Kohan American Tel. & Tel. Co. 123 William St. New York, N. Y. 10038	"Turning Points in Computer Design; What If...."	G-C	2/15/68
	T. E. McDuffie Naval Applied Science Lab. Brooklyn, New York	"Microelectronics and Cost Effectiveness"	G-R	2/20/68
	J. J. Staller Microsystems Technical Corp. Norwood, Mass.	"Microelectronic Packaging and Reliability"	"	"
	R. E. Anderson (Address-see above)	"Programs"	G-ComTech	2/21/68
	Dr. George Myers New York University University Heights Bronx, New York	"Current Technological Advances in Cardiac Pacemakers"	G-EMB	2/27/68
	Dr. Allen Korenjak RCA Laboratories Princeton, N. J.	"Deterministic Processing of Algol"	G-C	2/28/68
	-Dominick W. Langella LILCO	"Transmission & Distri- bution Aesthetics"	G-P/IGA	3/6/68
	-Richard D. King Con Edison	"	"	"
	-Jose A. Pria American Electric	"	"	"
	-Charles Moskov Public Service Electric & Gas (Address Unknown) Contact Section Secretary: (See-above)	"	"	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Met. New York (Cont'd.)	Dr. Albert S. Hoagland IBM Yorktown Heights, N. Y.	"Storage: Mass or Mess?"	G-C	3/12/68
	Dr. H. N. Yu IBM Yorktown Heights, N. Y.	"Ultra High Speed Planar Germanium Transistors & Integrated Circuits"	G-ED	3/14/68
	James C. Elms NASA Electronic Research Center Cambridge, Mass.	"The Space Program Today"	G-AES	3/19/68
	R. A. Gast N. Y. Telephone Co. (Address Unknown) Contact Section Secretary: Alexander Kohan American Tel. & Tel. Co. 123 William St. New York, N. Y. 10038	"Systems Aspects of Visual Communications"	G-ComTech	3/25/68
	-S. C. Koveley A. T. & T. Company 195 Broadway New York, N. Y.	"PICTUREPHONE Service"	G-ComTech	4/1/68
	-B. Mandelbrot IBM -J. Fennick BTL -P. Bello Signatron Corp. -B. Fritchman Philco-Ford (Addresses Unknown) Contact Section Secretary: (See-above)	Panel Discussion: "Channel Characterization"	G-IT	4/2/68
	R. G. Palla A. T. & T. Company 195 Broadway New York, N. Y.	"Electronic PBX System"	G-ComTech	4/3/68
	Sam Gubin RCA P. O. Box 800 Princeton, N. J.	"Inspection Trip of RCA's Aerospace Center"	G-ComTech	4/10/68
	S. D. Levine Western Electric Co. (Address Unknown) Contact Section Secretary: (See-above)	"Electronic Central Office"	G-ComTech	4/10/68
	Dr. Benjamin Senitzky Polytechnic Institute of Bklyn. Brooklyn, New York	"Use of Gases for Millimeter Wave Components"	G-ED	4/11/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Met. New York (Cont'd.)	S. Gubin RCA (Address Unknown) Contact Section Secretary: Alexander Kohan American Tel. & Tel. Co. 123 Williams Street New York, N. Y. 10038	"Space Television System"	G-ComTech	4/15/68
	Aaron Wallace Kollsman Instrument Co. 45th Avenue, Queens, N. Y.	"Application of Bionics and System Science to Personal Self-Knowledge and Growth"	G-AC	4/16/68
	J. T. Martin A. T. & T. Company 195 Broadway New York, N. Y.	"Satellite Switching"	G-ComTech	4/17/68
	K. C. Shaver RCA (Address Unknown) Contact Section Secretary: (See-above)	"Instructional TV Systems"	G-ComTech	4/22/68
	Abraham A. Witteles Kearfatt Products Div. GPSI 1225 McBride Avenue Little Falls, N. J.	"Radiation Effects on Microelectronics & Nuclear Experimental Techniques"	G-AES	4/25/68
North Jersey	Dr. Mauro H. Zambuto Newark College of Engineering Newark, N. J.	"Holography"	G-AC	1/10/68
	Henry Y. Tsien Public Service Electric & Gas Newark, N. J. Peter Van Olina (Address-see above)	"Security and Dispatch Computers"	G-P	1/16/68
	D. J. Rachofsky Burroughs Corp. Paoli, Penn.	"Illiac IV Part I Hardware Organization"	G-C	2/8/68
	J. Seward Burroughs Corp. Paoli, Penn.	"Illiac IV Part II Applications"	"	"
	John Cocking General Instruments Hicksville, Long Island	"MOS Circuits, Failure Modes and Failure Analysis Techniques"	G-R	2/15/68
	Simeon E. Gordon Communications & Systems Paramus, N. J. 07652	"Information Flow in Highway Communication Systems Design"	G-ComTech	2/27/68
	Matthew T. Lebenbaum Airborne Instrumentation Lab. Melville, Long Island, N. Y.	"Instrumentation for Radio Astronomy"	G-MTT	3/6/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
North Jersey (Cont'd.)	Dr. J. C. Hsu Bell Telephone Labs. Whippany, N. J.	"Optimal Control, Theory and Applications"	G-AC	4/24/68
	W. J. Lawless Bell Telephone Labs. Holmdel, N. J.	"Data Transmission Over Voiceband Telephone Facilities"	G-ComTech/C	4/25/68
Providence	Dr. John D. Harmer Space and Information Syst. Div. Raytheon Co. Sudbury, Mass.	"Electronics in Space"		2/29/68
	Dr. George Brown Radio Corporation of America (Address Unknown) Contact Section Secretary: Thomas P. Sifferlen 4 Ellis Street Barrington, R.I. 02806	"History of Electronics"		4/29/68
Rochester	E. Schwittek R. F. Communications 1680 University Ave. Rochester, N. Y.	"Present and Potential Radio Voice Communications Methods"	G-ComTech	1/9/68
	Duane Harmon & Roger Button Bausch and Lomb Rochester, N. Y.	"Automated Chemical Analysis in the Clinical Laboratory"	G-EMB	1/11/68
	E. R. Burgin I. T. E. Corporation (Address Unknown) Contact Section Secretary: Harry C. Saddock Rochester Gas & Elec. Corp. 89 East Avenue Rochester, N. Y. 14604	"Effective Coordination of Low Voltage Power Distribution Systems"	G-IGA/P	1/16/68
	John Ritterhoff Martin Marietta Corporation Baltimore, Md.	"Nuclear Power in Space"	G-AES	1/18/68
	Dr. W. F. Walker Rochester Institute of Technology Rochester, N. Y.	"A Qualitative Look at Time-Varying Dispersive Communication Channels"		2/6/68
	Dr. George Berg U. of Roch. School of Med. & Dent. Rochester, N. Y.	"The Influence of Eng. Science on Biological Science"	G-EMB	2/13/68
	John Arthur Rochester Gas & Electric Corp. Rochester, N. Y. Walter Kenyon (See-above)	"Progress of R. E. Ginna Nuclear Power Plant"	G-P/IGA	2/15/68
	David L. Solomon (Address Unknown) Contact Section Secretary: (See-above)	"The National Communications System"	G-CcmTech	3/5/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Rochester (Cont'd.)	George Thorne-Booth Westinghouse Electric Co. Pittsburgh, Penn.	"BART, Bay Area Rapid Transit System"	G-AES	3/21/68
	Joseph Lempert Westinghouse Electric Co. (Address Unknown) Contact Section Secretary: (See-above)	"Electron Beam Welders"	G-P/IGA	3/21/68
	Dr. Wolf Vishniac University of Rochester Rochester, New York 14627	"Biological Instrumentation in Space Exploration"	G-EMB	4/9/68
	James C. Henderson Rochester Telephone Corp. Rochester, N. Y.	"Rochester Telephone's Operations and Planning for Expansion"	G-ComTech	4/16/68
Schenectady Adirondack(SS)	Dr. Robert C. Osthoff G. E. Research & Develop. Center Schenectady, N. Y.	"Batteries"		1/25/68
	Dr. Peter Stewart G. E. Research & Develop. Center Schenectady, N. Y.	"The Electric Car"		3/6/68
	Robert O'Brien Niagara Mohawk Power Corp. Niagara, New York	"Easton Nuclear Power Station"		4/10/68
Springfield	-Muni Mitchell General Instrument Co. Hicksville, N. Y.	"Tetrode Field Effect Transistors"		1/8/68
	-J. H. Piscioneri Northeast Utilities Service Co. Hartford, Conn.	"Long Island-Conn. Submarine Cable"		"
	-Dr. L. R. Parkinson Springfield, Mass. Technical Inst. Springfield, Mass.	"Springfield Technical Institute Past, Present & Future"		"
	C. A. Jacobson Western Mass. Electric Co. West Springfield, Mass.	"Design of Electrical System for Bay State West"		3/4/68
	C. C. Wing (Address see-above)	"Financing of Major Projects"		3/4/68
Syracuse	Dr. Richard Stearns General Electric Schenectady, N. Y.	"Formal Language Translation"	G-C	1/30/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Syracuse (Cont'd.)	Noble Powell General Electric Electronics Lab. Syracuse, N. Y.	"Non-Parametric Detectors"	C-CT/IT	2/8/68
	Harry Slater Niagara Mohawk Power Corp. 300 Erie Boulevard West Niagara Falls, N. Y.	"Corporate Financing"	G-P/IGA	2/29/68
	Dr. S. W. Herwald Westinghouse Corp. (Address Unknown) Contact Section Secretary: Jerome J. Suran Electronics Labs. Electronics Park 3-155 Syracuse, N. Y. 13201	"IEEE's Contributions to Society"		3/12/68
	Dr. A. T. Adams Syracuse University Syracuse, N. Y. 13210	"Radiation From Periodic Structures"	G-AP/MTT	3/14/68
	W. Lee Shevel, Jr. Systems Development Div. IBM Corporation Poughkeepsie, N. Y.	"Present Status and Anticipated Developments- Solid State Memory"	G-AES/ED	3/28/68
Vermont	Richard Czina Vermont Educational Television Winooski, Vermont	"Vermont Educational Television"		1/22/68
	Dr. W. Roth University of Vermont Burlington, Vermont	"Engineering in Medicine"		2/28/68
	Tom McJilton General Electric Syracuse, New York	"LASERS- Theory and Applications"		3/25/68
	Howard Lewis Vermont Yankee Vernon, Vermont	"Vermont Yankee Nuclear Power Plant"		4/1/68
	Dr. Karl Konnereth IBM Watson Research Center Yorktown Heights, N. Y.	"State of the Art of Solid State Lasers and Applica- tions"		4/22/68
	L. G. Hauser Westinghouse Corp. (Address Unknown) Contact Section Secretary: Frederick C. Evering, Jr. University of Vermont Dept. of E. E. Burlington, Vermont 05401	"Advanced Methods of Energy Conversion"		4/23/68
Worcester County	Raymont W. Stone Federal Aviation Administration Burlington, Mass. Fred Pullis (Address see-above)	"Air Traffic Control- It's Status Today"		3/12/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Worcester County	Frank Harned American Pamcor, Inc. Valley Forge, Pa.	"Precision Engineering Applied to the End of a Wire"		4/16/68
<u>REGION 2</u>				
Akron	V. G. Gelnovatch Electronic Components Lab. Ft. Monmouth, N. J.	"Microwave Integrated Electronics Comes of Age"	G-AP	1/9/68
	O. A. Lentz East Cen. Area Reliability Org. Canton, Ohio	"ECAR-Its Organization & Concept"	G-P	1/23/68
	E. E. Eddey Goodyear Aerospace Corp. Akron, Ohio	"The Use of Associative Processors in Radar Tracking and Correlation"		2/13/68
	Carl Gerst Anaren Microwave Inc. Syracuse, N. Y.	"Strip Transmission Line Components"	G-AP	2/20/68
	Terry Casto Akron University Akron, Ohio	"Software Techniques in High Speed Communi- cations"		3/12/68
	Robert Putt (Address see-above)	"Design of Pressure Release Mechanism for Distribution Arresters"		"
	Ben Munk Electro Science Laboratory Ohio State University Columbus, Ohio	"Transmission and Re- flection Properties of Periodic Surfaces"	G-AP	3/19/68
Allegheny Mountain	John Lindbergh Ocean Systems, Inc. (Address Unknown) Contact Section Secretary: Otto A. Keser 7 Juniata Street Du Bois, Pa. 15801	"Man-in-the-Seas"		1/9/68
	Leo G. Harper Westinghouse Electric Co. Pittsburgh, Pa.	"Information Retrieval"		2/20/68
	Alfred Heinz Western Electric Co. Kearny, New Jersey	"Holography or Lensless Photography"		4/9/68
Baltimore Annapolis (SS)	-H. Clark Carvaugh Sheppard T. Powell Association Baltimore, Md. -F. L. Maseitti Honeywell Corp. Philadelphia, Pa. -Ralph Gibbs Kepper Co. Baltimore, Md.	Panel Discussion: "The Engineers Responsibility for Pollution Control"		1/10/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Annapolis (SS) (Cont'd.)	A. Bayne Nield Naval Ship Res. & Develop. Center Annapolis, Md. 21402	"Thermoelectricity for Special Power and Colling Applications"		3/13/68
Eastern Shore (SS)	Donald A. Minner Babcock and Wilcox Company Lynchburg, Virginia	"Nuclear Power - The Breeder Reactor"		3/12/68
	Dr. Julian D. Tebo Bell Telephone Laboratory New York, N. Y.	"Photo-Chemistry"		4/9/68
Central Pennsylvania	Russell M. Smith General Electric Erie, Pa.	"Electric Railroad Systems, Past, Present, and Future"		1/16/68
	Pentti A. Honkanen The Pennsylvania State Univ. University Park, Pa.	"Simulation & Analysis of Nonlinear Networks on a Digital Computer"		2/20/68
	Dr. Richard R. Bishop (Address see-above)	"Computer Analysis of the Electroencephalograph"		3/26/68
	M. Penberg Aerojet General Azusa, CA	"Thin Film Electronics"		4/30/68
	R. C. Early General Electric Lynchburg, Va.	"Thick Film Networks"		4/30/68
Cincinnati	Richard H. Wills Reliance Electric Cleveland, Ohio Dick Campbell Louis Allis Company Milwaukee, Wisconsin	"High Performance D. C. Servo-Drive"		1/16/68
	Alfred W. Scheide University of Cincinnati (Address Unknown) Contact Section Secretary: Sidney W. Nelson 5505 Fairlane Cincinnati, OH 45227	"Static A. C. Variable Frequency Drives-Past, Present and Future"		"
	Alfred W. Scheide University of Cincinnati (Address Unknown) Contact Section Secretary: (See-above)	"Introduction And Theory of Noise"		2/7/68
	Alfred W. Scheide University of Cincinnati (Address Unknown) Contact Section Secretary: (See-above)	"Theory of Grounding"		2/14/68
	Don Michael (Address Unknown) Contact Section Secretary: (See-above)	"Voltage Standards for AC Systems & Equipment"	G-P/IGA	2/20/68
	Harold A. Gauper General Electric Co. (Address Unknown) Contact Section Secretary: (See-above)	"Standards Instrumentation and Detection of RFI over the Frequency Range"		2/21/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Cincinnati (Cont'd.)	J. Paul Geori Electromagnetic Comp. Analysis Annapolis, MO Drew Dowling (Address see-above)	"The Third Dimension of Electromagnetic Comp."		2/28/68
	James Spellman Husky/Burndy Florence, Ky.	"Shielding Practices"		3/6/68
	John Fennick Bell Telephone Labs., Inc. (Address Unknown) Contact Section Secretary: (See-above)	"Characteristics & Interpretation of Impulse Noise of Telephone Channels"		3/13/68
	Dwight A. Marshall Cincinnati & Suburban Bell Telephone Co. (Address Unknown) Contact Section Secretary: (See-above)	"Local Telephone Co. Problems"		3/20/68
	Robert Herrmann Cincinnati Gas & Electric Co. (Address Unknown) Contact Section Secretary: (See-above)	"Utility Problems"		3/20/68
	Fred Geisheimer W. W. Clark Corp. (Address Unknown) Contact Section Secretary: (See-above)	"Installation Methods and Practices for Industrial Plants"		3/27/68
	Ronald A. Morrison The General Electric Co. Flight Propulsion Division Evendale, Ohio	"Application of the CRT and "Light Pen" to D. A."		3/28/68
	Ed Dean, Chet Barnet, T. Applegate Industrial Comm. & Sound Co. Cincinnati, Ohio	"Acousta-Voice Method of Equalizing Sound Systems in Rooms"	G-A&E	4/25/68
Cleveland	H. "Pete" Smith Pioneer Electronics Inc. 5403 Prospect Avenue Cleveland, Ohio	"CB Radio As It Is Today"	G-VT	1/9/68
	-William S. Watkins W. S. Watkins & Assoc. -Lloyd Sherman Eaton Axle Div. (Address Unknown) Contact Section Secretary Thomas F. Dambach Brush Instruments 37th & Perkins Avenue Cleveland, OH 44114	"The National Electrical Code, Proposed Changes, and Their Effect on You"	G-IGA	1/16/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Cleveland	-Leslie Lester City of Cleveland -William Kidney Doan Electric Co. -Jack Cachat Park-Ohio Industries, Inc. -George Yanda Cleveland Electric Illuminating (Address Unknown) Contact Section Secretary: (See above)	"The National Electrical Code, Proposed Changes, and Their Effect on You"	G-IGA	1/16/68
	R. Smith WKYC 1403 East 6th Street Cleveland, Ohio	"WKYC Operations"	G-B	1/17/68
	George J. Flinn Fairchild Semiconductor 7310 North Avenue Chicago, Ill.	"Integrated Circuits and Their Placé in Aerospace"	G-AES	1/31/68
	Francis Foster Robert Nekola Thomas Samar (Addresses Unknown) Contact Section Secretary: (See-above)	"Integrating Machine Con- trols and Machine Design"	G-IECI	2/5/68
	Prof. Robert E. Sparks Case Western Reserve University (Address Unknown) Contact Section Secretary: (See-above)	"Inventive Reasoning"	G-EM	2/15/68
	Jim Fredrickson General Electric Morgan Christensen General Electric Bill Fisher General Electric	"New Sources In Action"	G-IGA	2/20/68
	Rod Holt The Hickock Electrical Inst. Co. Cleveland, OH	"Digital Measurement Systems"	G-CT	2/27/68
	Delos A. Eilers Minnesota Mining & Mfg. St. Paul, Minn.	"Advances in Audible. Range Recording Tape Within the Last Three Years"	G-A&E	2/29/68
	Everett Anderson General Electric Co. (Address Unknown) Contact Section Secretary: (See-above)	"Automation Milestone- 'I See It But I Don't Believe It'"	G-IGA	3/19/68
	Dr. O. K. Mawardi Case Western Reserve Cleveland, Ohio	"Controlled Thermonuclear Fusion & Electric Engineering"		3/28/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Cleveland (Cont'd.)	Larry Kline Antenna Specialists Co. 12435 Euclid Avenue Cleveland, Ohio	"Effect of Body Mass on the Propagation Pattern of a Mobile Antenna"	G-VT	4/9/68
	A. F. Leatherman Battelle Memorial Institute Columbus, Ohio	"New Horizons in Electrical Engineering"	G-IGA	4/16/68
Columbus	-Dennis J. Morgan Bell Telephone Lab. 6200 E. Broad St. Columbus, Ohio	"Computers In Telephone Switching Centers"	G-ComTech	1/10/68
	-Richard E. Burton Collins Radio Co. Cedar Rapids, Iowa	"Computers, Computations and Control Systems"	"	"
	-Robert E. Lackey Ohio State University Columbus, Ohio	"Computers and Manipulation of Images"	"	"
Chillicothe (SS)	James E. Beehler American Electric Power Ser. New York City	"High Voltage Power Circuit Breakers"		1/11/68
	W. F. Neff Ohio Valley Electric Corp. Piketon, Ohio	"Description of 765/345 KV Substation and 765 KV Transmission System"		3/14/68
Zanesville (SS)	Charles Stuckey IBM Columbus, Ohio	"Quicktran"		1/10/68
	James W. Miser N. A. S. A. Cleveland, Ohio	"NASA"		2/22/68
	John Kelley Ohio State University Columbus, Ohio	"Research and Electronic Equipment Associated with Chemistry"		3/20/68
Dayton	Kenneth V. Brown Cox Coronary Heart Institute 3525 Southern Blvd. Dayton, Ohio	"A Time-Shared System for Monitoring of Cardiac Patients and Analysis of Experimental Data"	G-C	1/4/68
	Dr. Lloyd Dunlap Air Force Institute of Tech. Wright-Patterson AFB, Ohio	"Quantitative Management"	G-EM	1/10/68
	John G. Gregory Westing. Defense and Space Cnt. Baltimore, Maryland	"Application of MOS Technology to Computers"	G-C	2/7/68
	Louis Seaman General Electric Co. (Address Unknown) Contact Section Secretary: Robert A. Fontana AFIT Box 4042 Wright Patterson AFB Ohio 45433	"Satellite Attitude Control"	G-AC	2/13/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Dayton (Cont'd.)	James Bougas M. D. Boston University (Address Unknown) Contact Section Secretary: (See-above)	"Relationship of Engineering to Medicine and Health"	G-EMB	2/22/68
	Dr. Dave Cleland Air Force Institute of Tech. Wright-Patterson AFB, Ohio	"Project Management"	G-EM	3/13/68
	L. Harold Spradley DATA Corporation 2900 Research Park Drive Dayton, Ohio 45432	"Digital Processing of Image Information"	G-C	3/14/68
	Dr. Fritz Lindenmeier Technical University Munich Germany	"Transistorized Antennas"	G-AP	4/2/68
	Thomas Newman Square D. Company 2310 Far Hills, Dayton, Ohio 45419	"Solid State Control"	G-AC	4/4/68
	Fred D. Crowther Mead Corporation Dayton, Ohio	"Toward Personal Development of Management Philosophy"	G-EM	4/10/68
Delaware Bay	Burton N. Derick E. I. duPont de Nemours & Co. Wilmington, Delaware 19898	"Fiber Optics"		1/8/68
	T. L. Bourbonnais II E. I. duPont de Nemours & Co. Wilmington, Del. 19898	"Applications of the Phase Angle Meter"	G-P/IGA	1/18/68
	Isaac Harter, Jr. Babcock & Wilcox Co. Tubular Products Beaver Falls, Pa. Robert McClain (Address see-above)	"Instrumentation Apparatus for Continuous Casting"		2/27/68
	Ralph H. Lee E. I. duPont de Nemours & Co. Wilmington, Delaware	"An Engineer's View of Africa"		3/7/68
	F. A. Leinberger General Electric Co. 3 Penn Center Philadelphia, Pa.	"Circuit Interrupting-Present and Future"	G-P/IGA	3/21/68
	Keith Guard International Telecontrol Corp. Wilmington, Del.	"Computers" Their Use and Misuse in the Solution of Engineering Problems"		4/1/68
Erie	William Bryan Barber-Coleman Buffalo, New York	"Heating By Light"		1/11/68
	Dick Killen Penn. Electric Company Johnstown, Pa.	"Keystone on the Line"		1/24/68



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Erie (Cont'd)	Carl B. Lewis General Electric Co. 2901 East Lake Road Erie, Penn. 16501	"European Transportation Systems"		2/8/68
	Ernest Wright Gannon College Erie, Penn.	"American Dollar"		2/28/68
	Charles L. Lovercheck 1315 G. Daniel Baldwin Bldg. Erie, Pa. 16501	"Patents and the Engineer"		3/7/68
Johnstown	Alex Cranston & J. Senuta Pennsylvania Electric Co. 1001 Broad Street Johnstown, Pa.	"Basis of Power System- Design and Operation"		1/16/68
Lehigh Valley	L. V. Bewley Lehigh University Bethlehem, Pa.	"Power Engineering Education"		1/10/68
	Dr. Eugene Boehne ITE Circuit Breaker Co. Philadelphia, Pa.	"Nature, Art and Arithmetic"		1/12/68
	Eric Nussbaum Bell Telephone Laboratories (Address Unknown) Contact Section Secretary: Henry L. Robidoux Metropolitan Edison Co. Box 542 Reading, PA 19603	"Electronic Tele. Switching Systems"		2/14/68
	Dr. E. Berry Hey, Jr. (Address Unknown) Contact Section Secretary above	"The Pacemaker--Elect- ronics in the Human Heart"	G-ED	2/22/68
	John Copeland Bell Telephone Laboratories Murray Hill, New Jersey	"Bulk Negative Resistance Semiconductor Devices"	G-ED	3/29/68
	R. J. Innes & J.S. Rinninger Lehigh University Bethlehem, Pa.	"Oscillograph Circuits"		4/19/68
	-W. A. Frederick Penn. Power & Light Co. Allentown, Pa.	Panel Discussion: "What Must an Engineer Do To Keep His Engineering Training Up To Date?"		"
	-J. M. Early Tube Laboratory Bell Telephone Laboratories Allentown, Pa.			
	-A. E. Anderson Western Electric Co. Allentown, Pa.			
	-J. Karakash Lehigh University Bethlehem, Pa.			
	-D. G. Fink General Manager IEEE New York, N. Y.			

