

ELECTRICAL ENGINEERING®

"THE WHITE-TOPS ARE A-ROLLIN', rollin', The big wheels keep on turnin', To take me to the promised land From which there's no returnin'."

The catchy cadence of this pioneers' song picks up "reverb" in IEEE as its wagonmasters, readers of "E. E." roll on into the busy season. What few backward glances we take are over the shoulder, just to judge the terrain made good. Main chance is on the push ahead.

MEETINGS, PAPERS, PEOPLE are the marrow of IEEE's substance—especially people; meaning all our members. The more that those who guide the working units think people, the more savvy in our product-mix, the better our meetings, the wider the appeal of our papers, the happier our people. (Reread Herwald: E. E. Feb., p. 1; Apr., p. 1.)

ENGINEERING INTERESTS of various members do indeed span full octaves between the laboratory and the marketplace. IEEE embraces all. The Board of Directors (BofD) is concerned (see E. E. June, p. 6) that a balance be preserved between a) research and b) applications, in the Institute's planning of local meetings, our conferences, and all publications.

As noted in E. E. 11, Apr. '67, p. 5, Opinion Research Corp. (ORC) was retained by BofD to make an in-depth sampling of members' attitudes toward IEEE and its publications; and E. E. Aug. '68, p. 3, reported that the Long Range Planning Committee (LRPC) had given priority to study of the survey so produced and to a staff analysis of it (to be further reported

on in December Spectrum). August '68 BofD, with this and other input, determined that applications-directed engineering needs more emphasis than it has been getting. Without diluting our coverage of research and development (R&D), future deliberations and the record should heed the fact that a preponderance of electrical-electronic engineering time and thought is directed to the design and furnishing of specific products, systems, and services which enter the lives, homes, and workplaces of the millions.

Watch November and following issues of IEEE Spectrum for evidence of the Publications Board's prompt adaptation to the directed emphasis. (Group AdComs, Transactions editors, Section ExComs, Conference chairmen, please note.)

Does this represent a change of compass course for IEEE? Let's call it one, but of the type routinely made to keep any craft on a Great Circle. . . General Manager Don Fink would appreciate receiving feedback on this for BofD.

CHALLENGES AND OPPORTUNITIES

PERFORMANCE OF A PROMISE. In our membership literature we say: "By joining the IEEE, you will have the opportunity to meet and talk with other electrical and electronics engineers, particularly the leaders of the profession." Are your Sections or Chapters, symposiums, conferences geared to redeem that promise? . . . Are the leaders there? . . . Are they talking to neophytes? . . . Do the regular attendees chime in?

Hint: Form large welcoming committees of extroverts in your meetings units to blanket every gathering. Taking their cue from the President's exhortation in E. E. Apr., p. 1, let them introduce those who haven't yet or don't participate to those who do. The latter include, for example, officers, former officers, committee chairmen, the speakers, visiting fire chiefs, and selected, successful, local engineers. (Naturally this would have to be done by consent of the "doers." But it is hard to see on what grounds consent would be withheld.)

Could the entire IEEE BofD turn this trick en masse? Not unless they were there. . . Will it do itself? Not on your holographic tintage!

OTHER TOP-SIDE DEVELOPMENTS

BYLAWS CHANGES enacted by BofD Aug. 21 are contained in a new revision being mailed currently to the usual recipients; it supersedes the Bylaws version of Jan. 4, '68. (Copy, Veronica Lewis)

Editorial changes were made in Bylaws 110.3, 201.1, 203.1, 301.1. Gist of substantive amendments were as follows; see Bylaws reprint for official wording:

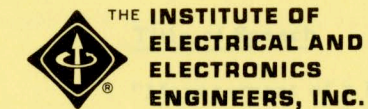
109.4 (new) - Option for 4 years granted Student and Student Associate members, for duration of any military service plus 60 days: either 1) continue status and privileges at usual dues, or 2) suspend status and privileges without dues and with transfer to appropriate grade upon reinstatement. (Note - In either case, Student must notify IEEE dates of entry into service and release.) . . . 302.2 and 302.5 - Without increasing the total number of members, the chairman of the Educational Activities Board (EAB) is placed on the IEEE Executive Committee (ExecCom), with Coordinator duties. . . 309.2 - A variable ceiling is placed on the number of Fellow recommendations in any one year, at 1/2 of 1% of the number of Senior Members enrolled the previous December 31. (Note - With 25,000 SMs, maximum under new formula would be 125—same as former fixed ceiling. Year-end SMs, last 3 years - 26,017). . .

309.6 - Senior Past President is made chairman of Intersociety Relations Committee (ISRC) and Junior Past President a member, in preparation for chairmanship. Appointments of 3 of ISRC's 9 members to expire each year. . . 309.10 - Provides that the Senior Past President serve as chairman of the Nominations & Appointments Committee (N&A); that N&A consist of not more than 12 members recommended to BofD by N&A, but no longer limited exclusively to BofD continuing members; that 2 N&A members be chosen from a slate of 4 named by the Technical Activities Board (TAB); that 2 immediate-past Regional Directors may be included; that the other N&A members shall be BofD members, including 2 who shall have completed at least one year of their terms. . . 401.16 - Regarding Regional funds, all Regions hereafter included alike: Subject to budget limits approved by BofD, ExecCom shall authorize the transfer of funds to Regional treasuries; amounts to be decided in consultation with the respective Regional Directors. . . 407.4 - Spells out a proviso for acceptance of a school at which it is desired to establish a Student Associate Branch (cf. E. E. June, p. 8): Provided that the curriculum of the institution in Regions 1 to 6 (U.S.) has been accredited by the Engineers Council for Professional Development (ECPD), or in other Regions its curriculum is considered satisfactory for this purpose by ExecCom. . . 407.12 - Puts any Student Branch or Student Associate Branch in U.S. on probation following loss of its institution's ECPD accreditation.

ELECTIONS & APPOINTMENTS. Subject to ratification by 1969 BofD or ExecCom in January, chairmen of 1969 standing committees (Bylaws 304, 309) have been notified of their selection by August BofD, and have recommended their slates of officers and committeemen (E. E. Aug., p. 2).

In Nov. '68 the IEEE Secretary will issue call for nominations of 1970 President, elected Vice President, and Directors-at-Large, for election during 1969.

BIOGRAPHIES OF CANDIDATES for 1969 officers and Directors were mailed with the ballots in August. Save these data in your



SPEAKERS DIRECTORY

E. E. No. 19
October 1968

The information in this Directory was obtained from reports of meetings held by Sections, Subsections and Group Chapters during the period May 1, 1968 through August 31, 1968. Section officers may be contacted when address of speaker has not been furnished to IEEE. (Section officers are listed in IEEE Organization Roster)

Section meetings sponsored by Group Chapters are identified by Group Codes shown below.

<u>Group Code</u>	<u>Group</u>	<u>Group Code</u>	<u>Group</u>
G-AFS	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

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Boston	M. Wilson Honeywell Radiation Lab. Boston, Mass.	"Management of a Research & Development Center"	G-AES/EM	5/15/68
	H. A. Wheeler Wheeler Labs. Great Neck, N. Y.	"A Systematic Approach to the Design of a Radiator Element for a Phased- Array Antenna"	G-AP/MTT	5/16/68
	R. E. Chapman U.S. Army Elec. Command Ft. Monmouth, N. J.	"Holographic Read-Only Memories"	G-ComTech G-C	5/8/68
	-M. L. Polanyi American Optical Co. Brighton, Mass. -W. Gamble Children's Medical Center Boston, Mass.	"Some Clinical Applications of Fiber Optics"	G-EMB	5/9/68
	-J. F. Lanigan Bolt, Beranek & Newman, Inc. -A. W. DeMarzio RCA, Burlington, Mass. -A. M. Filipov Tracerlab, Waltham, Mass.	"Time-Shared Computer- Toy or Tool?"	G-EMC/NS	5/21/68
	L. G. Rubin MIT, Cambridge, Mass.	"Detectors for Infrared, Visible and Ultraviolet Radiation"	G-IM	5/9/68
Buffalo	Dr. Edward Rupp Bell Aerosystems, Buffalo	"Light Weight Troposcatter Communications"	G-AP/MTT	5/1/68
	Dr. Henry J. Kelley Analytical Mechanics Assoc. Westbury, N. Y.	"Some Guidance Applications of Optimization Theory"	G-AC	5/6/68
Connecticut	Lloyd R. Jones Rolock, Inc. Fairfield, Conn.	"Dielectric Strength- Instrumentation"		5/6/68
	Lloyd R. Jones	"Vacuum Tubes-Transistors"		5/13/68
	Lloyd R. Jones	"Digital Circuits-Motors"		5/20/68
	Dr. Leo Young Stanford Res. Institute Menlo Park, Calif.	"What Are Microwave Filters?"	G-AP/MTT	5/15/68
	Prof. William Glenn Yale Medical School New Haven, Conn.	"The Essence of Medicine & Biology for Engineers"	G-EMB	6/6/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
New Jersey Coast	R. A. Newell RCA, Princeton, N. J.	"A SolarArray/Battery Power System For Manned Orbiting Space Stations"	G-AES/R G-PMP	5/15/68
	Dr. Arthur Kohlenberg Codex Corporation 222 Arsenal Street Watertown, Mass. 02172	"Error Control in Digital Communications"	G-AES G-ComTech	6/19/68
New York	D. Hanson Western Union 60 Hudson St., N. Y.	"Broad Band Switching"	G-ComTech	5/8/68
	Irwin Welber Bell Tele. Labs. Holmdel, N. J.	"SF Submarine Cable"	G-ComTech	5/15/68
	C. Clos American Tele & Tele Co. 195 Broadway, N. Y.	"Worldwide Dialing"	G-ComTech	5/22/68
	V. Nickelson Jerrold Electronics	"Community Antenna TV"	G-ComTech	5/27/68
	J. H. Branch RCA Comm. Corp.	"Computer Switching"	G-ComTech	5/29/68
	Dr. Joel M. Sturman Bell Tele Labs. Murray Hill, N. J.	"An Iteratively Structured Associative Computer"	G-C	5/16/68
	Wayne Cotten National Security Agency Washington, D. C.	"Advances in Computer Technology"	G-C	6/11/68
	Vladimir G. Gelrovatch Electronic Components Lab. U. S. Army Electrics Com. F. Monmouth, N. J.	"Microwave Integrated Electronics Comes of Age"	G-ED	5/16/68
	E. R. Berlekamp Bell Telephone Labs. Murray Hill, N. J.	"Survey of Coding Theory"	G-IT	5/15/68
	-V. C. Iacono U. S. Naval Applied Science Lab. Brooklyn, N. Y.	"Maintenance Simulation Model"	G-R	5/22/68
	-Julian Reitman United Aircraft Corp. Bridgeport, Conn.	"Computer Simulation In Reliability and Maintainability"	"	"
North Jersey	Dr. Tebo Bell Labs. Murray Hill, N. J.	"What You Can Expect in the Future of Communications"		6/13/68
	E. W. Van Winkle Bendix Corp. Teterboro, N. J.	"Neo-Modern Control Theory"	G-AC	5/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
North Jersey (Cont'd.)	-Henry J. Andreas RCA, ASPEP -George O. Ovitt Insurance Consultant	"Engineers-Why the Shortage?" #1 "The Outlook for Employ- ment Security for Engineers" #2 "Portable Pensions"	G-C	5/17/68
Rochester	Robert Chetty Xerox Corporation 1350 Jefferson Road Rochester, N. Y.	"Technical Profile of the Telecopies"	G-ComTech	5/7/68
Schenectady	Dr. Vincent J. Schaefer State University of N. Y. Albany, N. Y.	"Thunderstorm Field Research"		5/14/68
	Dr. R. J. Roy RPI, Troy, New York	"Identification and Adaptation in Control Systems"	G-AC	5/1/68
	R. F. Miller General Electric Co. Schenctady, N. Y.	"Discrete Item Manufacturing"	G-IGA	5/13/68
	W. W. Mumford Bell Telephone Labs. Whippany, N. J. 07981	"Noise Performance Factors in Communications Systems"	G-MTT	5/7/68
	David J. Hodges General Electric Co. 1 River Road Schenectady, N. Y.	"State of the Art of Ferrite Circulators"	G-MTT	6/19/68
Adirondack (SS)	-R. W. Sittner -N. J. Burkard General Electric Schenectady, N. Y.	"Process Control Computers"		5/22/68
Syracuse	Dr. N. Schwartz Syracuse University	"University and Industrial Management Compared"	G-EM	5/22/68
Worcester County	Richard Kleber Worcester Science Museum Worcester, Mass.	"Science Is For Everyone"		5/21/68

REGION 2

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Allegheny Mountain	Bruce C. Young Stackpole Carbon Co. St Marys, Pa.	"Psychological Testing and its Practical Application"		6/14/68
Baltimore Annapolis (SS)	Christian Ondishko Baltimore Gas & Elec. Co. Baltimore, Md.	"The Calvert Cliffs Nuclear Power Plant Story"		5/15/68
Eastern Shore (SS)	A. L. Crichton Allis-Chalmers Corp. Milwaukee, Wisconsin	"Versapac Motors"		5/7/68
Canton	Brother Robert Francoer Walsh College Canton, Ohio	"Logic and Women"		5/21/68
Central Pennsylvania	Dr. John C. Lily Communication Res. Inst. Miami, Florida	"Problems in Human Commu- nications; the Construction of Working Hypothesis on the Bases of Dolphin Logic and Thinking"		5/14/68
Cincinnati	-Glen R. Haas, Jr. (Student) University of Cincinnati Cincinnati, Ohio -William D. Pilgram (Student) (See-above) -Prof. R. H. Engelman (See-above)	"A Study of the Development of Radiation-Hardened In- tegrated Circuit" "An Electronic Displacement Measuring System" "Evolution of the Electrical Engineering Curriculum in the the Past Decade- The Effect on the Planning for the New Engineering Building"		5/24/68 " "
Cleveland	William Skiles Radio Communication Co. Cleveland, Ohio	"Station Voice Identifier"	G-VT	5/14/68
Columbus Zanesville (SS)	Dr. David M. Douglas Armco Steel Co. Middletown, Ohio	"Lecturer on ESP"		5/17/68
	Hary Bledsoe Muskingum Technical Inst.	"Appeal for Help for Technical Institute"		6/19/68
Dayton	Ralph T. Riefenstahl Ohio Bell Tele. Co. 100 Erieview Plaza Cleveland, Ohio 44114	"Human and Machine"	G-C	5/16/68
North Jersey	L/Col. Jack E. Steele 6570 Aerospace Med. Res. Lab. Wright-Patterson AFB	"Machines That Think- and People Who Don't"	G-EM	6/4/68
Delaware Bay	Stanton T. Friedman Westinghouse Elec. Co. Pittsburgh, Pa.	"Unidentified Flying Objects"		5/6/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Johnstown	R. A. Worth U. S. Navy Washington, D. C.	"U. S. Navy SEALAB II Experiment"		5/21/68
Lehigh Valley	William H. Kumm West. Res. & Eng. Center Annapolis, Md.	"Deep Ocean Technology"		5/10/68
	William F. Shelley, Jr. Metropolitan Edison Co. P. O. Box 542 Reading, Pa.	"Live Line Maintenance on 500 KV Circuits"	G-P	5/17/68
Lima	Dr. Robert E. Fenton Ohio State University Columbus, Ohio	"Highway Automation"		5/15/68
	Edward J. Duckett Westinghouse Elec. Corp. Churchill, Pa.	"The Road Marked 2000"	G-AES	5/7/68
North Central Ohio	E. Aro North Elec. Co. Galion, Ohio	"Pulse Code Modulation Transmission Techniques"		5/23/68
Philadelphia	Dr. Joseph Smagorinsky Environmental Science Services Administration	"Theoretical Modeling of the Atmosphere and the Numerical Simulation of its General Circulation."		5/8/68
	Carl O. Roberts, Jr. NASA, Goddard Space Flight Ctr. Greenbelt, Md.,	"The Apollo Network"	G-AES/VT G-ComTech	5/7/68
	L. E. Cassel Philco-Ford Blue Bell, Pa.	"Vocoders and Speech Processing Techniques"	G-A&E/IT	5/13/68
	Manfred Espig General Elec. Valley Forge, Pa.	"Computer Aided Circuit Analysis and Design Work- shop"	G-AC	5/2/68
	Murlan S. Corrington RCA, Camden, N. J.	"Computers, Modern Eng- ineering 2nd Management"	G-EM	5/14/68
	Leslie Flory RCA, Trenton, N. J.	"Another Look at Engineering in Medicine and Biology"	G-EMB	5/14/68
	Dr. Reinhard Meier Xerox Corporation,	"The Principle and Some of Its Applications"	G-IM	5/16/68
Sharon	Dr. E. W. Boehne ITE Circuit Breaker Co. Philadelphia, Pa.	"Nature Art and Arithmetic"		5/15/68
Southern New Jersey	Arthur Diani Bendix Corporation Teterboro, N. J. Lt. Col. Lyle Marshall NAFEC, Pomona, N. J.	"C141 All Weather Landing System" "		5/16/68 "