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
LIMA	Dr. Lewis R. Lowry Westinghouse Electric Corp. Aerospace Electrical Div. Box 989, Lima, Ohio	"Paramagnetic Resonance"		2/14/68
	Dr. James R. Reeder Westinghouse Electric Corp. Aerospace Electrical Div. Box 989 Lima, Ohio	"Digital Computer Role in Engineering Design Auto- mation"		3/20/68
	Peter Mlynar Westinghouse Electric Corp. Youngwood Pa.	"Indestructible Diodes?-New and Unpublished information regarding a recently develop- ed device"		4/24/68
North Central Ohio	Dr. Paul Taylor Ashland College Ashland, Ohio	"Illuminescence and Semi- Conductor Lasers"		1/11/68
	William Hamilton Ashland College Ashland, Ohio	"Present and Future Plans of Ashland College"		"
	Dr. Horace Grover Battelle Institute Columbus, Ohio	"Bio-Engineering"		2/22/68
	Leonard C. Flowers Westinghouse R&D Mansfield, Ohio	"Saline Water Purification by Reverse Osmosis"		3/21/68
	F. Eugene Smith (Address Unknown) Contact Section Secretary: William A. Wood R. D. 3 Mt. Gilead, Oh 43338	"Why Ugliness-Why Not?"		4/20/68
Ohio Valley	C. G. Falkenstein Cerro Wire and Cable Co. Pittsburg, Pa.	"Low-Voltage Cable and Insulation"		2/14/68
Philadelphia	Charles W. Proud The Bell Telephone Co. of Penn. One Parkway, Philadelphia, Pa.	"Public Communications on the High Speed Rail Line"	G-ComTech G-VT	1/9/68
	Robert B. Boyd Federal Power Commission Washington D. C.	"Prevention of Major Power Failures"	G-P	1/11/68
	Louis A. Arpino Amperex, Inc. New York, N. Y.	"Plumbicons-A New Look in Color Camera Tubes"		1/16/68
	Dr. H. Bawdes Electronic Component Div. United Aircraft St Road, Trevoese, Pa.	"Poor Man's LSI"	G-ED	1/18/68
	Russell Brownell Hallmark Standards Inc. Mamaronek, New York	"DC Ratio Techniques Via Inductive Components"	G-IM	1/18/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Philadelphia (Cont'd.)	Gordon C. Hopkins Radio Corporation of America Camden, New Jersey	"Modern Trends in Ships' Radio Communications"	G-IGA	1/19/68
	-James A. Kavanaugh General Electric -Jerry D. Weaver General Electric -David J. Rights AEL -Gerald J. Palladino AEL (Addresses Unknown) Contact Section Secretary: Octavio M. Salati 570 Rosemary Circle Media, Pa. 19063	"Computer Aided Circuit Design-An Engineer's Casebook"	G-CT	1/23/68
	Dr. John J. Bohrer I. R. C., Inc. 401 N. Broad Street Philadelphia, Pa.	"What's New in Resistive Materials and Components"	G-PMP	1/25/68
	James Potts Communciation Satellite Corp. Washington, D. C.	"Mutual Interference Between Communication Satellites"	G-ComTech G-VT	2/5/68
	Donald M. Demarest General Electric Co. Philadelphia, Pa.	"High Voltage Trans- mission"		2/5/68
	R. Showers University of Pennsylvania Philadelphia, Penn.	"New Concepts in EMC Instrumentation"	G-EMC	2/6/68
	S. Litwin University of Pennsylvania Philadelphia, Penn.	"Stocastic Models for Replication of Viral DNA"	G-IT	2/6/68
	Julius Lempner RCA (Address Unknown) Contact Section Secretary: (Address-see-above)	"Integrated Circuits in Audio"	G-A&E	2/12/68
	G. G. Auer General Electric Schenectady, New York	"Electric Service Reliability"	G-P	2/20/68
	Ervin Gross General Radio West Concord, Mass.	"Audio Noise Measure- ments"	G-IM	2/29/68
	Prof. E. N. Leith University of Michigan Ann Arbor, Michigan	"Modern Holography"		3/4/68
	H. E. Lokay Westinghouse Electric Corp. Philadelphia, Pa.	"Step Changes in Patterns of Energy Supply"	G-P	3/5/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Philadelphia (Cont'd.)	Allen R. Knivila Dow Corning Hemlock, Michigan	"Silicone In and Out of the Body"	G-PMP	3/7/68
	R. A. Hamilton General Electric Co. 6901 Elmwood Avenue Philadelphia, Pa.	"Uninterrupted Power Supplies for Industry"	G-IGA	3/11/68
	Dr. C. Nelson Dorny Moore School of Electrical Eng. University of Pennsylvania Philadelphia, Pa.	"Concepts in Systems Theory"	G-AC	3/12/68
	Otto C. Keil Philco-Ford Corporation Lansdale, Pa.	"Today's Automobile Receiver"	G-B/BTR	3/12/68
	Owen J. Ott Data Control Systems Danbury, Connecticut	"Signal Format Considera- tions in Transmitting Telemetry Data over Telephone Comm. Systems"	G-ComTech G-VT	3/13/68
	-T. D. Reader General Electric -E. C. Balbirnie General Electric -Herb Strauss RCA -Paul A. Lathrop General Electric -Robert E. Martin RCA -A. E. Smith RCA -R. W. Wilson RCA -Harry Urkowitz GAC -K. Abend Philco-Ford Corp. -W. A. Visher Marco Avionics -Dean Gumacos Philco-Ford Corp. -C. A. Taylor General Electric (Addresses Unknown) Contact Section Secretary: (See-above)	"A Sampling of Concise Papers on Information Theory and Its Applications"	G-IT	3/14/68
	Dr. Norman Balabanian Syracuse University Syracuse, New York	"State Formulation of Network Problems"	G-CT	3/26/68
	William E. Pastori Airborne Instruments Lab. (Addresses Unknown) Contact Section Secretary: (See-above)	"Measuring Microwave Noise"	G-IM	3/28/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Philadelphia (Cont'd.)	J. Denham Frankford Arsenal P. Pedrick Logistic Management Inst. A. Coppola Rome Air Development Center A. Slovin of U.S. Army Material R. Giordano Sperry Gyroscope H. Barton RCA E. Westcott RCA (Address Unknown) Contact Section Secretary: (See-above)	"Military-Industry Committee on Life Cycle Costing"	G-R	3/28/68
	Herbert Popper General Electric Co. Philadelphia, Pa.	"Engineers Look-25 Years Ahead"		4/1/68
	W. A. Hall Paul J. Reifschneider E. Barry (Addresses Unknown) Contact Section Secretary: (See-above)	"Improved and Simplified Shipboard Electrical Systems"	G-IGA	4/3/68
	Prof. W. F. Denham State University Stony Brook, Long Island, N. Y.	"The Newer Tools of Estimation and Control Theory"	G-AC	4/8/68
	R. Clifford Rogers, RCA Michael J. Ranali, Norelco (Contact Section Secretary above)	"Audio Tape-From Broadcast to Home Entertainment"	G-B/BTR	4/8/68
	J. Riehl I-T-E Circuit Breaker Co. 19th & Hamilton Streets Philadelphia, Pa. 19130	"A New Ground Fault Protective System for Electrical-Distribution Circuits"	G-IGA	4/8/68
	-H. Hoffart General Electric Philadelphia, Pa. -W. Simon Univac Blue Bell, Pa. -T. Dietrich Philco-Ford, Philadelphia, Pa.	Panel Discussion: "Grounding"	G-EMC	4/9/68
	Dr. Jack M. Sipress Bell Telephone Laboratories Holmdel, New Jersey 07733	"Experimental 224 Mb/s Digital Transmission System"	G-ComTech G-VT	4/9/68
	Dr. Manfred Altman (Address Unknown) Contact Section Secretary: (See-above)	"The Electric Automobile"		4/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Philadelphia (Cont'd.)	R. E. Shaffer A. V. Smith Engineering Co. Narberth, Penn.	"Underground Corrosion- Causes and Prevention"	G-P	4/16/68
	Jeremiah J. Ray Philadelphia Electric Co. Philadelphia, Penn.	"Management Training Courses"	G-EM	4/16/68
	T. J. Sueta USA Army ECOM-FORT MONMOUTH Eatontown, N. J.	"Army Avionics"	G-AES	4/18/68
	G. W. Van Citters RCA Moorestown, N. J. F. J. Drakeman (Address see-above)	"Printed Circuit Manufacturing"	G-PMP	4/18/68
	Tom Bakey Data Technology Corp. 2370 Charleston Rd. Mountain View, CA	"The Changing Role of Digital Voltmeters"	G-IM	4/18/68
	Ralph Myers Philadelphia Electric Co. 1000 Chestnut Street Philadelphia, Penn.	"Philosophy of Substation Operating Procedure"	G-P	4/22/68
	Dr. James E. Mandenhall Consumers Union Mt. Vernan, N. Y.	"How Consumers Union Evaluates Product Quality"	G-R	4/24/68
	Leon Winitsky Philadelphia Electric Co. Philadelphia, Pa.	"Ecology and EHV-UHV Transmission"	G-P	4/30/68
Pittsburgh	Richard A. Roxas Westinghouse Electric Corp. Pittsburgh, Pa.	"The Road Marked 2000"		1/10/68
	Tom Meloy Federal Aviation Agency Greater Pittsburgh Airport Pittsburgh, Pa.	"Air Traffic Congestion Problems Today"	G-P	1/15/68
	E. O. Johnson RCA Somerville, New Jersey	"The Maximum Rate of Energy Transfer in a Semiconductor--Its Effect on the Ultimate Performance Limits of a Transistor"	G-ED	2/8/68
	-R. G. Colclaser Westinghouse Corp. Pittsburgh, Pa. -G. A. Wilson McGraw-Edison Canonsburg, Pa. -Don Isles Allis-Chalmers Mfg. Co. Pittsburgh, Pa. -Fred Funari West Penn Power Co. Greensburg, Pa.	Panel Discussion:	G-P	2/13/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Pittsburgh (Cont'd.)	George R. Kamerer Radio Corporation of America Meadowlands, Pa.	"Metropolitan Transit Companies, Two Way Radios & Public Safety"	G-ComTech G-VT	3/12/68
	-Dr. J. P. Romualdi Carnegie-Mellon U -A. C. Strauss Port Authority of Allegheny -W. E. Sturm West Penn. Power Co. -W. J. Walker Westinghouse Airbrake Co. (Addresses Unknown) Contact Section Secretary: John H. Cronin 1146 Varner Road Pittsburgh, Pa. 15227	Panel Discussion: "Modern Transportation Systems"	G-P	3/18/68
	Dr. A. S. Grove Fairchild Semiconductor Research & Development Lab. Palo Alto, CA	"Surface Effects on P-N Junctions"	G-ED	3/21/68
Upper Monongahela (SS)	Dr. Robert E. Lee West Virginia University Morgantown, W. Va.	"The Human Visual System: A Nonlinear System Interacting With a Weird Computer"		1/18/68
	Dr. John Kenneth Hulm Westinghouse Research Labs. Pittsburgh, Pa.	"Superconductors-- Recent Developments & Possible Applications"		2/15/68
	Robert Clay Wilson West Virginia University Morgantown, W. Va.	"An Ultrasonic Flowmeter"		3/14/68
	Wesley A. Clark Washington University St. Louis, Missouri	"A New Modular Concept in the Design of Computer Systems"		4/2/68
	Mrs. Roberta Kauss Consolidated Gas Co. Clarksburg, W. Va.	"The Magic Suitcase"		4/26/68
Sharon	Dr. Paul Narbut Westinghouse Electric Corp. 469 Sharpsville Ave. Sharon, Pa.	"Corona"	G-P	2/14/68
Southern New Jersey	Gordon Stuart PJM Interconnection Office (Address Unknown) Contact Section Secretary: Howard L. McFann 40 Plaza Place Pleasantville, N. J. 08232	"Pennsylvania-New Jersey- Maryland Interconnection" (PJM)		1/18/68
	Dr. Kerns Powers R. D. A. Labs. Princeton, N. J.	"Advanced Communi- cations Technology"		2/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Southern New Jersey (Cont'd.)	John D. Feehan Atlantic City Electric Co. 1600 Pacific Avenue Atlantic City, N. J.	"Modern Trends in Nuclear Power"		3/21/68
Susquehanna	William H. Kumm Westinghouse Electric Co. Annapolis, Maryland	"Deep Ocean Technology"		1/9/68
	Merle V. Hoover RCA Somerville, N. J.	"Monolithic Integrated Circuits"		3/5/68
Washington	James R. Fendley, Jr. RCA Laboratories Princeton, N. J.	"Noble Gas Ion Lasers"	G-ED	1/8/68
	E. Grogan Shelor Department of Defense Pentagon, Washington, D. C.	"The DoD Tactical Satellite Communi- cations System"	G-R	1/8/68
	Derio Dalasta I. T. E. Circuit Breaker Co. Philadelphia, Pa.	"A New Ground Fault Pro- tective System for Electrical Distribution Circuits"	G-P	1/9/68
	Dr. Robert Ledley Bio-Medical Research 11200 Lockwood Drive Silver Spring, Md.	"Pattern Recognition in the Biomedical Sciences"	G-SSC	1/11/68
	Harold Kube Resources Development Assoc. Washington, D. C.	"Essence of Successful Management"	G-EM	1/15/68
	Carl Blake MIT, Lincoln Lab. (Address Unknown) Contact Section Secretary: Walter N. Pike 3111 Fallston Ave. Beltsville, Md. 20705	"Solid State Microwave Systems"	G-AES	1/16/68
	Edwin M. Turner Avionics Laboratory Wright-Patterson Air Force Base	"Subminiature Integrated Antennas and their Applications"	G-AP	1/16/68
	William J. Prysner USN Underwater Sound Lab. New London, Conn.	"EMC and Submarine Electronic Systems"	G-EMC	1/18/68
	Timothy Blancke Weston Instruments Boston, Mass.	"New Precision Audio Voltage Sources"	G-IM	1/22/68
	Seymour Okivit Airborne Instrument Lab. (Address Unknown) Contact Section Secretary: (See-above)	"Ultra Low Noise Techniques"	G-AES	1/30/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Washington (Cont'd.)	S. B. Weiner Stromberg-Carlson 7315 Wisconsin Avenue Bethesda, Md. Gordon Pearce (Address see-above)	"Electronic Switching- Problems of the Past and Hopes for the Future"	G-ComTech	1/30/68
	Arthur Markel Reynolds Metals (Address Unknown) Contact Section Secretary: (See-above)	"Aluminaut Operations"	G-GE	2/6/68
	Ray L. Ransome (Address Unknown) Contact Section Secretary: (See-above)	"The Land Mobile Radio Problem-and What is ( and is not) Being Done About It"	G-VT	2/7/68
	Curtis B. Plummer Federal Comm. Commission Washington, D. C.	"FM Broadcast Station Interference to TV Reception"		2/12/68
	Dr. L. R. Whicker Aerospace Division Westinghouse Corp. Baltimore, Md.	"Related Microwave Tech- nologies"	G-AES	2/13/68
	Dr. Robert W. House Battelle Memorial Inst. Columbus, Ohio	"G-SSC-The Self- Organizing Group"	G-SSC	2/15/68
	K. P. Allen General Electric Bethesda, Md.	"New Sources of Light"	G-P	2/20/68
	Richard C. Fenwick Collins Radio Corporation Dallas, Texas	"Airborne VLF Trans- mitting Antennas"	G-AP	2/20/68
	Robert Black U.S. Army Missile Command Redstone Arsenal, Alabama	"Management of Low Density Systems"	G-R	2/21/68
	Dr. Jack Hubbs E-H Research Lab. Oakland, CA	"What's Wrong with Pulse Instrumentation"	G-IM	2/26/68
	Prof. L. F. Eastman Cornell University Ithaca, New York	"Semi-Conductor Micro- wave Power Generation"	G-AES	2/27/68
	Dr. Leo Waldick U.S. Underseas Cable Corp. 5454 Wisconsin Avenue Chevy Chase, Md.	"Equalization of Seacable Systems"	G-ComTech	2/27/68
	Paul Lublin Bayside Lab., Research Center General Telephone & Electronics Laboratories, Incorporated Bayside, New York	"Electron Beam Analytical Techniques for the Study of Electronic Materials and Devices"	G-ED	3/4/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Washington (Cont'd.)	Robert D. Hogan IBM 18100 Frederick Road Gaithersburg, Maryland Robert Jefferson (Address see-above)	"Engineering Design Graphic Demonstration"	G-EC	3/6/68
	Dr. George C. Weiffenbach John Hopkins University (Address Unknown) Contact Section Secretary: (See-above)	"How Can We Use The Navy's Navigational Satellite System"?		3/11/68
	Roger R. Webster Texas Instruments (Address Unknown) Contact Section Secretary: (See-above)	"Microwave Integrated Circuit Technology"	G-MTT	3/12/68
	Prof. Robert Cosgriff University of Kentucky (Address Unknown) Contact Section Secretary: (See-above)	"Pattern Recognition"	G-SSC	3/13/68
	Edgard F. Vandivere Telcom, Inc. McLean Virginia	"Some Properties of Walsh Functions with Particular Reference to Signal Spectrum Analysis"	G-IT	3/13/68
	Robert D. Briskman Communication Satellite Corp. Washington, D. C.	"Domestic Communications Services via Satellites"	G-AP	3/19/68
	Alan D. Plait Communications & Systems Inc. Falls Church, Virginia	"Cooking Up Good Reliabil- ity with a Recipe for Parts Management"	G-R	3/20/68
	Dr. Arthur Kohlenberg Codex Corporation 222 Arsenal Street Watertown, Mass. 02172	"Convolutional Coding for Real Burst Channels"	G-ComTech	3/27/68
	Charles Osborn President's Task Force On Communication Policy (Address Unknown) Contact Section Secretary: (See-above)	"President's Communication Policy Task Force"	G-VT	3/28/68
	Carol M. Veronda NASA Electronics Research Ctr. Cambridge, Mass.	"Microwave Integrated Circuits and Power Sources"	G-ED	4/1/68
	Dr. Joseph Weber University of Maryland College Park, Md.	"Recent Experiments in Gravitational Theory"	G-GE	4/2/68
	A. Eugene Miller Auerbach Corporation 1501 Wilson Blvd. Arlington, Virginia	"The Specification of Electronic Message Switch- ing Systems"	G-C	4/3/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Washington (Cont'd.)	Charles DeVore Office of Naval Research (Address Unknown) Contact Section Secretary: (See-above)	"R&D Information Resources for Engineering Managers"	G-EM	4/15/68
	Dr. Paul S. Henshaw Inst. for the Achievement of the Human Potential Philadelphia, Penn. Dr. John S. Staley (Address see-above)	"Automation Cybernation and Human Potential"	G-SSC	4/18/68
	William Richter & Raymond Henshaw Melpar Inc. 7700 Arlington Blvd. Falls Church Va.	"Multimode Propagation Communication System"	G-ComTech	4/23/68
	Jack Q. Reynolds Collins Radio Company Cedar Rapids, Iowa	"Effects of Sustained Temperature Cycling on Electronic Parts"	G-R/ED/PMP	4/24/68
	Dr. Caesar Caceres Field Instrumentation Station PHS - 2121 K Street N. W. Washington, D. C.	"Clinical Applications of Physiological Instrumentation"	G-EMB	4/25/68
	Robert Muise Terradyne Inc. Boston, Mass.	"Analogical Measurements"	G-IM	4/29/68
	Dr. Bruce Faraday Naval Research Laboratory Washington, D. C. 20390	"Radiation Damage in Silicon Solar Cells"	G-NS	4/30/68