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Susquehanna	K. Zimmerman Cedar Crest High School Lebanon, Pa.	"The Sky as We See It"		5/7/68
Washington	Dr. Howard E. Tompkins IEEE	"Modern Information Systems and the IEEE"		5/13/68
	Dr. John W. Findlay Nat'l. Radio Astronomy Obsv. Charlottesville, Virginia	"Recent Discoveries in Astronomy"	G-AES	5/6/68
	P. Ehlers Scope, Inc. Reston, Virginia	"Time Modulated Antenna Arrays"	G-AP	5/21/68
	F. W. Schultz Western Union	"Autodin-Its Development and Operational Characteris- tics"	G-ComTech	5/7/68
	Robert J. Darcey NASA	"Single Sideband Communica- tions With ATS Satellite"	G-ComTech	5/28/68
	Murray Stein Computer Consultant	"Practical Aspects of Logic Design Using Integrated Circuits"	G-C	5/1/68
	Henry D. Arnett Naval Research Lab. Wash. D. C. 20390	"High-Power Broadband Traveling-Wave Tubes"	G-ED	5/6/68
	Henry M. Hoffart General Elec. Co. Valley Forge, Pa.	"EMC and Radiated Hazards"	G-EMC	5/16/68
	Dr. Robert D. Turner Institute for Defense Analysis Arlington, Virginia	"A LaPlace-Transform Method for Signal Processing Analysis"	G-IT	5/15/68
	Robert V. Garver Harry Diamond Labs. Washington D. C.	"360° Varactor Linear Phase Modulators"	G-MTT	5/14/68
	John J. Renner Jansky & Bailey Systems	"Benefits and Responsibilities of Membership in the Vehic- ular Technology Group"	G-VT	5/29/68
	Lt. Col. Jack Steele Biomedical Lab. Wright Patterson Air Force Base, Ohio	"Mathematical and Hardware Modeling of Thought Pro- cesses"	G-SSC	5/15/68

REGION 3				
Section Subsection(SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Alabama	Dr. H. M. Long Union Carbide, Corp. Tonawanda, N. Y.	"Cryogenics for the Electrical Industry"		5/13/68
	Len Shannon Univac Div-Sperry-Rand Corp. 3105 Montgomery Hwy. Birmingham, Alabama 35209	"The Other Side of Interface"	G-ComTech	5/13/68
	Dr. R. S. Simpson University of Alabama	"Waveform Distortion in Telemetry Systems"	G-ComTech	6/10/68
Atlanta	Earl W. Nelson Met. Atlanta Rapid Transit Auth. Atlanta, Georgia	"New Developments in the Atlanta Rapid-Transit Plans"		5/20/68
	Dr. R. H. Pettit Georgia Inst. of Technology Atlanta, Georgia	"Non-Parametric Detectors"	G-ComTech	5/27/68
	William Lambdin Fairchild Elec.-Metrics Corp. 88 Church St. Amsterdam, N. Y. 12011	"Modern Trends in RFI Measurements"	G-EMC	5/7/68
	A. E. Kilgore Allis-Chalmers Milwaukee, Wisconsin	"Field Re-building of 500 Kv Power Transformers"	G-P	5/20/68
Rome (SS)	M. S. McDonald Sup., Rome City Schools	"Current Problems in the Rome City School System"		5/28/68
Canaveral	Albert F. Seipert NASA, Kennedy Space Ct., Fla.	"The Role of the Kennedy Space Center in the Future"		5/21/68
	Dr. W. K. Cumming Brevard Junior College Cocoa, Florida	"Cyber Culture and Innovative Man"	G-ComTech	5/27/68
	G. Merritt Preston Nat'l. Aeronaut. & Space Admin. Kennedy Space Center	"Design Engineering Management"	G-EM	5/9/68
	Bob Blue IBM, Cocoa Beach, Florida	"Number Systems for Computer Technology"	G-P	5/23/68
	Dr. D. J. Ritchie Embry-Riddle Aeronaut. Inst. Daytona Beach, Fla.	"The Russian Space Program"	G-R	6/24/68
Central North Carolina	O. E. Haggstron Gen. Elec. Co. Bridgeport, Conn.	"The Industrial Design and the Consumer"		5/21/68
	Dr. Ira Jacobs Bell Tele. Labs. Holmdel, N. J.	"Communications of the Future"		6/18/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Connecticut (Cont'd.)	H. Dagen ARINC Research Corp. Annapolis, Maryland	"Relationship Between Demonstrated and Operational Reliability"	G-R	5/15/68
New London (SS)	Stanton E. Friedman Westinghouse Astronuclear Labs. Pittsburgh, Pa.	"UFO'S Are Real"		5/24/68
Ithaca	Dr. S. J. Buchsbaum Bell Tele. Labs. Murray Hill, N J.	"Nonlocal Phenomena in Solid State Plasmas"		5/7/68
	Dr. Harold Furth Thermonuclear Laboratory Princeton, University	"Acceleration of High Energy Ions by Collective Effects"		5/14/68
Maine	Robert Moskowitz AVCO Corporation 201 Lowell Street Wilmington, Mass.	"Development of a Radio- Astronomy Satellite System"		5/15/68
	-William Roberts U. S. Government, Man. , N. H.	"NASA-ERC Spacemobile Program"		6/25/68
	-Frank Lulis Westinghouse Elec. Corp. Boston, Mass.	"Static Switching"		"
	-Thomas J. Barron Gen. Elec. Co., Boston, Mass.	"Electric Power in the Year 2000"		"
Mid-Hudson	J. L. Giambalvo Con Edison Co. of N. Y. 4 Irving Place, N. Y.	"Design and Layout of Pleasant Valley 345Kv Sub- station"	G-P	5/16/68
Mohawk Valley	Prof. Kenneth Fishell Syracuse University Syracuse, N. Y.	"Toward A Communication Technology in Education"	G-ComTech	5/21/68
	Kenneth G. Heisler, Jr. Atlantic Res. Corporation Alexandria, Virginia	"Tropocal Propagation Measurement and Data Analysis"	G-EMC	5/13/68
	-Alfred L. Tamburrino Rome Air Development Ct. Griffiss AFB, N. Y.	"Evaluation of Plastic Integrated Circuits"	G-R	5/28/68
	-Milton Haus	"Reliability Analysis Central"	"	"
New Hampshire	Kenneth Truesdell Pratt & Whitney	"Jet Turbine Power Generation"		5/8/68
	George Hanlon Whitney-Blake Co. New Haven, Conn.	"An Engineer Tries To Run A Business"		5/8/68
	Dr. Robert Kingston MIT Lincoln Labs.	"CO ₂ Laser Radar"	G-AP/MTT	5/21/68
	R. A. Newell Radio Corp. of America Princeton, N. J.	"A Solar Array Battery Power System for Manned Orbiting Space Station"	G-AES	5/15/68

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Central Virginia	Dr. J. C. Lilly Communication Res. Inst. Miami, Fla.	"Dolphing and Human Communication"		5/31/68
	Jack Wilke U. S. Bureau of Roads	"The Utilization of Electron- ics in Bridge Design"		6/12/68
Charlotte	Hugh Jacks Southern Bell Tele. & Tele. Co. Atlanta, Georgia	"Project Appollo"		5/13/68
	Earl B. Rietz ITE Imperial Corp. Philadelphia, Pa.	"EHV Requirements for Circuit Breakers and Switches"	G-P	5/20/68
	John P. Hamilton Factory Mutual Eng. Div. Charlotte, N. C.	"Combustion Control"	G-P	6/17/68
Daytona	Air Univ. Aerospace Presentation Team	"The U. S. Space Program"		5/7/68
	Al Bischoff Gen. Elec. , P. O. Box 2500 Daytona Beach, Fla.	"Space Benefits"		5/28/68
Eastern North Carolina	Dr. F. P. Brooks Univ. of North Carolina Chapel Hill, N. C.	"Computer Instruction at UNCCH"		5/10/68
Evansville- Owensboro Paducah (SS)	Miss Ember Day General Elec. Co.	"The Twenty-Fifth Hour"		5/21/68
Florida West Coast	Joe Baranowski ECOM, Ft. Monmouth New Jersey	"Microwave Generation From Avalanche Transit Time Diodes"	G-MTT	5/23/68
	G. E. Marks Florida Power Corp. Post Office Box 14042	"Representing a Power System on Stability Studies"	G-P	5/22/68
Fort Walton	Congressman Robert Sikes U. S. Congress Wash. D. C.	"The Importance of the Eglin Complex In Development of Munitions"		5/17/68
Hampton Roads	E. J. Mueller West. Elec. Corp. Baltimore, Md.	"Maritime Mobile Satellite Communications"		5/28/68
	Robert D. Briskman Comm. Satellite Corp. Washington, D. C.	"Future Communications Satellites"		6/29/68
Huntsville Muscle Shoals (SS)	Glenn F. Bradley Reynolds Metal Co. Listerhill, Ala.	"Electrical Engineers Critique"		5/27/68
	George Kenner Ford Motor Co.	"TAXES"		6/21/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Jacksonville	Prof. Thomas Browning Jacksonville Junior College Jacksonville, Fla.	"Barriers to Effective Communication"		5/31/68
Lexington	T. Y. Haggard	"The Air Traffic Control System for FAA"		5/16/68
Memphis	Fred E. Willett Wagner Elec. Corp. St. Louis, Missouri	"Testing Impulse Voltage Distribution in Trans- former Windings"		5/21/68
	-Roy Mestemacher -Robert Tonahill Baptist Memorial Hospital 889 Madison, Memphis, Tenn.	"Clinical Laboratory Data: On Line Acquisition and Reporting"	G-EMB	5/16/68
	Harold Turner Memphis Light, Gas & Water	"Long Range (Electric) System Planning"	G-P	5/13/68
Miami	John D. McCallion Sunbean Electronics 1400 NW 50 St. Fort Lauderdale, Fla.	"Commercial and Military Aircraft of the Nineteen Seventies"		5/28/68
	T. E. Johnson Florida Power & Light Co. P. O. Box 3100 Miami, Fla. 33101	"Florida's New Economic Outlook"		6/25/68
	Harold Sandler, M. D. NASA, Ames Research Ct. Moffett Field, Calif.	"Concepts of Biomedical Instrumentation in Space Program"	G-EMB	5/9/68
Middle Tennessee	James Caldwell Southern Bell Tele. Co. Jackson, Mississippi	"Bell System Picture Phone"		5/16/68
	R. W. Kaisner Westinghouse, Pittsburgh, Pa.	"NERVA Project"		6/20/68
	W. T. Rhoades Highes Aircraft Co. Fullerton, Calif.	"Bipolar Digital Circuits"	G-AES	5/29/68
	Daniel J. Dooley TRW Systems	"Basic Microcircuit Construction"	G-AES	6/20/68
Northeast Mississippi (SS)	-Willis Cook(Student) -James Cooper (Student) Mississippi State College	"Lightning Formation" "Hybrid Computers"		5/7/68 "
Mobile	Lloyd L. Maul Motorola Semi-conductor Prod. Phoenix, Arizona	"Principles and Processing of Integrated Circuits"		5/27/68
New Orleans	John C. Hughes, Jr. Chrysler Corp. New Orleans, Louisiana	"Introduction to Electro- magnetic Interference"	G-EMC	5/7/68
	U. E. Mathis, Jr. Louisiana Power & Light New Orleans, Louisiana	"Engineers Role in Purchasing"	G-P	5/9/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
New Orleans (Cont'd.)	G. W. Cunningham General Electric Co.	"High Voltage DC Trans- mission"	G-P	5/23/68
Oak Ridge	-David Cardwell -Paul Rubel -William Hinton General Electric Co.	"Reliability of Home Appliances"		5/9/68
Orlando	Captain Jack Miller U. S. Navy, Orlando Fla.	"Simulation and Operational Capabilities-NTDC"		6/19/68
	Dr. Jack Morelock Florida Inst. of Tech. Melbourne, Fla.	"Oceanography and its Electronics Aspects"	G-AES	5/22/68
	J. W. Dees, Sr. Martin Co. Orlando, Fla.	"A Millimeter Wave Propa- gation Experiment from the ATS-E Spacecraft"	G-C	5/15/68
	Dr. Tingye Li Bell Tele. Labs. Holmdel, N. J.	"Optical Interferometers and Their Applications to Lasers"	G-MTT	5/13/68
Panama City	A. Marlowe Henne U. S. Navy Mine Defense Lab. Panama City, Fla.	"Laser Applications and Holography"		5/24/68
Pensacola	J. H. Harlow Allis-Chalmers Co. Milwaukee, Wis.	"Nature of Distribution System Ferroresonance"		5/27/68
	Dr. Joe John Medical Center Clinic 1750 N. Palafox St. Pensacola, Fla.	"Radiology-What It Shows and Its Uses"		6/24/68
Savannah	David Anderson Savannah Elec. & Power Co. Savannah, Georgia	"History of the Racing Car"		6/11/68
South Carolina Charleston (SS)	W. L. Schachte Charles Naval Shipyard Naval Base, S. C.	"Professional Registration, Past-Present-Future"		5/14/68
Piedmont (SS)	Grover Gaskins J. E. Shirrine Co. Greenville, S. C.	"Contractor Engineer Relation- ships"		5/16/68
Western North Carolina	D. M. Dent, G. W. Allman American Enka Corp. Enka, North Carolina	"Waste Treatment Programs at American Enka Corporation"		5/28/68
Winston- Salem	R. M. Jacobs Bell Tele. Labs. 555 Union Blvd. Allentown, Pa.	"Insulated Gate Field Effect Transistor (IGFET'S)"		5/16/68
<u>REGION 4</u>				
Central Illinois	Jiri Vlach Univ. of Illinois, Urbana, Ill.	"Computer Aided Filter Design"	G-CT	5/8/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Central Indiana	V. E. Mulvaney West. Elec., Indianapolis, Ind.	"Planned Cities"	G-P	6/13/68
Bloomington (SS)	Dr. T. W. Dakin Westinghouse Res. Lab. Pittsburgh, Pa.	"Electrical Corona"		5/23/68
Central Iowa	William J. Wagner Woodburn O'Neil & Wagner Des Moines, Iowa	"Historic Iowa Landmarks* Design & Construction of Pres. Hoover Memorial"		5/18/68
Chicago	Dr. W. D. O'Neill Univ. of Illinois Chicago, Ill.	"An Experimental and Theoretical Analysis of a Biological Control System"	G-AC	5/21/68
	Dr. M. Stanley Livingston National Accelerator Lab. Weston, Ill.	"National Accelerator at Weston"	G-EM/NS	5/14/68
	Edward Kirkham Kearney & Tracker Corp Milwaukee, Wisconsin	"Numerical Control-What It Is-What It Does"	G-IECI/IGA	5/23/68
	A. Arbeiter Simpson Electric Co.	"Seminar on Electrical Indicating Instruments" "What Engineers Should Know About Electrical Measuring Instruments"	G-IM "	5/16/68 "
	B. Gropp Weston Instruments, Inc.	"DC Instruments; Specific Design Selections, and Application"	"	"
	R. M. Rowell General Electric Co.	"AC Instruments"	"	"
	D. Howard API Instrument Co.	"Electrical Indicating Instru- ment-Relays"	"	"
	R. Brownell Hallmark Standards, Inc.	"In-Plant Meter Calibration Techniques"	"	"
	Prof. R. G. Gallager Mass. Inst. of Tech.	"Topics in Rate-Distortion Theory"	G-IT	5/14/68
	W. R. Brookshier Argonne National Lab.	"Noise Signal Pickup in Coaxial Cables"	G-NS	5/9/68
Fort Wayne	Jerome Potash Burnell Div. of NYTRONICS	"Practical Considerations in Specifying and Designing Filters"		5/9/68
	William A. Zins The Magnavox Co. Bueter Rd., Fort Wayne, Ind.	"Navigation by Satellite"		6/13/68
Illinois Valley	Prof. Philip Weinberg Bradley Univ. Peoria, Ill.	"Television-the other kind"		5/2/68
Iowa- Illinois	Don Hellickson Joslyn Mfg. & Supply Co. Chicago, Ill.	"Trends in Underground Residential Distribution"		5/21/68
Madison	Jean Mattingly General Electric Co.	"The Kitchen of Tomorrow"		5/28/68
Milwaukee	Dr. Tung H. Jeong Lake Forest College Lake Forest, Ill.	"A Demonstration of Holo- graphy and its Relation to Automatic Control Theory"	G-AC	5/1/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Milwaukee	Albert D. Larue Varian, Tube Division Palo Alto, Calif.	"Super-Power Linear Beam Tubes"	G-MTT	5/13/68
	-E. Sankey RTE Corp., Waukesha, Wis.	"Underground Distribution Practices-Part 2"	G-P	5/7/68
	-J. Barger McGraw Edison Co. South Milw., Wis.			
	-R. Bridewesler Hevi Duty Electric Watertown, Wis.			
	-D. Wiser Allis-Chalmers West Allis, Wis.			
Racine- Kenosha	Robert Strecker National Electronics Geneva, Ill.	"SCR Theory, Design & Fabrication"		5/7/68
Nebraska	Andy Remmenga	"Goodyear Tire & Rubber Plant"	G-ComTech	6/20/68
	Dr. Jule Eisenbud Univ. of Colorado, Denver, Col.	"Aspects of the Series Data"	G-EMB	5/14/68
	Robert Bowman Okonite Cable Co. Detroit, Michigan	"Solid Dielectric Power Cables 35 Kv and Below"	G-P	5/6/68
	J. D. Cochran Consumers Public Power Dis. 2510-14th St. Col., Nebraska	"Status of Design and Construction of Cooper Station"	G-P	6/11/68
Northeast Michigan	Hubert K. Brown Cincinnati Milling Machine Co. Cincinnati, Ohio	"Numerically Controlled Tape Machines"		5/16/68
Northeastern Wisconsin	M. N. Ablor Wisconsin Michigan Power Co. Appleton, Wis.	"All Electric or Not"		5/4/68
Rock River Valley	J. P. Engeman Cutler-Hammer AIL Div. Deer Park, L. I., N. Y.	"Laser Light-It's Generation & Use"		5/23/68
Siouxland	J. L. Schowalter General Electric Co. Des Moines, Iowa	"Gas Turbines"		5/6/68
	-William Carter -Donald Marquesen Iowa Public Service Co. Sioux City, Iowa	"The Charles City Disaster" (Recovery From Tornado)		5/28/68
	R. W. Grant Rock Rapids, Iowa	"Rural Electrification in South Vietnam"		6/18/68
Southeastern Michigan	A. R. Cohen Instrument System Corp. Detroit, Michigan	"Vehicular Acoustics & Intelligibility"	G-VT	5/16/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Twin Cities	-Dr. John Milsum McGill University -Dr. Fred Bailey -Dr. Stephen Kahne -Dr. K. S. P. Kumar -Carroll Hall University of Minnesota	"Hybrid Computers; Peaceful Coexistence Between Analog and Digital"	G-AC/C	5/9/68
West Michigan	Robert Shirling Michigan Con. Gas Co. Grand Rapids, Mich.	"Total Energy System"		5/15/68
	Prof. A. D. Moore Univ. of Michigan Ann Arbor, Mich.	"Creativity"		6/6/68
<u>REGION 5</u>				
Arkansas	Sanford Wilbourn Garver & Garver	"Construction and Development of the Little Rock Port Authority"		5/16/68
Beaumont Lake Charles (SS)	Powel A. Scheumack Gates-McHenry & Co. Houston, Texas	"High Voltage D. C. Testing of Insulation"		5/7/68
Corpus Christi	G. G. VanBurkleo Humble, Corpus Christi, Texas	"Oilfield Proudction Automation"		5/16/68
	-Robert Helbush U.S. Weather Bureau Fort Worth, Texas -Paul Moore (See Above)	"Weather Bureau Operation During Hurricanes"	G-P	5/23/68
		"Hurricane Behavior and Characteristics"	"	"
Dallas	E. M. Turner AFAL, Wright-Patterson Air Force Base, Ohio	"Antenna Techniques for Aerospace Antennas"	G-AP	5/21/68
	Dr. W. J. Poppelbaum University of Illinois	"Hybrid-Stochastic Electro Optical Computers"	G-AC/C	5/16/68
	Evan J. Drummond Scantlin Elec. Ins. Los Angeles, Calif.	"System Aspects of a Real- time Stock Quotation System"	G-AC/C	6/5/68
Denver	Prof. W. D. Gregg Univ. of Texas Austin, Texas	"Optimal Space-time (array) Receiving Systems"	G-AP G-ComTech	5/17/68
	Dr. J. R. Ashley Univ. of Colorado Colorado Springs, Col.	"Recent Advances of Generation & Measurement of Low Noise Microwave Signals"	G-MTT	6/6/68
Black Hills (SS)	Dr. Paul Smith Inst. of Atmospheric Sciences S. Dak. School of Mines & Tech.	"The Rapid Project-Cloud Seeding Techniques and Instrumentation"		5/2/68
	Carl Leedy	"Early Days in the Black Hills"		5/17/68
Pikes Peak (SS)	Dr. Frank S. Barnes Univ. of Colorado Boulder, Colorado	"Laser Damage to Biological Materials"		5/22/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
El Paso	Richard Loverne New Mexico State Univ.	"The Study of Fuel Cells"		5/9/68
	Nathan Tonelson Comm. Satellite Corp. Wash., D. C.	"New Communications Ear"		6/13/68
Fort Worth	Milford Murphy Bell Helicopter Co. Hurst, Texas	"The Helicopter Electronic Industry-An Awakening Giant"	G-AES	5/28/68
Houston	Dr. D. G. Simons Robert Lamonte Veterans Adm. Hospital Houston, Texas	"On Line Computer Processing of Physiological Response Data"	G-EMB	5/21/68
	Dr. Larry Blackwell Rice Univ. Houston, Texas	"Space Instrumentation for Geoscience Studies"	G-GE	5/16/68
Kansas City	H. M. Neely Schilling Inst. Salina, Kansas	"Technical Education Programs"		5/9/68
Ozark	J. D. Pitts Gen. Elec., Shreveport, La.	"Lightning Arresters"		5/23/68
Shreveport	W. T. Sumerlin Director Region 5-IEEE	"IEEE Affairs and Engineer- ing Reliability"		5/14/68
	Jack Frazier Frazier Inc., Dallas, Texas	"Sound System Design, Feed- back and Equalization Problems"		5/21/68
Monroe (SS)	Phillip H. Kulche Southern Bell. Tele. & Tele. Co. Monroe, La.	"Project Apollo"		6/11/68
South Plains	-Dr. W. M. Portney Texas Tech. College Lubbock, Texas -David Bradshaw (See above)	"Microwave Integrated Circuits"		5/13/68
		"State Variable Solution Applied to Power Problems"		"
Tulsa	Prof. D. A. Nesmith Kansas State Univ. Manhattan, Kansas	"Insignificant Events of Inter- national Significance"		5/21/68
<u>REGION 6</u>				
Alamogordo- Holloman	Hugh L. French Con. Elec. Mfg. Co. Dallas, Texas	"RAM VHF Radar Modification"		5/29/68
Albuquerque Los Alamos (SS)	R. S. Thurston Los Alamos Scientific Lab. Los Alamos, New Mexico	"Does Freezing Kill"	G-ED	5/24/68
	William L. Briscoe Los Alamos Scientific Lab. Los Alamos, New Mexico	"Lithium-Drifted Germanium Radiation Detector Fabrication"		5/8/68
Buenaventura	James F. Riley Signetics Corporation Palo Alto, Calif.	"People Management in a High Technology Company"	G-EM	5/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Buenaventura (Cont'd.)	John Fordyce TRW Systems Group Redondo Beach, Calif.	"Career Development at TRW"	G-EM	6/19/68
Foothill	Thomas A. Barber Jet Propulsion Lab. Pasadena, Calif.	"1975 Jupiter Flyby Mission Using a Solar Electric Spacecraft"		5/2/68
	J. Sabath Southern Calif. Edison Co. Los Angeles, Calif.	"Engineering for the Future in a Large Electric Power System"		5/9/68
	E. J. Rice TRW Semiconductors, Inc. Lawndale, Calif.	"Recent Advances in Microwave Power Generation"		5/16/68
	Dr. Brian Henshall Aerospace Corporation San Bernardino, Calif.	"Aerospace Mission"		6/18/68
Fort Huachuca	Dr. John Ryan Motorola Executive Inst. Tucson, Arizona	"Executive Education"		5/23/68
	Dr. R. J. Weldon Univ. of Arizona, Tucson Az.	"Human Factors"	G-AES	5/7/68
	Dr. J. W. Perry Univ. of Arizona, Tucson Az.	"Non-Numerical Applications of Computers"	G-AES	5/14/68
Hawaii	T. M. Nichols McGraw-Edison Co. Honolulu, Hawaii	"The Construction of Extra High Voltage (EHV) Trans- formers"		5/8/68
Los Angeles Council	Dr. L. C. Van Atta NASA, Cambridge, Mass.	"Component Development for Space Communications"	G-AP	5/16/68
	-Dr. Elliot Axelband Hughes Aircraft -Dr. Robert Kalaba, RAND -Prof. Thomas L. Grettenberg -Prof. R. Sridhar Caltech	"Civil and Social Systems in Retrospect"	G-AC	5/14/68
	Dr. Kurt Amboss Hughes Research Labs. 3011 Malibu Canyon Rd., Malibu	"Recent Advances in the Design of Electron Beams"	G-ED	5/14/68
	William R. Johnson TRW Redondo Beach, Calif. Alan K. Thomas (See above)	"Computerized EMC Specifi- cation Development for Space Developments" "Math Modeling Techniques for a Computerized EMC Analysis"	G-EMC "	5/23/68 "
	Dr. Matthew B. Wolf Univ. of Southern Calif.	"The Role of Fluid and Electrolyte Balance in the Use of the Artificial Kidney"	G-EMB	5/16/68
	-Dr. E. C. Boycks -Dr. J. Leonard -E. Buzza Beckman Instruments, Inc. Fullerton, Calif. 92634	"Experience With a New On- Line Chemistry Monitoring System"	G-EMB	6/20/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Los Angeles Council (Cont'd.)	C. C. Coppin Kaiser Engineers	"Propulsion Power for the SCRTD System"	G-IGA	5/14/68
	J. S. Hamel J. S. Hamel Co. Burbank, Calif.	"Disneyland U.S.A."	G-IGA	6/11/68
	Dr. M. Vourgourakis Hughes Aircraft, Culver City	"Coherence in Holography"	G-IT	5/16/68
	C. H. Wilts Calif. Inst. of Tech. Pasadena, Calif.	"Preparation and Properties of Magnetic Thin Films-Where we Stand Today"	G-M	5/15/68
	Dr. S. Dean Wanlass Wanlass Elec. Co. Santa Ana, Calif.	"The Paraformer tm"	G-M	6/19/68
	Dr. Charles R. Boyd, Jr. Prof. of Eng. UCLA	"Latching Ferrite Phase Shifters"	G-MTT	6/13/68
	Prof. Morris Asimow Eng. UCLA, Los Angeles	"System Engineering of Economic Development in South America"	G-SSC	5/8/68
	Dr. R. Gagliardi Univ. of Southern Calif. Los Angeles, Calif.	"Some Statistical Design Techniques for Vehicular Communications Systems"	G-VT	6/10/68
Montana Billings (SS)	Dan Berube Montana Power Co. Billings, Montana	"Billings Steam Plant No. 2 Discription and Capabilities"		5/9/68
	Claude Marshall Bureau of Reclamation	"Yellowtail Dam Distription and Capabilities"		6/8/68
Butte (SS)	R. A. Hofacker Montana Power Co.	"Intercompany Coordination in Electric Installations"		5/10/68
Orange County	Merrill I. Skolnik Naval Res. Lab. Wash. D. C.	"The Role of the Antenna in Radar Systems"	G-AP	5/7/68
	Tom Floyd Northrop/Norair	"Trends and Applications in Industrial Communications"	G-EM	5/21/68
	Dr. John V. Zuckerman Univ. of Southern Calif. Los Angeles, Calif.	"Organizing Effective Work- Terms"	G-EM	6/20/68
Phoenix	Victor E. Rothe Arizona State Univ. Tempe, Arizona	"Establishment of an Aviation Training Center on the Gila River Indian Reservation"		5/16/68
	David Fairley Lenkurt, Gen. Tele. & Elec.	"Design Details of the Intelsat Communication Satellite Earth Satations"	G-AP/ED G-MTT	5/13/68
	Cecil W. Gwinn Wright Patterson AFB, Ohio	"Biological Controls and Information Processing"	G-AC	5/3/68
Portland	Walter A. Peterson Univ. of Oregon Med. School	"A Flexible Date-Acquisition & Formating Systems for Digital Computers With Bio- medical Applications"		5/16/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Portland (Cont'd.)	-Robert Mooney Cornell, Howland, Hayes and Merryfield	"Speed Control of Three-Phase Induction Motors"		5/16/68
	-Barrie Gilbert Tektronix, Inc.	"A DC-500 MHz Amplifier/ Multiplier Principle"		"
	W. O'Hare IBM, San Jose, Calif.	"The Computer as an Instruc- tional Device"	G-C	5/28/68
	Wendell Haley FAA Portland Int'l. Airport Portland, Oregon	"Federal Aviation Adminis- trations's Facilities and Electronic Equipment"	G-CT/ED G-IM	5/9/68
Eugene (SS)	Chris J. Wheeler	"We Won't All Die"		5/7/68
Richland	Walter A. Oberst Franklin County Hist. Society Pasco, Washington	"Historical Highlights of Southeast Washington"		5/24/68
Sacramento	R. W. Warfield American Tele. & Tele. Co. 74 New Montgomery St. San Francisco, Calif.	"Overseas Submarine Cables"	G-ComTech	5/9/68
San Diego	Duane Edgington, (Student)	"Development of a Logical Model of Nervous Activity"		5/8/68
	-Wilbur Harvey, (Student)	"Pulse Technology"		"
	-Andy Sturman, (Student)	"Single Sideband Generation By Sideband Folding & Audio Filtering"		"
	Monte Wright, (Student)	"Additional Indications For Drivers"		"
	Robert H. Boulio Cohu Electronics San Diego Div. 5725 Dearnly Villa Rd. San Diego	"New Frontiers for Under- water TV"	G-AES	5/15/68
	Saxe Montgomery Geodyne, San Diego, Calif.	"Data Package for Study of North Pacific Temperature Anomaly"	G-AES	6/19/68
	George M. Schultz Gulf General Atomics San Diego	"Fast Breeder Reactor"	G-P	6/12/68
San Francisco	Wright H. Huntley, Jr. Hewlett-Packard Palo Alto, Calif.	"Review of Holography"	G-AP	5/9/68
	Dr. Jack J. Rodden Lockheed Missiles & Space Co. Sunnyvale, Calif.	"Orbital Gyrocompassing"	G-AC	5/21/68
	Messrs. Kerwin, Mitra, Rigby, Orchard - NASA, U. C. (Davis) U. C. (Berkeley) Lenkurt	"Modern Active Filter Design Techniques"	G-CT	5/22/68
	-R. F. Horta -F. C. Doell Pacific Tele. Co. 666 Folsom St., San Francisco	"Application of a Switched 230. 4 Kilobit Data Transmission System for Revenue Accounting"	G-ComTech	5/15/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
San Francisco (Cont'd.)	Ralph R. Wheeler Lockheed Missiles & Space Co. Sunnyvale, Calif.	"Hybrid Computation"	G-C	5/28/68
	Dr. Mickey Unohara Nippon Electric Tokyo, Japan	"Microwave Semiconductors in Japan"	G-ED	5/10/68
	Dr. Gerald Westheimer Univ. of Calif., Berkeley, Calif.	"Transfer Functions of Human Biological Systems"	G-EMB	5/21/68
	Brian Unter Hewlett-Packard Co. Palo Alto, Calif.	"A New Spectrum Analyzer for EMI Measurements"	G-EMC	5/20/68
	Robert Scholt Univ. of Southern Calif. Los Angeles, Calif.	"Synchronizable Codes for the Noiseless Channel"	G-IT	5/16/68
	John C. Mallinson Ampex Corp. Redwood City, Calif.	"Magnetic Tape Recording"	G-M	5/14/68
	-D. K. Adams -R. Y. Ho Stanford Res. Inst. Menlo Park, Calif.	"The Transistor, A Microwave Filter Element"	G-MTT	5/28/68
	-V. E. Dunn -A. J. Domenico Melabs, Palo Alto, Calif.	"Recent Advances in Micro- strip Circulators"	"	"
	Theodore Hamm Law.Rad. Lab., Livermore	"A Survey of Alaska for Nuclear Testing"	G-NS	5/21/68
	Dr. D. McWilliams Lockheed Missiles & Space Co. Sunnyvale, Calif.	"Integrated Circuits, Photo Currents & Q Switched Lasers"	G-PMP	5/28/68
	Fred Binford Sanford Univ. for Math. Studies in Social Sciences"	"The Use of Computers in the Classroom in Elementary and Secondary Education"	G-P	5/14/68
	Dr. R. G. Stewart Lockheed, Palo Alto Res. Lab. 3251 Hanover St., Palo Alto	"Causal Redefinition of Failure Rate"	G-R	5/16/68
	Dr. Richard Smallwood Stanford University	"Encoding of Medical Opinion"	G-SSC	5/20/68
	James R. Glasser Motorola Inc. 4501 W. Augusta Blvd. Chicago, Ill. 60651	"Adjacent Channel Interference in FM Communication Systems"	G-VT	5/20/68
	N. R. Landry Federal Comm. Commission San Francisco, Calif.	"General Information on the 2-Way Communication Services and FCC's Respon- sibilities"	G-VT	6/17/68
East Bay (SS)	Lynn C. Holmes IEEE	"What Makes IEEE Tick"		5/7/68