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Alabama	Bob Henson Southern Bell 1710 1st Avenue Birmingham, Ala.	"Management Information Systems"	G-ComTech	1/15/68
	J. W. Mitchell Southern Bell 1710 Bldg. Birmingham, Ala.	"Recent and Future Developments in Comm. Technology"		1/15/68
	T. D. Woods Alabama Power Co. 1200 6th Avenue No. Birmingham, Ala.	"Alabama Power Co.'s Communication System"	G-ComTech	2/12/68
	Jerry Vandegrift Southern Services, Inc. 600 North 18th St. Birmingham, Ala.	"Application of Under- frequency Relaying in USA"	G-P	2/12/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Alabama (Cont'd.)	-Dr. W. Edward Lear Univ. of Alabama -Gerald E. Hertig Anderson Elec. Corp. -A. R. Barton Alabama Power Co. -C. T. Happer Sou. Bell T. & T. Co. -Brown Saunders U. S. Steel Corp. (Addresses Unknown) Contact Section Secretary: Tasso Stavros 2106 So. 5 Street Birmingham, Ala. 35205	Panel Discussion: "After Graduation-What?"		2/12/68
	Jack L. Fink General Electric Co. Philadelphia, Penn.	"High Power Solid State Equipment Developments"		3/11/68
	P. W. Chapman Southern Bell 1710 1st Avenue No. Birmingham, Ala.	"Traffic Routing on the Toll Network"	G-ComTech	3/11/68
	R. A. Wilson Leeds & Northrup Co. North Wales, Pa. 19454	"Supervisory Control and Data Acquisition- Consideration in System Design.	G-P	3/11/68
	John T. Hartley, Jr. System Div., Radiation Inc. Melbourne, Florida	"The Wonderful World of Integrated Circuits"		4/8/68
	S. H. Pettersen Allis-Chalmers Co. Milwaukee, Wis.	"The Nature of Distribution System Ferroresonance"	G-P	4/8/68
	G. H. Speake Southern Bell 701 S. 20th St. Birmingham, Ala.	"Common Control Switching Arrangements" (C. C. S. A)	G-ComTech	4/8/68
Atlanta	C. L. Wagner Westinghouse Electric Corp. Pittsburgh, Penn.	"Considerations for the Design of the VEPCo 500 Kv System"		1/15/68
	M. A. Thigpen Lockheed-Georgia Co. Marietta, Georgia D. W. Matthias (Address see-above) B. Pearson (Address see-above) J. C. Shifman (Address see-above) D. Vrooman (Address see-above)	"EMC Problems, Definitions, and Terminology in the Atlanta Area"	G-EMC	1/23/68
	J. T. Mattison Southern Railroad Atlanta, Georgia	"Electronics Applied to Railroading"		2/19/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Atlanta (Cont'd.)	M. Euell Wade, Jr. Georgia Power Co. P. O. Box 4545 Atlanta, Georgia 30302	"Underground Residential Distribution"	G-P	2/20/68
	Dr. R. E. Totty Radiation Inc. Melbourne, Florida	"Coding In Telemetry Systems"	G-ComTech	2/26/68
	William R. Free Georgia Institute of Technology Atlanta, Georgia Carlton Craddock Scientific-Atlanta, Inc. 3845 Pleasantdale Road Doraville, Georgia 30040	"Radiated EMI Measure- ments in Shielded En- losures" "S-A Model 1710 Micro- wave Receiver"	G-EMC "	3/12/68 "
	L. E. Moser Westinghouse Electric Corp. Atlanta, Georgia	"Rebirth of the Electric Car"	G-P	3/18/68
	John B. Allen Lockheed-Georgia Co. Marietta, Georgia 30060	"HOLOGRAPHY"		3/18/68
	J. B. Berry Southern Bell Tel. & Tel. Co. Atlanta, Georgia	"Overload Performance of Radio and Carrier Systems Due to Data Transmission"	G-ComTech	3/25/68
	J. C. Wyche General Electric Co. Philadelphia, Pa.	"Custom Power"	G-P	4/15/68
	Dr. T. W. Jackson Ga. University System Graduate Div., Ga. Tech. Atlanta, Georgia	"Georgia's Future in Oceanography"		4/15/68
Macon-Warner Robins (SS)	Jack V. Manning Southern Bell Telephone Atlanta, Georgia	"What's Ahead in Communications"		1/25/68
	A. T. Cline, Jr. Federal Communications Comm. Atlanta, Georgia	"FCC "Field Inspection and Monitoring"		2/29/68
	Floyd Holmstead Lockheed of Georgia Co. Atlanta, Georgia	"Films on Aircraft Development and Canadian Air Force Use of Cargo Transports"		4/25/68
Rome (SS)	Dr. John H. Venable Georgia Dept. of Public Health Atlanta, Georgia	"Engineering Design for World Health"		2/22/68
	Wesley Johnson Georgia Power Co. Rome, Georgia	"Nuclear Power Comes to Georgia"		4/22/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Baton Rouge	Henry R. Hahn Infranor of North America, Inc. (Address Unknown) Contact Section Secretary: David L. Bourgeois 9818 Yellowstone Drive Baton Rouge, LA 70814	"Lighting a Major League Baseball- Football Stadium for Color TV"		1/17/68
Lafayette(SS)	Hugh O. Bourque Ethyl Corp. Baton Rouge, Louisiana	"Service Interruptions - Effects on Equipment and Cost of Lost Product"		1/10/68
	R. D. Love Central Excavation Co. (Address Unknown) Contact Section Secretary: (See-above)	"Crimes Against Industry in Louisiana"		2/19/68
	Leo Braswell Schlumberger Well Surveying Lafayette, Louisiana	"Mechanical & Electrical Phenomena of Electrical Well Logging"		3/13/68
Canaveral	Sam P. Hertsperger Radiation Inc. Melbourne, Fla.	"The Role of the Program Manager"	G-EM	1/11/68
	Don White White Electromagnetics Inc. Rockville, Maryland	"EMC Antennas and Antenna Factors"	G-EMC	1/15/68
	Major General David M. Jones Air Force Patrick Air Force Base, Florida	"Operational Aspects of Technical Progress"		1/18/68
	Donald T. Worthington Research & Development Div. Defense Comm. Agency Washington, DC	"Advances in Strategic Comm. Systems"	G-ComTech	1/22/68
	Charles M. Clarke General Electric Co. Daytona Beach, Florida	"Conclusions of NASA/ MAR Electromagnetic Compatiblilty Workshop Seminar"	G-R	1/22/68
	S. A. DeMars NASA Kennedy Space Center, Florida	"Introduction to Solid State"	G-P	1/25/68
	J. L. Layne Southern Bell Orlando, Florida	"Communications Planning to Care for Florida's Growth"	G-EM	2/28/68
	Dr. John E. Condon NASA Headquarters Washington, D. C.	"NASA R&QA - Progress And Prospects"	G-R	2/12/68
	Zeno Klinker (Address Unknown) Contact Section Secretary: Alfred A. Pollock 515 Seabreeze Drive Melbourne, Fla. 32901	"High'n a Kite"		2/16/68

Section Subsections (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Canaveral	W. O. Kirchner The Rucker Company Oakland, CA	"FLUIDICS"	G-P	2/29/68
	George Parker Martin-Marietta Orlando, Florida	"The Science of Management"	G-EM	3/14/68
	George D. Boggs Southern Bell Tel. & Tel. Co. Orlando, Florida	"Transmission Aspects of the Telephone Switched Network"		3/18/68
	Jim Kress and Art Hanak Pan American World Airways Patrick Air Force Base, Florida	"Air Force Eastern Test Range (AFETR) Frequency Control and Analysis Facility (FCA)"	G-EMC	3/26/68
	George D. Boggs (Address see-above)	"Transmission Considerations for Telephone Facilities"	G-ComTech	3/18/68
	A. E. Hunt Boeing P. O. Box 1698 Cocoa Beach, Florida	"System Engineering-The Dynamic Approach to Management"	G-EM	4/11/68
	Donald M. Powers NASA Kennedy Space Center, Florida	"Current Problems in Space Electronics, Avionics and Power Systems"		4/17/68
Central Virginia	Malcolm C. Hope U. S. Surgeon General's Office Washington, D. C.	"Engineering-Design For World Health"		2/22/68
	Dr. E. O. Attinger University of Virginia Charlottesville, Virginia	"Models of the Cardiovascular System"		4/2/68
	Charles M. Heiden General Electric Co. Schenectady, New York	"The Electric Automobile"		4/29/68
Charlotte	Samuel F. Fordyce Apollo Applications Program NASA Washington, D. C.	"Space Flight Communications"		1/8/68
	Howard H. Stevens Babcock & Wilcox Controls Lynchburg, Virginia	"Nuclear Plant Instrumentation & Control"	G-P	1/15/68
	L. E. Moser Westinghouse Electric Corp. Atlanta, Georgia	"Rebirth of the Electric Automobile"		2/12/68
	A. M. Lockie Westinghouse Electric Co. Sharon, Penn.	"Transformer Cost Reductions Can Be Expensive"	G-P	2/19/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Chattanooga	William T. Reid Battelle Memorial Institute (Address Unknown) Contact Section Secretary: Charles L. Ballentine 4505 Payton Blvd. Chattanooga, TN 37415	"Kilowatts for Cars"		1/16/68
	Joseph D. Creel Southern Bell Telephone Co. Atlanta, Georgia	"A Survey of Radio Engineering Trends"		3/19/68
Daytona	Edward J. Gurney Representative of the 5th District of Florida in the U. S. Congress (Address Unknown) Contact Section Secretary: Ken G. Phillips 182 Royal Dunes Circle Ormond Beach, FL 32074	"The Role of Congress in the NASA Space Program"		1/5/68
	David Lambert Florida Computer Time-Sharing Coca Cola Associates Ft. Lauderdale, Florida	"Time-Sharing Twice"	G-C	1/24/68
	Dr. John E. Condon NASA Headquarters Washington, DC	"NASA Reliability and Quality Assurance-Progress & Prospects"		2/12/68
	Kenneth Howell IBM Tallahassee, Florida	"Computer-Assisted Instruction"	G-C	3/21/68
	James W. Johnson NASA Kennedy Space Center (Address Unknown) Contact Section Secretary: (See-above)	"Moon Exploration-Surveyor Project"		3/22/68
	Dr. Carroll B. Gambrell Florida Technological Univ. Orlando, Florida	"FTU-Florida Newest Coeducational University"		4/24/68
Eastern North Carolina	Clint DeGabrielle Call-a-Computer, Wade Avenue Raleigh, North Carolina	"Call-A-Computer System"		2/9/68
East Tennessee	William H. Stinson Westinghouse Electric Corp. East Pittsburg, Penn.	"Advanced Methods of Energy Conversion"		1/9/68
	Dr. A. L. Duke Tennessee Technological Univ. Cookeville, Tenn.	"Recent Developments of Electrical Engineering Dept., Tennessee Technological University"		2/13/68



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
East Tennessee	Dr. J. C. Dowdle University of Alabama Huntsville, Alabama	"Growth of University of Alabama in Huntsville"		3/12/68
Upper East Tennessee (SS)	Dean Arthur Hanson (Address Unknown) Contact Subsection Secretary: Jack M. Brickey 305 Tompkin Street Kingsport, Tenn. 37600	"Is There an Engineer in the House"		2/23/68
	Herb C. Mahan IBM Kingsport, Tenn.	"IBM 1130 Computer"		4/8/68
Evansville- Owensboro	Wyman L. Deeg New Products Engineering, Inc. Santa Monica, CA	"Reed Switches for Fast Relay Logic"		1/16/68
	Howard Pyle National Safety Council (Address Unknown) Contact Section Secretary: Howard P. Frederick R. R. 5 Box 326 Evansville, IN 47711	"Safety"		2/22/68
	Nat J. Cornfeld General Electric 316 East 9th Owensboro, KY	"What An Engineer Should Know About Patents"		4/24/68
Paducah (SS)	Norman Shackman Burndy Corporation Cincinnati, Ohio	"Design Consideration for Development of an Electro Process Switch in High Current Applications"		1/16/68
	Paul Berry Department of Health of NYS Albany, New York	"Air Pollution Legislation and Regulations"		2/14/68
	Jim Hartley Tennessee Valley Authority Chattanooga, Tennessee	"Radio and TV Interference Studies"		3/19/68
	- John Novy	"New Techniques in Visual Aids"		4/16/68
	- George Humphreys	"Computer Programming"		"
	- John Hallett (Addresses Unknown) Contact Subsection Secretary: Vernon S. McDouals 604 Hillside Drive Mayfield, KY 42066	"A Transistorized Electro-Neutral Stimulator"		"
Florida West Coast	Frank Sheram Cutler-Hammer, Inc. Tampa, Florida	"Basic Principles of Static Logic Circuitry"	G-P	1/24/68
	W. W. Mumford Bell Telephone Labs. Whippany, N. J.	"Noise Performances Factors in Communications Systems"	G-MTT	1/25/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Florida West Coast (Cont'd.)	Tore N. Anderson Amphenol R. F. Div. Danbury, Conn.	"New Coaxial Standards"	G-MTT	2/22/68
	Dr. H. J. Humm U. S. F. Marine Science Institute St. Petersburg, Florida	"Activities, Plans & Facilities of the Marine Science Institute"		3/20/68
	Charles Wagner Disneyworld Orlando, Florida	"Latest Plans For Disneyworld"		4/11/68
	Norment Pittman E. C. I. St. Petersburg, Florida	"Multiplex Techniques and Applications"	G-ComTech G-B/VT	4/16/68
	R. E. Proctor Paul Pearson R. Scarborough Hartley Wall (Address Unknown) Contact Section Secretary: L. M. Butsch, Jr. 1590 Bel-Keene Drive Clearwater, FL 33516	"Power Company Voltage Balance Policies"	G-P	4/24/68
	Dr. Kaneyuki Kurokawa Bell Telephone Lab. Murray Hill, New Jersey	"Bulk Semiconductor High Speed Functional Devices"	G-MTT	4/25/68
Fort Walton	Colonel Coby U. S. Air Force Eglin AFB, FL	"The Air Force Academy"		2/20/68
	Keith Gilbert Watkins John Company (Address Unknown) Contact Section Secretary: William M. Gilbert 136 Virginia Drive Ft Walton Beach, FL 32548	"Theory and Application Of YIG Devices"		4/4/68
Gainesville	J. Early Bell Telephone Labs. (Address Unknown) Contact Section Secretary: Jack R. Smith University of Florida Elect. Engrg. Dept. Gainesville, FL 32601	"Recent Advances in Linear Integrated Circuits"		3/26/68
Hampton Roads	A. Tinkelenberg Arinc Research Corp. 2551 Riva Road Annapolis, Maryland 21401	"U. S. Navy Program of Reliability and Main- tainability"		1/30/68
	Dr. Newton C. Birkhead General Electric Co. Philadelphia, Penn.	"Contribution of Engineering to World Health"		2/23/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Hampton Roads (Cont'd.)	Eugene Von Fange General Electric Co. TV Manufacturing Plant Portsmouth, Virginia	"General Electric Co. Portsmouth, Virginia Television Plant"		3/26/68
	Samuel S. Bowles, Jr. Virginia Electric & Power Co. Yorktown Power Generating Sta. Yorktown, Virginia	"Power Station Instrumentation and Control Systems"		4/24/68
Muscle Shoals (SS)	C. W. Riley Reynolds Alloys Co. Listerhill, Alabama	"Operations of Reynolds Alloys Co."		1/22/68
	Leonard Ray Smith Tennessee Valley Authority Chattanooga, Tennessee	"Design and Test of 500-Kv Equipment"		2/26/68
	L. W. Jenkins TVA Muscle Shoals, Alabama	"TVA's Microwave Equipment"		3/25/68
Jacksonville	Russell O. Ohlson, Square D. Company Lexington, Kentucky	"Procedure for Determining Maximum Short Circuit Values in Electrical Dist. Systems"		1/15/68
	O. W. Willingham Southern Bell Tel. & Tel. Co. Jacksonville, FL	"Engineering a Forced Drainage Corrosion Protection System for Underground Cables at Pensacola, Florida"		3/11/68
Lexington	Walter T. Sutton Texas Instruments, Inc. (Address Unknown) Contact Section Secretary Lawrence D. Sanson 3213 Tudor Drive Lexington, KY 40503	"Integrated Circuits"		1/17/68
	Dr. Robert L. Cosgriff Electrical Engineering University of Kentucky Lexington, KY Prof. David K. Blythe University of Kentucky Lexington, KY	"Professionalism in Engineering"		3/8/68
	Dr. G. R. Boyd (Address Unknown) Contact Section Secretary: (See-above)	"Continuing Education Program at University of Kentucky"		"
	Dr. G. R. Boyd (Address Unknown) Contact Section Secretary: (See-above)	"Technical Employees"		4/25/68
Louisville	Donald J. Scheer University of Louisville Louisville, Kentucky	"Radio Astronomy"		1/19/68
	Donald L. Hinton International Business Machines Louisville, KY	"The Role of Computers in Electrical Engineering"		3/7/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Louisville (Cont'd.)	Lee C. Thomas Bell Telephone Laboratories Murray Hill, N. J.	"Computer Simulation of Electronic Networks"		3/7/68
	Dr. Earl R. Gerhard Speed Scientific School Louisville, KY	"Transistor Distortion Study Using Computer Simulation"		"
	Dr. Ergin Cipitioglu (Address see-above)	"The Continuous System Modeling Program-An Application to Chemical Reactor Design"		"
	Robert L. Royer Louisville Gas & Electric Co. Louisville, KY	"Structural Analysis and Design"		"
	Robert L. Royer Louisville Gas & Electric Co. Louisville, KY	"Supplying the Power Requirements of Louisville"		4/26/68
Memphis	R. B. Cook General Electric Co. Gainesville, FL	"Nickel-Cadmium Batteries"		1/16/68
	Walter H. Borlase Analog Devices 221 Fifth Street Cambridge, Mass.	"The Operational Amplifier"	G-EMB	1/18/68
	Frederick E. Fuchs Ohio Brass Company New Orleans, Louisiana	"THORTEC"	G-P	2/12/68
	George Hanchett Radio Corporation of America Harrison, N. J.	"Considerations in the Application of Integrated Circuits in Bio-Medical Instrumentation"		2/15/68
	Paul Combs Christian Brothers College Memphis, Tenn. David Galicia (Address see-above) Rodney Goke (Address see-above)	"Development of Synthetic Oral Cavity Resonators"		3/19/68
	R. S. Smithley Federal Pacific Electric Newark, New Jersey	"The Effects of Feeding Periodic Binary Signals into Logic Elements"		"
	R. S. Smithley Federal Pacific Electric Newark, New Jersey	"Minimum Oil Circuit Breakers"	G-P	3/11/68
	Kenneth R. Griswald Signatron, Inc. (Address Unknown) Contact Section Secretary: Dwight J. Garrison 6626 Prince Edward Place Germantown, TN 38038	"A Plug-in Modular Telemetry System for Medical Application"	G-EMB	3/21/68
	Harold Truner Memphis Light Gas & Water Memphis, Tenn. Bill Robinson (Address see-above) Milton Parnell (Address see-above)	Panel Discussion: "High Voltage Distribution"	G-P	4/16/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Memphis	M. D. Woolsey Digital Equipment Corp. Maynard, Mass. James McEwen (Address see-above)	"Computer Displays"	G-EMB	4/18/68
Jackson (SS)	Jessie Pinkley Milan Army Ammunition Plant Milan, Tennessee	"Operations of the Milan Army Ammunition Plant"		1/9/68
	Harold Black (Address Unknown) Contact Subsection Secretary: Hubert H. Williams Route 7 Jackson, Tenn. 383013	"Two Faces of the Engineer"		2/20/68
	Major William I. Chapman Tennessee National Guard (Address Unknown) Contact Subsection Secretary: (See-above)	"Civil Disturbances & Riot Control"		3/12/68
	Gene A. Dodson U. S. Army Corp. of Engineers (Address Unknown) Contact Subsection Secretary: (See-above)	"Flood Control In The Lower Mississippi Valley"		4/9/68
Miami	Michael Pelinski Rebikoff Underwater Products, Inc. 2040 SE 17th St. Fort Lauderdale, Florida	"Electrical and Electronic Engineering Underwater"		1/23/68
	W. J. Raynes IBM 2125 Biscayne Boulevard Miami, Florida	"Use of Computers For Simulation in Engineering Design"		2/27/68
	Dr. Jacob Kline University of Miami School of Engineering Miami, Florida 33124 John H. Clotworthy (Address see-above)	"Impact on Industry and Education in South Florida of Biological and Medical Engineering"	G-EMR	3/26/68
	Philip M. Mathis Southern Bell Tel. & Tel. Co. 1560 Lennox Avenue Miami Beach, Florida	"Preparation of Communication Facilities for the 1968 Republican National Convention"		4/23/68
Middle Tennessee	Walter Boriase Analog Devices Cambridge, Mass.	"The Operational Amplifier"	G-AES	1/12/68
	W. R. Cooper Tennessee Valley Authority Knoxville, Tennessee	"Nuclear Power on TVA System"	G-P	2/14/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Middle Tennessee (Cont'd.)	Dr. B. W. Marschner Colorado State University (Address Unknown) Contact Section Secretary: Charles L. Owens 306 Edgewood Drive Tullahoma, TN 37388	"Engineering---For World Health"		2/22/68
	Larry Hunt Telesis Corporation (Address Unknown) Contact Section Secretary: (See-above)	"CATV Installation and Services"		3/21/68
	C. M. Awad Raytheon Company (Address Unknown) Contact Section Secretary: (See-above)	"Integrated Circuit Fabrication"		4/17/68
	R. E. Bohn Sylvania Corporation (Address Unknown) Contact Section Secretary: (See-above)	"The Effect of Process Characteristics and Control on Integrated Circuit Design and Specification"		"
Mississippi	J. D. Styers Southern Bell Tel. & Tel. Co. Nashville, Tenn.	"Processing Telephone Calls Electronically"		1/11/68
Northeast Mississippi (SS)	J. L. Caldwell Southern Bell, Tel. & Tel. Co. Jackson, Mississippi	"The Growing Bell Systems Digital Network"		1/16/68
	Tom Beoudrot Tennessee Valley Authority Tupelo, Mississippi	"Shorelines of Progress"		3/12/68
Mobile	Floyd L. Curtis General Electric Co. Birmingham, Alabama	"Static Control"		1/22/68
	Earl Hammel Ingalls Ship Yard (Address Unknown) Contact Section Secretary: James I. Meredith 1050 Fribourg Mobile, Ala. 36608	"InterEngineer Society Council-Engineer's Week"		2/21/68
	Joseph T. Spieth U. S. Army Corps of Engineers Mobile, Ala.	"Reversible Pump- Turbine Units"		3/4/68
	J. B. King Southern Bell Telephone Co. Birmingham, Ala.	"Project Apollo"		3/25/68
	Robert O. Usry Southern Company Birmingham, Alabama	"Power Pool Operations"		4/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Nashville	L. H. Montgomery Vanderbilt University West End Avenue Nashville, Tenn. 37203	"Introduction to Medical Electronics"		1/4/68
	Lloyd Schmidt Nashville Glass Plant Ford Motor Co. Nashville, Tenn.	"Process Computer Control in Glass Making"		2/1/68
	Dr. A. L. Duke Tennessee Technological Univ. Cookeville, Tenn.	"Engineering at Tennessee Technological University"		3/7/68
	Dr. R. W. Benson Robert W. Benson Assoc. Inc. (Address Unknown) Contact Section Secretary: James C. Campbell Jr. 4003 Moss Rose Drive Nashville, TN 37216	"Research for Profit"		4/4/68
New Orleans	P. G. Dehuff Westinghouse Electric Co. (Address Unknown) Contact Section Secretary: James W. Joyner 3120 N. La Barre Road Metairie, La. 70002	"Nuclear Power Development Trends"		1/18/68
	Dr. Martin Litwin Tulane University School of Med. New Orleans, La.	"Hazards of Lasers and Laser Systems"	G-EMB	1/24/68
	Gerald Andrus Middle South Utilities New Orleans, Louisiana	"Problems of Modern Utilities"		2/12/68
	Ralph G. Tobelman Tulane University New Orleans, Louisiana	"Image Presentation of Computer Generated Data"		3/12/68
	James G. Fiasconaro (Address see-above)	"Graphical Output From Digital Computers"		"
	John Larkin (Address see-above)	"Tunnel Diode Slide Back Sampling Oscilloscope"		3/12/68
	C. J. Domiano Gulf Coast Telephone Company New Orleans, La.	"Environmental Problems Connected with the Installation and Maintenance of a Submarine Co-Axial Cable System in the Gulf of Mexico"	G-ComTech	3/28/68
	Dr. Otto Fredrick Jr. (Address Unknown) Contact Section Secretary: (See-above)	"Industrial Application of Lasers"		4/18/68
Oak Ridge	J. C. Haydon Oak Ridge Electrical Department Oak Ridge, Tennessee 37830	"Underground Residential Distribution"		1/11/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Oak Ridge (Cont'd)	William H. Sorenson Industrial Controls Division Bendix Corporation Chicago, Illinois	"Numerical Control, State-of-the-Art"		2/8/68
	F. A. Dale (Address Unknown) Contact Section Secretary: James W. McConnell 226 N Purdur Apt. 304 Oak Ridge, Tenn. 37830	"How Pumped Storage Hydroelectric Generation Pays Off"		3/14/68
	R. E. Worsham Oak Ridge National Laboratory Box X Oak Ridge, Tennessee 37830	"High Resolution Electron Microscopy"		4/17/68
Orlando	Dr. Herbert Pascalar Aerojet-General Corporation Los Angeles, CA	"Recent Advances in Millimeter Radiometry"	G-MTT	1/10/68
	Russell O. Ohlsen Square D. Company Lexington, KY	"Procedure for Determining Maximum Short Circuit Values in Electrical Distribution Systems"	G-P	1/16/68
	A. S. Hall Federal Aviation Agency Jacksonville, FL	"Advanced Air Traffic Control Systems"	G-AES	1/17/68
	Dr. Lothar Frenkel Electronic Research Center NASA Boston, Mass.	"Velocity of Light Measurements Using the Hydrogen Cyanide Laser"	G-MTT	1/24/68
	Dr. George Birnbaum North Amer. Aviation Science Thousand Oaks, CA	"Stabilization of Gas Laser Systems"	G-MTT	2/14/68
	Dr. Vernon E. Derr ESSA/ITSA Boulder, Colorado	"The Research Program of ESSA"	G-MTT	3/13/68
	Dr. R. H. Simpson E. S. S. A. U. S. Government Miami, FL	"Electronics Systems Used in Hurricane Forecasting"	G-AES	3/20/68
	William J. Kahn Martin Company Orlando, FL	"ALDAP: A Completely Integrated Design Automation System"	G-C	3/20/68
	Charles Wolff Florida Power & Light Co. Miami, FL	"Nuclear Energy for Power Plants"	G-P	3/26/68
	Dr. Martin C. Steele RCA Princeton, N. J.	"From NEMAG TO LSA-Progress In Bulk"	G-MTT	3/27/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Orlando (Cont'd)	Dr. Anthony J. DeMaria United Aircraft Research Labs. Hartford, Conn.	"Ultrashort Optical Pulses"	G-MTT	4/10/68
Panama City	Reuben Thomas Southern Services Co. Birmingham, Alabama	"Nuclear Reactors"		2/23/68
	Dr. Raymond J. Hock Northrop Corp. Laboratories Hawthorne, CA	"Bio-Engineering"		3/14/68
	R. H. Frame Consolidated Electrodynamics Huntsville, Alabama	"The Magnetic Tape Instru- mentation Recorder, Its Cap- abilities and Use"		4/18/68
	R. B. Tolliver (Address see-above)	"Piezo Electric Transducer Applications"		"
Pensacola	Jack L. Haskins Gulf Power Co. 75 N. Pace Blvd. Pensacola, FL 32502	"Industrial Diamonds, Location and Uses"		1/22/68
	E. C. Gaston Southern Services Inc. Birmingham, Alabama	"Engineering-Opportunities Unlimited"		2/21/68
	Mrs. Oneida P. Carpenter Pensacola Junior College 1000 College Blvd. Pensacola, FL 32504	"The Pensacola Junior College Educational T. V. Program"		3/25/68
	Ruble A. Thomas Southern Services, Inc. Birmingham, Alabama	"Nuclear Steam Generators in Electric Generating Plants"		4/22/68
Richmond	Dr. Harry Leidheisen Va. Institute for Sci. Res. Richmond, Virginia	"Corrosion"		1/11/68
Savannah	Stacey Halfhill General Electric Co. (Address Unknown) Contact Section Secretary: W Stewart Hines P. O. Box 570 Savannah, GA 31402	"Utilities Ties With Industrial Power Gene- rating Systems"		1/4/68
	General Roy Meszar U.S. Army Hunter Army Air Base	"Informal Talk"		2/24/68
	W. S. Hines Union Camp Corp. Savannah, Georgia	"Industrial Electrical Controls"		4/14/68
South Carolina	Col. Ira W. Cory Electrical Engineering Dept. The Citadel Charleston, South Carolina	"Developments in the Electrical Engineering Curriculum"	G-AES	4/9/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Central Savannah River (SS)	Joe Malloy Kimberly-Clark Aiken, South Carolina	"Kimberly-Clark Industrial Development in the CSRA"		1/17/68
	Dr. William Pollard (Address Unknown) Contact Subsection Secretary: Robert L. Newton 538 Banks Mill Road Aiken, S. C. 29801	"Science and Mystery"		2/17/68
Charleston (SS)	Dr. F. S. Bryant Burlington Mills Lab. Burlington, N. C.	"Traveling Wave Tubes"		1/11/68
	Dr. Curtis P. Artz Medical College Charleston, S. C.	"Engineers and Surgeons in World Health"		2/22/68
Columbia (SS)	E. H. Crews South Carolina Elec. & Gas Co. South Carolina	"The Critical Path Method of Job Planning & Control"		3/11/68
Piedmont (SS)	Tom Cox Walker & Whiteside Contractors Greenville, South Carolina	"Automation in Textile Industry"		1/18/68
	Harold Walters Square "D" Company Milwaukee, Wisconsin	"Solid State Controls"		2/15/68
	James M. Davis Clemson University Clemson, S. C. 29631 Sidney P. Kersey (Address see-above)	"Implementation of Correlation Analysis on a Hybrid Computer System"		3/21/68
	L. R. Gower Southern Bell Telephone Columbia, S. C.	"Technical Groups Sponsored by IEEE"		4/17/68
Virginia Mountain	Chester L. Buchanan Naval Research Laboratory Washington, D. C.	"Useful Work in the Sea"		1/12/68
	Dr. Willis G. Worcester Virginia Polytechnic Inst. Blacksburg, Virginia	"Facets of Engineering Education"		2/22/68
Western North Carolina	Joe Riehl ITE Circuit Breaker Company Charlotte, N. C.	"Arcing Ground Fault Protective System"		1/23/68
	C. J. Wylie Duke Power Co. Charlotte, N. C.	"Affiliation of N. C. Sections IEEE" "Scope and Status of the Keowee-Toxaway Nuclear Power Project"		3/26/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Western North Carolina (Cont'd)	L. C. Smith Ecusta Paper Div. Olin Mathieson Inc. Brevard, N. C. E. L. Parker Westinghouse Electric Corp. Charlotte, N. C.	"Solid State Backstand Winder Drive"		4/23/68
Winston-Salem	E. L. Thomas Duke Power Co. Terrel, N. C.	"Highly Computerized Marshall Steam Plant"		1/18/68
	J. C. Bregar Western Electric Co. Allentown, Pa.	"Recent Visit to Russia by IEEE Representatives"		2/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Arrowhead	Dave Evenson Minnesota Mining and Manufacturing Co. St. Paul, MN	"High Voltage Splicing and Terminating Practices"		2/22/68
Cedar Rapids	Dr. I. A. Lesk Motorola Semiconductor Products Div. Phoenix, AR	"State-Of-The-Art Components"		2/12/68
	Harvey S. Long I. B. M. Poughkeepsie, NY	"New Electronic Teaching Aids"		3/11/68
	Prof. Joseph E. Rowe University of Michigan Ann Arbor, MI	"Electrical Engineering in the Soviet Union"		4/29/68
Central Illinois	Edward Mason (Address unknown) Contact Section Secretary William L. Piper Ill. Bell Tel. Co. 225 South 4th Street Springfield, IL	"Nuclear Fuel Manage- ment Program"		1/23/68
Central Indiana	Dr. Homer Fay Linde Air Products Indianapolis, IN	"Man-made Gen Stones"		1/11/68
	James Naegle Indianapolis Office of the FBI Indianapolis, IN	"Modern Methods of Crime Detection"	G-A&E	3/14/68
	Dr. Seymour W. Herald Westinghouse Electric Corp. (Address unknown) Contact Section Secretary Ronald F. Cruthers 7855 Fall Creek Road Indianapolis, IN	"Engineers Role in Society"	"	4/11/68
Bloomington (SS)	Barry Dixon Westinghouse Electric Corp. Bloomington, Ill. Jack Hallam Westinghouse Electric Corp. Bloomington, IN	"Historic Development of Ceramics--Art & Science"		2/22/68
		"Problems of Firing & Glazing"		"
Central Iowa	P. M. Browne Bell Telephone Labs. Holmdel, NJ	"Picture Phone - The Latest in Telecommuni- cations"		1/23/68
	Frank Heidebauer Ravin Industries Sious Falls, SD	"Experiments with Thin Film Plastic Balloons"		2/8/68
	Dr. G. R. Town Iowa State University Ames, IA	"Current Trends in Engineering Education"		4/23/68