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Santa Barbara	A. S. Trundler E. G. & G., Santa Barbara, Calif.	"Radiation Measurements, Aerial"		5/17/68
Santa Monica Bay	Dr. M. F. Gordon Hughes A/C Co. Coulver City, Calif.	"Advances in Radar Since WWII"		5/21/68
Seattle	Malcolm T. Stamper The Boeing Co., Seattle, Wash.	"The 747 Story"		5/16/68
	-John A. Monson Colorcable, Inc. Seattle Wash.	"Cable Television Systems"	G-ComTech	5/9/68
	-Michael Rodrequiz Vikoa, Inc. Hoboken, N. J.			
	Martin R. Smith Bussman Mfg. Div. McGraw-Edison Co., St. Louis	"Low Voltage Fuses and Their Co-ordination"	G-IGA	5/13/68
	Frank Maynew Federal Pacific Elec. Co. Burlingame, Calif.	"Arcing Fault Protection"	G-IGA	6/3/68
	David C. Porter The Boeing Co., Seattle, Wash.	"Failure Analysis and Physics of Failure; Electronic Parts"	G-PMP	5/28/68
Tucson	J. Paul Georgi Annapolis, Maryland	"Electronic Activities in the Dept. of Defense"		5/14/68
	Dr. Irving Kaufman Arizona State Univ. Tempe, Arizona	"Acoustic and Magnetic Wave Effects at Microwave Frequencies"	G-AP/MTT	5/17/68
	Dr. Fred A. Lindholm Univ. of Florida Gainesville, Florida	"Some Research in Solid State Devices and Materials at Univ. of Florida"	G-CT/ED	5/8/68
Utah	O. C. Haycock Univ. of Utah Salt Lake City, Utah	"Perspectives in Engineering"	G-E	5/17/68
Vandenberg	Lynn C. Holmes General Dynamics Elec. Rochester, N. Y.	"Technical Obsolescence: Fact or Fantasy"		5/8/68
	W. C. Thacker NASA, Vandenberg, AFB, Calif.	"Electric Propulsion"		6/11/68
	Donald F. Sullivan Naval Missile Ct., Pt. Mugu, Calif.	"Engineering Management at the Naval Missile Center"	G-EM	5/23/68
	Joseph S. Krinsky AF Western Test Range Vandenberg AFB, Calif. 93437	"Barriers to Communication"	G-EM	6/28/68

REGION 7				
Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Montreal	John F. Riegert Marwick & Co. Ltd. 1155 Dorchester Blvd. W. Montreal 2, P. Q.	"Cybernetics in the Operation of the Montreal and Canadian Stock Exchanges"	G-SSC	5/8/68
Regina	Bernie Cherny Ferranti Electronics	"Role of Industrial Electronics in the Computer Industry"		5/6/68
Southern Alberta	Frank T. Davies Defence Res. & Tele. Estab. Ottawa, Ontario	"The Canadian Satellite Program"		5/1/68
Victoria	G. F. MacFarlans B. C. Telephone Co. Vancouver, B. C.	"Communication Satelites"		5/16/68
REGION 8				
Egypt	Mohamed Husam El-Deen El-Nasr Transformer Co. Cairo, Egypt	"Design and Testing of Transformers"		5/29/68
Switzerland	Dr. D. Gossel Philips Zentrallaboratorium Hamburg, Switzerland	"Synthesis of Nonlinear Electrical Systems"		5/20/68
	Dr. J. P. Imhof Universite de Geneve at de Lausanne	"Calculation of the Pro- babilities"		5/16/68
		"Sequal to Calculations of Probabilities and Statis- tical Ideas"		5/24/68
	-G. Peyrache Federation Nationale des Industries Electroniques Francaise	"Reliability"		5/25/68
	-J. Desauty Laboratoire Central des Telecommunications a Paris.	"Reliability in Space"		5/30/68
	-C. Peter Essais de la Direction Generale des PTT a Berne	"Reliability & Tele- communications"		6/6/68
	-Monsieur Albert, IBM, a La Gaude	"Reliability & Treatment of Information"		6/13/68
	-M. Nussbaumer l'aeroport de Cointrin	"Reliability and Aviation"		6/20/68
	Dr. G. Winkler Philips Zentrallaboratorium Institut fur Hoehere Elektro- technik der ETH	"A Review of Modern Magnetic Items and Microwave Tech- niques and Their Practical Realization"		6/15/68
United Kingdom & Republic of Ireland	Prof. A. Nathan Isreal Inst. of Techn., Isreal	"Flow Graphs"		6/19/68