Section Subsection (SS)	Speaker and Address	Title of Paper	Group Code	Date Presented
Chicago	George H. Applegren James H. Wear Commonwealth Edison Co. Chicago, IL	"Coordinated Planning and Operation of Midwest Electric Power Systems"	G-P	1/9/68
	R. D. Swensen Communications Satellite Corp. Washington, D. C.	"State of the Art in Satellite Communications"	G-ComTech	1/18/68
	Jim Glasser Motorola, Inc. 4501 West Augusta Blvd. Chicago, IL	"Adjacent Channel Interference in FM Communications Systems"	G-VT	1/19/68
	Robert J. Petersdorf Ronald J. Harsevoort Wisconsin Electric Power Co. Milwaukee, WI	"Computer Control of Electric Power Generation"	G-IGA	1/24/68
	Jim Glasser Motorola Inc. 4501 W. Augusta Blvd. Chicago, IL	"Adjacent Interference in FM Systems"	G-VT	1/25/68
	Kenneth Read United Airlines Chicago, IL	"Intelligibility of Speech with Reduced Bandwidths"	"	"
	Eugene B. Shea Davies-Shea, Inc. Chicago, IL	"The Road Up The Organization Chart"	G-EM	"
	Dr. George Swenson National Radio Astronomy Observatory Green Bank, VA	"Correlator Arrays in Radio Astronomy"	G-AP	1/29/68
	J. G. Valassis Automatic Electric Labs. Inc. Northlake, IL	"Pico-Programmed Computer Control"	G-C	1/30/68
	W. R. Wedmore Automatic Electric Labs. Inc. Northlake, IL	"Overseas Autovon"	"	"
	Dr. R. Straatbucker (Address unknown) Contact Section Secretary Robert J. Nunamaker 303 S Des Plaines Avenue Forest Park, IL 60130	"Monitoring and Diagnosing EKG by Telemetric Com. in State of Nebraska"	G-EMB	2/13/68
	Edwin Turner Wright Patterson AFB (Address unknown) (See-above)	"Subminiature Integrated Antennas"	G-AP	2/15/68
	Dr. Robert C. Shair Gulton Industries, Inc. Metuchen, NJ	"Lithium Fluoride Battery for Electronic Car"	G-P	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Chicago (Cont'd.)	James Taylor Illinois Central Railroad Chicago, IL	"Communications on the Modern Railroad"	G-VT	2/20/68
	Dr. Earl Harford (Address unknown) (See-above)	"Current Status of the Modern Hearing Aid - A Review of Hearing Loss."	G-A&E	2/21/68
	Donald Hodges Argonne National Lab. Argonne, IL	"Polly: An Interactive Bubble Chamber Film Measuring Device"	G-C	2/22/68
	Fred Currier Chicago Police Dept. Chicago, IL	"EDP in the Chicago Police Dept. Plans and Application"	"	"
	Dr. Robert Duffield Argonne Nat. Laboratory Argonne, IL 60439	"Evolutionary Aspects of Engineering Design"	G-NS	3/12/68
	Carl Zaander Gen. Am. Trans. Corp. Niles, IL	"Water Pollution's Challenge to Automatic Control"	G-AC	3/19/68
	Kenneth M. Watkins Westinghouse Electric Corp. Buffalo, NY	"Impact of Solid State Control"	G-IGA/IECI	3/21/68
	Charles Clos Am. T & T 195 W. Broadway, New York, NY	"State of the Art in International Communications"	G-ComTech	3/28/68
	Harry F. Olson RCA Labs. Princeton, NJ	"Trends in Sound Reproduction Research"		4/11/68
	Prof. David A. Landgrebe Purdue Univ. Lafayette, IN	"An Information System in Agriculture Through Remote Sensing"	G-IT	"
	Bernard Kahn Ward Rogers Comm. Service Chicago, IL	"The Many Faceted RCC Industry"	G-VT	4/23/68
	Bob Hajek PIC Communications Service Chicago, IL	"	"	"
	T. Charlton E. Book (Addresses unknown) (See-above)	"Rupturing Concrete with Microwave Energy"	G-MTT	4/30/68
Calumet (SS)	Albert Nathan Nuclear Division Sargent & Lundy Chicago, IL	"Nuclear Power Plants, The State of the Art and a Look into the Future"		1/8/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Calumet (SS) (Cont'd.)	Uldis A. Kakulis Allis Chalmers Res. Div. West Allis, WI	"State of the Art of Fuel Cell Systems"		2/12/68
	J. Kunes Westinghouse Elec. Corp. Sharon, PA	"Advancement in Power Transformer Art"		3/11/68
Fox Valley (SS)	E. A. Irland Bell Telephone Labs. Naperville, IL	"Electronic Memory-- Infallible and Almost Immortal"		2/7/68
	Robert C. Dellert Gen Electric Co. Bloomington, IL	"Fluidics"		4/3/68
Fort Wayne	Dr. V. L. Keller 4011 Daner Drive Ft. Wayne, IN 46805	"Results of Survey Made to Determine the Future Building Needs of the Indiana- Purdue Regional Campus at Ft. Wayne"		1/11/68
	Prof. John C. Hancock Purdue University Lafayette, IN	"Program for Electrical Engineers at the Indiana-Purdue Regional Campus at Ft. Wayne circa 1980"		"
	R. Ned Landon Research & Development Center General Electric Co. Schenectady, NY	"Today's Research-- Tomorrow's Progress"		2/21/68
	Robert W. Jurgensen Indiana & Michigan Elec. Co. Ft. Wayne, IN	"The D. C. Cook Nuclear Power Plant"		3/14/68
Illinois Valley	Edward L. Johnson Caterpillar Tractor Co. Peoria, IL	"Caterpillar's Vehicle Ride Simulator"		1/4/68
	Tom Ptasnik Central Ill. Light Co. Peoria, IL	"Utility System Planning"		"
	Ed Nason Westinghouse Electric Corp. Pittsburgh, PA	"Sky Bus"		2/1/68
	R. E. Enberg R. E. Enberg & Assoc. Peoria, IL	"Bus Duct Failures"		"
	Max Lipkin Peoria, IL	"Patent Law and the American System of Reward"		3/7/68
	P. D. Lattner Illinois Bell Telephone Co. Chicago, IL	"Of Lights and Lasers"		4/4/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Iowa-Illinois	Richard K. Dahlem Semi-Conductor Specialist Co. Elmhurst, IL	"Industrial Applica- tion of Integrated Circuits"		1/16/68
	Philip Alspach Allis-Chalmers Milwaukee, WI	"The Challenge of Engineering in '68"		2/22/68
	Fred W. Schempf General Elec. Co. Milwaukee, WI	"The Role of Computers in Industrial Automation"		3/19/68
	Jean Mattingly General Electric Co. St. Louis, MO	"Kitchens of Tomorrow"		4/16/68
Burlington (SS)	Andrew Pasdol Radio Corp. of Am. (Address unknown) Contact Section Secretary Maurice L. Sinift 1200 Hagemann Ave. Burlington, IA	"Transistors of the Future"		1/11/68
Madison	Ferrel G. Stremmler Univ. of Wisconsin E. E. Dept. Madison, WI	"New Uses for Radar in High-Accuracy Navigation"		2/27/68
	Kurt Wendt College of Engineering Univ. of Wisconsin Madison, WI	"Engineering Ethics and Practices"		3/21/68
	Dr. Diederick Th. J. Ter Horst (Address unknown) (See-above)	"Some New Research on High Voltage Current Limiting Fuses"		4/30/68
Milwaukee	Dr. Albert Van Der Ziel Univ. of Minnesota, EE Dept. Minneapolis, MN 55455	"Noises in Microwave Transistors"		2/6/68
	Vincent C. Rideout Dept. of E. E. Univ. of Wisconsin Madison, WI 53706	"Physiological Control - The Cardiovascular System"	G-AC	2/28/68
	William H. Kumm Westinghouse Corp. Annapolis, MD	"Ocean Engineering"		3/6/68
	Robert J. Wenzel Bendix Research Labs. South Field, MI	"New Techniques for the Design of Micro- wave Networks"	G-MTT	3/7/68
	J. R. Lies Commonwealth Edison Chicago, IL	"Pad Mounted Trans- former Practices"	G-P	3/26/68
	G. W. Schneider Wisconsin Power Elec. Co. Milwaukee, WI	"Unit Residential Trans- former Methods"	"	"



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Milwaukee (Cont'd.)	A. E. Price Detroit Edison Detroit, MI	"Buried Transformer Systems"	G-P	3/26/68
	Prof. G. A. Rohlich Univ. of Wisconsin Madison, WI G. K. Dickerman Consolidated Papers, Inc. J. M. Borden Izaak Walton League (Addresses unknown) Contact Section Secretary Harry W. Stumph 740 N. Broadway, NN Milwaukee, WI	Panel Discussion: "What you as an Engineer Should do about Water Pollution"		4/10/68
	Dr. M. I. Nathan IBM, Yorktown Heights, NY Dr. Thomas Koryo Ishii Marquette University Milwaukee, WI	Seminar: "Injection Lasers"	G-MTT	4/29/68
Racine-Kenosha	Stuart Beyerl Allen-Bradley Company Milwaukee, WI	"Application of Ferrites to Motors and Ignition Systems"		3/5/68
Nebraska	Douglas McKnight M. O. R. E. Service, Inc. Omaha, NB	"Highroad - Aerial Transportation"		1/18/68
	Vince Hansen IBM, 3102 Farnam Omaha, NB	"The Power Engineer and the Computer"	G-P	2/8/68
	Dr. Beatrice E. Willard Thorne Ecological Found. Boulder, CO	"Man and His Environment"		2/22/68
	D. H. Briganti General Electric Co. Philadelphia, PA	"Field Testing of EHV Oilless Circuit Breakers"	G-P	2/27/68
	Vern W. Yates Collins Radio Co. Dallas, TX	"Communications Satellite-Earth Stations"		3/21/68
	Tarmo Waara Creighton Bicket Corps. of Engineers Omaha, NB	"Missouri River Control Center"	G-P	3/26/68
	Lester Larson Univ. of Nebraska (Address unknown) Contact Section Secretary Charles E. Connors 3400 Cooper Avenue Lincoln, NB	"Nebraska Tractor Testing Laboratory"		4/18/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Nebraska (Cont'd.)	Roger Williams General Electric Co. Fitchburg, MA	"Mechanical Drive Turbines for Power Plant Applications"	G-P	4/23/68
Northeast Michigan	George G. Barriger General Electric Co. Phoenix, AZ	"Process Computer Control"		1/18/68
	Dr. Joe M. Blumberg US Army Medical Research and Development Washington, D. C.	"Engineering Design for World Health"		2/15/68
	Daniel Frank GM Technical Center Warren, MI	"GM Electrovan and Electrovan - State of the Art"		3/21/68
	Paul C. Woodland Dow Chemical Midland, MI	"Explorer Scouting Activities"		4/18/68
Northeastern Wisconsin	Jarvis Cotton Westinghouse Electric Corp. Pittsburgh, PA	"Nuclear Fuel - Cycle & Economics"		1/4/68
	James Harlow Allis-Chalmers Mfg. Co. 2040 W. Wis. Ave. Milwaukee, WI	"The Nature of Distribution System Ferroresonance"	G-P	1/25/68
	K. S. Hunter M. Gatens FAA, Green Bay, WI	"FAA-Highways in the Sky"		2/1/68
	Frank Shekore Wisconsin Tel. Co. (Address unknown) Contact Section Secretary Ernest J. Mullen 310 Hilltop Drive Green Bay, WI 54301	"Project Apollo"		3/7/68
Rock River Valley	Dick Wills Reliance Electric Co. Cleveland, OH	"Industrial Thyristor Drive Applications"		4/25/68
Souixland	Don Marquesen Iowa Public Service Co. Sioux City, IA	"Gas Peak Shaving"		1/29/68
	Dr. John Lagerstrom South Dakota State Univ. Brookings, SD	"Engineering--Design for World Health"		2/23/68
	Jim Brown Commonwealth Assoc. Sioux City, IA	"345 Kv and 500 Kv Transmission Line Construction"		4/10/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
South Bend	Richard K. Dahlem Semiconductor Spec. Inc. 195 Spangler Avenue Elmhurst, IL	"Industrial Applications of Linear IC's"		1/18/68
Southeastern Michigan	R. M. Centner Bendix Research Labs. Southfield, MI	"Advances in Adaptive Logic"	G-C	1/16/68
	Dr. T. T. Kadeta Bell Tel. Labs. (Address unknown) Contact Section Secretary John H. Bryant Omni Spectra Inc. 24600 Hallwood CT. Farmington, MI 48024	"Simultaneous Diagonalization of Two Covariance Kernals and its Application to Optimum Detection and Estimation of Gaussian Signals in Noise"	G-IT/AC	1/23/68
	Dr. H. Sobol RCA Labs. Princeton, NJ	"Microwave Integrated Circuits"	G-AP/MTT/ED	1/24/68
	Robert R. Aronson Electric Fuel Propulsion Ferndale, MI	"Electric Car Status Report"	G-VT	1/25/68
	Robert Aronson & Mr. Swanson Detroit Police Dept. Detroit, MI	"Description & Operation of the Center"	"	2/15/68
	John P. Lenihan Detroit Edison Co. John R. Schellin Kohler Co (Addresses unknown) (See-above)	"User Owned Emergency Power Sources"	G-IGA	2/20/68
	Ronald L. Thompson Philco-Ford Corp. Newport Beach, CA	"Recent Advances in Radar System Technology"	G-AP/MTT/ED	2/28/68
	Roger W. Brockett Mass. Inst. of Technology Cambridge, MA	"Stability, Instability and Oscillations in Non-Linear Feedback Loops"	G-IT/AC	3/5/68
	Prof. A. J. Pennington Univ. of Michigan Ann Arbor, MI W. F. Esser Consumers Power Co. Jackson, MI	"Utilities & Research"	G-P	3/7/68
	Prof. Robert P. Rafuse Mass. Inst. of Technology Cambridge, MA	"Low Noise and High Dynamic Range Using Symmetric Mixers"	G-AP/MTT/ED	3/26/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Southeastern Michigan (Cont'd.)	Dr. Russell O'Neal US Government (Address unknown) (See-above)	"Trends in Army Research and Development"	G-P	4/24/68
	Harry J. Hummel Motorola Semiconductor Chicago, IL	"Vehicular Application-Integrated Circuits"	G-VT	4/25/68
Southern Minnesota	Robert Lillestrand Control Data Corp. St. Paul, MN	"Artic Research Program"		2/21/68
	John G. Curry Honeywell Corp. Minneapolis, MN	"What is Engineering in Industry All About"		3/27/68
	Dr. R. V. Pole IBM Research Center Yorktown Heights, NY	"Holography and How it Can be Used"		4/17/68
Toledo	Dr. Robert W. Gunderson NASA Marshall Space Flight Ctr. Huntsville, AL	"Piloted Guidance and Control of the Saturn V Launch Vehicle"	G-AC	1/4/68
	A. Makowski, John Fridick Haughton Elevator Co. Toledo Scale Co, Toledo, OH	"Value Engineering"		1/31/68
	George J. Potochney General Electric Company Schenectady, New York	"Industrial Power Systems Stability and Performance"	G-P	2/15/68
	William Sanzanbacher Sanzanbacher, Miller, Brigham & Scott	"Engineers' Week"		2/22/68
	Charles Lentz, Jr. Samborn, Steketee, Otis & Evans (Addresses unknown) Contact Section Secretary Paul W. Williams 6061 Dixon Road Toledo, OH 43613	"Growth of Toledo Technical Council"		
	Donald J. Ewing, Jr. Dept. of E. E. University of Toledo Toledo, OH	"Current Status of Computer Technology"	G-AC	2/29/68
	James Dolan Alan Simmons IBM, Toledo, OH	"The Engineer & the Computer"	"	"
	Dr. Sakari T. Jutila Owens-Illinois Toledo, OH	"Use of Time-Sharing Terminals: A One-Year Experiment"	"	"
	Richard B. Hawkins Bell Telephone Labs. Holmdel, NJ	"Engineering Design Using Computer Graphics"	"	3/7/68

Section Subsection (SS)	Spaaker and Address	Title of Paper	Group Code	Date Presented
Toledo (Cont'd.)	Harvey Bleam IBM, Washington, DC	"Problem-Oriented Computer Languages"	G-AC	3/7/68
	Charles E. Shapler CALTEC, Inc. Toledo, OH	Panel Discussion: "Computer-Aided Design Applica- tions"	"	"
	John C. Scarlett Surface Combustion Div. (Midland Ross) Toldeo, OH			
	Fred Miller Toledo Edison Toledo, OH			
	Donald J. Ewing, Jr. University of Toledo Toledo, OH.			
	Dr. Edward Fadden Mgr. Computer Dev. Charles Moores Nat. Sales Mgr. Applied Dynamics Int. Ann Arbor, MI	"Hybrid Computers and Interface Problems"	"	3/14/68
	Karl Wiig Mgr. Systems Engineering Dundee Cement Co. Dundee, MI	"Direct Digital Process Control"	"	"
-	Wolfgang Kurpiers Control Systems Engineer IBM, Dearborn, MI	Panel Discussion: "On-Line Applications of Digital Computers"	"	"
-	Paul Matthiess Advanced Management & Methods Division Sun Oil Co. Marcus Hook, PA			
-	Robert Frank Dist. Mgr. Digital Equip. Corp. Ann Arbor, MI			
	Dr. A. H. Delsemme Toledo University Toledo, OH	"The Riddle of the Quasars"		3/21/68
	Milton Calcamuggio Toledo Edison So. Edison Bldg. Toledo, OH	"Electrical Features, Bay Shore No. 4 Generator"	G-P	4/4/68
	Jake Bryan-Toledo Edison Paul Martin-General Elec. Edwin Oehlen-Deputy Chief (addresses Unknown) Contact Section Secretary see above.	"Municipal Street & Area Lighting"		4/17/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Toledo (Cont'd.)	R. J. Lauer R. C. Loshbough Haughton Elevator 671 Spencer St. Toledo, OH 43609	"Controlling the Free Lift in Life"	G-AC	4/25/68
Twin Cities	-Don Sampson, CDC -Harly Kukuk, Fabritec -Earl Joseph, Univac -Dr. Chen., Univ of Minn. -Sidney Reubens, Univac (Addresses unknown) Contact Section Secretary (See-above)	Panel Discussion: "Magnetics in Computers"	G-C/MAG	1/9/68
	Robert Lillestrand Control Data Corp. Minneapolis, MN	"Astro Navigation at the North Pole"	G-AES	1/16/68
	Dr. E. W. Boehne I-T-E Ckt Breaker Co. Philadelphia, PA	"The Schizophrenic Behavior of Electric Power Systems"	G-P	1/18/68
	Fred Hird Northern States Power Co. Minneapolis, MN	"Highlights of the 1967 International Conference on Communications"	G-ComTech	1/23/68
	Elliott Bayly University of Minnesota Minneapolis, MN	"Time Varying Inputs to H Nerve Cell"	G-EMB/AC	1/25/68
	A. Kilgore Allis Chalmers Box 512, Milwaukee, WI	"The Traser System of Current Measure- ment"	G-P	2/20/68
	Dr. Hans Mocker Honeywell, System & Research (Address unknown) Contact Section Secretary (See-above)	"Optical Communica- tions with Lasers"	G-ComTech	2/27/68
	-Dr. William Brown Univ. of Minnesota -H. N. Oredson, Univac -Charles Chen, Univac -Dennis Speliotis Univ. of Minnesota (Addresses unknown) (See-above)	Panel Discussion: "The Use of Computers in Magnetism"	G-C/MAG	3/5/68
	B. H. Smith Electric Machinery Mfg. Co. Minneapolis, MN	"Application & Matching of 2 Pole Generators to Gas Turbines"	G-P	3/20/68
	H. Head (Address above)	"Excitation Control Systems on Generators with Gas Turbines"		

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Twin Cities (Cont'd.)	Charles Morell CDC, 2401 North Fairview Roseville, MN	"Computer Display Applications"	G-C	3/21/68
	Dr. Grant B. Skelton Honeywell, Inc. 2345 Walnut St. St. Paul, MN 55113	"Optimal Control Applied to Large Aerospace Vehicles"	G-AC	4/15/68
	Benard Katz B & K Instruments Cleveland, OH	"A One Third Octave Universal Frequency Response Shaper"	G-A&E	4/18/68
Red River Valley (SS)	Dr. Thomas Akers University of North Dakota Grand Forks, ND	"Bio-Medical Engineering"		1/17/68
	R. G. Dikeman McGraw-Edison Co. Minneapolis, MN	"EHV Transformers"		3/20/68
West Michigan	M. Penberg Micro Elec. Div. Von Karman Center	"The Aerojet-General Approach to Thin-Film Electronics"		4/25/68
	Clyde M. Awad Raytheon Corp. (Address Unknown) Contact Section Secretary: John E. Kennaugh 1317 Richwood Drive, SE Grand Rapids, Mi. 49508	"Integrated Circuits Fabrication"		"

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Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Arkansas	Ralph Hales Reynolds Metals Co. Hot Springs, Arkansas	"Construction of the A. P. & L. 500KV and 230KV Transmission Line, Miss. River Crossing at Helena, Arkansas"		1/19/68
	W. F. Kennison (Address see-above)			
	Dr. R. M. Emberson I.E.E.E. Headquarters New York, N. Y.	"Activities of the I. E. E. E."		2/16/68
	E. J. Narrett General Electric Co. Philadelphia, Pa.	"Vacuum Interruptors & Breakers"		3/14/68
	Dr. William B. Stiles Graduate Institute of Technology University of Arkansas Little Rock, Arkansas	"Graduate Engineering Education in a Changing Technological Society"		4/19/68
Beaumont	H. J. Sutton Gulf States Utilities Co. Locked Drawer 2951 Beaumont, Texas	"The Toledo Bend Project"	G-P	1/17/68
	Clem Branham English Electric Co. Liverpool, England	"The Turbine & Governor Control of the Toledo Bend Dam"	"	"
	Fred B. Vogt, M.D. University of Texas M. D. Anderson Hospital Houston, Texas	"Biomedical Engineering in the Space Program"		2/22/68
	Leslie U. Eidson Westinghouse Electric Corp. 507 Dallas Houston, Texas	"Fundamentals of Motor Protection"	G-P	3/7/68
	Arthur L. Smirl Lamar Tech. (Address unknown) Contact Section Secretary: Alfred E. Naylor 345 Masteron Drive Beaumont, Texas 77707	"Protective Device Coordination of a Refinery Power System"		3/19/68
	Nelson Bruns Lamar Tech. (Address unknown) Contact Section Secretary: (See-above)	"Industrial Telemetry"		"
	Jim Hall Lamar Tech. (Address unknown) Contact Section Secretary: (See-above)	"Holography"		"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Beaumont (cont'd)	A. J. Mary Gulf States Utilities Co. Locked Drawer 2951 Beaumont, Texas	"Computer Control of Gulf States Utilities System"	G-P	4/16/68
Lake Charles (SS)	Bill Bonnie General Electric Co. Houston, Texas	"Process Control Computers"		2/8/68
	A. Clark Daugherty Rockwell Manufacturing Co. Pittsburgh, Pennsylvania	"The Engineer in Today's World"		2/22/68
	Ed. Wright Square'D' Co. Beaumont, Texas	"Overload Relays"		3/21/68
Central Texas	Dr. Alan Kahn Hoffman La Roche Inc. Nutley, N.J.	"Clinical Bio Instrumentation in the Soviet Union"		1/11/68
	J. M. Mabe Central Power & Light Co. Corpus Christi, Texas	"A Blow Called Beulah"		2/8/68
	James Morgan Petty Lab., Inc. San Antonio, Texas	"The Effects of Summing Misaligned Waveforms"	G-C	3/14/68
Corpus Christi	B. J. Nankervis, Dow Chemical Co. Freeport, Texas	"Conversion of Mercury-Arc Rectifiers to Silicon Diodes"		1/25/68
	Dr. Douglas H.K. Lee National Environmental Health Sciences Center P. O. Box 12233 Research Triangle Park North Carolina 27709	"Man-Machine System"		2/23/68
Victoria-Port Lavaca (SS)	Ray C. Hess Nacon Corp. Bound Brook, N.J.	"Field Experience with Nacon Sodium Cable"		1/17/68
Dallas	T. W. Duffy Ohio Brass Co. (Address unknown) Contact Section Secretary: Warren W. Chapman Allis-Chalmers 305 Stemmons Tower West Dallas, Texas 75207	"Lightning Arresters-An Advancing Technology"	G-P	1/16/68
	James F. Bunker Microwave Associates Burlington, Massachusetts	"Microwave Integrated Circuits"	G-MTT	1/17/68
	Lt. Col. E. Weber Ivy U. S. Air Force NASA Manned Space Flight Center Houston, Texas	"Ground Instrumentation Support for NASA Manned Spaceflight Operations"	G-AP	1/23/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Dallas (cont'd)	Dr. D.G. Swanson University of Texas Austin, Texas	"Atomic Power Research in Texas"	G-P	2/20/68
	J. L. Levatich Communications Satellite Corp. Washington, D. C.	"Present and Future Commercial Communications Satellite Systems"	G-AP	2/27/68
	James H. Harlow Allis-Chalmers Box 512 Milwaukee, Wisconsin 53201	"Analog Computers for Power System Investigations"	G-P	3/19/68
	Dr. W. J. Heikkila SW Center for Advanced Studies Richardson, Texas	"Antennas and Probes in Magnetoionic Media"	G-AP	3/26/68
	Dr. R. C. Hansen KMS Industries Ann Arbor, Michigan	"Some Interesting Peculiarities of Phased Arrays"	G-AP	4/16/68
	Dr. R. M. Lockerd Texas Instruments Dallas, Texas	"MECA - Molecular Electronic Phased Arrays for Comm. Appl."	G-ComTech	4/30/68
Denver	Dr. R. B. Blizzaro Martin Corp. Waterton, Colo.	"Efficient Codes for Deep Space Channel"	G-ComTech	1/17/68
	Francis M. Long, University of Wyoming Laramie, Wyoming E. M. Lonsdale, (Address see-above)	"Biomedical Telemetry"	G-EMB	1/19/68
	Dr. Ralph R. Goodman Colorado State University Fort Collins, Colo.	"Guided Acoustic Waves"		2/9/68
	Dr. M. A. Xavier Hathway Instruments Denver, Colo.	"Digital Techniques for Phase Angle and Frequency Measurement for Electrical Systems"	G-P	2/21/68
	T. R. Heaton Martin Marietta Corp. Box 179 Denver, Colo.	"AAP Experiment Integration Problems"	G-AES	2/22/68
	J. Gillen Ball Brothers Research Corp. Boulder, Colo.	"Survey of Experiment Development at Ball Brothers Research Corp."	"	"
	Dr. Robert L. Gallawa ESSA Boulder, Colo.	"The Surface-Wave Trans- mission Line for Transpor- tation Communications"		3/15/68
	Prof. Robert Gallager MIT Boston, Mass.	"Coding for Burst Error Channels"	G-ComTech	3/27/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Denver (cont'd)	Dr. Frank S. Barnes University of Colo. Boulder, Colo.	"Laser Damage to Biological Material"		4/12/68
	Dr. H.G. Olson ME Dept. Colo. State University	"Nuclear Reactors for Power Generation"	G-P	4/16/68
Pikes Peak (SS)	Dr. Lawrence M. Robertson (Address unknown) Contact Section Secretary: Don W. Braidwood Box 250-C RRI Colorado Springs, Colo. 80807	"Cabin Creek Pumped Storage Project"		1/11/68
	R. C. Stiles (Address unknown) Contact Section Secretary: (See-above)	"Engineering Challenge for Engineering Switching Systems"		2/13/68
	Marco Negrete Hewlett Packard Research & Development Lab. Loveland, Colo.	"The Use of a Desk Top Programable Engineering Calculator in the Creative Design of a Network"		4/17/68
El Paso	James L. Goodrich Plans Office WSMR New Mexico 88002	"Enhance Your Professional Stature"		1/18/68
	Glen Elder U. S. Army White Sands (National) Missile Range White Sands Missile Range New Mexico 88002	"Nuclear Effects Testing"		3/14/68
	William Lyon El Paso Electric Co. Electric Bldg. El Paso, Texas Norman Peyton (Address see-above)	"The West Group and the Four Corners Power"		4/11/68
Fort Worth	Phil McCable Burroughs Philadelphia, Pa.	"Time-Shared Large Computer Systems"		1/30/68
	Dr. D.G. Swanson University of Texas at Arlington (Address unknown) Contact Section Secretary: F. D. Purifory 1532 Oak Creek Drive Hurst, Texas 76053	"Atomic Power Research in Texas"	G-P	2/20/68
	Dr. T. D. English General Dynamics Fort Worth, Texas	"Integrated Circuits"		4/30/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Houston	Dr. Phil Richardson USAF School of Aerospace Medicine Techiques" Brooks Air Force Base San Antonio, Texas Robert M. Adams (Address see-above)	"Physiological Monitoring Techniques"	G-EMB	4/16/68
	Dr. Ray M. Dolby Dolby Lab. 590 Wandsworth Rd. London, England	"An Audio Noise Reduction System"	G-A&E	4/18/68
	J. W. Frasure Dow Chemical Co. Richmond Ave. Houston, Texas	"Electrical Design by the Digital Computer"	G-IGA	4/18/68
	Thad Brown The Dow Chemical Co. Freeport, Texas	"Experience with Large 15KV Aluminum Cable"	G-IGA	3/5/68
	William R. McCasland Texas A&M University 6333 Gulf Freeway Houston, Texas	"Freeway Surviellance System Installed on the Gulf Freeway"	G-B	3/13/68
	Dr. James Bargainer University of Houston Houston, Texas	"Pattern Recognition"	G-GE	3/14/68
	Philip C. Walker TRW-Systems Redondo Beach California	"The Air Force Space Ground Link Subsystem"	G-ComTech G-AES	3/18/68
	Dr. F. Hermann Rudenberg University of Texas Medical Branch Galveston, Texas	"Studies of Central Nervous System Trauma"	G-EMB	3/19/68
	Dr. Maxime A. Faget Manned Spacecraft Center-NASA Houston, Texas	"Engineering Aspects of Manned Spacecraft"		3/28/68
	Ben Kullerd Monsanto Chemical Co. (Address unknown) Contact Section Secretary: William P. Schneider 8417 Bluegate Houston, Texas 77025	"Hazardous Areas and the NEC"	G-IGA	2/14/68
	Dr. De Bremaecker Rice University Houston, Texas	"The Earth as a Leaky Waveguide"	G-GE	2/15/68
	Dr. W. B. Jones, Jr. Texas A&M University College Station, Texas	"New Challeges and New Horizons in Commnications Technology"	G-ComTech	2/15/68
	Glenn C. Randa IBM Space Systems Center Rockville, Md.	"Computers in Spacecraft Systems"	G-AES /C	2/19/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Houston (cont'd)	Dr. Fred B. Vogt University of Texas Grad. Sch. of Biomedical Sciences (Address unknown) Contact Section Secretary: (See-above)	"The Use of Roentgenographic Techniques to Assess Bone Mass"	G-EMB	2/20/68
	Mike Wilson Lockwood, Andrews & Newman 1010 Waugh Drive (Address unknown) Contact Section Secretary: (See-above)	"Astroworld"		2/22/68
	David A. Ansley Conductron Corp. St. Louis, Missouri	"Lasers and Their Applications"	G-AES	1/8/68
	Prof. W. B. Schneider University of Houston Houston, Texas 77004	"Network Synthesis-- Part I"	G-CT	1/15/68
	M. F. Noster SW Bell Telephone Co. Main and Elgin Sts. Houston, Texas	"Noise on Wire Lines"	G-ComTech	1/16/68
	Dr. H. D. Kletschka -Edson Rafferty Veteran's Administration Hosp. Houston, Texas	"Development of a Non- pulsatile Artificial Heart"	G-EMB	1/16/68
	W. P. Schneider University of Houston (Address unknown) Contact Section Secretary: (See-above) R. Blemberg Vector Cable Co. Houston, Texas W. Bowers (Address see-above)	"Oceanographic Instrumentation"	G-GE	1/18/68
	Prof. W. B. Schneider University of Houston Houston, Texas 77004	"Network Synthesis-- Part II"	G-CT	1/22/68
	James R. Sage SW Bell Telephone Co. P. O. Box 1530 Houston, Texas 77001	"The Magic of Comm- unications"		1/25/68
	Prof. W. B. Schneider University of Houston Houston, Texas 77004	"Network Synthesis-- Part III"	G-CT	1/29/68
Freeport (SS)	R. H. Henfelt Foxboro (Address unknown) Contact Section Secretary: Thaddeus E. Brown Route 1, Box E5 Sweeny, Texas 77480	"Present & Future Concepts of Electronic Instruments "		1/23/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Kansas City	Don T. McPhee Kansas City Power & Light Co. 14th & Baltimore Kansas City, Missouri	"Installation of the 500 MW Turbine-Generator 5 at Hawthorne Station"		1/11/68
	F. C. Van Wormer General Electric Co. Schenectady, New York	"Underground Distribution for Residential Areas"		2/8/68
	Ben J. Stables Black & Veatch 1500 Meadow Lake Parkway Kansas City, Missouri C. H. Minter Westinghouse Electric Corp. (Address unknown) Contact Section Secretary: Benjamin J. Stables, Jr. Black & Veatch Consulting Engrs. P. O. Box 8405 Kansas City, Missouri 64114	"Report on IEEE Winter Power Meeting Jan. 28- Feb. 2, 1968"	G-P	2/27/68
	Dr. Paul L. Smith, Jr. S. Dakota School of Mines & Technology Rapid City South Dakota 57701	"Series Capacitor Appli- cations"	"	"
	Dr. Manfred Altman University of Pennsylvania Philadelphia, Pa.	"Making Rain-Mainly In The Plains"		3/14/68
Oklahoma City	Dr. George W. Smith Bell Telephone Lab. Naperville, Illinois	"Recent developments in New Power Sources for Urban Automobiles"		1/16/68
	Cliff Lane Westinghouse Electric Corp. Pittsburgh, Pa.	"Electronic Switching- How we got Here and Where we Go"		3/28/68
	John Turley SW Electric Power Co. Shreveport, Louisiana	"Transit Expressway- Concepts Accomplishments and Developments "		4/16/68
Ozark	William T. Sumerlin MacDonnell - Douglas Aircraft St. Louis, Missouri	"Protective Relaying"		1/18/68
	Bill Lacefield SW Electric Power Co. Shreveport, Louisiana	"Organization and New Developments in the IEEE"		3/8/68
	Bill Lacefield SW Electric Power Co. Shreveport, Louisiana	"345 KV Transmission Line Construction"		4/18/68
Panhandle	J. R. Wilson General Electric Co. Dallas, Texas	"Time Share Computer"		1/18/68
	Kent P. Stiner I T E Circuit Breaker Co. Detroit, Michigan	"Busduct Type of Service Entrance Switchboards & Assoc. Equipment"		2/19/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Panhandle (cont'd)	Bob Watson KGNC Radio & Television Amarillo, Texas	"Amarillo's Contribution to World Health"		2/19/68
	E. T. Gray Westinghouse Electric Corp. Dallas, Texas	"Solid State Devices as Applied to Protective Relays"		3/11/68
	E. W. Robinson SW Public Service Co. Amarillo, Texas	"Nichols Station"		4/8/68
Permian Basin	Bill Armstrong Crouse Hinds Co. (Address unknown) Contact Section Secretary: Dale L. Schrader 3409 Boulder Odessa, Texas 79760	"Flame Propagation- Explosion Proof Fixtures and Application"		1/16/68
	Newt Hielsher Shreveport, La. (See above)	"Laughter is the Lotion for the Sunburns of Life"		2/24/68
	Leland Roach Natfield Wire & Cable Div. Continental Copper & Steel Co. Hillside, N.J.	"Electric Wire & Cable - From the Mine to User"		3/26/68
	Dick Johnson A. B. Chance Co. (Address unknown) Contact Section Secretary: (See-Above) Robert W hatley (Address see-above)	"Hot Line Work- Demonstrations and Films"		4/16/68
St. Louis	Martin Smith Bussmann Mfg. Co. St. Louis, Mo.	"New Fuse Standards on Low Voltage Fuses- Emphasis Safety"	G-IGA	1/8/68
	Dr. Robert Adler Zenith Radio Corp. Chicago, Ill.	"Ultrasonic Light Modulation and Deflection"	G-AP/ED/MTT	1/9/68
	Ed Taylor Westinghouse Electric Corp. Pittsburgh, Pa.	"RI & Corona Evaluation of EHV Conductors"	G-P	1/17/68
	Donald E. Mertens Emerson Electric Co. St. Louis, Mo.	"Recent Developments in Electronically Scanned Antennas"	G-AE	1/24/68
	C. W. Lindrose Gould National, Inc. 1st National Bank Bldg. St. Paul, Minn.	"Static Standby Power Supplies Using Battery- Inverter Systems"	G-IGA	2/12/68
	Mark Fineberg McDonnell Automation Co. Brown Rd. St. Louis, Mo.	"Topics in Hybrid Computation"	G-C	2/19/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
St. Louis (cont'd)	Howard Swenson General Electric Co. (Address unknown) Contact Section Secretary: Harold R. Delaney 4531 Candleglow Drive St. Louis, Mo. 63129	"Ground Fault Protection of Industrial Distribution Systems"	G-P	2/26/68
	C. A. Schwartz Reliance Electric Co. Cleveland, Ohio	"Trends in Variable Speed in D. C. Drive Equipment"	G-IGA	3/11/68
	Frank A. Hartshorne RCA Camden, N.J.	"Challenge of the 70's in Telemetry, Tracking & Command"	G-AES	3/20/68
	Raymond C. Hess NACON Corp. (Address unknown) Contact Section Secretary: (See-above)	"Sodium Conductors"	G-P	3/25/68
	Dr. George W. Smith Bell Labs. Morris, Ill.	"Electronic Switching- How We Got Here and Where Do We Go"		3/27/68
	William A. Weddendorf Multi-Amp. Corp. Cranford, N.J.	"Proper Application and Testing of Electrical Protective Devices"	G-IGA	4/8/68
	Dr. P. D. Coleman University of Illinois Illinois	"Colonizing the Infrared- Microwave Gap"	G-AP/ED/MITT	4/16/68
	Dale Allen Allis-Chalmer (Address Unknown) Contact Section Secretary: (See-above)	"Economics of Higher Voltage Distribution"	G-P	4/22/68
	Dr. D. F. Wann Washington University 724 S. Euclid St. Louis, Mo. M. J. Stucki (Address see-above)	"Engineering Considerations in the Design of Restructurable Computers"	G-C	4/22/68
Shreveport	Haven Emmerson Sanford Marine Service Morgan City, Louisiana	"Innovations in Deep Sea Diving"		1/9/68
	Bob Collins Western Geophysical Co. 1717 Fairfield Ave. Shreveport, LA	"Use of Digital Computers in the Processing Seismic Data"		1/23/68
	Dr. Robert Rowe Gilruth NASA Manned Spacecraft Center Houston, Texas	"The Apollo And Space Program"		2/24/68