REGION 9

Section Subsection (SS)	Speaker and Address	Title of Speech	Group Code	Date Presented
Mexico	Sergio Ordonez Lezama Proyectos Industrias, S. A. Monterrey No. 89-303 M. C.	"Gas Turbines and Its Application in Industry"		5/9/68
Puerto Rico- Virgin Isles	T. E. Achterberg McGraw Elec. Co. P. O. Box 2077 Mil, Win. 53201	"Latest Practices and Equipment for U. R. D."		5/29/68
	R. Figueroa Phillips Puerto Rico Core Guayama, Puerto Rico	"Electrical Controls in a Refinery Operation"		8/17/68
	Victor M. Garcia Victor M. Garcia & Assoc. Hato Rey, Puerto Rico	"Design Features of Ely Lyly New Plant"		6/29/68

3-ring binder. Not obtainable elsewhere, they constitute factual introduction to those whose election will be announced in December E. E.

FELLOW COMMITTEE Coordinator. ExecCom has appointed E. L. Harder. (For other Coordinators, see E. E. Feb., p. 2.)

GUARDING MEMBERSHIP LISTS. ExecCom in June denied use of a Section's membership list requested by a state university on behalf of its referral center, operating under a state technical services Act.

See Statement of Policy #6-B, on requests for IEEE lists by outside organizations. The matter had been properly referred by the Section to the General Manager. ExecCom noted that membership lists are not to be made available if they are in any way to be used for recruitment purposes, as they were in this case. (Statements of Policy, controlling, like Bylaws, are in Section and TAB Manuals. Copies, Emily Sirjane or Patricia Corcoran)

BOFD & EXECCOM MEETINGS. ExecCom met Sept. 19 at Cedar Rapids, Iowa; actions unavailable for reference in this E. E.; meets next at New York, Oct. 17. December E. E. will report both these meetings but will miss out on the Cocoa Beach, Florida, meetings: ExecCom Nov. 18, BofD Nov. 19 (final of '68). ExecCom's '68 final will be at Chicago Dec. 11.

TRIPS ABROAD. President Herwald or President-nominee Willenbrock will attend Region 8 meeting at Tel Aviv in October. General Manager Fink will visit Japan, same month. Director Publishing Services Flynn visited "Electrolatina" in Mexico City in August.

GROUP NEWS

MARCH 1969 CONVENTION. As was the case a year ago, the "traditional" call for papers has not and will not be made; each session is being put together by design,

and material and speakers procured to fit.

Sessions will fall into 8 categories: Device-, Circuit-, System-, Basics-, and Career-Oriented; Power Utilities, Electro-mechanical; Defense, Aerospace; and Human Interest. Scheduling will be coordinated by three vice chairmen of W. R. Beam's Technical Program committee. (Inquiries, Howard Schumacher)

Groups did contribute many of the suggestions which resulted in the foregoing categories, but will not participate session-by-session, as once was common.

In E. E. June, p. 6, it was said that a minority of Groups regrets the loss of "traditional" International Convention technical sessions in New York for specialized papers. In May these Groups had been encouraged to tie to Convention momentum by booking seminars the day after; Friday, March 28, '69.

Assuming fast action, there is still time to catch the bus. Statement of policy #2-C places such seminars under the Convention umbrella to simplify approvals and facilitate advance billing. The Hilton is holding for IEEE enough meeting rooms to fill requests, as though it were a Convention 5th day. The Convention program committee will schedule related Convention sessions on Thursday, to create an attractive 2-day, Thursday-Friday, attendance package. Do these things: 1) Read the whole of Statement of Policy #2 and get your questions ready; 2) Call Howard Schumacher, get the answers, decide; 3) Call Emily Sirjane and clinch the room reservations; 4) Work! Note that a budget is required; one of the items is hotel room rental.

A JOINT CONFERENCE has been authorized by ExecCom in which IEEE's Region 3 will be solely responsible for the technical program and the Instrument Society of America will solely manage the exhibits. It is unusual to have a Region contract with another non-profit organization to manage exhibits; ExecCom's approval is, in a sense, a reward for initiative that other units may note with interest.

CONFERENCE COVERAGE in IEEE Spectrum exceeds E. E.'s total lineage.

Spectrum also reaches more prospective authors and far more potential attendees. Therefore, in fairness, E. E. can seldom justify singling out particular conferences for notice, much as it would like to. Where an element of originality enters the picture, as in the previous item, E. E. is eager to record it. Another instance would be where IEEE probes the social sphere within its competence. (Write Editor)

ENGINEERING IN MEDICINE & BIOLOGY. Innovations in this Group, including open membership to non-IEEE members, was reported in E. E. June, p. 6, q. v. Suitable application-for-membership forms have now been approved and the list of compatible societies compiled. ExecCom has approved a change of scope from that shown on p. 2 of the pink Supplement to E. E. Apr. '68, to the following: "The field of interest is the application of the concepts and methods of the physical and engineering sciences in biology and medicine. This covers a very broad spectrum, ranging from formalized mathematical theory through experimental science and technological development to practical clinical applications. It includes support of scientific, technological, and educational activities."

BIO-MED TERMS—TERSE, PAT. In TAB OpCom Minutes, Aug. 20, p. 2, line 19, E. E. notes that TAB's secretary, in an inspired slip, refers to his Director as "the IEEE Vice-President for Technical Activitis."

Good going, Doctor! If it had been E.E., we'd likely have called it Activosis—badly downgrading what's eating you over there. (Xerox of p. 2, Dick Emberson)—Ed.

SECTION NEWS

MEMBERS' WORK AFFILIATIONS. In E. E. 12, Aug. '67, p. 5, it was forecast that our computer capability might be extended, based upon data then being furnished by members for the 1968 Membership Directory (now out), to give any Section a list of its members by industrial, academic, or governmental affiliation.

This has now been done. Section Chairmen were reminded by Wm. C. Burnett on Sept. 12 that this opens up a new avenue for membership recruitment locally, company by company. In his letter, step-by-step procedures, costs, are included. (Attention Section AdComs, membership committees. Copy of letter, Emily Sirjane)

PAYING DUES OUTSIDE U.S. Procedures for applying for IEEE and Group memberships, and for making dollar-remittances to IEEE locally in francs, lire, marks, pounds, and yen, are set forth in a full-page ad in Spectrum, Sept. '68, p. 131. (Cf. E. E. Oct. '67, p. 6)

MEMBERS TRAVELING GLOBALLY, either out of or into United States and Canada, are encouraged to make advance contact with Section officers at destination with a view to participation in IEEE activities during their stay. (Names of Section officers, other particulars, Emily Sirjane)

Additional reciprocal advantages accrue when competent speakers can present papers to IEEE Sections in foreign countries. Region 8 (Europe, etc.) currently is expressing "a need to publicize visits of North American members who may be visiting abroad and are available to lecture before Sections" there. Headquarters will be glad to act to bring the parties together to make their own decisions and arrangements. (Emily Sirjane)

While the inquiry happens to be from Region 8, the applicability is obviously transatlantic, transpacific, transcaribbean, and so on, in both directions.

SPEAKERS DIRECTORY, the second and perhaps last for 1968, goes out as the canary-yellow Supplement to this E. E. Program committees have found these listings suggestive of topics and/or speakers for making bookings. Add this one to August Supplement and save for later use. (Questions, further help, Emily Sirjane)

SECTION-GROUP STATISTICS. A 6-page list is available, comparing membership figures of all Sections, worldwide, from largest-in-total-membership at the top to smallest at the bottom. Data include:

1) Students, Others, Total Members;
2) Group memberships held in Section; ratio, Group memberships to Section members; 3) Number of Chapters in Section. (Copy, Emily Sirjane)

So arranged, the list supplements IEEE Secretary's Report for 1967, which contains same information (without ratios) arranged by Regions instead of by Section size. (Copy, Emily Sirjane)

STUDENT NEWS

STUDENTS IN MILITARY SERVICE. IEEE Student Journal for Sept. '68, pp. 36-37, ran a factual article on students' draft status, and so on, useful to all those involved in Branch work or contacts. Material was drawn from authoritative sources, including the Engineering and the Scientific Manpower Commissions. (Inquiries, Alex McKenzie)

This whole subject has been one of deep concern to BofD, related to Student members everywhere, now and in the future. See first item under "Other Top-Side Developments," above: a new Bylaw 109.4, offering IEEE membership options to Students who go into military service.

STUDENT CONVOCATION at 1968 International Convention. (See E. E. 11, June '67, p. 5; Dec., p. 4; Feb. '68, p. 3.) This event was evaluated and found to be eminently successful the way it was run, but expensive. It will be omitted at 1969 Convention. Resumption is chiefly a matter of economics.

VINCENT BENDIX AWARDS. November 15 is deadline for one proposal to be made, by any Student Branch or Student Associate Branch, and to be considered competitively for several grants not exceeding \$500 each to finance undergraduate Branch projects. The proposing Branch must justify the amount asked for. There have not been too many applicants so far this year. (Folder, information, Bob Loftus)

"FOR YOUR INFORMATION"

ORGANIZATIONAL ROSTER, Sept. 1968, was mailed out that month. Reflecting mid-'68 personnel changes, this is the most authoritative, useful, up-to-date compilation on the way IEEE is put together. (Copy, Emily Sirjane)

A COMBINED INDEX of all IEEE's 1968 technical output, including Proceedings, most of the Transactions, and other periodicals, Conference papers, standards, will be announced in November-December issues of Spectrum, by BofD approval and in response to findings of the ORC member-opinion survey. Plans are for April '69 publication, using computer-controlled photocomposition. IBM MT/STs (magnetic tape/Selectric typewriters) are busy at IEEE Information Services putting the 1968 index information on tape for computer processing.

RECIPROCAL PROMOTION of IEEE and the Institution of Electrical Engineers (IEE, London), at each other's principal conventions and conferences, has been approved by ExecCom. Similar future agreements with other societies are not precluded.

IEE-IEEE JOINT PUBLISHING EXPANDS. Cooperatively, four information service journals will be issued in 1969, up from one this year. Two are abstracts journals: Electrical & Electronics Abstracts (EEA) and Computer & Control Abstracts (CCA). Together they cover the entire field of interest of IEEE and IEE in this area, as well as of the Association for Computer Machinery (ACM) and a few other societies. The other two journals are for current awareness—listing titles, authors, and journal references monthly—called Current Papers in Electrical and Electronics Engineering (CPE) and Current Papers in Computers and Control (CPC), and matching the respective abstracts journals in subject area coverage. (A new price policy will bring CPE and CPC to IEEE members at "bargain prices" (\$9 and \$6, respectively; EEA and CCA, designed for libraries and companies, will carry the same price for all.)

WELCOME ABOARD!

Editorial work on the joint information service products continues to be split between IEEE and IEE, with Engineering Index (EI) helping out, under contract with IEEE. For background, see E.E. Oct. '67, p. 6; Dec., p. 6; Feb. '68, p. 6; June, p. 3.

All four of the information service journals will be produced using computer-controlled photocomposition on a Photon-Lumitype 713 in England. IEEE will send its editorial contribution to England on computer magnetic tape beginning mid-1969.

Plans for issuing public magnetic tapes are in an early stage.

IEEE TRANSLATED JOURNALS. (Reference, E.E. June, p. 4.) National Scientific Foundation (NSF) grants have been received, so that publication is proceeding of the full complement of translated journals. (Particulars, Alex McKenzie)

BACK-COPY SALES AND REPRINTS. IEEE is making exclusive agreements with Johnson Reprint Corp., New York, for sale of issues after 5 years at prices to be agreed upon; also for the reprinting and sale of out-of-print issues for which there is a demand. Royalties and divisions are specified. Income from sale of Group-sponsored issues reverts to the Group. Arrangement will apply to Translated Journals if NSF consents. (Information, Bill Keyes)

DID YOU DAY-DREAM while you fished, this summer? IEEE's Compleat Angler says: "Bait your hook in your favorite Group and a troll-line in your Section."

While there is a happy blend of goals in most IEEE entities, for lifetime satisfaction the smart fellow keeps active both in the Group-TAB-technical Standing Committee structure wherein resides the Institute's technologic thrust, and in the Section-Council-Region complex where the Corporate action is.

New Section: Denmark. Til lykke! Held og lykke!

New Council: Western Canada Council of Sections, Region 7: Winnipeg, Regina, Southern Alberta, Northern Alberta, Vancouver, Victoria.

Staff: Charles W. Beardsley, Assistant Managing Editor of IEEE Student Journal; Newark College of Engineering and Rensselaer Poly; Master's in technical writing. . . With Alex McKenzie.

H. Lee Nicol, Manager Public Relations; with Jack Kinn. Comes to us from corporate staff of General Electric; advertising, public relations, management communications.

William R. Saunders, Advertising Director. Was Eastern Advertising Manager for Nation's Business, publication of Chamber of Commerce of U.S. . . With Ralph Flynn.

New Group Chapters in Sections:

<u>Section</u>	<u>Chapter</u>
Boston	Magnetics
Chicago	Electrical Insulation
Dayton	Joint: Power
	Industry & General Applications
Las Vegas	Power
Milwaukee	Magnetics
Pittsburgh	Systems Science & Cybernetics
San Diego	Automatic Control
Southeastern Michigan	Education
	- - -

Supplement: Yellow - Speakers Directory

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.