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Shreveport (cont'd)	R. L. Watt SW Electric Power Co. P. O. Box 1106 Shreveport, Louisiana	"Reliability Of Supply Of Commercial Power Systems"	G-P	3/27/68
	R. J. Hall General Electric Co. (Address unknown) Contact Section Secretary: Virgil J. Holobaugh 1213 Georgia Shreveport, La. 71104	"Nuclear Energy and Its Effect on the Electric Utility Co."		4/9/68
Monroe (SS)	R. C. Kirk McGraw-Edison Co. New Orleans, La.	"Use of Electronics in Today's Power Distribution System"		2/20/68
	John Daigle Louisiana Tech Ruston, Louisiana	"Lasers"		3/12/68
	Charlie James Bussman MFG. Div. McGraw-Edison Co. St. Louis, Missouri	"Simple Approach to Short- Circuit Calculations"		4/16/68
South Plains	Dr. M. O. Hagler Texas Technological College Lubbock, Texas	"Electrical Theory of Tornadoes"		1/8/68
	Kent Stiner ITE Detroit, Michigan	"Low Current Protection 277/480 Volt System"		2/5/68
	R. L. Shuman Sandia Corp. Sandia Base Albuquerque, New Mexico	"Environmental Equipment & Testing Techniques"		3/11/68
Tulsa	Ed L. Gastineau Public Service Co. of Oklahoma Tulsa, Oklahoma	"Transformer Emergency Loads and Substation Ratings"	G-P	1/9/68
	C. E. Day Geophysical Research Corp. Tulsa, Oklahoma	"A High Accuracy Telemetry System for Downhole Oil Well Instrumentation"		1/16/68
West Central Texas	Roy Heard West Texas Utilities Co. Abilene, Texas	"Application of Protective Relays"		1/15/68
	John Denison Texas A & M University College Station, Texas	"Use of Infrared Photography on Power Systems"		3/11/68
	Walt Mayfield Westinghouse Electric Corp. Abilene, Texas	"Design, Operating & Testing of Atomic Power Plants"		4/16/68

REGION 6				
Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Alamogordo - Holloman	J. J. Wormser Continental Elec. Mfg. Co. Dallas, Texas	"A 10-Megawatt Solid State Duplexer"		2/28/68
	Edwin W. Sievers NASA Appolo Site White Sands Test Facility Los Cruces, New Mexico	"Fire in the hole testing at the White Sands Test Facility"		3/27/68
	R. L. Johnson Air Force Electro-Optical Site Air Force Avionics Lab. Air Force Systems Command Cloudcroft, New Mexico	"The Air Force Electro- Optical Site"		4/26/68
Alaska	H. D. Bushman 2421 Oak Drive Anchorage, Alaska 99504	"Engineers Week"		1/8/68
	Mr. Gus Norwood Alaska Power Administration Anchorage, Alaska	"Power Planning for Alaska"		2/14/68
	Dr. R. B. Forbes University of Alaska Fairbanks, Alaska	"Geophysical Studies of Active Volcanoes"		3/18/68
	R. H. Tanner (Address unknown) Contact Section Secretary: Ray E. Marley 4532 Klondike Court Anchorage, Alaska 99504	"What's New in Commu- nication Development"		4/5/68
Albuquerque	Larry Anderson Bell Telephone Labs. Murray Hill, N. J.	"High Capacity Holo- graphic Optical Memories"	G-ED	4/1/68
	Tim Smith Texas Instruments Dallas, Texas	"Medium Scale Integration"	"	4/25/68
Los Alamos- Santa Fee (SS)	Ronald D. Christman Los Alamos Scientific, Group T-1 Laboratory, Los Alamos, N. M.	"Experimental Time- Sharing Like System for the CDC 6600 Currently Being De- veloped at Los Alamos Scientific Laboratory"		1/24/68
Antelope Valley	Sid Damron (Address unknown) Contact Section Secretary: Robert E. Durham 44320 Kirkland Ave. Lancaster, CA 93534	"Pre-Detection Re- cording with the Ampex FR-900"		1/18/68
	Walter L. Bacon General Telephone Co. 675 East Bonita Ave. Pamona, California	"Engineering in the Utility Communications Industry"		2/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Antelope Valley (Cont'd.)	Paul J. Germond (Address unknown) Contact Section Secretary: Robert E. Durham 44320 Kirkland Ave. Lancaster, CA 93534	"C-5A Instrumentation"		4/18/68
Boise	Lynn C. Holmes General Dynamics Corp. Rochester, N. Y.	"The National IEEE Organization"		2/2/68
	Lynn C. Holmes (See above)	"Technical Obsoles- cence - Fact or Fantasy"		2/3/68
	Bob Garrity Western Electric Co., N. Y. Bill Murphy Western Electric Co. Massachusetts	"Recent Developments in Telephone Transmission Systems for Voice, Data and Picture Phone"		3/19/68
	Dr. Stanley F. Kaisel Teledyne, Inc. Palo Alto, California	"IEEE Organizational Matters in Region 6"		4/24/68
Buenaventura	W. E. Gasich Northrop Division Ventura, California	"Management in the 1980's"	G-EM	1/17/68
	Capt. Bernard L. McCreery Naval Ship Missile Systems Engineering Station, Port Hueneme, California 93041	"Integrated Logistic Support"	"	2/21/68
	Gideon Pery Israelian Government Counsul Official, L. A.	"Managing Technical Products in Israel"	"	4/17/68
China Lake	C. L. Sparling E. F. Hutton Co. Bakersfield, California	"Investment Opportunities for Engineers"		3/21/68
Foothill	R. H. DuHamel Hughes Aircraft Fullerton, California	"Broadband Feed Net- works for Dual Polarization Tracking Antennas"	G-AP/MTT	1/9/68
	Dr. Conway Snyder Jet Propulsion Laboratory Pasadena, California	"Exploration of Venus with Spacecraft and Telescope"		1/16/68
	Howard E. King (Address unknown) Contact Section Secretary: Charles A. Taylor, Jr. 293 Cary Lane Pomona, CA 91767	"Millimeter Wave Technology and Appli- cations"	G-AP/MTT	2/13/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Foothill (Cont'd.)	H. T. Holtom Metropolitan Water District Los Angeles, California	"Sea Water Conversion"	G-P	2/20/68
	Georeg A. Wilkins Naval Weapons Center China Lake, California	"Cities Under the Sea"	G-AP/MTT	3/19/68
	Bradley Cozzens Dept. of Water and Power Los Angeles, California	"Future Possibilities of the Electric Car"	G-P	4/8/68
	Dr. L. Gardenhire Radiation, Inc. Melbourne, Florida	"Telemetry and Data Compression"		4/11/68
	R. T. Kado University of California Los Angeles, California	"Engineering in Bio- logical and Medical Research"		4/18/68
	Robert Gordon University of California Irvine, California	"Computers, Innovation, and Education"		4/25/68
Fort Huachuca	William Huck (Address unknown) Contact Section Secretary Hershel R. Lung 2864 Meadowlark Sierra Vista, Arizona 85635	"Close Loop and Evaluation of Aerial Reconnaissance Systems"		1/25/68
	Robert Vejl Sperry Rand Huntsville, AL	"PCM Telemetry, Past, Present and Future"	G-AES	2/15/68
	Dr. Roy Matson University of Arizona Tucson, Arizona	"Arizona University Engineering Department Activities"		3/14/68
	Dr. H. Tucker (Address-see above)	"Computers and their Languages"	G-AES	3/26/68
	Dr. L. Duckstein (Address-see above)	"Systems Theory and Applications"	"	4/2/68
	Dr. Jerry Saunders (Address-see above)	"Decision Theory Part I"	"	4/16/68
	Dr. Jerry Saunders (Address-see above)	"Decision Theory Part II"	"	4/23/68
	Dr. E. A. Unwin (Address-see above)	"Systems: Optimization and Stability"	"	4/30/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Hawaii	Dr. John W. Shupe University of Hawaii Honolulu, Hawaii	"The College of Engineering Con- tinuing Education Program for Engi- neers in Practice"		1/11/68
	Dr. Charles E. Lenz (Address-see above)	"Automated Synthesis of Large Systems"		2/14/68
	Robert G. Nichols Autonetics Anaheim, California	"Inertial Guidance Systems"		3/13/68
	Dr. Robert W. Greer No. Am. Rockwell Corp. Anaheim, California	"Systems Evaluation Methodology"		4/10/68
Idaho	R. N. Curran Argonne Nat'l Lab., Box 2528 Idaho Falls, Idaho 83401	"Instrumentation of ZPPR"		1/24/68
	J. E. Hutton (Address - See above)	"An On-Line Computer for Reactor Control and Analysis"		1/24/68
	Mr. Elmo Morgan (Address unknown) Contact Section Secretary Gareld R. Larsen Route 1 Rexburg, Idaho 83440	"What Price Clean Water"		2/24/68
	Dr. A. E. Wilson I. S. U. Faculty Pocatello, Idaho	"I. S. U. Reactor Engineering Department"		4/29/68
Las Vegas	John Kuypers Holmes and Narver Mercury, Nevada	"Movie-Construction Apollo-Saturn Launch Complex"		2/12/68
	Dave Larsgaard Ed Hallenbeck (Address unknown) Contact Section Secretary Dan P. Crotta 620 Kendrick Pl. Boulder City, NV 89005	"The Northwest - Southwest Inter - Tie System"		4/3/68
Los Angeles Council	Dr. George A. Hoffman University of California 405 Hilgard Ave. West Los Angeles, California	"Systems Design of Electric Automobiles"	G-VT	1/8/68
	Dr. A. C. Ingersoll University of So. Calif. Los Angeles California	"Continuing Education for Tech. People"	G-ComTech	1/9/68
	W. D. Squire Naval Undersea Warfare Cent. Pasadena, California	"Matched Filter Implementation"	G-IT	1/11/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles (Cont'd.)	Mr. Vaughn Kaiser (Address unknown) Contact Council Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"Optimization in Process Control"	G-CA	1/16/68
	Elias Porter Technomics Santa Monica, CA	"Understanding Systems"	G-C	1/18/68
	Dr. Morton D. Schwartz John W. Neumann TRW Systems, 1 Space Center Redondo Beach, Calif. 90278	"The Computer in the Modern Hospital"	G-EMB	"
	Daniel R. Burgess E. Kent Booth Control Data Corp. 4455 East Gate Mall Ja Jolla, CA 92037			
	Jack L. Fink General Electric Co. Philadelphia, PA	"Solid State Equipment for HVDS Transmission"	G-P	"
	Don Goetter Don Ridgeway (Addresses unknown) Contact Council Secretary (See-above)	"A Practical Approach to Heat Transfer"	G-PMP	1/23/68
	L. C. Hobbs (Address unknown) (See-above)	"Future State-of-the- Art in Computer Memories"	G-MAG	1/24/68
	Gene Hegedus Litton Systems Canoga Park, CA	"Techniques for the Design of Precision Ratio Transformers"		
	Dr. Kung Yao University of California Los Angeles, CA	"Analog-Digital Signal Conversion Problem"	G-CT	1/25/68
	Howard E. King Aerospace Corp. Kenneth C. Kelly Rantec Corp. Swegn P. Hamren Hughes Aircraft Co. Dr. Samuel Sensiper TRW Systems Group (Addresses unknown) Contact Council Secretary (See-above)	Panel Discussion "Microwaves Antennas- Present and Future"	G-AP	"
	Myron Ferguson Sylvania Electronic Systems Palo Alto, CA	"Communication Aspects of the Satellite Communication System"	G-ComTech	2/6/68
	Dr. George Bekey University of So. California Los Angeles, CA	"System Aspects of Neuromuscular Control"	G-SSC	2/7/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles (Cont'd.)	John Muhleman ITT Controls & Instruments Div. Monterey Park California 91754	"Understanding Accuracy"	G-EWS	2/8/68
	Roger Rauskolb (Address unknown) Contact Section Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"Automated Measurement of Complex Reflection Coefficient"	G-MTT	"
	William T. Richardson (Address unknown) See above	"Human Factors in Vehicular Systems"	G-VT	2/12/68
	Robert Gurfield Joe Clayton (Addresses unknown) See above	"A Quantitative Approach to Health Care Planning"	G-AC	2/13/68
	Dr. R. Wuerker TRW Systems 1 Space Park Redondo Beach, CA	"Holography"	G-ED	"
	E. E. Carlton State of Calif. Dept. of Ind. Rel. Div. of Ind. Safety 455 Golden Gate Ave. San Francisco, Calif.	"New High Voltage Safety Orders"	G-IGA	"
	Burton Freid - UCLA Robert Shrine - TRW Systems (Addresses unknown) Contact Section Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"Computer Aided Design"	G-C	2/13-15/68
	Prof. T. Kacloth Stanford University Palo Alto, CA	"A Correlator-Estimator Recorder for Random"	G-IT	2/15/68
	Don Cannon (Address unknown) Contact Section Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"Investment Casting for Electronic Packaging"	G-PMP	2/21/68
	G. H. Weber Lockheed Electronics Co. 6201 Randolph Los Angeles, CA	"Ferrite Materials and some of their Major Applications"	G-MAG	"
	David Stewart Univ. of Calif. /L. A. County Hosp. Shock Res. Unit Los Angeles, CA	"Design Criteria for Automated Critical Care Facilities"	G-EMB	2/22/68
	Richard Mortensen University of California Los Angeles, CA	"Recent State Space Theory"	G-CT	2/29/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles (Cont'd.)	L. Harper P T & T Co. 611 Wilshire Blvd. Los Angeles, CA	"Solving the Maze - Electronic Switching System"	G-ComTech	3/5/68
	Dr. Jerry M. Mendel Douglas Aircraft Co. Santa Monica, CA	"Sequential Identification on Nonstationary Systems"	G-SSC	3/6/68
	Brooks Dodson Texas Instruments Dallas, TX	"Solid State Microwave Phased Arrays"	G-AP/GMTT	3/7/68
	Dr. David M. Detchmendy (Address unknown) Contact Section Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"Attenuation and Inverse Problems in Wave Propagation"	G-AC	3/11/68
	Walter Sernivk Sylvania Electronic Systems Williamsville, NY	"The Light Observation Helicopter Avionics Package"	G-VT	3/12/68
	Richard Sparks JPL 4800 Oak Grove Dr. Pasadena, CA	"Mariner V and it's Encounter with Venus"	G-ED	"
	Richard Sparks (See above)	"Mariner V Science Subsystem Development"	G-CT	3/13/68
	Mr. Poluska A. C. Martin Co. 445 S. Figueroa Union Bank Bldg. Los Angeles, CA Bob Hutchison Federal Pacific Electric Co. 3323 San Fernando Road Los Angeles, CA	"Electrical System Design for High Rise Buildings"	G-IGA	"
	Prof. Buehler Cal. Tech. Pasadena, CA	"Time Sampling-Delta Functions"	G-IT	3/14/68
	Captain M. J. Holsinger Major D. M. Ranz Major F. B. Hoenniger Major E. R. Drangstveit Captain J. D. Fail (Addresses unknown) Contact Section Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"Air Force Airpower in Southeast Asia"		3/20/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles (Cont'd.)	Robert L. Peterson Litton Guidance & Control Canoga Park, CA	"Design Considerations of a Two Transformer Series Feedback Converter"	G-MAG	3/20/68
	Donald J. Hopper Jet Propulsion Laboratories Pasadena, CA 91103	"Computerized Totoidal Transformer Design"	"	"
	Fred J. Savaglio Beckman Instruments, Inc. Fullerton, CA	"Updating Newborn Care Practices"	G-EMB	3/21/68
	Joseph Campeau Litton Industries Beverly Hills, CA	"BOC A New Approach to LSI"	G-C	"
	Roger R. Bruhn Lockheed Aircraft Corp. 2555 Hollywood Way Burbank, CA	"Planning for a Communication System"	G-ComTech	4/2/68
	P. H. Eisenberg North American Aviation Anaheim, CA	"Minuteman Device Re- liability via Physics of Failure"	G-ED	4/8/68
	Hans Grimm (Address unknown) Contact Council Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"VW's Electronic Fuel Injection System"	G-VT	"
	Frederick R. Voorhaar (Address unknown) See above	"Electronically Tuned Oscillators"	G-MTT	4/11/68
	Fred S. Hoffman	"Systematic Analysis of Public Policy Issues"	G-AC	"
	Gerhard Tintner	"An Optimal Policy of Economic Growth for India"	"	"
	Geoffrey D. Commons	"Control System Require- ments for Transportation in Los Angeles between Now and the Year 2000 - A transportation Econi- mists Point of View"	"	"
	Warren A. Hall	"Optimization Studies of Large Scale Water Resources Systems"	"	"
	Joseph Smagorinski	"The Theoretical Modeling of the Atmosphere and the Computational Simulation of its General Circulation"	"	4/12/68
	Joseph O. Fletcher	"Autovariation of the Ocean Atmosphere System"	"	"
	Richard Bellman	"What can a Mathematician and his Giant Computer do in the Biomedical Area"	"	"

Section Sub Section (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles (Cont'd.)	Harrison Brown	"World Food Problem- An Example of a Complex System"	G-AC	4/12/68
	(Addresses unknown) Contact Council Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA			
	V. John Treanor Westinghouse Electric Corp. Pittsburgh, PA	"Research and Develop- ment in Industry"	G-IGA	4/16/68
	G. F. Laub M. F. Berman Richard Hunter NCR 2815 W. El Segundo Blvd. Hawthorne, CA	"The New NCR Century Series"	G-C	4/18/68
	Dr. William K. Pratt University of So. Calif. Los Angeles, CA	"Two Dimensional Fourier Coding"	G-IT	"
	Richard E. Stelter Arnold Engineering Co. Fullerton, CA	"The Chemical Milling of Magnetic Materials"	G-MAG	4/24/68
	M. N. Kaplan Lockheed Aircraft Co. Burbank, CA	"Magnetic Reaction Torque Generator"	"	"
	Leo E. Thomas (Address unknown) Contact Council Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"What's New in Printed Circuits"	G-PMP	"
	R. W. Bower, Hughes R. W. Newcomb, Stanford J. L. Buie, TRW P. O. Pedersen, UCLA (Addresses unknown) Contact Council Secretary John W. Thatcher 936 Winston Avenue Pasadena, CA	"Present Utilization and Estimate of Growth and Analog Integrated Circuits"	G-CT	4/25/68
	Pierre M. Hahn Space Biology Laboratory Brain Research Institute UCLA, Los Angeles, CA	"The Biosatellite Program"	G-EMB	"

Section Sub Section (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Met. Los Angeles	Dr. Eugene H. Kopp Mr. Alan A. Kutcher Calif. State College 5151 State College Drive Los Angeles, CA	"Project Moonboonce"		2/13/68
	Jacob Sabath M. L. Brown C. M. Clevenger O. L. Renfro Southern Calif. Edison Co. PO Box 351 Los Angeles, CA 90053	"A 500 KV Substation"		3/12/68
Montana	Judge W. W. Lessley (Address unknown) Contact Section Secretary: Clarence Lee 2119 Lyman Avenue Billings, MT	"Engineering Liability"		1/27/68
Butte (SS)	Dr. Donald Pierre Montana State University Bozeman, MT	"Fundamental Optimi- zation Techniques for Engineers"		1/5/68
	C. E. Beardslee The Montana Power Co. Butte, MT	"The Montana Power Communication System"		2/9/68
	R. E. Drain Address See above	"Reclosers"		4/12/68
Orange County	Captain William C. Fortune National Aeronautics and Space Administration (Address unknown) Contact Section Secretary: Paul F. Boggess 1091 La Loma Drive Santa Ana, CA 92705	"Commercial Benefits from Space Technology"	G-EM	1/23/68
	L. C. Hobbs Hobbs Associates Gene Amhdall IBM-Menlo Park Rex Rice Fairchild Semiconductors Dave Kleitman Signetics (Address unknown) Contact Section Secretary: (See-above)	Panel Discussion: "LSI Impact on Computer Systems"	G-C	"
	John L. Allen M. I. T. (Address unknown) See-above)	"Moths, Modes and Maxwell"	G-AP/G-MTT	2/6/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Orange County (Cont'd.)	W. H. Kuhlman Douglas-Missile and Space Systems Div. Huntington Beach, CA	"Systems Approach to Space Operational Requirements"	G-EM	2/20/68
	Samuel Silver University of California Berkeley, CA	"Millimeter Wave and Infrared Studies of Planetary Atmospheres"	G-AP/G-MTT	3/5/68
	J. Sweeney No. Am. Rockwell Corp. Autonetics Div. Anaheim, CA	"Display Technology"	G-C	3/19/68
	Donald J. Andert Address (See-above)	"Engineering to Super- vision: The Problem of Transition"	G-EM	3/21/68
	Keith R. Clark Aeronutronic Division Philco-Ford Corp. Newport Beach, CA	"Business Acquisition Performance Analysis"	"	4/23/68
Phoenix	Charles A. Hartung Kennicott Copper Corp. Hayden, AR	"Utilization of Electric Power in the Processing of Copper Ore"	G-P	1/18/68
	Wendell D. Trudgen Process Computer Dept. G. E. Co. Phoenix, AR	"Power System Diag- nostics and Control"	"	2/8/68
	Donald M. Powers Electronics Res. Center NASA (Address unknown) Contact Section Secretary Ralph W. Roberts 2907 E. Clarendon Phoenix, AR 85016	"Current Problems in Space Communications"	G-AP	2/12/68
	Dr. Fred Kurzweil Systems Development Div. IBM San Jose, CA	"United Control System for Stabilization of a Mass Memory Electron Beam Recorder"	G-AC	2/28/68
	Peter Polgar Motorola Semi-Conductor Products Division Phoenix, AR	"Optoelectronic Devices"	G-AP	3/18/68
	Dr. H. W. Welch Arizona State University Tempe, AR	"The Crossroads of Engineering"		3/21/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Phoenix (Cont'd.)	K. R. Geiser AR Atomic Energy Comm. L. M. Alexander Salt River Project E. H. Buell AR Public Service Dr. L. P. Thompson College of Eng. Sciences AR State University (Addresses unknown) Contact Section Secretary (See-above)	"The Economic Prospects of Nuclear Power in Central Arizona"	G-P	4/11/68
	Dr. Thomas E. Tice Electrical Eng. Dept. Dr. Samuel E. Craig Chemical Eng. Dept. Arizona State University Tempe, AR	"Solid State Electronics at Arizona State Univ."	G-AP	4/22/68
Portland	Ralph G. Edward Bell System Laboratory Rm. 2B-217 Dept. 9143 Crawford Corner Road Holmdel, N. J. 07733	"Future Computers for Business Systems"		1/23/68
	Arden Benson Bonneville Power Admin. Portland, OR	"Bonneville Power Admin. Advance Control Plans"	G-C	1/25/68
	Dr. Stanley F. Kaisal Microwave Electronics Corp. Palo Alto, CA	"IEEE and You"		2/8/68
	Gary Rubottom U. S. Divers Co. Portland, OR	"Dangers and Beauties of the Underwater World"	"	2/27/68
	Dr. Larry Slotta Oregon State University Corvallis, OR	"Marker and Cell Method for the Visualization of Solutions to Partial Differential Equations"	"	3/13/68
	James C. Holzman (Address unknown) Contact Section Secretary Edward J. Swenson 10315 SW Washington St. Portland, OR 97225	"Technology and the Police"		3/14/68
	Loren A. Shoemaker U. S. Army Corps of Eng. Portland, OR	"Remote Job Entry Concepts"	G-C	4/9/68
	James H. Jensen General Electric Nela Park Cleveland, OH	"Light Sorcery-From out of the Past into Tomorrow"		4/23/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Eugene (SS)	Eugene C. Starr Bonneville Power Co. Portland, OR	"Nuclear Generation in the Pacific Northwest"		3/7/68
Richland	Dr. Charles D. Harrington Douglas United Nuclear Co. Richland, WA	"What's being done about Aerospace Safety and Reliability"		3/19/68
	Roy C. Hoffman Douglas United Nuclear Richland, WA	"Design Concepts for Communication for the FFTF"		4/30/68
	R. E. Mahan Battelle Memorial Institute Pacific Northwest Labs. Richland, WA	"The Field Effect Transistor-Past, Present and Future"	"	"
	M. D. Erickson Address (See-above)	"The Pacific Northwest Lab-Hybrid Computer Facility"	"	"
Walla Walla (SS)	Emil C. Jensen (Address unknown) Contact Section Secretary Paul E. Eichen 205 NE Ash Avenue College Place, WA 99324	"Engineering Responsibilities for World Health"		2/20/68
	Merton L. Vincent Walla Walla College College Place, WA	"Auto-Pilot Design and Development"		3/26/68
Sacramento	Dr. Ronald F. Soohoo University of California Davis, CA	"Tour of Engineering Bldg. and Crocker Nuclear Laboratory"		2/23/68
	Warren F. Holeman (Address unknown) Contact Section Secretary Carleton A. Bayless 4617 Georgian Avenue Sacramento, CA	"The New California Electrical and Mechanical Engineering Practices Act"		3/14/68
	John A. Kuypers Holmes and Narver (Address unknown) (See-above)	"The Survivability of Communications and Power Networks in Natural and Man-made Environments"	G-ComTech	"
	Dr. Otto J. M. Smith University of California Berkeley, CA	"Transient Control in Power Systems"	G-P	3/21/68
	Daniel Jergensen General Electric Co. Information Service Dept. Berkeley, CA	"Use of Services of Time Shared Computer"		4/20/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Reno (SS)	R. A. Manhart University of Nevada Reno NV	"University Courses for People in Industry"		1/17/68
	Charles Garhardt University of Nevada Reno, NV	"Construction of Integrated Circuits"		4/3/68
	Gary Barrett University of Nevada Reno, NV	"Construction of Semi- conductor Diodes"		"
	John R. Kropa General Electric Co. Berkeley, CA	"Use of Computer Services"		4/20/68
San Diego	Capt. John Barrett Cmdr. John Drain Cmdr. Cuddy (Addresses unknown) Contact Section Secretary A. Curtis Creeley 2615 Kim Place San Diego, CA 92123	"Tour of Nuclear Sub- marine SCAMP"		1/10/68
	R. H. Roberts GIANNINI-Voltex 12240 E. Rivera Road Whittier, CA 90606	"Design Considerations for Solid State UHF Telemetry Trans- mitters"	G-AES	1/17/68
	Richard J. Bauer Advanced Technology Corp. Timonum, MD 21093	"Millimeter Waves: An Appraisal of its Status"	G-AP/G-MTT	1/23/68
	Charles Nelsen Naval Electronics Lab. Center San Diego, CA	"Ship Antenna Systems Studies"	G-AES	2/21/68
	B. F. Coggan (Address unknown) Contact Section Secretary (See-above)	"Engineering in Medicine"		2/23/68
	William P. Hart ITT Cannon Electric 3208 Humboldt St. Los Angeles, CA 90031	"An Integrated Informa- tion System for R & QA"	G-R	2/26/68
	Dr. Meyer Gilden Microwave Associates, Inc. Burlington, MA 01804	"Avalanche Diode Oscillator"	G-AP/G-MTT	3/12/68
	Glen Liddiard (Address unknown) Contact Section Secretary (See-above)	"Deep Submergence Acoustic Devices"		4/10/68
	Dr. Edward Du Forte Hughes Aircraft Co. Fullerton, CA	"Arrays for Radar Antennas"	G-AP/G-MTT	4/16/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Francisco	Gerome Russell Dr. John Osborne Inst. Medical Sciences Pacific Medical Center San Francisco, CA	"On Line Computer Monitoring of Cardiac Patients"	G-EMB	1/8/68
	David M. Sage, Sr. Pacific Gas & Electric Co. 245 Market Street San Francisco, CA	"Management Informa- tion Systems -- What's in it for the Engineer"	G-P	1/9/68
	F. B. Humphrey Calif. Inst. of Technology Pasadena, CA	"Flux Reversal in Magnetic Films"	G-MAG	"
	Don Johnson Sylvania Electric Products Mountain View, CA	"Integral Equation Formulation of a Log Periodic Antenna"	G-AP	1/11/68
	Charles McCullough Charles Tarbox State Dept. of Water Resources San Francisco Bay District San Francisco, CA	"The Application of Systems Methods to the State Water Project"	G-SSC	1/15/68
	Dr. Vartanian MELABS Palo Alto, CA	"Ferrite Devices in Mobile Radio"	G-VT	"
	IBM Staff IBM San Jose, CA	"On-Line Computer Control"	G-NS	1/16/68
	Dr. Otto J. Smith University of California Berkeley, CA	"Signals & Systems Adaptive Closed-Loop Control Systems"	G-AC	"
	Prof. W. Howard Prof. William Walsh University of California Berkeley, CA	"Integrated Frequency Selective Amplifiers"	G-CT	"
	Carl B. Pearlston, Jr. Electronics Division Aerospace Corp. El Segundo, CA	"Historical Analytical Survey of EMI Spec. Limits"	G-EMC	1/17/68
	David A. Huffman University of California Santa Cruz, CA	"Decision Criteria for a Class of Impossible Objects"	G-IT	1/18/68
	Dr. K. B. Magleby Hewlett-Packard Co. Palo Alto, CA	"Computers and Instrumentation"	G-C	1/23/68
	Dr. K. B. Magleby Address (See-above)	"Laboratory Instru- mentation System Using an On-Line Computer"	G-IM	"



Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Francisco (Cont'd.)	Gary Logan Fairchild Semiconductor Mountain View, CA	"Epoxy Encapsulation for Semiconductors"	G-PMP	1/24/68
	Frederick Tator Philco Ford 3825 Fabian Way Palo Alto, CA 94303	"Computerized Reliability Analysis Using REACT"	G-R	1/25/68
	Gordon Dickman Bechtel Corp Lief Jacobson Kaiser Engineers George Raven Utah Const. & Mining Corp. (Addresses unknown) Contact Section Secretary Donald O. Pederson University of California E. E. Dept. Berkeley, CA 94720	Panel Discussion "The Future of Electrical Applications in the Mineral Industry"	G-IGA	2/12/68
	Samuel Minograd University of California Berkeley, CA	"Information Theory and Redundant Computations"	G-IT	2/15/68
	William R. Dunn, Jr. Lockheed Missiles & Space Co. Sunnyvale, CA	"Computerized Circuit Analysis by Signal Flow Graph Method"	G-R	"
	Dr. S. Winograd University of California Berkeley, CA	"Difficulty in Computations"	G-SSC	2/19/68
	Rex L. Elmore Moore Associates Division Rucker Co. San Carlos, CA	"Receiver Voting in Vehicular Systems"	G-VT	"
	Dr. George J. Thaler Naval Postgraduate School Monterey, CA	"Frequency Response of Systems Using Algebraic Methods"	G-AC	2/21/68
	Dr. Hugh Mays Fairchild Semiconductor Palo Alto, CA Prof. E. J. McCluskey Stanford University Palo Alto, CA Dr. Karl Levitt Stanford Research Inst. Palo Alto, CA Dunn Parker Control Data Corp. Palo Alto, CA S. Larry Smith IBM, San Jose, CA	Panel Discussion "Computer Aided Design"	G-C	2/27/68
	Carl Blake M. I. T. Lincoln Laboratory Lexington, MA	"Phased Array Radar Systems"	G-MTT/G-AP	2/28/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Francisco (Cont'd.)	John Dusterberry NSA/Ames Moffit Field, CA	"Tour of Simulation Sciences Division Facility"	G-AES	2/29/68
	A. J. Kurtzig Stanford University Palo Alto, CA	"Domain Walls in Orthoferrites"	G-MAG	3/12/68
	Glenn D. Breuer HV DC Transmission Engrg. General Electric Co. Schenectady, NY	"The Impact of Solid State on High Voltage DC Transmission"	G-P	"
	R. A. Isberg (Address unknown) Contact Section Secretary (See-above)	"Review of FCC Standards for Vehicular Communication"	G-VT	3/18/68
	Dr. Cornelius Tobias Donner Lab. University of California Berkeley, CA	"Biomedical Applications of Accelerators"	G-EMB	3/19/68
	Dr. Gordon W. Markham Control Systems Dev. Center IBM, San Jose, CA	"Time-Shared Direct Digital Control"	G-AC	"
	John T. Decker Sylvania Electronic Systems Western Division Mountain View, CA	"Quantitative Determination of Self-Test Design for Maintainability"	G-R	3/21/68
	Peter Dawson Hewlett Packard Palo Alto, CA	"A Survey of Automated Test Equipment"	G-PMP	3/26/68
	Wesley A. Clark Computer Systems Lab. Washington University St. Louis, MS	"Macromodular Computer Systems"	G-C	"
	Richard Anderson Dept. 55-92 Lockheed Missiles & Space Co. Sunnyvale, CA	"Horizon Sensors for Spacecraft"	G-AES	3/28/68
	William Emmons Kon Zaharaoff G. W. Cryer J. J. Gilespe Pacific Gas & Electric Co. San Francisco, CA	"Power Systems Electromagnetic Compatibility"	G-EMC	4/8/68
	Alfred R. Golze (Address unknown) Contact Section Secretary (See-above)	"Power Development in the Oroville Project"	G-P	4/9/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Francisco (Cont'd.)	Roger Webster Semiconductor R & D Lab. Texas Instruments Dallas, TX Bernard Hershenov RCA Labs Princeton, NJ Gordon Harrison Sperry Microwave Electronics Clearwater, FL Kenneth Sodomsky Bell Telephone Labs. Reading, PA	Seminar "Microwave Integrated Circuits"	G-MTT	4/10/68
	Dale Lindley Dalmo Victor Belmont, CA	"Steerable Communica- tions Antenna for Apollo Lunar Module"	G-AP	4/11/68
	David J. Sakrison University of California Berkeley, CA	"On Source Encoding for a Class of Sources"	G-IT	4/18/68
	Allan W. Scott Varian Associates Palo Alto, CA	"The Role of Electron Tubes for Microwave Power in the 1970's"	G-ED	4/24/68
East Bay (SS)	Dr. W. Herrmannsfeldt (Address unknown) Contact Section Secretary Joseph L. Cattolica 2500 Willow Pass Road Concord, CA 94520	"Progress Report After One Year Operation of S. L. A. C. "		2/26/68
Santa Clara Valley (SS)	James D. Roman Univ. of Oregon Medical School (Address unknown) Contact Section Secretary Charles R. Chernack 1034 E. Rose Circle Los Altos, CA 94022	"Engineering and Medicine at the Edge of Space"		2/22/68
	Larry G. Fitzsimmons Pacific Telephone San Jose, CA	"Engineering Career Guidance"		3/2/68
San Gabriel Valley	Prof. William C. Siebert Mass. Inst. of Technology (Address unknown) Contact Section Secretary Cecil P. Wiggins 5236 Bubbling Well Lane La Canada, CA 91011	"What in the Ear Makes it Hear--or Signal and Noise in the Human Auditory System"		1/11/68
	Prof. Lorie Tarshis Dept of Economics Stanford University Palo Alto, CA	"Money Talks"		3/14/68
	Dr. Solomon Golomb University of So. Calif. Berkeley, CA	"Figures for Fun"		4/18/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Santa Barbara	Paul Schmidt Federal Aviation Agency Santa Barbara, CA	"FAA Navigational Aids for Air Traffic"		1/17/68
	Louis R. Padberg Navy Missile Center Point Mugu, CA	"Sounds from Inner Space"		2/14/68
	Dr. Glenn Culler Dept. of Electrical Engrg. University of California Santa Barbara, CA	"Discussion and Illustration of Real-Time Speech Analysis and Synthesis"		4/17/68
Santa Monica Bay	R. Donaldson Xerox Corp. (Address unknown) Contact Section Secretary C. Douglas Scott 13035 Rose Avenue Los Angeles, CA	"Future of Reproduction"		1/18/68
	John W. Cave UCLA Graduate School of Bus. (Address unknown) Contact Section Secretary (See-above)	"Some of our most Common Management Problems"		4/17/68
Seattle	Russell O. Ohlson Square D Company Lexington, KY	"Procedure for Determining Maximum Short Circuit Values in Electrical Distribution Systems"		1/8/68
	Jules Berger The Boeing Company SST Program Seattle, WA	"Application of Pulse Code Modulation Multiplexing for the Supersonic Transport (SST)"	G-AES	1/10/68
	Dr. I. Flugge-Lotz Dept. of Engineering Mechanics Stanford University Palo Alto, CA	"Optimal Control: Its Importance and Application"		1/17/68
	R. F. Henricksen Puget Sound Power & Light Co. Bellevue, WA 98004	"115 Kv Polyethylene Cable Installations - Mercer Island"	G-P	1/25/68
	Dr. Richard W. Carlson The Boeing Company Seattle, WA	"Effects of Near Field Blockage on the Per- formance of Large Phased Array Antennas"	G-MTT/G/AP	1/30/68
	Thomas K. Foley Boeing Company Seattle, WA	"Data Return from a Mars Lander"	G-ComTech	2/1/68
	William C. Galloway The Boeing Company Kent Space Center Kent, WA	"Apollo Technical Integration"	G-EM	2/7/68

Section Subsection(SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Seattle (Cont'd.)	Emory C. Rice, Jr. Westinghouse Ocean Research & Engineering Center Chesapeake Bay, WA	"CATCHALOT" A Deep Diving System"	G-AES	2/14/68
	Dr. Robert F. Rushmer Donald W. Baker Dr. Karl W. Edmark University of Washington Seattle, WA	Panel Discussion "Engineering & Medicine"	G-EMB	2/15/68
	M. W. Aluntt The Boeing Company Renton, WA	"A Survey of Aircraft Antennas for Communi- cation Via Aerocom Sattelite"	G-AP	2/29/68
	C. E. Smith Cutler-Hammer, Inc. Milwaukee, WI	"Status of Solid State A. C. Contactors"	G-IGA	3/4/68
	Rodney S. Rougelot General Electric Co. Electronics Laboratory Syracuse, NY 13201	"Computer Generated Out-The-Window Scenes for Reel-Time Visual Simulation"	G-AES	3/13/68
	Ray Dilling John M. Nelson John M. Fluke George H. Stoner (Addresses unknown) Contact Section Secretary William H. Pigott 1919 - 122 S. E. Bellevue, WA 98004	Panel Discussion "Engineering Manage- ment"	G-EM	3/14/68
	B. L. Johnson O. R. Mulkey M. H. Williamson The Boeing Company Seattle, WA	Panel Discussion "Packaging - Parameters and Techniques"		3/20/68
	D. S. Brereton General Electric Co. Schenectady, NY	"Significance of Proposed Changes in Air Condition System Voltage Nomenclature for Industrial and Commercial Power Systems"	G-IGA	4/8/68
	Dr. Kenneth Sodomsky Bell Telephone Labs. Reading, PA Dr. G. R. Harrison Sperry Microwave Electronics Clearwater, FL	"Microwave Integrated Circuits Present and Future"	G-AP	4/9/68
	R. M. Hubbard Chief of Controls Tech. Staff The Boeing Company Seattle, WA	"Automatic Control of the Hydrofoil Ship"	G-AC	4/16/68

Section Subsection(SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
South Bay Harbor	Dr. J. J. Dreher (Address unknown) Contact Section Secretary George W. Mousel 909 McCarthy Ct. El Segundo, CA 90245	"Porpoise with a Purpose"		2/20/68
	Dr. Samuel Genesky Rand Corp. Santa Monica, CA	"Rand Non-Defense Urban Studies"		3/19/68
Spokane	Joe Cannon Washington Water Power Co. Spokane, WA	"Centralia Steam Plant"		2/8/68
	Bill Purdy The Boeing Company Seattle, WA	"Boeing 747 - The Giant Transport"		2/29/68
Tucson	Ray Kelley Hughes Aircraft Co. El Segundo, CA	"Space Communications"		1/9/68
	Walter Croft Arizona Public Service Co. Phoenix, AR	"500 Kv Transmission Line-Model Techniques"		2/13/68
	Dr. Gerald Schaffner Motorola Semiconductor Prods. Phoenix, AR	"What Semiconductors are Doing for Microwaves"	G-AP/G-MTT	3/8/68
	Dr. D. G. Schultz Prof. Electrical Engineering University of Arizona Tucson, AR	"Teaching Machines and Engineering Re-educat- ion"		3/12/68
	Dr. Roland V. Shack Assoc. Prof. of Astronomy University of Arizona Tucson, AR	"Principles and Applica- tions of Holography"		4/16/68
Utah	Edwin N. Kimball UNIVAC Salt Lake City, Utah	"Environmental and on-line Testing of Fluidic Level Controls"		1/18/68
	Dr. Harold McNamara Prof. of Physics Brigham Young University Provo, UT	"Evolution of the Stars"		4/19/68
Vandenberg	Col. Clair E. Ewing USAF Vandenberg AFB, CA	"Geodesy in the Space Age"	G-EM	1/18/68
	Dr. E. W. Boehne ITE Circuit Breaker Co. Philadelphia, PA	"Nature, Art, and Arithmetic"		2/28/68
	Dr. Peter Swerling Technology Service Corp. Los Angeles, CA	"Radar Target Signa- tures Measurements and Models"	"	3/28/68
	Dr. Philippe A. Clavier Economatics Corp. Pasadena, CA	"Management Engineering and Forecasting"	"	4/25/68

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Section Subsection(SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Canadian Atlantic	Prof. B. Cory Dept. of Electrical Engineering Royal Military College Kingston, Ontario, Canada	"Speed Control of Induction Motors Using Solid State Devices"		2/7/68
	Pat Fitzgerald	"Proposed Electrical Model of a Nerve Axon"		4/4/68
	David Bowes	"Quarter-Square Multiplier Using Field Effect Transistors"		"
	Andrew Isenor	"Microwave Heating Chambers"		"
	Peter Brackett Nova Scotia Technical College (Address unknown) Contact Section Secretary Robert J. Hamilton 6927 Isner Avenue Halifax NS, Canada	"Fast Fourier Transformers"		"
Hamilton	R. E. W. Lake Canadian Westinghouse Co. Longwood Road Hamilton, Ontario, Canada	"Electroluminescence"		2/5/68
	E. Mittelstaedt Steel Co. of Canada (Address unknown) Contact Section Secretary William A. Snodgrass 4083 Melba Lane Burlington, Ontario, Canada	"The New Four-Strand Rod Mill"		2/26/68
	Martin Oakes McMaster University Hamilton, Ontario, Canada	"Process Control in Chemical Industry by Computers"		3/11/68
	Bruce Dingwall Mohawk College Hamilton, Ontario, Canada	"Tone Controls"		"
	Dr. Lee A. Kilgore Westinghouse Electric Corp. Pittsburgh, PA	"Individual Engineering Leadership"		4/11/68
	Ken Farthing Canadian Westinghouse Co. Hamilton, Ontario, Canada	"About a Half an Hour"		4/22/68
Kitchener-Waterloo	M. Mohr Raytheon Ltd. Bedford, MA	"Phased Antenna Arrays"		2/12/68
	P. A. Brown	"The Effect of FM Interference on Colour TV Transmission"		3/11/68
	B. Longtin	"A Compiler and Simulator Programme for Logic Circuitry"		
	A. J. Moldon	"Minimizing Logic Designs using Logical Determinism"		
	(Addresses unknown) See next Page			

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Kitchener-Waterloo (Cont'd.)	Contact Section Secretary John V. Hanson University of Waterloo Waterloo, Ontario, Canada			
	A. C. Angus McCurdy Radio Industries Toronto, Ontario, Canada	"Applications of Integrated Circuits to Broadcast Audio Equipment"		4/8/68
Guelph (SS)	A. J. Harris Hydro-Electric Power Comm. 620 University Avenue Toronto 2, Ontario, Canada	"The Electric Power System - CANUSE"		3/19/68
London	Capt. A. Stewart Gendron (Address unknown) Contact Section Secretary George F. Vonas 1132 Adelaide Street N. Apt. 703 London, Ontario, Canada	"Fuel Cells"		2/22/68
	Dr. Peter Forsyth (Address unknown) (See-above)	"Can Canada Afford a Space Program"		3/28/68
Montreal	Jack Bordan Sir George Williams University Montreal, Quebec, Canada	"Continuing Engineering Education"		1/16/68
	Graham Cameron Quality Assurance Branch Dept. of National Defence Ottawa, Ontario, Canada	"The National Conference of Standard Laboratories"	G-IM	1/31/68
	I. Godier Northern Electric Co., Ltd. Ottawa, Ontario, Canada	"Microwave and Radio Systems"	G-ComTech	2/14/68
	A. R. Woolnough Northern Electric Co., Ltd. Ottawa, Ontario, Canada	"Coaxial and Wire Line Systems"	"	"
	Dr. G. Nagy Dr. F. A. Roberge University of Montreal Montreal, Quebec, Canada	"Pattern Recognition in Biology"	G-EMB	2/19/68
	H. A. Erith Shawiniga Engineering Co., Ltd. Montreal, Quebec, Canada	"The Basics of D. C. Transmission"	G-P	2/27/68
	R. G. Buck American Tel. & Tel. 195 Broadway, New York, NY	"Improved Mobile Telephone System"	G-VT	2/29/68
	Dr. A. F. Dunn Division of Applied Physics National Research Council Ottawa, Ontario, Canada	"DC Resistance"	G-IM	"

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Montreal (Cont'd.)	Dr. J. A. Tanner National Research Council Ottawa, Ontario, Canada	"Perspectives in Biological Engineering"	G-EMB	3/12/68
	Mrs. Elizabeth H. Green Quebec School Television Center Quebec Dept. of Education Montreal, Quebec, Canada	"Educational Television in Quebec"	G-ComTech	3/13/68
	Dr. T. Pavlasek McGill University Montreal, Quebec, Canada	"Impact of New Tech- nology on Instructional Methods"	"	"
	Eric Jacks English Electric Co., Ltd. Liverpool, England	"Fuse Technology for Optimum and Economic Protection of Systems"	G-P	3/27/68
	John P. Fear Canadian General Electric Co. Peterboro, Ontario, Canada	"Progress in Process Computers for the Metals Industries"	"	3/28/68
	Dr. E. Lewellyn-Thomas Inst. of Biomedical Electronics University of Toronto Toronto, Ontario, Canada	"The Role and Future of Biomedical Engineers in Hospitals"	G-EMB	4/22/68
	J. Zabrodsky Canadian General Electric Peterboro, Ontario, Canada	"Atomic Power Genera- tion and Materials Employed"	G-P	"
Niagara International	Bob Alexander Power Authority of the State of New York Niagara Falls, NY	"High Speed Protective Relaying"		1/18/68
	Paul J. Walsh Wilson, Klaes, Brucker Assoc. Buffalo, NY	"Heating, Lighting and Air Conditioning of Large Building"		3/21/68
Regina	M. K. H. Thompson Saskatchewan Government Telephones (Address unknown) Contact Section Secretary James C. Richl 17 Foxglove Crescent Regina, Saskatchewan, Canada	"Boolean Algebra and Applications"		1/16/68
	Derrick Newton Trans-Canada Pipe Lines Ltd. Toronto, Canada	"Development of Automatic Pipeline Transmission System"		2/5/68
	Robert H. Tanner Scientific Information Services Northern Electric Co. Ottawa, Canada	"Recent Developments in Communications"		4/2/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Regina (Cont'd.)	Frank T. Davis Telecommunications Estab. (Address unknown) (See-above)	"The Alouette Satellites"		4/30/68
Southern Alberta	D. J. Newton Trans-Canada Pipe Lines Ltd. 150 Elington Avenue East Toronto 12, Canada	"An Automated Gas Transmission System"		2/7/68
	J. Hassett Pan American Petroleum Corp. Calgary, Alberta, Canada	"Use of CDC-3250 Computer for Seismic Data Processing"		3/21/68
	R. H. Tanner Northern Electric Co., Ltd. Ottawa, Canada	"Recent Advances in Communications"		4/3/68
	Ried Nessel United Aircraft Canada Ltd. Montreal, Canada	"Turbo Trains"		1/11/68
Toronto	John P. Mathews Mallory Battery Co. of Canada Ltd. 2333 North Sheridan Way Sheridan Park, Ontario, Canada	"Small Battery Power Sources"		1/18/68
	H. W. Smith, Univ. of Toronto P. I. P. Boulton, Univ. of Toronto J. D. A. Griffin, Ontario Hydro (Addresses unknown) Contact Section Secretary Ian R. Dutton 114 Rykert Crescent Toronto 17, Ontario, Canada	"Digital Computer Applications"		1/22/68
	A. T. Edwards Ontario Hydro Toronto, Ontario, Canada	"Vibration and Galloping"		2/8/68
	Herbert Jackson Ontario Dept. of Education (Address unknown) Contact Section Secretary (See-above)	"Careers and Post Secondary Education"		2/26/68
	Prof. Gordon R. Slemon Dept. of Elec. Engineering University of Toronto Ontario, Canada	"Extra High Voltage Rotating Generators"	G-P	3/14/68
	William S. Woods Collins Radio Co. of Canada Toronto, Ontario, Canada	"British Columbia Hydro Microwave System"		3/25/68
	Dr. Lee A. Kilgore Westinghouse Electric Corp. Pittsburgh, PA	"Individual Engin- eering Leadership"		4/11/68
	Floyd G. Buckles Sinclair Radio Labs. 122 Rayette Rd. Maple, Ontario, Canada	"Intermodulation"	G-VT	4/18/68

Section	Speaker and Address	Title of Speech	Group Code	Date Presented
Toronto (Cont'd.)	John Connor International Systcoms Ltd. Montreal, Canada	"Engineering Management"		4/22/68
Vancouver	A. R. Milne Defence Research Establishment Pacific (Address Unknown) Contact Section Secretary Robert L. Weeks 455 Seville Crescent N. Vancouver, Canada	"Underwater Noise in Arctic Waters"	G-IECI/AC/IGA	1/8/68
	F. W. Hewes Caproco Corrosion Prevention Ltd. 9420-91 Street Edmonton, Alberta, Canada	"Corrosion Problems for the Electrical Engineers"		1/15/68
	A. Liggins Carbitron Development 1270 Boundary Rd. Vancouver, Canada	"Spark - Erosion Machining"		2/5/68
	R. H. Tanner Northern Electric Co. Ottawa, Ontario, Canada	"Recent Developments in Communications"		4/8/68
	H. A. Hoyles, H. S. Linburg, Hoyles, Niblock International Ltd. Burnaby, B. C., Canada	"Communication-Control Systems for National Power & Pipeline Operations in Iran"	G-IECE/AC/IGA	4/22/68
Victoria	D. J. McLean Special Engrg. & Development I. B. M. Ltd., Toronto, Canada	"Manufacture of Computer Equipment"		2/1/68
Winnipeg	J. D. Newton Trans-Canada Pipe Lines Ltd. Toronto, Ontario, Canada	"The Development of an Automated Gas Transmission System"		1/31/68
	R. S. Blicq Manitoba Inst. of Technology Winnipeg, Manitoba, Canada	"Six Short Steps to Effective Engineering Writing"		2/21/68
	Dieter Jung University of Manitoba Winnipeg, Manitoba, Canada	"Device for Measuring the Peak Amplitude of a Single Pulse"		3/11/68
	Richard Gurevich Richard Whiteford University of Manitoba Winnipeg, Manitoba, Canada	"Subcarrier De-Multiplexing"		
	G. W. Swift University of Manitoba Winnipeg, Manitoba, Canada	"Ferroresonance": What is it?"		4/4/68
	Frank T. Davies Defense Research Telecommunications Estab. Ottawa, Ontario, Canada	"The Alouette Satellites"		4/29/68

Section	Speaker and Address	REGION 8 Title of Paper	Group Code	Date Presented
Egypt	Eng. Ahmed-Abd El-Moety Tube Factory El-Nasr Co. for TV Cairo, Egypt	"Manufacture of Receiving Tubes"		2/6/68
	Eng. Fouad Sami Zahran (Address unknown) Contact Section Secretary Abdel-Latif I. Ahmed Electric & Electronics Industries Co. 26 Adly St. 7th Floor Cairo, Egypt UAR	"Electronic Computer Applications"		3/18/68
France	Dr. M. Douglas Mc Ilroy Head Computing Techniques Research Dept. BTL Murray Hill, NJ	"Computing at Bell Telephone Labs."		1/22/68
Middle & South Italy	Andrew Viterbi 3531 Boelter Hall Univ. of California Los Angeles, CA 9002	"Detection and Decoding in Digital Communication Systems"		1/12/68
	Giuseppe Martinelli Universita di Roma-Instituto di Elettronica-Via Eudossiana 18-00184 Roma, Italy	"Negative Resistance one ports. Realization and Equivalent Circuits"		3/13/68
	Aldo Roveri Fondazione Ugo Bordoni - Viale Trastevere, 189-00100 Roma, Italy	"Sensitivity of Network Functions with Respect to Changes in the Values of Negative Resistors"		3/20/68
	Aldo Roveri (Address above)	"Noise of Linear Networks Containing Negative Resistors"		3/27/68
Norway	S. Seely Chalmers Univ. of Technology Gothenburg, Sweden	"Digital Computers in Engineering Education"		1/24/68
Sweden	Prof. Svante von Zwegbergk Chalmers Univ. of Technology Gothenburg, Sweden	"Linear Motors"		2/13/68
	Bo Stjernberg L. M. Ericsson Telephone Co. Molndal, Sweden	"Some Problems in Modern Radar Technique"		2/19/68
	Stig Larsson L. M. Ericsson Telephone Co. Molndal, Sweden	"Automatic Testing Saves Time and Money"		3/26/68
	S. Seely Chalmers Inst. of Technology Gothenburg, Sweden	"Digital Computers in Engineering Education"		4/4/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Switzerland	M. Gallo Wirth Gallo & Co. Sonnenbergstrasse 55 Zurich, Switzerland	"Automatic Weighing by Means of Two Oscillating Strings"		2/10/68
	E. Gerecke (Address unknown) Contact Section Secretary Eric Bernhardt c/o Brown Boveri Co. Sales Directorate Baden, Switzerland	"Theory of the String Oscillator"		
	K. Fischer and F. Moetz AG Brown Boveri Co. Baden, Switzerland	"Automation of Power Stations"		2/13/68
	K. Heime Fernmeldetechnisches Zentralamt der Deutschen Bundespost, Darmstadt, Germany	"Thin Film Diodes and Transistors-Peculiarities and Applications"		2/19/68
	S. Triebwasser IBM Watson Res., Center Yorktown Heights, New York	"Large Scale Integration"		3/26/68

REGION 9

Mexico	Augustin Perez Ruiz Roberto Silva Tonche Sistema de Transporte Colectivo Darwin No. 142 Mexico 5, D.F., Mexico	"The Subway in Mexico City"		2/8/68
	Ronald Mandell Intelmex, S.A. (Address unknown) Contact Section Secretary Carlos A. Maigler A.V. Cuauhtemoc 1203 Dept. 1 Mexico City 13, Mexico	"Technology of the T.V. Cable System"		3/7/68
	Luis E. Ramirez Hurtado Siemens Mexicana, S.A. Mexico 16, D.F. Mexico	"Tomorrow's Technique of Electricity"		4/4/68
Puerto Rico & Virgin Islands	M. Kopchik Jr. Rome Cable (Address Unknown) Contact Section Secretary Carlos R. Rivera 1799 San Alejandro URB San Ignacio San Juan, Puerto Rico	"Distribution Cable Design and Construction Practices in the States"		2/12/68

Section Subsection(SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Puerto Rico & Virgin Islands (Cont'd.)	Alfonse Binbiris Zinsco Electric Corp. Carolina, Puerto Rico	"Design Construction and Tests of Dry Type Transformers"		4/26/68
	E. Rodriques Seda Felix Velazques Adriel Longo (Addresses Unknown) Contact Section Secretary (See Above)	Panel Discussion "Evaluation of URD in Puerto Rico"		3/29/68

the first periodical routinely mailed after receipt of application (Bylaw 108.4).

Applications postmarked after Sept. 15 reap Oct. 1 benefits.

Sections, Chapters, Groups, owe it to themselves to make these advantages known to prospects. (Copy of Bylaws, Emily Sirjane)

**OPERATION G-I-T GOALS.** Membership and Transfers Committee is concerned lest change of officers in Sections create a hiatus in the pursuit of Operation G-I-T goal of 10% net gain in membership by year-end 1968 (E. E. Feb., p. 1). Calendar of Section Operations (Manual, p. 37) called for appointment of Membership and Transfers chairman in July. His obligation to appoint and stimulate into action a rather large committee ("at least one member for each concentration of members or potential members") is covered in detail in the Manual (pp. 22, 23, q. v.). This is a job for August. The committee's first move is to meet and plan strategy for the G-I-T pushover from September to December. (See preceding paragraph for incentives.) (And note well: Section rebates for 1969 are based on total membership of record Dec. 31, 1968.)

**IEEE PENETRATES ANTARCTICA.** With establishment by ExecCom in June of Region 10's New Zealand Section, which includes the Ross Dependency among others in the country's administrative-political jurisdiction, IEEE extends its lengthening reach to Farthest South. It already penetrates the Arctic Circle through North Alberta (Region 7), Norway and Sweden Sections (Region 8).

Petitioners were concentrated in Auckland, Wellington, and Christchurch, but with a generous sprinkling elsewhere in North and South Islands.

**LOCAL ENGINEERS' CLUBS.** Section relations with these and similar organizations have significant tax implications. Section Chairmen should review Statement of Policy #1. In fact, John Buckley should be informed of any tax problem, "before the fact rather than after."

**RELATIONS WITH THE COLLEGES.** Regions encourage Sections, Subsections, Chapters, to meet Counselors and Student Branch and Student Associate Branch officers in person; and late September is a good time to do so. Arrange then to exchange speakers and visits between Section and Branch, hold joint meetings, undertake mutual tasks. (See Manual, pp. 42-44, Students Night.)

Early fall is also preparatory time for any college papers contest to be run in the spring; students have to start work well in advance. (Leaflet, "IEEE Student Paper Contests," copy, Mrs. Emma White)

Student Branches, Student Associate Branches, are prime fields of IEEE's future growth. Regions and Sections, both, cultivate them.

**PICKUP AND FEEDBACK.** In Montreal Section's bi-lingual "Current Phase Courante" for May '68, H. H. Schwartz notes editorially: "In Montreal we cooperate with the Science Fair—a high school science students' project. \* \* The students of today are the engineers—and the IEEE members—of tomorrow. \* \* The advice and assistance you give now may help your own youngster become a better engineer later." . . . San Francisco's "Grid" for May, speaking of a high school student contest at Wescon, says: "Judges were darned near overwhelmed with the exceptional quality of the entries. Most noteworthy: Straight-A students also are student-government leaders and top flight athletes and involved in community activities. They don't seem to need Haight-Ashbury at all!" (Exclamation point supplied.) . . . The Power Group, in the June issue of its Chapter Newsletter, gives a succinct summary of a large Group's structure and its Chapters; bears evidence of a neighborly community of interest with the IEEE Group on Industry and General Applications. Guy Murdock's piece says: "An engineering education represents an investment of approximately \$30,000. Membership in a Group protects the investment." . . . Central Indiana's "Reporter," May '68, ran an article on "Timing and Scoring the Indianapolis Speedway Race." ("Churchill Downs Section" please copy.)



IEEE EMBLEM IN NEW SETTING. Description of the new (still being manufactured) service-recognition pins (E. E. June, p. 1) brought a question from Region 4's Secretary-Treasurer Bruncke as to relationship of the new Section Chairman device to the black-and-gold IEEE Past Section Chairman lapel button he has been wearing since 1963.

See Section Manual, p. 41, para. 8. These black-and-gold buttons will continue to be for sale to those who wish them until the present stock is exhausted and then withdrawn from catalog. For a time, therefore, there will be a choice afforded, in recognizing the advent of a new Past Section Chairman, between two types of insignia, each having distinctive features. Watch Spectrum for announcement and illustrations.

#### STUDENT NEWS

STUDENT BRANCH REPORTS, if not submitted at close of academic year, are now overdue. Report is on (1) financial operations; (2) activities, accomplishments, problems encountered in operating Branch. (Counselors, Branch Chairmen, Regional Directors, please note. Particulars, Bob Loftus)

COUNSELORS of Student and Student Associate Branches should immediately order fall supply of Student Membership cards and emblems for presentation to Branch members. (Orders, Mrs. Emma White)

LISTS of Student Branches and Counselors, brought up to date, are being furnished the Regions. (Copies, Bob Loftus)

IEEE STUDENT JOURNAL. After July 1968 issue, publication will be reduced to 5 (from 6) bimonthly issues a year by omission of the July number. Savings will be plowed back to expand pages-per-issue and "thematic" treatment.

STUDENTS ENTERING MILITARY SERVICE retain Student status for a period of 3 years, or longer upon certification (Bylaw 105.7). It is up to each Student to advise IEEE when he is entering military service and when he returns to civilian status so that he may be automatically upgraded.

#### "FOR YOUR INFORMATION"

EDUCATIONAL ACTIVITIES BOARD (EAB) has appointed Lindon E. Saline chairman of its Pre-College Guidance Committee.

IEEE IN ADVANCED EDUCATION. Past President Oliver, in Spectrum, Nov. '67, p. 102, said: "The whole thrust of any IEEE tutorial activity should supplement, and not compete with, the activities of our colleges and universities." The impressive 4 pink-paged listing of current college short courses, in Spectrum, July '68, p. 91, shows that EAB applauds the colleges' teaching that they teach best.

EAB is now looking at non-competing areas—some of them broad, like management, statistics, mathematics, and computer programming—where industry's tutorial capability, rubbing elbows, as it does, with day-to-day illustrative applications, are at IEEE's disposal. There is an educational void there, touched neither by college instruction or by the "cold print" of IEEE's pages.

BLANCHARD-SHORT Associates, Inc., New York, have been chosen to represent IEEE in advertising, in eastern U.S. (E. E. June, p. 3). Three of Will Copp's former salesmen are continuing with the new firm.

JOINT TECHNICAL ADVISORY COMMITTEE (JTAC:IEEE/EIA - see E. E. June, p. 3) presented formally its report, "Spectrum Engineering—The Key to Progress," with recommendations, to Federal

Communications Commission and Director of Telecommunications Management in Washington on July 12. An IEEE advertisement in IEEE Spectrum, July '68, p. 11, outlines the 1200-page report's contents and announces its publication by JTAC. The impact of this volume will be worldwide, since it deals with economic and social yields of a natural resource—another IEEE "first."

VISUAL AND AUDIO AIDS—Personal. E. E. June, p. 3, regarding microform editions of IEEE periodicals, foresaw professional use of projection viewers in the home. Does it foresee, too, professional tape playbacks in the car?

Today's busy M. D., enroute between office and hospital "enjoys" listening to his Society-produced tutorial-tape cartridges on diagnostic and therapeutic techniques. Will tomorrow's busy engineer choose to listen to Group-generated application tidbits while he's stalled in traffic between home and office?

Supplement:  
Canary — Speakers Directory

#### WELCOME ABOARD!

All newly-installed Section officers and committeemen, wherever you are.

New Section: New Zealand Section, from near-Equator to South Pole.

Staff: Robert J. Loftus, Student Activities Coordinator, description of whose duties with Jack Kinn, Educational Services Director, appeared in Spectrum, July '68, p. 22. "Bob" has been a high school teacher, specializing in physics. His coming to us will strengthen the staff by his first-hand knowledge of pre-college career guidance.

#### New Group Chapters in Sections:

<u>Section</u>	<u>Chapter</u>
Boston	Magnetics
Philadelphia	Systems Science & Cybernetics
Pittsburgh	Systems Science & Cybernetics
Southeastern Michigan	Education

- end -

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IEEE's "family" of Units includes Groups, Committees, Boards, Councils, Conferences, Regions, Sections, Subsections, Chapters, Branches, and Headquarters. "Electrical Engineering" (E. E.) helps bring them together.

When E. E. refers to staff members, get full name, assignments, etc., from "IEEE Spectrum"; listed monthly on second page after table of contents. Address them: IEEE, 345 East 47 Street, New York, N.Y. 10017. Or phone Area 212 - 752-6800.